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COMMONWEALTH OF AUSTRALIA

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BY

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PREFACE.

By the Constitution of the Commonwealth of Australia, the Parliament of the Commonwealth is empowered "to make laws for the peace, order, and good government of the Commonwealth, with respect to Census and Statistics." In the exercise of the power so conferred, a "Census and Statistics Act" was passed in 1905, and in the year following the "Commonwealth Bureau of Census and Statistics" was created. The first Official Year Book was published early in 1908. The publication here presented is the twentieth Official Year Book issued under the authority of the Commonwealth Government.

The synopsis on pp. VII. to XXII. immediately following shows the general arrangement of the work. In addition to the ordinary Chapters, each issue contains special articles dealing with some particular subject or subjects of more or less permanent interest. These cannot of course be repeated year after year, but in some instances a brief condensation is given in subsequent issues. While portion of the matter contained in Year Books Nos. 1 to 19 has been reduced to synopses or deleted in the present issue, the special index provided at the end of the volume will assist in tracing it in previous issues.

The present issue contains a specially-contributed article, dealing with the "Topography of Australia," placed at the end of Chapter II., "Physiography."

Amongst the new matter contained in the various Chapters, mention may be made of the sub-sections dealing with "Film Censorship" and the "Marketing of Australian Commodities," which appear at the close of Chapter XXVI., "Miscellaneous," and the sub-sections dealing with the "Inter-relation of Commonwealth and State Finance," and "Child Endowment," incorporated in the Appendix.

The full text of the Commonwealth Constitution Act and Amendments appears on pages 17 to 34.

Recent information or returns which have come to hand since the various Chapters were sent to press will be found in the Appendix, p. 996.

The material contained in each issue is always carefully examined, but it would be idle to hope that all error has been avoided. The Commonwealth Statistician desires to express appreciation of the opportunity afforded him of improving the Year Book, by those who have been kind enough to point out defects or make suggestions.

My best thanks are due to the State Statisticians, to the responsible officers of the various Commonwealth and State Departments, and to others, who have kindly, and often at considerable trouble, supplied information for this issue.

I wish to express my keen appreciation of the valuable work performed by Mr. J. Stonham, M.A., the editor of the Year Book, and by Mr. H. J. Exley, M.A., the assistant-editor, who capably filled the position of acting-editor during a period of five months' absence in Europe by Mr. Stonham. I also appreciate highly the services rendered by the officers in charge of the various branches of the Commonwealth Bureau of Census and Statistics, upon whom has devolved the duty of revising, or in some cases of re-writing the Chapters relative to their respective branches.

CHAS. H. WICKENS,

Commonwealth Statistician and Actuary.

COMMONWEALTH BUREAU OF CENSUS AND STATISTICS,

Melbourne, 31st October, 1927.

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STATISTICAL SUMMARY.

STATISTICAL SUMMARY, AUSTRALIA, 1871 TO 1926.

Heading.		Years.						
		1871.	1881.	1891.	1901.	1911.	1921.	1925-26.
Population ..	Males	928,918	1,247,059	1,736,617	2,004,836	2,382,232	2,708,727 (e)	3,122,581
	Females	771,970	1,059,677	1,504,368	1,820,077	2,191,554	2,710,346 (c)	2,987,933
	Total	1,700,888	2,306,736	3,240,985	3,824,913	4,573,786	5,509,073 (e)	6,110,514
Births ..	No.	63,625	80,004	110,187	102,945	122,193	136,198 (c)	133,162
	Rate	38.00	35.26	34.47	27.16	27.21	24.95 (e)	22.02
Deaths ..	No.	22,175	33,327	47,430	46,330	47,869	54,076 (e)	56,952
	Rate	13.24	14.69	14.84	12.22	10.66	9.91 (e)	9.42
Marriages ..	No.	11,623	17,244	23,862	27,753	39,482	46,869 (e)	47,867
	Rate	6.94	7.60	7.47	7.32	8.79	8.59 (e)	7.92
Agriculture—								
Wheat ..	Area, acs.	1,279,778	3,002,064	3,335,528	5,115,965	7,427,834	9,719,042	10,201,276
	Yld., bshl.	11,917,741	21,443,862	25,675,265	38,561,619	71,636,347	129,088,806	114,504,392
	Av. "	9.31	7.14	7.70	7.54	9.64	13.28	11.22
Oats ..	Area, acs.	225,492	194,816	246,129	461,430	616,794	733,406	1,013,238
	Yld., bshl.	4,251,630	4,795,897	5,726,256	9,789,854	9,561,833	12,147,433	12,211,657
	Av. "	18.85	24.62	23.27	21.22	15.50	16.56	12.05
Barley ..	Area, acs.	48,164	75,864	68,068	74,511	116,466	208,910	374,876
	Yld., bshl.	726,158	1,353,380	1,178,560	1,519,819	2,056,836	6,085,685	6,356,297
	Av. "	15.08	17.84	17.31	20.40	17.66	20.36	16.96
Maize ..	Area, acs.	142,078	165,777	284,428	294,849	340,065	805,186	297,140
	Yld., bshl.	4,576,635	5,726,266	9,261,922	7,034,786	8,939,855	7,840,438	7,431,567
	Av. "	32.21	34.54	32.56	23.86	26.29	25.69	25.01
Hay ..	Area, acs.	303,274	768,388	942,166	1,688,402	2,518,351	2,994,519	2,832,003
	Yld., tons	375,871	767,194	1,067,255	2,024,608	2,867,973	3,902,189	2,677,945
	Av. "	1.24	1.00	1.13	1.20	1.14	1.30	.95
Potatoes(a) ..	Area, acs.	67,911	76,265	112,884	109,685	130,463	149,144	136,925
	Yld., tons	212,896	243,216	380,477	322,524	301,489	388,091	313,409
	Av. "	3.13	3.19	3.37	2.94	2.31	2.60	2.29
Sugar Cane(d) ..	Area, acs.	11,576	19,708	45,444	86,950	101,010	128,356	198,363
	Yld., tons	176,632	349,627	737,573	1,367,802	1,682,250	2,436,890	3,965,587
	Av. "	15.25	17.74	16.23	15.73	16.65	18.99	19.99
Vineyards ..	Area, acs.	16,253	14,570	48,882	63,677	60,602	92,414	112,697
	Wine, gal.	2,104,000	1,488,000	3,535,000	5,816,087	4,975,147	8,562,573	16,231,142
Total value all agricul- tural production		£ 8,941,000	15,519,000	16,480,000	23,835,000	38,774,000	81,889,700	89,267,200
Pastoral, dairying, etc.—								
Live Stock	Sheep No.	40,072,955	65,092,719	106,421,068	72,040,211	93,003,521	82,226,470 (f)	103,563,218
	Cattle "	4,277,228	8,010,991	11,112,112	8,491,428	11,828,954	14,441,300 (f)	13,279,785
	Horses "	701,530	1,088,029	1,584,737	1,620,420	2,278,226	2,438,182 (f)	2,250,361
	Pigs "	586,017	703,188	845,888	931,309	1,110,721	960,385 (f)	1,128,374
Wool prod., lb. greasy		179,000,000	332,759,000	631,587,000	543,131,661	721,298,288	631,514,435	830,459,607
Butter production lbs.		(c)	(c)	47,433,564	101,671,066	211,573,745	267,071,340	273,313,685
Cheese "		(c)	(c)	19,146,929	11,575,692	15,886,712	32,653,003	28,799,320
Bacon and ham "		(c)	(c)	34,020,629	53,204,652	58,614,459		73,374,679
Total estimated value of pastoral and dairying production		£ 20,736,000	29,538,000	39,256,000	36,890,000	69,832,000	113,671,000	160,488,000
Mineral production—								
Gold		£ 7,916,627	5,194,390	5,281,309	14,017,508	10,551,624	4,018,685 (f)	2,375,280
Silver and lead		£ 36,528	45,622	3,736,352	2,367,687	3,022,117	1,539,992 (f)	5,982,145
Copper		£ 830,242	714,003	367,373	2,215,431	2,564,278	803,957 (f)	775,043
Tin..		£ 24,020	1,145,889	560,502	448,234	1,209,973	418,418 (f)	752,903
Zinc		£ 369	200	2,979	4,067	1,415,169	283,455 (f)	1,135,057
Coal		£ 330,759	637,865	1,914,026	2,602,770	3,929,673	11,014,831 (f)	11,536,619
Total value all mineral production		£ 9,190,330	7,820,290	12,108,759	21,922,665	23,494,324	19,977,384 (f)	24,592,620
Forestry production—								
Quantity of local tim- ber sawn or hewn								
1,000 sup.ft.		(c)	(c)	(c)	452,131	604,794	590,495	739,799
Manufactories—								
No. of factories						14,455	18,023	21,242
Hands employed						311,710	395,425	450,920
Wages paid					(b)	27,528,371	68,050,861	86,724,683
Total value of output						133,022,090	320,331,765	400,342,393
Value added in process of manufacture						51,259,004	121,674,119	155,424,259

(a) Partly estimated 1871 and 1881. (b) Owing to variation in classification and lack of information effective comparison is impossible. (c) Information not available. (d) Area of productive cane.

(e) 31st December, 1926.

(f) 31st December, 1925.

STATISTICAL SUMMARY.

STATISTICAL SUMMARY.—AUSTRALIA, 1871 TO 1926—continued.

Heading.	Years.						
	1871.	1881.	1891.	1901.	1911.	1921.	1925-26.
Shipping—							
Oversea vessels { No. 2,748 3,284 3,778 4,028 4,174 3,674 3,156 ent. & cleared { ton. 1,812,642 2,549,364 4,726,307 6,541,991 9,984,801 9,503,018 10,668,689							
Commerce (c)—							
Imports oversea £ 17,017,000 29,067,000 37,711,000 42,434,000 66,967,488 103,066,436 151,638,178							
" per head £ 10/3/3 12/16/2 11/16/0 11/3/11 14/18/2 18/14/1 25/6/2							
Exports oversea £ 21,725,000 27,528,000 36,043,000 49,696,000 79,482,258 127,846,535 148,562,209							
" per head £ 12/19/6 12/2/8 11/5/6 13/2/2 17/13/10 23/4/1 24/15/10							
Total oversea trade £ 38,742,000 56,595,000 73,754,000 92,130,000 146,449,746 230,912,971 300,200,387							
" per head £ 23/2/9 24/18/10 23/1/6 24/6/1 32/12/0 41/18/2 50/2/0							
Customs and excise duties £ (e) 4,809,326 7,440,869 8,656,530 13,515,005 27,565,199 39,198,878							
" per head £ (e) 2/2/5 2/6/7 2/5/8 2/19/2 5/0/1 6/10/10							
Principal Oversea Exports (a)—							
Wool lbs. (greasy) £ 176,635,800 328,369,200 619,259,800 518,018,100 720,364,900 927,833,700 881,001,851							
" centsals £ 9,459,629 13,173,026 19,940,029 15,237,454 26,071,193 47,977,044 63,203,415							
Wheat centsals £ 479,954 3,218,792 5,876,875 12,156,035 33,088,704 59,968,334 32,536,637							
" £ 193,732 1,189,762 1,938,864 2,774,643 9,641,008 28,644,155 17,187,388							
Flour tons £ 12,988 49,549 33,363 96,814 175,891 359,734 501,032							
" £ 170,415 519,335 328,423 589,604 1,391,529 5,519,881 6,839,361							
Butter lbs. £ 1,812,700 1,298,800 4,239,500 34,607,400 101,722,100 127,347,400 97,899,744							
" £ 45,813 39,383 206,868 1,451,168 4,637,362 7,968,078 7,006,830							
Skins and hides £ 100,123 316,878 873,695 1,250,938 3,227,236 3,136,810 8,274,355							
Tallow .. £ 914,278 644,149 571,069 677,745 1,935,836 1,441,795 1,609,673							
Meats .. £ 566,780 362,965 460,894 2,611,244 4,303,159 5,542,102 7,455,403							
Timber (undressed) £ 42,586 118,117 38,448 731,301 1,023,960 1,158,166 1,333,270							
Gold £ 7,184,833 6,445,365 5,703,532 14,315,741 12,045,766 3,483,239 4,355,332							
Silver and lead £ 37,891 57,954 1,932,278 2,250,253 3,212,584 2,697,130 6,397,190							
Copper £ 598,538 676,515 417,687 1,619,145 2,345,961 705,358 231,891							
Coal £ 134,355 361,081 645,972 986,957 900,622 1,099,899 881,679							
Govt. Railways—							
Lgh. of line open, mls. 970 3,332 9,541 12,579 16,678 23,296 25,378							
Capital cost £ 19,269,786 42,741,350 99,764,090 123,223,779 152,194,003 237,479,693 288,391,955							
Gross revenue £ 1,102,650 3,910,122 8,654,085 11,038,468 17,847,837 35,936,900 45,579,475							
Working expenses £ 608,362 2,141,735 5,630,182 7,133,617 10,945,727 29,969,954 39,143,169							
Per cent. of workg expenses on earnings % 55.17 54.77 65.06 64.63 61.33 83.39 85.88							
Postal—							
Letters and postcards dealt with No. 24,382,000 67,640,000 157,297,000 220,853,000 453,063,000 569,343,456 734,844,100							
" per head £ 14.54 29.61 49.07 58.26 100.90 104.36 122.64							
Newspapers dealt with No. 3,336,000 38,063,000 85,230,000 102,727,000 141,638,000 130,882,425 178,593,400							
" per head £ 7.95 16.68 26.61 27.10 31.54 24.18 29.81							
Cheque-paying Banks—							
Note circulation £ 2,456,487 3,978,711 4,417,269 3,406,175 876,428b 211,187 201,551							
Coin & bullion held £ 6,168,869 9,108,243 16,712,923 19,737,572 30,024,225 22,092,371 32,687,981							
Advances £ 26,039,573 57,732,824 129,741,583 89,167,499 116,769,133 233,214,626 226,365,071							
Deposits £ 21,856,959 53,849,455 98,345,338 90,965,530 147,103,081 273,866,737 338,314,216							
Savings Banks							
Number of accounts open .. 100,713 250,070 614,741 964,545 1,600,112 3,327,456 4,182,566							
Total deposits £ 3,193,285 7,854,480 15,536,592 30,882,645 59,393,682 154,396,051 195,451,540							
Aver. per account £ 31/14/2 31/8/2 25/5/6 32/0/4 37/2/4 46/8/0 46/14/7							
" head of " population £ 1/18/9 3/10/5 4/18/7 8/3/0 13/8/5 28/0/4 32/6/9							
State Schools—							
Number of Schools .. 2,502 4,494 6,231 7,012 8,060 9,445 (d) 10,235							
Teachers .. No. 4,641 9,028 12,564 14,500 16,971 26,120 (d) 28,241							
Enrolment .. 236,710 432,320 561,153 638,478 638,850 819,042 (d) 872,743							
Aver. attendance .. 137,767 255,143 350,773 450,246 463,799 666,498 (d) 720,975							

(a) Australian produce, except gold, which includes re-exports. (b) Decrease due to prohibition of re-issue.
(c) Figures for Commerce for year 1921 relate to year ended 30th June following. (d) 1925 figures.
(e) Not available.

CHRONOLOGICAL TABLE.

CHRONOLOGICAL TABLE OF CHIEF EVENTS SINCE THE ESTABLISHMENT OF SETTLEMENT IN AUSTRALIA.

NOTE.—The Government was centralized in Sydney, New South Wales, up to 1825, when Tasmania (Van Diemen's Land) was made a separate colony. In the Table, the names now borne by the States serve to indicate the localities.

Year.

- 1788 N.S.W.—Arrival of "First Fleet" at Botany Bay. Land in vicinity being found unsuitable for settlement, the expedition moved to Sydney Cove (now Port Jackson). Formal possession of Port Jackson taken by Captain Phillip on 26th January. Formal proclamation of colony on 7th February. Branch settlement established at Norfolk Island. French navigator Lapérouse visited Botany Bay. First cultivation of wheat and barley. First grape vines planted.
- 1789 N.S.W.—First wheat harvest at Parramatta, near Sydney. Discovery of Hawkesbury River. Outbreak of small-pox amongst aborigines.
- 1790 N.S.W.—"Second Fleet" reached Port Jackson. Landing of the New South Wales Corps. Severe suffering through lack of provisions. First circumnavigation of Australia by Lieut. Ball.
- 1791 N.S.W.—Arrival of "Third Fleet." Territorial seal brought by Governor King.
- 1792 N.S.W.—Visit of *Philadelphia*, first foreign trading vessel.
- 1793 N.S.W.—First free immigrants arrived in the *Bellona*. First Australian church opened at Sydney. Tas.—D'Entrecasteaux discovered the Derwent River.
- 1794 N.S.W.—Establishment of settlement at Hawkesbury River.
- 1795 N.S.W.—Erection of the first printing press at Sydney. Descendants of strayed cattle discovered at Cowpastures, Nepean River.
- 1796 N.S.W.—First Australian theatre opened at Sydney. Coal discovered by fishermen at Newcastle.
- 1797 N.S.W.—Introduction of merino sheep from Cape of Good Hope.
- 1798 Tas.—Insularity of Tasmania proved by voyage of Bass and Flinders.
- 1800 N.S.W.—First export of coal. First Customs House in Australia established at Sydney. Flinders' charts published.
- 1801 N.S.W.—First colonial manufacture of blankets and linen.
- 1802 Vic.—Discovery of Port Phillip by Lieut. Murray. S.A.—Discovery of Spencer's and St. Vincent Gulfs by Flinders. Q'land.—Discovery of Port Curtis and Port Bowen by Flinders.
- 1803 N.S.W.—First Australian wool taken to England by Capt. Macarthur. Issue of "The Sydney Gazette," first Australian newspaper. Vic.—Attempted settlement at Port Phillip by Collins. Discovery of Yarra by Grimes. Tas.—First settlement formed at Risdon by Lieut. Bowen.
- 1804 N.S.W.—Insurrection of convicts at Castle Hill. Vic.—Abandonment of settlement at Port Phillip. Tas.—Foundation of settlement at Hobart by Collins, and at Yorktown by Colonel Paterson.
- 1805 N.S.W.—First extensive sheep farm established at Camden by Capt. Macarthur. Portion of convicts from Norfolk Island transferred to Tasmania.
- 1806 N.S.W.—Shortage of provisions. Tas.—Settlement at Launceston.
- 1807 N.S.W.—Final shipment of convicts from Norfolk Island. First shipment of merchantable wool (245 lbs.) to England.
- 1808 N.S.W.—Deposition of Governor Bligh.
- 1809 N.S.W.—Isaac Nichols appointed to supervise delivery of overseas letters.
- 1810 N.S.W.—Post-office officially established at Sydney, Isaac Nichols first postmaster. First race meeting in Australia at Hyde Park, Sydney. Tas.—First Tasmanian newspaper printed.
- 1813 N.S.W.—Passage across Blue Mountains discovered by Wentworth, Lawson, and Blaxland. Macquarie River discovered by Evans.
- 1814 N.S.W.—Australia, previously known as "New Holland," received present name on recommendation of Flinders. Creation of Civil Courts.

Year.

- 1815 N.S.W.—First steam engine in Australia erected at Sydney. Lachlan River discovered by Evans. Tas.—Arrival of first immigrant ship with free settlers. First export of wheat to Sydney.
- 1816 N.S.W.—Botanic Garden formed at Sydney.
- 1817 N.S.W.—Oxley's first exploration inland. Discovery of Lakes George and Bathurst and the Goulburn Plains by Meehan and Hume. First bank in Australia opened at Sydney.
- 1818 N.S.W.—Cessation of free immigration. Liverpool Plains, and the Peel, Hastings, and Manning Rivers discovered by Oxley, and Port Essington by Captain King.
- 1819 N.S.W.—First Australian Savings Bank opened at Sydney.
- 1820 Tas.—First importation of pure merino sheep.
- 1821 Tas.—Establishment of penal settlement at Macquarie Harbour.
- 1823 N.S.W.—First Australian Constitution. Discovery of gold at Fish River by Assistant-Surveyor McBrien. Qld.—Brisbane River discovered by Oxley.
- 1824 N.S.W.—Erection into Crown Colony. Executive Council formed. Establishment of Supreme Court at Sydney, and introduction of trial by jury. First Australian Enactment (Currency Bill) passed by the Parliament at Sydney. Proclamation of freedom of the press. First manufacture of sugar. Vic.—Hume and Hovell, journeying overland from Sydney, arrived at Corio Bay. Qld.—Penal settlement founded at Moreton Bay (Brisbane). Fort Dundas Settlement formed at Melville Island, N. Terr.
- 1825 N.S.W.—Extension of western boundary to 129th meridian. Tas.—Separation of Van Diemen's Land (Tasmania). Qld.—Major Lockyer explored Brisbane River to its source, and discovered coal.
- 1826 N.S.W.—Settlement in Illawarra District. Vic.—Settlement at Corinella, Western Port, formed by Captain Wright.
- 1827 N.S.W.—Colony became self-supporting. Feverish speculation in land and stock. Qld.—Darling Downs and the Condamine River discovered by Allan Cunningham. W.A.—Military Settlement founded at King George's Sound by Major Lockyer. First official claim of British Sovereignty over all Australia.
- 1828 N.S.W.—Second constitution. First Census. Sturt's expedition down Darling River. Cotton first grown in Sydney Botanical Gardens. Gas first used at Sydney. Richmond and Clarence Rivers discovered by Captain Rous. Vic.—Abandonment of settlement at Western Port. Qld.—Cunningham discovered a route from Brisbane to the Darling Downs, and explored Brisbane River.
- 1829 N.S.W.—Sturt's expedition down Murrumbidgee River. W.A.—Foundation of settlement at Swan River. Foundation of Perth.
- 1830 N.S.W.—Insurrection of convicts at Bathurst. Sturt, voyaging down Murrumbidgee and Murray Rivers, arrived at Lake Alexandrina. Tas.—Trouble with natives. Black line organized to force aborigines into Tasman's Peninsula, but failed. Between 1830 and 1835, however, George Robinson, by friendly suasion, succeeded in gathering the small remnant of aborigines (203) into settlement on Flinders Island.
- 1831 N.S.W.—Crown lands first disposed of by public competition. Mitchell's explorations north of Liverpool Plains. Arrival at Sydney of first steamer, *Sophia Jane*, from England. S.S. *Surprise*, first steamship built in Australia, launched at Sydney. First coal shipped from Australian Agricultural Company's workings at Newcastle, N.S.W. First assisted immigration to N.S.W. S.A.—Wakefield's first colonization committee. W.A.—Appointment of Executive and Legislative Councils.
- 1832 N.S.W.—Savings Bank of N.S.W. established.
- 1833 N.S.W.—First School of Arts established at Sydney.
- 1834 N.S.W.—First settlement at Twofold Bay. Vic.—Settlement formed at Portland Bay by Henty Bros. Qld.—Leichhardt reached Gulf of Carpentaria. S.A.—Formation of the South Australian Association. W.A.—Severe reprisals against natives at Pinjarrah

Year.

- 1835 Vic.—John Batman arrived at Port Phillip; made treaty with the natives for 600,000 acres of land; claim afterwards disallowed by Imperial Government. John Pascoe Fawcner founded Melbourne.
- 1836 N.S.W.—Mitchell's overland journey from Sydney to Cape Northumberland. Vic. "Squatting" formally recognized. Vic.—Proclamation of Port Phillip district as open for settlement. S.A.—Settlement founded at Adelaide under Governor Hindmarsh.
- 1837 N.S.W.—Appointment in London of Select Committee on Transportation. Vic.—Melbourne planned and named by Governor Bourke. First Victorian post-office established in Melbourne. First overlanders from Sydney arrived at Port Phillip.
- 1838 N.S.W.—Discontinuance of assignment of convicts. Qld.—Settlement of German missionaries at Brisbane. S.A.—"Overlanding" of cattle from Sydney to Adelaide along the Murray route by Hawden and Bonney. Settlement at Port Essington, Northern Territory, formed by Captain Bremer.
- 1839 N.S.W.—Gold found at Vale of Clwydd by Count Strezlecki. S.A.—Lake Torrens discovered by Eyre. Port Darwin discovered by Captain Stokes. W.A.—Murchison River discovered by Captain Grey.
- 1840 N.S.W.—Abolition of transportation to New South Wales. Land regulations—proceeds of sales to be applied to payment for public works and expenditure on immigration. Vic.—Determination of northern boundary. Qld.—Penal settlement broken up and Moreton Bay district thrown open. S.A.—Eyre began his overland journey from Adelaide to King George's Sound.
- 1841 N.S.W.—Gold found near Hartley by Rev. W. B. Clarke. Separation of New Zealand. W.A.—Completion of Eyre's overland journey from Adelaide to King George's Sound. Tas.—Renewal of transportation.
- 1842 N.S.W.—Incorporation of Sydney. Vic.—Incorporation of Melbourne. S.A.—Discovery of copper at Kapunda.
- 1843 N.S.W.—First Representative Constitution (under Act of 1842). First manufacture of tweed. Qld.—Moreton Bay granted legislative representation.
- 1844 S.A.—Sturt's last expedition inland. Qld.—Leichhardt's expedition from Condamine River to Port Essington.
- 1845 N.S.W.—Mitchell's explorations on the Barcoo. Qld.—Explorations by Mitchell and Kennedy. S.A.—Discovery of the Burra copper deposits. Sturt discovered Cooper's Creek.
- 1846 N.S.W.—Initiation of meat preserving. Qld.—Foundation of settlement at Port Curtis. S.A.—Proclamation of North Australia. W.A.—Foundation of New Norcia Mission.
- 1847 N.S.W.—Iron smelting commenced near Berrima. Overland mail established between Sydney and Adelaide. Vic.—Melbourne created a City. Qld.—Explorations by Leichhardt, Burnett, and Kennedy.
- 1848 Qld.—Leichhardt's last journey. Kennedy speared by the blacks at York Peninsula. Chinese brought in as shepherds.
- 1849 N.S.W.—Indignation of colonists at arrival of convict ship *Hashemy*. Exodus of population to goldfields of California. Vic.—*Randolph* prevented from landing convicts. Qld.—Assignment of convicts per *Hashemy* to squatters on Darling Downs. W.A.—Commencement of transportation to Western Australia.
- 1850 N.S.W.—Final abolition of transportation. First sod of first Australian railway turned at Sydney. Vic.—Gold discovered at Clunes by Hon. W. Campbell. Representative government granted. S.A.—Representative government granted. W.A.—Pearl oysters found by Lieut. Helpman at Saturday Island Shoal. Tas.—Representative government granted.
- 1851 N.S.W.—Payable gold discovered by Hargraves at Lewis Ponds and Summerhill Creek. Telegraph first used. Vic.—Separation of Port Phillip—erected into independent colony under the name of Victoria. Discovery of gold in various localities. "Black Thursday," 6th Feb., a day of intense heat, when several persons died and a vast amount of damage to property was occasioned by fires. W.A.—Proclamation of Legislative Council Act.

Year.

- 1852 N.S.W.—Arrival of the *Chusan*, first P. and O. mail steamer from England. S.A.—First steamer ascends the Murray River to the junction with the Darling. Tas.—Meeting of first elective Council protests against transportation. Payable gold discovered at The Nook, near Fingal, and at Nine Mile Springs.
- 1853 Tas.—Abolition of transportation.
- 1854 Vic.—Opening of first Victorian railway—Flinders-street to Port Melbourne. Riots on Ballarat gold-fields. Storming of the Eureka Stockade, 3rd Dec.
- 1855 N.S.W.—Opening of railway—Sydney to Parramatta. Mint opened. Gregory's expedition in search of Leichhardt.
- 1856 N.S.W.—Pitcairn Islanders placed on Norfolk Island. W.A.—A. C. Gregory's expedition in search of Leichhardt.
Responsible Government in N.S.W., Vic., S.A., and Tas. (Act of 1855).
- 1857 N.S.W.—Wreck of the *Dunbar* (119 lives lost), and *Catherine Adamson* (21 lives lost), at Sydney Heads. Select Committee on Federation. Vic.—Manhood suffrage and vote by ballot. S.A.—Passage of Torrens' Real Property Act.
- 1858 N.S.W.—Establishment of manhood suffrage and vote by ballot. Telegraphic communication between Sydney, Melbourne, and Adelaide. Qld.—Canoona gold rush.
- 1859 Qld.—Proclamation of Queensland as separate colony. Tas.—First submarine cable, via Circular Head and King Island to Cape Otway.
- 1860 Vic.—Burke and Wills left Melbourne and crossed to Gulf of Carpentaria. S.A.—Copper discoveries at Wallaroo and Moonta.
- 1861 N.S.W.—Anti-Chinese riots at Lambing Flat and Burrangong gold-fields. Opening of first tramway in Sydney. Regulation of Chinese immigration. Vic.—Burke and Wills perished at Cooper's Creek, near Innamincka, S.A.
- 1862 N.S.W.—Abolition of State aid to religion. Real Property Act. S.A.—Stuart crossed the Continent from south to north. W.A.—First export of pearl-shell.
- 1863 Vic.—Intercolonial Conference at Melbourne. S.A.—Northern Territory taken over. W.A.—Initiation of settlement in the North-west district. Henry Maxwell Lefroy discovered and traversed area now comprised in the Coolgardie-Kalgoorlie gold-field.
- 1864 Qld.—First railway begun and opened. First sugar made from Queensland cane. Tas.—First successful shipment of English salmon ova.
- 1865 N.S.W.—Destruction by fire of St. Mary's Cathedral, Sydney.
- 1866 N.S.W.—Passage of Public Schools Act of (Sir) Henry Parkes. S.A.—Introduction of camels for exploration, etc.
- 1867 Vic.—Imposition of protective tariff. Qld.—Discovery of gold at Gympie.
- 1868 N.S.W.—Attempted assassination of the Duke of Edinburgh at Clontarf, near Sydney. W.A.—Arrival of the *Hougoumont*, last convict ship. Tas.—First sod of first railway (Launceston and Western) turned by Duke of Edinburgh.
- 1869 W.A.—First telegraph line opened from Perth to Fremantle.
- 1870 N.S.W.—Intercolonial Exhibition opened at Sydney. Imperial troops withdrawn. Vic.—Intercolonial Congress at Melbourne. S.A.—Commencement of transcontinental telegraph.
- 1871 N.S.W.—Permanent military force raised. W.A.—Passage of Elementary Education Act. Forrest's explorations. Tas.—Discovery of tin at Mount Bischoff. Launceston-Western railway opened for traffic.
- 1872 N.S.W.—International Exhibition at Sydney. Vic.—Mint opened. S.A.—Cable from Java to Port Darwin. Completion of transcontinental telegraph line.
- 1873 N.S.W.—Intercolonial Conference at Sydney. First volunteer encampment. Inauguration of mail service with San Francisco.
- 1874 N.S.W.—Triennial Parliaments Act passed. Intercolonial Conference. W.A.—John and Alexander Forrest arrived at Overland Telegraph from Murchison.
- 1875 Qld.—Transfer of Port Albany Settlement to Thursday Island.
- 1876 N.S.W.—Completion of cable—Sydney (La Perouse) to Wellington (Wakapuaka). W.A.—Giles crosses colony from east to west. Tas.—Death of Truganini, last representative of Tasmanian aborigines.

Year.

- 1877 W.A.—Opening of telegraphic communication with South Australia.
- 1878 Qld.—Restriction of Chinese immigration.
- 1879 N.S.W.—First artesian bore at Killara. International Exhibition at Garden Palace, Sydney. First steam tramway. W.A.—A. Forrest's explorations in the Kimberley district, and discovery of the Fitzroy pastoral country.
- 1880 N.S.W.—Public Instruction Act passed. Vic.—Opening of first Victorian International Exhibition at Melbourne.
Federal Conference at Melbourne and Sydney.
- 1881 N.S.W.—Further restrictions on Chinese immigration.
Visit to Australia of T.R.H. Prince Albert Victor and Prince George.
- 1882 N.S.W.—Garden Palace destroyed by fire. W.A.—Nugget of gold found between Roebourne and Cossack.
- 1883 N.S.W.—Discovery of silver at Broken Hill. Completion of railway between New South Wales and Victoria. Qld.—Annexation of New Guinea—repudiated by Imperial authorities.
Federal Conference held at Sydney. Federal Council created.
- 1884 Federation Bill passed in Victoria and rejected in New South Wales. British protectorate declared over New Guinea.
- 1885 N.S.W.—Military contingent sent to the Sudan. Opening of the Broken Hill Proprietary Silver Mines. W.A.—Gold found by prospectors on the Margaret and Ord Rivers in the Kimberley district. Tas.—Silver-lead discovered at Mount Zeehan.
- 1886 Tas.—Discovery of gold and copper at Mount Lyell.
First session of Federal Council met at Hobart on the 26th January.
- 1887 N.S.W.—Disaster at Bulli coal mine (81 lives lost). Peat's Ferry (Hawkesbury River) railway accident. S.A.—International Exhibition at Adelaide. W.A.—Cyclone destroyed nearly the whole pearling fleet off the Ninety-Mile Beach—200 lives lost. Gold discovered at Southern Cross.
Australasian Conference in London. Australasian Naval Defence Force Act passed.
- 1888 N.S.W.—Centennial celebrations. Restrictive legislation against Chinese, imposing poll-tax of £100. Vic.—Second Victorian International Exhibition held at Melbourne. Qld.—Railway communication opened between Sydney and Brisbane.
Conference of Australian Ministers at Sydney to consider question of Chinese immigration. First meeting of the Australasian Association for the Advancement of Science held in Sydney.
- 1889 Qld.—Direct railway communication established between Brisbane and Adelaide. W.A.—Framing of new Constitution.
- 1890 W.A.—Responsible Government granted.
Meeting at Melbourne of Australasian Federation Conference.
- 1891 N.S.W.—Election to Legislative Assembly of 35 Labour members. Arrival of Australian Auxiliary Squadron. Cessation of assisted immigration. W.A.—Discovery of gold on the Murchison.
Federal Convention in Sydney: draft bill framed and adopted.
- 1892 W.A.—Discovery of gold by Messrs. Bayley and Ford at Coolgardie.
- 1893 N.S.W.—Departure by the *Royal Tar* of colonists for "New Australia."
Financial crisis, chiefly affecting the eastern States.
- 1895 N.S.W.—Free-trade tariff. Land and income taxes introduced.
Conference of Premiers at Hobart *re* Federation.
- 1896 N.S.W.—People's Federal Convention at Bathurst.
- 1897-8 Sessions of Federal Convention at Adelaide, Sydney, and Melbourne.
- 1898 N.S.W.—First surplus of wheat for export.
Draft Federal Constitution Bill submitted to electors in Victoria, New South Wales, South Australia, and Tasmania. Requisite statutory number of votes not obtained in New South Wales.

- Year.
- 1899 First contingent of Australian troops sent to South Africa. Conference of Premiers in Melbourne to consider amendments to Federal Constitution Bill. Referendum—Bill accepted by New South Wales, Victoria, Queensland, South Australia, and Tasmania.
- 1900 N.S.W.—Old-age pensions instituted.
Contingents of naval troops sent to China. Commonwealth Constitution Act received Royal Assent, 9th July. Proclamation of Commonwealth signed, 17th September. Mr. (afterwards Sir) Edmund Barton formed first Federal Ministry.
- 1901 Vic.—Old-age Pensions instituted.
Proclamation of the Commonwealth at Sydney. First Federal Parliament opened at Melbourne by the Duke of Cornwall and York. Interstate freetrade established.
- 1902 N.S.W.—Disastrous explosion at Mount Kembla Colliery—95 lives lost. W.A.—Opening of pumping station at Northam in connexion with Gold-fields water supply. Completion of Pacific Cable (all-British).
First Federal Tariff.
- 1903 Vic.—Railway Strike (Enginemen). W.A.—Coolgardie and Kalgoorlie Water Supply Scheme completed.
Inauguration of the Federal High Court.
- 1905 N.S.W.—Re-introduction of assisted immigration.
- 1906 Wireless telegraphy installed between Queenscliff, Vic., and Devonport, Tas. Papua taken over by Commonwealth.
- 1907 N.S.W.—Telephone, Sydney to Melbourne, opened.
Imperial Conference in London.
- 1908 Vic.—Railway accident at Braybrook Junction (Sunshine)—44 killed, 412 injured; compensation paid, £126,000.
Canberra chosen as site of Federal Capital.
- 1909 Imperial Defence Conference in London—Commonwealth ordered two destroyers and one first-class cruiser for fleet unit. Visit of Lord Kitchener to report and advise on Commonwealth military defence. Loss of the *Waratah* with 300 passengers and crew.
- 1910 Vic.—Railway accident at Richmond—9 killed, over 400 injured; compensation paid, £129,000.
Referendum on financial relations between the Commonwealth and the States. Penny postage. Arrival of the *Yarra* and *Parramatta*, first vessels of Australian navy. Australian Notes Act passed and first Commonwealth notes issued. Admiral Sir R. Henderson visited Australia to advise on naval defence.
- 1911 First Federal Census. Transfer of Northern Territory to Commonwealth. Introduction of compulsory military training. Launch of Commonwealth destroyer *Warrego* at Sydney. Establishment of penny postage to all parts of British Empire.
- 1912 Opening of Commonwealth Bank. First payments of Maternity Bonus. First sod turned at Port Augusta of Trans-Australian Railway (Port Augusta to Kalgoorlie). Gift of £1,000,000 to charities by Mrs. Walter Hall, Sydney, N.S.W.
- 1913 Arrival of battle cruiser *Australia*, and cruisers *Melbourne* and *Sydney*. Federal Capital named Canberra and foundation stone laid. Appointment of Interstate Commission.
- 1914 Visit of General Sir Ian Hamilton to report on military defence scheme. Double dissolution of Federal Parliament. Visit of British Association for the Advancement of Science.
European War. Australian Navy transferred to Imperial Navy. Australian troops offered to, and accepted by Imperial Government. Captured vessels added to Australian fleet. Submarine AE1 lost at sea whilst on service in the vicinity of New Britain. German Pacific possessions seized by Australian expeditionary force (military and naval). German Cruiser *Emden* destroyed at North Cocos Island by H.M.A.S. *Sydney*.

Year.

- 1915 Opening of Broken Hill Proprietary's Ironworks at Newcastle, N.S.W. Navy Department created.
Australian troops landed at Dardanelles on 25th April. Loss of Submarine AE2 in operations at the Dardanelles. Census taken of Wealth and Income, and of males in Australia between ages of 17 and 60. Australian troops withdrawn from Gallipoli on 19th December.
- 1916 Record wheat harvest (180,000,000 bushels). Australian mounted troops operate in Egypt; afterwards join Desert Mounted Column. Other Australian troops transferred to France. Visit of Rt. Hon. W. M. Hughes, P.C., K.C., Prime Minister, to Canada, Great Britain, and South Africa, and to troops in England and France. Acquisition of steamships by the Commonwealth. First Military Service Referendum.
- 1917 National Ministry formed. General striko. Kalgoorlie-Port Augusta railway completed. Second Military Service Referendum.
- 1918 Population of Australia reaches 5,000,000. Australian troops in France formed into an Army Corps, commanded by Lieut.-Gen. Sir John Monash. Cessation of hostilities and surrender of Germany. Repatriation Department created. Australia House (Strand, London) opened by the King. Deaths of Sir G. H. Reid and of Lord Forrest of Bunbury.
- 1918-1919 Visit to America and Europe of Rt. Hon. W. M. Hughes, P.C., K.C., Prime Minister, representative at Peace Conference.
- 1919 Epidemic of influenza. Aerial flight England to Australia by Capt. Sir Ross Smith and Lieut. Sir Keith Smith. Death of Hon. Alfred Deakin. Visit to Australia of General Sir W. Birdwood. Visit of Admiral Lord Jellicoe.
- 1920 Visit to Australia of H.R.H. the Prince of Wales. Aerial flight England to Australia by Lieuts. Parer and McIntosh. Deaths of Rt. Hon. Sir Edmund Barton and of Rt. Hon. Sir Samuel Griffith.
- 1921 Visit to Imperial Conference of Rt. Hon. W. M. Hughes, P.C., K.C., Prime Minister. Second Commonwealth Census. Germany's Indemnity fixed (Australia's share approximately £63,000,000). Visit of Senator Pearce (Minister for Defence) to Disarmament Conference at Washington. Colliery disaster at Mt. Mulligan, Queensland—75 lives lost. Mandate given to Australia over Territory of New Guinea. First direct wireless press message, England to Australia.
- 1922 Economic Conference at Sydney. First lock on River Murray opened at Blanchetown, South Australia. Queensland Legislative Council abolished.
- 1923 Rt. Hon. S. M. Bruce, P.C., M.C., Prime Minister. Premiers' Conference, Melbourne. First sod, site of Federal Parliament House at Canberra, turned. Pan-Pacific Science Congress, Melbourne. Police dispute in Melbourne, with accompanying riots.
- 1923-24 Visit of Rt. Hon. S. M. Bruce, P.C., M.C., Prime Minister, to Imperial Conference, London, and afterwards to European and Gallipoli battlefields (September, 1923, to March, 1924).
- 1924 H.M.A.S. *Australia* sunk. Sea-plane flight round Australia by Wing-Commander Goble and Lieut. McIntyre. British Empire Exhibition at Wembley. First sale of land leases at Canberra. Visit of British cruiser squadron. Directorate of Commonwealth Bank appointed. Loan by British Government of £34,000,000 for Imperial migration.
- 1925 Visit of American fleet. Solar Observatory established at Canberra. De Pinedo's flight, Rome to Australia and return. Brisbane-Kyogle railway commenced. North Shore (Sydney) Bridge commenced. Department of Markets and Migration established.
- 1926 Population of Australia reached 6,000,000. Referendum—Industry and Commerce, Widening State Powers: proposals rejected. Council for Scientific and Industrial Research established. Cobham's flight, London to Australia and return. North-West Australia Commission established.
- 1926-27 Visit to Imperial Conference of Rt. Hon. S. M. Bruce, P.C., M.C., Prime Minister; return via America. Equality in Dominion Status; new title for King.

OFFICIAL YEAR BOOK
OF THE
COMMONWEALTH OF AUSTRALIA, 1926,
AND EARLIER YEARS.

CHAPTER I.

**DISCOVERY, COLONIZATION, AND FEDERATION OF
AUSTRALIA.**

§ 1. Early Knowledge of Australia.

1. **Introduction.**—It is proposed to give here only a brief summary of the more important facts relating to the early history of Australian discovery. A more complete account of this subject, together with bibliographical references thereto, may be found in Year Book No. 1 (pp. 44 to 51), although this account must be modified somewhat in view of later investigations.

2. **Early Tradition.**—It would appear that there was an early Chaldean tradition as to the existence of an Austral land to the south of India. Rumours to that effect in course of time found their way to Europe, and were probably spread by travellers from Indian seas, more especially by the Greek soldiers who accompanied Alexander the Great [B.C. 356–323] to India. References to this *Terra Australis* are found in the works of Ælianus [A.D. 205–234], Manilius [probably a contemporary of Augustus or Tiberius Caesar], and Ptolemy [A.D. 107–161]. In some of the maps of the first period of the Middle Ages there is evidence which might warrant the supposition of the knowledge of the existence of a *Terra Australis*, while some idea of the Austral land appears in the maps and manuscripts of the fourteenth and fifteenth centuries. But much of the map-drawing in these early days was more or less fanciful, and there is no evidence definitely connecting this so-called *Terra Australis* with Australia.

3. **Discovery of Australia.**—(i) *General.*—The Venetian traveller, Marco Polo [1254–1324], refers to a land called Locac, which through a misunderstanding of his meaning was long thought to be Australia. But Marco Polo knew nothing of any land to the south of Java, and in any case the description given of the so-called Locac could not possibly be applied to Australia, as the writer speaks of elephants, etc. On a Mappamundi in the British Museum, of not later date than 1489, there is a coast-line which has been considered to represent the west coast of Australia. Investigation by Wood and others proves this claim to be merely fanciful. Martin Behaim's globe, the C.2952.

oldest known globe extant, constructed in 1492, also shows what purports to be a part of Australia's coast-line, and a globe discovered in Paris bears an inscription to the effect that the *Terra Australis* was discovered in 1499. These also have other countries located in impossible positions. The term *Terra Australis* was, however, also applied to the region now known as Tierra del Fuego, hence little weight can be attached to this reference.

In the Dauphin map [about 1530-1536] Jave la Grande has been supposed by some to represent Australia, but an inspection of the fanciful animals and other figures thereon lends no weight to the idea. As a matter of fact much of this map-drawing was simply an attempt to support the old notion that the land surface of the southern hemisphere must balance that of the northern.

(ii) *Arab Expeditions.* It has been stated that the Arabs had come to Australia long before the Portuguese, the Spanish, or the Dutch, but there is no evidence to support the statement.

(iii) *Spanish and Portuguese Expeditions.* The last decade of the fifteenth century and the commencement of the sixteenth saw numerous expeditions equipped in the ports of Spain and Portugal for the purpose of exploiting the new world. The Portuguese rounded the southernmost cape of Africa, which became known as the Cape of Good Hope, and pushed eastward. The Spaniards, relying on the scientific conclusion that the world was spherical, attempted to get to the east by deliberately starting out west, Magalhaens by so doing reaching the Philippine Islands in 1521.

It may be mentioned that in 1606, Quiros, on reaching the island that has retained the name of Espiritu Santo (the largest island of the New Hebrides group) thought that he had come to this great land of the South, and therefore named the group *La Australia del Espiritu Santo*. Torres, who had been with him, passed through the strait which now bears his name, and proceeded to the Philippine Islands. This voyage marks the close of Spanish activity in the work of discovery in the South Seas.

(iv) *Discoveries by the Dutch.* With the decline of Portuguese and Spanish naval supremacy came the opportunity of the Dutch for discovery. Cornelius Wytfliet's map, of which there was an English edition, published at Louvain in 1597, indicates roughly the eastern and western coasts of Australia, as well as the Gulf of Carpentaria. The following often quoted passage, occurs in Wytfliet's "*Descriptionis Ptolemaicae Augmentum*" "The *Australis Terra* is the most southern of all lands. It is separated from New Guinea by a narrow strait. Its shores are hitherto but little known, since after one voyage and another, that route has been deserted and seldom is the country visited, unless when sailors are driven there by storms. The *Australis Terra* begins at one or two degrees from the equator, and is maintained by some to be so great in extent that, if it were thoroughly explored, it would be regarded as a fifth part of the world."

The Dutch East India Company, in 1605, sent the *Duyfken* from Bantam to explore the Islands of New Guinea. During March in the following year the *Duyfken* coasted along the southern shores of New Guinea, and followed the west coast of Cape York peninsula as far as Cape Keer-Weer (Turn again). Dirck Hartogs (on the plate in the Amsterdam Museum recording his voyage the name is written Dirck Hatichs), in the *Eendracht* in 1616, sailed along a considerable part of the west coast of the Continent. It may be mentioned that the route was not definitely selected, but that the navigator simply went further East than the usual course from the Cape to Java.

In 1618 the *Zeeuwolf* found land in lat. 20° 15' south, and in the following year Frederik Houtman discovered the reef off the west coast, now known as *Houtman's Abrolhos*.

In 1622 the Dutch vessel *Leeuwin* rounded the Cape, which now bears that name, at the south-west of the continent, and in 1623 the Dutch vessels *Pera* and *Arnhem*

discovered Arnhem Land, the peninsula on the western side of the Gulf of Carpentaria, which was so named in compliment to Peter Carpentier, Governor of the Dutch East India Company.

In 1627, Francis Thysz, commander of the *Gulde Zeeperd*, with Pieter Nuyts, of the Dutch Council of Seventeen, on board, coasted along a portion of the shore of the Great Australian Bight. In 1628, De Witt, commander of the *Vianen*, discovered land on the north-west, viz., in about latitude 21° S. The *Batavia*, commanded by Francis Pelsart, was wrecked on the western coast of Australia in 1629. Pelsart was the first to carry to Europe an authentic account of the west coast of Australia, which, however, he described in the most unfavourable terms. The yachts *Amsterdam* and *Wesel*, under Gerrit Pool, visited the Gulf of Carpentaria in 1636.

Abel Janszoon Tasman, in command of two vessels, the *Heemskerck* and *Zeehaen*, set out from Batavia in 1642 to ascertain the extent of the great southern continent. He named Van Diemen's Land, imagining it to be part of Australia proper, and sailing north-easterly discovered New Zealand and returned to Batavia. In his second voyage in 1644, Tasman visited the northern coast of Australia, sailing round the Gulf of Carpentaria and along the north-west coast as far down as the Tropic of Capricorn. The period of Dutch discoveries may be said to have ended with Tasman's second voyage, and, with the decline of Dutch maritime power, their interest in Australian discovery vanished. It may, however, be pointed out that William de Vlamingh landed at the mouth of the Swan River at the end of 1696.

4. Discoveries by the English.—The north-western shores of Australia were first visited by William Dampier, in the *Cygnet*, in 1688. In describing the country, Dampier stated that he was certain that it joined neither Asia, Africa, nor America. In 1699 he again visited Australia, in command of H.M.S. *Roebuck*, and on his return to England published an account in which a description is given of trees, flowers, birds, and reptiles observed, and of encounters with natives.

It was a question at the end of the seventeenth century whether Tasmania and New Zealand were parts of Australia, or whether they were separated from it, but themselves formed part of a great Antarctic Continent. Lieutenant James Cook's first voyage, though primarily undertaken for the purpose of observing the transit of Venus from Otaheite, had also for its objective to ascertain whether the unexplored part of the southern hemisphere were only an immense mass of water, or contained another continent. In command of H.M.S. *Endeavour*, a barque of 370 tons burthen, carrying about eighty-five persons, and accompanied by Sir Joseph Banks, Dr. Solander the naturalist, Green the astronomer, draughtsmen, and servants, Cook, after observing the transit of Venus at Otaheite, turned towards New Zealand, sighting that land on the 8th October, 1769, in the neighbourhood of Poverty Bay. Circumnavigating the North and South Islands, he proved that New Zealand was connected neither with the supposed Antarctic continent nor with Australia, and took formal possession thereof in the name of the British Crown. On the 20th April, 1770, at 6 a.m., Cook sighted the Australian mainland at a place he called Point Hicks, naming it after his first-lieutenant, who first saw it. Coasting northwards, Botany Bay was discovered on the 29th April, 1770. The *Endeavour* dropped anchor and Cook landed on the following day. On the 2nd May, 1770, a seaman named Sutherland died and was taken ashore to be buried; he was probably the first British subject buried on Australian soil. Cook sailed along the coast in a northerly direction for nearly 1,300 miles until the 12th June, 1770, when the *Endeavour* was seriously damaged by striking a coral reef in the vicinity of Trinity Bay. Repairs occupied nearly two months, and the *Endeavour* then again set her course to the north, sailing through Torres Straits and anchoring in the Downs on the 14th June, 1771. In 1772, Cook was put in command of the ships *Resolution* and *Adventure*, with a view of ascertaining whether a great southern continent existed, and having satisfied himself that, even if it did, it lay so far to the south as to be useless for trade and settlement, he returned to England in 1774. Cook's last voyage was undertaken in 1776, and he met his death on the 14th February, 1779, by which date practically the whole coast of Australia had been explored. The only remaining discovery of importance was the existence of a channel between Tasmania and Australia. This was made by Flinders and Bass in 1798.

§ 2. The Annexation of Australia.

1. *Annexation of Eastern Part of Australia, 1770.*—Although representatives of the nations mentioned in the previous section landed or claim to have landed on the shores of Australia on various occasions during the sixteenth and seventeenth centuries, it was not until the 23rd August, 1770, that the history of Australia was brought into definite political connexion with western civilization. It was on that date that Captain Cook took possession "of the whole eastern coast, from lat. 33° to this place, lat. 10½° S., in right of His Majesty King George the Third." Cook, however, proclaimed British sovereignty only over what are now the eastern parts of New South Wales and Queensland, and formal possession, on behalf of the British Crown, of the whole of the eastern part of the Australian Continent and Tasmania was not taken until the 26th January, 1788. It was on this last date that Captain Phillip's commission, first issued to him on the 12th October, 1786, and amplified on the 2nd April, 1787, was read to the people whom he had brought with him in the "First Fleet."

A full historical account of the period referred to may be found in the "Historical Records of New South Wales," vol. I., parts 1 and 2.

2. *Original Extent of New South Wales.*—The commission appointed Phillip "Captain-General and Governor-in-Chief in and over our territory called New South Wales, extending from the Northern Cape or extremity of the coast called Cape York, in the latitude of ten degrees thirty-seven minutes south, to the southern extremity of the said territory of New South Wales or South Cape, in the latitude of forty-three degrees thirty-nine minutes south, and of all the country inland westward as far as the one hundred and thirty-fifth degree of east longitude reckoning from the meridian of Greenwich, including all the islands adjacent in the Pacific Ocean within the latitudes aforesaid of ten degrees thirty-seven minutes south and forty-three degrees thirty-nine minutes south."

Although in November, 1769, Captain Cook had taken possession of the North Island of New Zealand, and in January, 1770, also of the South Island, it is a matter of doubt whether, at the time when Captain Phillip's commission was drawn up, New Zealand was considered as one of the "islands adjacent in the Pacific Ocean." The facts that under the Supreme Court Act (Imperial) of 1823, British residents in New Zealand were brought under the jurisdiction of the court at Sydney, while in 1839 there was a proposal on the part of the British Government to appoint a consul in New Zealand, would leave this an open question, as nothing more than extra-territorial jurisdiction may have been intended. Various hoistings of flags notwithstanding, New Zealand does not appear to have unequivocally become British territory until 1840. In that year, on the 29th January, Captain Hobson arrived at the Bay of Islands. On the following day he read the commission, which extended the boundaries of the colony of New South Wales so as to embrace and comprehend the Islands of New Zealand. On the 5th February, the Treaty of Waitangi, made with the native chiefs, was signed. Finally, on the 21st May, British sovereignty over the islands of New Zealand was explicitly proclaimed. From that date until the 3rd May, 1841, New Zealand was a dependency of New South Wales.

3. *Extension of New South Wales Westward, 1825.*—On the 17th February, 1824, Earl Bathurst advised Sir Thomas Brisbane that he had recommended to His Majesty the despatch of a ship of war to the North-west Coast of New Holland for the purpose of taking possession of the coast between the Western Coast of Bathurst Island and the eastern side of Coburg Peninsula. Captain James J. Gordon Bremer of H.M.S. *Tamar*, who was selected for this purpose, took possession on the 20th September, 1824, of the coast from the 135° to the 129° east longitude. On the 16th July, 1825, the whole territory between those boundaries was described in Darling's Commission as being within the boundaries of New South Wales, thus increasing its area by 518,134 square miles, and making it, including New Zealand and excluding Tasmania, 2,076,308 square miles, or also excluding New Zealand, 1,972,446 square miles.

4. *Annexation of Western Australia, 1827.*—An expedition, sent by Lieut.-General Sir Ralph Darling, then Governor of New South Wales, under Major Lockyer, to found a settlement at King George III. Sound, sailed from Sydney on the 9th November, 1826,

landed at the Sound on the 26th December following, and hoisted the British flag. Captain Stirling, in command of H.M.S. *Success*, arrived at Sydney a few weeks after the departure of the expedition to King George's Sound. He obtained the Governor's permission to visit Swan River with the view to seizing a position on the Western Coast and reporting upon its suitability as a place of settlement. Captain Stirling left Sydney on the 17th January, 1827, and on his return in the following April submitted a glowing report on what he described as a "rich and romantic country," urging its occupation for the purpose of settlement. He left England in July, 1827, continuing his advocacy—notwithstanding much discouragement—with unabated enthusiasm. He was at last successful, the result being mainly due to the formation of an association of prospective settlers having capital at their disposal. He was appointed Lieut.-Governor, and with a party of settlers arrived at Garden Island, near the Swan River, in the ship *Parmelia*, in June, 1829. On the 2nd of the preceding month Captain Fremantle, in command of H.M.S. *Challenger*, arrived and hoisted the British flag on the South Head of Swan River, again asserting possession of "all that part of New Holland, which is not included within the territory of New South Wales." Thus, before the middle of 1829, the whole territory now known as the Commonwealth of Australia had been constituted a dependency of the United Kingdom.

§ 3. The Creation of the Several Colonies.

1. **New South Wales as Original Colony.**—In Governor Phillip's commission of 1786, the mainland of Australia was divided by the 135th meridian of east longitude into two parts. The earliest colonists believed that Van Diemen's Land—the present State of Tasmania—was actually joined to the mainland, and it was not till 1798 that the contrary was known. In that year, by sailing through Bass Straits, Flinders and Bass proved that it was an island. The territory of New South Wales, as originally constituted, and of New Zealand, which may be included, although Cook's annexation was not properly given effect to until 1840, was thus :—

	Square Miles.
Australia, east of meridian 135° E.	1,454,312
Van Diemen's Land	26,215
New Zealand	103,862
Total	1,584,389

The western part of Australia, not then annexed, comprised 1,494,054 square miles.

2. **Separation of Van Diemen's Land, 1825.**—In 1825, Van Diemen's Land, as Tasmania was then called, was politically separated from New South Wales, being constituted a separate colony on the 14th June of that year. This reduced the area of New South Wales and its territorial dependencies by 26,215 square miles, that is, to 1,558,174 square miles.

3. **Western Australia constituted a Colony, 1829.**—The territory westward of the 129th meridian, which comprised 975,920 square miles and was formerly not included in New South Wales, constituted the area of Western Australia, now one of the six States of the Commonwealth. It was distinct and independent of New South Wales; though until 1831, the settlement on King George's Sound remained under the latter jurisdiction. The Australian colonies at this time were as indicated in the following table :—

Colony.	Date of Annexation.	Date of Creation.	Date of First Permanent Settlement.	Area Square Miles.
New South Wales (including New Zealand)	1770	1786	1788	2,076,308
Van Diemen's Land		1825	1803	26,215
Western Australia		1829	1829	975,920

4. **Creation of South Australia as a Province, 1836.**—On the 15th August, 1834, the Act 4 and 5 William IV., cap. 95, was passed, creating South Australia a "province," and towards the end of the year 1836 settlement took place. The first Governor, Captain Hindmarsh, R.N., arrived at Holdfast Bay on the 28th December, 1836, and on the same day the new colony was officially proclaimed. The new colony embraced 309,850 square miles of territory, which, lying south of the 26th parallel of south latitude, and between the 141st and 132nd meridians of east longitude, was up to that time included within the territory of New South Wales. Thus the area of New South Wales and New Zealand was reduced to 1,766,458 square miles.

5. **Separation of New Zealand, 1840.**—New Zealand, nominally annexed by Captain Cook and formally declared by proclamation in 1840 as a dependency of New South Wales, was, by letters patent of the 16th November of that year, constituted a separate colony under the powers of the Act 3 and 4 Vic., cap. 62, of the 7th August, 1840. Proclamation of the separation was made on the 3rd May, 1841. The area of the colony is 103,862 square miles. This separation reduced the political territory of New South Wales to 1,662,596 square miles.

6. **The Colony of Northern Australia, 1847.**—In the year 1846, when the British Government was experiencing difficulty as regards the transportation of convicts, an attempt was made by Mr. Gladstone, then Colonial Secretary, to establish a purely penal colony, without free settlers (at least at the outset), to be called Northern Australia. This colony did not succeed in securing a permanent place on the map, though its intended metropolis was successfully established and still bears Mr. Gladstone's name. The new colony comprised such of the territories of the colony of New South Wales as lay to the northward of latitude 26° S. Sir Charles Fitzroy, then Governor of New South Wales, was by letters patent appointed Governor of Northern Australia, the actual administration being left in the hands of a Superintendent, who was to be implicitly guided by instruction from the Governor. At the same time Northern Australia was constituted a separate colony under its own Government, although the authority which the Secretary of State for the Colonies would otherwise exercise had been deputed in the first instance to the Governor of New South Wales. In the *London Gazette* of the 8th May, 1846, Colonel Barney, R.E., was appointed Lieutenant-Governor of Northern Australia, and on the 25th January, 1847, he reached Port Curtis, accompanied by other public officers of the new colony. On the 30th January, the ceremony of swearing in the officials of Northern Australia was proceeded with, and on the same day the first *Government Gazette* of the new colony was issued in manuscript. This gazette contained a formal proclamation to the effect that all the land lying to the north of latitude 26° S. should thereafter be known as Northern Australia, and specified the names of the members of the Executive and Legislative Councils of the new colony. The headquarters of the Superintendent and other officials were established at Gladstone, although no other steps appear to have been taken towards securing a permanent settlement. In July, 1846, when Earl Grey succeeded Mr. Gladstone as Secretary of State for the Colonies, one of his first official steps was the complete reversal of the policy of his predecessor with respect to the founding of the new colony of Northern Australia, and by a dispatch dated the 15th November, 1846, Sir Charles Fitzroy was informed that the letters patent under which the new colony was constituted had been revoked. This news was received at Gladstone on the 15th April, 1847, and on the 9th May following the settlement was broken up. The territories comprised in the Colony of Northern Australia then reverted to New South Wales.

7. **Separation of Victoria, 1851.**—In 1851, what was known as the "Port Phillip District" of New South Wales, was constituted the Colony of Victoria, "bounded on the north and north-west by a straight line drawn from Cape Howe to the nearest source of the River Murray, and thence by the course of that river to the eastern boundary of the colony of South Australia." The area of the new colony was 87,884 square miles, and its separate existence took effect from the 1st July, 1851, upon the issuing of the writs for the first election of elective members of the Legislative Council; this reduced the territory of New South Wales to 1,574,712 square miles.

8. **Separation of Queensland, 1859.**—The northern squatting districts of Moreton, Darling Downs, Burnett, Wide Bay, Maranoa, Leichhardt, and Port Curtis, together with the reputed county of Stanley, were granted an independent administration and formed

into a distinct colony under the name of Queensland, by letters patent dated the 6th June, 1859, although separation from New South Wales was not consummated until the 10th December of the same year, upon the assumption of office of the first Governor. The territory originally comprised in the new colony was described in the letters patent as being so much of the colony of New South Wales as lies northwards of a line commencing on the sea coast at Point Danger, in latitude about 28° 8' south, running westward along the Macpherson and Dividing Ranges and the Dumaresq River to the MacIntyre River, thence downward to the 29th parallel of south latitude, and following that parallel westerly to the 141st meridian of east longitude, which is the eastern boundary of South Australia, together with all the adjacent islands, their members, and appurtenances in the Pacific Ocean. The area of the new colony thus constituted was 554,300 square miles. By this separation the remaining territory of New South Wales was divided into two parts, one of 310,372 square miles, of which 309,432 square miles constitute the present State of New South Wales, and 940 square miles the Federal Capital Territory. The other area comprised 710,040 square miles, of which 116,200 square miles form now a part of Queensland, 523,620 square miles form the Northern Territory, and 70,220 square miles form now a part of South Australia.

9. **The Colonies at the Close of 1859.**—Since the separation of Queensland, no other creation of colonies has taken place in Australia, though the boundaries of New South Wales, Queensland, and South Australia were altered later. The dates of foundation of the Australasian colonies, and their areas at the close of 1859, were therefore as hereunder :—

AUSTRALASIAN COLONIES AS AT THE CLOSE OF 1859.

Colony.	Date of Annexation.	Date of Creation.	Date of First Permanent Settlement.	Area Square miles.
New South Wales	1770	1786	1788	1,020,412
Tasmania	1770	1825	1803	26,215
South Australia	1770	1834	1836	309,850
Victoria	1770	1851	1834	87,884
Queensland	1770	1859	1824	554,300
Western Australia	1827	1829	1829	975,920
New Zealand	1840	1841	1814	103,862 (a)

(a) Including outlying and annexed islands.

10. **The Changing Boundaries of the Colonies.**—When, on the 15th August, 1834, the Imperial Government constituted the province of South Australia, there lay between its western boundary and the eastern boundary of Western Australia (as proclaimed by Fremantle in 1829) a strip of country south of the 26th parallel of south latitude, and between the 132nd and 129th meridians of east longitude, legally included within the territory of New South Wales. The area of this territory, frequently but improperly referred to as "No Man's Land," has been calculated to cover approximately 70,220 square miles. On the 10th October, 1861, by the authority of the Imperial Act 24 and 25 Vic., cap. 44, the western boundary of South Australia was extended so as to cover this strip, and to coincide with the eastern boundary of Western Australia—the 129th meridian. By letters patent dated the 13th March, 1861, forwarded by the Colonial Secretary to the Governor of Queensland on the 12th April, 1862, the area of Queensland was increased by the annexation of "so much of the colony of New South Wales as lies to the northward of the 26th parallel of south latitude, and between the 141st and 138th meridians of east longitude, together with all and every the adjacent islands, their members, and appurtenances, in the Gulf of Carpentaria." The area of South Australia was therefore increased by 70,220 square miles, and became 380,070 square miles, while the area of Queensland increased by 116,200 square miles, became 670,500 square miles. Nearly two years after the accession of territory, viz., on the 6th July, 1863, the Northern Territory, containing 523,620 square miles—also formerly a part of New South Wales—was, by letters patent, brought under the jurisdiction of South Australia, which therefore

controlled an area of 903,690 square miles; whilst that of New South Wales was diminished by these additions to South Australia, and by the separation of the colonies of New Zealand, Victoria and Queensland, till its area became only 310,372 square miles. The territories of Tasmania, Western Australia, and the three other separated colonies with the exception of some minor islands added to Queensland, remain as originally fixed.

11. **The Colonies in 1900.**—From what has been said in the previous sub-section it will be seen that the immense area generally known as Australasia had by 1863 been divided into seven distinct colonies, the combined areas of which amounted to 3,078,443 square miles.

§ 4. Establishment of the Commonwealth of Australia.

1. **General.**—On the 1st January, 1901, the colonies mentioned, with the exception of New Zealand, were federated under the name of the "Commonwealth of Australia," the designation of "Colonies"—excepting in the case of the Northern Territory, to which the designation "Territory" is applied—being at the same time changed into that of "States." The total area of the Commonwealth of Australia is, therefore, 2,974,581 square miles. The dates of creation and the areas of its component parts, as determined on the final adjustment of their boundaries, are shown in the following table:—

THE COMMONWEALTH OF AUSTRALIA.—AREA, ETC., OF COMPONENT PARTS.

State.	Year of Formation into Separate Colony.	Present Area in Square Miles.	State.	Year of Formation into Separate Colony.	Present Area in Square Miles.
New South Wales(a)	1786	310,372(a)	Tasmania ..	1825	26,215
Victoria ..	1851	87,884	Northern Territory	1863	523,620
Queensland ..	1859	670,500			
South Australia ..	1834	380,070	(b)Area of the Com-		
Western Australia	1829	975,920	monwealth ..	..	2,974,581

(a) On the 1st January, 1911, the Federal Capital Territory embracing an area of 912 square miles was taken over by the Commonwealth from the State of New South Wales, and on 12th July, 1915, assent was given to an Act taking over a further area of 28 square miles at Jervis Bay, the area of that State therefore is now 309,432 square miles.

(b) The present Dominion of New Zealand was constituted a separate colony in 1841. The addition of its area, 103,862 square miles, to the total shown in the table above, gives a total for Australasia of 3,078,443 square miles as referred to in § 3, 11.

2. **Transfer of the Northern Territory to the Commonwealth.**—On the 7th December, 1907, the Commonwealth and the State of South Australia entered into an agreement for the surrender to and acceptance by the Commonwealth of the Northern Territory, subject to approval by the Parliaments of the Commonwealth and the State. This approval was given by the South Australian Parliament under the Northern Territory Surrender Act 1907 (assented to on the 14th May, 1908), and by the Commonwealth Parliament under the Northern Territory Acceptance Act 1910 (assented to on the 16th November, 1910). The Territory accordingly was transferred to the Commonwealth by proclamation on the 1st January, 1911.

3. **Transfer of the Federal Capital Territory to the Commonwealth.**—On the 18th October, 1909, the Commonwealth and the State of New South Wales entered into an agreement for the surrender to and acceptance by the Commonwealth of an area of 912 square miles as the seat of Government of the Commonwealth. In December, 1909, Acts were passed by the Commonwealth and New South Wales Parliaments approving the agreement, and on the 5th December, 1910, a proclamation was issued vesting the Territory in the Commonwealth on and from the 1st January, 1911. By the Jervis Bay

Territory Acceptance Act 1915, which was assented to on 12th July, 1915, an area of 28 square miles at Jervis Bay, surrendered by New South Wales according to an agreement made in 1913, was accepted by the Commonwealth.

4. **Transfer of British New Guinea or Papua.**—Under the administration of the Commonwealth, but not included in it, is British New Guinea or *Papua*, finally annexed by the British Government in 1884. This territory was for a number of years administered by the Queensland Government, but was transferred to the Commonwealth by proclamation on the 1st September, 1906, under the authority of the Papua Act (Commonwealth) of 16th November, 1905. The area of Papua is about 90,540 square miles.

5. **Transfer of Norfolk Island.**—Although administered for many years by the Government of New South Wales, this island was, until 1st July, 1914, a separate Crown colony. On that date it was taken over by the Federal Parliament as a territory of the Commonwealth.

§ 5. The Exploration of Australia.

1. **Introduction.**—A fairly complete, though brief, account of the Exploration of Australia was given in Year Book No. 2 (pp 20 to 39). It is proposed to give here only a brief summary of the more important facts relating to the subject.

2. **Eastern Australia.**—(i) *General.* The first steps towards the exploration of New South Wales were taken by Captain Phillip and his officers, who, during 1788 and the years immediately following, made a number of excursions in the neighbourhood of Port Jackson, to Broken Bay, and along the Hawkesbury and Nepean Rivers.

(ii) *French Voyages of Exploration, 1788 to 1802.* Towards the close of the 18th century the French, who were supposed to covet territory in Australia, sent out several exploring expeditions. In 1788 two vessels under the command of Lapérouse put into Botany Bay to refit. In 1792 the French Admiral D'Entrecasteaux was in Australian waters with two vessels and discovered and named several places on the Tasmanian coasts. In 1800 an expedition, sent out by the French Republic, examined parts of the coasts of Van Diemen's Land and South Australia. It was chiefly in consequence of rumours to the effect that the French intended to establish a colony in Australia, that steps were taken by the British to form settlements at various places on the Australian coasts.

(iii) *Bass and Flinders, 1796 to 1803.* In 1796 and 1797 Bass and Flinders explored the coast in a southerly direction from Port Jackson as far as Western Port. In 1798 Bass, accompanied by Flinders and eight seamen, circumnavigated the island of Tasmania thus proving the existence of the strait which now bears his name. In 1801 Flinders again came to Australia in command of H.M.S. *Investigator*, which was the first vessel to completely circumnavigate the Australian continent.

(iv) *Discovery of Port Phillip, 1802.* On the 5th January, 1802, Lieutenant Murray, who had been sent out to trace the coast between Point Schanck and Cape Otway, sighted the entrance to Port Phillip, which, however, he did not enter, owing to stress of weather, until the 15th February. Shortly afterwards Flinders entered Port Phillip, and in 1803 Charles Robbins explored the Yarra for some miles above the present site of Melbourne.

(v) *The Blue Mountains Crossed, 1813.* In 1813 Gregory Blaxland succeeded in effecting a passage over the Blue Mountains, which had previously proved an inaccessible barrier to all attempts to extend the infant colony in a westerly direction. G. W. Evans, following on Blaxland's tracks, soon penetrated further inland and discovered and named the Fish, Campbell, Macquarie, and Lachlan Rivers. In 1817 and 1818 John Oxley, Allan Cunningham, Charles Frazer, and others explored a considerable part of the Lachlan and Macquarie Rivers, and discovered and named the Castlereagh River, the Arbutnot Range, the Liverpool Plains, the Hastings River, and Port Macquarie.

(vi) *Hamilton Hume, 1814 to 1824.* In 1816 Hamilton Hume, who two years previously had explored the country round Berrima, discovered and named the Goulburn Plains and Lake Bathurst. In 1824, accompanied by William Hilton Hovell, Hume

starting off from Lake George, reached the Murrumbidgee and sighted the Snowy Mountains. On the 16th December, 1824, he reached the Southern Ocean at the spot where Geelong now stands. This expedition had a great and immediate influence on the extension of Australian settlement.

(vii) *Allan Cunningham, 1817 to 1829.* In 1823 Cunningham, who had accompanied Oxley in 1817, discovered and named Pandora's Pass, leading to the Liverpool Plains from the Upper Hunter, and in 1827 he discovered the Darling Downs.

(viii) *Charles Sturt, 1828 to 1830.* In 1828 the Darling River was discovered by Sturt, who in the following year explored the Murray River, tracing it to its mouth at Lake Alexandrina in Encounter Bay. Sturt thus connected his overland journey with the discoveries of Flinders and other coastal explorers. In the meantime discovery on the Australian coasts had been followed up by Captains Wickham and Stokes in H.M.S. *Beagle*.

(ix) *Sir Thomas Mitchell, 1831 to 1846.* In 1831 Mitchell discovered the lower courses of the Peel (Namoi), Gwydir, and Dumaresq Rivers, and identified the Upper Darling. Two years later he explored the country between the Bogan and Macquarie Rivers, and in 1835 he traced the Darling 300 miles down from Bourke. In 1836 he ascended the Murray and Loddon Rivers and discovered the Avoca, the Campaspe, and the Wimmera Rivers, reaching the coast near Cape Northumberland. On his return journey Mitchell visited Portland Bay, where he found the Henty family established, and ascending Mount Macedon, he saw and identified Port Phillip. In 1845 and 1846 Mitchell again set out, accompanied by Edmund B. Kennedy, and explored the Narran, Balonne, and Culgoa Rivers. Ascending the Balonne, he turned westward, exploring the Maranoa and the Warrego. Proceeding to the north he then discovered the Belyando and the Barcoo Rivers.

(x) *McMillan, Strzelecki, Leslie and Russell, 1839 to 1841.* In the meantime other explorers had been in the field and had made numerous discoveries. In 1839 and 1840 Angus McMillan discovered and named Lake Victoria, the Nicholson, Mitchell, and Macallister Rivers, and explored the country as far as the Latrobe River. In 1840 Strzelecki discovered Mount Kosciusko, the Latrobe River, and Lake King. In 1840 and 1841 Patrick Leslie and Stuart Russell explored the Condamine River.

(xi) *Leichhardt, 1844 to 1845.* In 1844 and 1845 Ludwig Leichhardt made a number of discoveries. Leaving the Condamine River he discovered the Dawson River, Peak Downs, the Planet and Comet Rivers, and Zamia Creek. Later on he found and named the Mackenzie, Isaacs, Suttor, Burdekin, Lynd, Mitchell, Leichhardt, Nicholson, McArthur and Roper Rivers, and after exploring part of the coast of the Gulf of Carpentaria, reached the settlement of Victoria at Port Essington. In 1848 Leichhardt equipped another expedition and set out from the Cogoon. No sure clue as to his fate or as to the fate of his companions has ever come to light.

(xii) *Kennedy, 1847 to 1848.* In 1848 Edmund Kennedy, who had accompanied Mitchell in 1845 and 1846, and who had further explored the Barcoo and Victoria Rivers in 1847, attempted to make his way up the eastern coast of Cape York Peninsula. After great hardships he reached the Escape River, where he was murdered by the blacks.

(xiii) *A. C. Gregory, 1846 to 1858.* A. C. Gregory's earliest explorations were in Western Australia, where in 1846 he discovered Lake Moore. In 1855 Gregory explored the Fitzmaurice and Victoria Rivers and Sturt's Creek. He examined the Gilbert River and its tributaries, and made his way in a westerly direction across to Brisbane. In 1858 Gregory explored the districts near the Barcoo and Thompson Rivers, Strzelecki's Creek and Lake Blanche.

(xiv) *Later Exploration of the North East, 1859 to 1872.* After Kennedy's ill-fated expedition the main portion of Eastern Australia was fairly well known. Certain parts of what is now Queensland, however, still remained unexplored. These were examined by G. E. Dalrymple in 1859, by Frederick Walker in 1862, by Frank and Alex. Jardine in 1864, and by William Hann in 1872. Hann discovered the Tate, Walsh, Palmer and Normanby Rivers. This expedition practically completed the exploration of Eastern Australia. The gold discoveries on the Palmer River in Queensland, following soon after, led to a considerable amount of minor exploration being carried out by prospectors whose labours, are, however, unrecorded.

3. *Central Australia.*—(i) *General.* In 1836 Colonel Light surveyed the shores of St. Vincent's Gulf, and selected the site for the settlement of Adelaide. In the same year Mitchell had succeeded in travelling overland from the Darling to Cape Northumberland, and the settlers found little difficulty in driving stock from various parts of New South Wales to the new country. A great deal of minor exploration was done by these pioneers, the first of whom to lead the way across to the Port Phillip settlement with sheep in 1837 was Charles Bonney. In 1838 the overlanding of stock was extended to Adelaide by Joseph Hawdon.

(ii) *Eyre, 1833 to 1841.* In 1841 Edward John Eyre, who had previously discovered Lake Hindmarsh, and had explored the country to the north-east of Spencer's Gulf, succeeded, after great hardship, in reaching Albany overland from Adelaide. After this expedition settlers soon spread in a northerly direction from Adelaide, and various expeditions in search of grazing country were carried out by these pioneers.

(iii) *Sturt's Later Explorations, 1844 to 1845.* In 1844 Charles Sturt, whose explorations in Eastern Australia have already been referred to, set out from the Darling on an expedition to reach the centre of the continent. He reached his furthest point in latitude $24^{\circ} 30' S.$ and longitude $137^{\circ} 58' E.$ in September, 1845, and, after enduring great privations, was compelled to retreat through want of water.

(iv) *Stuart, 1858 to 1862.* John MacDouall Stuart accompanied Captain Sturt on his last expedition. After minor explorations in the vicinity of Lake Eyre, Stuart made an unsuccessful attempt to cross the continent from south to north in 1860. After discovering the Frew, Finke, and Stevenson Creeks, Chambers Pillar, and the McDonnell Range, he camped at the centre of Australia on the 22nd April, 1860. In the following year Stuart was placed in command of an expedition equipped by the South Australian Government, and succeeded in crossing the continent, reaching the sea at Chambers Bay on the 25th July, 1862.

(v) *Burke and Wills Expedition, 1860 to 1861.* In 1860 Robert O'Hara Burke and William Wills led an expedition northward from Melbourne to explore the country as far as the Gulf of Carpentaria. Through their arrangements having miscarried, both Burke and Wills perished in the bush, after having crossed the continent and returned to their depot at Fort Wills, only to find it deserted. Various relief expeditions were sent out, and among them may be specially mentioned Howitt's Relief Expedition, the Queensland Relief Expeditions under Walker and Landsborough, and the South Australian Relief Party under McKinlay. Though the actual work of exploration carried out by the Burke and Wills expedition was unimportant, the discoveries made by the relief parties sent out were of great value in opening up Central Australia.

(vi) *Giles, 1872 to 1876.* In 1872 Ernest Giles discovered Lake Amadeus and Mount Olga. In that year and in the following one he made unsuccessful attempts to force his way through the desert to the settlements of Western Australia. In 1875 Giles, accompanied by W. H. Tietkins, set out from Beltana, and after making his way in the vicinity of latitude $30^{\circ} S.$, to the settled districts of Western Australia, returned to the Peake telegraph station by way of the Murchison, Gascoyne, and Ashburton Rivers.

(vii) *Later Explorations.* Other explorations in Central Australia were carried out by Major Warburton (1873), W. C. Grosse (1873), W. O. Hodgkinson (1875), Nathaniel Buchanan (1878), Frank Scarr (1878), Ernest Favenc (1878–83), H. V. Barclay (1877), A. Johns and P. Saunders (1876), David Lindsay (1883), H. Stockdale (1884) W. H., Tietkins (1889), A. Searcy (1882–96), and Hubbe (1896).

4. *Western Australia.*—(i) *General.* In 1791 George Vancouver, in command of H.M.S. *Discovery*, reached and named King George's Sound. On the 26th December, 1826, Major Lockyer, with a detachment of soldiers, landed at King George's Sound to form a settlement, under instructions from Sir Ralph Darling, then Governor of New South Wales. The settlement was established in order to forestall the French, who, it was rumoured, intended to occupy the harbour. [As stated on page 5 *ante*, the assertion of British dominion throughout the continent dates from the hoisting of the British flag at this locality on the 21st January, 1827]. Early in 1827 Captain James Stirling and Charles Frazer examined and reported upon the Swan River district with a view to forming a settlement there. In 1829 Captain Fremantle landed at the mouth of the Swan River and took possession of the country. A month later Stirling arrived with the first settlers.

(ii) *Early Explorers.* In November, 1829, Alexander Collie and Lieutenant Preston explored the coast between Cockburn Sound and G  ographe Bay, and in the following month Dr. T. B. Wilson, R.N., discovered and named the Denmark River.

In 1830 John Septimus Roe explored the country in the neighbourhood of Cape Naturaliste and between the Collie and Preston Rivers, and in 1835 examined the districts between the headwaters of the Kalgan and Hay Rivers. In 1836 and 1839 Roe explored the country north and east of Perth, and in 1848 traced the course of the Pallinup River for some distance.

Other early explorers in the West were Ensign R. Dale (1830), Captain Bannister (1831), W. K. Shenton (1831), J. G. Bussell (1831), Lieutenant Preston (1831), Alexander Collie (1832), F. Whitfield (1833), A. Hillman (1833), G. F. Moore (1834), and Lieutenant Bunbury (1836).

(iii) *Grey, 1837 to 1839.* In 1837 Captain (afterwards Sir) George Grey discovered and traced the Glenelg River. In 1839 he explored the country between the Williams and Leschenault Rivers, and later succeeded in making his way along the coast from the mouth of the Gascoyne River to Perth.

(iv) *F. T. Gregory, 1857 to 1861.* In 1857 and 1858 Frank T. Gregory examined the upper reaches of the Murchison River and reached the Gascoyne River, which he descended to its mouth, whence he made his way to Perth. In 1861 Gregory explored the north western districts, discovering the Fortescue, Ashburton, Shaw, De Grey, and Oakover Rivers.

(v) *H. M. Lefroy, 1863.* In 1863 Henry Maxwell Lefroy led a party from York, and after discovering Mt. Burges, traversed the Coolgardie, Kalgoorlie and Boulder areas, reaching a point about 21 miles east-south-east of Boulder.

(vi) *John Forrest, 1869 to 1883.* In 1869, John Forrest (later Lord Forrest of Bunbury) penetrated to the east some distance past Mount Margaret and discovered Lake Barlee. In 1870 he succeeded in making his way from Perth to Adelaide via Esperance Bay, Israelite Bay, and Eucla, and in 1874, accompanied by his brother Alexander and four others, he crossed from Geraldton to the overland telegraph line near Peake Station. In 1883 Forrest explored a large portion of the Kimberley Division, Cambridge Gulf, and the lower part of the Ord River.

(vii) *Alexander Forrest, 1871 to 1879.* In 1879 Alexander Forrest, who had previously accompanied his brother on two expeditions, made his way from the De Grey River to the Daly Waters Station on the overland telegraph line, via Beagle Bay, the King Leopold Range, Nicholson Plains, and the Ord and Victoria Rivers.

(viii) *L. A. Wells, 1892 to 1897.* In 1892 Wells examined practically the whole of the still unexplored districts between Giles' track of 1876 and Forrest's route of 1874, and in 1896 and 1897 he explored the country between the East Murchison and Fitzroy Rivers.

(ix) *Later Explorations in Western Australia.* During the latter part of the 19th century various expeditions were sent out to explore those parts of Western Australia (chiefly in the north-western districts) which still remained unknown. Those whose names are connected with the later exploration of Western Australia are—David Carnegie (1896-7) who discovered a practical stock route between Kimberley and Coolgardie; W. Carr-Boyd (1883-96), who explored the country near the Rawlinson Ranges and made several excursions between the southern goldfields of Western Australia and the South Australian border; H. F. Johnston, G. R. Turner, and E. T. Hardman (1884), who discovered the Mary and Elvire Rivers; F. S. Brockman, Charles Crossland, Gibb Maitland, and Dr. F. M. House (1901), who explored the extreme north of the State; F. H. Hann (1896-1907), who made various excursions in the north-west and between Laverton and Oodnadatta.

(x) *Other Explorers.* Other explorers whose names are connected with the exploration of Western Australia are—George Eliot, who, in 1839, explored the country between the Williams and Leschenault; William Nairne Clark, who, in 1841, discovered immense jarrah and karri forests in the south-west; R. H. Bland (1842); H. Landor (1842); Lieutenant Helpmann (1844); Captain H. M. Denham (1858); B. D. Clarkson, C. E. and A. Dempster, and C. Harper (1861); C. C. Hunt and Ridley (1863); R. J. and T. C. Sholl (1865); A. McRae (1866); Philip Saunders and Adam Johns (1876); H. Stockdale (1884); H. Anstey (1887); F. Newman and W. P. Goddard (1890); J. H. Rowe (1895); C. A. Burrows and A. Mason (1896); Hugh Russell (1897); and John Muir (1901).

§ 6. The Constitutions of the States.

1. **Introduction.**—The subject of "General Government" is dealt with in some detail in Chapter III., but it has been thought desirable to give here a summary of the chief events in the constitutional history of Australia. More extended reference will be found in previous Year Books.

2. **Early Constitutional History.**—(i) *General.* The earliest statute relating to Australia was passed in the year 1784, and empowered the King in Council to appoint places in Australia to which convicts might be transported. On the 6th of December, 1786, His Majesty's "territory of New South Wales, situated on the east part of New Holland," was appointed such a place.

(ii) *The First Constitutional Charter.* In 1823 an Act was passed authorizing the creation of a Council, charged with certain legislative powers of a limited character. This charter was amended by an Act passed in 1828, and applied both to New South Wales and to Van Diemen's Land.

(iii) *First Representative Legislature.* In 1842 the Imperial Government established in New South Wales a Legislative Council consisting of thirty-six members, twelve of whom were to be nominated by the Sovereign and twenty-four elected by the inhabitants of the colony.

(iv) *The Australian Colonies Government Act 1850.* The two main objects of this Act were (a) the separation of the Port Phillip District from New South Wales, and (b) the establishment of an improved system of government in all the Australian colonies. Power was given to the Governor and Legislative Council in each colony to alter the qualifications of electors and members as fixed by the Act, or to establish, instead of the Legislative Council, a Council and a House of Representatives, or other separate Legislative Houses, and to vest in such Houses the powers and functions of the old Council.

3. **New South Wales.**—After the Act just referred to had been proclaimed, an Electoral Bill for New South Wales was passed, increasing the number of members of the Council from thirty-six to fifty-four. In 1851 a remonstrance was despatched by the Legislative Council to the Secretary of State for the Colonies, objecting to the form of Constitution which the Imperial authorities proposed to grant under the Act of 1850. In 1852 the Secretary of State for the Colonies suggested that the Legislative Council should proceed to frame a Constitution resembling that of Canada and based on a bi-cameral Legislature. A new Constitution was, on the 21st December, 1853, adopted by the Council and transmitted to the Secretary of State for the Colonies. With some amendments this Bill became law on the 16th July, 1855. It is now known as the New South Wales Constitution Act 1855, and under its provisions a fully responsible system of government was granted. The first Parliament, under the new Constitution was opened on the 22nd May, 1856. The Constitution was amended by Acts passed in 1857, 1884, and 1890, these Acts being repealed and consolidated by the Constitution Amendment Act of 1902. The last amending Act was passed in 1926.

4. **Victoria.**—After the proclamation of the Australian Colonies Government Act of 1850, the old Legislative Council of New South Wales met on the 28th March, 1851, and passed two Acts specially concerning Victoria. The first provided for the continuation of the powers and functions of all public officers resident within the Port Phillip District until removed or reappointed by the Government of Victoria. The other Act provided that the Legislative Council of Victoria should consist of thirty members, ten nominee and twenty elective, with powers and functions similar to those of the reorganized Legislative Council of New South Wales. A Constitution was drafted by a committee of the Legislative Council, and was embodied in a Bill which was passed and reserved for the Queen's assent on 28th March, 1854. The Enabling Bill was passed

and assented to on the 16th July, 1855, and the new Constitution was proclaimed on the 23rd November following. Several amendments have since been made, the last amending Act having been passed in 1926.

5. **Queensland.**—As part of New South Wales, the Moreton Bay District enjoyed the benefits of responsible government under the Constitution Act of 1855.

By the New South Wales Constitution Act 1855 the power granted to the Queen in 1842 to alter the northern boundary of New South Wales was preserved, and Her Majesty was authorized, by letters patent, to erect into a separate colony any territory which might be so separated. The separation was effected by letters patent dated the 6th June, 1859, and the Constitution of the new colony was embodied in an Order in Council of the same date.

The Order in Council provided that there should be within the colony of Queensland a Legislative Council and a Legislative Assembly. The first Parliament under the new Constitution was convened on the 29th May, 1859. By the Constitution Amendment Act of 1922 the Legislative Council was abolished. The last amendment of the Constitution was enacted in 1926.

6. **South Australia.**—In the exercise of the provisions of the Act by which the Province was created, a governor, a judge, seven commissioners, and other officials were appointed. Under an Act passed in 1842 the system of government was remodelled; the colonization commissioners were abolished, and the Province became a Crown colony with a nominated Legislative Council.

In 1855 a new Legislative Council passed a Bill to create a bi-cameral Legislature, which received the Royal assent in 1856. This Act, known as the South Australian Constitution Act 1856, confers no legislative powers except by reference to the Act of 1850. The first session of the new Parliament commenced on the 22nd April, 1857. There has been a large number of amendments to the Constitution, the latest having been passed in 1926.

7. **Western Australia.**—By an Order in Council dated the 1st November, 1830, the first Executive Council was constituted, while in the following year a Legislative Council, which consisted at first solely of members of the Executive Council, was formed. In August, 1870, writs were issued for the election of a Council to consist of twelve elected and six nominated members. These members were altered from time to time. In 1889 the Legislative Council was dissolved, and a general election took place, the principal question being the introduction of responsible government. A Constitution providing for the creation of a bi-cameral Legislature was drafted, and responsible government was proclaimed in the colony on the 21st October, 1890. The first Parliament under the new Constitution met on the 30th December, 1890. On the 18th July, 1893, the Legislature of Western Australia passed an Act to amend the Constitution, abolishing the nominee Council, and substituting one elected by the qualified inhabitants of the colony. Amendments have been made by various Acts, the last of which was passed in 1921.

8. **Tasmania.**—Under an Order in Council dated the 14th June, 1825, and made in pursuance of the provisions of an Act passed in 1823, Van Diemen's Land, as it was officially known until the year 1853, was separated from New South Wales and was proclaimed a separate colony, with a Lieutenant Governor, an Executive, and a Legislative Council. It was not until the Imperial Act of 1850 was passed, that a system of representative government was introduced. A Constitution Bill was drafted and passed by the Legislative Council, and was assented to and proclaimed on the 24th October, 1856.

The first Parliament under the new Constitution was opened on the 2nd December, 1856. The Constitution has been amended by various Acts, the latest of which was passed in 1926.

9. **Reservation of Bills.**—The reservation of Bills passed by the Legislature of any State is dealt with under the provisions of the Australian States Constitution Act 1907, a short outline of the provisions of which will be found in Official Year Book, No. 18, p. 17.

§ 7. The Federal Movement in Australia.

1. **Early Stages in the Federal Movement.**—A summary is given in Year Book No. 1 (pp. 17 to 21) of the "Federal Movement in Australia" from its earliest inception to its consummation. Limits of space will permit of the insertion of a synopsis only in the present issue.

Owing to the circumstances of their growth, the initial tendency in Australia was naturally towards the individualistic evolution of the several settlements, yet from the earliest period there was a clear recognition of the importance of intercolonial reciprocity. Governor Fitzroy, in 1846, and Earl Grey, in 1847, saw that there were questions which affected "Australia collectively, the regulation of which in some uniform manner, and by some single authority, may be essential to the welfare of them all," and a "central legislative authority for the whole of the Australian colonies" was actually contemplated. Even so far back as 1849, a Privy Council Committee recommended a uniform tariff, and the constituting of one of the Governors as Governor-General of Australia, Sir Charles Fitzroy being actually appointed as "Governor-General of all Her Majesty's Australian Possessions." The office, however, was nominal rather than actual and expired in 1861. Dr. Lang's idea of "a great federation of all the colonies of Australia" was put forward in 1852, and a Victorian committee in 1853 advocated the value of a General Assembly of Delegates for the whole of Australia.

The need of union was urged by the *Sydney Morning Herald* in 1854, and, although Wentworth sought in 1857 to bring about the creation of a Federal Assembly, a draft "Enabling Bill" proved unacceptable to Her Majesty's Government. In the same year Mr. (afterwards Sir) Charles Gavan Duffy secured the appointment of a select committee of the Victorian Legislative Assembly to consider the necessity of a federal union of the Australasian colonies. The need for such a union was unanimously affirmed, the general opinion being that it should not be longer delayed. In the same year, a select committee of the New South Wales Legislative Council also considered this question, fully recognizing that antagonisms and jealousies were likely to arise through delay.

Union was in a fair way towards realization when the advent of the Cowper Administration destroyed all chance of attaining it, owing to the antagonism of Mr. Cowper and Mr. (afterwards Sir) James Martin. South Australia, also in the same year, and Queensland in 1859, were both unfavourable to the federal scheme. A second attempt by Mr. Duffy to bring about a conference in 1860 failed also.

Tariff differences, however, compelled political attention to the matter, and in 1862 correspondence was opened up by South Australia regarding tariff uniformity. By means of intercolonial conferences between 1863 and 1880 some degree of uniformity in legislation and a measure of concerted administration were realized. In March, 1867, Mr. (afterwards Sir) Henry Parkes expressed himself as follows:—" . . . The time has arrived when these colonies should be united by some federal bond. . . . There are questions projecting themselves . . . which cannot be dealt with by . . . individual Governments. . . . I believe it will lead to a permanent federal understanding."

2. **The Federal Council.**—The conference of November-December, 1880, and January, 1881, recommended the creation of a Federal Council, believing that the time had not arrived for a Federal Constitution with a Federal Parliament. Until 1883, however, every effort proved abortive, but in November of that year a convention, at which the seven colonies and Fiji were represented, met in Sydney. A Bill to establish a Federal Council for Australasia, drafted by Mr. (later Sir) Samuel Griffith, was, after some modification by a committee of the convention, adopted. In July and August, 1884, the Crown was addressed, praying for the enactment of a Federal Council Act. New South Wales and New Zealand, however, held aloof, the view of Sir Henry Parkes being that a "Council" would impede the way for a sure and solid federation. The Bill introduced by the Earl of Derby in the House of Lords on the 23rd April, 1885, became law on the 14th August as "The Federal Council of Australasia Act 1885." The Council's career however, soon showed that it could not hope to be effective, and it met for the last time in January, 1899.

3. **Formative Stages of the Federal Movement.**—As early as 1878 the necessity for federal defence was vividly brought into Australian consciousness, and arrangements for

naval protection were entered into with the Imperial Government. These were ratified by the Australasian Naval Force Act. Queensland, however, did not come into line until 1891.

Early in 1889, Sir Henry Parkes had confidently suggested to Mr. Duncan Gillies the necessity for a Federal Parliament and Executive. Unable to accept the latter's suggestion that New South Wales should give its adhesion to the Federal Council, the former statesman urged the institution of "a National Convention for the purpose of devising and reporting upon an adequate scheme of Federal Government." This led to the Melbourne Conference of 6th February, 1890. It was at the banquet of this occasion that, in proposing "A United Australasia," Mr. James Service pointed out that the tariff question was "a lion in the path," which federationists must either slay, or by which they must be slain; in the reply to which Sir Henry Parkes made use of his historic phrase, *the crimson thread of kinship runs through us all*. Certain elements of doubt being expressed as to the motives underlying the movement, Sir Henry Parkes said:—"We desire to enter upon this work of Federation without making any condition to the advantage of ourselves, without any stipulation whatever, with a perfect preparedness to leave the proposed convention free to devise its own scheme, and, if a central Parliament comes into existence, with a perfect reliance upon its justice, upon its wisdom, and upon its honour . . . I think . . . an overwhelming majority of my countrymen . . . will approve of the grand step . . . uniting all the colonies under one form of beneficent government, and under one national flag."

The first National Australasian Convention, under Sir Henry Parkes' presidency was convened on the 2nd March, 1891, all the Australian colonies and New Zealand being represented. The Bill then drafted was considered by the Parliaments of New South Wales, Victoria, South Australia, and Tasmania, but not by those of Queensland, Western Australia, and New Zealand, and though the parliamentary process of dealing with the matter failed, federal sentiment was strengthening. The collapse of the "land boom" had made apparent how intimately the interests of the several colonies were related, and the dangers of disunion became impressively obvious. The Australian Natives' Association took up the federal cause with enthusiasm. Federation leagues were established, the issues were widely and intelligently discussed. The unification scheme of Sir George Dibbs helped to make the issue a real one.

At the Conference of Premiers at Hobart on the 29th January, 1895, it was agreed that Federation "was the great and pressing question of Australian politics," and that "the framing of a Federal Constitution" was an urgent duty. The resuscitation of the whole matter led to the passing of Enabling Acts. In New South Wales, the Act received the Royal assent on the 23rd December, 1895; South Australia anticipated this by three days; the Tasmanian Bill was passed on the 10th January, 1896, the Victorian on the 7th March, 1896; Western Australia fell into line on the 27th October. The "People's Federal Convention," held at Bathurst, N.S.W., in November, 1896, gave a considerable impulse to the movement; to wait longer for Queensland was considered unnecessary, and the 4th March, 1897, was fixed as the date for the election of federal representatives for New South Wales, Victoria, South Australia, and Tasmania. Western Australia followed suit, and on the 22nd March the representatives met at Adelaide.

The discussions made it evident that the federal point of view had advanced considerably. Constitutional, Finance, and Judiciary Committees were appointed, and a Bill was drafted. This, reported to the Convention on the 22nd April, was adopted on the following day, and the Convention adjourned till September. The Parliaments of New South Wales, Victoria, South Australia, Tasmania, and Western Australia discussed the question before the Sydney Session of the Convention, which opened on the 2nd September, 1897. The business of the Convention involved the general reconsideration of the whole Bill, and the consideration of no less than 286 suggested amendments. This work gave a definite character to that of the Melbourne Session of 1893, extending from the 20th January to the 17th March, the necessity for reaching a final decision giving to its deliberations corresponding weight.

4. *Votes on the Question of Federation.*—Eleven weeks after this last convention the first popular vote was taken on Federation in New South Wales, Victoria, South Australia, and Tasmania. Though the decision was overwhelmingly in favour of Federation in three of the States, and there was a distinct majority in its favour in New South Wales,

the majority was legally insufficient. On the 22nd January, 1899, the Premiers of the six colonies met at Melbourne in a conference initiated by the Right Honourable G. H. Reid, P.C., and seven amendments were made in the Bill. This step virtually effected the solution of the few outstanding difficulties which could in any way be regarded as fundamental.

On the occasion of the second popular vote, Queensland also joined in, and the general majority in favour of Federation was more than doubled, that for New South Wales itself having been more than quadrupled when compared with the first vote. The following table shows the two results :—

VOTES FOR AND AGAINST FEDERATION.

Votes.		N.S.W.	Victoria.	Sth. Aust.	Tas.	Qld.	TOTALS.
1st Vote	{ For Federation ..	71,595	100,520	35,800	11,797	—	219,712
	{ Against „ ..	66,228	22,099	17,320	2,716	—	108,363
	{ Majority ..	5,367	78,421	18,480	9,081	—	111,349
2nd. Vote	{ For Federation ..	107,420	152,653	65,990	13,437	38,488	377,988
	{ Against „ ..	82,741	9,805	17,053	791	30,996	141,386
	{ Majority ..	24,679	142,848	48,937	12,646	7,492	236,602

5. **Enactment of the Constitution.**—The Secretary of State for the Colonies (the Right Honourable Joseph Chamberlain) expressed the hope on the 22nd December, 1899, that a delegation of the federating colonies would visit England on the occasion of the submission of the Commonwealth Bill to the Imperial Parliament. The delegation consisted of Mr. (later Sir) Edmund Barton (N.S.W.), Mr. Alfred Deakin (Vic.), Mr. C. C. Kingston (S.A.), Sir P. O. Fysh (Tas.), and later Mr. S. H. Parker was appointed delegate for Western Australia, and Mr. W. P. Reeves for New Zealand. After discussion as to whether there should be some modification in the Bill, it was introduced into the House of Commons on the 14th May; the second reading was moved on the 21st of the same month; the discussion in committee commenced on the 18th June; and the Royal assent was given on the 9th July, 1900.

On the 31st July a referendum in Western Australia on the question of federating gave the result :—For, 44,800; against, 19,691; that is to say, a majority of 25,109 in favour of union. On the 21st August both Houses of Parliament in that State passed addresses praying that it might be included as an original State of the Commonwealth.

On the 17th September, 1900, Her Majesty Queen Victoria signed the proclamation declaring that on and after the first day of January, 1901, the people of New South Wales, Victoria, South Australia, Queensland, Tasmania, and Western Australia should be united in a Federal Commonwealth, under the name of the Commonwealth of Australia.

§ 8. Creation of the Commonwealth.

1. **The Constitution Act.**—The Commonwealth of Australia Constitution Act, 63 and 64 Vict., Chapter 12, namely, “An Act to constitute the Commonwealth of Australia,” as amended by the Constitution Alteration (Senate Elections) Act 1906, and the Constitution Alteration (State Debts) Act 1909 is given *in extenso* hereunder.

THE COMMONWEALTH OF AUSTRALIA CONSTITUTION ACT, 63 & 64 VICT., CHAPTER. 12.

An Act to constitute the Commonwealth of Australia. [9th July, 1900.]

WHEREAS the people of New South Wales, Victoria, South Australia, Queensland, and Tasmania, humbly relying on the blessing of Almighty God, have agreed to unite in one indissoluble Federal Commonwealth under the Crown of the United Kingdom of Great Britain and Ireland, and under the Constitution hereby established:

And whereas it is expedient to provide for the admission into the Commonwealth of other Australasian Colonies and possessions of the Queen:

Be it therefore enacted by the Queen's Most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows :—

1. This Act may be cited as the Commonwealth of Australia Constitution Act.
2. The provisions of this Act referring to the Queen shall extend to Her Majesty's heirs and successors in the sovereignty of the United Kingdom.
3. It shall be lawful for the Queen, with the advice of the Privy Council, to declare by proclamation that, on and after a day therein appointed, not being later than one year after the passing of this Act, the people of New South Wales, Victoria, South Australia, Queensland, and Tasmania, and also, if Her Majesty is satisfied that the people of Western Australia have agreed thereto, of Western Australia, shall be united in a Federal Commonwealth under the name of the Commonwealth of Australia. But the Queen may, at any time after the proclamation, appoint a Governor-General for the Commonwealth.
4. The Commonwealth shall be established, and the Constitution of the Commonwealth shall take effect, on and after the day so appointed. But the Parliaments of the several colonies, may, at any time after the passing of this Act make any such laws, to come into operation on the day so appointed, as they might have made if the Constitution had taken effect at the passing of this Act.
5. This Act, and all laws made by the Parliament of the Commonwealth under the Constitution, shall be binding on the courts, judges, and people of every State and of every part of the Commonwealth, notwithstanding anything in the laws of any State; and the laws of the Commonwealth shall be in force on all British ships, the Queen's ships of war excepted, whose first port of clearance and whose port of destination are in the Commonwealth.
6. "The Commonwealth" shall mean the Commonwealth of Australia as established under this Act.
 "The States" shall mean such of the colonies of New South Wales, New Zealand, Queensland, Tasmania, Victoria, Western Australia, and South Australia, including the northern territory of South Australia, as for the time being are parts of the Commonwealth, and such colonies or territories as may be admitted into or established by the Commonwealth as States: and each of such parts of the Commonwealth shall be called "a State."
 "Original States" shall mean such States as are parts of the Commonwealth at its establishment.
7. The Federal Council of Australasia Act, 1885, is hereby repealed, but so as not to affect any laws passed by the Federal Council of Australasia and in force at the establishment of the Commonwealth.
 Any such law may be repealed as to any State by the Parliament of the Commonwealth, or as to any colony not being a State by the Parliament thereof.
8. After the passing of this Act the Colonial Boundaries Act 1895 shall not apply to any colony which becomes a State of the Commonwealth; but the Commonwealth shall be taken to be a self-governing colony for the purposes of that Act.
9. The Constitution of the Commonwealth shall be as follows :—

THE CONSTITUTION.

This Constitution is divided as follows :—

- Chapter I.—The Parliament :
 - Part I.—General :
 - Part II.—The Senate :
 - Part III.—The House of Representatives :
 - Part IV.—Both Houses of the Parliament :
 - Part V.—Powers of the Parliament :
- Chapter II.—The Executive Government :
- Chapter III.—The Judicature :
- Chapter IV.—Finance and Trade :
- Chapter V.—The States :
- Chapter VI.—New States :
- Chapter VII.—Miscellaneous :
- Chapter VIII.—Alteration of the Constitution.
- The Schedule.

CHAPTER I.—THE PARLIAMENT.

PART I.—GENERAL.

1. The legislative power of the Commonwealth shall be vested in a Federal Parliament which shall consist of the Queen, a Senate, and a House of Representatives, and which is hereinafter called "The Parliament," or "The Parliament of the Commonwealth."

2. A Governor-General appointed by the Queen shall be Her Majesty's representative in the Commonwealth, and shall have and may exercise in the Commonwealth during the Queen's pleasure, but subject to this Constitution, such powers and functions of the Queen as Her Majesty may be pleased to assign to him.

3. There shall be payable to the Queen out of the Consolidated Revenue Fund of the Commonwealth, for the salary of the Governor-General, an annual sum which, until the Parliament otherwise provides, shall be ten thousand pounds.

The salary of a Governor-General shall not be altered during his continuance in office.

4. The provisions of this Constitution relating to the Governor-General extend and apply to the Governor-General for the time being, or such person as the Queen may appoint to administer the Government of the Commonwealth; but no such person shall be entitled to receive any salary from the Commonwealth in respect of any other office during his administration of the Government of the Commonwealth.

5. The Governor-General may appoint such times for holding the sessions of the Parliament as he thinks fit, and may also from time to time, by Proclamation or otherwise, prorogue the Parliament, and may in like manner dissolve the House of Representatives.

After any general election the Parliament shall be summoned to meet not later than thirty days after the day appointed for the return of the writs.

The Parliament shall be summoned to meet not later than six months after the establishment of the Commonwealth.

6. There shall be a session of the Parliament once at least in every year, so that twelve months shall not intervene between the last sitting of the Parliament in one session and its first sitting in the next session.

PART II.—THE SENATE.

7. The Senate shall be composed of senators for each State, directly chosen by the people of the State, voting, until the Parliament otherwise provides, as one electorate.

But until the Parliament of the Commonwealth otherwise provides, the Parliament of the State of Queensland, if that State be an Original State, may make laws dividing the State into divisions and determining the number of senators to be chosen for each division, and in the absence of such provision the State shall be one electorate.

Until the Parliament otherwise provides there shall be six senators for each Original State. The Parliament may make laws increasing or diminishing the number of senators for each State, but so that equal representation of the several Original States shall be maintained and that no Original State shall have less than six senators.

The senators shall be chosen for a term of six years, and the names of the senators chosen for each State shall be certified by the Governor to the Governor-General.

8. The qualification of electors of senators shall be in each State that which is prescribed by this Constitution, or by the Parliament, as the qualification for electors of members of the House of Representatives; but in the choosing of senators each elector shall vote only once.

9. The Parliament of the Commonwealth may make laws prescribing the method of choosing senators, but so that the method shall be uniform for all the States. Subject to any such law, the Parliament of each State may make laws prescribing the method of choosing the senators for that State.

The Parliament of a State may make laws for determining the times and places of elections of senators for the State.

10. Until the Parliament otherwise provides, but subject to this Constitution, the laws in force in each State, for the time being, relating to elections for the more numerous House of the Parliament of the State shall, as nearly as practicable, apply to elections of senators for the State.

11. The Senate may proceed to the despatch of business, notwithstanding the failure of any State to provide for its representation in the Senate.

12. The Governor of any State may cause writs to be issued for elections of senators for the State. In case of the dissolution of the Senate the writs shall be issued within ten days from the proclamation of such dissolution.

13. As soon as may be after the Senate first meets, and after each first meeting of the Senate following a dissolution thereof, the Senate shall divide the senators chosen for each State into two classes, as nearly equal in number as practicable; and the places of the senators of the first class shall become vacant at the expiration of [the third year] *three years*,* and the places of those of the second class at the expiration of [the sixth year] *six years*,* from the beginning of their term of service; and afterwards the places of senators shall become vacant at the expiration of six years from the beginning of their term of service.

The election to fill vacant places shall be made [in the year at the expiration of which] *within one year before** the places are to become vacant.

For the purposes of this section the term of service of a senator shall be taken to begin on the first day of [January] *July** following the day of his election, except in the cases of the first election and of the election next after any dissolution of the Senate, when it shall be taken to begin on the first day of [January] *July** preceding the day of his election.

14. Whenever the number of senators for a State is increased or diminished, the Parliament of the Commonwealth may make such provision for the vacating of the places of senators for the State as it deems necessary to maintain regularity in the rotation.

15. If the place of a senator becomes vacant before the expiration of his term of service, the Houses of Parliament of the State for which he was chosen shall, sitting and voting together, choose a person to hold the place until the expiration of the term, or until the election of a successor as hereinafter provided, whichever first happens. But if the Houses of Parliament of the State are not in session at the time when the vacancy is notified, the Governor of the State, with the advice of the Executive Council thereof, may appoint a person to hold the place until the expiration of fourteen days after the beginning of the next session of the Parliament of the State, or until the election of a successor, whichever first happens.

At the next general election of members of the House of Representatives, or at the next election of senators for the State, whichever first happens, a successor shall, if the term has not then expired, be chosen to hold the place from the date of his election until the expiration of the term.

The name of any senator so chosen or appointed shall be certified by the Governor of the State to the Governor-General.

16. The qualifications of a senator shall be the same as those of a member of the House of Representatives.

17. The Senate shall, before proceeding to the despatch of any other business, choose a senator to be the President of the Senate; and as often as the office of President becomes vacant the Senate shall again choose a senator to be the President.

The President shall cease to hold his office if he ceases to be a senator. He may be removed from office by a vote of the Senate, or he may resign his office or his seat by writing addressed to the Governor-General.

18. Before or during any absence of the President, the Senate may choose a senator to perform his duties in his absence.

19. A senator may, by writing addressed to the President, or to the Governor-General if there is no President or if the President is absent from the Commonwealth, resign his place, which thereupon shall become vacant.

* As amended by section 2 of the Constitution Alteration (Senate Elections) 1906. The words in square brackets have been repealed; amendments are shown in italics.

20. The place of a senator shall become vacant if for two consecutive months of any session of the Parliament he, without the permission of the Senate, fails to attend the Senate.

21. Whenever a vacancy happens in the Senate, the President, or if there is no President or if the President is absent from the Commonwealth, the Governor-General, shall notify the same to the Governor of the State in the representation of which the vacancy has happened.

22. Until the Parliament otherwise provides, the presence of at least one-third of the whole number of the senators shall be necessary to constitute a meeting of the Senate for the exercise of its powers.

23. Questions arising in the Senate shall be determined by a majority of votes, and each senator shall have one vote. The President shall in all cases be entitled to a vote ; and when the votes are equal the question shall pass in the negative.

PART III.—THE HOUSE OF REPRESENTATIVES.

24. The House of Representatives shall be composed of members directly chosen by the people of the Commonwealth, and the number of such members shall be, as nearly as practicable, twice the number of the senators.

The number of members chosen in the several States shall be in proportion to the respective numbers of their people, and shall, until the Parliament otherwise provides, be determined, whenever necessary, in the following manner :—

- (i) A quota shall be ascertained by dividing the number of the people of the Commonwealth, as shown by the latest statistics of the Commonwealth, by twice the number of the senators :
- (ii) The number of members to be chosen in each State shall be determined by dividing the number of the people of the State, as shown by the latest statistics of the Commonwealth, by the quota ; and if on such division there is a remainder greater than one-half of the quota, one more member shall be chosen in the State.

But notwithstanding anything in this section, five members at least shall be chosen in each Original State.

25. For the purposes of the last section, if by the law of any State all persons of any race are disqualified from voting at elections for the more numerous House of the Parliament of the State, then, in reckoning the number of the people of the State or of the Commonwealth, persons of that race resident in that State shall not be counted.

26. Notwithstanding anything in section twenty-four, the number of members to be chosen in each State at the first election shall be as follows :—

New South Wales	.. 23	South Australia	.. 6
Victoria	.. 20	Tasmania	.. 5
Queensland	.. 8		

Provided that if Western Australia is an Original State, the numbers shall be as follows :—

New South Wales	.. 26	South Australia	.. 7
Victoria	.. 23	Western Australia	.. 5
Queensland	.. 9	Tasmania	.. 5

27. Subject to this Constitution, the Parliament may make laws for increasing or diminishing the number of the members of the House of Representatives.

28. Every House of Representatives shall continue for three years from the first meeting of the House, and no longer, but may be sooner dissolved by the Governor-General.

29. Until the Parliament of the Commonwealth otherwise provides, the Parliament of any State may make laws for determining the divisions in each State for which members of the House of Representatives may be chosen, and the number of members to be chosen for each division. A division shall not be formed out of parts of different States.

In the absence of other provisions, each State shall be one electorate.

30. Until the Parliament otherwise provides, the qualification of electors of members of the House of Representatives shall be in each State that which is prescribed by the law of the State as the qualification of electors of the more numerous House of Parliament of the State; but in the choosing of members each elector shall vote only once.*

31. Until the Parliament otherwise provides, but subject to this Constitution, the laws in force in each State for the time being relating to elections for the more numerous House of the Parliament of the State shall, as nearly as practicable, apply to elections in the State of members of the House of Representatives.

32. The Governor-General in Council may cause writs to be issued for general elections of members of the House of Representatives.

After the first general election, the writs shall be issued within ten days from the expiry of a House of Representatives or from the proclamation of a dissolution thereof.

33. Whenever a vacancy happens in the House of Representatives, the Speaker shall issue his writ for the election of a new member, or if there is no Speaker or if he is absent from the Commonwealth the Governor-General in Council may issue the writ.

34. Until the Parliament otherwise provides, the qualifications of a member of the House of Representatives shall be as follows :—

(i) He must be of the full age of twenty-one years, and must be an elector entitled to vote at the election of members of the House of Representatives, or a person qualified to become such elector, and must have been for three years at the least a resident within the limits of the Commonwealth as existing at the time when he is chosen :

(ii) He must be a subject of the Queen, either natural-born or for at least five years naturalized under a law of the United Kingdom or of a Colony which has become or becomes a State, or of the Commonwealth, or of a State.

35. The House of Representatives shall, before proceeding to the despatch of any other business, choose a member to be the Speaker of the House, and as often as the office of Speaker becomes vacant the House shall again choose a member to be the Speaker.

The Speaker shall cease to hold his office if he ceases to be a member. He may be removed from office by a vote of the House, or he may resign his office or his seat by writing addressed to the Governor-General.

36. Before or during any absence of the Speaker, the House of Representatives may choose a member to perform his duties in his absence.

37. A member may by writing addressed to the Speaker, or to the Governor-General if there is no Speaker or if the Speaker is absent from the Commonwealth, resign his place, which thereupon shall become vacant.

38. The place of a member shall become vacant if for two consecutive months of any session of the Parliament he, without the permission of the House, fails to attend the House.

39. Until the Parliament otherwise provides, the presence of at least one-third of the whole number of the members of the House of Representatives shall be necessary to constitute a meeting of the House for the exercise of its powers.

40. Questions arising in the House of Representatives shall be determined by a majority of votes other than that of the Speaker. The Speaker shall not vote unless the numbers are equal, and then he shall have a casting vote.

PART IV.—BOTH HOUSES OF THE PARLIAMENT.

41. No adult person who has or acquires a right to vote at elections for the more numerous House of the Parliament of a State shall, while the right continues, be prevented by any law of the Commonwealth from voting at elections for either House of the Parliament of the Commonwealth.

42. Every senator and every member of the House of Representatives shall before taking his seat make and subscribe before the Governor-General, or some person authorized by him, an oath or affirmation of allegiance in the form set forth in the schedule to this Constitution.

* The franchise qualification was determined by the Commonwealth Franchise Act 1902.

43. A member of either House of the Parliament shall be incapable of being chosen or of sitting as a member of the other House.

44. Any person who—

- (i) Is under any acknowledgment of allegiance, obedience, or adherence to a foreign power, or is a subject or a citizen or entitled to the rights or privileges of a subject or a citizen of a foreign power: or
- (ii) Is attainted of treason, or has been convicted and is under sentence, or subject to be sentenced, for any offence punishable under the law of the Commonwealth or of a State by imprisonment for one year or longer: or
- (iii) Is an undischarged bankrupt or insolvent: or
- (iv) Holds any office of profit under the Crown, or any pension payable during the pleasure of the Crown out of any of the revenues of the Commonwealth: or
- (v) Has any direct or indirect pecuniary interest in any agreement with the Public Service of the Commonwealth otherwise than as a member and in common with the other members of an incorporated company consisting of more than twenty-five persons:

shall be incapable of being chosen or of sitting as a senator or a member of the House of Representatives.

But sub-section iv. does not apply to the office of any of the Queen's Ministers of State for the Commonwealth, or of any of the Queen's Ministers for a State, or to the receipt of pay, half-pay, or a pension by any person as an officer or member of the Queen's navy or army, or to the receipt of pay as an officer or member of the naval or military forces of the Commonwealth by any person whose services are not wholly employed by the Commonwealth.

45. If a senator or member of the House of Representatives—

- (i) Becomes subject to any of the disabilities mentioned in the last preceding section: or
- (ii) Takes the benefit, whether by assignment, composition, or otherwise, of any law relating to bankrupt or insolvent debtors: or
- (iii) Directly or indirectly takes or agrees to take any fee or honorarium for services rendered to the Commonwealth, or for services rendered in the Parliament to any person or State:

his place shall thereupon become vacant.

46. Until the Parliament otherwise provides, any person declared by this Constitution to be incapable of sitting as a senator or as a member of the House of Representatives shall, for every day on which he so sits, be liable to pay the sum of one hundred pounds to any person who sues for it in any court of competent jurisdiction.

47. Until the Parliament otherwise provides, any question respecting the qualification of a senator or of a member of the House of Representatives, or respecting a vacancy in either House of the Parliament, and any question of a disputed election to either House, shall be determined by the House in which the question arises.

48. Until the Parliament otherwise provides, each senator and each member of the House of Representatives shall receive an allowance of four hundred pounds a year, to be reckoned from the day on which he takes his seat.*

49. The powers, privileges, and immunities of the Senate and of the House of Representatives, and of the members and the committees of each House, shall be such as are declared by the Parliament, and until declared shall be those of the Commons House of Parliament of the United Kingdom, and of its members and committees, at the establishment of the Commonwealth.

50. Each House of the Parliament may make rules and orders with respect to—

- (i) The mode in which its powers, privileges, and immunities may be exercised and upheld:
- (ii) The order and conduct of its business and proceedings either separately or jointly with the other House.

* By the Parliamentary Allowances Act 1907, the amount of the allowance was increased to £600 a year; and by the Parliamentary Allowances Act 1920 to £1,000 a year. (The latter Act also apportioned special allowances to the President of the Senate; the Speaker of the House of Representatives; the Chairmen of Committees in both Houses; and the Opposition Leaders in both Houses.)

PART V.—POWERS OF THE PARLIAMENT.*

51. The Parliament shall, subject to this Constitution, have power to make laws for the peace, order, and good government of the Commonwealth with respect to—

- (i) Trade and commerce with other countries, and among the States :
- (ii) Taxation ; but so as not to discriminate between States or parts of States :
- (iii) Bounties on the production or export of goods, but so that such bounties shall be uniform throughout the Commonwealth :
- (iv) Borrowing money on the public credit of the Commonwealth :
- (v) Postal, telegraphic, telephonic, and other like services :
- (vi) The naval and military defence of the Commonwealth and of the several States, and the control of the forces to execute and maintain the laws of the Commonwealth :
- (vii) Lighthouses, lightships, beacons and buoys :
- (viii) Astronomical and meteorological observations :
- (ix) Quarantine :
- (x) Fisheries in Australian waters beyond territorial limits :
- (xi) Census and statistics :
- (xii) Currency, coinage, and legal tender :
- (xiii) Banking, other than State banking ; also State banking extending beyond the limits of the State concerned, the incorporation of banks, and the issue of paper money :
- (xiv) Insurance, other than State insurance ; also State insurance extending beyond the limits of the State concerned :
- (xv) Weights and measures :
- (xvi) Bills of exchange and promissory notes :
- (xvii) Bankruptcy and insolvency :
- (xviii) Copyrights, patents of inventions and designs, and trade marks :
- (xix) Naturalization and aliens :
- (xx) Foreign corporations, and trading or financial corporations formed within the limits of the Commonwealth :
- (xxi) Marriage :
- (xxii) Divorce and matrimonial causes ; and in relation thereto, parental rights, and the custody and guardianship of infants :
- (xxiii) Invalid and old-age pensions :
- (xxiv) The service and execution throughout the Commonwealth of the civil and criminal process and the judgments of the courts of the States :
- (xxv) The recognition throughout the Commonwealth of the laws, the public Acts and records, and the judicial proceedings of the States :
- (xxvi) The people of any race, other than the aboriginal race in any State, for whom it is deemed necessary to make special laws :
- (xxvii) Immigration and emigration :
- (xxviii) The influx of criminals :
- (xxix) External affairs :
- (xxx) The relations of the Commonwealth with the islands of the Pacific :
- (xxxi) The acquisition of property on just terms from any State or person for any purpose in respect of which the Parliament has power to make laws :
- (xxxii) The control of railways with respect to transport for the naval and military purposes of the Commonwealth :
- (xxxiii) The acquisition, with the consent of a State, of any railways of the State on terms arranged between the Commonwealth and the State :
- (xxxiv) Railway construction and extension in any State with the consent of that State :
- (xxxv) Conciliation and arbitration for the prevention and settlement of industrial disputes extending beyond the limits of any one State :
- (xxxvi) Matters in respect of which this Constitution makes provision until the Parliament otherwise provides :

* Particulars of proposed laws which were submitted to referenda are given in Chapter III., General Government.

- (xxxvii) Matters referred to the Parliament of the Commonwealth by the Parliament or Parliaments of any State or States, but so that the law shall extend only to States by whose Parliaments the matter is referred, or which afterwards adopt the law :
- (xxxviii) The exercise within the Commonwealth, at the request or with the concurrence of the Parliaments of all the States directly concerned, of any power which can at the establishment of this Constitution be exercised only by the Parliament of the United Kingdom or by the Federal Council of Australasia :
- (xxxix) Matters incidental to the execution of any power vested by this Constitution in the Parliament or in either House thereof, or in the Government of the Commonwealth, or in the Federal Judicature, or in any department or officer of the Commonwealth.

52. *The Parliament shall, subject to this Constitution, have exclusive power to make laws for the peace, order, and good government of the Commonwealth, with respect to—*

- (i) The seat of Government of the Commonwealth, and all places acquired by the Commonwealth for public purposes :
- (ii) Matters relating to any department of the public service the control of which is by this Constitution transferred to the Executive Government of the Commonwealth :
- (iii) Other matters declared by this Constitution to be within the exclusive power of the Parliament.

53. Proposed laws appropriating revenue or moneys, or imposing taxation, shall not originate in the Senate. But a proposed law shall not be taken to appropriate revenue or moneys, or to impose taxation, by reason only of its containing provisions for the imposition or appropriation of fines or other pecuniary penalties, or for the demand or payment or appropriation of fees for licences, or fees for services under the proposed law.

The Senate may not amend proposed laws imposing taxation, or proposed laws appropriating revenue or moneys for the ordinary annual services of the Government.

The Senate may not amend any proposed laws so as to increase any proposed charge or burden on the people.

The Senate may at any stage return to the House of Representatives any proposed law which the Senate may not amend, requesting, by message, the omission or amendment of any items or provisions therein. And the House of Representatives may, if it thinks fit, make any of such omissions or amendments, with or without modifications.

Except as provided in this section, the Senate shall have equal power with the House of Representatives in respect of all proposed laws.

54. The proposed law which appropriates revenue or moneys for the ordinary annual services of the Government shall deal only with such appropriation.

55. Laws imposing taxation shall deal only with the imposition of taxation, and any provisions therein dealing with any other matter shall be of no effect.

Laws imposing taxation, except laws imposing duties of customs or of excise, shall deal with one subject of taxation only ; but laws imposing duties of customs shall deal with duties of customs only, and laws imposing duties of excise shall deal with duties of excise only.

56. A vote, resolution, or proposed law for the appropriation of revenue or moneys shall not be passed unless the purpose of the appropriation has in the same session been recommended by message of the Governor-General to the House in which the proposal originated.

57. If the House of Representatives passes any proposed law, and the Senate rejects or fails to pass it, or passes it with amendments to which the House of Representatives will not agree, and if after an interval of three months the House of Representatives, in the same or the next session, again passes the proposed law with or without any amendments which have been made, suggested, or agreed to by the Senate, and the Senate rejects or fails to pass it, or passes it with amendments to which the House of Representatives will not agree, the Governor General may dissolve the Senate and the House of Representatives simultaneously. But such dissolution shall not take place within six months before the date of the expiry of the House of Representatives by effluxion of time.

If after such dissolution the House of Representatives again passes the proposed law, with or without any amendments which have been made, suggested, or agreed to by the Senate, and the Senate rejects or fails to pass it, or passes it with amendments to which the House of Representatives will not agree, the Governor-General may convene a joint sitting of the members of the Senate and of the House of Representatives.

The members present at the joint sitting may deliberate and shall vote together upon the proposed law as last proposed by the House of Representatives, and upon amendments, if any, which have been made therein by one House and not agreed to by the other, and any such amendments which are affirmed by an absolute majority of the total number of the members of the Senate and House of Representatives shall be taken to have been carried, and if the proposed law, with the amendments, if any, so carried is affirmed by an absolute majority of the total number of members of the Senate and House of Representatives, it shall be taken to have been duly passed by both Houses of the Parliament, and shall be presented to the Governor-General for the Queen's assent.

58. When a proposed law passed by both Houses of the Parliament is presented to the Governor-General for the Queen's assent, he shall declare, according to his discretion, but subject to this Constitution, that he assents in the Queen's name, or that he withholds assent, or that he reserves the law for the Queen's pleasure.

The Governor-General may return to the House in which it originated any proposed law so presented to him, and may transmit therewith any amendments which he may recommend, and the Houses may deal with the recommendation.

59. The Queen may disallow any law within one year from the Governor-General's assent, and such disallowance on being made known by the Governor-General by speech or message to each of the Houses of the Parliament, or by Proclamation, shall annul the law from the day when the disallowance is so made known.

60. A proposed law reserved for the Queen's pleasure shall not have any force unless and until within two years from the day on which it was presented to the Governor-General for the Queen's assent the Governor-General makes known, by speech or message to each of the Houses of the Parliament, or by Proclamation, that it has received the Queen's assent.

CHAPTER II.—THE EXECUTIVE GOVERNMENT.

61. The executive power of the Commonwealth is vested in the Queen and is exercisable by the Governor-General as the Queen's representative, and extends to the execution and maintenance of this Constitution, and of the laws of the Commonwealth.

62. There shall be a Federal Executive Council to advise the Governor-General in the government of the Commonwealth, and the members of the Council shall be chosen and summoned by the Governor-General and sworn as Executive Councillors, and shall hold office during his pleasure.

63. The provisions of this Constitution referring to the Governor-General in Council shall be construed as referring to the Governor-General acting with the advice of the Federal Executive Council.

64. The Governor-General may appoint officers to administer such departments of State of the Commonwealth as the Governor-General in Council may establish.

Such officers shall hold office during the pleasure of the Governor-General. They shall be members of the Federal Executive Council, and shall be the Queen's Ministers of State for the Commonwealth.

After the first general election no Minister of State shall hold office for a longer period than three months unless he is or becomes a senator or a member of the House of Representatives.

65. Until the Parliament otherwise provides, the Ministers of State shall not exceed seven in number, and shall hold such offices as the Parliament prescribes, or, in the absence of provision, as the Governor-General directs.*

66. There shall be payable to the Queen out of the Consolidated Revenue Fund of the Commonwealth, for the salaries of the Ministers of State, an annual sum which until the Parliament otherwise provides, shall not exceed twelve thousand pounds a year.*

* By the Ministers of State Acts 1915 and 1917, the Ministers of State may exceed seven, but shall not exceed nine. £15,300 annually was allotted by these Acts for their salaries; and £800 per annum each was added by the Parliamentary Allowances Act 1920.

67. Until the Parliament otherwise provides, the appointment and removal of all other officers of the Executive Government of the Commonwealth shall be vested in the Governor-General in Council, unless the appointment is delegated by the Governor-General in Council or by a law of the Commonwealth to some other authority.

68. The command in chief of the naval and military forces of the Commonwealth is vested in the Governor-General as the Queen's representative.

69. On a date or dates to be proclaimed by the Governor-General after the establishment of the Commonwealth the following departments of the public service in each State shall become transferred to the Commonwealth :—

Posts, telegraphs, and telephones :	Lighthouses, lightships, beacons, and buoys :
Naval and military defence :	Quarantine.

But the departments of customs and of excise in each State shall become transferred to the Commonwealth on its establishment.

70. In respect of matters which, under this Constitution, pass to the Executive Government of the Commonwealth, all powers and functions which at the establishment of the Commonwealth are vested in the Governor of a Colony, or in the Governor of a Colony with the advice of his Executive Council, or in any authority of a Colony, shall vest in the Governor-General, or in the Governor-General in Council, or in the authority exercising similar powers under the Commonwealth, as the case requires.

CHAPTER III.—THE JUDICATURE.

71. The judicial power of the Commonwealth shall be vested in a Federal Supreme Court, to be called the High Court of Australia, and in such other federal courts as the Parliament creates, and in such other courts as it invests with federal jurisdiction. The High Court shall consist of a Chief Justice, and so many other Justices, not less than two, as the Parliament prescribes.

72. The Justices of the High Court and of the other Courts created by the Parliament—

- (i) Shall be appointed by the Governor-General in Council :
- (ii) Shall not be removed except by the Governor-General in Council, on an address from both Houses of the Parliament in the same session, praying for such removal on the ground of proved misbehaviour or incapacity ;
- (iii) Shall receive such remuneration as the Parliament may fix ; but the remuneration shall not be diminished during their continuance in office.

73. The High Court shall have jurisdiction, with such exceptions and subject to such regulations as the Parliament prescribes, to hear and determine appeals from all judgments, decrees, orders, and sentences—

- (i) Of any Justice or Justices exercising the original jurisdiction of the High Court :
 - (ii) Of any other federal court, or court exercising federal jurisdiction ; or of the Supreme Court of any State, or of any other court of any State from which at the establishment of the Commonwealth an appeal lies to the Queen in Council :
 - (iii) Of the Inter-State Commission, but as to questions of law only :
- and the judgment of the High Court in all such cases shall be final and conclusive.

But no exception or regulation prescribed by the Parliament shall prevent the High Court from hearing and determining any appeal from the Supreme Court of a State in any matter in which at the establishment of the Commonwealth an appeal lies from such Supreme Court to the Queen in Council.

Until the Parliament otherwise provides, the conditions of and restrictions on appeals to the Queen in Council from the Supreme Courts of the several States shall be applicable to appeals from them to the High Court.

74. No appeal shall be permitted to the Queen in Council from a decision of the High Court upon any question, howsoever arising, as to the limits inter se of the Constitutional powers of the Commonwealth and those of any State or States, or as to the limits inter se of the Constitutional powers of any two or more States, unless the High Court shall certify that the question is one which ought to be determined by Her Majesty in Council.

The High Court may so certify if satisfied that for any special reason the certificate should be granted, and thereupon an appeal shall lie to Her Majesty in Council on the question without further leave.

Except as provided in this section, this Constitution shall not impair any right which the Queen may be pleased to exercise by virtue of Her Royal prerogative to grant special leave of appeal from the High Court to Her Majesty in Council. The Parliament may make laws limiting the matters in which such leave may be asked, but proposed laws containing any such limitation shall be reserved by the Governor-General for Her Majesty's pleasure.

75. In all matters—

- (i) Arising any under treaty :
- (ii) Affecting consuls or other representatives of other countries :
- (iii) In which the Commonwealth, or a person suing or being sued on behalf of the Commonwealth, is a party :
- (iv) Between States, or between residents of different States, or between a State and a resident of another State :
- (v) In which a writ of Mandamus or prohibition or an injunction is sought against an officer of the Commonwealth :

the High Court shall have original jurisdiction.

76. The Parliament may make laws conferring original jurisdiction on the High Court in any matter—

- (i) Arising under this Constitution, or involving its interpretation :
- (ii) Arising under any laws made by the Parliament :
- (iii) Of Admiralty and maritime jurisdiction :
- (iv) Relating to the same subject-matter claimed under the laws of different States.

77. With respect to any of the matters mentioned in the last two sections the Parliament may make laws—

- (i) Defining the jurisdiction of any federal court other than the High Court :
- (ii) Defining the extent to which the jurisdiction of any federal court shall be exclusive of that which belongs to or is invested in the courts of the States :
- (iii) Investing any court of a State with federal jurisdiction.

78. The Parliament may make laws conferring rights to proceed against the Commonwealth or a State in respect of matters within the limits of the judicial power.

79. The federal jurisdiction of any court may be exercised by such number of judges as the Parliament prescribes.

80. The trial on indictment of any offence against any law of the Commonwealth shall be by jury, and every such trial shall be held in the State where the offence was committed, and if the offence was not committed within any State the trial shall be held at such place or places as the Parliament prescribes.

CHAPTER IV.—FINANCE AND TRADE.

81. All revenues or moneys raised or received by the Executive Government of the Commonwealth shall form one Consolidated Revenue Fund, to be appropriated for the purposes of the Commonwealth in the manner and subject to the charges and liabilities imposed by this Constitution.

82. The costs, charges, and expenses incident to the collection, management, and receipt of the Consolidated Revenue Fund shall form the first charge thereon; and the revenue of the Commonwealth shall in the first instance be applied to the payment of the expenditure of the Commonwealth.

83. No money shall be drawn from the Treasury of the Commonwealth except under appropriation made by law.

But until the expiration of one month after the first meeting of the Parliament the Governor-General in Council may draw from the Treasury and expend such moneys as may be necessary for the maintenance of any department transferred to the Commonwealth and for the holding of the first elections for the Parliament.

84. When any department of the public service of a State becomes transferred to the Commonwealth, all officers of the department shall become subject to the control of the Executive Government of the Commonwealth.

Any such officer who is not retained in the service of the Commonwealth shall, unless he is appointed to some other office of equal emolument in the public service of the State, be entitled to receive from the State any pension, gratuity, or other compensation, payable under the law of the State on the abolition of his office.

Any such officer who is retained in the service of the Commonwealth shall preserve all his existing and accruing rights, and shall be entitled to retire from office at the time, and on the pension or retiring allowance, which would be permitted by the law of the State if his service with the Commonwealth were a continuation of his service with the State. Such pension or retiring allowance shall be paid to him by the Commonwealth; but the State shall pay to the Commonwealth a part thereof, to be calculated on the proportion which his term of service with the State bears to his whole term of service, and for the purpose of the calculation his salary shall be taken to be that paid to him by the State at the time of the transfer.

Any officer who is, at the establishment of the Commonwealth, in the public service of a State, and who is, by consent of the Governor of the State with the advice of the Executive Council thereof, transferred to the public service of the Commonwealth, shall have the same rights as if he had been an officer of a department transferred to the Commonwealth and were retained in the service of the Commonwealth.

85. When any department of the public service of a State is transferred to the Commonwealth—

- (i) All property of the State of any kind, used exclusively in connexion with the department, shall become vested in the Commonwealth, but, in the case of the departments controlling customs and excise and bounties, for such time only as the Governor-General in Council may declare to be necessary :
- (ii) The Commonwealth may acquire any property of the State, of any kind used, but not exclusively used in connexion with the department; the value thereof shall, if no agreement can be made, be ascertained in, as nearly as may be, the manner in which the value of land, or of an interest in land, taken by the State for public purposes is ascertained under the law of the State in force at the establishment of the Commonwealth :
- (iii) The Commonwealth shall compensate the State for the value of any property passing to the Commonwealth under this section : if no agreement can be made as to the mode of compensation, it shall be determined under laws to be made by the Parliament :
- (iv) The Commonwealth shall, at the date of the transfer, assume the current obligations of the State in respect of the department transferred.

86. On the establishment of the Commonwealth, the collection and control of duties of customs and of excise, and the control of the payment of bounties, shall pass to the Executive Government of the Commonwealth.

87. During a period of ten years after the establishment of the Commonwealth and thereafter until the Parliament otherwise provides, of the net revenue of the Commonwealth from duties of customs and of excise not more than one-fourth shall be applied annually by the Commonwealth towards its expenditure.

The balance shall, in accordance with this Constitution, be paid to the several States, or applied towards the payment of interest on debts of the several States taken over by the Commonwealth.

88. Uniform duties of customs shall be imposed within two years after the establishment of the Commonwealth.

89. Until the imposition of uniform duties of customs—

- (i) The Commonwealth shall credit to each State the revenues collected therein by the Commonwealth.
- (ii) The Commonwealth shall debit to each State—
 - (a) The expenditure therein of the Commonwealth occurred solely for the maintenance or continuance, as at the time of transfer, of any department transferred from the State to the Commonwealth ;
 - (b) The proportion of the State according to the number of its people, in the other expenditure of the Commonwealth.
- (iii) The Commonwealth shall pay to each State month by month the balance (if any) in favour of the State.

90. On the imposition of uniform duties of customs the power of the Parliament to impose duties of customs and of excise, and to grant bounties on the production or export of goods, shall become exclusive.

On the imposition of uniform duties of customs all laws of the several States imposing duties of customs or of excise, or offering bounties on the production or export of goods, shall cease to have effect, but any grant of or agreement for any such bounty lawfully made by or under the authority of the Government of any State shall be taken to be good if made before the thirtieth day of June, one thousand eight hundred and ninety-eight, and not otherwise.

91. Nothing in this Constitution prohibits a State from granting any aid to or bounty on mining for gold, silver, or other metals, nor from granting, with the consent of both Houses of the Parliament of the Commonwealth expressed by resolution, any aid to or bounty on the production or export of goods.

92. On the imposition of uniform duties of customs, trade, commerce, and intercourse among the States, whether by means of internal carriage or ocean navigation, shall be absolutely free.

But notwithstanding anything in this Constitution, goods imported before the imposition of uniform duties of customs into any State, or into any Colony which whilst the goods remain therein, becomes a State, shall, on thence passing into another State within two years after the imposition of such duties, be liable to any duty chargeable on the importation of such goods into the Commonwealth, less any duty paid in respect of the goods on their importation.

93. During the first five years after the imposition of uniform duties of customs and thereafter until the Parliament otherwise provides—

- (i) The duties of customs chargeable on goods imported into a State and afterwards passing into another State for consumption, and the duties of excise paid on goods produced or manufactured in a State and afterwards passing into another State for consumption, shall be taken to have been collected not in the former but in the latter State :
- (ii) Subject to the last sub-section, the Commonwealth, shall credit revenue, debit expenditure, and pay balances to the several States as prescribed for the period preceding the imposition of uniform duties of customs.

94. After five years from the imposition of uniform duties of customs, the Parliament may provide, on such basis as it deems fair, for the monthly payment to the several States of all surplus revenue of the Commonwealth.

95. Notwithstanding anything in this Constitution, the Parliament of the State of Western Australia, if that State be an original State, may, during the first five years after the imposition of uniform duties of customs, impose duties of customs on goods passing into that State and not originally imported from beyond the limits of the Commonwealth ; and such duties shall be collected by the Commonwealth.

But any duty so imposed on any goods shall not exceed during the first of such years the duty chargeable on the goods under the law of Western Australia in force at the imposition of uniform duties, and shall not exceed during the second, third, fourth, and fifth of such years respectively, four-fifths, three-fifths, two-fifths, and one-fifth of such latter duty, and all duties imposed under this section shall cease at the expiration of the fifth year after the imposition of uniform duties.

If at any time during the five years the duty on any goods under this section is higher than the duty imposed by the Commonwealth on the importation of the like goods, then such higher duty shall be collected on the goods when imported into Western Australia from beyond the limits of the Commonwealth.

96. During a period of ten years after the establishment of the Commonwealth and thereafter until the Parliament otherwise provides, the Parliament may grant financial assistance to any State on such terms and conditions as the Parliament thinks fit.

97. Until the Parliament otherwise provides, the laws in force in any Colony which has become or becomes a State with respect to the receipt of revenue and the expenditure of money on account of the Government of the Colony, and the review and audit of such receipt and expenditure, shall apply to the receipt of revenue and the expenditure of money on account of the Commonwealth in the State in the same manner as if the Commonwealth, or the Government or an officer of the Commonwealth, were mentioned whenever the Colony, or the Government or an officer of the Colony, is mentioned.

98. The power of the Parliament to make laws with respect to trade and commerce extends to navigation and shipping, and to railways the property of any State.

99. The Commonwealth shall not, by any law or regulation of trade, commerce, or revenue, give preference to one State or any part thereof over another State or any part thereof.

100. The Commonwealth shall not, by any law or regulation of trade or commerce, abridge the right of a State or of the residents therein to the reasonable use of the waters of rivers for conservation or irrigation.

101. There shall be an Inter-State Commission, with such powers of adjudication and administration as the Parliament deems necessary for the execution and maintenance, within the Commonwealth, of the provisions of this Constitution relating to trade and commerce, and of all laws made thereunder.*

102. The Parliament may by any law with respect to trade or commerce forbid, as to railways, any preference or discrimination by any State, or by any authority constituted under a State, if such preference or discrimination is undue and unreasonable, or unjust to any State; due regard being had to the financial responsibilities incurred by any State in connexion with the construction and maintenance of its railways. But no preference or discrimination shall, within the meaning of this section, be taken to be undue and unreasonable, or unjust to any State, unless so adjudged by the Inter-State Commission.

103. The members of the Inter-State Commission—

(i) Shall be appointed by the Governor-General in Council:

(ii) Shall hold office for seven years, but may be removed within that time by the Governor-General in Council, on an address from both Houses of the Parliament in the same session praying for such removal on the ground of proved misbehaviour or incapacity:

(iii) Shall receive such remuneration as the Parliament may fix; but such remuneration shall not be diminished during their continuance in office.

104. Nothing in this Constitution shall render unlawful any rate for the carriage of goods upon a railway, the property of a State, if the rate is deemed by the Inter-State Commission to be necessary for the development of the territory of the State, and if the rate applies equally to goods within the State and to goods passing into the State from other States.

105. The Parliament may take over from the States their public debts [as existing at the establishment of the Commonwealth],† or a proportion thereof according to the respective numbers of their people as shown by the latest statistics of the Commonwealth, and may convert, renew, or consolidate such debts, or any part thereof; and the State shall indemnify the Commonwealth in respect of the debts taken over, and thereafter the interest payable in respect of the debts shall be deducted and retained from the portions of the surplus revenue of the Commonwealth payable to the several States, or if such surplus is insufficient, or if there is no surplus, then the deficiency or the whole amount shall be paid by the several States.

* The Commission was brought into existence in 1913, under Act No. 33 of 1912, by the appointment of Commissioners for seven years. When this period expired no fresh appointments were made.

† Under section 2 of the Constitution Alteration (State Debts) 1909, the words in square brackets are omitted.

CHAPTER V.—THE STATES.

106. The Constitution of each State of the Commonwealth shall, subject to this Constitution, continue as at the establishment of the Commonwealth, or as at the admission or establishment of the State, as the case may be, until altered in accordance with the Constitution of the State.

107. Every power of the Parliament of a Colony which has become or becomes a State, shall, unless it is by this Constitution exclusively vested in the Parliament of the Commonwealth or withdrawn from the Parliament of the State, continue as at the establishment of the Commonwealth, or as at the admission or establishment of the State, as the case may be.

108. Every law in force in a Colony which has become or becomes a State, and relating to any matter within the powers of the Parliament of the Commonwealth, shall, subject to this Constitution, continue in force in the State: and, until provision is made in that behalf by the Parliament of the Commonwealth, the Parliament of the State shall have such powers of alteration and of repeal in respect of any such law as the Parliament of the Colony had until the Colony became a State.

109. When a law of a State is inconsistent with a law of the Commonwealth, the latter shall prevail, and the former shall, to the extent of the inconsistency, be invalid.

110. The provisions of this Constitution relating to the Governor of a State extend and apply to the Governor for the time being of the State, or other chief executive officer or administrator of the government of the State.

111. The Parliament of a State may surrender any part of the State to the Commonwealth; and upon such surrender and the acceptance thereof by the Commonwealth, such part of the State shall become subject to the exclusive jurisdiction of the Commonwealth.

112. After uniform duties of customs have been imposed, a State may levy on imports or exports, or on goods passing into or out of the State, such charges as may be necessary for executing the inspection laws of the State; but the net produce of all charges so levied shall be for the use of the Commonwealth; and any such inspection laws may be annulled by the Parliament of the Commonwealth.

113. All fermented, distilled, or other intoxicating liquids passing into any State or remaining therein for use, consumption, sale, or storage, shall be subject to the laws of the State as if such liquids had been produced in the State.

114. A State shall not, without the consent of the Parliament of the Commonwealth, raise or maintain any naval or military force, or impose any tax on property of any kind belonging to the Commonwealth, nor shall the Commonwealth impose any tax on property of any kind belonging to a State.

115. A State shall not coin money, nor make anything but gold and silver coin a legal tender in payment of debts.

116. The Commonwealth shall not make any law for establishing any religion, or for imposing any religious observance, or for prohibiting the free exercise of any religion, and no religious test shall be required as a qualification for any office or public trust under the Commonwealth.

117. A subject of the Queen, resident in any State, shall not be subject in any other State to any disability or discrimination which would not be equally applicable to him if he were a subject of the Queen resident in such other State.

118. Full faith and credit shall be given, throughout the Commonwealth, to the laws, the public Acts and records, and the judicial proceedings of every State.

119. The Commonwealth shall protect every State against invasion and, on the application of the Executive Government of the State, against domestic violence.

120. Every State shall make provision for the detention in its prisons of persons accused or convicted of offences against the laws of the Commonwealth, and for the punishment of persons convicted of such offences, and the Parliament of the Commonwealth may make laws to give effect to this provision.

CHAPTER VI.—NEW STATES.

121. The Parliament may admit to the Commonwealth or establish new States, and may upon such admission or establishment make or impose such terms and conditions, including the extent of representation in either House of the Parliament, as it thinks fit.

122. The Parliament may make laws for the government of any territory surrendered by any State to and accepted by the Commonwealth, or of any territory placed by the Queen under the authority of and accepted by the Commonwealth, or otherwise acquired by the Commonwealth, and may allow the representation of such territory in either House of the Parliament to the extent and on the terms which it thinks fit.

123. The Parliament of the Commonwealth may, with the consent of the Parliament of a State, and the approval of the majority of the electors of the State voting upon the question, increase, diminish, or otherwise alter the limits of the State, upon such terms and conditions as may be agreed on, and may, with the like consent, make provision respecting the effect and operation of any increase or diminution or alteration of territory in relation to any State affected.

124. A new State may be formed by separation of territory from a State, but only with the consent of the Parliament thereof, and a new State may be formed by the union of two or more States or parts of States, but only with the consent of the Parliaments of the States affected.

CHAPTER VII.—MISCELLANEOUS.

125. The seat of Government of the Commonwealth shall be determined by the Parliament, and shall be within territory which shall have been granted to or acquired by the Commonwealth, and shall be vested in and belong to the Commonwealth, and shall be in the State of New South Wales, and be distant not less than one hundred miles from Sydney.

Such territory shall contain an area of not less than one hundred square miles, and such portion thereof as shall consist of Crown lands shall be granted to the Commonwealth without any payment therefor.

The Parliament shall sit at Melbourne until it meet at the seat of Government.

126. The Queen may authorize the Governor-General to appoint any person, or any persons jointly or severally, to be his deputy or deputies within any part of the Commonwealth, and in that capacity to exercise during the pleasure of the Governor-General such powers and functions of the Governor-General as he thinks fit to assign to such deputy or deputies, subject to any limitations expressed or directions given by the Queen; but the appointment of such deputy or deputies shall not affect the exercise by the Governor-General himself of any power or function.

127. In reckoning the numbers of the people of the Commonwealth, or of a State or other part of the Commonwealth, aboriginal natives shall not be counted.

CHAPTER VIII.—ALTERATION OF THE CONSTITUTION.

128. This Constitution shall not be altered except in the following manner:—

The proposed law for the alteration thereof must be passed by an absolute majority of each House of the Parliament, and not less than two nor more than six months after its passage through both Houses the proposed law shall be submitted in each State to the electors qualified to vote for the election of members of the House of Representatives.

But if either House passes any such proposed law by an absolute majority, and the other House rejects or fails to pass it or passes it with any amendment to which the first-mentioned House will not agree, and if after an interval of three months the first-mentioned House in the same or the next session again passes the proposed law by an absolute majority with or without any amendment which has been made or agreed to by the other House, and such other House rejects or fails to pass it or passes it with any amendment to which the first-mentioned House will not agree, the Governor-General

may submit the proposed law as last proposed by the first-mentioned House, and either with or without any amendments subsequently agreed to by both Houses, to the electors in each State qualified to vote for the election of the House of Representatives.

When a proposed law is submitted to the electors the vote shall be taken in such manner as the Parliament prescribes. But until the qualification of electors of members of the House of Representatives becomes uniform throughout the Commonwealth, only one-half the electors voting for and against the proposed law shall be counted in any State in which adult suffrage prevails.

And if in a majority of the States a majority of the electors voting approve the proposed law, and if a majority of all the electors voting also approve the proposed law, it shall be presented to the Governor-General for the Queen's assent.

No alteration diminishing the proportionate representation of any State in either House of the Parliament, or the minimum number of representatives of a State in the House of Representatives, or increasing, diminishing, or otherwise altering the limits of the State, or in any manner affecting the provisions of the Constitution in relation thereto, shall become law unless the majority of the electors voting in that State approve the proposed law.

SCHEDULE.

OATH.

I, *A.B.*, do swear that I will be faithful and bear true allegiance to Her Majesty Queen Victoria, Her heirs and successors according to law. SO HELP ME GOD!

AFFIRMATION.

I, *A.B.*, do solemnly and sincerely affirm and declare that I will be faithful and bear true allegiance to Her Majesty Queen Victoria, Her heirs and successors according to law.

(NOTE.—*The name of the King or Queen of the United Kingdom of Great Britain and Ireland for the time being is to be substituted from time to time.*)

2. **The Royal Proclamation.**—The preceding Act received the Royal assent on the 9th July, 1900. This made it lawful to declare that the people of Australia should be united in a Federal Commonwealth. This proclamation, made on the 17th September, 1900, constituted the Commonwealth as from the 1st January, 1901: it reads as follows:—

BY THE QUEEN.

A PROCLAMATION.

(Signed) VICTORIA R.

WHEREAS by an Act of Parliament passed in the Sixty-third and Sixty-fourth Years of Our Reign, intituled "An Act to constitute the Commonwealth of Australia," it is enacted that it shall be lawful for the Queen, with the advice of the Privy Council, to declare by Proclamation, that, on and after a day therein appointed, not being later than One year after the passing of this Act, the people of *New South Wales, Victoria, South Australia, Queensland, and Tasmania*, and also, if Her Majesty is satisfied that the people of *Western Australia* have agreed thereto, of *Western Australia*, shall be united in a Federal Commonwealth under the name of the Commonwealth of Australia.

And whereas We are satisfied that the people of *Western Australia* have agreed thereto accordingly.

We therefore, by and with the advice of Our Privy Council, have thought fit to issue this Our Royal Proclamation, and We do hereby declare that on and after the First day of *January* One thousand nine hundred and one, the people of *New South Wales, Victoria, South Australia, Queensland, Tasmania, and Western Australia* shall be united in a Federal Commonwealth under the name of the Commonwealth of *Australia*.

Given at Our Court at *Balmoral* this Seventeenth day of *September*, in the Year of Our Lord One thousand nine hundred, and in the Sixty-fourth Year of Our Reign.

GOD SAVE THE QUEEN.

§ 9. Commonwealth Administration and Legislation.

1. **The Commonwealth Parliaments.**—The first Parliament of the Commonwealth was convened by proclamation dated 29th April, 1901, by His Excellency the late Marquis of Linlithgow, then Earl of Hopetoun, Governor-General. It was opened on the 9th May following by H.R.H. the Duke of Cornwall and York, who had been sent to Australia for that purpose by His Majesty the King; the Rt. Hon. Sir Edmund Barton, P.C., G.C.M.G., K.C., being Prime Minister.

The following table gives the number and duration of Parliaments since Federation :—

COMMONWEALTH PARLIAMENTS, 1901 TO 1927.

Number of Parliament.	Date of Opening.	Date of Dissolution.
First	29th April, 1901 ..	23rd November, 1903
Second	2nd March, 1904 ..	12th October, 1906
Third	20th February, 1907 ..	19th February, 1910
Fourth	1st July, 1910 ..	23rd April, 1913
Fifth	9th July, 1913 ..	30th July, 1914 (a)
Sixth	8th October, 1914 ..	26th March, 1917
Seventh	14th June, 1917 ..	3rd November, 1919
Eight	26th February, 1920 ..	6th November, 1922
Ninth	28th February, 1923 ..	3rd October, 1925
Tenth	13th January, 1926 ..	

(a) On this occasion the Governor-General, acting on the advice of the Ministry, and under section 57 of the Constitution, granted a dissolution of both the Senate and the House of Representatives, this being the first occasion since Federation on which a dissolution of both Houses had occurred.

2. **Governors-General and Ministries.**—The following statements show the names of the several Governors-General, and the Ministries which have directed the administration of the affairs of the Commonwealth since its creation :—

(a) GOVERNORS-GENERAL.

- Rt. Hon. EARL OF HOPETOUN (afterwards MARQUIS OF LINLITHGOW), P.C., K.T., G.C.M.G., G.C.V.O. Sworn 1st January, 1901; recalled 9th May, 1902.
- Rt. Hon. HALLAM BARON TENNYSON, G.C.M.G. (Act. Governor-General). Sworn 17th July, 1902.
- Rt. Hon. HALLAM BARON TENNYSON, G.C.M.G. (Governor-General). Sworn 9th January, 1903; recalled 21st January, 1904.
- Rt. Hon. HENRY STAFFORD BARON NORTHCOTE, P.C., G.C.M.G., G.C.I.E., C.B. Sworn 21st January, 1904; recalled 8th September, 1908.
- Rt. Hon. WILLIAM HUMBLE EARL OF DUDLEY, P.C., G.C.M.G., G.C.V.O., etc. Sworn 9th September, 1908; recalled 31st July, 1911.
- Rt. Hon. THOMAS BARON DENMAN, P.C., G.C.M.G., K.C.V.O. Sworn 31st July, 1911; recalled 16th May, 1914.
- Rt. Hon. SIR RONALD CRAUFURD MUNRO FERGUSON (afterwards VISCOUNT NOVAR OF RAITH), P.C. G.C.M.G. Sworn 18th May, 1914; recalled 5th October, 1920.
- Rt. Hon. HENRY WILLIAM BARON FORSTER OF LEPE, P.C., G.C.M.G. Sworn 6th October, 1920; recalled 7th October, 1925.
- Rt. Hon. JOHN LAWRENCE BARON STONEHAVEN, P.C., G.C.M.G., D.S.O. Sworn 8th October, 1925.

(b) MINISTRIES.

- (i) BARTON GOVERNMENT, 1st January, 1901, to 23rd September, 1903.
- (ii) FIRST DEAKIN GOVERNMENT, 23rd September, 1903, to 26th April, 1904.
- (iii) WATSON GOVERNMENT, 26th April to 17th August, 1904.
- (iv) REID-McLEAN GOVERNMENT, 17th August, 1904, to 4th July, 1905.
- (v) SECOND DEAKIN GOVERNMENT, 4th July, 1905, to 12th November, 1908.
- (vi) FIRST FISHER GOVERNMENT, 12th November, 1908, to 2nd June, 1909.
- (vii) THIRD DEAKIN GOVERNMENT, 2nd June, 1909, to 29th April, 1910.
- (viii) SECOND FISHER GOVERNMENT, 29th April, 1910, to 24th June, 1913.
- (ix) COOK GOVERNMENT, 24th June, 1913, to 17th September, 1914.
- (x) THIRD FISHER GOVERNMENT, 17th September, 1914, to 27th October, 1915.
- (xi) FIRST HUGHES GOVERNMENT, 27th October, 1915, to 14th November, 1916.
- (xii) SECOND HUGHES GOVERNMENT, 14th November, 1916, to 17th February, 1917.
- (xiii) AUSTRALIAN NATIONAL WAR GOVERNMENT, 17th February, 1917, to 10th January, 1918.
- (xiv) AUSTRALIAN NATIONAL WAR GOVERNMENT, 10th January, 1918, to 9th February, 1923.

(c) BRUCE-PAGE GOVERNMENT from 9th February, 1923.

DEPARTMENTS.	MINISTERS.
Prime Minister and Minister for External Affairs	Rt. Hon. STANLEY MELBOURNE BRUCE,† P.C., M.C.
Treasurer	Hon. EARLE CHRISTMAS GRAFTON PAGE.
Minister for Home and Territories	Rt. Hon. GEORGE FOSTER PEARCE, P.C. (to 18/6/'26). Hon. SIR THOMAS WILLIAM GLASGOW, K.C.B., C.M.G., D.S.O., V.D. (from 18/6/'26 to 24/3/'27).
Attorney-General	Hon. CHARLES WILLIAM CLANAN MARR, D.S.O., M.C., V.D. (from 24/3/'27).
Postmaster-General	Hon. SIR LITTLETON ERNEST GROOM, K.C.M.G. K.C. (to 18/12/'25).
Minister for Trade and Customs	Hon. JOHN GREIG LATHAM, C.M.G., K.C. (from 18/12/'25).
Minister for Works and Railways	Hon. WILLIAM GERRAND GINSON. Hon. AUSTIN CHAPMAN (to 26/5/'24). Hon. HERBERT EDWARD PRATTEN (from 13/6/'24).
Minister for Defence	Hon. PERCY GERALD STEWART (from 5/8/'24). Hon. WILLIAM CALDWELL HILL (from 26/9/'24). Hon. ERIC KENDALL BOWDEN (to 16/1/'25).
Minister for Health	Hon. SIR NEVILLE REGINALD HOWSE, V.C., K.C.B., K.C.M.G. (from 16/1/'25 to 24/3/'27).
Minister for Markets and Migration	Hon. SIR THOMAS WILLIAM GLASGOW, K.C.B., C.M.G., D.S.O., V.D. (from 24/3/'27).
Vice-President of the Executive Council	Hon. SIR AUSTIN CHAPMAN, K.C.M.G. (to 26/5/'24). Hon. HERBERT EDWARD PRATTEN (from 13/6/'24 to 16/1/'25).
Honorary Ministers	Hon. SIR NEVILLE REGINALD HOWSE, V.C., K.C.B., K.C.M.G. (from 16/1/'25 to 24/3/'27). Hon. SIR REGINALD VICTOR WILSON* (from 16/1/'25 to 18/6/'26). Hon. THOMAS PATERSON (from 18/6/'26).
	Hon. LLEWELYN ATKINSON.
	Rt. Hon. Sir GEORGE FOSTER PEARCE, P.C.†
	Hon. REGINALD VICTOR WILSON* (to 16/1/'25).
	Hon. THOMAS WILLIAM CRAWFORD.
	Hon. CHARLES WILLIAM CLANAN MARR, D.S.O., M.C., V.D. (from 16/1/'25 to 24/3/'27).
	Hon. ALEXANDER JOHN MCLACHLAN (from 29/8/'26).

3. State Ministries.—The names of the members of the Ministries in each State in May, 1927, are shown in the following statement (see also Appendix):—

STATE MINISTRIES, 1927.

NEW SOUTH WALES.

Premier and Colonial Treasurer and Minister for Lands and for Forests—
HON. J. T. LANG.
Minister for Mines and Minister for Labour and Industry—
HON. J. M. BADDELEY.
Attorney-General—
HON. E. A. McTIERNAN.
Minister for Agriculture—
HON. W. F. DUNN.
Minister of Justice—
HON. W. J. McKELL.
Minister for Education—
HON. T. D. Mutch.

Colonial Secretary—
HON. C. C. LAZZARINI.
Minister for Public Health—
HON. G. CANN.
Minister for Public Works and Minister for Railways—
HON. M. M. FLANNERY.
Minister for Local Government—
HON. J. J. FITZGERALD.
Vice-President of the Executive Council—
HON. A. C. WILLIS, M.L.C.
Honorary Minister—
HON. J. F. COATES, M.L.C.

VICTORIA.

Premier, Minister of Water Supply, and Minister of Railways—
HON. J. ALLAN.
Treasurer and Minister of Public Instruction and of Labour—
HON. SIR A. J. PEACOCK, K.C.M.G.
Chief Secretary and Minister of Public Health—
HON. S. S. ARGYLE.
Commissioner of Crown Lands and Survey and Minister of Immigration—
HON. A. DOWNWARD.
Attorney-General and Solicitor-General—
HON. F. W. EGGLESTON.

Commissioner of Public Works and Minister of Mines—
HON. G. L. GOUDIE, M.L.C.
Minister of Forests—
HON. H. F. RICHARDSON, M.L.C.
Minister of Agriculture and Minister of Markets—
COLONEL THE HON. M. W. J. BOURCHIER, C.M.G., D.S.O., V.D.
Ministers without Portfolio—
HON. J. R. HARRIS, M.L.C.
HON. M. MCGREGOR, M.L.C.
HON. J. McDONALD.
HON. E. J. MACKRELL.

* K.B.E., 1926.

† O.M., 1927.

‡ K.C.V.O., 1927.

§ Minister in charge of Health.

QUEENSLAND.

Premier, Vice-President of the Executive Council, Chief Secretary, and Treasurer—
HON. W. MCCORMACK.

Secretary for Agriculture and Stock—
HON. W. F. SMITH.

Secretary for Mines—
HON. A. J. JONES.

Attorney-General—
HON. J. MULLAN.

Secretary for Railways—
HON. J. LARCOMBE.

Home Secretary—
HON. J. STOPFORD.

Secretary for Public Works—
HON. M. J. KIRWAN.

Secretary for Public Instruction—
HON. T. WILSON.

Secretary for Public Lands—
HON. T. DUNSTAN.

Secretary for Labour—
HON. D. A. GLADSON.

SOUTH AUSTRALIA.

Premier, Treasurer, and Minister of Railways—
HON. R. L. BUTLER.

Chief Secretary and Minister of Mines and of Marine—
HON. H. TASSIE, M.L.C.

Attorney-General and Minister of Industry—
HON. H. HOMBURG.

Commissioner of Crown Lands and Minister of Local Government—
HON. G. F. JENKINS.

Commissioner of Public Works and Minister of Education—
HON. M. MCINTOSH.

Minister of Agriculture and of Migration and of Irrigation—
HON. J. COWAN, M.L.C.

WESTERN AUSTRALIA.

Premier, Treasurer, and Minister for Forests—
HON. P. COLLIER.

Minister for Lands, Immigration, Agriculture, and Industries—
HON. M. F. TROY.

Chief Secretary and Minister for Education—
HON. J. M. DREW, M.L.C.

Minister for Public Works, Water Supply, Labour, and Trading Concerns—
HON. A. MCCALLUM.

Minister for Mines, and Health—
HON. S. W. MUNSIE.

Minister for Railways, Justice, and Police—
HON. J. C. WILLCOCK.

Ministers without Portfolio—
HON. H. MILLINGTON.
HON. J. CUNNINGHAM.
HON. J. W. HICKEY, M.L.C.

TASMANIA.

Premier and Treasurer and Minister for Mines—
HON. J. A. LYONS.

Attorney-General and Minister for Education and Forestry—
HON. A. G. OGILVIE.

Chief Secretary and Minister for Railways—
HON. J. A. GUY.

Minister for Lands, Works, and Agriculture—
HON. J. A. BELTON.

Ministers without Portfolio—
HON. A. LAWSON, M.L.C.
HON. G. G. BECKER.

4. The Course of Legislation.—The actual legislation by the Commonwealth Parliament up to the end of the 1926 session is indicated in alphabetical order in "Vol. XXIV. of the Acts of the Parliament of the Commonwealth of Australia, passed during the year 1926, with Tables, Appendix, and Indexes." A "Chronological Table of Acts passed

from 1901 to 1926, showing how they are affected by subsequent legislation or lapse of time" is also given, and further "A Table of Commonwealth Legislation," for the same period, "in relation to the several provisions of the Constitution," is furnished. Reference should be made to these for complete information. The nature of Commonwealth legislation up to December, 1926, and its relation to the several provisions of the Constitution, are set forth in the following tabular statement, from which have been omitted Acts repealed or no longer in force:—

COMMONWEALTH LEGISLATION—ANALYTIC TABLE.*

Section of Constitution.	Short Title of Commonwealth Act.
	AMENDMENT OF THE CONSTITUTION. Constitution Alteration (Senate Elections) 1906. Constitution Alteration (State Debts) 1909.
	PARLIAMENTARY AND ELECTORAL LAW.
8—30	PARLIAMENTARY FRANCHISE— Commonwealth Electoral Act 1918–1925.
9—34	ELECTIONS— Commonwealth Electoral Act 1902–1911.† Commonwealth Electoral Act 1918–1925. Senate Elections Act 1903–1922.
24	DETERMINATION OF NUMBER OF MEMBERS OF HOUSE OF REPRESENTATIVES— Representation Act 1905. Northern Territory Representation Act 1922–1925.
47	DISPUTED ELECTIONS AND QUALIFICATIONS— Commonwealth Electoral Act 1918–1925 (ss. 183–201).
48	ALLOWANCES TO MEMBERS— Parliamentary Allowances Act 1920. Northern Territory Representation Act 1922–1925 (s. 6).
49	PRIVILEGES OF PARLIAMENT— Parliamentary Papers Act 1908.
	GENERAL LEGISLATION.
51 (i)	TRADE AND COMMERCE—EXTERNAL AND INTERSTATE— Australian Industries Preservation Act 1906–1910 [<i>Trusts and Dumping</i>]. Canned Fruits Export Control Act 1926. Commerce (Trade Descriptions) Act 1905–1926. Commonwealth Shipping Act 1923. Customs Act 1901–1925. Dairy Produce Export Control Act 1924. Dried Fruits Export Control Act 1924. Enemy Contracts Annulment Act 1915. Export Guarantee Act 1924–1925. Immigration Act 1901–1925 (ss. 8AA, 8AB). Inter-state Commission Act 1912. Meat Industry Encouragement Act 1924. Navigation Act 1912–1926. Norfolk Island Act 1913 (s. 15). Northern Australia Act 1926 (ss. 53, 57). Northern Territory Acceptance Act 1910–1919 (s. 13). River Murray Waters Act 1915–1923. Sea-Carriage of Goods Act 1924 [<i>Bills of Lading</i>]. Seamen's Compensation Act 1911. Secret Commissions Act 1905. Spirits Act 1906–1923. Trading with the Enemy Act 1914–1921. War Precautions Act Repeal Act 1920–1923.

* This table has been prepared by Sir Robert Garran, Solicitor-General of the Commonwealth.

† With the exception of s. 210 of the *Commonwealth Electoral Act* 1902, and s. 18 of the *Commonwealth Electoral Act* 1905, the *Commonwealth Electoral Act* 1902–1911 has been repealed by the *Commonwealth Electoral Act* 1918. See *Commonwealth Gazette*, 25th November, 1918, p. 2257, 21st March, 1919, p. 401, and 14th November, 1920, p. 2277.

COMMONWEALTH LEGISLATION—ANALYTIC TABLE—*continued.*

Section of Constitution.	Short Title of Commonwealth Act.
51 (ii)	GENERAL LEGISLATION— <i>continued.</i>
	<p>TAXATION—</p> <p><i>Machinery Acts—</i></p> <p>Beer Excise Act 1901–1923. Customs Act 1901–1925. Distillation Act 1901–1925. Entertainment Tax Assessment Act 1916–1924. Estate Duty Assessment Act 1914–1922. Excise Act 1901–1923. Excise Procedure Act 1907. Income Tax Assessment Act 1922–1925. Income Tax Assessment (Bonus Shares) Act 1926. Income Tax Assessment (Live Stock) Act 1924. Income Tax Collection Act 1923–1924. Land Tax Assessment Act 1910–1926. New Zealand Re-exports Act 1924. Spirits Act 1906–1923. Taxation of Loans Act 1923. War-time Profits Tax Assessment Act 1917–1918. War Time Profits Tax Assessment Act 1924–1926.</p> <p><i>Taxing Acts—</i></p> <p>Customs Tariff 1902 [<i>Section 5 and Schedule repealed by Customs Tariff 1908</i>]. Customs Tariff 1921–1926. Customs Tariff (Industries Preservation) Act 1921–1922. Customs Tariff (New Zealand Preference) 1922–1926. Customs Tariff (New Zealand Preference) 1922 (No. 2). Customs Tariff (Papua and New Guinea Preference) 1926. Customs Tariff (South African Preference) 1906 : affected by <i>Customs Tariff 1908 (s. 9)*</i> and by <i>Customs Tariff 1921–1924 (s. 15)</i>. Customs Tariff (Sugar) 1922. Customs Tariff Validation Acts 1917 and 1919 ; affected by <i>Customs Tariff 1921 (s. 12 (2))</i>. Customs Tariff Validation Act 1925. Dairy Produce Export Charges Act 1924. Dried Fruits Export Charges Act 1924. Entertainments Tax Act 1916–1925. Estate Duty Act 1914. Excise Tariff 1902 ; amended by <i>Sugar Rebate Abolition Act 1903</i>, <i>Excise Tariff 1905*</i>, <i>Excise Tariff (Amendment) 1906*</i>, <i>Excise Tariff 1908*</i>, and <i>Excise (Sugar) 1910.*</i> Excise Tariff 1921–1926. Income Tax Acts 1915, 1916, 1917, 1918, 1919, 1920, 1921, 1922, 1923, 1924, 1925, 1926. Land Tax Act 1910–1922. War-time Profits Tax Act 1917.</p>
(iii)	<p>BOUNTIES ON PRODUCTION OR EXPORT—</p> <p><i>Canned Fruit Export Bounty Act 1924.*</i> <i>Cattle Export Bounty Act 1924.*</i> Cotton Bounty Act 1926. Iron and Steel Products Bounty Act 1922. Papua and New Guinea Bounties Act 1926. Power Alcohol Bounty Act 1926. Shale Oil Bounty Act 1917–1926. Sulphur Bounty Act 1923. Wine Export Bounty Act 1924.</p>

* Acts whose short titles are printed in italics with a * have been repealed or have expired.

COMMONWEALTH LEGISLATION—ANALYTIC TABLE—*continued.*

Section of Constitution.	Short Title of Commonwealth Act.
GENERAL LEGISLATION—<i>continued.</i>	
51 (iv)	<p>BORROWING MONEY ON THE PUBLIC CREDIT OF THE COMMONWEALTH— Audit Act 1901–1926 (ss. 55–59). Commonwealth Bank Act 1911–1925 (ss. 10, 53–58, 60ABE–60ABG). Commonwealth Inscribed Stock Act 1911–1918. Development and Migration Act 1926 (s. 12). Funding Arrangements Act 1921. Grafton to South Brisbane Railway Act 1924. Immigration Loan Act 1922. Loan Act 1911–1914; 1912–1914; 1913–1914; 1914; (No. 2) 1914–1915; 1918; 1919; 1920; 1921; (No. 2) 1921; 1922; 1923; (No. 1) 1924; (No. 2) 1924; (No. 3) 1924; (No. 1) 1925; (No. 2) 1925; (No. 1) 1926. Loans Redemption and Conversion Act 1921. Loans Securities Act 1919. National Debt Sinking Fund Act 1923–1925. Northern Australia Act 1926 (s. 31). Oil Agreement Act 1924. Oil Agreement Act 1926 (s. 3). Repatriation Loan Act 1921. Seat of Government (Administration) Act 1924–1926 (s. 20). States Loan Act 1916; 1917; 1924; 1925; 1926. Sugar Purchase Act 1915–1920. Tasmanian Loan Redemption Act 1919. Taxation of Loans Act 1923. Treasury Bills Act 1914–1915. War Gratuity Acts 1920 (ss. 11, 13). War Loan Act (No. 1) 1915; (No. 3) 1915; (No. 1) 1916; 1917; 1918; 1920. War Loan (United Kingdom) Act 1914–1917; 1915–1917; (No. 2) 1916. War Loan Securities Repurchase Act 1918.</p>
(v)	<p>POSTAL, TELEGRAPHIC, AND TELEPHONIC SERVICES— Commonwealth Electoral Act 1918–1925 (ss. 212, 213). Pacific Cable Act 1911. Post and Telegraph Act 1901–1923. Post and Telegraph Rates Act 1902–1924. Purchase Telephone Lines Acquisition Act 1911. Telegraph Act 1909. Wireless Agreement Act 1924. Wireless Telegraphy Act 1905–1919.</p>
(vi)	<p>NAVAL AND MILITARY DEFENCE— <i>General—</i> Air Force Act 1923. Control of Naval Waters Act 1918. Deceased Soldiers' Estates Act 1918–1919. Defence Act 1903–1918. Defence Equipment Act 1924. Defence Lands Purchase Act 1913. Defence Retirement Act 1922. Naval Agreement Act 1903–1912. Naval Defence Act 1910–1918. Telegraph Act 1909. <i>War Legislation—</i> Australian Imperial Force Canteens Fund Act 1920. Australian Soldiers' Repatriation Act 1920–1922. Australian War Memorial Act 1925. Enemy Contracts Annulment Act 1915. Legal Proceedings Control Act 1919.</p>

COMMONWEALTH LEGISLATION—ANALYTIC TABLE—*continued.*

Section of Constitution.	Short Title of Commonwealth Act.
	GENERAL LEGISLATION— <i>continued.</i>
	NAVAL AND MILITARY DEFENCE— <i>continued.</i>
	<i>War Legislation—continued.</i>
51 (vi)	Moratorium Act 1919. Termination of the Present War (Definition) Act 1919. Trading with the Enemy Act 1914-1921. Treaties of Peace (Austria and Bulgaria) Act 1920. Treaties of Washington Act 1922. Treaty of Peace (Germany) Act 1919-1920. Treaty of Peace (Hungary) Act 1921. War Gratuity Acts 1920. War Precautions Act Repeal Act 1920-1923. War Service Homes Act 1918-1925. War Service Homes Commission Validating Act 1921. Wheat Storage Act 1917.
(vii)	LIGHTHOUSES, LIGHTSHIPS, BEACONS AND BUOYS— Lighthouses Act 1911-1919.
(viii)	ASTRONOMICAL AND METEOROLOGICAL OBSERVATIONS— Meteorology Act 1906.
(ix)	QUARANTINE— Quarantine Act 1908-1924.
(xi)	CENSUS AND STATISTICS— Census and Statistics Act 1905-1920. Statistical Bureau (Tasmania) Act 1924.
(xii)	CURRENCY, COINAGE, AND LEGAL TENDER— Coinage Act 1909. Commonwealth Bank Act 1911-1925 (ss. 60A-60AB).
(xiii)	BANKING, OTHER THAN STATE BANKING, ETC.— Commonwealth Bank Act 1911-1925.
(xiv)	INSURANCE— Life Assurance Companies Act 1905. Marine Insurance Act 1909.
(xvi)	BILLS OF EXCHANGE AND PROMISSORY NOTES— Bills of Exchange Act 1909-1912. Commonwealth Bank Act 1911-1925 (s. 29 (a)).
(xvii)	BANKRUPTCY AND INSOLVENCY— Bankruptcy Act 1924.
(xviii)	COPYRIGHT, PATENTS, DESIGNS AND TRADE MARKS— Boy Scouts Association Act 1924 (s. 3). Copyright Act 1912. Customs Act 1901-1925 (s. 52 (a), 57). Designs Act 1906-1912. Patents Act 1903-1921. Patents, Trade Marks, and Designs Act 1910. Trade Marks Act 1905-1922.
(xix)	NATURALIZATION AND ALIENS— Aliens Registration Act 1920. Aliens Registration Act Suspension Act 1926. Immigration Act 1901-1925. Maternity Allowance Act 1912-1926 (s. 6). Nationality Act 1920-1925. War Precautions Act Repeal Act 1920-1923 (s. 8).
(xx)	CORPORATIONS— Boy Scouts Association Act 1924.
(xxiii)	INVALID AND OLD-AGE PENSIONS— Invalid and Old-age Pensions Act 1908-1926.
(xxiv)	SERVICE AND EXECUTION THROUGHOUT COMMONWEALTH OF PROCESS AND JUDGMENTS OF STATE COURTS— Service and Execution of Process Act 1901-1924.

COMMONWEALTH LEGISLATION—ANALYTIC TABLE—*continued.*

Section of Constitution.	Short Title of Commonwealth Act.
GENERAL LEGISLATION—<i>continued.</i>	
51 (xxv)	RECOGNITION OF STATE LAWS, RECORDS, ETC.— State Laws and Records Recognition Act 1901.
(xxvi)	PEOPLE OF ANY RACE, OTHER THAN ABORIGINAL—SPECIAL LAWS— Commonwealth Electoral Act 1918–1925 (s. 39). Invalid and Old-age Pensions Act 1908–1926 (ss. 16, 21). Pacific Island Labourers Act 1901–1906. Post and Telegraph Act 1901–1923 (s. 16).
(xxvii)	IMMIGRATION AND EMIGRATION— Contract Immigrants Act 1905. Development and Migration Act 1926. Emigration Act 1910. Immigration Act 1901–1925. Pacific Island Labourers Act 1901–1906. Passports Act 1920. War Precautions Act Repeal Act 1920–1923 (s. 9).
(xxviii)	INFUX OF CRIMINALS— Immigration Act 1901–1925 (s. 3 (<i>ga</i>), (<i>gb</i>)).
(xxix)	EXTERNAL AFFAIRS— Extradition Act 1903. High Commissioner Act 1909. Nauru Island Agreement Act 1919. Treaties of Washington Act 1922.
(xxx)	RELATIONS WITH PACIFIC ISLANDS— Pacific Island Labourers Act 1901–1906. Nauru Island Agreement Act 1919. New Guinea Act 1920.
(xxxi)	ACQUISITION OF PROPERTY FOR PUBLIC PURPOSES— Commonwealth Railways Act 1917–1925 (s. 63). Defence Lands Purchase Act 1913. Kalgoorlie to Port Augusta Railway Lands Act 1918–1920. Lands Acquisition Act 1906–1916; 1912. Lands Acquisition (Defence) Act 1918. Lighthouses Act 1911–1919 (ss. 5, 6). Naval Properties Transfer Act 1925. Northern Australia Act 1926 (ss. 32, 55). Northern Territory (Administration) Act 1910 (s. 9). Northern Territory Railway Extension Act 1923. Oodnadatta to Alice Springs Railway Act 1926 (s. 9). Purchase Telephone Lines Acquisition Act 1911. Seat of Government Act 1908. Seat of Government Acceptance Act 1909; 1922. Seat of Government (Administration) Act 1910 (s. 10). War Service Homes Act 1918–1926 (s. 16).
(xxxii)	CONTROL OF RAILWAYS FOR DEFENCE PURPOSES— Defence Act 1903–1918 (ss. 64–66, 80, 124 (<i>r</i>)).
(xxxiv)	RAILWAY CONSTRUCTION AND EXTENSION IN ANY STATE WITH THE CONSENT OF THAT STATE— Commonwealth Railways Act 1917–1925. Grafton to South Brisbane Railway Act 1924. Kalgoorlie to Port Augusta Railway Act 1911–1912. Kalgoorlie to Port Augusta Railway Lands Act 1918–1920. Northern Australia Act 1926. Northern Territory Railway Extension Act 1923.
(xxxv)	CONCILIATION AND ARBITRATION FOR THE PREVENTION AND SETTLEMENT OF INDUSTRIAL DISPUTES EXTENDING BEYOND THE LIMITS OF ANY ONE STATE— Arbitration (Public Service) Act 1920. Commonwealth Conciliation and Arbitration Act 1904–1921. Industrial Peace Acts 1920.

COMMONWEALTH LEGISLATION—ANALYTIC TABLE—*continued.*

Section of Constitution.	Short Title of Commonwealth Act.
GENERAL LEGISLATION—<i>continued.</i>	
51 (xxxix)	<p>MATTERS INCIDENTAL TO THE EXECUTION OF POWERS— Acts Interpretation Act 1901–1918. Acts Interpretation Act 1904–1916. Advances to Settlers Act 1923. Agreements Validation Act 1923. Air Navigation Act 1920. Amendments Incorporation Act 1905–1918. Appropriation and Supply Acts. Arbitration (Public Service) Act 1920. Canned Fruits Export Charges Act 1926. Canned Fruits Export Control Act 1926. Committee of Public Accounts Act 1913–1920. Commonwealth Inscribed Stock Act 1911–1918. Commonwealth Public Service Act 1922–1924. Commonwealth Public Works Committee Act 1913–1921. Commonwealth Salaries Act 1907. Commonwealth Shipping Act 1923. Commonwealth Workmen's Compensation Act 1912. Crimes Act 1914–1926. Dairy Produce Export Control Act 1924. Defence Retirement Act 1922. Development and Migration Act 1926. Dried Fruits Advances Act 1924–1926. Dried Fruits Export Control Act 1924. Evidence Act 1905. Export Guarantee Act 1924–1925. Hop Pool Agreement Act 1924. Income Tax Collection Act 1923–1924. Institute of Science and Industry Act 1920. Jury Exemption Act 1905–1922. Main Roads Development Act 1923–1925. Maternity Allowance Act 1912–1926. Meat Industry Encouragement Act 1924. Oil Agreement Act 1920 ; 1924 ; 1926. Peace Officers Act 1925. Petroleum Prospecting Acts 1926. Precious Metals Prospecting Act 1926. Returned Soldiers' Woollen Company Loan Act 1921. Royal Commissions Act 1902–1912. Rules Publication Act 1903–1916. Science and Industry Endowment Act 1926. Solicitor-General Act 1916. South Australian Farmers' Agreement Act 1922. Statutory Declarations Act 1911–1922. Superannuation Act 1922–1924. Treaties of Washington Act 1922. War Precautions Act Repeal Act 1920–1923. Westralian Farmers' Agreement Act 1920 ; 1921. Zoological Museum Agreement Act 1924.</p>
EXECUTIVE GOVERNMENT.	
65	<p>NUMBER OF MINISTERS— Ministers of State Act 1917.</p>
67	<p>APPOINTMENT AND REMOVAL OF OFFICERS— Australian Soldiers Repatriation Act 1920–1922 (ss. 7–21). Commonwealth Bank Act 1911–1925 (ss. 12, 16). Commonwealth Public Service Act 1922–1924 (ss. 37–49). Commonwealth Railways Act 1917–1925 (ss. 5–15, 46–54).</p>

COMMONWEALTH LEGISLATION—ANALYTIC TABLE—*continued.*

Section of Constitution.	Short Title of Commonwealth Act.
EXECUTIVE GOVERNMENT—<i>continued.</i>	
67	APPOINTMENT AND REMOVAL OF OFFICERS—<i>continued.</i>
	Commonwealth Shipping Act 1923 (ss. 6, 11).
	Defence Act 1903–1918 (s. 63).
	Development and Migration Act 1926.
	High Commissioners Act 1909 (ss. 8, 9).
	National Debt Sinking Fund Act 1923–1925 (s. 6).
	New Guinea Act 1920–1926 (ss. 6–12).
	Norfolk Island Act 1913 (ss. 7, 9).
	Northern Australia Act 1926.
	Northern Territory Acceptance Act 1910–1919 (ss. 9, 11, 12).
	Papua Act 1905–1924 (s. 19).
	Peace Officers Act 1925.
	Science and Industry Research Act 1926.
	Seat of Government (Administration) Act 1924–1926 (ss. 6, 13).
	Solicitor-General Act 1916.
	Superannuation Act 1922–1924 (ss. 61–64).
	Tariff Board Act 1921–1924 (ss. 5–9).
	Trading with the Enemy Act 1914–1921 (s. 2A).
	War Service Homes Act 1918–1926 (ss. 5–15).
	War Service Homes Commissioner Validating Act 1921.
THE JUDICATURE.	
71–80	CONSTITUTION AND PROCEDURE OF THE HIGH COURT—
	High Court Procedure Act 1903–1925.
73	Judiciary Act 1903–1926.
	APPELLATE JURISDICTION OF THE HIGH COURT—
	Bankruptcy Act 1924 (s. 26).
	Estate Duty Assessment Act 1914–1922 (s. 28).
	Income Tax Assessment Act 1922–1925 (s. 51, 53).
	Judiciary Act 1903–1926.
	Land Tax Assessment Act 1910–1924 (s. 46).
	Norfolk Island Act 1913 (s. 11).
	Papua Act 1905–1924 (s. 43).
	War-time Profits Tax Assessment Act 1917–1918 (s. 29).
76	ORIGINAL JURISDICTION OF THE HIGH COURT—
	(1) <i>In matters arising under the Constitution or involving its interpretation—</i>
	Judiciary Act 1903–1926 (ss. 23, 30A, 88).
	(2) <i>In matters arising under Laws made by the Parliament—</i>
	Australian Industries Preservation Act 1906–1910 (ss. 10, 11, 13, 21, 22, and 26).
	Bankruptcy Act 1924 (s. 20 (3)).
	Commonwealth Conciliation and Arbitration Act 1904–1926 (ss. 21A–31).
	Commonwealth Electoral Act 1918–1926 (ss. 183, 202).
	Copyright Act, 1912 (s. 37 (2)).
	Customs Act 1901–1925 (ss. 221, 227, 245).
	Defence Act 1903–1918 (s. 91).
	Designs Act 1906–1912 (s. 39 (3)).
	Estate Duty Assessment Act 1914–1922 (ss. 39–41).
	Excise Act 1901–1923 (ss. 109, 115, 134).
	Income Tax Assessment Act 1922–1925 (ss. 50–53).
	Industrial Peace Acts 1920.
	Judiciary Act 1903–1926.
	Land Tax Assessment Act 1910–1926 (s. 44).
	Lands Acquisition Act 1906–1916 (ss. 10, 11, 24, 36–39, 45, 46, 50, 54, 56, 59).
	Navigation Act 1912–1926 (ss. 383, 385).
	Patents Act 1903–1921 (ss. 47, 58, 67, 75–77, 84–87A, 111).
	Post and Telegraph Act 1901–1923 (ss. 29, 43).

COMMONWEALTH LEGISLATION—ANALYTIC TABLE—*continued.*

Section of Constitution.	Short Title of Commonwealth Act.
	THE JUDICATURE— <i>continued.</i>
	ORIGINAL JURISDICTION OF THE HIGH COURT— <i>continued.</i>
76	(2) <i>In matters arising under Laws made by the Parliament</i> — <i>continued.</i> Referendum (Constitution Alteration) Act 1906–1926 (ss. 27, 31). Trade Marks Act 1905–1922 (ss. 34, 35, 44, 45, 70–72, 95). Trading with the Enemy Act 1914–1921 (ss. 9c, 9f). War-time Profits Tax Assessment Act 1917–1918 (s. 28).
(iii)	(3) <i>In matters of Admiralty and Maritime Jurisdiction</i> — Judiciary Act 1903–1920 (ss. 30, 30A).
77 (ii)	EXCLUDING JURISDICTION OF STATE COURTS— Judiciary Act 1903–1926 (ss. 38, 38A, 39, 57, 59).
(iii)	INVESTING STATE COURTS WITH FEDERAL JURISDICTION— Bankruptcy Act 1924 (ss. 18, 19). Commonwealth Conciliation and Arbitration Act 1904–1926 (ss. 44–46, 48). Commonwealth Electoral Act 1918–1925 (ss. 58, 184). Copyright Act 1912 (ss. 14–17). Customs Act 1901–1925 (ss. 221, 227, 245). Defence Act 1903–1918 (s. 91). Designs Act 1906–1912 (ss. 25, 39). Estate Duty Assessment Act 1914–1922 (s. 24). Excise Act 1901–1923 (ss. 109, 115, 134). Income Tax Assessment Act 1922–1925 (s. 50). Judiciary Act 1903–1926 (ss. 17, 39, 68). Land Tax Assessment Act 1910–1926 (s. 44). Navigation Act 1912–1926 (ss. 91, 92, 318–320, 380–383, 385, 395). Patents Act 1903–1921 (ss. 30, 47, 58, 67, 75–77, 84–87A, 111). Post and Telegraph Act 1901–1923 (ss. 29, 43). Trade Marks Act 1905–1922 (ss. 34, 35, 44, 45). War-time Profits Tax Assessment Act 1917–1918 (s. 28).
78	RIGHT TO PROCEED AGAINST COMMONWEALTH OR STATE— Judiciary Act 1903–1926 (ss. 56–67).
	FINANCE.
81	APPROPRIATION OF MONEYS— Appropriation and Supply Acts. Audit Act 1901–1926 (ss. 36–37, 62A). Funding Arrangements Act 1921. Loans Redemption and Conversion Act 1921.
83	PAYMENT OF MONEYS— Audit Act 1901–1926 (ss. 31–37, 62A).
93	CREDITING OF REVENUE AND DEBITING OF EXPENDITURE— Surplus Revenue Acts 1908, 1909, 1910.
94	DISTRIBUTION OF SURPLUS REVENUE— Surplus Revenue Acts 1908, 1909, 1910.
96	ASSISTANCE TO STATES— Federal Aid Roads Act 1926. Tasmania Grant Act 1922; 1923; 1924. Western Australia Grant Act 1926.
97	AUDIT OF PUBLIC ACCOUNTS— Audit Act 1901–1924.
98	NAVIGATION AND SHIPPING— Lighthouses Act 1911–1919. Navigation Act 1912–1925. River Murray Waters Act 1915–1923. Sea-Carriage of Goods Act 1924. Seamen's Compensation Act 1911.
100	USE OF WATERS— River Murray Waters Act 1915–1923.
101–104	INTER-STATE COMMISSION— Inter-state Commission Act 1912.

COMMONWEALTH LEGISLATION—ANALYTIC TABLE—*continued.*

Section of Constitution.	Short Title of Commonwealth Act.
THE STATES.	
118	RECOGNITION OF STATE LAWS, RECORDS, ETC.— State Laws and Records Recognition Act 1901.
119	PROTECTION OF STATES FROM INVASION AND VIOLENCE— Defence Act 1903–1918 (s. 51).
TERRITORIES.	
122	GOVERNMENT OF TERRITORIES— Defence Act 1903–1918 (s. 49). Income Tax Assessment Act 1922–1925 (3, 5). Jervis Bay Territory Acceptance Act 1915. Judiciary Act 1903–1926 (ss. 11, 68 (g)). Nauru Island Agreement Act 1919. New Guinea Act 1920–1926. Norfolk Island Act 1913. Northern Australia Act 1926. Northern Territory Acceptance Act 1910–1919. Northern Territory (Administration) Act 1910–1926. Northern Territory Railway Extension Act 1923. Northern Territory Representation Act 1922–1925. Papua Act 1905–1924. Papua and New Guinea Bounties Act 1926. Patents Act 1903–1921 (s. 4A). Pine Creek to Katherine River Railway Act 1913. Pine Creek to Katherine River Railway Survey Act 1912. Removal of Prisoners (Territories) Act 1923. Seat of Government Acceptance Act 1909. Seat of Government (Administration) Act 1910 ; 1924–1926. Wireless Telegraphy Act 1905–1919 (s. 2).
MISCELLANEOUS.	
125	SEAT OF GOVERNMENT— Seat of Government Act 1908. Seat of Government Acceptance Act 1909 ; 1922. Seat of Government (Administration) Act 1910 ; 1924–1926.
128	ALTERATION OF CONSTITUTION— Constitution Alteration (Senate Elections) 1906. Constitution Alteration (State Debts) 1909. Referendum (Constitution Alteration) Act 1906–1926.

CHAPTER II.

PHYSIOGRAPHY.

§ 1. General Description of Australia.

1. *Geographical Position.*—(i) *General.* The Australian Commonwealth, which includes the island continent of Australia proper and the island of Tasmania, is situated in the Southern Hemisphere, and comprises in all an area of about 2,974,581 square miles, the mainland alone containing about 2,948,366 square miles. Bounded on the west and east by the Indian and Pacific Oceans respectively, it lies between longitudes $113^{\circ} 9' \text{ E.}$ and $153^{\circ} 39' \text{ E.}$, while its northern and southern limits are the parallels of latitude $10^{\circ} 41' \text{ S.}$ and $39^{\circ} 8' \text{ S.}$, or, including Tasmania, $43^{\circ} 39' \text{ S.}$ On its north are the Timor and Arafura Seas and Torres Strait—on its south the Southern Ocean and Bass Strait. The extreme points are “Steep Point” on the west, “Cape Byron” on the east, “Cape York” on the north, “Wilson’s Promontory” on the south, or, if Tasmania be included, “South East Cape.”

(ii) *Tropical and Temperate Regions.* Of the total area of Australia nearly 40 per cent lies within the tropics. Assuming, as is usual, that the latitude of the Tropic of Capricorn is $23^{\circ} 30' \text{ S.}$ (its correct value for 1926 is $23^{\circ} 26' 56.08''$), the areas within the tropical and temperate zones are approximately as follows :—

AUSTRALIA—AREAS OF TROPICAL AND TEMPERATE REGIONS.

(STATES AND TERRITORY PARTIALLY WITHIN TROPICS.)

Areas.	Queensland.	Western Australia.	Northern Territory.	Total.
	Sq. Miles.	Sq. Miles.	Sq. Miles.	Sq. Miles.
Within Tropical Zone	359,000	364,000	426,320	1,149,320
Within Temperate Zone	311,500	611,920	97,300	1,020,720
Ratio of Tropical part to whole State ..	0.535	0.373	0.814	0.530
Ratio of Temperate part to whole State ..	0.465	0.627	0.186	0.470

Thus the tropical part is roughly about one-half (0.530) of the three territories mentioned above, or about five-thirteenthths of the whole of Australia (0.386).

2. *Area of Australia compared with Areas of other Countries.*—It is not always realized that the area of Australia is nearly as great as that of the United States of America, that it is four-fifths of that of Canada, that it is over one-fifth of the area of the whole of the British Empire, that it is more than three-fourths of the whole area of Europe, and that it is about 25 times as large as Great Britain and Ireland or Italy. This great area, coupled with a limited population, renders the solution of the problem of Australian development a particularly difficult one. The areas of Australia and of other countries are given in the following table :—

AREA OF AUSTRALIA AND OF OTHER COUNTRIES.

Country.	Area.	Country.	Area.
	Sq. miles.		Sq. miles.
Continental Divisions—		Asia—	
Europe	3,874,100	Russia	5,460,390
Asia	15,971,338	China and Dependencies ..	4,279,170
Africa	12,641,502	British India and Adminis- tered Territories ..	1,094,300
North and Central America and West Indies ..	8,598,378	Arabia	1,000,000
South America ..	7,134,460	Feudatory Indian States ..	711,032
Australasia and Polynesia	3,463,128	Persia	628,000
		Dutch East Indies ..	572,950
Total, exclusive of Arctic and Antarctic Conts.	51,682,906	Turkey	483,656
		Japan (and Dependencies)	260,707
Europe—		Afghanistan	245,000
Russia	1,680,730	Siam	200,148
France	212,659	Iraq (Mesopotamia) ..	143,250
Spain	194,800	Philippine Islands ..	115,026
Germany	182,001	Laos	82,604
Sweden	173,105	Oman	82,000
Poland	149,915	Bokhara	79,600
Finland	132,642	British Borneo, Brunei, and Sarawak ..	77,106
Norway	124,964	Cambodia	67,550
Rumania	122,282	Syria	60,000
Italy and annexed Pro- vinces	119,624	Nepal	54,000
Serb, Croat, and Slovene State	96,134	Tonking	40,530
Great Britain and Northern Ireland	94,633	Annam	39,758
Lithuania	59,633	Federated Malay States ..	27,506
Czechoslovakia ..	54,207	Cochin China	26,476
Greece	49,912	Ceylon	25,332
Bulgaria	39,814	Khiva	24,000
Iceland	39,709	Malay Protectorate (inc. Johore)	22,486
Hungary	35,911	Bhutan	20,000
Portugal	35,490	Armenia	15,240
Azerbaijan	33,970	Aden and Dependencies ..	9,000
Austria	32,369	Palestine	9,000
Irish Free State ..	27,000	Timor, etc. (Portuguese In- dian Archipelago) ..	7,330
Georgia	25,760	Cyprus	3,584
Latvia	25,000	Goa, Damao, and Diu ..	1,638
Spitzbergen, Bear and ad- jacent islands ..	25,000	Straits Settlements ..	1,600
Estonia	18,354	Kwantung	538
Albania	17,374	Hong Kong and Dependen- cies	391
Denmark	17,144	Wei-hai-wei	285
Switzerland	15,940	Bahrain Islands	250
Netherlands	13,208	French India (Pondicherry, etc.)	196
Belgium	11,755	Kwang Chau Wan	190
Turkey	10,882	Maldives Islands	115
Luxemburg	999	Macao, etc.	4
Danzig	754		
Andorra	191	Total, Asia	15,971,338
Malta	122		
Liechtenstein	65	Africa—	
San Marino	38	French Sahara	1,500,000
Monaco	8	Anglo-Egyptian Sudan ..	1,014,400
Gibraltar	2	French Equatorial Africa	982,049
		Belgian Congo	909,654
Total, Europe ..	3,874,100		

AREA OF AUSTRALIA AND OF OTHER COUNTRIES—*continued.*

Country.	Area.	Country.	Area.
	Sq. miles.		Sq. miles.
SOUTH AMERICA—<i>continued.</i>		AUSTRALASIA AND POLYNESIA	
Venezuela	393,874	<i>—continued.</i>	
Chile	290,084	British Solomon Islands ..	11,000
Ecuador	174,155	New Caledonia and Depen-	
British Guiana	89,480	dencies	8,548
Uruguay	72,153	Fiji	7,083
Paraguay	61,647	Hawaii	6,449
Dutch Guiana	54,291	New Hebrides	5,700
Panama	32,380	French Establishments in	
French Guiana	34,740	Oceania	1,520
Falkland Islands and		Territory of Western Samoa	1,250
South Georgia ..	5,618	Gilbert and Ellice Islands	1,011
Panama Canal Zone ..	553	Marianne, Caroline, and	
		Marshall Islands ..	960
Total, South America ..	7,134,460	Tonga	385
		Guam	210
Australasia and Polynesia—		Samoa (U.S.A. part) ..	62
Commonwealth of Australia	2,974,581	Norfolk Island	13
Dutch New Guinea ..	160,692	Nauru Island	10
New Zealand and Depen-			
dencies	103,862	Total, Australasia and	
Papua	90,540	Polynesia	3,463,128
Territory of New Guinea	89,252		
		British Empire	13,366,208

The figures quoted in the table have, in most cases, been extracted from the Statesman's Year Book for 1926.

3. **Areas of Political Subdivisions.**—As already stated, Australia consists of six States and the Northern and Federal Capital Territories. The areas of these, and their proportions of the total of Australia, are shown in the following table :—

AUSTRALIA—AREA OF STATES AND TERRITORIES.

State or Territory.	Area.	Percentage on Total.
	Sq. miles.	%
New South Wales	309,432	10.40
Victoria	87,884	2.96
Queensland	670,500	22.54
South Australia	380,070	12.78
Western Australia	975,920	32.81
Tasmania	26,215	0.88
Northern Territory	523,620	17.60
Federal Capital Territory ..	940	0.03
Total	2,974,581	100.00

4. **Coastal Configuration.**—(i) *General.* There are no striking features in the configuration of the coast; the most remarkable indentations are the Gulf of Carpentaria on the north, and the Great Australian Bight on the south. The Cape York Peninsula on the extreme north is the only other remarkable feature in the outline. In Year Book No. 1, an enumeration of the features of the coast-line of Australia was given (see pp. 60 to 68).

(ii) *Coast-line.* The lengths of coast-line, exclusive of minor indentations, of each State and of the whole continent, and the area per mile of coast-line; are shown in the following table :—

AUSTRALIA—COAST-LINE AND AREA PER MILE THEREOF.

State.	Coast-line.	Area per Mile of Coast-line.	State.	Coast-line.	Area per Mile of Coast-line.
	Miles.	Sq. miles.		Miles.	Sq. miles.
New South Wales(a)	700	443	South Australia	1,540	247
Victoria ..	680	129	Western Australia	4,350	224
Queensland ..	3,000	223	Continent (b) ..	11,310	261
Northern Territory	1,040	503	Tasmania ..	900	29

(a) Including Federal Capital Territory.

(b) Area 2,948,366 square miles.

For the entire Commonwealth of Australia this gives a coast-line of 12,210 miles and an average of 244 square miles for one mile of coast-line. According to Strelbitski, Europe has only 75 square miles of area to each mile of coast-line, and, according to recent figures, England and Wales have only one-third of this, viz., 25 square miles.

(iii) *Historical Significance of Coastal Names.* It is interesting to trace the voyages of some of the early navigators by the names bestowed by them on various coastal features—thus Dutch names are found on various points of the Western Australian coast, in Nuyts' Archipelago, in the Northern Territory and in the Gulf of Carpentaria; Captain Cook can be followed along the coasts of New South Wales and Queensland; Flinders' track is easily recognized from Sydney southwards, as far as Cape Catastrophe, by the numerous Lincolnshire names bestowed by him; and the French navigators of the end of the eighteenth and the beginning of the nineteenth century have left their names all along the Western Australian, South Australian, and Tasmanian coasts.

5. *Geographical Features of Australia.*—In each of the earlier issues of this Year Book fairly complete information has been given concerning some special geographical element. The nature of this information and its position in the various Year Books can be readily ascertained on reference to the special index following the index to maps and graphs at the end of this work.

6. *Fauna, Flora, Geology, and Seismology of Australia.*—Special articles dealing with these features have appeared in previous Year Books, but limits of space naturally preclude their repetition in each volume. As pointed out in 5 *supra*, however, the nature and position of these articles can be readily ascertained from the special index.

7. *Changing of German Place Names in Australia.*—A list of German place and district names in Australia which were changed during the Great War appeared in Year Book No. 19, pages 50 and 51. Limitations of space, however, preclude its repetition in this issue.

§ 2. Climate and Meteorology of Australia.*

1. *Introductory.*—In preceding Year Books some account was given of the history of Australian meteorology, including reference to the development of magnetic observations and the equipment for the determination of various climatological records. (See Year Book No. 3, pp. 79, 80.) In Year Book No. 4, pp. 84 and 87, will be found a short sketch of the creation and organization of the Commonwealth Bureau of Meteorology, and a résumé of the subjects dealt with at the Meteorological Conference of 1907. Space will not permit of the inclusion of this matter in the present issue.

2. *Meteorological Publications.*—The following publications are issued daily from the Central Meteorological Bureau, viz.:—(i) Weather charts. (ii) Rainfall maps. (iii) Bulletins, Victorian and Interstate, showing pressure, temperature, wind, rain, cloud extent, and weather. Similar publications are also issued from the divisional offices in each of the State Capitals.

* Prepared from data supplied by the Commonwealth Meteorologist, H. A. Hunt, Esquire.

Commencing with January, 1910, the "Australian Monthly Weather Report," containing statistical records from representative selected stations, with rain maps and diagrams, etc., was published, but was suspended in September, 1913. Complete rainfall and other climatological data are published in volumes of meteorological statistics for each State separately.

The first text book of Australian meteorology, "Climate and Weather of Australia," was published in 1913.

In addition, fifteen Bulletins of Climatology have been published, particulars of which are given in preceding issues of the Official Year Book (see No. 12, page 54).

The following publications have since been issued :—

The Australian Meteorological Observer's Handbook.

Bulletin No. 16. Australian Hurricanes and Related Storms, with appendix on Hurricanes in the South Pacific.

Bulletin No. 17. Some periods of Australian Weather; observations of Visibility at various Australian stations during the years 1923 and 1924.

Atmospheric Pollution; observations with the Owens' dust counter during the years 1923 and 1924.

Map showing the principal River Basins of Australia.

Map of Normal Meteorological Conditions in Australia affecting Aviation (set of four sheets) unmounted.

Map of Normal Meteorological Conditions in Australia affecting Aviation (set of four maps) mounted.

Map of Potential Cotton-growing Areas of Australia, determined by Climatic Factors.

3. **General Description of Australia.**—A considerable portion (0.530) of three divisions of Australia is north of the tropic of Capricorn—that is to say, within the States of Queensland and Western Australia, and the Northern Territory, no less than 1,149,320 square miles belong to the tropical zone, and 1,020,720 to the temperate zone. The whole area of Australia within the temperate zone, however, is 1,825,261 square miles; thus the tropical part is about 0.386, or about five-thirteenth of the whole, or the "temperate" region is half as large again as the "tropical" (more accurately 1.588). By reason of its insular geographical position, and the absence of striking physical features, Australia is, on the whole, less subject to extremes of weather than are regions of similar area in other parts of the globe, and latitude for latitude Australia is, on the whole, more temperate.

The altitudes of the surface of Australia range up to a little over 7,300 feet, hence its climate embraces a great many features, from the characteristically tropical to what is essentially alpine, a fact indicated in some measure by the name Australian Alps given to the southern portion of the great Dividing Range.

On the coast, the rainfall is often abundant and the atmosphere moist, but in some portions of the interior it is very limited, and the atmosphere dry. The distribution of forest, therefore, with its climatic influence, is very uneven. In the interior, in places, there are fine belts of trees, but there are large areas also which are treeless, and where the air is hot and parching in summer. Again, on the coast, even so far south as latitude 35°, the vegetation is tropical in its luxuriance, and to some extent also in character. Climatologically, therefore, Australia may be said to present a great variety of features.

4. **Meteorological Divisions.**—(i) *General.* The Commonwealth Meteorologist has divided Australia, for climatological and meteorological purposes, into five divisions. The boundaries between these may be thus defined :—(a) Between divisions I. and II., the boundary between South and Western Australia, viz., the 129th meridian of east longitude; (b) between divisions II. and III., a line starting at the Gulf of Carpentaria, along the Norman River to Normanton, thence a straight line to Wilcannia on the Darling River, New South Wales; (c) between divisions II. and IV., a line from Wilcannia along the Darling River to its junction with the Murray; (d) between divisions II. and V., a line from the junction of the Darling and Murray Rivers, along the latter to Encounter Bay; (e) between divisions III. and IV., a line starting at Wilcannia, along the Darling, Barwon, and Dumaresq Rivers to the Great Dividing Range, and along that range and along the watershed between the Clarence and Richmond Rivers to Evans Head on the east coast of Australia; (f) between divisions IV. and V., a line from the junction of the Darling and Murray Rivers along the latter to its junction with the Murrumbidgee, along the Murrumbidgee to the Tumut River, and along the Tumut River to Tumut, thence a straight line to Cape Howe; (g) Tasmania is included in division V.

The population included within these boundaries at the Census of the 4th April, 1921, was approximately as follows :—

Division	I.	II.	III.	IV.	V.
Population	332,000	500,000	824,000	1,915,000	1,866,000

In these divisions, the order in which the capitals occur is as follows :—(a) Perth, (b) Adelaide, (c) Brisbane, (d) Sydney, (e) Melbourne, and (f) Hobart; and the climatological and meteorological statistics relating to the capital cities are dealt with herein in accordance with that order.

(ii) *Special Climatological Stations.* The latitudes, longitudes, and altitudes of special stations, the climatological features of which are graphically represented hereinafter are as follows :—

SPECIAL CLIMATOLOGICAL STATIONS—AUSTRALIA.

Locality.	Height above Sea Level.	Latitude. S.	Longitude. E.	Locality.	Height above Sea Level.	Latitude. S.	Longitude. E.
	Feet.	deg. min.	deg. min.		Feet.	deg. min.	deg. min.
Perth ..	197	31 57	115 50	Darwin ..	97	12 28	130 51
Adelaide ..	140	34 56	138 35	Daly Waters	691	16 16	133 23
Brisbane ..	137	27 28	153 2	Alice Springs	1,926	23 38	133 37
Sydney ..	138	33 52	151 12	Dubbo ..	870	32 18	148 35
Melbourne ..	115	37 49	144 58	Laverton, W.A.	1,530	28 40	122 23
Hobart ..	177	42 53	147 20	Coolgardie ..	1,389	30 57	121 10

5. *Temperatures.*—(i) *Comparisons with other Countries.* In respect of Australian temperatures generally, it may be pointed out that the isotherm for 70° Fahrenheit extends in South America and South Africa so far south as latitude 33°, while in Australia it reaches only so far south as latitude 30°, thus showing that, on the whole, Australia has latitude for latitude a more temperate climate than other places in the Southern Hemisphere.

The comparison is even more favourable when the Northern Hemisphere is included, for in the United States the 70° isotherm extends in several of the western States so far north as latitude 41°. In Europe, the same isotherm reaches almost to the southern shores of Spain, passing, however, afterwards along the northern shores of Africa till it reaches the Red Sea, when it bends northward along the eastern shore of the Mediterranean till it reaches Syria. In Asia, nearly the whole of the land area south of latitude 40° N. has a higher temperature than 70°.

The extreme range of shade temperatures in summer and winter in a very large part of Australia amounts to probably only 81°. In Siberia, in Asia, the similar range is no less than 171°, and in North America 153°, or approximately double the Australian range.

Along the northern shores of Australia the temperatures are very equable. At Darwin, for example, the difference in the means for the hottest and coldest months is only 8.4°, and the extreme readings for the year, or the highest maximum in the hottest month and the lowest reading in the coldest month, show a difference of under 50°.

Coming southward, the extreme range of temperature increases gradually on the coast, and in a more pronounced manner inland.

(ii) *Hottest and Coldest Parts.* A comparison of the temperatures recorded at coast and inland stations shows that, in Australia, as in other continents, the range increases with increasing distance from the coast.

In the interior of Australia, and during exceptionally dry summers, the temperature occasionally reaches or exceeds 120° in the shade, and during the dry winters the major portion of the country to the south of the tropics is subject to ground frosts. An exact knowledge of temperature disposition cannot be determined until the interior becomes more settled, but from data procurable it would appear that the hottest area of the continent is situated in the northern part of Western Australia about the Marble Bar and Nullagine goldfields, where the maximum shade temperature during the summer sometimes exceeds 100° continuously for days and weeks. The coldest part of Australia is the extreme south-east of New South Wales and extreme east of Victoria—the region of the Australian Alps. Here the temperature seldom, if ever, reaches 100° even in the hottest of seasons.

Tasmania as a whole enjoys a most moderate and equable range of temperature throughout the year, although occasionally hot winds may cross the Straits and cause the temperature to rise to 100° in the low-lying parts.

(iii) *Monthly Maximum and Minimum Temperatures.* The normal monthly maximum and minimum temperatures can be best shown by means of graphs, which exhibit the nature of the fluctuation of each for all available years. In the diagram herein for nine representative places in Australia, the upper heavy curves show the mean maximum, and the lower heavy curves the mean minimum temperatures based upon daily observations, while the other curves show the humidities.

6. *Humidity.*—After temperature, humidity is the most important element of climate, as regards its effect on human comfort, rainfall supply, and in connexion with engineering problems generally.

In this publication the *absolute humidity* has been graphically represented in the form of inches of vapour pressure (i.e. that portion of the barometric pressure due to vapour). It is this total quantity of moisture in the air which affects personal comfort, plays an important part in varying the density of the atmosphere, and in heating and refrigerating processes. The more commonly quoted value, called the *relative humidity*, refers to the ratio which the actual moisture contents of the air bear to the total amount possible if saturation existed at the given temperature, and is usually quoted as a percentage. The relative humidity is an important factor in all drying operations, but is much less important than the absolute humidity as affecting animal life.

The mean monthly vapour pressure has also been added to the tables of climatological data for the capital cities included herein.

The normal monthly values of vapour pressure, it should be noted, combine to make the annual curve for this element which is comparable with the maximum and minimum temperature curves, but the relative humidities consisting as they do of the extremes for each month, do not show the normal annual fluctuation which would be approximately midway between the extremes.

The order of stations in descending values of vapour pressure is Darwin, Daly Waters, Brisbane, Sydney, Perth, Adelaide, Melbourne, Hobart and Alice Springs, while the relative humidity diminishes in the order, Sydney, Hobart, Darwin, Brisbane, Melbourne, Perth, Adelaide, Daly Waters and Alice Springs.

7. *Evaporation.*—(i) *General.* The rate and quantity of evaporation in any territory is influenced by the prevailing temperature, and by atmospheric humidity, pressure, and movement. In Australia, the question is of perhaps more than ordinary importance, since in its drier regions water has often to be conserved in "tanks"* and dams. The magnitude of the economic loss by evaporation will be appreciated from the tabular records herein, which show that the yearly amount varies from about 32 inches at Hobart to 94 inches at Alice Springs in the centre of the Continent. Over the inland districts of the Continent it has been calculated that evaporation equals the rainfall where the annual totals are about 36 inches, the variations above and below this quantity being inverse.

(ii) *Monthly Evaporation Curves.* The curves showing the mean monthly evaporation in various parts of Australia disclose how characteristically different are the amounts for the several months in different localities. The evaporation for representative places is shown on the diagram herein.

(iii) *Loss by Evaporation.* In the interior of Australia the possible evaporation is greater than the actual rainfall. Since the loss by evaporation depends largely on the exposed area, tanks and dams so designed that the surface shall be a minimum are advantageous. Further, the more protected from the direct rays of the sun and from winds, by means of suitable tree planting, the less will be the loss by evaporation. These matters are naturally of more than ordinary concern in the drier districts of Australia.

8. *Rainfall.*—(i) *General.* As even a casual reference to climatological maps indicating the distribution of rainfall and prevailing direction of wind would clearly show, the rainfall of any region is determined mainly by the direction and route of the prevailing winds, by the varying temperatures of the earth's surface over which they blow, and by the physiographical features generally.

Australia lies within the zones of the south-east trades and prevailing westerly winds. The southern limit of the south-east trade strikes the eastern shores at about 30° south latitude, and, with very few exceptions, the heaviest rains of the Australian continent are precipitated along the Pacific slopes to the north of that latitude, the varying quantities

* In Australia, artificial storage ponds or reservoirs are called "tanks."

being more or less regulated by the differences in elevation of the shores and of the chain of mountains upon which the rain-laden winds blow from the New South Wales northern border to Thursday Island. The converse effect is exemplified on the north-west coast of Western Australia, where the prevailing winds, blowing from the interior of the continent instead of from the ocean, result in the lightest coastal rain in Australia.

The westerly winds, which skirt the southern shores, are responsible for the very reliable, although generally light to moderate, rains enjoyed by the south-western portion of Western Australia, by the south-eastern agricultural areas of South Australia, by a great part of Victoria, and by the whole of Tasmania.

(ii) *Factors determining Distribution and Intensity of Rainfall.* (iii) *Time of Rainfall.* In Official Year Book No. 6 (see pp. 72 to 74) some notes were given of the various factors governing the distribution, intensity, and period of Australian rainfall.

(iv) *Wettest and Driest Regions.* The wettest known part of Australia is on the north-east coast of Queensland, between Port Douglas and Cardwell, where three stations situated on, or adjacent to, the Johnstone and Russell Rivers have an average annual rainfall of between 144 and 165 inches. The maximum and minimum falls there are :—Goondi, 241.53 in 1894 and 67.88 inches in 1915, or a range of 173.65 inches ; Innisfail, 211.24 in 1894 and 69.87 inches in 1902, or a range of 141.37 inches ; Harvey Creek, 254.77 in 1921 and 80.47 inches in 1902, or a range of 174.30 inches.

On four occasions more than 200 inches have been recorded at Goondi, the last of these being in 1910, when 204.82 inches were registered. The record at this station covers a period of 34 years.

Harvey Creek, in the shorter period of 26 years has three times exceeded 200 inches, the total for 1921 being 254.77 inches, and at the South Johnstone Sugar Experiment Station, where a gauge has recently been established, 202.52 inches were recorded in 1921.

In Tasmania the wettest part is in the West Coast region, the mean annual rainfall at Lake Margaret being 145.34, with a maximum of 175.12 in 1924.

The driest known part of the continent is in the Lake Eyre district in South Australia (the only part of the continent below sea level), where the annual average is only 5 inches, and where the fall rarely exceeds 10 inches for the twelve months.

The inland districts of Western Australia were at one time regarded as the driest part of Australia, but authentic observations in recent years over the settled districts in the east of that State show that the annual average is from 10 to 12 inches.

(v) *Quantities and Distribution of Rainfall.* The departure from the normal rainfall increases progressively from the southern to the northern shores of the continent, and similarly also at all parts of the continent subject to capricious monsoonal rains, as the comparisons hereunder will show. The general distribution is best seen from the rainfall map herein, which shows the areas subject to average annual rainfalls lying between certain limits. The areas enjoying varying quantities of rainfall determined from the latest available information are shown in the following table :—

AVERAGE ANNUAL RAINFALL DISTRIBUTION.

Average Annual Rainfall.	N.S.W. (a)	Victoria.	Queens- land.	South Australia	Northern Territory	Western Australia.	Tas- mania. (b)	Total. (b)
	sqr. mls.	sqr. mls.	sqr. mls.	sqr. mls.	sqr. mls.	sqr. mls.	sqr. mls.	sqr. mls.
Under 10 inches	48,749	nil	80,496	310,660	140,500	486,952	nil	1,067,357
10—15 "	78,454	19,270	81,549	36,460	132,780	255,092	nil	603,605
15—20 "	55,762	13,492	111,833	19,940	63,026	94,101	304	358,458
20—25 "	45,140	14,170	143,610	8,620	49,157	44,340	3,844	308,881
25—30 "	30,539	15,579	99,895	3,258	41,608	31,990	3,016	225,885
30—40 "	33,557	14,450	61,963	1,036	37,642	59,520	5,027	213,195
Over 40 "	18,171	10,923	91,154	96	58,907	3,925	11,247	194,423
Total area ..	310,372	87,884	670,500	380,070	523,620	975,920	23,438	2,971,804

(a) Including Federal Capital Territory. (b) Over an area of 2,777 square miles no records are available.

Referring first to the capital cities, the complete records of which are given in the next table, it will be seen that Sydney, with a normal rainfall of 47.46 inches, occupies the chief place ; Brisbane, Perth, Melbourne, Hobart and Adelaide following in that order, Adelaide with 21.22 inches being the driest. The extreme range from the wettest to the driest year is greatest at Brisbane (72.09 inches) and least at Adelaide (19.48 inches).

In order to show how the rainfall is distributed throughout the year in various parts of the continent, the figures of representative towns have been selected. (See map.) The figures for Darwin, typical of the Northern Territory, show that nearly the whole of the rainfall occurs there in the summer months, while little or none falls in the middle of the year. The figures for Perth, as representing the south-western part of the continent, are the reverse, for while the summer months are dry, the winter ones are very wet. In Melbourne and Hobart the rain is fairly well distributed throughout the twelve months, with a maximum in October for the former, and in November for the latter. The records at Alice Springs and Daly Waters indicate that in the central parts of Australia the wettest months are in the summer and autumn. In Queensland, as in the Northern Territory, the heaviest rains fall in the summer months, but good averages are also maintained during the other seasons.

On the coast of New South Wales, the first six months of the year are the wettest, with a maximum in the autumn; the averages during the last six months are fair, and moderately uniform. Generally it may be said that approximately one-third of the area of the continent, principally in the eastern and northern parts, enjoys an annual average rainfall of from 20 to 50 or more inches, the remaining two-thirds averaging from 5 to 20 inches.

(vi) *Curves of Rainfall and Evaporation.* The relative amounts of rainfall and evaporation at different times through the year are clearly indicated in the graphs herein. Inspection thereof will show how large is the evaporation when water is fully exposed to the direct rays of the sun and to wind.

(vii) *Tables of Rainfall.* The table of rainfall for a long period of years for each of the various Australian capitals affords information as to the variability of the fall in successive years, and the list of the more remarkable falls furnishes information as to what may be expected on particular occasions. As pointed out in 4 *ante*, the capitals are dealt with in the order in which they occur in the adopted meteorological divisions.

RAINFALL—AUSTRALIAN CAPITAL CITIES, 1901 TO 1926.

Year.	PERTH.			ADELAIDE.			BRISBANE.			SYDNEY.			MELBOURNE.			HOBART.		
	Amount.	No. of Days.	10 Years' Means.	Amount.	No. of Days.	10 Years' Means.	Amount.	No. of Days.	10 Years' Means.	Amount.	No. of Days.	10 Years' Means.	Amount.	No. of Days.	10 Years' Means.	Amount.	No. of Days.	10 Years' Means.
	in.		in.	in.		in.	in.		in.	in.		in.	in.		in.	in.		in.
1901	36.75	122	..	18.01	124	..	33.48	110	..	40.10	149	..	27.15	113	..	25.11	149	..
2	27.96	93	..	16.02	123	..	16.17	87	..	43.07	150	..	23.08	102	..	21.85	150	..
3	35.69	140	..	25.47	134	..	49.27	136	..	38.62	173	..	28.43	130	..	25.86	139	..
4	34.35	125	..	20.31	117	..	33.23	124	..	45.93	158	..	29.72	128	..	22.41	139	..
5	34.61	116	..	22.28	131	..	36.76	108	..	35.03	145	..	25.64	129	..	32.09	168	..
6	32.37	121	..	26.51	127	..	42.85	125	..	31.89	160	..	22.29	114	..	23.31	155	..
7	10.12	132	..	17.78	125	..	31.46	119	..	31.32	132	..	22.26	102	..	25.92	166	..
8	30.52	108	34.05	24.56	125	21.15	44.01	125	36.55	45.65	167	43.41	17.72	130	25.36	16.50	148	23.29
9	39.11	107	..	27.69	138	..	34.06	111	..	32.45	177	..	25.86	171	..	27.29	170	..
1910	37.02	135	..	24.62	116	..	49.00	133	..	46.91	160	..	24.61	167	..	25.22	205	..
11	23.38	108	..	15.99	127	..	35.21	128	..	50.24	155	..	36.61	168	..	26.78	193	..
12	27.85	123	..	19.57	116	..	41.30	114	..	47.51	172	..	20.37	157	..	23.14	181	..
13	38.28	141	..	18.16	102	..	40.81	115	..	67.79	141	..	21.17	157	..	19.36	165	..
14	20.21	128	..	11.39	91	..	33.09	141	..	56.42	149	..	18.57	129	..	15.42	154	..
15	43.61	164	..	19.38	117	..	25.66	93	..	34.33	117	..	20.65	167	..	20.91	166	..
16	35.16	128	..	28.00	142	..	52.80	136	..	44.91	161	..	33.04	170	..	43.34	208	..
17	45.64	146	..	38.00	153	..	40.92	127	..	52.40	151	..	30.57	171	..	30.62	214	..
18	39.58	138	34.98	17.41	107	21.13	24.95	121	37.87	42.09	119	46.64	27.13	160	26.39	26.04	170	25.82
19	30.66	120	..	17.21	108	..	19.36	96	..	58.71	152	..	24.89	141	..	22.48	153	..
20	40.35	124	..	26.70	119	..	39.72	122	..	44.42	159	..	28.27	162	..	18.00	182	..
21	41.09	135	..	22.64	100	..	54.31	167	..	43.34	140	..	29.76	154	..	18.04	159	..
22	21.86	135	..	23.20	117	..	35.82	109	..	39.35	136	..	25.02	151	..	28.27	189	..
23	44.47	134	..	29.79	139	..	23.27	93	..	37.01	123	..	22.64	158	..	32.93	168	..
24	33.70	119	..	23.44	143	..	41.08	114	..	37.01	126	..	30.48	171	..	28.76	197	..
25	31.41	126	..	21.91	118	..	53.10	189	..	50.85	145	..	17.57	144	..	22.40	171	..
26	40.22	167	..	22.20	116	..	30.82	111	..	37.07	127	..	20.81	140	..	25.79	187	..
Aver.	34.32	120	..	21.22	123	..	45.08	128	..	47.50	153	..	26.13	138	..	23.84	150	..
No. of Yrs.	51	51	..	88	88	..	77	67	..	87	87	..	83	71	..	84	84	..

NOTE.—The above average rainfall figures for Brisbane, Sydney, and Melbourne differ slightly from the mean annual falls given in the Climatological Tables, which are for a less number of years. Annual totals from 1860 to 1900 inclusive will be found in Official Year Book No. 15, page 53.

9. **Remarkable Falls of Rain.**—The following are the more remarkable falls of rain in the various States and in the Northern Territory, which have occurred within a period of twenty-four hours. In New South Wales and Queensland falls of less than 15 inches in the twenty-four hours are not included. Reference, however, to them may be found in preceding Official Year Books (see No. 14, pp. 60–63):—

HEAVY RAINFALLS—NEW SOUTH WALES, UP TO 1926, INCLUSIVE.

Name of Town or Locality.	Date.	Amnt.	Name of Town or Locality.	Date.	Amnt.
		ins.			ins.
Anthony ..	28 Mar., 1887	17.14	Kembla Heights ..	13 Jan., 1911	17.46
Araluen ..	27 May, 1925	15.83	Madden's Creek ..	13 Jan., 1911	18.68
Bega ..	27 Feb., 1919	17.88	Morpeth ..	9 Mar., 1893	21.52
Broger's Creek ..	14 „ 1898	20.05	Mount Kembla ..	13 Jan., 1911	18.25
„ ..	13 Jan., 1911	20.83	Numbugga ..	27 Feb., 1919	17.87
Bulli Mountain ..	13 Dec., 1898	17.14	Tongara Farm ..	14 „ 1898	15.12
Burrigate ..	27 „ 1919	16.38	Towamba ..	5 Mar., 1893	20.00
Candelo ..	27 Feb., „	18.58	South Head (near		
Condong ..	27 Mar., 1887	18.66	Sydney) ..	29 Apr., 1841	20.12
Cordeaux River ..	14 Feb., 1898	22.58	„ „ ..	16 Oct., 1844	20.41
Dapto ..	11 May, 1925	15.00			

HEAVY RAINFALLS—QUEENSLAND, UP TO 1926, INCLUSIVE.

Name of Town or Locality.	Date.	Amnt.	Name of Town or Locality.	Date.	Amnt.
		ins.			ins.
Anglesey ..	26 Dec., 1909	18.20	Flying Fish Point	31 Jan., 1913	16.10
Atherton (Cairns) ..	31 Jan., 1913	16.69	Gladstone ..	4 Feb., 1911	18.83
Babinda (Cairns) ..	1 Feb., „	20.51	Glen Boughton ..	5 Apr., 1894	18.50
„ ..	24 Jan., 1916	22.30	Goldsborough		
„ ..	21 Apr., 1920	16.05	(Cairns) ..	31 Jan., 1913	19.92
Babinda ..	25 Mar., 1921	15.76	Goondi Mill (Innis-		
Banyan ..	1 Mar., 1925	16.43	fail) ..	6 Apr., 1894	15.69
Bloomsbury ..	14 Feb., 1893	17.40	„ „ ..	29 Dec., 1903	17.83
„ ..	10 Jan., 1901	16.62	„ „ ..	10 Feb., 1911	17.68
Brisbane ..	21 „ 1887	18.31	„ „ ..	6 Apr., 1912	15.55
Buderim Mountain	11 „ 1898	26.20	Goondi ..	30 Jan., 1913	24.10
Bundaberg ..	16 „ 1913	16.94	Goorganga ..	23 „ 1918	18.17
Burnett Head			Halifax ..	5 Feb., 1899	15.37
(Bundaberg) ..	16 „ 1913	15.22	„ „ ..	6 Jan., 1901	15.68
Cairns ..	11 Feb., 1911	15.17	Hambledon Mill	2 „ 1911	18.61
„ ..	2 Apr., „	20.16	„ „ ..	1 Apr., „	19.62
Carbrook ..	23 Jan., 1918	22.66	„ „ ..	30 Jan., 1913	17.32
„ ..	24 Jan., 1918	15.77	Hampden ..	23 Apr., 1918	17.30
Cardwell ..	18 Mar., 1904	18.24	„ ..	24 „	17.19
„ ..	11 Mar., 1918	16.65	Harvey Creek ..	8 Mar., 1899	17.72
Carmilla ..	23 Jan., 1918	15.92	„ „ ..	11 Jan., 1905	16.96
Clare ..	26 „ 1896	15.30	„ „ ..	3 „ 1911	27.75
Collaroy ..	23 „ 1918	18.06	„ „ ..	2 Apr., „	16.46
Crohamhurst			„ „ ..	31 Jan., 1913	24.72
(Blackall Range)	2 Feb., 1893	35.71	„ „ ..	25 Mar., 1921	15.80
„ ..	9 Jan., 1898	19.55	„ „ ..	12 Mar., 1924	16.50
„ ..	6 Mar., „	16.01	„ „ ..	13 Mar., „	15.78
Croydon ..	29 Jan., 1908	15.00	Haughton Valley ..	26 Jan., 1896	18.10
Dungeness ..	16 Mar., 1893	22.17	Holmwood (Wood-		
Dunira ..	9 Jan., 1898	18.45	ford) ..	2 Feb., 1893	16.19
„ ..	6 Mar., „	15.95	Howard ..	15 Jan., 1905	19.55
Dunwich ..	8 May, 1925	15.46	Huntley ..	27 Dec., 1916	18.94
Fairymead Planta-			Innisfail (formerly		
tion (Bundaberg)	16 Jan., 1913	15.32	Geraldton) ..	11 Feb., 1889	17.13
Flying Fish Point ..	7 Apr., 1912	16.06	„ „ ..	6 Apr., 1894	16.02

HEAVY RAINFALLS—QUEENSLAND—*continued.*

Name of Town or Locality.	Date.	Amnt.	Name of Town or Locality.	Date.	Amnt.
		ins.			ins.
Innisfail (formerly Geraldton) ..	24 Jan., 1900	15.22	Mourilyan ..	7 Apr., 1912	18.97
" " ..	29 Dec., 1903	21.22	" " ..	31 Jan., 1913	15.05
" " ..	2 Apr., 1911	15.00	Mundoolun ..	21 " , 1887	17.95
" " ..	7 " , 1912	20.50	Nambour ..	9 " , 1898	21.00
" " ..	31 Jan., 1913	20.91	" " ..	27 Dec., 1909	16.80
Kamerunga (Cairns)	2 Apr., 1911	21.00	Netherdale ..	22 Jan., 1918	19.50
" " ..	31 Jan., 1913	16.00	Oxenford ..	14 Mar., 1908	15.65
Koumala ..	23 " , 1918	22.31	Palmwoods ..	10 Jan., 1898	15.85
" " ..	24 " , "	20.65	" " ..	25 Dec., 1909	17.75
Kuranda (Cairns) ..	11 Feb., 1911	16.30	Pialba (Marybor'gh)	16 Jan., 1913	17.22
" " ..	17 Mar., "	15.10	Plane Creek (Mackay) ..	26 Feb., "	27.73
" " ..	31 " , "	18.60	Port Douglas ..	10 Mar., 1904	16.34
" " ..	1 Apr., "	24.30	" " ..	17 " , 1911	16.10
" " ..	2 " , "	28.80	" " ..	1 Apr., "	31.53
" " ..	31 Jan., 1913	16.34	Proserpine ..	23 Jan., 1918	18.17
Landsborough ..	2 Feb., 1893	15.15	Ravenswood ..	24 Mar., 1890	17.00
Low Island ..	10 Mar., 1904	15.07	Redcliffe ..	16 Feb., 1893	17.35
" " ..	1 Apr., 1911	15.30	Rosedale ..	16 Jan., 1913	18.90
Lyndon (<i>via</i> Brixton)	3 " , 1917	17.00 ^a	Sarina ..	23 " , 1918	22.60
Mackay ..	21 Jan., 1918	24.70 ^b	St. Lawrence ..	30 " , 1896	15.00
" " ..	22 " , "	17.25 ^c	The Hollow (Mackay) ..	23 Feb., 1888	15.12
Sugar Experimental Farm, Mackay ..	21 " , "	16.80	Thornborough ..	20 Apr., 1903	18.07
" " ..	22 " , "	17.20	Townsville ..	24 Jan., 1892	19.20
Macnade Mill ..	5 Feb., 1899	15.20	" " ..	28 Dec., 1903	15.00
" " ..	6 Jan., 1901	23.33	Victoria Mill ..	6 Jan., 1901	16.67
" " ..	4 Mar., 1915	22.00	Woodlands (Yepp'n) ..	31 " , 1893	23.07
Mapleton ..	26 Dec., 1909	15.72	Wootha ..	10 Feb., 1915	15.93
Mirani ..	12 Jan., 1901	16.59	Yandina ..	1 " , 1893	20.08
Miriam Vale (B'berg)	17 " , 1913	15.80	" " ..	9 Jan., 1898	19.25
Mooloolah ..	13 Mar., 1892	21.53	" " ..	28 Dec., 1909	15.80
" " ..	2 Feb., 1893	19.11	Yarrabah ..	2 Apr., 1911	30.65
Mount Cuthbert ..	8 Jan., 1911	18.00	" " ..	24 Jan., 1916	27.20
Mount Molloy ..	31 Mar., "	20.00	" " ..	25 " , "	18.60
" " ..	1 Apr., "	20.00	Yeppoon ..	31 " , 1893	20.05
" " ..	2 " , "	20.00	" " ..	8 " , 1898	18.05
Mourilyan ..	11 Feb., 1911	17.40	" " ..	8 Oct., 1914	21.70

HEAVY RAINFALLS—WESTERN AUSTRALIA, UP TO 1926, INCLUSIVE.

Name of Town or Locality.	Date.	Amnt.	Name of Town or Locality.	Date.	Amnt.
		ins.			ins.
Alice Downs ..	15 Mar., 1922	10.58	Exmouth Gulf ..	2 Feb., 1918	12.50
Balla Balla ..	21 " , 1899	14.40	Fortescue ..	3 May, 1890	23.36
Bamboo Creek ..	22 " , "	10.10	Frazier Downs ..	3 Mar., 1916	11.25
Boodarie ..	3 Jan., 1896	10.03	Gnaraloo ..	20 " , 1923	11.00
" " ..	21 " , "	14.53	Kerdiadary ..	7 Feb., 1901	12.00
Booloogooroo ..	17 " , 1923	10.96	Meda ..	2 Mar., 1916	10.55
Broome ..	6 Jan., 1917	14.00	Millstream ..	5 " , 1900	10.00
Carlton ..	11 " , 1903	10.64	Minilya ..	15 Jan., 1923	11.50
Cossack ..	3 Apr., 1898	12.82	Obagama ..	28 Feb., 1910	12.00
" " ..	16 " , 1900	13.23	" " ..	24 Dec., 1920	13.02
Croydon ..	3 Mar., 1903	12.00	Pilbara ..	2 Apr., 1898	14.04
Derby ..	29 Dec., 1898	13.09	Point Cloates ..	20 Jan., 1909	10.87
" " ..	7 Jan., 1917	16.47	Point Torment ..	17 Dec., 1906	11.86

^a Mr. Jas. Laidlaw, of Lyndon, states that this fell in 4 hours. ^b 37½ hours. ^c 22½ hours.

HEAVY RAINFALLS, WESTERN AUSTRALIA—*continued.*

Name of Town or Locality.	Date.	Amnt.	Name of Town or Locality.	Date.	Amnt.
		ins.			ins.
Port George IV. ..	17 Jan., 1915	11.24	Whim Creek ..	21 Mar., 1899	18.17
Roebourne ..	3 Apr., 1898	11.44	" " ..	6 " 1900	10.03
" ..	6 Mar., 1900	10.32	" " ..	3 " 1903	10.44
Roebuck Plains ..	5 Jan., 1917	14.01	Winderrie ..	17 Jan., 1923	14.23
" " ..	6 " "	22.36	Woodstock ..	21 " 1912	13.00
Springvale ..	14 Mar., 1922	12.25	Wyndham ..	27 Jan., 1890	11.60
Tambray ..	6 " 1900	11.00	" " ..	4 Mar., 1919	12.50
" ..	3 " 1903	10.47	Yardie Creek ..	3 Feb., 1918	10.00
Thangoc ..	17-19 Feb. '96	24.18	Yeeda ..	2 Mar., 1916	10.70
" ..	28 Dec., 1893	11.15	" " ..	6 Jan., 1917	10.20
Whim Creek ..	3 Apr., 1898	29.41	" " ..	7 " "	11.75

HEAVY RAINFALLS—NORTHERN TERRITORY, UP TO 1926, INCLUSIVE.

Name of Town or Locality.	Date.	Amnt.	Name of Town or Locality.	Date.	Amnt.
		ins.			ins.
Bathurst Island ..	7 Apr., 1925	11.85	Cosmopolitan Gold Mine ..	24 Dec., 1915	10.60
Mission ..	24 Dec., 1915	10.60	Darwin ..	7 Dec., 1915	11.67
Bonrook ..	14 Mar., 1899	14.00	Groote Eylandt ..	30-31 Mar., '23	12.00a
Borrooloola ..	4 Jan., 1914	10.68	Lake Nash ..	21 Mar., 1901	10.25
Brock's Creek ..	24 Dec., 1915	14.33	Pine Creek ..	8 Jan., 1897	10.35
" " ..	4 Jan., 1914	11.61			

(a) Approximate only, as gauge was washed away.

HEAVY RAINFALLS—SOUTH AUSTRALIA, UP TO 1926, INCLUSIVE.

Name of Town or Locality.	Date.	Amnt.	Name of Town or Locality.	Date.	Amnt.
		ins.			ins.
Wilmington ..	28 Feb., 1921	3.97	Wilmington ..	1 Mar., 1921	7.12

HEAVY RAINFALLS—VICTORIA, UP TO 1926, INCLUSIVE.

Name of Town or Locality.	Date.	Amnt.	Name of Town or Locality.	Date.	Amnt.
		ins.			ins.
Balook ..	26 Sept., 1917	5.32	Mt. Buffalo ..	6 June, 1917	8.53
" " ..	27 " "	7.23	" " ..	7 " "	6.56
" " ..	28 " "	2.08			

HEAVY RAINFALLS—TASMANIA, UP TO 1926, INCLUSIVE.

Name of Town or Locality.	Date.	Amnt.	Name of Town or Locality.	Date.	Amnt.
		ins.			ins.
Cullenswood ..	5 June, 1923	10.50	Mathinna ..	8-10 Mar., '11	15.79
Gould's Country ..	8-10 Mar., '11	15.33	The Springs ..	30-31 Jan., '16	10.75
Lottah ..	8-10 " "	18.10	Triabunna ..	5 June, 1923	10.20

10. Snowfall.—Light snow has been known to fall occasionally so far north as latitude 31° S., and from the western to the eastern shores of the continent. During exceptional seasons, it has fallen simultaneously over two-thirds of the State of New South Wales, and has extended at times along the whole of the Great Dividing Range, from its southern extremity in Victoria so far north as Toowoomba in Queensland. During the winter, for several months, snow covers the ground to a great extent on the Australian Alps, where also the temperature falls below zero Fahrenheit during the night. In the ravines around Kosciusko and similar localities the snow never entirely disappears.

The antarctic "V"-shaped disturbances are always associated with the most pronounced and extensive snowfalls. The barometric gradients are very steep where the "trough line" extends northward, and the apexes are unusually sharp-pointed, and protrude into very low latitudes, sometimes even to the tropics.

11. Hail.—Hail falls most frequently along the southern shores of the continent in the winter, and over south-eastern Australia during the summer months. The size of the hailstones generally increases with distance from the coast, a fact which lends strong support to the theory that hail is brought about by ascending currents. A summer rarely passes without some station experiencing a fall of stones exceeding in size an ordinary hen-egg, and many riddled sheets of light-gauge galvanized iron bear evidence of the weight and penetrating power of the stones.

The hailstorms occur most frequently when the barometric readings indicate a flat and unstable condition of pressure. They are almost invariably associated with tornadoes or tornadic tendencies, and on the east coast the clouds from which the stones fall are generally of a remarkable sepia-coloured tint.

12. Barometric Pressures.—The mean annual barometric pressure (corrected to sea-level and standard gravity) in Australia varies from 29.80 inches on the north coast to 29.92 inches over the central and 30.03 inches in the southern parts of the continent. In January, the mean pressure ranges from 29.70 inches in the northern and central areas to 29.95 inches in the southern. The July mean pressure ranges from 29.90 inches at Darwin to 30.12 inches at Alice Springs. Barometer readings corrected to mean sea-level and standard gravity have, under anticyclonic conditions in the interior of the continent, ranged as high as 30.77 inches (at Kalgoorlie on the 28th July, 1901) and have fallen as low as 27.55 inches. This lowest record was registered at Mackay during a tropical hurricane on the 21st January, 1918. An almost equally abnormal reading of 27.88 inches was recorded at Innisfail during a similar storm on the 10th March, 1918. The mean annual fluctuations of barometric pressure for the capitals of Australia are shown on the graph herein.

13. Wind.—Notes on the distinctive wind currents in Australia were given in preceding Year Books (see No. 6, page 83), but, owing to limitations of space, have not been included herein.

14. Cyclones and Storms.—The "elements" in Australia are ordinarily peaceful, and while destructive cyclones have visited various parts, more especially coastal areas, such visitations are rare, and may be properly described as erratic.

During the winter months, the southern shores of the continent are subject to cyclonic storms, evolved from the V-shaped depressions of the southern low-pressure belt. They are felt most severely over the south-western parts of Western Australia, to the south-east of South Australia, in Bass Strait, including the coast line of Victoria, and on the west coast of Tasmania. Apparently the more violent wind pressures from these cyclones are experienced in their northern half, or in that part of them which has a north-westerly to a south-westerly circulation.

The north-east coast of Queensland is occasionally visited by hurricanes from the north-east tropics. During the first four months of the year, these hurricanes appear to have their origin in the neighbourhood of the South Pacific Islands, their path being a parabolic curve first to the S.W. and finally towards the S.E. Only a small percentage, however, reach Australia, the majority recurving in their path to the east of New Caledonia.

Very severe cyclones, locally known as "willy willies," are peculiar to the north-west coast of Western Australia from the months of November to April inclusive. They apparently originate in the ocean in the vicinity of Cambridge Gulf, and travel in a south-westerly direction with continually increasing force, displaying their greatest energy near Cossack and Onslow, between latitudes 20° and 22° South. The winds in these

storms, like those from the north-east tropics, are very violent and destructive, and cause great havoc amongst the pearl-fishers. The greatest velocities are usually to be found in the south-eastern quadrant of the cyclones, with north-east to east winds. After leaving the north-west coast, these storms either travel southwards, following the coastline, or cross the continent to the Great Australian Bight. When they take the latter course, their track is marked by torrential rains, as much as 29.41 inches, for example, being recorded in 24 hours at Whim Creek from one such occurrence. Falls of 10 inches and over have frequently been recorded in the northern interior of Western Australia from similar storms.

Some further notes on severe cyclones and on "southerly bursters," a characteristic feature of the eastern part of Australia, will be found in previous issues of the Official Year Book (see No. 6, pp. 84, 85, 86).

A special article dealing with "Australian Hurricanes and Related Storms" appeared in Official Year Book No. 16, pp. 80-84.

15. *Influences affecting Australian Climate.*—(i) *General.* Australian history does not cover a sufficient period, nor is the country sufficiently occupied, to ascertain whether or not the advance of settlement has materially affected the climate as a whole. Local changes have, however, taken place, a fact which suggests that settlement and the treatment of the land have a distinct effect on local conditions. For example, the mean temperature of Sydney shows a rise of two-tenths of a degree during the last twenty years, a change probably brought about by the great increase of residential and manufacturing buildings within the city and in the surrounding suburbs. Again, low-lying lands on the north coast of New South Wales, which originally were seldom subject to frosts, have, with the denudation of the surrounding hills from forests, experienced annual visitations, the probable explanation being that through the absence of trees the cold air of the high lands now flows unchecked and untempered down the sides of the hills to the valleys and lower lands.

(ii) *Influence of Forests on Climate.* As already indicated, forests doubtless exercise a great influence on local climate, and hence, to the extent that forestal undertakings will allow, the weather can be controlled by human agency. The direct action of forests is an equalizing one; thus, especially in equatorial regions, and during the warmest portion of the year, they considerably reduce the mean temperature of the air. They also reduce the diurnal extremes of shade temperatures by altering the extent of radiating surface by evaporation, and by checking the movement of air, and while decreasing evaporation from the ground, they increase the relative humidity. Vegetation greatly diminishes the rate of flow-off of rain and the washing away of surface soil, and when a region is protected by trees, a steadier water supply is ensured, and the rainfall is better conserved. In regions of snowfall, the supply of water to rivers is similarly regulated, and without this and the sheltering influence of ravines and "gullies," watercourses supplied mainly by melting snow would be subject to alternate periods of flooding and dryness. This is borne out in the case of the inland rivers; the River Murray, for example, which has never been known to become dry, deriving its steadiness of flow mainly through the causes indicated.

(iii) *Direct Influence of Forests on Rainfall.* Whether forests have a direct influence on rainfall is a debatable question, some authorities alleging that precipitation is undoubtedly induced by forests, while others take the opposite view.

Sufficient evidence exists, however, to prove that, even if the rainfall has not increased, the beneficial climatic effect of forest lands more than warrants their protection and extension. Rapid rate of evaporation, induced by both hot and cold winds, injures crops and makes life uncomfortable on the plains, and, while it may be doubted that the forest aids in increasing precipitation, it must be admitted that it does check winds and the rapid evaporation due to them. Trees as wind-breaks have been successfully planted in central parts of the United States, and there is no reason why similar experiments should not be successful in many parts of the treeless interior of Australia. The belts should be planted at right angles to the direction of the prevailing parching winds, and if not more than half a mile apart will afford shelter to the enclosed areas.

In previous issues some notes on observations made in other countries were added (see Official Year Book No. 6, pp. 86 and 95).

16. *Rainfall and Temperatures, Various Cities.*—The following table shows rainfall and temperature for various important cities throughout the world, for the site of the Federal capital, and for the capitals of the Australian States.

RAINFALL AND TEMPERATURE—VARIOUS CITIES.

Place.	Height above M.S.L.	Annual Rainfall.			Temperature.					
		Average.	Highest.	Lowest.	(a) Mean Summer.	(b) Mean Winter.	Highest on Record.	Lowest on Record.	Average Hottest Month.	Average Coldest Month.
	Ft.	Ins.	Ins.	Ins.	Fahr.	Fahr.	Fahr.	Fahr.	Fahr.	Fahr.
Amsterdam ..	6	27.29	40.59	17.60	63.2	36.8	90.0	4.1	64.4	35.4
Auckland ..	125	43.88	74.15	26.32	66.2	52.5	91.0	31.9	67.1	51.8
Athens ..	351	15.48	33.33	4.56	79.2	49.1	109.4	19.6	81.0	47.4
Bergen ..	72	77.09	111.58	44.49	56.8	34.2	88.5	4.8	57.9	33.6
Berlin ..	161	22.72	30.04	14.25	64.8	33.0	98.6	-13.0	66.0	31.8
Berne ..	1,877	36.30	58.23	24.69	62.2	30.1	91.4	-3.6	64.4	28.0
Bombay ..	37	71.15	114.89	33.41	83.5	75.1	100.0	55.9	84.8	74.2
Breslau ..	482	22.52	32.56	16.50	64.1	33.5	100.0	-23.4	65.5	29.3
Brussels ..	328	28.35	41.18	17.73	62.6	36.0	95.5	-4.4	63.7	34.5
Budapest ..	500	25.20	35.28	16.79	68.6	30.2	98.6	-5.1	70.4	28.2
Buenos Ayres ..	82	38.78	79.72	20.04	72.7	50.9	103.1	22.3	73.8	50.0
Calcutta ..	21	61.82	98.48	38.43	85.6	68.0	103.2	44.2	86.0	66.4
Capetown ..	40	25.50	36.72	17.71	68.1	54.7	102.0	34.0	68.8	53.9
Caracas ..	3,420	30.03	47.36	23.70	68.3	65.3	87.8	48.2	69.2	63.7
Chicago ..	823	33.28	45.86	24.52	70.0	26.1	103.0	-23.0	72.4	23.7
Christchurch ..	25	25.16	35.30	13.54	61.3	43.3	95.7	21.2	61.6	42.4
Christiania (Oslo) ..	75	23.23	32.21	16.26	61.0	24.5	95.0	-21.1	62.6	23.9
Colombo ..	40	83.83	139.70	51.60	81.5	79.9	95.8	65.0	82.6	79.1
Constantinople ..	245	28.75	42.74	14.78	74.0	43.5	103.6	13.0	75.7	42.0
Copenhagen ..	10	20.79	25.83	15.47	60.4	33.3	85.5	-3.3	61.9	32.4
Dresden ..	115	26.80	34.49	17.72	62.9	32.4	93.4	-15.3	64.4	31.6
Dublin ..	47	27.66	35.56	16.60	59.4	42.0	87.2	13.3	60.5	41.7
Dunedin ..	300	36.96	54.51	22.15	56.3	42.6	94.0	23.0	57.0	41.5
Durban ..	260	40.79	71.27	27.24	75.6	64.4	110.6	41.1	76.7	63.8
Edinburgh ..	441	25.21	32.05	16.44	55.8	38.8	87.7	5.0	57.2	38.3
Geneva ..	1,328	33.48	46.89	21.14	64.4	33.7	..	..	66.2	32.2
Genoa ..	157	51.29	108.22	28.21	73.8	46.8	94.5	16.7	75.4	45.5
Glasgow ..	184	38.49	56.18	29.05	52.7	41.0	84.9	6.6	58.0	38.4
Greenwich ..	149	23.50	35.54	16.38	62.0	39.5	100.0	6.9	63.5	38.5
Hong Kong ..	109	84.28	119.72	45.84	86.2	64.8	97.0	32.0	86.7	62.9
Johannesburg ..	5,750	31.63	50.00	21.66	65.4	54.4	94.0	23.3	68.2	48.9
Leipzig ..	384	24.69	31.37	17.10	63.1	31.5	97.3	-14.8	64.8	30.6
Lisbon ..	312	29.18	52.79	17.32	69.6	51.3	94.1	32.5	70.2	49.3
London (Kew) ..	18	23.80	38.20	16.64	61.2	39.8	94.0	9.4	62.7	38.9
Madras ..	22	49.85	88.41	18.45	89.0	76.8	113.0	57.5	89.9	76.1
Madrid ..	2,149	16.23	27.48	9.13	73.0	41.2	107.1	10.5	75.7	39.7
Marseilles ..	246	22.24	43.03	12.28	70.5	45.3	100.4	11.7	72.3	44.6
Moscow ..	526	18.94	29.28	12.07	63.4	14.7	99.5	-44.5	66.1	11.9
Naples ..	489	34.00	56.58	21.75	73.6	48.0	99.1	23.9	75.4	46.8
New York ..	314	44.63	58.68	33.17	71.4	31.8	102.0	-13.0	73.5	30.2
Ottawa ..	236	33.40	53.79	25.63	67.2	14.1	98.0	-33.0	69.7	12.0
Paris ..	164	22.64	29.57	16.46	63.5	37.2	101.1	-14.1	64.9	36.1
Pekin ..	143	24.40	36.00	18.00	77.7	26.6	114.0	-5.0	79.2	23.6
Petrograd ..	16	21.30	29.52	13.75	61.1	17.4	97.0	-38.2	63.7	15.2
Quebec ..	296	40.50	53.79	32.12	63.5	12.4	96.0	-34.0	66.3	10.1
Rome ..	166	32.57	57.89	12.72	74.3	46.0	104.2	17.2	76.1	44.6
San Francisco ..	155	22.27	38.82	9.00	58.8	50.5	101.0	29.0	59.3	49.5
Shanghai ..	21	45.00	62.52	27.92	78.0	41.1	102.9	10.2	80.4	37.8
Singapore ..	8	91.99	158.68	32.71	81.2	78.6	94.2	63.4	81.5	78.3
Stockholm ..	144	19.09	28.27	11.81	59.5	27.3	96.8	-25.6	61.9	26.4
Tokio ..	65	61.45	86.37	45.72	74.8	39.2	97.9	17.2	77.7	37.5
Trieste ..	85	42.94	63.14	26.57	73.9	41.3	99.5	14.0	76.3	39.9
Vienna ..	663	24.50	33.90	16.50	65.7	30.4	97.7	-8.0	67.1	28.0
Vladivostok ..	55	19.54	33.60	9.39	63.9	11.0	95.7	-21.8	69.4	6.1
Washington ..	112	43.50	61.33	30.85	74.7	34.5	106.0	-15.0	76.8	32.9
Wellington (N. Z.) ..	10	48.65	67.68	27.83	61.8	48.6	88.0	28.6	62.5	47.7
Zürich ..	1,542	45.15	78.27	29.02	63.3	31.3	94.1	-0.8	65.1	29.5

FEDERAL CAPITAL SITE.

Canberra (Dist.) Queanbeyan	{ 2,000 to 2,900 }	22.67	41.29	10.45	(a) 67.7	(b) 44.2	102.6	14.0	68.4	42.7
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STATE CAPITALS.

					(a)	(b)				
Perth ..	197	34.32	49.22	20.21	72.8	56.0	108.4	34.2	74.0	55.2
Adelaide ..	140	21.22	30.87	11.39	73.0	53.0	116.3	32.0	74.2	51.8
Brisbane ..	137	45.08	88.26	16.17	76.7	59.7	108.9	36.1	77.2	58.4
Sydney ..	138	47.50	82.76	21.49	71.0	54.1	108.5	35.9	71.6	52.7
Melbourne ..	115	25.58	44.25	15.61	66.6	50.0	111.2	27.0	67.6	48.7
Hobart ..	177	23.84	43.39	13.43	61.6	46.8	105.2	27.0	62.3	45.6

(a) Mean of the three hottest months.

(b) Mean of the three coldest months.

17. Climatological Tables.—The means, averages, extremes, totals, etc., for a number of climatological elements have been determined from long series of observations at the Australian capitals up to and including the year 1926. These are given in the following tables :—

CLIMATOLOGICAL DATA—PERTH, WESTERN AUSTRALIA.

LAT. 31° 57' S., LONG. 115° 50' E. HEIGHT ABOVE M.S.L. 197 Ft.

BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS, AND CLEAR DAYS.

Month.	Bar. corrected to 32° F. Mm. Sea Level and Standard Gravity from 9 a.m. and 3 p.m. readings.	Wind.				Mean Amount of Evaporation (inches).	No. of Days Lightning.	Mean Amount of Clouds, 9 a.m. 3 p.m. & 9 p.m.	No. of Clear Days.
		Greatest Number of Miles in One Day.	Mean Hourly Pressure. (lbs.)	Total Miles.	Prevailing Direction.				
No. of yrs. over which observation extends	42	29	28	29	29	28	28	29	29
January ..	29.908	797	27/98	0.68	11,181	S S E	10.39	1.6	2.8
February ..	29.923	650	6/08	0.62	9,763	S S E	8.55	1.4	2.9
March ..	29.937	651	6/13	0.53	9,911	S S E	7.60	1.4	3.2
April ..	30.074	955	25/00	0.40	8,351	S E	4.72	1.5	4.2
May ..	30.072	768	5/12	0.36	8,147	E N E	2.73	2.3	5.3
June ..	30.059	861	27/10	0.36	7,863	N	1.75	2.5	5.9
July ..	30.090	1015	20/26	0.39	8,593	N	1.75	2.3	5.4
August ..	30.089	966	15/03	0.42	8,758	W	2.37	1.6	5.2
September ..	30.061	864	11/05	0.46	8,921	S W	3.32	1.4	4.9
October ..	30.029	809	6/16	0.53	9,906	S S W	5.22	1.2	4.8
November ..	29.990	777	18/97	0.60	10,054	S	7.63	1.2	3.8
December ..	29.927	776	6/22	0.65	10,899	S	9.80	1.4	3.1
Year { Totals	—	—	—	—	—	65.33	20.0	—	96.3
Averages ..	30.017	—	0.50	9,362	S	—	—	4.3	—
Extremes ..	—	1015 20/7/26	—	—	—	—	—	—	—

TEMPERATURE AND SUNSHINE.

Month.	Mean Temperature (Fahr.).			Extreme Shade Temperature (Fahr.).		Extreme Range.	Extreme Temperature (Fahr.).		Mean Hours of Sunshine.
	Mean Max.	Mean Min.	Mean	Highest.	Lowest.		Highest in Sun.	Lowest on Grass.	
No. of yrs. over which observation extends	30	30	—	30	20	—	28	28	29
January ..	84.5	63.2	73.8	108.4 28/21	48.6 20/25	59.8	177.3 22/14	33.5 20/25	319.5
February ..	84.8	63.4	74.1	107.4 4/23	47.7 1/02	59.7	169.0 4/99	39.8 1/13	266.6
March ..	81.4	61.1	71.2	106.4 14/22	45.8 8/03	60.6	167.0 19/18	36.7 8/03	268.0
April ..	76.1	57.2	66.6	99.7 9/10	39.3 20/14	60.4	157.0 8/16	31.0 20/14	219.0
May ..	68.7	52.6	60.6	90.4 2/07	34.3 11/14	56.1	146.0 4/25	25.3 11/14	175.8
June ..	64.1	49.6	56.8	81.7 2/14	35.0 30/20	46.7	135.5 9/14	26.5 30/20	144.7
July ..	62.8	48.1	55.4	76.4 21/21	34.2 7/16	42.2	133.2 13/15	25.1 30/20	167.3
August ..	63.8	48.1	55.9	81.0 12/14	35.3 31/08	45.7	145.1 29/21	27.9 10/11	187.3
September ..	66.2	50.1	58.1	90.9 30/18	38.9 17/13	52.0	153.6 29/16	29.2 21/16	203.9
October ..	68.8	52.7	60.7	95.3 30/22	40.5 5/24	54.8	154.0 29/14	30.5 4/17	235.8
November ..	75.4	56.8	66.1	104.6 24/13	42.0 1/04	62.6	167.0 30/25	35.4 6/10	235.1
December ..	80.8	60.6	70.6	107.9 20/04	48.0 2/10	59.9	168.7 25/15	39.0 (c)	322.6
Year { Averages ..	73.1	55.3	64.2	—	—	—	—	—	278.8
Extremes ..	—	—	—	108.4 28/1/21	34.2 7/7/16	74.2	177.3 22/1/14	25.1 30/7/20	—

HUMIDITY, RAINFALL, AND DEW.

Month.	Vapour Pressure (inches).	Rel. Hum. (%)				Rainfall (inches).				Dew.
	Mean 9 a.m.	Mean 9 a.m.	Highest Mean.	Lowest Mean.	Mean Monthly.	Mean No. of Days Rain.	Greatest Monthly.	Least Monthly.	Greatest in One Day.	
No. of yrs. over which observation extends	29	29	29	29	51	51	51	51	51	29
January ..	0.431	52	61	42	0.34	3	2.17 1879	0.00 (a)	1.74 28/79	2.3
February ..	0.451	54	65	46	0.45	3	2.98 1915	0.00 (a)	1.63 26/15	3.2
March ..	0.432	57	66	46	0.79	4	4.50 1896	0.00 (a)	2.06 26/23	5.5
April ..	0.397	63	72	51	1.05	7	5.85 1926	0.00 1920	2.62 30/04	9.1
May ..	0.370	73	81	61	4.97	14	12.13 1879	0.98 1903	2.80 20/79	12.4
June ..	0.336	78	83	68	6.92	17	12.80 1923	2.16 1877	3.90 10/20	12.6
July ..	0.315	77	84	69	6.57	17	12.28 1926	2.42 1876	3.00 4/91	13.6
August ..	0.318	74	79	63	5.63	18	10.33 1882	0.46 1902	2.79 7/03	11.7
September ..	0.342	68	76	58	3.41	15	7.84 1923	0.34 1916	1.73 23/09	9.7
October ..	0.355	62	75	54	2.21	12	7.37 1890	0.49 1892	1.38 15/10	5.3
November ..	0.376	56	63	46	0.81	6	2.78 1918	0.00 1891	1.11 30/03	3.7
December ..	0.413	45	62	44	0.57	4	3.05 1888	0.00 1836	1.72 1/88	2.8
Year { Totals	—	—	—	—	34.32	120	—	—	—	91.9
Averages ..	0.371	63	—	—	—	—	—	—	—	—
Extremes ..	—	—	84	42	—	—	12.80 1923	Nil (b)	3.00 10/6/20	—

(a) Various years.

(b) Jan., Feb., March, April, Nov., Dec., various years.

(c) 3/1910 and 12/1920.

CLIMATOLOGICAL DATA—ADELAIDE, SOUTH AUSTRALIA.

LAT. 34° 56' S., LONG. 138° 35' E. HEIGHT ABOVE M.S.L. 140 FT.

BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS, AND CLEAR DAYS.

Month.	Bar. corrected to 32° F. Mm. Sea Level and Standard Gravity from 9 a.m. and 3 p.m. readings.	Wind.				Mean Amount of Evaporation (inches).	No. of Days Lightning.	Mean Amount of Clouds, 9 a.m., 3 p.m., & 9 p.m.	No. of Clear Days.
		Greatest Number of Miles in One Day.	Mean Hourly Pressure. (lbs.)	Total Miles.	Prevailing Direction. 9 a.m. 3 p.m.				
No. of yrs. over which observation extends	70	49	49	49	49	57	55	59	45
January ..	29.916	758 19/99	0.34	7,883	S x W S W	8.96	2.3	3.5	8.3
February ..	29.851	691 22/96	0.29	6,676	S E x E S W x S	7.32	2.0	3.5	7.1
March ..	30.038	628 9/12	0.24	6,650	S E x E S W	5.83	2.1	3.9	7.2
April ..	30.120	773 10/96	0.22	6,094	E x N W S W	3.45	1.6	5.0	4.2
May ..	30.120	760 9/80	0.21	6,255	N E x N W x N	2.01	1.7	5.8	2.0
June ..	30.096	750 12/78	0.25	6,526	N N E N W x W	1.23	2.0	6.1	1.7
July ..	30.127	674 25/82	0.24	6,723	N N E N W x W	1.29	1.6	5.8	1.8
August ..	30.099	773 31/97	0.28	7,134	N x E W N W	1.87	2.2	5.6	2.6
September ..	30.039	720 2/87	0.31	7,284	N W	2.34	2.5	5.2	3.2
October ..	29.994	768 28/98	0.34	7,881	N N W W S W	4.76	3.4	5.0	4.0
November ..	29.976	677 9/04	0.33	7,527	W x S S W x W	6.56	3.5	4.6	5.4
December ..	29.919	675 12/91	0.34	7,888	S W x W S W	8.39	2.6	3.8	7.3
Year { Totals ..	—	—	—	—	—	54.51	27.5	—	54.8
Averages ..	30.033	—	0.28	7,044	N E x N W S W	—	—	4.8	—
Extremes ..	—	773 (a)	—	—	—	—	—	—	—

(a) 10/4/96 and 31/8/97.

TEMPERATURE AND SUNSHINE.

Month.	Mean Temperature (Fahr.).			Extreme Shade Temperature (Fahr.).		Extreme Range.	Extreme Temperature (Fahr.).		Mean Hours of Sunshine.
	Mean Max.	Mean Min.	Mean	Highest.	Lowest.		Highest in Sun.	Lowest on Grass.	
No. of yrs. over which observation extends	70	70	70	70	70	70	49	66	45
January ..	86.2	61.5	73.8	116.3 26/58	45.1 21/84	71.2	180.0 18/82	36.5 14/79	310.3
February ..	83.2	62.1	74.1	113.6 12/99	45.5 23/18	68.1	170.5 10/00	35.8 23/28	262.5
March ..	80.8	58.8	69.8	108.0 12/61	44.8 -/57	63.2	174.0 17/83	33.8 27/80	240.9
April ..	73.3	54.6	64.0	98.0 10/66	39.6 15/59	58.4	155.0 1/83	30.2 16/17	178.6
May ..	65.6	50.2	57.9	89.5 4/21	36.9 (a)	52.6	148.2 12/79	25.9 10/91	147.6
June ..	60.3	46.7	53.5	76.0 23/65	32.5 27/76	43.5	138.8 18/79	22.9 12/13	122.3
July ..	58.9	44.6	51.8	74.0 11/06	32.0 24/08	42.0	134.5 26/90	23.3 25/11	137.9
August ..	62.0	45.9	53.9	85.0 31/11	32.3 17/59	52.7	140.0 31/92	23.5 7/88	164.0
September ..	66.2	47.9	57.1	90.7 23/82	32.7 4/58	58.0	160.5 23/82	26.2 15/08	182.9
October ..	72.4	51.4	61.9	102.9 21/22	36.0 -/57	66.9	162.0 30/21	27.8 2/18	227.9
November ..	78.6	55.3	67.0	113.5 21/65	40.3 2/09	72.7	166.9 20/78	31.5 2/09	263.3
December ..	83.3	58.9	71.1	114.2 14/76	43.0 (b)	71.2	175.7 7/99	32.5 4/84	302.2
Year { Averages ..	72.3	53.2	63.0	—	—	—	—	—	2540.4c
Extremes ..	—	—	—	116.3 26/1/58	32.0 24/7/08	84.3	180.0 18/1/82	22.9 12/6/1913	—

(a) 26/1895 and 24/1904.

(b) 16/1861 and 4/1906.

(c) Total for year.

HUMIDITY, RAINFALL, AND DEW.

Month.	Vapour Pressure (inches)	Rel. Hum. (%)				Rainfall (inches).				Dew. Mean No. Days Dew.
		Mean 9 a.m.	Highest Mean.	Lowest Mean.	Mean Monthly.	Mean No. of Days Rain.	Greatest Monthly.	Least Monthly.	Greatest in One Day.	
No. of yrs. over which observation extends	59	59	59	59	88	88	88	88	88	55
January ..	0.343	39	59	30	0.72	4	4.00 1850	Nil (a)	2.30 2/89	4.0
February ..	0.356	40	56	30	0.72	4	6.09 1925	Nil (b)	5.57 7/25	5.8
March ..	0.348	47	58	36	1.03	6	4.60 1878	Nil (c)	3.50 5/78	11.0
April ..	0.336	56	72	37	1.75	9	6.78 1853	0.03 1923	3.15 5/60	13.9
May ..	0.320	68	76	49	2.78	14	7.75 1875	0.20 1891	2.75 1/53	15.7
June ..	0.300	77	81	69	3.12	16	8.58 1916	0.42 1886	2.11 1/20	15.9
July ..	0.276	76	87	68	2.64	16	5.38 1865	0.37 1899	1.75 10/65	17.1
August ..	0.286	69	77	54	2.51	16	6.24 1852	0.35 1914	2.23 19/51	16.6
September ..	0.297	61	72	44	2.06	14	5.83 1923	0.45 1896	1.59 20/23	15.6
October ..	0.301	51	67	29	1.74	11	3.83 1870	0.17 1914	2.24 16/08	12.9
November ..	0.310	43	57	31	1.15	7	3.55 1851	0.04 1885	1.88 28/68	7.0
December ..	0.323	39	50	33	1.00	6	3.98 1861	Nil 1904	2.42 23/13	4.8
Year { Totals ..	—	—	—	—	21.22	123	—	—	—	140.1
Averages ..	0.311	53	—	—	—	—	—	—	—	—
Extremes ..	—	—	87	29	—	—	8.58 6/16	Nil (d)	5.57 7/2/25	—

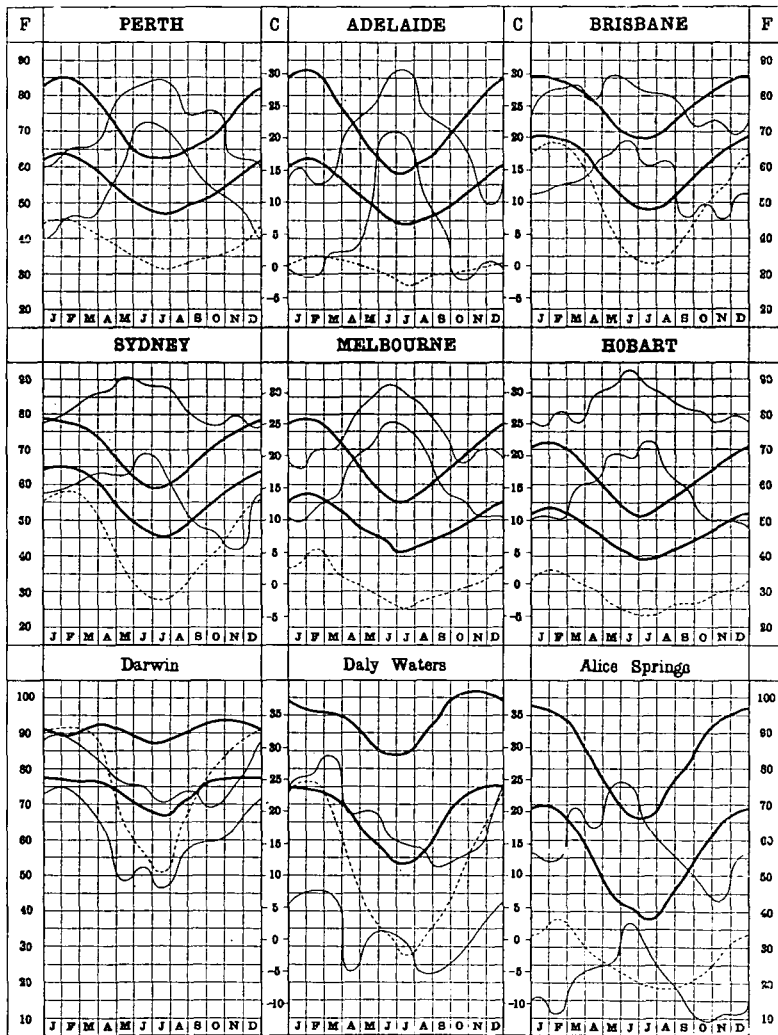
(a) 1848, etc.

(b) 1848, etc.

(c) 1859, etc.

(d) January, February, March, December, various years.

ANNUAL FLUCTUATIONS OF NORMAL MAXIMUM AND MINIMUM TEMPERATURE AND HUMIDITY.



EXPLANATION.—The upper and lower heavy lines in each graph represent the maximum and minimum temperatures respectively. The Fahrenheit temperature scales are shown on the outer edge of the sheet under "F" and the centigrade scales in the two inner columns under "C."

The broken line shows the normal absolute humidity in the form of 9 a.m. vapour pressures for which the figures in the outer "F" columns represent hundredths of an inch of barometric pressure.

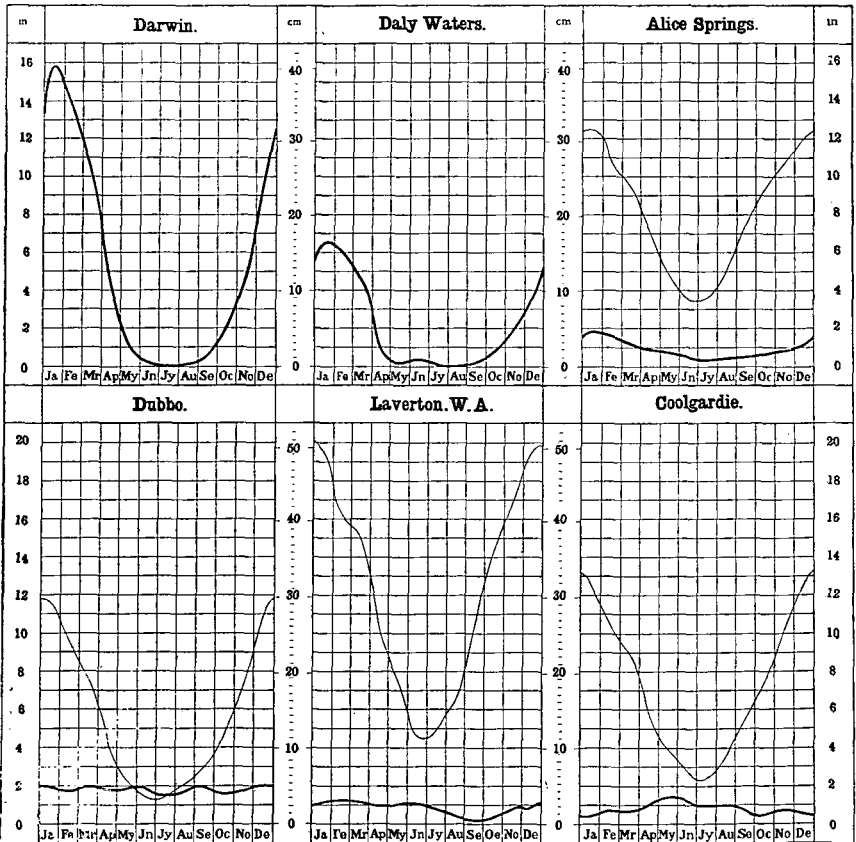
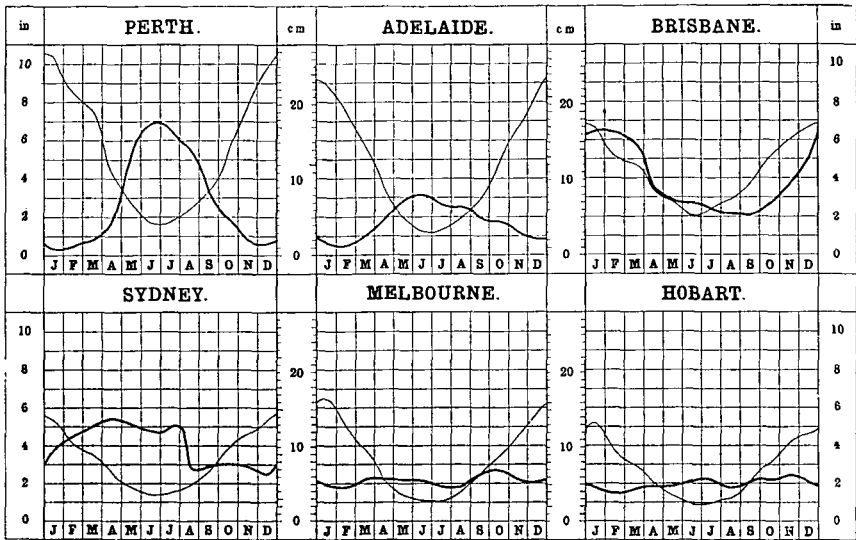
The upper and lower fine lines join the greatest and the least monthly means of relative humidity respectively, the figures under the outer columns "F" indicating percentage values.

The curves for temperature and vapour pressure joining the mean monthly values serve to show the annual fluctuation of these elements, but the relative humidity graphs joining the extreme values for each month do not indicate any normal annual variation.

Comparison of the maximum and minimum temperature curves affords a measure of the mean diurnal range of temperature. At Perth in the middle of January, for instance, there is normally a range of 21° from 63° F. to 84° F., but in June it is only 15° from 48° F. to 63° F.

The relative humidity curves illustrate the extreme range of the mean monthly humidity over a number of years.

MEAN MONTHLY RAINFALL AND EVAPORATION.



EXPLANATION.—On the preceding graphs thick lines denote rainfall, and thin lines evaporation, and show the fluctuation of the mean rate of fall *per month* throughout the year. The results, plotted from the Climatological Tables herein are shown in inches (see the outer columns), and the corresponding metric scale (centimetres) is shown in the two inner columns. The evaporation is not given for Darwin and Daly Waters.

At Perth, Adelaide, Brisbane, Melbourne, Hobart, Alice Springs, and Coolgardie the results have been obtained from jacketed tanks sunk in the ground. At Sydney and Dubbo sunken tanks without water jackets are used, whilst at Laverton (W.A.) the records are taken from a small portable jacketed evaporation dish of 8 inches in diameter.

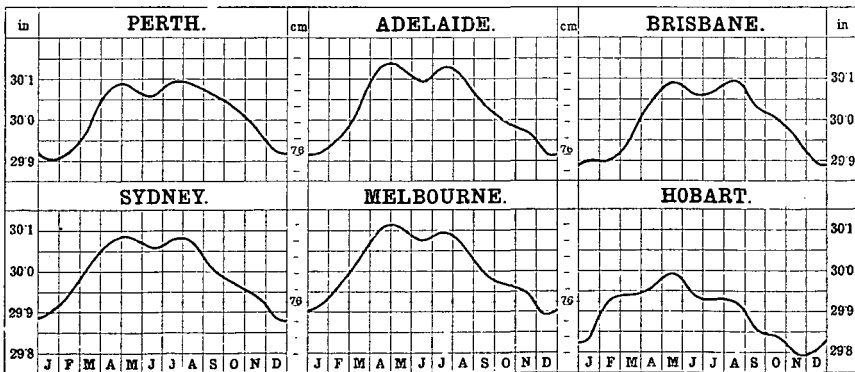
The distance for any date from the zero line to the curve represents the average number of inches, reckoned as per month, of rainfall at that date. Thus, taking the curves for Adelaide in the middle of January the rain falls on the average at the rate of about three-fourths of an inch per month, or, say, at the rate of about 9 inches per year. In the middle of June it falls at the rate of a little over 3 inches per month, or, say, at the rate of about 37 inches per year. At Dubbo, the evaporation is at the rate of nearly 11½ inches per month about the middle of January, and only about 1½ inches at the middle of June.

The mean annual rainfall and evaporation at the places indicated are given in the appended table

MEAN ANNUAL RAINFALL AND EVAPORATION.

Place.	Rainfall.	Evapora- tion.	Place.	Rainfall.	Evapora- tion.
	In.	In.		In.	In.
Perth ..	34.32	65.83	Darwin ..	61.67	—
Adelaide ..	21.22	53.91	Daly Waters ..	26.63	—
Brisbane ..	45.07	55.00	Alice Springs ..	11.10	94.24
Sydney ..	47.46	38.67	Dubbo ..	22.11	66.37
Melbourne ..	25.58	38.92	Laverton, W.A. ..	9.67	142.17
Hobart ..	23.84	31.76	Coolgardie ..	10.06	84.41

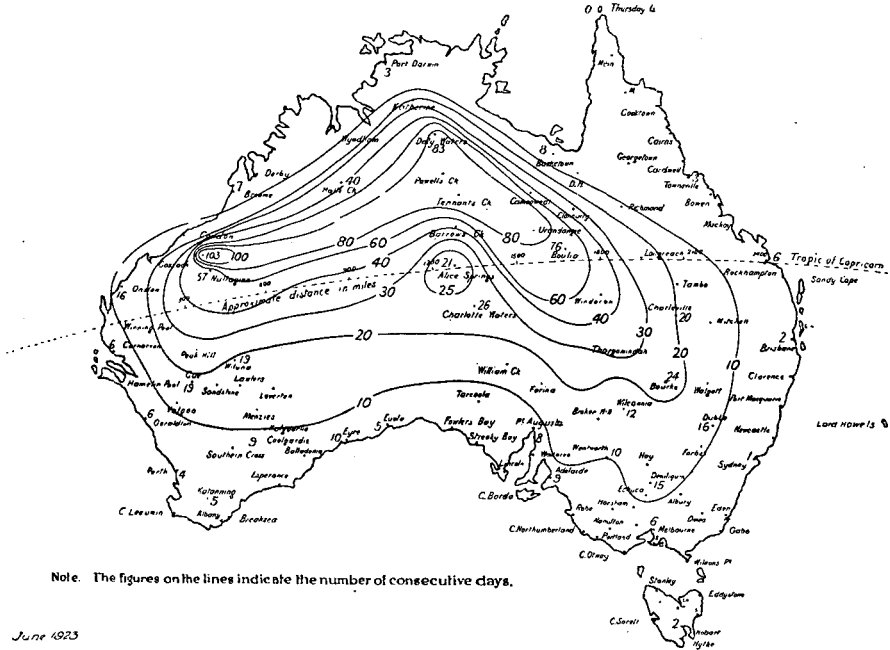
MEAN BAROMETRIC PRESSURE.—CAPITAL CITIES.



EXPLANATION.—The lines representing the yearly fluctuations of barometric pressure at the State capital cities are means for long periods, and are plotted from the Climatological Tables herein. The pressures are shown in inches on a about 2½ times the natural scale, and the corresponding pressures in centimetres are also shown in the two inner columns, in which each division represents one millimetre.

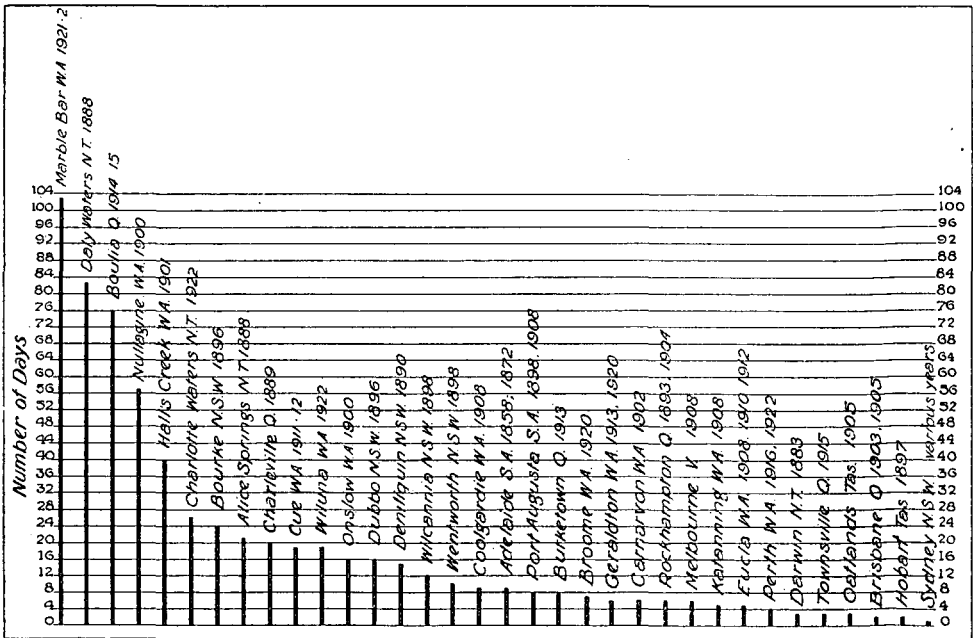
INTERPRETATION.—Taking the Brisbane graph for purposes of illustration, it will be seen that the mean pressure in the middle of January is about 29.87 inches, and there are maxima in the middle of May and August of about 30.09 inches.

Area affected and period of duration of the Longest Heat Waves when the Maximum Temperature for consecutive 24 hours reached or exceeded 100° Fah.

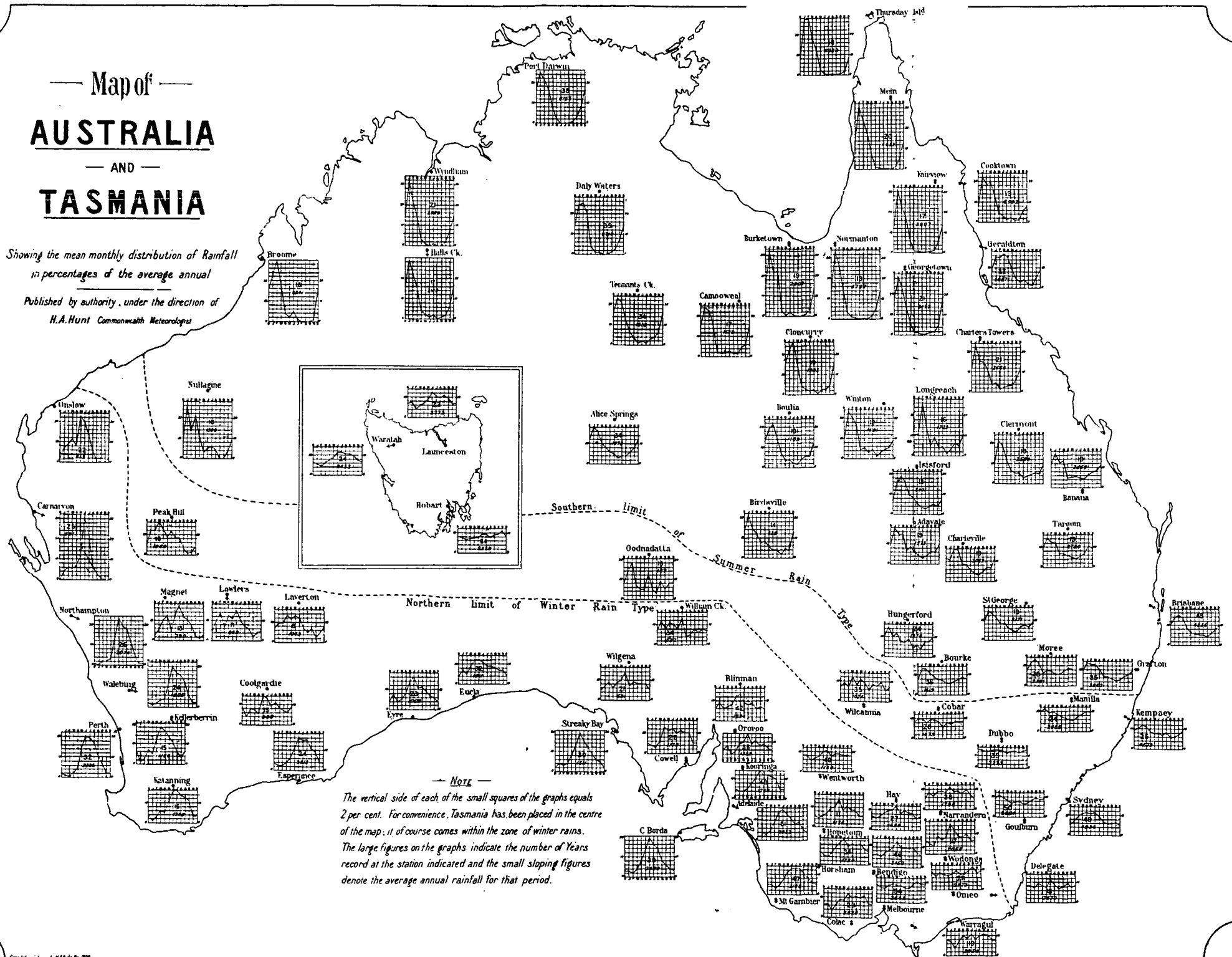


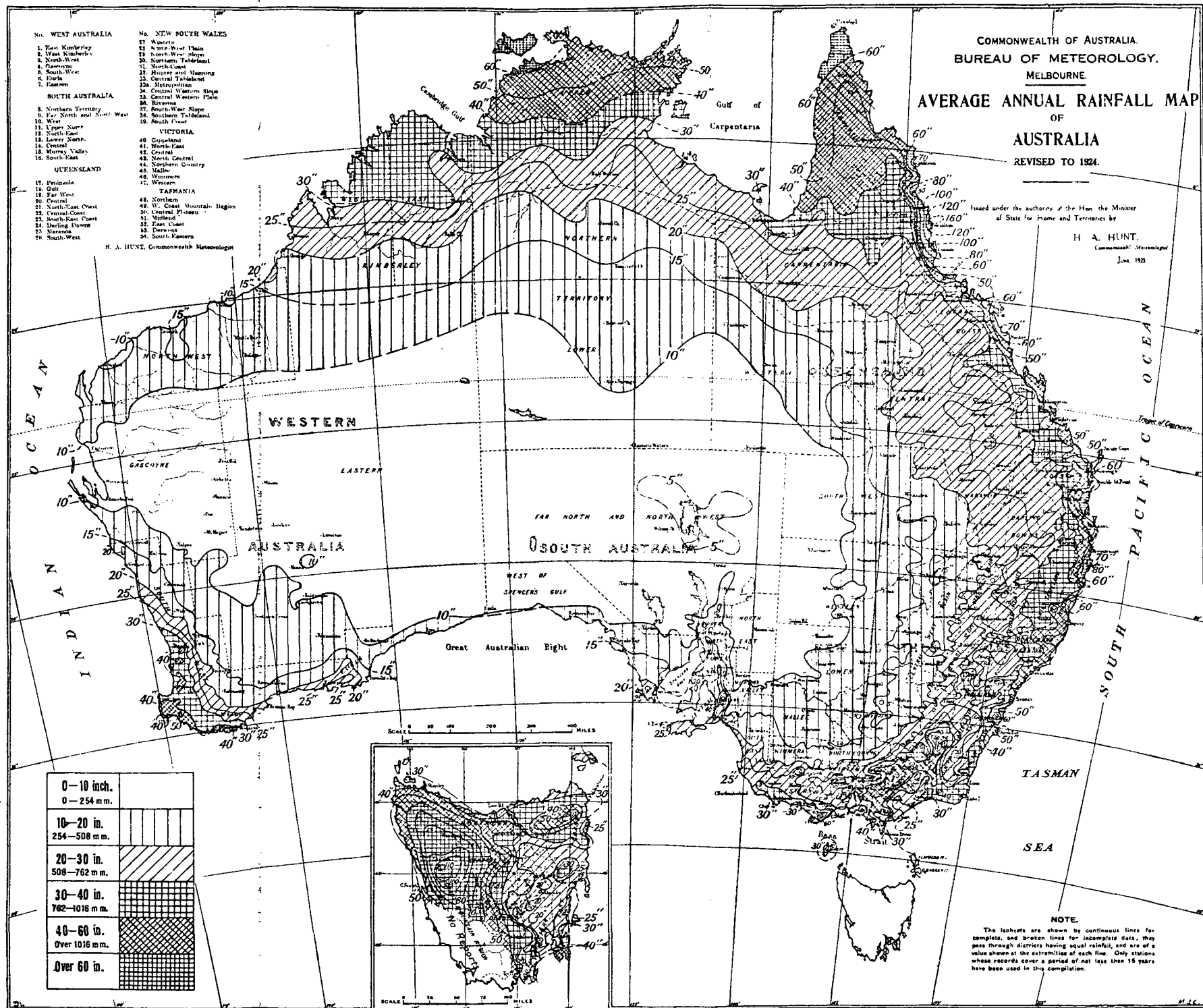
June 1923

Greatest number of consecutive days on which the Shade Temperature was over 100° Fah. at the places indicated.



Published by authority, under the direction of
H.A.Hunt Commonwealth Meteorologist





CLIMATOLOGICAL DATA—BRISBANE, QUEENSLAND.

LAT. 27° 28' S., LONG. 153° 2' E. HEIGHT ABOVE M.S.L. 137 Ft.

BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS, AND CLEAR DAYS.

Month.	Bar. corrected to 32° F., M.S. Sea Level and Standard Gravity from 9 a.m. and 3 p.m. readings.	Wind.			Prevailing Direction. 9 a.m. 3 p.m.	Mean Amount of Evaporation (inches).	No. of Days Lightning.	Mean Amount of Clouds, 9 a.m., 3 p.m. & 9 p.m.	No. of Clear Days.
		Greatest Number of Miles in One Day.	Mean Hourly Pressure. (lbs.)	Total Miles.					
No. of yrs. over which observation extends	40	13	..	16	40	18	40	35	18
January ..	29.868	361 1/22	..	4,351	E	6.429	6.4	5.7	3.4
February ..	29.903	347 5/22	..	4,080	S E	5.316	5.5	5.7	2.1
March ..	29.959	348 10/25	..	3,968	S E	4.936	4.5	5.2	5.3
April ..	30.049	400 3/25	..	3,693	S & S E	3.945	3.3	4.5	7.9
May ..	30.081	363 7/16	..	3,331	S	2.902	3.3	4.4	8.8
June ..	30.067	400 12/24	..	3,559	S W	2.232	2.4	4.1	9.1
July ..	30.072	359 2/23	..	3,631	S W	2.535	2.6	3.7	12.1
August ..	30.096	331 6/23	..	3,650	S W	3.144	3.8	3.5	11.8
September ..	30.040	322 14/23	..	3,486	N E & S	4.054	5.9	3.5	12.5
October ..	30.002	325 25/18	..	4,066	N E	5.500	6.7	4.0	9.0
November ..	29.959	274 18/23	..	4,232	N E	6.106	8.7	4.9	6.6
December ..	29.889	467 15/26	..	4,453	N E	6.807	9.2	5.3	3.6
Year { Totals ..	—	—	—	—	—	53.906	62.3	—	92.2
Averages ..	29.999	—	—	3,884	S & E	—	—	4.5	—
Extremes ..	—	467 15/12/26	—	—	—	—	—	—	—

TEMPERATURE AND SUNSHINE.

Month.	Mean Temperature (Fahr.).			Extreme Shade Temperature (Fahr.).		Extreme Range.	Extreme Temperature (Fahr.).		Mean Hours of Sunshine.
	Mean Max.	Mean Min.	Mean.	Highest.	Lowest.		Highest in Sun.	Lowest on Grass.	
No. of yrs. over which observation extends	40	40	40	40	40	40	40	40	18
January ..	85.5	68.9	76.9	108.9 14/02	58.8 4/93	50.1	166.4 10/17	49.9 4/93	221.3
February ..	84.6	63.6	76.5	105.7 21/25	58.7 (a)	47.0	165.2 6/10	49.3 9/89	207.7
March ..	82.4	66.3	74.3	99.4 5/19	52.4 29/13	47.0	161.7 4/25	45.4 29/13	207.2
April ..	76.6	61.6	70.2	95.2 (b)	44.4 25/25	50.8	153.8 11/16	36.7 24/25	207.3
May ..	73.6	55.4	64.5	90.3 21/23	41.3 24/99	49.0	147.0 1/10	29.8 8/97	196.7
June ..	69.4	51.0	60.2	88.9 19/18	36.3 29/08	52.6	136.0 3/18	25.4 23/88	174.4
July ..	68.4	48.5	58.9	83.4 28/98	36.1 (c)	47.3	146.1 20/15	23.9 11/90	202.5
August ..	70.9	49.9	60.5	87.5 28/07	37.4 6/87	50.1	141.9 20/17	27.1 9/99	228.4
September ..	75.7	54.8	65.2	95.2 16/12	40.7 1/96	54.5	155.5 26/03	30.4 1/89	235.6
October ..	79.8	59.9	69.9	101.4 18/93	43.3 3/99	58.1	157.4 31/18	34.9 8/89	255.0
November ..	82.8	64.2	73.5	106.1 18/13	48.5 2/05	57.6	162.3 7/89	38.8 1/05	245.1
December ..	85.4	67.5	76.3	105.9 26/93	56.4 13/12	49.5	161.7 27/26	49.1 3/94	241.1
Year { Averages ..	77.9	59.7	68.7	—	—	72.8	—	—	2639.0
Extremes ..	—	—	—	108.9 14/1/02	36.1 (d)	—	166.4 10/1/17	23.9 11/7/90	—

(a) 10 and 11/04.

(b) 9/96 and 5/03.

(c) 12/94 and 2/96.

(d) 12/7/94 and 2/7/96.

HUMIDITY, RAINFALL, AND DEW.

Month.	Vapour Pressure (inches).	Rel. Hum. (%)			Rainfall (inches).					Dew.	
		Mean 9 a.m.	Highest Mean.	Lowest Mean.	Mean Monthly.	Mean No. of Days Rain.	Greatest Monthly.	Least Monthly.	Greatest in One Day.		Mean No. Days Dew.
No. of yrs. over which observation extends	40	40	40	40	75	67	75	75	75	40	
January ..	0.637	65	79	53	6.29	14	27.72	1895	0.32 1919	18.31 21/87	7.2
February ..	0.646	69	82	55	6.19	13	40.39	1893	0.58 1849	8.36 16/93	7.3
March ..	0.615	72	85	56	5.75	15	34.04	1870	nil 1849	11.18 14/08	10.4
April ..	0.525	72	80	60	3.56	12	15.28	1867	0.04 1897	4.47 13/16	12.8
May ..	0.428	74	85	63	2.85	10	13.85	1876	nil 1846	5.62 9/79	13.9
June ..	0.361	74	84	67	2.77	8	14.03	1873	nil 1847	6.01 9/93	12.0
July ..	0.330	73	81	61	2.30	8	8.46	1889	nil 1841	3.54 16/89	13.4
August ..	0.352	70	80	60	2.10	7	14.67	1879	nil (a)	4.99 12/87	11.6
September ..	0.415	65	76	47	2.05	8	5.43	1886	0.10 1907	2.46 2/94	11.4
October ..	0.476	60	72	48	2.52	9	9.99	1882	0.14 1900	1.95 20/89	10.2
November ..	0.552	60	72	45	3.73	10	12.41	1917	nil 1842	4.46 16/86	6.6
December ..	0.603	62	69	52	4.96	12	13.99	1910	0.35 1865	6.60 28/71	6.2
Year { Totals ..	—	—	—	—	45.07	126	—	—	—	—	123.0
Averages ..	0.495	68	—	—	—	—	—	—	—	—	—
Extremes ..	—	—	85	45	—	—	40.39	2/93	nil (b)	18.31 21/1/87	—

(a) 1862, 1869, 1880.

(b) March, May, June, July, August and November, various years.

CLIMATOLOGICAL DATA—SYDNEY, NEW SOUTH WALES.

LAT. 33° 52' S., LONG. 151° 12' E. HEIGHT ABOVE M.S.L., 138 Ft.

BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS, AND CLEAR DAYS.

Month.	Bar. corrected to 32° F. Mm. Sea Level and Standard Gravity from 9 a.m. and 3 p.m. readings.	Wind.				Mean Amount of Evaporation (inches).	No. of Days Lightning.	Mean Amount of Clouds, 9 a.m. 3 p.m. & 9 p.m.	No. of Clear Days.
		Greatest Number of Miles in One Day.	Mean Hourly Pressure. (lbs.)	Total Miles.	Prevailing Direction.				
No. of yrs. over which observation extends	68	60	60	60	60	47	67	65	63
January ..	29.897	721 1/71	0.35	8,023	N E	5.291	4.8	5.8	2.5
February ..	29.943	871 12/68	0.31	6,878	N E	4.180	4.3	5.9	1.9
March ..	30.013	943 20/70	0.24	6,682	N E	3.580	4.1	5.5	2.4
April ..	30.074	803 6/82	0.21	6,045	N E	2.568	3.8	5.0	3.4
May ..	30.078	758 6/98	0.21	6,265	W	1.785	3.2	4.9	3.8
June ..	30.059	712 7/00	0.27	6,776	W	1.422	2.2	4.8	4.3
July ..	30.073	930 17/79	0.27	6,986	W	1.516	2.3	4.4	5.2
August ..	30.070	756 22/72	0.25	6,752	W	1.889	3.1	4.0	5.5
September ..	30.007	964 6/74	0.29	6,995	W	2.663	4.0	4.3	4.7
October ..	29.966	926 4/72	0.31	7,645	N E	3.859	4.8	4.9	3.3
November ..	29.939	720 13/68	0.32	7,477	N E	4.582	5.4	5.5	2.3
December ..	29.882	938 3/84	0.34	7,896	N E	5.337	5.7	5.6	2.5
Year { Totals ..	—	—	—	—	—	38.672	47.7	—	41.8
Year { Averages ..	30.000	—	0.23	7,036	N E	—	—	5.1	—
Year { Extremes ..	—	964 6/9/74	—	—	—	—	—	—	—

TEMPERATURE AND SUNSHINE.

Month.	Mean Temperature (Fahr.).			Extreme Shade Temperature (Fahr.).		Extreme Range.	Extreme Temperature (Fahr.).		Mean Hours of Sunshine.
	Mean Max.	Mean Min.	Mean	Highest.	Lowest.		Highest in Sun.	Lowest on Grass.	
No. of yrs. over which observation extends	68	68	68	68	68	68	65	68	16
January ..	78.4	64.8	71.6	108.5 13/96	51.2 14/65	57.3	164.3	43.7	208.7
February ..	77.7	65.0	71.3	107.8 8/26	49.3 28/63	58.5	161.2	43.4	187.9
March ..	75.7	62.9	69.3	102.6 3/60	48.8 14/86	53.8	158.3	39.9	189.5
April ..	71.3	58.1	64.7	91.0 20/22	44.6 27/64	46.4	144.1	33.3	156.5
May ..	65.4	52.2	58.8	86.0 1/19	40.2 22/59	45.8	129.7	29.3	140.4
June ..	61.0	48.3	54.7	79.8 2/23	38.0 5/20	41.8	125.5	28.1	130.0
July ..	59.5	45.9	52.7	78.3 22/26	35.9 12/00	42.4	124.7	24.0	147.0
August ..	62.6	47.5	55.0	82.0 31/84	36.8 3/72	45.2	149.0	26.1	187.2
September ..	67.0	51.4	59.2	92.3 27/19	40.8 18/64	51.5	142.2	30.1	195.5
October ..	71.3	55.8	63.6	99.7 19/98	42.3 3/18	57.4	151.9	32.7	214.5
November ..	74.5	59.6	67.1	102.7 21/78	45.8 1/05	56.9	158.5	36.0	206.0
December ..	77.2	62.9	70.1	107.5 31/04	48.4 3/24	59.1	164.5	41.4	205.1
Year { Averages ..	70.1	56.2	63.2	—	—	—	—	—	2168.3
Year { Extremes ..	—	—	—	108.5 13/1/96	35.9 12/7/00	72.6	164.5	24.0	—

HUMIDITY, RAINFALL, AND DEW

Month.	Vapour Pressure (inches.)	Rel. Hum. (%)				Rainfall (inches).					Dew.	
		Mean 9 a.m.	Mean 9 p.m.	Highest Mean.	Lowest Mean.	Mean Monthly.	Mean No. of Days Rain.	Greatest Monthly.	Least Monthly.	Greatest in One Day.	Mean No. Days Dew.	
No. of yrs. over which observation extends	68	68	68	68	68	68	68	68	68	68	68	
January	0.546	67	78	58	3.67	14	15.26	1911	0.42	1888	7.08 13/11	1.2
February	0.560	71	81	59	4.25	14	18.56	1873	0.34	1902	8.90 25/73	2.0
March	0.527	73	85	62	4.90	15	18.70	1870	0.42	1876	6.52 9/13	3.3
April	0.444	76	87	63	5.33	13	24.49	1861	0.06	1868	7.52 29/60	5.5
May	0.358	78	90	63	5.23	15	23.03	1919	0.18	1860	8.36 28/89	6.2
June	0.299	77	89	68	4.75	13	16.30	1885	0.19	1904	5.17 16/84	5.3
July	0.275	76	88	65	4.86	12	13.21	1900	0.12	1862	6.72 28/08	5.3
August	0.240	72	84	56	3.01	11	14.89	1899	0.04	1885	5.33 2/60	4.9
September .. .	0.331	66	79	49	2.85	12	14.05	1879	0.08	1882	5.69 10/79	3.4
October	0.383	63	77	46	2.84	12	11.14	1916	0.21	1867	6.37 13/02	3.0
November .. .	0.444	63	79	42	2.81	12	9.89	1865	0.07	1915	4.23 19/00	2.1
December .. .	0.503	64	77	52	2.87	13	15.82	1920	0.23	1913	4.75 13/10	1.4
Year { Totals	—	—	—	—	47.46	156	—	—	—	—	—	43.6
Year { Averages .. .	0.400	69	—	—	—	—	—	—	—	—	—	—
Year { Extremes .. .	—	—	90	42	—	—	24.49	4/1861	0.04	8/1885	8.90 25/2/73	—

CLIMATOLOGICAL DATA—MELBOURNE, VICTORIA.

LAT. 37° 49' S., LONG. 144° 58' E. HEIGHT ABOVE M.S.L., 115 Ft.

BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS, AND CLEAR DAYS.

Month.	Bar. corrected to 32° F. Mm. Sea Level and Standard Gravity from 9 a.m. and 3 p.m. readings.	Wind.				Mean Amount of Evaporation (inches).	No. of Days Lightning.	Mean Amount of Clouds, 9 a.m., 3 p.m. & 9 p.m.	No. of Clear Days.
		Greatest Number of Miles in One Day.	Mean Hourly Pressure (lbs.)	Total Miles.	Prevailing Direction, 9 a.m. 3 p.m.				
No. of yrs. over which observation extends.	69	53	53	53	53	54	19	69	19
January ..	29.911	583 10/97	0.27	7,198	S W S E	6.415	2.0	5.1	7.5
February ..	29.960	546 8/68	0.25	6,236	S W S E	5.057	2.6	5.0	6.9
March ..	30.034	677 9/81	0.20	6,208	S W S E	3.984	1.6	5.5	5.2
April ..	30.103	597 7/68	0.19	5,625	S W N W	2.384	0.8	5.5	4.5
May ..	30.100	693 12/65	0.19	5,763	N W N E	1.464	0.6	6.5	3.1
June ..	30.075	761 13/76	0.22	6,217	N W N E	1.088	0.7	6.7	2.3
July ..	30.091	735 8/74	0.21	6,253	N W N E	1.055	0.5	6.3	3.0
August ..	30.066	637 14/75	0.24	6,681	N W N E	1.472	1.1	6.3	3.0
September ..	29.997	617 11/72	0.26	6,856	N W N E	2.302	1.5	6.1	2.6
October ..	29.961	599 5/66	0.27	7,172	S W N W	3.359	2.2	6.9	2.8
November ..	29.950	734 13/66	0.27	6,894	S W S E	4.561	2.4	5.9	2.7
December ..	29.898	655 1/75	0.27	7,231	S W S E	5.781	1.8	5.5	4.3
Year { Totals ..	—	—	—	—	—	38.922	17.8	—	51.2
Averages ..	30.012	—	0.24	6,528	S W — N W	—	—	5.9	—
Extremes ..	—	899 5/10/66	—	—	—	—	—	—	—

TEMPERATURE AND SUNSHINE.

Month.	Mean Temperature (Fahr.).			Extreme Shade Temperature (Fahr.).		Extreme Range.	Extreme Temperature (Fahr.).		Mean Hours of Sunshine.
	Mean Max.	Mean Min.	Mean	Highest.	Lowest.		Highest in Sun.	Lowest on Grass.	
No. of yrs. over which observation extends.	71	71	71	71	71	71	67	67	45
January ..	78.0	56.7	67.4	111.2 14/62	42.0 28/85	69.2	178.5 14/62	30.2 28/85	265.9
February ..	78.0	57.1	67.6	109.5 7/01	40.2 24/24	69.3	167.5 15/70	30.9 6/91	243.2
March ..	74.4	54.6	64.5	105.5 2/93	37.1 17/84	68.4	164.5 1/68	28.9 (b)	207.3
April ..	68.3	50.7	59.5	94.0 (a)	34.8 24/88	59.2	152.0 8/61	25.0 23/97	163.2
May ..	61.4	46.7	54.1	83.7 7/05	29.9 29/16	53.8	142.6 2/59	21.1 26/16	130.4
June ..	56.8	44.1	50.4	72.2 1/07	28.0 11/66	44.2	129.0 11/61	20.4 17/95	111.0
July ..	55.6	41.8	48.7	69.3 22/26	27.0 21/69	42.3	125.8 27/80	20.5 12/03	107.1
August ..	58.7	43.4	51.0	77.0 20/85	28.3 11/63	48.7	137.4 29/69	21.3 14/02	155.6
September ..	62.6	45.7	54.1	85.0 19/19	31.1 16/08	53.9	142.1 20/67	22.8 8/18	171.6
October ..	67.1	48.3	57.7	98.4 24/14	32.1 3/71	66.2	154.3 28/68	24.8 22/18	206.4
November ..	71.3	51.2	61.3	105.7 27/94	36.5 2/96	69.2	159.6 29/65	24.6 2/96	242.3
December ..	75.3	54.3	64.8	110.7 15/76	40.0 4/70	70.7	170.3 20/69	33.3 1/04	255.0
Year { Averages ..	67.3	49.5	58.4	—	—	—	—	—	2259.0
Extremes ..	—	—	—	111.2 14.1/62	27.0 21/7/69	84.2	178.5 14/1/62	20.4 17/6/95	—

(a) 6/1865 and 17/1922.

(b) 17/1884 and 20/1897.

(c) Total for year.

HUMIDITY, RAINFALL, AND DEW.

Month.	Vapour Pressure (inches).	Rel. Hum. (%)				Rainfall (inches).					Dew.		
		Mean 9 a.m.	Mean 3 p.m.	Highest Mean.	Lowest Mean.	Mean Monthly.	Mean No. of Days Rain.	Greatest Monthly.	Least Monthly.	Greatest in One Day.	Mean No. Days Dew.		
No. of yrs. over which observation extends	19	19	19	19	71	71	71	71	68	19			
January	0.383	55	65	50	1.91	8	5.68	1904	0.04	1378	2.97	9/97	2.7
February .. .	0.413	58	69	48	1.72	7	6.24	1904	0.03	1870	3.37	18/19	2.9
March	0.372	62	71	57	2.19	10	7.50	1911	0.18	1859	3.55	5/19	7.1
April	0.332	67	78	66	2.10	11	6.71	1901	Nil	1923	2.28	22/01	8.4
May	0.303	77	86	71	2.17	13	4.31	1862	0.45	1901	1.85	7/91	9.0
June	0.274	79	89	77	2.07	14	4.51	1859	0.73	1877	1.74	21/04	8.7
July	0.264	81	86	76	1.85	14	7.02	1891	0.57	1902	2.71	12/91	9.8
August	0.280	75	82	70	1.87	14	4.04	1924	0.48	1903	1.94	26/24	8.5
September ..	0.293	71	76	60	2.45	14	7.93	1916	0.52	1907	2.62	12/80	6.0
October	0.301	62	67	53	2.63	13	7.61	1869	0.29	1914	3.00	17/69	6.0
November .. .	0.332	57	69	52	2.24	11	6.71	1916	0.25	1895	2.57	16/76	1.9
December .. .	0.360	56	69	51	2.29	9	7.18	1863	0.11	1904	2.62	28/07	1.9
Year { Totals .. .	—	—	—	—	25.58	138	—	—	—	—	—	—	72.4
Averages ..	0.326	67	—	—	—	—	7.93	9/1916	Nil	4/1923	3.55	5/3/19	—
Extremes ..	—	—	89	48	—	—	—	—	—	—	—	—	—

CLIMATOLOGICAL DATA—HOBART, TASMANIA.

LAT. 42° 53' S., LONG. 147° 20' E. HEIGHT ABOVE M.S.L., 177 FT.

BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS, AND CLEAR DAYS.

Month.	Bar. corrected to 32° F. M. Sea Level and Stan- dard Gravity from 9 a.m. and 3 p.m. readings.	Wind.				Mean Amount of Evaporation (inches).	No. of Days Lightning.	Mean Amount of Clouds, 9 a.m., 3 p.m., & 9 p.m.	No. of Clear Days.
		Greatest Number of Miles in One Day.	Mean Hourly Pres- sure. (lbs.)	Total Miles.	Prevailing Direction. 9 a.m. 3 p.m.				
No. of yrs. over which observation extends	42	16	16	16	21	16	19	64	20
January	29.830	500 30/16	0.19	5,945	N N W S E	4.911	0.9	6.0	12.6
February	29.918	393 19/13	0.14	4,692	N N W S E	3.753	1.3	6.0	12.4
March	29.942	431 14/26	0.13	4,921	N N W S E	3.045	1.3	5.9	12.4
April	29.964	533 27/26	0.14	4,892	N N W N W	2.625	0.8	6.1	1.8
May	29.985	411 3/16	0.12	4,696	N N W N N W	1.355	0.5	6.1	12.2
June	29.948	569 27/20	0.13	4,652	N N W N N W	0.895	0.7	6.1	12.0
July	29.931	425 16/21	0.12	4,754	N N W N N W	0.892	0.6	5.8	12.4
August	29.927	612 19/26	0.13	4,999	N N W N N W	1.255	0.6	6.0	12.1
September	29.847	516 26/15	0.18	5,534	N N W N W	1.960	0.8	6.1	1.6
October	29.825	461 8/12	0.19	5,945	N N W S E	3.087	0.8	6.3	1.4
November	29.802	508 18/15	0.20	5,900	N N W S E	4.041	0.9	6.4	1.6
December	29.808	486 30/20	0.18	5,762	N N W S E	4.539	1.1	6.3	1.1
Year { Totals	—	—	—	—	—	31.758	10.3	—	23.6
{ Averages	29.894	—	0.15	5.224	N N W S E & N N W	—	—	6.0	—
{ Extremes	—	612 19/8/26	—	—	—	—	—	—	—

TEMPERATURE AND SUNSHINE.

Month.	Mean Tempera- ture (Fahr.).			Extreme Shade Temperature (Fahr.).		Extreme Range.	Extreme Temperature (Fahr.).		Mean Hours of Sunshine.
	Mean Max.	Mean Min.	Mean	Highest.	Lowest.		Highest in Sun.	Lowest on Grass.	
No. of yrs. over which observation extends	56	56	56	80	80	80	39	59	32
January	71.2	52.9	62.0	105.0 1/00	40.3 (a)	64.7	160.0 (b)	30.6 19/97	211.6
February	71.3	53.3	62.3	104.4 12/99	39.0 20/87	65.4	165.0 24/98	28.3 -/87	178.4
March	68.0	50.8	59.4	98.8 5/46	35.2 31/26	63.6	150.0 3/05	27.5 30/02	175.4
April	62.7	47.6	55.2	90.0 2/56	30.0 25/56	60.0	142.0 18/93	25.0 -/86	141.2
May	57.3	43.7	50.5	77.8 5/21	29.2 20/02	48.6	128.0 (c)	20.0 19/02	132.0
June	52.8	41.1	47.0	75.0 7/74	28.0 22/79	47.0	122.0 12/94	21.0 6/87	103.3
July	52.0	39.3	45.6	72.0 22/77	27.0 18/66	45.0	121.0 12/93	18.7 16/86	124.6
August	55.0	41.0	48.0	81.0 21/72	30.0 10/73	47.0	129.0 -/87	20.1 7/09	144.5
September	58.8	43.2	51.0	80.0 9/72	30.0 12/41	50.0	138.0 23/93	18.3 16/26	146.2
October	62.7	45.5	54.1	92.0 24/14	32.0 12/80	60.0	156.0 9/93	23.8 20/14	169.9
November	66.1	48.2	57.2	98.0 20/88	35.2 5/13	62.8	154.0 19/92	26.0 (d)	201.2
December	69.3	51.2	60.2	105.2 30/97	38.0 13/06	67.2	157.0 30/18	27.2 -/86	198.7
Year { Averages	62.3	46.5	54.4	—	—	—	—	—	192.0e
{ Extremes	—	—	—	105.2 30/12/97	27.0 18/7/66	—	165.0 24/2/98	18.3 16/9/26	—

(a) 3/72, 2/06, and 27/13. (b) 5/86 and 13/05. (c) -/88 and -/93. (d) 1/86 and -/99. (e) Total for Year.

HUMIDITY, RAINFALL, AND DEW.

Month.	Vapour Pressure (inches)	Rel. Hum. (%)				Rainfall (Inches).						Dew.	
		Mean 9 a.m.	Mean 9 a.m.	Highest Mean.	Lowest Mean.	Mean Monthly.	Mean No. of Days Rain.	Greatest Monthly.		Least Monthly.		Greatest in One Day.	Mean No. Days Dew.
No. of yrs. over which observation extends	40	40	40	40	84	83	84		84		60		17
January ..	0.332	59	72	47	1.84	10	5.91	1893	0.03	1841	2.96	30/16	0.7
February ..	0.358	63	77	53	1.46	9	9.15	1854	0.07	1847	4.50	25/54a	1.8
March ..	0.328	67	77	58	1.70	10	7.60	1854	0.02	1843	2.79	5/19	4.8
April ..	0.303	72	84	58	1.87	11	6.50	1909	0.07	1904	5.02	20/09	10.2
May ..	0.269	77	89	65	1.98	13	6.37	1905	0.10	1843	3.22	14/58	13.1
June ..	0.245	81	91	68	2.24	14	8.15	1889	0.22	1852	4.11	14/89	8.8
July ..	0.234	81	94	72	2.18	14	6.02	1922	0.30	1850	2.51	18/22	8.5
August ..	0.237	77	92	64	1.84	14	10.16	1858	0.23	1854	4.35	12/58	8.5
September ..	0.251	68	85	60	2.08	15	7.14	1844	0.39	1847	3.50	29/44	4.7
October ..	0.272	64	73	51	2.28	15	6.67	1906	0.26	1850	2.58	4/06	2.9
November ..	0.295	59	72	50	2.48	14	8.92	1849	0.16	1868	3.97	6/49	1.2
December ..	0.313	57	67	45	1.98	11	9.00	1875	0.11	1842	2.48	13/16	0.8
Year {	Totals ..	—	—	—	23.84	150	—		—		—		66.0
	Averages ..	0.281	67	—	—	—	—		—		—		—
	Extremes ..	—	—	94	45	—	10.16		0.02		5.02	20/4/09	
							8/1858		3/1843		20/4/09		

(a) 4.18 on 26/54 also.

THE TOPOGRAPHY OF AUSTRALIA.

[By Professor Griffith Taylor, University of Sydney.]

§ 1. The Continent.

1. **General.**—Australia is the smallest of the continents, and is situated to the south-east of that great block of land which comprises Europe, Asia and Africa. The two main belts of late topographic change traverse the Old World. One runs across Europe and Asia and constitutes the Himalaya Belt. The other surrounds the Pacific, and has resulted in the high mountains and the numberless festoon islands fringing Asia and Australia in the Western Pacific. These two belts meet in the complex region of the East Indies, and have produced the varied topography of New Guinea. But neither of them traverses Australia, which in consequence is one of the regions with least topographic variety in the world.

2. **The Great Australian Peneplain.**—The characteristic feature of Australian topography is one of which most Australians know very little. It is the extremely large level area constituting most of Western Australia, Northern Territory and western South Australia. This is on the whole poorly supplied with rainfall, and in consequence has only a meagre population. But it comprises more than half of the continent and forms a single unit which is best described as "The Great Australian Peneplain." It consists essentially of a rather low plateau about 1,200 feet above sea-level, built up of many diverse geological formations. Probably in Pliocene times (some two or three million years ago) it lay at sea level. It was in fact the level surface of an ancient continent which rain and rivers had eroded nearly to sea-level during perhaps a hundred million years.

Although Australia did not suffer buckling and folding as did much of Europe, Asia and America, yet (like Africa) it was subjected to broad uplifts which raised a large portion of the continent *en masse*. This *epeirogenic* movement produced the present-day peneplain of western and central Australia. In the eastern portion of the continent, more localized uplifts took place, so that real *folds* occurred in places and many *faults* (largely in a north-south direction) developed. Blocks of the earth's crust were isolated and elevated to varying degrees, and most of our mountains in eastern Australia are due to the uplift of these blocks or *horsts*.

Between the western peneplain and the eastern cordillera is a region of somewhat lower land, which has sunk below sea-level at Lake Eyre. This can be divided into two portions—the Artesian Basin in the north and the Murray Basin in the south. They are probably due to the same broad movements which affected the rest of the continent.

If we consider the chief geological features of Australia, we find that the western peneplain consists for the most part of very ancient rocks which appear to have resisted folding through a very large portion of geological history. It forms, in fact, one of those particularly stable portions of the earth's crust known as *coigns* or *shields*. On the other hand, the lower Murray Basin probably contains the largest deposits of Tertiary Age in the continent, and would thus appear to be a trough (or series of troughs) folded against the resistant western coign. The eastern cordillera with its deeply dissected surface exhibited in the profound gorges of the Blue (Mountain) Plateau and elsewhere has clearly been uplifted within comparatively recent geological time. If we pass further to the east, we find in the alternating deeps and ridges of the Tasman Sea the same phenomena repeated on a grander scale until we reach the profound depths of the Tonga Deep to the north of New Zealand. Here some authorities would place the "engine" or "centre of disturbance," whose uneasy movements have determined to a considerable extent the topography of Australia.

At any rate it explains why the topography on the whole becomes less and less striking as we move from east to west of Australia. There are, of course, local exceptions, but speaking generally we can say that the eastern coastlands exhibit marked juvenile

topography, while the rest of Australia is more or less senile throughout. Only on the margins of the great peneplain, where rivers are busily cutting down the scarps, is there a zone of youthful rivers, and this feature is well marked near Perth and along the north coast of the continent.

§ 2. Western Australia.

1. **General.**—This State occupies nearly one-third of the whole continent of Australia, and forms the major portion of the great peneplain mentioned previously. As pointed out in §1 it was probably uplifted to a height of about 1,200 feet somewhere near the end of Pliocene times. In consequence, the erosion by rivers has been carried on rather extensively in the marginal portions where the rainfall is fairly heavy. In places this peneplain is bounded by fault scarps, and the so-called Darling Range, behind Perth, is of this type. The deep valleys of the Helena River and adjoining rivers near Perth are thus of late origin, while the broad shallow valleys of their headwaters still show the topography of pre-uplift times. Yet in this State as elsewhere the results of recent oscillations of the land are often to be observed. Thus along the coast south of Broom the writer has noted numerous examples of *raised* beaches, while at Port Hedland, some 300 miles further south, is a *drowned* river valley somewhat resembling Port Jackson in plan.

We may consider the detailed topography in six main regions. These are (1) Kimberley, (2) Desert, (3) North-west, (4) Swanland, (5) Salt Lake Region, (6) Nullarbor.

2. **The Kimberley Region.**—This region differs from most of the State in that it has a rainfall exceeding 20 inches. It is, however, part of the general peneplain—consisting of many different formations which have been eroded in varying degrees. The highest point is Mount Hann (2,800 feet). With the greater rainfall, the older moderately flat surface is now broken into ridges and valleys. Some of the harder rocks stand out as steep walls, running roughly from N.W. to S.E. These in part constitute the King Leopold, Napier and Geikie Ranges, and the rivers in places zig-zag through these “walls” in deep antecedent gorges. It has been suggested that the rivers originally flowed to the south-west like Sturt Creek, but have been captured by west-flowing coastal streams. The main stream is the Fitzroy River, which is about 350 miles long, and carries enormous volumes of water to the sea after the summer rains. It drains broad grassy plains, and, occasionally, as in 1914, these are covered by floods over 20 miles wide. In the dry months it ceases to run, but long waterholes are common along its course.

The coast is marked by a number of deep narrow gulfs (rias) which are due to the relatively late drowning of large river valleys by the sea. A tidal rise of 25 feet is common on this coast.

3. **The Desert Region.**—This division comprises the large block of uninhabited country which lies east of a line joining the De Grey River to Laverton. It extends far into South Australia and the Northern Territory. Its topography is fairly well known from the accounts of Talbot, Clarke, Carnegie, Clapp and others. The general level is about 1,500 feet, and there are no marked topographic variations beyond shallow salt-lakes and insignificant ranges. The latter are often little more than “breakaways,” which the local geologists consider are probably the relics of the ancient valley walls eroded in a former wet epoch.

The salient features are the sand-ridges, which Carnegie describes as from 30 to 50 feet high, and running very regularly nearly east and west. Much of the region, however, consists of a great undulating desert of gravel, formed largely of pebbles of ferruginous sandstone. Carnegie travelled from Laverton to Hall's Creek, i.e., through the centre of this region. Talbot describes the country along Canning's stock route somewhat to the north-west, starting from Wiluna. Water was obtainable from wells dug some 50 feet deep, or native rock-holes, which were found at intervals of 20 miles or so. “In windy weather the air is full of sand, but the sand ridges do not seem to be shifting perceptibly.” They usually carry a fairly strong growth of desert gum and “buck” spinifex, and sometimes some grass. Talbot is emphatic that south of Sturt's Creek the country is never likely to be occupied by pastoralists.

A later traverse by Talbot and Clarke from Wiluna E.N.E. to the border reveals the same type of country. For 300 miles desert country consisting of sand ridges or sand plains was encountered. Occasionally "breakaways" 150 feet high were seen. To the east of the Townsend Range (long. 127° E.) broken granite ranges occurred with a belt of better country amid the desert. They saw, however, little or no probability of pastoral occupation here.

To the north-west the desert reaches the Indian Ocean at the 90-mile Beach. Here the writer found that the bare sand ridges commenced about 25 miles north of Wollal, and great streaks of red dust lay for miles over the ocean, where the constant trade wind had carried them. (This is exactly parallel to the conditions off the Sahara desert near Cape Blanco.) The eastern portion of this region will be considered in the sections dealing with the Northern Territory and South Australia.

4. *The North-west Division.*—This extends from the De Grey River to the Murchison River, and has been compared to the Punj-ab in that it also consists (with the intervening Fortescue, Ashburton and Gascoyne) of five great river basins. The country is a peneplain rising from the coast to a height of 4,000 feet at Mount Bruce. It is crossed by fault and fold scarps and merges into the sand ridge desert on the east. This region contains one of the few large areas over 3,000 feet in Australia. It is named the Hamersley-Ophthalmia Plateau, and appears to be bounded by a marked fault scarp along the north, below which flows the Fortescue River. All the inland portion of the division consists of undulating (late mature) topography with large areas of plains, crossed by low ridges. *Spinifex (Triodia)* is the common vegetation in the Upper Ashburton and Fortescue basins, but to the south mulga is all prevailing.

The river valleys are of the nature of "wadis," in that it is only rarely that they contain water on the surface. Thus the Shaw River had not run for nine years (in 1924), but its gravels gave a plentiful supply which was carried by train 40 miles to Port Hedland. However, at Millstream (on the Lower Fortescue) a rocky floor determines a perennial flow which is visible for several miles, until the water vanishes again in the gravels.

5. *Swanland.*—To the temperate south-west portion of Western Australia, with a rainfall suitable for agriculture and close settlement, the name Swanland has been applied. It is a portion of the Great Peneplain which has long been actively attacked by many rivers and streams, hence the topography is somewhat different from that of the rest of the State. The western littoral is separated off by the Darling Fault Scarp, and has dropped relatively to the inland portion. This scarp extends approximately for 200 miles from Moora southwards. The littoral has been dissected into wide shallow valleys, in which old-looking rivers meander. It consists of clays and sands largely of fluviatile origin, which are deepest near Perth, and also of sand dunes. The littoral has later subsided, especially near Perth, and so drowned the Swan Estuary. A small upraised block appears to account for the elevated region near Cape Leeuwin. The Stirling Range is 50 miles long, and consists of quartzites which have perhaps been thrust up as an earth block to a height of 3,000 feet. This movement seems to have occurred fairly lately, since small lakes and elevated valleys still show the disturbances which disrupted the ancient drainage. King George Sound at Albany is, of course, a fine example of a drowned coastal valley.

6. *The Salt Lake Division.*—This area lies between Swanland and the Desert Division. It has a rainfall of 8 or 10 inches, and is characterized by a great number of playas or shallow salt lakes. These are nearly all linear in shape, sometimes 50 miles long and about 5 miles wide. They occupy slight hollows in the great peneplain, and many theories have been put forward as to their origin. There is little doubt that they originated as river valleys in the wetter epochs of Tertiary times. The lakes north of Kalgoorlie (Raeside, Darlot, Salt, and Cary) appear to be dismembered portions of a river which once flowed to the south-east to Goddard's Creek, and so to the Bight. Gregory believes that these rivers were unable to keep their channels clear from encroaching sand-dunes during Post-Miocene desiccation. As Jutson shows, however,

desert erosion has since affected these lakes, so that they often exhibit flat rocky floors bounded by almost vertical cliffs. Abrupt rocky islands stand out above the "billiard-table" floors.

The water in the lakes soon evaporates, but underground water can be obtained without trouble in most parts. In the south this is often salt, but in the north it is fresh, and the land, therefore, is extensively occupied by pastoralists.

7. The Nullarbor Division.—This Division occupies the south-east corner of the State. It consists of a vast plateau built up of fairly late limestones. These are Cretaceous in the north, like those of the Queensland artesian basin, and are overlaid by Tertiary (Miocene) deposits in the south. The latter form the cliffs of the Bight, which are about 200 feet high. Thence, the plateau rises gradually to the north to a height of 1,000 feet. The limestone is cavernous and is often 800 feet thick. The rains sink at once into the limestone, and it is this lack of surface water which has prevented settlement on the Nullarbor Plains.

§ 3. The Northern Territory.

1. General.—To a very large extent the Northern Territory forms part of the great peneplain, which as we have seen was partly uplifted in Middle or Late Tertiary times. Jensen believes that this upward movement has continued to the present day, and is indicated by raised beaches around most of the coastline.

So also the canyons of the Katherine and MacArthur Rivers show the rejuvenation of these rivers by the late uplift.

2. Inland Features.—Inland the peneplain has not yet been trenched by the rivers in any general fashion. The northern part of the Territory seems to lie at an elevation between 500 and 900 feet, though considerable portions of Arnhem Land (which is not yet fully explored) may be higher. The Barkly "Tableland" appears to be well defined only on its northern edge where it drops somewhat rapidly towards the coast. It may be about 1,100 feet high, and much of its drainage flows into vast shallow basins, which become lakes in very wet seasons. Thus, Lake DeBurgh (near Brunette Downs) may expand to a length of about 100 miles, though generally disintegrated into a series of swampy areas at the lower ends of Playford, Creswell, and other Creeks. Lake Woods (near Newcastle Waters) is another such lake, (probably due to a slight warp in the crust), which at present has almost vanished.

3. Coastal Rivers.—The coastal rivers carry great bodies of water during the summer rains. Boats drawing 3 feet can penetrate 100 miles up the Victoria River, while the Adelaide and Roper will carry much larger craft about the same distance. In dry seasons these rivers become largely estuarine, but springs at their heads give rise to considerable bodies of fresh water even in the winter "dry" season.

4. The Southern Area.—The southern portion of the Territory differs considerably from the northern. It is both higher and drier than the latter. South of Powell's Creek and the Barkly Tableland there is a great expanse of little known country, though the route along the overland telegraph is often traversed. To the west, is the north-east extension of the western desert (between Tanami and Barrow Creek); to the east is the smaller but equally unpopulated area to which the name Arunta Desert has been assigned.

These unattractive regions are more or less vegetated by mulga shrubs and by clumps of spinifex. They exhibit characteristic features of arid erosion, such as large areas of sand-dunes (usually fixed by vegetation), which run from north-west to south-east or thereabouts. There are also stretches of stony plains, and occasionally sandy valleys and bare clay-pans.

5. The Macdonnell Ranges.—The Macdonnell Ranges differ a good deal in topography from the remainder of the Territory. Keith Ward has described the vicinity of Alice Springs in some detail.

"The (Mesozoic) sea retreated from continental Australia, and throughout the tertiary period to the present day, the interior of Australia has been subject to continuous sub-aerial denudation. The Mesozoic rocks on elevation above sea level formed a broad plateau region. . . . and at the present time the remnants of this plateau slope gently towards the Lake Eyre depression, whither the drainage trends. . . . The peneplanation of the Macdonnell Ranges was followed by an uplift which rejuvenated the streams. They cut down steep-sided gaps through the ridges of hard quartzite which were gradually etched out in strong relief. Sometimes these gaps (as at Temple Bar) are determined by the position of fault fractures."

The Finke River is the chief watercourse from the Macdonnell Ranges. It flows to the south-east, but rises north of the chief range in the Burt Plain at a height of 2,400 feet. It then cuts through the edges of the upturned Paleozoic strata as described above. Normally the channel is occupied by long stretches of white sand devoid of surface water, separated at rare intervals by short lengths of channel where water may be flowing gently over a rocky bed. In heavy floods the Finke reaches Lake Eyre.

§ 4. South Australia.

1. **General.**—This State has a rather diversified topography, which can best be considered in some half dozen separate regions. In the north-west is the south-eastern extension of the Great Peneplain. It is dominated by the residuals forming the Musgrave Ranges. To the south-west is the greater part of the Nullarbor Plains, which, as we have seen, extend into Western Australia. The eastern portion of the State has been much less stable, and the major topographic features are due to the very late buckling which has produced the Flinders Range, and also led to the chain of lakes surrounding this range.

2. **The Southern Area.**—The southern part of the State is marked by the development of three peninsulas and three gulfs, which constitute a type of coastline not found in any other part of Australia. The series runs as follows:—Eyre's Peninsula (battered by the Gawler Ranges), Spencer's Gulf, Yorke Peninsula, St. Vincent Gulf, Fleurieu Peninsula (ending in Cape Jervis, but, structurally prolonged into Kangaroo Island), and the Murray Outlet Gulf. The latter has largely been silted by the immense deposits of alluvial brought down by the Murray.

3. **The North West.**—R. L. Jack has given us a valuable discussion of the topography in the north-west of the State. The fairly level-bedded cretaceous rocks of the eastern portion have been subjected to induration of the surface by the action of the sun and infrequent rains on the siliceous rocks. The hard capping thus formed tends to break down in the form of table-top hills, and ultimately the hard fragments constitute the "gibbers" of the stony plains. Wind-blown dunes are common near the Alberga River, but after the paleozoic rocks to the west are reached, the elevation of the peneplain gradually increases (to the north-westward) from 1,000 to 2,000 feet.

The Musgrave Ranges are divided into separate hills by wide valleys which are about 2,200 feet above the sea. Still higher rise the rougher hills of granite and gneiss, of which Mount Woodroffe (about 5,000 feet) is the highest. The Everard Ranges, to the south, consist of low rounded hills rising into domes above the peneplain, which is here about 1,700 feet above sea level.

4. **Evolution of South Australian Topography.**—In various papers Howchin has discussed the evolution of the topography of South Australia. He shows from the geological evidence that the Mount Lofty Ranges did not exist until Pliocene times, when a great continental uplift occurred. The main divide in South Australia was probably much farther north than it is to-day, and the coast extended much farther south. Great north-south valleys developed, possibly leading the drainage of the Macdonnells and Musgraves to the south by way of what later became the large gulfs already noted.

Relics of this stage of erosion are found throughout the Ranges in the form of flat-topped hills now about 1,500 feet high, from which rise residuals such as Mount Lofty (2,334 feet). This plateau-like area later broke into crustal blocks in the south, while apparently a vast downward buckle occurred in the northern portion of the area. As a result we find a series of ranges running north and south, flanked by *graben* (or fault-valleys) now largely occupied by the sea.

If we examine the chain of lakes which extends from the head of Spencer's Gulf right round to Lake Frome, it is seen that very little depression would extend the gulf right round nearly to Broken Hill. From the head of the Gulf, a chain of swamps and lagoons rising only about 100 feet in 40 miles, leads to the vast salty expanse of Lake Torrens. This is 150 miles long, and is separated from the Lake Eyre depression by a ridge only 175 feet above sea level. Lake Eyre is 39 feet below sea level, and flanked by ancient lake-terraces which have been briefly examined by Halligan. Between Lake Eyre and Lake Gregory there are stony rises only about 100 feet high. Thence there are sand-hills about 25 feet high, separating the last lake from Lake Blanche, which at times connects with Lake Callabonna by floods in the Strzelecki Creek. A channel joins Lake Frome to Lake Callabonna, and the two latter are practically at the same level. There seems little doubt that this horseshoe series of lakes has developed in a semi-circular depression which accompanied the upward folding and faulting producing the Flinders Range. The latter rises sharply to 3,470 feet in Mount Benbonyathie right above Lake Frome; while St. Mary's Peak (also in this northern portion of the horst-blocks) overlooks Lake Torrens from a height of 3,900 feet.

No better proof of the recency of these uplifts of the order of 2,000 feet could be desired than that available at Orroroo. Here we have relics of a vast river system, probably rivalling the Murray, which once drained the south-west and reached the sea near the head of St. Vincent's Gulf. The Pasmore and Siccus Rivers are filled with hundreds of feet of alluvial. At Orroroo near the summit of the ranges to-day a bore penetrated 591 feet of river sands and gravel without reaching bedrock. It is clear that these gravel deposits have been buckled up to form the divide only recently, for they must rapidly disappear under the attacks of normal erosion.

The Mount Lofty Ranges are bounded by fault scarps, which appear as a series of "steps" on both flanks of the uplands. Howchin shows that there is a remarkable series of such fragmentary blocks in the Adelaide district. Thus, the Upper Sturt flows on a surface about 1,900 feet above the sea. Belair, nearer the coast, is on a broken portion of the same peneplain, now about 1,000 feet above the sea; Burnside is on a fragment some 500 feet high. Under Adelaide are sunken areas at 220 feet and 2,000 feet (?) below sea level.

The lower Murray River has very little fall (only 57 feet) while flowing through South Australia. It seems likely that its original path has been much changed by the late Tertiary uplift. The sharp angle at Morgan is suggestive in this connexion. The river flows through a wide senile valley to Overland Corner (half way from Renmark to Morgan), and then passes between well marked cliffs, showing that fairly recent uplift of the order of several hundred feet has affected the ancient valley.

5. **Mount Gambier.**—In the extreme south-east of the State are the low volcanic cones (600 to 700 feet) of Mount Gambier. A number of small lakes, usually due to subsidence, are associated with the cones. It seems probable that their water supply is derived from permeable beds extending well into Victoria.

§ 5. Queensland.

1. **General.**—The State can be divided broadly into two regions, the Western Lowlands, largely consisting of the plains covering the Artesian water-bearing beds, and the Eastern Cordillera, which extends in a belt some 200 miles wide along the coast. There are, however, several subdivisions.

2. **Selwyn Upland.**—To the west of Cloncurry is a belt of uplands, including the Selwyn Range, which consists of ancient rocks forming the boundary of the Mesozoic Artesian Series. These rocks are on the whole siliceous and mineral bearing, and contain such well-known fields as Mount Isa and Duchess. They form part of the main Divide, but consist in places of meridional ridges running more or less across the Divide. Towards Camooweal occur interesting *dolines* (or deep hollows) in the porous massive limestones. The Gulf rivers rise in perennial streams flowing from similar limestones.

3. **Great Artesian Basin.**—This well-defined geological feature extends into four States, but more than half of the total area is in Queensland. The water-bearing layer is at varying depths; outcropping on the east along the Divide, and sinking to 7,000 feet below the surface, near Blackall on the Barcoo River. There is another localized depression over 3,500 feet deep near Mungindi. (These deeply seated waters flow out to the surface along the western edge of the basin, in the form of hundreds of mound springs, especially between Lake Frome and Oodnadatta).

The surface of this region is a vast plain almost wholly below 1,000 feet. Indeed, except along the eastern margin, nearly all of it is below 500 feet, but near Kynuna an east-west belt forms a low ridge (above 500 feet) right across the northern part of the basin. Other lower ridges separate from each other the broad alluvial-filled valleys of the Diamantina, Thomson, and Paroo. These rivers flow only after heavy rains, but in flood time they are many miles wide.

4. **The (So-called) Dividing Range.**—In connexion with the Queensland Highlands, which form part of the Eastern Cordillera, it may be well to discuss the so-called "Great Dividing Range," which is so prominent a feature on most maps. This belt of highlands undoubtedly constitutes the divide between the coastal drainage and that flowing westward to Lake Eyre or the Murray mouth. But, if we examine it at all closely, it is seen to be in no sense a range, but is for the most part a series of disconnected elements of very diverse origin.

In Queensland, it is only an important feature where formed of basalt flows of comparatively late date. Between these it is often a mere warp-ridge but a few hundred feet above the general level.

In the north of New South Wales the Divide is more definite for 100 miles, for here it runs along the great New England granite massif. But the Liverpool Ranges—a quite late geological formation—deviate it to the west. Here the Divide deteriorates to a mere water parting (at Cassilis) between the Goulburn and Talbragar Rivers, where crustal folding, combined with the cutting action of the Goulburn, has driven the Divide far to the west. The "range" is not 2,000 feet high hereabouts.

The Divide returns along the southern rim of the Goulburn Valley towards the coast, and is then carried southwards by a series of indefinite ranges, consisting here of basalt flows, there of recent folds; and again, as at Cooma, with hardly any apparent elevation at all. Hereabouts we notice that Lake George is perched right on the Divide, while Merigan Creek flows right through the so-called Divide. Near Cooma it enters on an extraordinary zig-zag path, which points to recent interruptions in the drainage. These zig-zags around the heads of the Snowy and Tambo Rivers are almost certainly the results of important river captures. Finally, in Victoria, the great area of Pliocene basalt in the west of the State has certainly flooded pre-existing lowlands and valleys, and converted portions of them into the modern Divide.

5. **The Eastern Cordillera.**—Lying parallel to the modern Divide, and in the north considerably to the east of it, is another belt of highlands almost coincident with the coastline. These coast ranges are formed of an almost continuous series of granite masses, which reach from Tasmania to Cape York. South of Queensland the modern basalt-capped Divide and the granite masses are mingled to a greater degree. This broad "complex" of highlands of varying origin forms a fairly well marked belt to which the name Eastern Cordillera is here applied.

6. **The Queensland Highlands.**—In the far north of this belt is one of the most interesting elevated regions in Australia. The Atherton Plateau is almost the only tropical plateau worthy of the name. No other large areas over 2,000 feet exist in our tropical areas except right on the Tropic itself at a comparatively high latitude. Furthermore, the Atherton Plateau is well-watered, fertile, and rich in minerals, and it bulks largely, therefore, in discussions of tropical settlement. Its area (over 2,000 feet) is, however, only about 15,000 square miles out of a total of 1,149,320 square miles in tropical Australia. The plateau rises gradually to the east, the summit being Mount Bartle Frere (5,438 feet), the highest point in Queensland. This mountain rises almost straight up from a narrow coastal plain. It stands right in the path of the constant trade winds, and its flanks are drenched with rains, amounting to 165 inches at Harvey Creek. This factor, combined with the recency of the uplift, has led to very rapid headward erosion by such coastal streams as the Barron, Johnstone, Mulgrave, &c. The headwaters of the Mitchell, which rises right on the east coast, have accordingly been captured by the Barron River. Fine waterfalls are common, and the scenery stands out among Australian examples.

The coast has been subjected to many oscillations in recent times. A series of coastal plains of very recent origin points to an upward "joggle." The great gorges and waterfalls also show evidence of some hundreds of feet uplift many thousand years ago. But the dominant feature is subsidence. The coral reefs of the Great Barrier probably form only a veneer of a few hundred feet on a subsided coastal margin. The festoon islands so common along the coast also clearly indicate dominant subsidence.

The Clarke Range near Mackay has only a restricted area over 2,000 feet. Some of the basalt tablelands along the Great Divide (e.g., Buckland Tableland) rise to about this same level. A number of small lakes just north of the Tropic, e.g., Buchanan, Galilee, Dunn, and Mueller, seem to be relics of ancient rivers running across the present Divide. Perhaps the present Burdekin formerly drained westward into the Thomson River, via these depressions. Lake Galilee is about 20 miles long, and there is only a divide of 200 feet separating it from Belyando River.

The Darling Downs area is also largely composed of basalt. Small portions rise above 2,000 feet. The coastal rivers are shifting the divide to the west, and steep slopes flank the east of these uplands. A series of late tertiary volcanic cones constitutes the Glass House Mountains. Somewhat similar cones are found in the Peak Range farther north. Much field work remains to be done in Queensland before the topography can be adequately described, as very little investigation has been attempted away from the coastlands.

§ 6. New South Wales.

1. **General.**—Owing to the work of David, Andrews, Sussmilch, and others, the topography of this State is fairly well known. The major divisions resemble those of Queensland. There is a low western region—not, however, in general covering artesian water as in Queensland—and a mountainous eastern division extending almost to the coastline. Several subdivisions may usefully be employed.

A. WESTERN DIVISION (LOWLAND).

Northern Artesian Basin.

Broken Hill Buckle.

Cobar Buckle.

Riverina or Murray Basin.

B. EASTERN DIVISION (HIGHLAND).

New England.

Blue Plateau.

Kosciusko and the Monaro.

Associated with the latter division are small coastal plains; such as those near the Clarence, Hunter, and Hawkesbury Rivers.

2. **Western Division.**—(i) *Lowlands.* With regard to the lowland portions of the west, there is not much difference in the topography of the northern (Artesian) region and the southern (Riverina) region. Both exhibit senile valleys choked with alluvial, and so level that they merge into plains with indistinguishable divides. Thus the Paroo

River in time of flood is stated to spread to a width of some 20 miles. Probably much of the alluvial is a legacy of larger rivers of the Pleistocene period. Some uplift has affected the main streams in places. Thus, at Walgett, the Darling (or Barwon) flows in a trench 30 feet below the alluvial plains. The same condition obtains at Wilcannia. The soil consists largely of black *chernozem* near the rivers, with much humus and unoxidized fragments of basic rocks. Older alluvial tends to be reddish and less "sticky" owing partly to oxidization.

The southern boundary of the Artesian Division is not marked by any notable surface feature. It runs from Bourke to Dubbo near the Bogan River. On the east, the land rises rapidly to the outlying spurs of the New England Plateau. The Artesian water is found at much shallower depths than in Queensland—on an average about 1,800 feet down. (The deepest, Boronga Bore, near Mungindi, penetrates to a depth of 4,338 feet).

(ii) *Central District.* The central portion of New South Wales exhibits three low earth waves, which probably originated in pressure from the New Zealand area exerted on the mobile crust thrusting it against the Great Australian Shield. We have already considered the Flinders Range—the most western of these buckles. To the east lie the Broken Hill Uplands, the Cobar Peneplain, and the Blue Plateau. These bear marks of recency and probably date from the Pleistocene or "Kosciusko" period.

(iii) *The Broken Hill Upland.* The Broken Hill Upland (rather inaccurately named the Barrier Ranges) consists of a horst some 100 miles long and 30 miles wide. It rises some 500 feet above the alluvial plains, which in turn are 500 feet above the sea. The upland is crossed by low ridges, which represent the edges of upturned resistant strata. Well-marked fault-scarps cut by deep gorges appear along the western edge. Large delta-fans of an earlier wetter cycle run far out on the alluvial deposits of the Frome Plain.

(iv) *The Darling River.* The Darling River flows from the Northern (Artesian) Division to the Southern (Riverina) Division of the lowlands. No marked rejuvenation of the river seems to have ensued due to the buckling here, for at Wilcannia the Darling is only entrenched about 30 feet in its alluvials.

(v) *The Cobar Peneplain.* The Cobar Peneplain is an area some 200 miles wide of early Paleozoic rocks rising about 600 feet above the sea, and so only a little higher than the surrounding deep alluvial plains. It represents fairly closely the pre-uplift topography of most of Eastern Australia in middle tertiary times. The level area around Wyalong to the south is of somewhat the same topography.

(vi) *The Riverina or Murray Basin.* The Riverina Region extends from about Narrandera westwards to the border of South Australia. It is characterized by extremely level conditions, so that the rivers have the habit of delta-streams and distributaries are common. In local floods the water at times flows *upstream*. Billabongs and anabranches cross from river to river. Willandra Billabong in periods of flood connects the Lachlan near Hillston with the Murray at Euston. So also Yanco Creek joins the Murrumbidgee with the Murray by an alternative channel, to the south of the main drainage of the region (via Hay). Local uplift has caused the Murray to be slightly rejuvenated in its Echuca section, but very little work has been done on the topography of the Murray.

3. *Eastern Division.*—(i) *The New England Plateau.* New England is the most extensive plateau in Australia, though not the highest. It covers an area about 200 miles long by 40 miles wide—all over 3,000 feet high. Three bosses between Armidale and Tenterfield (Ben Lomond, Capoompetta, and Chandler's Peak) rise to 5,000 feet, while an important high spur, called Snowy Mountain, runs to the east, and the "Barrington Tops" to the south are about the same height. Andrews writes of New England, "The conception which harmonizes most with the facts of observation appears to be that the main New England Plateau surface was developed by erosive activities near sea level, and that it has since been raised unevenly, so as to form a warped and faulted surface." There are three of these plateau levels. The Guyra Peneplain is

at about 4,300 feet elevation, the Mole Penepplain is at 4,000, the Sandon and Stannifer Penepplain at about 3,200 feet. The coastal rivers have cut back into this uplifted region and have formed canyons (as at the head of the Macleay) some 3,000 feet deep.

Three volcanic groups are associated with New England. The Nandewar group of trachyte cones rises to a height of 4,000 feet between Armidale and Narrabri. A similar group to the south of Narrabri is called the Warrumbungles. Its highest point is about 3,000 feet. Linking these to the main plateau is the basalt-capped highland called the Liverpool Range.

A very marked topographic feature lies just to the south of this group of highlands. It is the *Cassilis Gate*, and is a broad gap, well below 2,000 feet. It is the most striking break in the highlands from the latitude of Brisbane to that of Melbourne. Curiously enough, no railway so far takes advantage of this topographic advantage for a route to the west. The depression is due partly to tectonic and partly to erosional factors.

(ii) *The Blue Plateau*. The next massif to the south is the *Blue Plateau*. (The term "Blue Mountains" is a misnomer). It consists of a boldly warped portion of the crust, which has been elevated three or four thousand feet. The main flexure is along the western bank of the lower Nepean River, and here the surface rises sharply about 1,000 feet. But several other parallel folds further west bring the ancient peneplain surface to a height of over 4,000 feet at Mount Bindo (near Jénolan).

Marked faults have accompanied the folding. Near Kurrajong, a fault scarp of about 500 feet is a marked feature, and similar faults are probably common to the southward. The uplift dates back many thousand years, and marked rejuvenation and reversal of the streams is the result. It seems likely that the pre-uplift drainage here was to the north-west or north, as suggested in 1911 by the writer. Such courses are still dominant in the Wianamatta "Stillstand" (or region of negligible uplift) which lies between Sydney and the Blue Plateau. Field work being carried out at present seems to support the view that the Wollondilly and Cox Rivers originally joined the Macquarie streams to the north-west. The remarkably broad and deep gorges cut in the plateau, with their unique bottle-necks, where they pass through the "hinge" of the earth fold, are due to the presence of a hard horizontal sandstone capping softer coal measures. They have been described elsewhere.

(iii) *The Lake George Gate*. An area of marked faulting separates the Blue Plateau from the next massif to the south. To this area of relatively low faulted topography the name of *Lake George Gate* has been given. Here the former tributaries of the Yass River and other streams have been ponded back by meridional faults to form lakes like Lake George (20 miles long) and Lake Bathurst. Fine "antecedent" gorges such as the Molonglo (east of Canberra) and the Murrumbidgee (as it flows west through the horst) at Burrinjuck show the relative recency of the Kosciusko uplift.

(iv) *Kosciusko and The Monaro*. The south-east corner of New South Wales contains the highest mountains in Australia. *Kosciusko* rises to 7,328 feet, but it is merely the summit of a crustal block or horst with a general level of five or six thousand feet. The topography of the Kosciusko Plateau has been worked out in some detail. Glacial relics of the Pleistocene ice age, such as moraines and cirques, only occur within about 10 miles of the summit, at elevations over 5,500 feet. Sussmilch has shown that the courses of the Murrumbidgee and Snowy Rivers near Kosciusko have been largely determined by the presence of *graben* bounded by meridional faults.

It seems probable that a "lineament" (or line of crustal weakness) extends from Canberra southwards, perhaps to Bass Strait. The late Mr. Dannevig charted a deep submarine canyon or drowned river valley near Cape Everard, which was perhaps the southern end of this lineament. Evidences of capture are common along the courses of the Upper Murrumbidgee and of the Snowy River in this district. This lineament traverses the Monaro Plateau, which probably constitutes another crustal block parallel to the Kosciusko horst, but at a level of about 2,500 feet. It is bounded on the east by a marked scarp, by which travellers descend rapidly to the coast. The linear and parallel character of the coast from Cape Howe north to Bateman's Bay indicates that

faulting has played a part here. A similar coastline from the Shoalhaven northward nearly to Sydney is also probably largely determined by faulting. The term "Illawarra Range" for this faulted feature is, therefore, a misnomer and should be replaced by "Illawarra Scarp."

§ 7. Victoria.

1. *General*.—The topography of Victoria may be considered in three major divisions. The *Eastern Highlands* are structurally associated with those of south-east New South Wales. The *Northern Plains* are merely portion of the Murray Basin which we have already considered. In the south-east of the State is a fairly level low area which has been termed the *Great Valley* of Victoria.

2. *The Eastern Highlands*.—The marked change in the direction of the main axis of the cordillera near Kosciusko is of much interest. Yet the Victorian highlands, like those in the south-east of New South Wales, appear also to be built up of meridional horsts arranged parallel to each other right across Victoria. The highest "blocks" are to the east, and Mounts Bogong (6,508) and Hotham (6,100) are not much lower than Kosciusko itself. The chief gap hereabouts is the Omeo "Gate," which separates the Victorian portion of the Kosciusko massif (with the Cobboras (6,000) and Mount Gibbo) from the Bogong Plateau. The Mitta and Tambo valleys here apparently form a "lineament" across the highlands. Lake Omeo is on this line of weakness, and the Tambo headwaters appear largely to have been captured by the Upper Mitta.

3. *The Dargo High Plains*.—The Dargo High Plains are at about 4,500 feet elevation, and lie to the south of Mount Bogong. Mount Buffalo (5,645 feet) extends to the north, raising fairly abruptly above the Murray Plains. The edges of this elevated peneplain have been deeply notched by the rivers to north and south. The Goulburn has cut a deep wide valley and has had a varied history involving several captures. Eastward the highlands are somewhat lower, but Mounts Howitt and Wellington are over 5,000 feet. Further east again the divide becomes more ridge-like and rapidly drops from Mount Torbreck (4,995 feet) to the Kilmore "Gate," where it is only about 1,000 feet above sea-level.

The elevated portion of the State to the west of this Gate also consists of a peneplain in general sloping from Mount Macedon (3,324) to the south-west. The level is about 2,000 feet at Ballarat, 1,000 at Ararat and 600 at Hamilton. Fault scarps, similar in origin and direction to those described near Kosciusko, define the Pyrenees (3,240) and Grampians (3,827). These latter seem to be horsts above the general level of the elevated peneplain.

4. *The Great Victorian Valley*.—The whole of the Western Plains south of the divide (in the west) has been flooded by basalt lavas. This region between Ballarat and the Otway Ranges (of Jurassic strata some 1,900 feet high) is part of the Great Victorian Valley. It is about 500 feet above sea-level. Small volcanic cones are common throughout, such as Mount Elephant (1,294 feet), Mount Noorat, and Tower Hill. Lakes are scattered over this basalt plain, occupying depressions in the fairly lately formed surface. Port Phillip would appear to be a sunken portion of the Great Valley, which, structurally, extends to the east as the Gippsland Plains. Here the Strzelecki Ranges are of the same type and age as the Otway Ranges. On Wilson's Promontory are isolated granite hills reaching 2,434 feet.

5. *The North West Plains*.—The north-west of the State consists of a vast plain mostly below 500 feet and covered with alluvial deposited by the 'tributaries' of the Murray. These latter in general end blindly in a maze of sand-hills, for the rainfall is only about 12 inches a year. The Murray has a large enough supply to flow continuously (except in dry years like 1914 or 1923), but the Wimmera, Yarriambiack, and Avoca Rivers have too little catchment. Numerous swampy lakes, like Hindmarsh and Tyrrell, have developed where the tributaries end.

§ 8. Tasmania.

1. **General.**—This State, like the adjacent region on the mainland, consists essentially of lower Paleozoic sediments buttressed by granite. But over a large portion of the centre and east a basin in the Paleozoic rocks has been filled with coal measures (and allied deposits), and these again have been overwhelmed with basic eruptive rocks.

2. **The Central Plateau.**—The dominant feature is the central plateau, which falls from a general level of 3,500 feet in the north-west towards the south-east, being drained by the Derwent system. This plateau seems to be a horst, the lowlands to the north and east having been relatively depressed by step faulting, which has left bold scarps (locally called tiers).

Along the western edge the plateau rises to considerable heights in Cradle Mountain (5,069), Eldon (4,789) and Frenchman's Cap; while the southern wall of the Derwent basin is crowned by Mount Field West (4,725) and Mount Wellington (4,166). The northern rim is also high (Ironstone 4,736), but the east of the plateau is much lower and connects at Oatlands (1,350) with the east coast highlands.

3. **North-east and South-west Massifs.**—Two somewhat isolated massifs lie in the north-east and south-west respectively. The highest point in the State is Legge's Peak (5,160) on the rectangular plateau of Ben Lomond. This is bounded on the west by the lowland drained by the Tamar and its tributaries. In the south-west of the Island, the Huon River flows parallel to the Gordon, Tamar and Derwent. These river-directions probably indicate the prevalence of lineaments across the plateaux forming Tasmania. The Wilmot and Arthur highlands in the south-west are probably outlying portions of the same uplifted peneplain. Their summits are about 3,500 feet above the sea.

4. **Evidences of Late Elevation.**—The deep gorges of the western rivers (e.g., King, Franklin and Denison), the large lakes on the central plateau (e.g., Great Lake, Arthur and Sorell), and the truncated east coast (as at St. Mary's where the South Esk rises on the coastal rim) are all features pointing to the comparatively late development of the present topography of Tasmania. Moraines and other relics of the glacial age have been described as occurring on Cradle Mountain, Mount Field, Mount Anne and other peaks.

§ 9. Recent References to Australian Topography.

1 Australia as a Whole—

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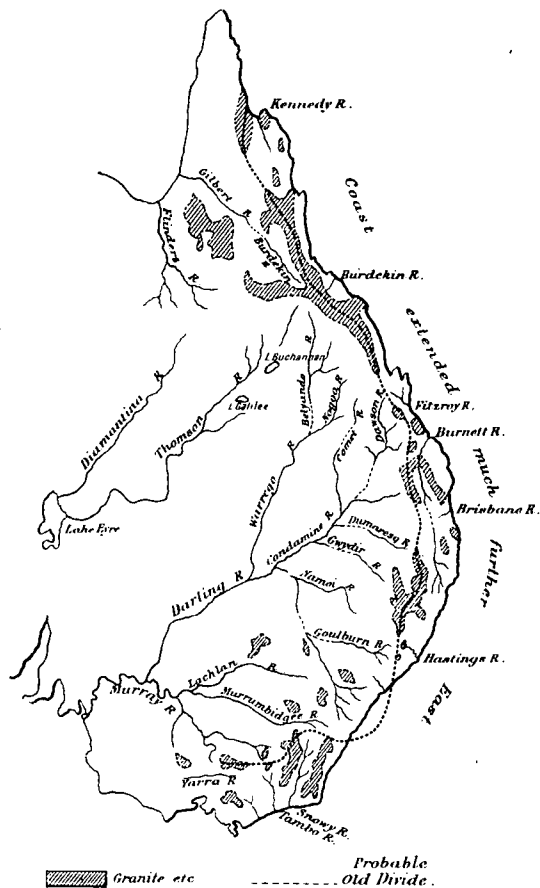


FIG. 1.—The Granite Areas of Eastern Australia which before the great uplift probably formed the divide. The probable arrangement of early Tertiary drainage is indicated.

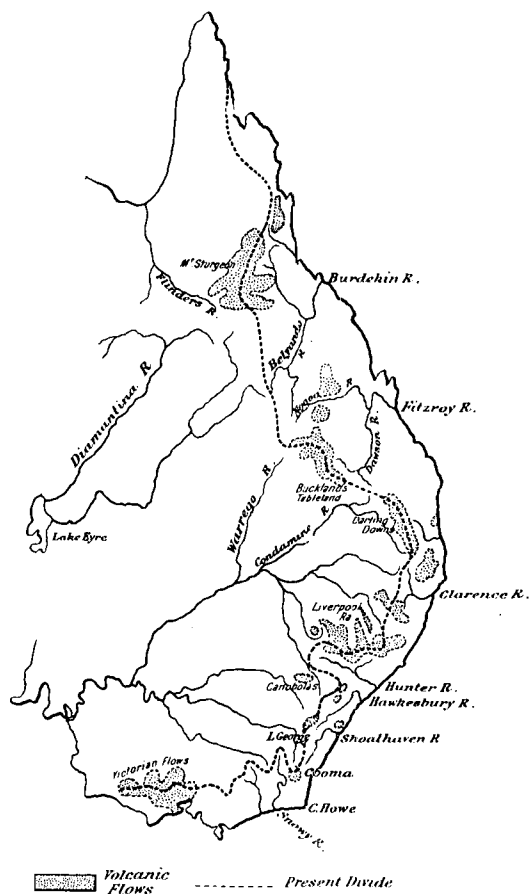


FIG. 2.—The later Volcanics of Australia, chiefly late Tertiary basalts, showing their association with the present divide.

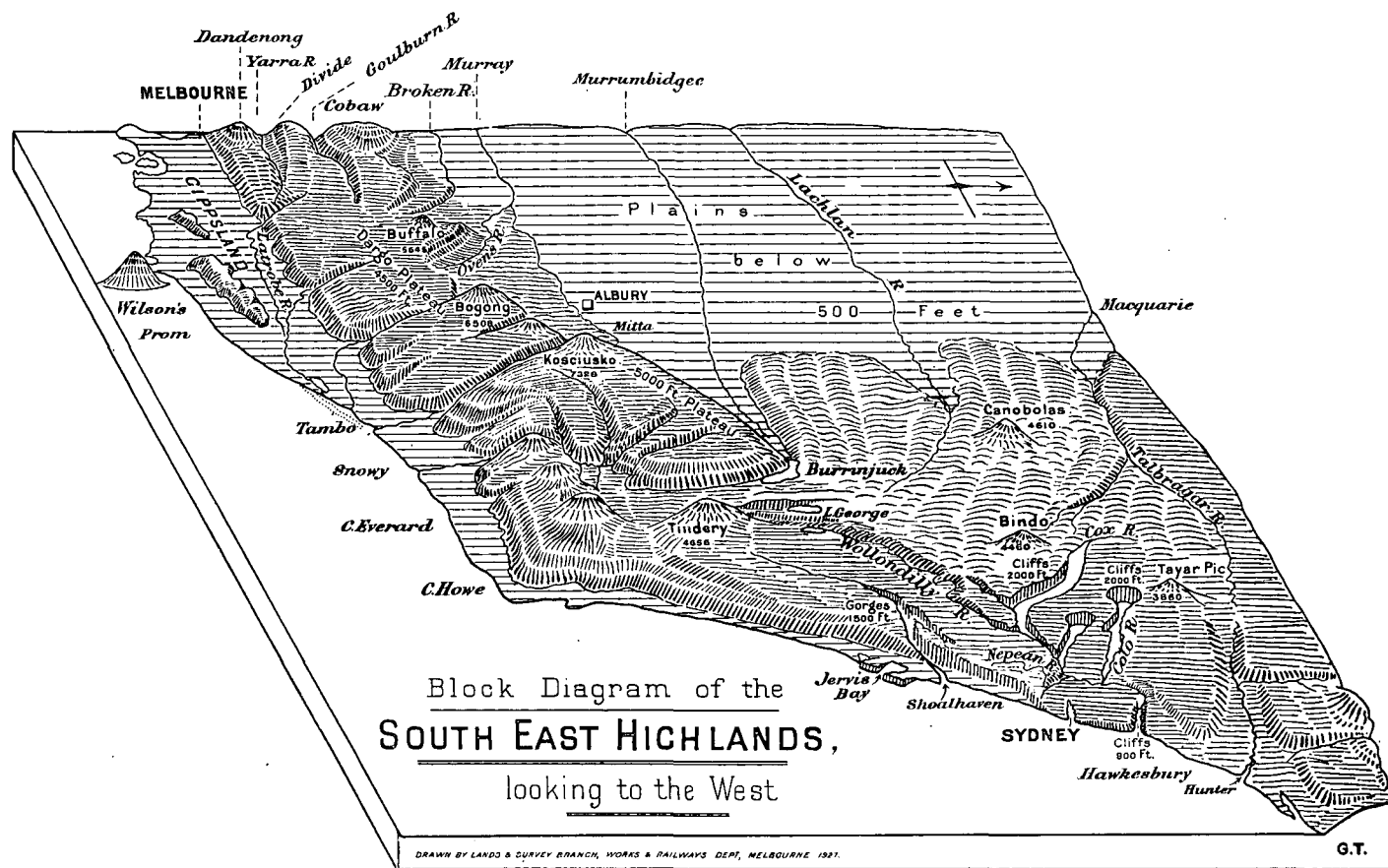
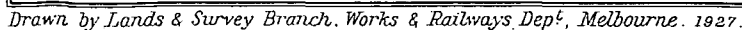


FIG. 3.



CHAPTER III.

GENERAL GOVERNMENT.

§ 1. Scheme of Parliamentary Government.

1. **General.**—The legislative power of the Commonwealth is vested in the Parliament of the Commonwealth, which consists of the Sovereign, the Senate, and the House of Representatives. The Sovereign is represented throughout the Commonwealth by the Governor-General who, subject to the Constitution of the Commonwealth, has such powers and functions as the Sovereign is pleased to assign to him. In each State there is a State Governor, who is the representative of the Sovereign for the State, and who exercises such powers within the State as are conferred upon him by the Letters Patent which constitute his office, and by the instructions which inform him in detail of the manner in which his duties are to be fulfilled. The Legislature in each State was bi-cameral till 1922, in which year the Queensland Parliament became uni-cameral. In the bi-cameral States it consists of (a) a Legislative Council and (b) a Legislative Assembly, or House of Assembly. In Queensland the Legislative Assembly constitutes the legislature. In the Commonwealth Parliament the Upper House is known as the Senate, and in the State Parliaments as the Legislative Council. The Lower House in the bi-cameral States is known as follows:—In the Commonwealth Parliament as the House of Representatives, in the State Parliaments of New South Wales, Victoria, and Western Australia as the Legislative Assembly, and in the State Parliaments of South Australia and Tasmania as the House of Assembly. The legislative powers of these Parliaments are delimited by the Commonwealth and the State Constitutions. The Assembly (Queensland as pointed out is uni-cameral), which is usually the larger, is always elective, the qualifications for the franchise varying in character. The Council is, in the case of New South Wales, nominated by the Governor in Council; in other States it is elective, the constituencies being differently arranged and some property or special qualification for the electorate being required. In the Federal Parliament, the qualifications for the franchise are identical for both Houses. A brief account of the constitutional history of each of the States is given in Chapter I, and a conspectus of the Constitutions of the Commonwealth and States in Year Book No. 13, pp. 927 to 951. The information given therein respecting Queensland must of course be considerably modified in view of the abolition of the Upper House in 1922.

2. **Powers and Functions of the Governor-General and of the State Governors.**—A detailed statement of the powers and functions of the Governor-General and of the State Governors will be found in preceding issues of the official Year Book (see No. 18, pp. 78 to 80), but considerations of space preclude the repetition of this information in the present volume.

3. **Governor-General and State Governors.**—The present Governor-General is the Right Honourable JOHN LAWRENCE, BARON STONEHAVEN, P.C., G.C.M.G., D.S.O. He assumed office on the 8th October, 1925.

The following is a list of the Governors of the various States of the Commonwealth:—

New South Wales	..	Admiral SIR DUDLEY RAWSON STRATFORD DE CHAIR, K.C.B., M.V.O.
Victoria	..	Lieut.-Colonel the Rt. Hon. ARTHUR HERBERT TENNYSON, BARON SOMERS, K.C.M.G., D.S.O., M.C.
Queensland	..	Lieut.-General SIR THOMAS HERBERT JOHN CHAPMAN GOODWIN, K.C.B., C.M.G., D.S.O.
South Australia	..	Lieut.-General SIR GEORGE TOM MOLESWORTH BRIDGES, K.C.B., K.C.M.G., D.S.O.
Western Australia	..	Colonel SIR WILLIAM ROBERT CAMPION, K.C.M.G., D.S.O.
Tasmania	..	Captain SIR JAMES O'GRADY, K.C.M.G., O.B.E., J.P.

4. **The Cabinet and Executive Government.**—(i) **General.** The sections of the Commonwealth Constitution Act dealing with the Executive Government will be found on page 26 hereinbefore. In both the Commonwealth and the State Legislatures the forms of government have been founded on their prototypes in the Imperial Government,

and the relations established between the Ministry and the representatives of the people are in accordance with those prevailing in Great Britain. The executive powers in the Commonwealth are vested in the Governor-General in Council, and in the State Governments in the Governor in Council. The Executive Council in the Commonwealth and in the majority of the States is practically co-extensive with a group of departmental chiefs, who are usually spoken of as the Cabinet, and who change with the rise and fall of party majorities. In the Commonwealth Government, however, as well as in the States of Victoria and Tasmania, the Cabinet on leaving office remain members of the Executive Council, though they no longer attend its meetings, and it is in fact an essential feature of the Cabinet system of Government that they should not do so, except to assist the Governor in transacting purely formal business, or to advise on non-political questions.

(ii) *The Executive Council.* This body is composed of the Governor and the Ministers of State holding office for the time being. The latter are sworn both as Executive Councillors and as Ministers controlling the different administrative departments. It should be observed that all persons living who have held Ministerial office under former Governments are also technically members of the Executive Council, and are thus liable to be specially summoned for attendance at meetings of that body. The meetings are official in character; they are presided over by the Governor-General (or Governor) and are attended by the clerk, who keeps a formal record of the proceedings. At these meetings the decisions of the Cabinet are put into official form and made effective, appointments are confirmed, resignations accepted, proceedings ordered, and notices and regulations published.

(iii) *The Appointment of Ministers and of Executive Councillors.* Although it is technically possible for the Governor to make and unmake cabinets at his pleasure, under all ordinary circumstances his apparent liberty in choosing his Executive Council is virtually restricted by the operation of constitutional machinery. When a Ministry is defeated in Parliament or at the polls, the procedure both in the Commonwealth and the State Parliaments generally, though not invariably, follows that prevailing in the Imperial Parliament. The customary procedure in connexion with the resignation or acceptance of office by a Ministry is described fully in previous issues of the Year Book. (See No. 6, page 942.)

(iv) *Ministers in Upper or Lower Houses.* The subjoined table shows the number of Ministers with seats in the Upper or Lower Houses of each Parliament in May, 1927.

AUSTRALIAN PARLIAMENTS—MINISTERS IN UPPER OR LOWER HOUSES,
1927.

Ministers with Seats in—	C'wealth.	N.S.W.	Vict.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
The Upper House ..	3	2	4	..	2	2	1	14
The Lower House ..	10	10	8	10	4	7	5	54
Total	13	12	12	10	6	9	6	68

(v) *The Cabinet.* (a) *General.* The meetings of this body are private and deliberative. The actual Ministers of the day are alone present, no records of the meetings transpire, and no official notice is taken of the proceedings. The members of the Cabinet, being the leaders of the party in power in Parliament, control the bent of legislation, and must retain the confidence of the people and also of the Governor-General (or Governor), to whom they act as an advising body. They also in effect wield, by virtue of their seats on the Executive Council, the whole executive force of the community. In summoning, proroguing, or dissolving Parliament, the Governor-General (or Governor) is usually guided by the advice tendered him by the Cabinet, though legally in no way bound to accept such advice.

(b) *Commonwealth Ministers of State.* A statement showing the names of Ministers of State who have held office since the inauguration of the Commonwealth Government will be found in Official Year Book No. 18, pages 82 and 83, but considerations of space preclude its inclusion in the present issue.

(c) *State Ministries.* A list of the members of the Ministry in each State in May, 1927, will be found in Chapter 1.

5. **Number and Salary of Members of the Legislatures.**—The following table shows the number and annual salary of members in each of the legislative chambers in May, 1927 :—

MEMBERS OF COMMONWEALTH AND STATE PARLIAMENTS, AND ANNUAL SALARIES, 1927.

Members in—	C'wealth.	N.S.W.	Vict.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
MEMBERS.								
Upper House ..	36	96	34	(a)	20	30	18	234
Lower House ..	76	90	65	72	46	50	30	429
Total	112	186	99	72	66	80	48	663
ANNUAL SALARY.								
Upper House ..	£ 1,000	£ ..	£ 200	£ (a)	£ 400	£ 600	£ 300	..
Lower House ..	1,000	875	500	750	400	600	300	..

(a) Council abolished in 1922.

The use of the expressions "Upper House" and "Lower House" in the above statement, though not justified constitutionally, is convenient, inasmuch as the legislative chambers are known by different names in the Commonwealth and in some of the States.

6. **Enactments of the Parliament.**—In the Commonwealth, all laws are enacted in the name of the Sovereign, the Senate, and the House of Representatives. The subjects with respect to which the Commonwealth Parliament is empowered to make laws are enumerated in the Constitution Act (see Chapter I.). In the States, laws are enacted in the name of the Sovereign by and with the consent of the Legislative Council (except in Queensland) and Legislative Assembly or House of Assembly. The Governor-General or the State Governor acts as Viceroy as regards giving the Royal assent to or vetoing Bills passed by the Legislatures, or reserving them for the special consideration of the Sovereign. In the States, the Councils and Assemblies are empowered generally, subject to the Commonwealth Constitution, to make laws in and for their respective States, in all cases whatsoever. Subject to certain limitations, they may alter, repeal, or vary their Constitution. Where a law of a State is inconsistent with a law of the Commonwealth the latter prevails, and the former is, to the extent of the inconsistency, invalid.

§ 2. Parliaments and Elections.

1. **Qualifications for Membership and for Franchise.**—The conspectus in § 4 of "General Government" in Year Book No. 13 contains particulars, as in 1920, relating to the legislative chambers in the Commonwealth and State Parliaments, and shows concisely the qualifications necessary for membership and for the franchise in each House. (These are, in the main, applicable in 1927, but it must be remembered that Queensland abolished

the Upper House in 1922). It has further to be remembered that in 1925 the Commonwealth Parliament passed an Act removing the disqualification on racial grounds from (a) natives of British India and (b) persons who have become naturalized. Disqualification of persons otherwise eligible, either as members or voters, is generally on the usual grounds of being of unsound mind or attainted of treason, being convicted of certain offences, and, as regards membership, on the grounds of holding a place of profit under the Crown, being pecuniarily interested in a Government contract, or being an undischarged bankrupt.

2. **The Federal Government.**—The Senate consists of 36 members, six being returned by each of the original federating States. Members of this Chamber are elected for a term of six years, but by a provision in the Constitution half the members retire at the end of every third year, although they are eligible for re-election. In accordance with the Constitution, the total number of members of the House of Representatives must be as nearly as possible double that of the Senate. In the House of Representatives the States are represented on a population basis, and the numbers stand at present as follows :—New South Wales, 28; Victoria, 20; Queensland, 10; South Australia, 7; Western Australia, 5; Tasmania, 5; Northern Territory, 1—total, 76. The Constitution provides for a minimum of five members for each original State. Members of the House of Representatives are elected for the duration of the Parliament, which is limited to three years. In elections for Senators, each State is counted as a single electorate, but an elaborate scheme of subdivision had to be undertaken in order to provide workable electorates in each State for members of the House of Representatives. Members of both Houses are paid at the rate of £1,000 per annum. Further information regarding the Senate and the House of Representatives is given in Chapter I.

3. **Federal Elections.**—There have been nine complete Parliaments since the inauguration of Federation. The fifth Parliament, which was opened on the 9th July, 1913, was dissolved on the 30th July, 1914, in somewhat unusual circumstances. Under Section 57 of the Constitution, it is provided that, should the Senate fail to pass, or pass with amendments, any proposed law previously passed by the House of Representatives, and should the latter House, after a specified interval, again pass the proposed law, with or without the amendments of the Senate, and the Senate for a second time reject it or pass it with amendments to which the lower House will not agree, then the Governor-General may dissolve the two Houses simultaneously. For the first time in the history of the Commonwealth this deadlock between the Senate and the House of Representatives occurred in the second session of the fifth Parliament, and, in accordance with the section of the Constitution referred to above, both Houses were dissolved by the Governor-General. The first session of the tenth Parliament opened on the 13th January, 1926. The first meeting at Parliament House, Canberra, was opened by H.R.H. the Duke of York on 9th May, 1927. Particulars regarding the last five Commonwealth elections may be found in the table given hereunder :—

FEDERAL ELECTIONS, 1914 to 1925.

Date.	Electors Enrolled.			Electors who Voted.			Percentage of Electors who Voted.		
	Males.	Fem.	Total.	Males.	Fem.	Total.	Males.	Fem.	Total.
THE SENATE.									
5th September, 1914 ..	1,478,468	1,333,047	2,811,515	1,139,933	902,403	2,042,336	77.10	67.69	72.64
5th May, 1917 ..	1,444,133	1,391,194	2,835,327	1,184,663	1,018,138	2,202,801	82.03	73.18	77.69
13th December, 1919 ..	1,439,818	1,410,044	2,849,862	1,094,534	938,403	2,032,937	76.02	65.55	71.33
16th December, 1922 ..	1,494,508	1,487,916	2,982,424	906,551	761,695	1,728,246	64.67	51.19	57.95
14th November, 1925 ..	1,656,286	1,645,730	3,302,016	1,515,608	1,499,345	3,014,953	91.51	91.11	91.31
THE HOUSE OF REPRESENTATIVES.									
(CONTESTED ELECTORATES.)									
5th September, 1914 ..	1,275,990	1,122,451	2,348,441	954,768	772,138	1,726,906	77.88	68.79	73.53
5th May, 1917 ..	1,262,527	1,207,938	2,470,465	1,041,552	892,926	1,934,478	82.50	73.92	78.30
13th December, 1919 ..	1,395,165	1,367,468	2,762,633	1,063,029	914,816	1,977,845	76.19	66.70	71.59
16th December, 1922 ..	1,396,020	1,378,254	2,774,274	920,177	726,686	1,646,863	65.91	52.72	59.36
14th November, 1925 ..	1,635,842	1,632,897	3,268,739	1,499,006	1,488,194	2,987,200	91.63	91.14	91.39

The percentage of electors who exercised the franchise at each election rose from 53.04 for the Senate and 55.69 for the House of Representatives in 1901 to 77.69 and 78.30 respectively in 1917. The next election in 1919 showed a considerable falling off, and in 1922 the decrease was still more marked, the respective percentages for that year being 57.95 and 59.36, or very little more than those for 1901. The Elections of 1925 were the first held since the introduction of Compulsory Voting, the result of which was reflected in the high percentage of voters, viz., 91.31 for the Senate and 91.39 for the House of Representatives.

4. **Federal Referenda.**—According to section 128 of the Act, any proposed law for the alteration of the Constitution must, in addition to being passed by an absolute majority of each House of Parliament, be submitted to a referendum of the electors in each State, and must further be approved by a majority of the States and of the electors who voted. Several referenda have been held from time to time, but in two cases only has any proposed law been assented to by the required majority of the electors. A statement dealing with the various referenda up to and inclusive of the year 1919, and the voting thereon was given in previous issues of the Official Year Book (See No. 18, pp. 87 to 89), but space will not permit of the incorporation of this information in the present volume. In the year 1926 a referendum was held in relation to proposed laws entitled respectively "Industry and Commerce" and "Essential Services." The result of the voting was: Industry and Commerce, votes in favour, 1,247,088; votes not in favour, 1,619,655. Essential Services, votes in favour, 1,195,502; votes not in favour, 1,597,793.

5. **The Parliament of New South Wales.**—(i) *Constitution.* The Legislative Council in this State is a nominee chamber, the Legislative Assembly being an elective body. Theoretically the Legislative Council may contain an unlimited number of members, and the number of members in May, 1927, was ninety-six. The tenure of the seat is for life; four-fifths of the members must be persons not holding any paid office under the Crown, but this is held not to include officers of His Majesty's sea or land forces on full or half-pay, or retired officers on pensions. The Legislative Assembly consists of ninety members, who hold their seats during the existence of the Parliament to which they are elected. Nine electorates return five members each, and fifteen return three members each. The next general elections will be on the basis of single member electorates, as prescribed by legislation passed in 1926. The duration of Parliament is limited to three years.

(ii) *Particulars of Elections.* Since the introduction of responsible government in New South Wales there have been twenty-seven Parliaments, the first of which opened on the 22nd May, 1856, and was dissolved on the 19th December, 1857, while the twenty-seventh opened on the 24th June, 1925. The last-mentioned Parliament was elected on the 30th May, 1925. The proportional representation system came into operation at the election of 1922. Particulars of voting at elections from 1913 to 1925 are given below:—

LEGISLATIVE ASSEMBLY ELECTIONS, NEW SOUTH WALES, 1913 to 1925.

Year.	Electors Qualified to Vote.			Electors who Voted.			Percentage of Electors who Voted in Contested Electorates.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
1913	553,633	484,366	1,037,999	385,838	302,389	688,227	72.20	64.55	68.63
1917	574,308	535,522	1,109,830	328,030	295,354	623,384	62.40	60.57	61.52
1920	593,244	561,193	1,154,437	363,115	285,594	648,709	61.21	50.89	56.19
1922	636,662	614,361	1,251,023	466,949	408,515	875,464	73.34	66.49	69.98
1925	678,749	660,331	1,339,080	489,126	435,853	924,979	72.06	66.00	69.07

The franchise was extended to women (Women's Franchise Act) in 1902, and was exercised for the first time at a State election in 1904.

6. **The Parliament of Victoria.**—(i) *Constitution.* Both of the Victorian legislative chambers are elective bodies, but there is a considerable difference in the number of members of each House, as well as in the qualifications necessary for members and electors. The number of members in the Upper House in May, 1927, was 34, and in the Lower House, 65. In the Legislative Council the tenure of the seat is for six years, but one member for each province retires every third year, except in the case of a dissolution, when one-half of the newly-elected members hold their seats for three years only. Members of the Legislative Assembly are elected for the duration of Parliament, which is limited to three years. An elector for the Legislative Assembly may vote once only, plurality of voting having been abolished in 1899; an elector, however, qualified in more than one district, may select that for which he desires to record his vote. A preferential system of voting (see Year Book No. 6, page 1182) was for the first time adopted in Victoria at the election held in November, 1911.

(ii) *Particulars of Elections.* Since the introduction of responsible government in Victoria there have been twenty-eight complete Parliaments, the first of which opened on the 21st November, 1856, and closed on the 9th August, 1859, while the twenty-eighth was dissolved on the 4th March, 1927. The first session of the twenty-eighth Parliament was opened on the 8th July, 1924, and closed on the 9th January, 1925. The second session was opened on 8th July, 1925, and closed on the 12th January, 1926. The third session was opened on 30th June, 1926, and closed on 18th January, 1927. Up to the end of May, 1927, no session of the twenty-ninth Parliament had been held. The election for the Legislative Assembly in 1927 was the first held since the institution of compulsory voting. Particulars of voting at the last five elections are given in the subjoined table:—

VICTORIAN ELECTIONS, 1913 to 1927.

LEGISLATIVE COUNCIL (LAST ELECTION 1925).

Year.	Electors Enrolled.	Electors Enrolled in Contested Electorates.	Electors who Voted.	Percentage of Electors who Voted in Contested Electorates.
1913	270,175	99,646	47,666	47.89
1916	300,321	92,421	34,853	37.71
1919	317,593	133,058	40,393	30.35
1922	353,440	161,731	47,008	29.07
1925	399,510	172,875	56,033	32.41

LEGISLATIVE ASSEMBLY.

Year.	Electors Enrolled.			Electors who Voted.			Percentage of Electors who Voted in Contested Electorates.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
1917	397,585	430,645	828,230	172,317	184,682	356,999	54.30	54.12	54.21
1920	418,085	450,763	868,848	232,604	235,621	468,225	66.23	61.38	63.70
1921	414,818	456,638	871,456	167,812	158,415	326,227	61.29	53.53	57.26
1924	433,357	467,070	900,427	190,153	180,810	370,963	63.02	55.72	59.24
1927	480,485	512,726	993,211	377,941	402,458	780,399	92.02	91.51	91.76

The franchise was extended to women by the Adult Suffrage Act 1908 and voting at elections was made compulsory in 1926.

7. **The Parliament of Queensland.**—(i) *Constitution.* As pointed out previously, the Legislative Council in Queensland was abolished in 1922, the date of Royal assent to the Act being the 23rd March. The Legislative Assembly is composed of seventy-two members, and the State is divided into that number of electoral districts. A modified system of optional preferential voting is in operation in Queensland. (See Year Book No. 6, page 1183.)

(ii) *Particulars of Elections.* Since the establishment of responsible government in Queensland there have been twenty-three complete Parliaments, the first of which opened on the 29th May, 1860, and dissolved on the 20th May, 1863, while the twenty-third

Parliament opened on the 10th July, 1923, and closed on the 8th April, 1926. The first session of the twenty-fourth Parliament opened on 28th July, 1926. At the elections held in May, 1915, the principle of compulsory voting was introduced for the first time in Australia. Of the total number of electors enrolled at the 1926 elections, 89.94 per cent. went to the polls. Statistics regarding the last five elections for which details are available are given below.

QUEENSLAND LEGISLATIVE ASSEMBLY ELECTIONS, 1915 to 1926.

Year.	Electors Enrolled.			Electors who Voted.			Percentage of Electors who Voted in Contested Electorates.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
1915	184,627	150,568	335,195	140,396	125,844	266,240	86.46	90.09	88.14
1918	233,342	191,074	424,416	176,768	163,901	340,669	75.75	85.78	80.27
1920	238,750	206,931	445,681	187,575	168,651	356,226	78.57	81.50	79.93
1923	257,001	219,476	476,477	194,287	174,980	369,267	80.72	83.96	82.23
1926	253,571	224,526	478,097	209,139	191,916	401,055	89.77	90.13	89.94

The election of 1907 was the first State election in Queensland at which women voted, the privilege being conferred under the Elections Acts Amendment Act 1905.

8. The Parliament of South Australia.—(i) *Constitution.* In this State there is a Legislative Council composed of twenty members and a House of Assembly with forty-six members, both chambers being elective. The State is divided into five districts, which return four members each to the Legislative Council. For the House of Assembly, eight districts return three members each, and eleven districts two members each.

(ii) *Particulars of Elections.* Since the inauguration of responsible government in South Australia there have been twenty-five complete Parliaments, the first of which was opened on the 22nd April, 1857. The first session of the twenty-sixth Parliament began on the 17th May, 1927. Particulars of voting at recent elections are given below :—

SOUTH AUSTRALIAN ELECTIONS, 1912 to 1924.

Year.	Electors Enrolled.			Electors who Voted.			Percentage of Electors who Voted in Contested Electorates.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.

LEGISLATIVE COUNCIL.

1912	59,228	19,985	79,213	40,709	13,016	53,725	80.91	72.56	78.71
1915	66,614	21,635	88,249	11,436	4,808	16,244	75.69	71.25	74.32
1918	71,510	23,461	94,971	42,987	11,800	54,787	60.11	50.30	57.69
1921	69,986	23,062	93,048	38,597	11,309	49,906	64.23	53.96	61.57
1924	67,429	22,018	89,447	36,626	10,492	47,118	65.79	54.94	63.02

HOUSE OF ASSEMBLY.

1912	117,440	106,971	224,411	87,530	73,732	161,262	74.53	68.93	71.86
1915	128,594	124,797	253,391	70,898	65,157	136,055	77.22	72.64	74.95
1918	126,669	132,043	258,712	71,501	62,742	134,243	56.45	47.52	51.89
1921	134,091	137,931	272,022	91,451	77,600	169,051	70.10	57.64	63.77
1924	141,944	147,899	289,843	87,712	73,453	161,165	69.65	56.05	62.71

Particulars of the elections held in 1927, if available, will be published in the Appendix.

It is interesting to note that South Australia was the first of the States to grant women's suffrage (under the Constitution Amendment Act 1894), the franchise being exercised for the first time at the Legislative Assembly election on the 25th April, 1896.

9. The Parliament of Western Australia.—(i) *Constitution.* In this State both Chambers are elective. For the Legislative Council there are thirty members, each of the ten Provinces returning three members, while the Legislative Assembly is composed of fifty members, one member being returned by each of the fifty electoral districts. At the expiration of two years from the date of election to a seat in the Legislative Council, and every two years thereafter, the junior member for the time being for each province retires. Seniority is determined (a) by date of election, (b) if two or more members are elected on the same day, then the junior is the one who polled the least number of votes, (c) if the election be uncontested, or in case of an equality of votes, then the seniority is determined by the alphabetical precedence of surnames and, if necessary, Christian names. Members of the Legislative Assembly are elected for three years.

(ii) *Particulars of Elections.* Since the establishment of responsible government in Western Australia there have been twelve complete Parliaments, the first of which was opened on the 30th December, 1890, while the thirteenth Parliament was elected on 26th March, and 9th April, 1927. The preferential system of voting in use in Western Australia is described in Year Book No. 6, page 1184. Particulars relating to recent Assembly and Council elections are given in the tables below :—

WESTERN AUSTRALIAN ELECTIONS, 1914 to 1927.

Year.	Electors Enrolled.			Electors who Voted.			Percentage of Electors who Voted in Contested Electorates.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.

LEGISLATIVE COUNCIL.

1916	45,325	13,683	59,008	10,672	2,464	13,136	53.49	50.52	52.91
1918	46,272	14,700	60,972	14,043	3,930	17,973	39.04	31.83	37.20
1920	37,137	14,900	52,037	12,450	3,406	15,856	45.07	28.28	40.27
1922	40,360	14,838	55,198	17,524	4,763	22,287	46.16	33.81	42.82
1924	43,897	14,904	58,801	16,552	4,569	21,121	47.06	39.25	45.12

LEGISLATIVE ASSEMBLY.

1914	126,598	88,143	214,741	54,612	41,993	96,605	56.59	58.29	57.32
1917	93,106	73,845	166,951	45,453	40,167	85,620	59.46	65.51	62.15
1921	89,523	75,165	164,688	54,747	44,211	98,958	69.16	65.22	67.34
1924	101,717	88,152	189,869	55,591	43,800	99,391	66.00	59.00	62.32
1927	113,072	97,877	210,949	76,307	66,199	142,506	74.32	72.42	73.42

Women's suffrage was granted by the Electoral Act of 1899. At the 1921 elections the first woman member elected to an Australian Parliament was returned.

10. **The Parliament of Tasmania.**—(i) *Constitution.* In Tasmania there are two legislative chambers—the Legislative Council and the House of Assembly, both bodies being elective. The Council consists of eighteen members, returned from fifteen districts, Hobart returning three, Launceston two, and the remaining thirteen districts sending one member each. There are five House of Assembly districts corresponding to the Commonwealth electoral districts, each returning six members, who are elected under a system of proportional representation which first came into force at the 1909 elections. (See Year Book No. 6, page 1185.)

In 1924 and again in 1925 the House of Assembly contested, with at least temporary success, the power of the Legislative Council to amend money bills. The matter was settled by "The Constitution Act 1926," which provides that all money bills shall originate in the Assembly, that all money votes shall be recommended by the Governor, and that the Council may amend bills other than those for appropriating public moneys or fixing a rate for income or land tax. The Council has no power to insert a provision for the appropriation of money or the imposing of a burden on the people.

(ii) *Particulars of Elections.* The first Tasmanian Parliament opened on 2nd December, 1856, and closed on 8th May, 1861. There have been twenty-one complete Parliaments since the inauguration of responsible government. Particulars of the voting at the last five elections for the House of Assembly are given hereunder:—

TASMANIAN ELECTIONS, HOUSE OF ASSEMBLY, 1913 to 1925.

Year.	Electors Enrolled.			Electors who Voted.			Percentage of Electors who Voted in Contested Electorates.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
1913	53,372	51,920	105,292	38,700	32,102	70,802	72.51	61.83	67.24
1916	54,466	52,855	107,321	41,427	37,557	78,984	76.06	71.05	73.60
1919	53,205	54,336	107,541	37,037	34,027	71,064	69.61	62.62	66.08
1922	54,958	55,591	110,549	38,457	31,295	69,752	69.96	56.30	63.09
1925	56,667	58,234	114,901	41,322	35,959	77,281	72.92	61.81	67.25

The present members of the Legislative Council have been elected at various dates, and the following particulars are given of the last contested election in each case—number of electors on the roll, 41,408; number of votes recorded, male 17,646, female 4,944, total 22,590; percentage of persons who voted to the number on the roll, 54.55.

The suffrage was granted to women under the Constitution Amendment Act 1903.

§ 3. Cost of Parliamentary Government.

1. *General.*—The following statement shows the cost of parliamentary government in the Commonwealth and in each State, as well as the cost per head of population, for the year ended the 30th June, 1926. In order to avoid incorrect conclusions as to the cost of the Governor-General's or Governor's establishment, it may be pointed out that a very large part of the expenditure (with the exception of the item "Governor's salary") under the head of Governor-General or Governor represents official services entirely outside the Governor's personal interests, and carried out at the request of the Government.

COST OF PARLIAMENTARY GOVERNMENT, 1925-1926.

Particulars.	C'with.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Total.
1. Governor-General or Governor—	£	£	£	£	£	£	£	£
Governor's Salary ..	10,000	5,000	5,000	2,581	5,000	4,000	2,750	34,331
Official Secretary's salary ..	650	824	(c)	352	..	350	..	2,176
Clerks, etc. ..	1,156	404	179	906	350	351	..	4,753
Orderlies ..	..	347	747	..	1,082	313	..	1,857
Other messengers ..	178	81	..	..	..	..	516	1,857
Wages—Housemaids, stewards, gamekeepers, etc. ..	7,397	1,455	1,262	..	641	..	..	10,755
Country residence—								
Gardener ..	..	297	249	..	268	117	125	1,676
Other wages ..	..	620	..	..	..	..	..	..
Incidental expenses ..	3,630	1,157	1,537	..	123	..	..	439
Furniture, stores, and stationery ..	854	254	1,236	..	211	587	..	15,900
Postal, cables, etc. ..	1,331	159	320	1,641	38	..	74	..
Travelling expenses and conveyance of officers ..	2,293	16	..	..	..	..	..	..
Incidental expenses (country residence) ..	..	350	275	..	20	..	..	654
Other expenses ..	2,439	..	2,375	495	650	1,298	639	8,396
Allowance to Lieut.-Governor ..	..	..	..	660	..	..	..	660
Total ..	29,928	10,973	13,680	6,635	8,383	7,016	4,543	81,158
2. Executive Council—								
Salaries of officers ..	(a)	570	780	30	..	100	(h)	1,480
Other expenses ..	(a)	333	34	80	..	5	(h)	452
Total ..	(a)	903	814	110	..	105	(h)	1,932
3. Ministry—								
Salaries of Ministers ..	15,300	23,420	10,000	9,296	7,750	6,200	3,000	74,966
Ministerial functions ..	(b)	57	(b)	..	72	1,494	381	2,004
Special Reports for Cabinet ..	(b)	4	(b)	..	123	..	1,065	1,192
Premiers' Conference ..	188	..	..	..	88	161	6	443
Travelling expenses ..	1,644	1,017	..	..	..	4,634	912	8,207
Total ..	17,132	24,498	10,000	9,296	8,033	12,489	5,364	86,812
4. Parliament—								
A. Upper House :								
President and Chairman of Committees ..	1,800	1,900	1,149	..	800	1,600	850	8,099
Allowance to members ..	34,769	..	6,000	..	6,800	15,532	4,778	67,879
Railway passes ..	4,320	15,906	(d)9,000	..	1,364	5,357	1,032	36,979
Postage for members ..	678	..	(e)	..	20	135	6	839
B. Lower House :								
Speaker and Chairman of Committees ..	1,800	2,790	2,139	1,700	1,400	1,600	900	12,329
Allowance to members ..	66,055	67,417	28,445	31,469	15,742	22,208	8,508	239,844
Railway passes ..	9,120	17,462	(f)	..	3,136	8,864	1,774	40,356
Postage for members ..	2,500	2,700	(e)	1,475	281	315	16	7,287
C. Both Houses :								
Standing Committee on Public Works—								
Remuneration of members ..	1,998	3,966	1,499	..	..	..	232	7,695
Salaries of staff and contingencies ..	1,926	2,145	2,289	..	..	3,324	50	9,734
Printing—								
<i>Hansard</i> ..	10,875	6,189	3,938	2,727	2,666	2,216	..	28,611
Other ..	17,307	13,562	4,886	2,975	9,608	1,104	3,800	53,242
Parliamentary reporting staff—								
Salaries ..	11,877	8,269	6,124	4,551	4,732	4,078	..	39,631
Contingencies ..	185	..	64	..	220	126	..	595
Library—								
Salaries ..	5,117	2,541	1,302	1,084	675	100	..	100,019
Contingencies ..	3,996	942	(g)1,448	612	607	275	2,671	..
Salaries of other officers and staff ..	25,827	23,516	14,840	6,796	4,486	3,184	..	..
Travelling expenses of officers and staff ..	604	..	..	..	..	..	..	604
Other ..	8,695	..	..	..	434	..	..	9,129
Carried forward ..	209,449	169,305	83,123	53,389	52,971	70,018	24,617	662,872

COST OF PARLIAMENTARY GOVERNMENT—*continued.*

Particulars.	C'wlth.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Total.
	£	£	£	£	£	£	£	£
Brought forward ..	209,449	169,305	83,123	53,389	52,971	70,018	24,617	662,872
D. Miscellaneous—								
Fuel, light, heat, power, water ..	1,382	..	727	682	1,101	3,143	(b) 94	41,773
Posts, telegraphs, telephones	629	..	298	338	366			
Furniture, stores, and stationery (Parliamentary officers) ..	3,770	1,481	536	66	1,694			
Contingencies ..	9,605	3,835	340	3,581	..			
Cab fares—Late sittings, etc.	..	162	..	..	51	939		
Other ..	..	..	2,090	1,350	3,429			
Total ..	224,835	174,783	87,114	59,406	59,612	73,161	25,734	704,645
5. Electoral—								
Salaries ..	76,572	2,104	1,455	3,412	4,557	2,342	(h)	90,442
Cost of elections, contingencies, etc. (including all payments by railway officers) ..	154,985	8,195	8,064	28,110	5,330	4,212	4,198	213,094
Total ..	231,557	10,299	9,519	31,522	9,887	6,554	4,198	303,536
6. Royal Commissions, Select Committees, etc., including fees and other expenses of Commissioners, fees of counsel, costs incurred by Ministers, cost of overtime worked by departments preparing information, bonuses, etc. ..	8,022	7,790	288	197	8,215	4,046	401	28,959
Total ..	8,022	7,790	288	197	8,215	4,046	401	28,959
GRAND TOTAL ..	511,474	229,246	121,415	107,166	94,130	103,371	40,240	1,207,042
Cost per head of population ..	1s. 8d.	1s. 11d.	1s. 5d.	2s. 5d.	3s. 4d.	5s. 5d.	3s. 9d.	3s. 11d.

(a) Included under Governor-General. (b) Not available separately. (c) Included under Executive Council. (d) Both Houses. (e) Included under Library. (f) Included under Upper House. (g) Including members' postage. (h) Duties performed by Chief Secretary's Department.

Figures showing total cost and cost per head during each of the last five years are given in the next table.

COST OF PARLIAMENTARY GOVERNMENT, 1921-22 TO 1925-26.

Year.	C'wlth.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Total.
TOTAL.								
	£	£	£	£	£	£	£	£
1921-22 ..	406,041	332,975	113,149	99,008	67,743	80,808	36,694	1,136,418
1922-23 ..	479,658	212,056	109,137	109,020	72,417	75,360	37,084	1,094,732
1923-24 ..	367,479	204,817	128,143	89,101	83,031	82,410	35,629	990,610
1924-25 ..	404,021	288,331	115,626	86,408	81,409	92,338	37,478	1,105,611
1925-26 ..	511,474	229,246	121,415	107,166	94,130	103,371	40,240	1,207,042
PER HEAD OF POPULATION.								
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1921-22 ..	1 6	3 1	1 5	2 7	2 8	4 10	3 4	4 0
1922-23 ..	1 8	1 11	1 5	2 9	2 10	4 5	3 4	3 11
1923-24 ..	1 3	1 10	1 5	2 2	3 2	4 8	3 3	3 5
1924-25 ..	1 4	2 7	1 7	2 1	3 0	5 1	3 5	3 9
1925-26 ..	1 8	1 11	1 5	2 5	3 4	5 5	3 9	3 11

§ 4. Commonwealth Government Departments.

Owing to exigencies of space the statement showing the various matters dealt with and the Acts administered by the Minister of each of the Commonwealth Departments, which was incorporated in Official Year Book No. 17, pp. 97 to 100, cannot be repeated in this issue.

§ 5. Strength of the Civil Service.

The strength of the permanent Civil Service at a definite point of time is not available, as the dates to which annual records are made up vary in different State Departments. The following table excludes temporary (except railways and Government tramways) and part-time officers (registrars of births and deaths, postal contractors, etc.); naval, air, and military employees; and certain others, such as those employed in State trading undertakings:—

CIVIL SERVICE—NUMBER OF PERMANENT OFFICERS, 1925-26.

	C'with.		N.S.W.		Victoria.		Queensland.		South Australia.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
(a) Railways and Tramways	(b) 1,617		57,267		34,687		24,576		13,779	
Police .. ..	..	..	2,933	4	1,871	4	1,182	..	822	10
Teachers .. ..	..	..	4,459	6,102	2,716	4,732	1,780	2,330	1,026	1,805
Other Departments	23,564	3,475	9,074	1,566	3,621	942	4,563	1,332	1,619	203
Total	28,656		81,405		48,573		35,763		19,064	

	W. Australia.		Tasmania.		N. Territory.		Australia.		
	M.	F.	M.	F.	M.	F.	M.	F.	Total.
(a) Railways and Tramways ..	8,602		1,404		(c)		(d)	(d)	141,932
Police	527	5	238	2	38	..	7,411	25	7,436
Teachers	716	1,253	343	968	4	7	11,044	17,197	28,241
Other Departments	1,318	196	536	148	(c)	(c)	44,295	7,862	52,157
Total	12,617		3,639		49		(d)	(d)	229,766

(a) Salaried and wages staff; includes temporary employees—Municipal Tramways excluded.
 (b) Excluding Federal Capital Territory line, officers of which are included with New South Wales.
 (c) Included with Commonwealth. (d) Not available.

§ 6. Legislation during 1926.

1. *General.*—The following summary which refers to the more important legislative enactments of the Commonwealth and State Parliaments during the year 1926 is exclusive of the ordinary Appropriation and Loan Acts. The principal Ordinances promulgated during the same year in the Northern Territory and Federal Capital Territory have, for the sake of convenience, been included after the heading 2, Commonwealth, immediately following.

2. *Commonwealth.*—(i) *Railways (South Australia) Agreement.* Agreement with South Australia regarding railway undertakings is approved.

(ii) *Oodnadatta to Alice Springs Railway.* Extension of the Port Augusta railway to Alice Springs is authorized: maximum expenditure, £1,700,000.

(iii) *Precious Metals Prospecting.* Prospecting is to be encouraged: £40,000 is appropriated.

(iv) *Petroleum Prospecting.* Prospecting is encouraged: £60,000 is appropriated.

(v) *Customs Tariff (Papua and New Guinea Preference).* Produce of these Territories is admitted duty free into the Commonwealth.

(vi) *Papua and New Guinea Bounties.* £250,000 is appropriated for bounties on goods produced in these Territories in the ten years 1927-1936.

(vii) *Navigation.* Certain ships may carry passengers between tourist ports.

(viii) *Crimes.* Measures are taken for protection of the Constitution and of public services.

- (ix) *Western Australia Grant.* Financial assistance is granted by Commonwealth.
- (x) *Power Alcohol Bounty.* Bounty of 4d. per gallon is authorized.
- (xi) *Oil Agreement.* Agreement with Anglo-Persian Oil Company is approved.
- (xii) *Northern Australia.* Northern Territory development is encouraged. A Commission is constituted. Separate administration for Central Australia is provided for.
- (xiii) *Science and Industry Research.* A Council is established to regulate research.
- (xiv) *Science and Industry Endowment.* £100,000 is appropriated.
- (xv) *Commonwealth Conciliation and Arbitration.* Provides for appointment of Chief Judge and other Judges; powers, etc., are defined.
- (xvi) *Defence Equipment.* £1,000,000 is appropriated for naval construction and £250,000 for aircraft.
- (xvii) *Development and Migration.* Migration is encouraged, and a Commission is constituted.
- (xviii) *Grafton to South Brisbane Railway.* Agreement between the Commonwealth, New South Wales and Queensland, is ratified.
- (xix) *Customs Tariff (New Zealand Preference).* Agreement regarding preference is ratified.
- (xx) *Canned Fruits Export Control.* A Board is constituted, and the export of canned fruits controlled.
- (xxi) *Federal Aid Roads.* Execution of agreements between Commonwealth and States is authorized.
- (xxii) *Cotton Bounty.* Bounty for Australian-grown seed cotton and cotton yarn is authorized.
- (xxiii) *Income Tax.* Rates for 1926-27 are declared.

3. *Northern Territory.*—(i) *Birds Protection.* Permits may be granted to export protected birds and their eggs, for purposes of science.

(ii) *Real Property.* Registration of leases is provided for.

(iii) *Foreign Companies.* Foreign Companies must be registered, and must carry on business under registered name only.

(iv) *Crown Lands.* Grants of land in fee-simple may be made.

4. *Federal Capital Territory.*—(i) *Fire Precautions.* Measures for fire prevention are authorized.

(ii) *Rates.* Rates may be levied and lands assessed.

(iii) *Lotteries and Art Unions.* Disposal of goods by lottery or chance, except for charitable purposes, is forbidden.

(iv) *Motor Traffic.* Provision is made for the registration of motor vehicles and the regulation of motor traffic.

(v) *Trading Hours.* Hours of trading and conditions of employment in shops are prescribed.

5. *New South Wales.*—(i) *Fair Rents.* Law relating to landlords and tenants is amended, and the Fair Rents Act is extended.

(ii) *Rural Workers Accommodation.* Accommodation is regulated for agricultural and pastoral employees.

(iii) *Farm Produce.* Agents are to be licensed; sale and disposal of farm products is regulated.

(iv) *Parliamentary Electorates and Elections.* A Commission of three persons is to redistribute electorates; reversion to single seat electorates is prescribed.

(v) *Day Baking.* Baking hours are set out.

(vi) *Industrial Arbitration.* An industrial commission is established.

(vii) *Workers' Compensation.* A commission is constituted, and its powers and duties defined.

(viii) *Coal Mines Regulation.* A court is established to hear and determine inquiries, appeals, and references.

6. *Victoria.*—(i) *Electoral Districts.* The State is re-divided into electorates.

(ii) *Women's Disqualification.* Disqualification for public offices and professions is removed.

(iii) *Censorship of Films.* Arrangements for the censoring of cinematograph films are made.

(iv) *Land Tax.* Rate for year 1927 is declared.

(v) *Income Tax.* Rates for year 1926-27 are declared.

- (vi) *Federal Aid Roads*. Agreement with the Commonwealth is approved.
- (vii) *Compulsory Voting (Assembly Elections)*. Every elector entitled to vote must do so.
- (viii) *Saturday Voting (Parliamentary Elections)*. All State parliamentary elections are to be held on a Saturday.

7. *Queensland*.—(i) *Cotton Industry*. "Pure Seed" districts are constituted. The government may compulsorily acquire seed.

(ii) *Gift Duty*. Duties are levied of property disposed of by gift.

(iii) *Commonwealth and State Agreement (War Service Settlers) Ratification*. Agreement with the Commonwealth relating to war service settlers is approved.

(iv) *Discharged Soldiers' Settlement*. Relief is afforded where engagements cannot be met.

(v) *Land Tax*. Land Tax is extended to 30th June, 1927.

(vi) *Primary Producers' Organization and Marketing*. A Council of Agriculture is constituted, and previously existing district councils are dissolved.

(vii) *Railways*. Leaving work is penalised when not on authorized strike.

(viii) *Federal Aid Roads Agreement Approval*. Agreement with the Commonwealth is approved.

(ix) *Water*. Rights in natural waters are declared, and better provision made for waterworks and water conservation, drainage, etc.

(x) *South Brisbane-Kyogle-Grafton Railway Agreement*. Agreement between the Commonwealth, New South Wales and Queensland, is ratified.

8. *South Australia*.—(i) *North-South Railway Agreement*. Agreement between the Commonwealth and South Australia is approved.

(ii) *Drought Relief*. Government may assist drought-stricken farmers with seed wheat, etc.

(iii) *Loan Agreement Ratification*. Agreement between Commonwealth and South Australia is ratified.

(iv) *Early Closing*. The law concerning closing times of shops is consolidated.

(v) *Taxation*. A super tax on income is imposed, and the rate of land tax is increased.

(vi) *Highways*. Better provision is made for construction and maintenance of roads and works.

(vii) *Superannuation*. Superannuation benefits for government employees are introduced. A fund is established, and a Board constituted.

(viii) *Federal Aid Roads Agreement*. Agreement between the Commonwealth and South Australia is ratified.

(ix) *Motor Omnibus*. A Metropolitan Omnibus Board is constituted.

(x) *Maintenance*. The law concerning State children, destitute persons, and assistance to necessitous mothers is constituted and amended.

9. *Western Australia*.—Legislation for 1926 will be found in the Appendix.

10. *Tasmania*.—(i) *Migration Agreement*. Agreement with Commonwealth in respect of migration and of borrowing in connexion with settlement is authorized.

(ii) *Wood-pulp and Paper Industry Encouragement*. The manufacture of wood-pulp and paper in Tasmania is encouraged, and the rights and concessions in connexion therewith are prescribed.

(iii) *Rubber Industry Encouragement*. The manufacture of tyres and other rubber goods in Tasmania is encouraged.

(iv) *Marriages Legalization*. Marriage between certain persons is legalized.

(v) *Roads Agreement*. Agreement with Commonwealth *re* road construction is authorized.

(vi) *Taxation Amendment*. Further exemptions and deductions of income tax are made.

(vii) *Main Roads Maintenance*. This Act provides for the declaration of main roads and for their maintenance.

(viii) *Advances to Orchardists*. Advances are authorized and procedure and conditions laid down.

(ix) *Estate Agents*. Compulsory licensing is provided for.

(x) *Local Government*. Councils are given extended powers in the definition of building areas.

(xi) *Christ College*. The College is incorporated, and a constitution provided.

§ 7. Consular Representatives of Foreign Countries in Australia.

The following tabular statement shows the number of consular representatives of foreign countries in each State for the year 1927 :—

CONSULAR REPRESENTATIVES IN AUSTRALIA, 1927.

Country.	Number of Consular Representatives in—						
	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Total Aust.
Argentine Republic	2	2	..	1	..	1	6
Austria .. .. .	..	1	..	..	..	..	1
Belgium	3	1	1	1	1	1	8
Brazil	1	1	..	..	..	1	3
Chile	1	1	..	..	..	..	2
China .. .. .	..	2	..	..	..	..	2
Colombia	2	1	..	..	..	..	3
Costa Rica	1	..	..	..	..	..	1
Czecho-Slovakia	1	1	1	..	1	..	4
Denmark	3	2	3	2	1	..	11
Ecuador	2	..	..	..	..	..	2
Estonia	1	..	..	..	..	..	1
Finland	1	1	1	1	..	..	4
France	3	1	1	1	1	1	8
Germany .. .. .	..	2	..	..	..	..	2
Greece	2	2	1	..	1	..	6
Guatemala .. .. .	..	1	..	..	..	..	1
Honduras .. .. .	..	1	..	..	..	..	1
Italy	1	2	1	1	1	1	7
Japan	2	2	1	1	1	..	7
Liberia	1	..	..	1	..	..	2
Netherlands	3	1	3	1	1	1	10
Nicaragua .. .. .	..	1	..	..	..	..	1
Norway	3	3	2	3	3	2	16
Panama	1	1	1	..	..	..	3
Paraguay	1	1	..	..	1	..	3
Peru	2	1	..	1	..	..	4
Poland	1	..	..	..	..	..	1
Portugal	1	1	..	..	..	..	2
Roumania	1	..	..	..	..	..	1
Salvador .. .. .	..	1	..	..	..	..	1
Serb-Croat-Slovene State	1	..	..	..	..	..	1
Siam	1	..	..	..	..	..	1
Spain	2	2	1	1	1	..	7
Sweden	3	1	2	3	2	1	12
Switzerland	1	2	1	..	..	..	4
U.S.A.	5	5	1	1	1	..	13
Uruguay	1	1	..	..	..	..	2
Venezuela	1	..	..	..	..	..	1
Total	55	45	21	19	16	9	165*

* In addition Northern Territory has a Consul for the Netherlands and New Guinea a Consu for Sweden.

Countries having Consuls-General in Sydney are Belgium, Chile, Czecho-Slovakia, Denmark, Ecuador, France, Greece, Japan, Netherlands, Paraguay, Peru, Poland, and Sweden. Those having Consuls-General in Melbourne are Argentine, China, Colombia, Germany, Honduras, Italy, Norway, Peru, Switzerland, and United States. The Consul-in-Chief for Panama is located at Sydney.

CHAPTER IV. LOCAL GOVERNMENT.

§ 1. Introduction.

1. **General.**—The construction and maintenance of roads, bridges and ferries are generally part of the functions of local authorities, but in New South Wales and South Australia, more especially in the large unincorporated areas, these duties are undertaken directly by the Government. In some States, moreover, a certain proportion of the roads and bridges is constructed and maintained by the Government, which, in addition, advances money for main roads to be expended by municipalities under the supervision of special Boards. Although roads, bridges and ferries constructed and maintained directly by Government do not properly come under the heading of "Local Government," they have been included in this chapter for the sake of convenience.

2. **Municipalities, Shires, etc.**—A description of the various systems of municipal government in the different States, and their development from the earliest date, was published in 1919 by the Commonwealth Bureau of Census and Statistics in a separate work entitled "Local Government in Australia." Limits of space preclude the incorporation of the information contained therein in the Official Year Book.

3. **Water Supply and Sewerage.**—In the cities of Sydney, Melbourne and Brisbane the control of water supply and sewerage is in the hands of special Boards, while in Adelaide and Perth, these services are under the direct supervision of Government Departments. In most of the other cities and towns, the municipal councils, or, in some cases, water trusts, are the controlling bodies which either construct the works out of their own resources or take them over after they have been constructed by the Government.

4. **Harbours.**—The majority of the harbours in Australia are managed by Boards, the members of which are either elected by persons interested or appointed by the Government. In a few instances, however, they are directly controlled by the Government. Only those which are controlled by Boards are dealt with in the following pages.

5. **Fire Brigades.**—In all the States, the management of fire brigades is undertaken by Boards. The members of these Boards are usually elected by the councils of municipalities and insurance companies within the districts placed under their jurisdiction, together with one or more appointed by the Government. Occasionally volunteer or country fire brigades are represented.

§ 2. Government Roads, Bridges, Etc.

1. **New South Wales.**—(i) *General.* The control of all roads, bridges and ferries, with the exception of those proclaimed as "National" and of those in the unincorporated areas of the Western Division, which still remain under its jurisdiction, was transferred, in 1920, from the Public Works Department to local authorities. The Government has also adopted the policy of assisting municipal and shire councils to recondition certain main roads by doing the work in the first instance, and recovering in instalments from the councils concerned one-half of the cost.

(ii) *Roads, Bridges and Ferries.* At the end of 1923, the "National" works consisted of 58 miles of roads, 283 bridges with a total length of 108,631 feet, and 23 ferries, while in the unincorporated areas of the Western Division there were 6,053 miles of roads (of which 213 miles were metalled or ballasted, 163 formed only, and 3,437 cleared only, 99 bridges of a total length of 13,602 feet, 340 culverts, and 6 ferries under the control of the Public Works Department.

(iii) *Expenditure on Roads, Bridges and Ferries.* The total Government expenditure on roads, bridges and ferries from 1857 to 1925-26 was £27,587,757. The following table shows the expenditure for each year from 1920-21 to 1925-26:—

ROADS, ETC.—EXPENDITURE BY GOVERNMENT DEPARTMENTS, NEW SOUTH WALES, 1921 TO 1926.

Year.	1920-21.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	£	£	£	£	£	£
Expenditure..	163,121	542,205	443,541	458,415	(a)635,976	1,067,442 (b)

(a) Includes £260,547, Sydney Harbour Bridge.

(b) Includes £483,395, Sydney Harbour Bridge.

2. *Victoria.*—(i) *General.* A small sum is expended annually by the State Government on roads and bridges, and a considerable amount of loan money is advanced in each year to the Country Roads Board for the purpose of constructing and maintaining main and developmental roads, the amount so expended during the year ending 30th June, 1925, being £992,568. An annual payment of £50,000 is also made out of Consolidated Revenue to the Board for maintenance works.

(ii) *Direct Expenditure by Government.* The following table shows the amounts of money expended directly by the Government on roads and bridges during the years 1920-21 to 1925-26:—

**ROADS AND BRIDGES—GOVERNMENT EXPENDITURE, VICTORIA,
1920-21 TO 1925-26.**

Year.	1920-21.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
Expenditure..	£ 10,842	£ 23,622	£ 65,459	£ 46,761	£ 68,939	£ 81,205

(iii) *Country Roads Board.* The duties of this Board were given in some detail in Year Book No. 15, p. 526.

The borrowing of a sum of £4,000,000 has been authorized for the purposes of making permanent works under the Country Roads Acts. One half of the amount expended on permanent works and maintenance must be refunded by the municipalities affected, 6 per cent. of the amount due in respect of permanent works being payable annually, and the cost of maintenance allocated to each municipality must be paid before the 1st of July in each year. A special rate, not exceeding 6d. in the pound, may be levied in any ward or riding of a municipality for the purpose of such repayment.

All registration fees, licence fees and fines under the Motor Car Act, all licence fees for unused roads and water frontages, and all registration fees and fines for traction-engines are credited to the Country Roads Board Fund. The total loan expenditure for permanent works to the 30th June, 1925, was £3,161,783. The following table gives the revenue and expenditure on permanent and maintenance works for the five years 1920-21 to 1924-25:—

**COUNTRY ROADS BOARD, VICTORIA—REVENUE AND EXPENDITURE,
1920-21 TO 1924-25.**

Year ended 30th June.	Revenue.					Expenditure.	
	Motor Registration and Licence Fees.	Unused Roads etc., Licence Fees.	Contributions by Municipalities.		Total.	Permanent Works.	Main-tenance.
			Permanent Works.	Main-tenance.			
	£	£	£	£	£	£	£
1921 ..	98,135	21,441	50,036	90,335	342,865	271,869	221,395
1922 ..	118,672	21,487	61,024	104,026	429,308	288,937	267,969
1923 ..	158,249	19,933	68,608	123,819	514,469	266,046	288,129
1924 ..	222,251	20,110	76,355	134,349	585,742	201,615	343,233
1925 ..	402,971	19,801	82,931	154,557	660,260	228,872	468,182

(iv) *Developmental Roads.* For the purpose of constructing and maintaining subsidiary or developmental roads, the Government may borrow the sum of £6,475,000. The work is carried out under the supervision of the Country Roads Board, and the State provides the whole of the money and makes provision out of State funds for liquidating the liability; the municipalities, however, are required to bear a proportion of the interest on the outlay during the period of the loan and to maintain the roads when constructed. The amount expended during the year ended 30th June, 1925 was £602,519, and the total expenditure to that date was £3,119,168.

3. **Queensland.**—Under "The Main Roads Act of 1920," a Main Roads Board was constituted, consisting of three members appointed by the Governor in Council. Subsequently, by "The Main Roads Acts Amendment Act of 1925," the Board was abolished, and its powers conferred upon a single commissioner. The duties of the Commissioner are to make the necessary surveys and investigations in order to determine what roads should be main roads, and, under certain circumstances, to undertake the construction and maintenance of such roads. Before any road can be proclaimed a main road, the shire councils through whose areas such road passes have the right to lodge objections thereto, and the Commissioner must consider such objections and may vary his decision. The whole of the money necessary for the construction and maintenance of main roads is provided from the Main Roads Fund at the Treasury, and the councils concerned must repay one-half the cost thereof over a period of 30 years, with interest. This fund is formed from (a) moneys appropriated by Parliament therefor, (b) fees on motor vehicles and traction engines, (c) fees and rents for unused roads, (d) moneys received from the sale of timber, sand, etc., on any main road, and (e) all other moneys received or recovered by the Commissioner. Wherever possible, the Commissioner arranges with local authorities to undertake the survey and construction of works, but in most cases, owing to the dearth of trained engineers in the employ of councils, the Commissioner has had to undertake most of the survey work and preparation of plans and a considerable portion of the construction. During the year ended 30th June, 1926, the receipts of the Commission amounted to £719,790, including £356,517 from the Treasury Loan Fund, £189,993 from motor fees, and £150,452 from the Commonwealth for schemes under the Main Roads Development Act (Commonwealth); and the disbursements to £782,171, including £307,215 expenditure on permanent works, £251,902 on schemes under the Commonwealth Main Roads Development Act, and £86,934 on maintenance of main roads. At that date, 4,275 miles of roads had been gazetted as main roads, and 455 miles had been surveyed during the year. In addition, 168 miles of roads had been gazetted as developmental roads up to 30th June, 1926, and 65 miles surveyed during the year.

The money made available to the State under the Commonwealth "Main Roads Development Act" is allocated and expended under the direction of the Commissioner of Main Roads.

The developmental roads sections of "The Main Roads Acts 1920 to 1925" provide that on such roads the Commissioner will be responsible for the total cost of construction, but that the local authorities concerned shall repay half the interest over a period of twenty years, and that the local authorities shall be responsible for maintenance.

4. **South Australia.**—The Highways Act 1926 created a Commissioner of Highways and provided for a Main Roads Fund. The Commissioner is virtually empowered to determine upon which roads he will spend the moneys available, in doing which he has to take into account (a) the moneys voted, or likely to be voted, by Parliament for main roads; (b) whether the road is or will be the main trunk route; (i) connecting any large producing area, or any area capable of becoming in the near future a large producing area, with its market or nearest port or railway station; (ii) connecting two or more large producing areas, or areas capable of becoming in the near future large producing areas, or between two or more large centres of population; (iii) between the capital and any large producing area or any large centre of population; (iv) between the capitals of this State and any other State; and (c) whether the area through which the road passes is, or in the near future will be, sufficiently served by a railway or railways.

The Main Roads Fund is to be credited with (a) licence fees and registration fees under the Motor Vehicles Act 1921; (b) licence fees under the Vehicles (Licensing) Act 1925; (c) motor vehicles tax under the Motor Vehicles Tax Act 1915; (d) fines, penalties, and forfeitures in respect of convictions for offences against the Motor Vehicles Act 1921, of the Motor Vehicles Tax Act 1915 (exclusive of any sum received for costs), or the Width of Tires Act 1923; (e) fees for hawkers' licences issued by the Treasurer; (f) contributions from Councils; (g) all sums appropriated by Parliament for main roads; (h) all loans raised and appropriated for main roads.

Moneys standing to the credit of the Fund are to be used by the Commissioner for (a) payment of the expenses incurred in connexion with carrying out the provisions of the Act; (b) defraying the cost of the operations undertaken by the Commissioner in connexion with main roads and works; (c) payment to each council of the amount of its annual grant for main roads; (d) defraying the cost of any work required to be executed by the State

pursuant to any agreement with the Commonwealth relating to the construction, reconstruction and maintenance of roads, etc.; (e) refunding to the Treasurer any moneys paid or set aside out of General Revenue pursuant to the Main Roads Fund Act 1922; or for the purpose of payment of the interest on any loan raised after the 1st July, 1926, and appropriated to main roads; and (f) paying during each financial year to the Public Debt Commissioners for the purposes of the reduction and redemption of any loan raised after the 1st July, 1926, and appropriated to main roads, in addition to any other sum required by law to be so paid for such purposes, but at least such a sum as will amount to one and one-quarter per centum of the principal for the time being of such loan.

The Commissioner determines the amount of the Annual Main Road Grant to each Council for construction and maintenance of main roads and also the amount of money to be expended by each Council out of its revenue for the same purpose provided that such contribution shall not exceed one-half of the grant. In the case of main roads maintained departmentally the Commissioner may recover from the Council in respect of maintenance and interest charges one-third of the annual outlay or an amount calculated at £150 per mile per annum whichever amount is the smaller. The Commissioner also allocates to Councils funds voted by Parliament for roads in newly-settled areas and supervises the expenditure of funds provided under the Federal Aid Roads Scheme. The Commissioner has power to deal with cases in which any main road is being neglected by a Council or in which any work towards which a grant of assistance has been made is not being satisfactorily carried out.

The expenditure for year ended 30th June, 1926, was £836,504, inclusive of grants in aid of rates collected paid to Councils amounting to £119,520. In the sparsely-settled districts outside the incorporated areas, the roads and bridges are constructed and maintained by the Public Works Department which expended during the same period £13,730.

5. *Western Australia.*—In Western Australia the construction, maintenance, and management of roads and bridges throughout the State are under the control of municipalities and district road boards which are subsidized by the Government.

6. *Tasmania.*—(i) *Construction.* In Tasmania the cost of construction of roads and bridges is borne almost entirely by the central Government.

Up to the 30th June, 1926, the loan expenditure on these works was £4,227,176 (roads, £3,481,518; tracks, £226,387; bridges, £519,271). In addition, half the proceeds of the sale of land has formed a Crown Lands Fund for the construction of roads to new holdings. Under this provision £666,276 has been expended. This fund has in recent years more than met the demands on it, and expenditure therefrom since 1918 has been limited to £10,000 annually, the balance being used for redemption of debt. The following table gives particulars of the amount and cost of construction for the last five years:—

ROADS AND BRIDGES, TASMANIA—GOVERNMENT EXPENDITURE ON CONSTRUCTION, 1921 TO 1926.

Period.	Expenditure.		New-road Mileage.		New Bridges.
	Loans.	Crown Lands Fund.	Cleared.	Metalled.	
	£	£	Miles.	Miles.	No.
1921-22	102,160	8,198	69	73	27
1922-23	71,676	6,412	47	57	13
1923-24	57,546	5,537	53	48	15
1924-25	130,871	5,341	139	119	16
1925-26	192,469	5,465	35	40	25

In addition, in 1925-26, the sum of £40,695 provided by the Commonwealth Government was expended on roads; the conditional expenditure by the State Government is included in the above figures.

(ii) *Maintenance.* The maintenance of roads and bridges is undertaken by the municipalities with some assistance from the central Government, chiefly by way of subsidy. Under the Aid to Road Rates Act, a sum of £11,000 is distributed annually among the municipalities, in proportion as the cost of maintenance falls on their resources. Under the Main Roads Maintenance Act 1918 a further sum of £5,000 was provided out of Consolidated Revenue, which, with the addition of the motor tax, less 5 per cent., and a contribution from municipalities, is expended on the upkeep of main roads. In 1924–25 the amount available for 1,100 miles of main road was £45,800. The work is carried out in most cases by municipalities, under the general direction of an Advisory Board, on which the Government, the municipalities, and the motorists are all represented. Further, the Repairs to Roads Act 1920 provides for loans for 15 years to municipalities for the purpose of re-making roads—half the loan is repaid in instalments by the local body and the remainder by the State Government. The Government also provides for the repair of the more important bridges, and for emergency work.

The above provision for maintenance has, however, in recent years been found insufficient to cope with the heavier motor traffic and to meet the demand for a better road surface further legislation is in contemplation.

7. *Summary of Loan Expenditure on Roads and Bridges.*—Figures showing the total expenditure on roads and bridges in the States are not available. The subjoined statement, however, gives the amounts of loan expenditure by the State Governments up to the 30th June, 1926 :—

**ROADS AND BRIDGES.—GOVERNMENT LOAN EXPENDITURE TO THE
30th JUNE, 1926.**

Expenditure.	N.S.W.	Victoria. (a)	Q'land. (b)	S. Aust.	W. Aust.	Tasmania.	All States.
	£	£	£	£	£	£	£
Total to 30/6/23	2,381,744	4,775,897	931,775	2,110,535	459,468	3,847,083	14,506,502
„ „ 30/6/24	2,567,322	5,402,975	931,775	2,276,475	525,477	3,903,835	15,607,859
„ „ 30/6/25	3,324,402	6,580,801	832,839	2,408,743	617,111	4,033,673	17,797,569
„ „ 30/6/26	4,317,576	7,735,888	832,839	2,602,549	713,795	4,227,176	20,429,823

(a) This expenditure is from loan funds on country roads ; temporary advances not included.

(b) In addition, Main Roads loan expenditure to 30th June, 1926, was £915,574.

The following table shows the annual expenditure from loans on roads and bridges by the central Governments in each State during the years 1921–22 to 1925–26 :—

ROADS AND BRIDGES.—LOAN EXPENDITURE BY STATES, 1922 TO 1926.

Year ended 30th June.	N.S.W.	Victoria.	Q'land. (a)	S. Aust.	W. Aust.	Tasmania.	All States.
	£	£	£	£	£	£	£
1922 ..	320,271	960,821	..	109,120	12,585	99,760	1,502,557
1923 ..	231,271	625,620	217,500	62,510	34,311	71,017	1,242,229
1924 ..	185,578	627,078	496,000	165,940	66,009	56,752	1,597,357
1925 ..	750,907	1,177,826	200,000	132,268	91,634	129,838	2,482,473
1926 ..	972,793	1,155,087	356,517	246,908	96,684	192,469	3,020,458

(a) Main Roads loan expenditure.

The two tables given above show only a small proportion of the actual expenditure upon roads and bridges in the different States, for the reason that (a) there have been large expenditures from revenue, both by the central Governments and by local authorities, and (b) the State Governments have in many cases voted grants and subsidies on the amount of rates collected, and have issued loans to local authorities either for the express purpose of the construction of roads and bridges or for the general purpose of public works construction.

§ 3. Municipalities, Shires, Etc.

1. **New South Wales.**—(i) *General.* Practically the whole of the State, with the exception of the Western Division, has been divided into municipalities and shires, the total area incorporated at the end of 1925 being 184,110 square miles, of which 2,520 square miles are included in the former and 181,590 in the latter. The areas incorporated comprise the whole of the Eastern and Central Divisions of the State, with the exception of Lord Howe Island, the islands in Port Jackson, and the quarantine station at Port Jackson.

(ii) *Municipalities.*—(a) *Summary.* The following table gives the number, area and population of municipalities, together with the length of roads and the number of bridges and ferries therein for the years 1921 to 1925 :—

MUNICIPALITIES, NEW SOUTH WALES—SUMMARY, 1921 TO 1925.

Year.	No. of Municipalities.	Sydney and Suburbs.		Country.		Length of Roads.	Bridges.	Ferries.
		Area.	Population.	Area.	Population.			
		Acres.		Acres.				
1921	185	95,259	906,320	1,725,875	531,090	10,187	745	26
1922	185	95,259	934,970	1,725,875	536,050	(a)	(a)	(a)
1923	184	95,259	959,772	1,720,275	545,850	(a)	(a)	(a)
1924	181	95,259	989,390	1,593,075	552,930	10,007	673	24
1925	180	96,010	1,015,870	1,516,883	564,430	(a)	(a)	(a)

(a) Not available—collected triennially.

Of the 10,007 miles of roads, 4,772 were metalled, ballasted or gravelled, 1,787 formed only, and 1,859 cleared only, while 1,589 miles were natural surface.

(b) *Unimproved and Improved Values.* The table hereunder gives a comparison of the unimproved and improved values for the years 1921 to 1925 inclusive :—

MUNICIPALITIES, NEW SOUTH WALES.—CAPITAL VALUES, 1921 TO 1925.

Year.	Sydney.	Suburbs.	Total Metropolis.	Country.	Grand Total.
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UNIMPROVED VALUE.

	£	£	£	£	£
1921	35,887,412	51,027,987	86,915,399	30,706,273	117,621,672
1922	36,838,607	54,642,223	91,480,830	32,343,067	123,823,897
1923	36,918,354	60,984,924	97,903,278	34,238,069	132,141,347
1924	45,593,929	65,559,272	111,153,201	36,068,427	147,221,628
1925	45,656,053	70,391,344	116,047,397	37,931,396	153,978,793

IMPROVED VALUE.

	£	£	£	£	£
1921	99,647,060	141,632,450	241,279,510	88,922,248	330,201,758
1922	103,667,740	155,607,105	259,274,845	90,627,326	349,902,171
1923	107,239,980	174,364,307	281,604,287	99,739,138	381,343,425
1924	141,629,260	191,921,240	333,550,500	106,363,410	439,913,910
1925	151,367,380	207,838,392	359,205,772	112,733,389	471,939,161

(c) *Revenue and Expenditure.* Particulars of the revenue and expenditure of municipalities for the year ending 31st December, 1925, under various headings, are given below :—

MUNICIPALITIES, NEW SOUTH WALES.—REVENUE AND EXPENDITURE, 1925.

Particulars.	Sydney.	Suburbs.	Country.	Total.
REVENUE.				
General fund	£	£	£	£
Trading accounts	2,975,740 (a)	2,093,515	1,170,913	3,264,428 (b)
Special and local funds		46,568	736,534	783,102 (b)
		57,441	335,393	392,834 (b)
Gross revenue	2,975,740	2,197,524	2,242,840	7,416,104
EXPENDITURE.				
General fund	£	£	£	£
Trading accounts	3,086,313 (a)	2,234,557	1,242,438	3,476,995 (b)
Special and local funds		39,464	588,443	627,907 (b)
		57,702	304,786	362,488 (b)
Gross expenditure	3,086,313	2,331,723	2,135,667	7,553,703

(a) Items of revenue and expenditure for the city of Sydney cannot be allocated to the different headings shown for municipalities. (b) Exclusive of Sydney.

The next table shows the gross revenue and expenditure of all municipalities for the five years 1921 to 1925 :—

MUNICIPALITIES, NEW SOUTH WALES.—REVENUE AND EXPENDITURE, 1921 TO 1925.

Municipalities.	1921.	1922.	1923.	1924.	1925.
GROSS REVENUE.					
Sydney	£	£	£	£	£
Suburban	2,068,153	2,348,854	2,568,357	2,855,443	2,975,740
Country	1,413,469	1,561,760	1,709,262	1,869,399	2,197,524
	1,582,055	1,701,288	1,836,654	2,024,252	2,242,840
Total	5,063,677	5,611,902	6,114,273	6,749,094	7,416,104
GROSS EXPENDITURE.					
Sydney	£	£	£	£	£
Suburban	2,060,635	2,187,856	2,371,043	2,666,616	3,086,313
Country	1,511,543	1,618,413	1,790,120	2,064,142	2,331,723
	1,507,423	1,637,140	1,711,734	1,883,926	2,135,667
Total	5,079,601	5,443,409	5,872,897	6,614,684	7,553,703

(d) *Assets and Liabilities.* The financial position of the municipalities as at the 31st December, 1925, is shown by the following statement of assets and liabilities.

MUNICIPALITIES, NEW SOUTH WALES.—ASSETS AND LIABILITIES, 1925.

Particulars.	Sydney.	Suburbs.	Country.	Total.
ASSETS.				
	£	£	£	£
Bank balances and cash ..	19,914,698 (a)	472,517	503,573	976,090 (b)
Outstanding rates ..		110,524	184,786	295,310 (b)
Sundry debtors ..		198,047	263,512	461,559 (b)
Stores and materials ..		32,839	109,778	142,617 (b)
Land, buildings, furniture, etc.		1,021,822	4,950,325	5,972,147 (b)
Other ..		31,453	40,336	71,789 (b)
Total ..	19,914,698	1,867,202	6,052,310	27,834,210
LIABILITIES.				
Loans, outstanding interest and sundry creditors ..	19,198,054 (a)	2,413,600	1,951,685	4,365,285 (b)
Debts due to Government and interest thereon ..		97,199	2,255,079	2,352,278 (b)
Bank overdrafts ..		182,959	209,686	392,645 (b)
Other ..		44,339	70,708	115,097 (b)
Total ..	19,198,054	2,738,147	4,487,158	26,423,359

(a) Particulars for the city of Sydney cannot be allocated to the different headings shown for municipalities.

(b) Exclusive of Sydney.

(iii) *Shires.* (a) *Summary.* The following table gives the number, area, population, and unimproved capital value of shires, together with the length of the roads, and the number of bridges and ferries therein. It is not possible to give the improved capital value or the assessed annual value, as shires are not compelled to make these valuations.

SHIRES, NEW SOUTH WALES.—SUMMARY, 1921 TO 1925.

Year.	No. of Shires.	Area.	Population.	Unimproved Capital Value.	Length of Roads.	Bridges.	Ferries.
	No.	sq. miles.	No.	£	miles.	No.	No.
1921 ..	136	181,140	676,130	130,834,456	85,458	3,627	175
1922 ..	136	181,140	688,560	135,380,748	(a)	(a)	(a)
1923 ..	136	181,140	691,000	140,392,104	(a)	(a)	(a)
1924 ..	136	181,339	686,770	144,710,409	88,704	3,861	172
1925 ..	136	181,590	692,280	148,251,227	(a)	(a)	(a)

(a) Not available—collected triennially.

Of the 88,704 miles of roads, 18,369 were metalled or ballasted, 13,745 formed only, and 27,216 cleared only, the balance being natural surface.

(b) *Revenue and Expenditure.* The revenue and expenditure of shires for the years 1921 to 1925 are shown in the following table. Included in the receipts for 1925 are Government grants amounting to £620,298 :—

SHIRES, NEW SOUTH WALES.—REVENUE AND EXPENDITURE, 1921 TO 1925.

Particulars.	1921.	1922.	1923.	1924.	1925.
REVENUE.					
<i>General Fund—</i>	£	£	£	£	£
General rates (including interest) ..	968,886	1,033,921	1,064,842	1,129,863	1,178,501
Government endowment ..	178,420	156,891	150,296	146,705	149,345
Public works ..	188,533	218,952	204,129	323,357	679,322
Health administration ..	84,014	88,165	98,532	103,500	106,125
Public services ..	15,540	16,052	15,712	15,885	19,106
Shire property ..	16,145	20,344	8,124	11,741	14,460
Miscellaneous ..	8,939	13,852	16,977	15,364	20,920
<i>Special and Local Funds</i> ..	87,124	99,960	157,547	190,271	249,745
Total revenue ..	1,547,601	1,648,107	1,716,159	1,936,686	2,417,524
EXPENDITURE.					
<i>General Fund—</i>					
Administrative expenses	140,300	168,802	158,362	159,719	181,713
Public works ..	1,187,349	1,245,857	1,268,550	1,467,867	1,948,301
Health administration ..	89,344	95,578	104,437	107,894	116,133
Public services ..	33,782	32,205	31,526	31,432	38,945
Shire property ..	18,721	18,518	7,041	8,524	10,438
Miscellaneous ..	9,418	11,626 ^a	20,327 ^a	24,236 ^a	51,791 ^a
<i>Special, Local, and Loan Funds</i>	78,474	91,295	131,715	173,070	205,885
Total expenditure ..	1,557,388	1,663,881	1,721,958	1,972,742	2,553,206

(a) Includes interest on loans and overdraft—£7,597 in 1922, £13,185 in 1923, £19,934 in 1924, and £29,083 in 1925.

(c) *Assets and Liabilities.* The finances of the shires at the end of the year 1925 showed an excess of assets of £214,654. The following table gives particulars of assets and liabilities as at the 31st December, 1925 :—

SHIRES, NEW SOUTH WALES.—ASSETS AND LIABILITIES, 1925.

Assets.	Amount.	Liabilities.	Amount.
	£		£
Bank balances and cash ..	358,480	Loans outstanding, interest and	
Outstanding rates ..	180,851	sundry creditors ..	1,025,511
Sundry debtors ..	87,653	Bank overdrafts ..	288,069
Stores and materials ..	47,311	Other ..	162,703
Land, buildings, furniture, plant,			
machinery, etc. ..	1,010,761		0
Other ..	5,881		
Total ..	1,690,937	Total ..	1,476,283

2. *Victoria.*—(i) *General.* Local Government is established throughout the State (with the exception of French Island), the various divisions being termed cities, towns, boroughs, or shires. Melbourne and Geelong were incorporated under special statutes prior to the establishment of a general system of local government, and except in a few details are not subject to the provisions of the Local Government Act.

In addition to the endowment of £50,000, the municipalities received from the Government during the financial year 1925-26 a sum of £63,853 out of the Licensing Fund as the equivalent for (a) fees for licences, (b) fees for the registration of brewers and spirit merchants, and (c) fines, penalties, and forfeitures incurred under the Licensing Act 1915.

The financial years of the cities of Melbourne and Geelong end on the 31st December and the 31st August respectively; those of all other municipalities on the 30th September.

(ii) *Municipalities.* (a) *Summary.* The following table shows the number of cities, towns, boroughs, and shires, with estimated population, number of ratepayers and dwellings, and value of rateable property for the years 1922 to 1926 inclusive:—

MUNICIPALITIES, VICTORIA.—SUMMARY, 1922 to 1926.

Year ending 30th September.	Number of Municipal- ities.	Estimated Population.	Number of Ratepayers (both sexes).	Estimated Number of Dwellings.	Estimated Value of Rateable Property.	
					Total.	Annual.
CITIES, TOWNS, AND BOROUGHES.						
	No.	No.	No.	No.	£	£
1922.. ..	53	914,371 ^a	245,589	205,416 ^a	210,501,055	11,869,636
1923.. ..	53	963,180	270,058	220,392	233,586,201	13,116,589
1924.. ..	53	998,950	279,292	229,066	264,693,364	14,964,345
1925.. ..	53	1,031,670	291,910	237,352	288,230,793	16,388,842
1926.. ..	55	1,072,510	314,386	247,756	314,333,446	17,778,661
SHIRES.						
	No.	No.	No.	No.	£	£
1922.. ..	139	610,987 ^a	201,956	142,579 ^a	215,984,328	10,875,948
1923.. ..	139	616,410	200,834	143,809	221,623,773	11,200,825
1924.. ..	139	627,420	213,317	147,830	235,274,597	11,816,074
1925.. ..	139	635,340	221,345	151,721	250,480,405	12,588,177
1926.. ..	139	632,550	246,161	151,353	257,350,043	12,933,459

(a) Census figures.

(b) *Revenue and Expenditure.* The table hereunder shows the revenue from various sources, and the expenditure under various heads, exclusive of loan revenue and expenditure, of municipalities during the years 1921 to 1925:—

MUNICIPALITIES, VICTORIA.—REVENUE AND EXPENDITURE, 1921 TO 1925.

Items.		1921.	1922.	1923.	1924.	1925.
REVENUE.						
		£	£	£	£	£
Taxation	Rates	2,083,931	2,303,664	2,559,847	2,847,282	3,152,570
	Licences	126,952	137,036	152,437	155,009	162,430
	Dog fees	23,682	24,316	24,832	26,211	27,836
	Market and weigh- bridge dues ..	91,448	99,485	99,337	97,794	111,548
Government endowments and grants		65,581	75,627	60,607	87,783	88,335
Contributions for streets, etc.		84,936	111,983	141,484	180,502	264,996
Sanitary charges		133,244	146,559	162,129	175,520	185,091
Rents		92,717	102,784	108,502	125,544	133,623
Other sources		890,625	1,030,323	1,179,748	1,305,108	1,452,651
Total		3,593,116	4,031,777	4,488,923	5,000,753	5,579,080

MUNICIPALITIES, VICTORIA.—REVENUE AND EXPENDITURE, 1921 TO 1925—continued.

Items.	1921.	1922.	1923.	1924.	1925.
EXPENDITURE.					
	£	£	£	£	£
Salaries, etc.	284,158	319,430	340,319	359,493	381,815
Sanitary work, street cleaning etc.	345,834	363,706	396,524	433,220	457,885
Lighting	115,968	130,722	131,342	134,025	144,064
Fire brigades' contributions	46,512	48,526	49,225	55,412	58,250
Public Works { Construction	238,165	271,007	294,711	404,661	479,690
{ Maintenance	1,683,619	1,865,549	1,948,582	2,525,846	2,819,900
Formation of private streets, etc.	130,125	147,612	163,660	343,978	426,689
Redemption of loans	133,786	136,090	165,675	180,987	211,152
Interest on loans	276,065	305,289	343,164	386,946	457,669
Charities	29,468	26,436	26,288	28,550	30,187
Other expenditure	315,085	332,067	356,199	393,545	433,154
Total	3,598,785	3,946,434	4,215,689	5,246,663	5,900,455

(c) *Assets and Liabilities.* The assets of municipalities may be classified under three heads (a) the municipal fund, (b) the loan fund, and (c) property; the liabilities under two heads—(a) the municipal fund, and (b) the loan fund. The following table shows the amount of municipal assets and liabilities for the years 1921 to 1925 :—

MUNICIPALITIES, VICTORIA.—ASSETS AND LIABILITIES, 1921 TO 1925.

Items.	1921.	1922.	1923.	1924.	1925.
ASSETS.					
	£	£	£	£	£
MUNICIPAL FUND—					
Uncollected rates	158,301	176,830	202,251	231,623	282,495
Other assets	591,508	636,509	730,603	1,098,843	1,590,966
LOAN FUND—					
(a) Sinking funds—					
Amount at credit	523,834	430,689	455,766	500,214	456,522
Arrears due	483	511	670	127	724
(b) Unexpended balances	331,561	442,360	526,622	501,858	495,980
PROPERTY—					
Buildings, markets, etc. ..	4,457,527	4,804,008	5,170,071	5,773,520	6,221,030
Waterworks	256,169	253,520	255,737	264,630	258,890
Gasworks	123,454	129,020	145,874	174,660	176,330
Total	6,442,837	6,873,447	7,487,594	8,545,475	9,322,937
LIABILITIES.					
MUNICIPAL FUND—					
Arrears due sinking funds	483	511	670	127	724
Overdue interest	5,379	6,026	8,054	7,445	8,440
Bank overdrafts	542,462	858,733	665,866	892,893	1,106,264
Other liabilities	352,518	389,340	440,031	767,691	990,177
LOAN FUND—					
Loans outstanding	5,595,614	5,714,570	6,601,731	7,574,523	8,146,750
Due on loan contracts	158,009	177,755	380,839	237,695	256,794
Due on current contracts ..	102,191	88,936	155,233	161,031	144,677
Total	6,756,656	7,235,871	8,252,424	9,641,405	10,653,826

3. *Queensland.*—(i) *General.* The whole of the State (except a few islands in Moreton Bay) is incorporated into cities, towns, and shires under the Local Authorities Act of 1902 and its amendments.

(ii) *Municipalities.* (a) *Summary.* The following table gives particulars of the area, population, number of inhabited dwellings, and assets and liabilities of cities and towns and of shires for the years 1921 to 1925 :—

MUNICIPALITIES, QUEENSLAND.—SUMMARY, 1921 TO 1925.

Year.	No.	Area.	Popula- tion.	Number of Inhabited Dwellings.	Rateable Value.	Assets.	Liabilities.	
							Govern- ment Loans.	Total.

CITIES AND TOWNS. (a)								
		sq. miles.	No.	No.	£	£	£	£
1921 ..	36	522	339,420	71,257	19,350,707	2,579,726	506,131	2,081,724
1922 ..	36	522	343,799	71,887	19,486,391	2,402,864	540,520	2,251,373
1923 ..	36	537	354,187	73,874	20,606,516	2,674,349	589,715	2,540,921
1924 ..	35	506	364,754	75,846	21,222,982	3,013,574	597,996	3,095,887
1925(a) ..	28	845	(b)	77,895	21,880,425	3,547,583	611,841	3,647,190

SHIRES. (a)

1921 ..	134	669,372	423,857	99,364	49,051,635	800,451	338,681	620,180
1922 ..	134	669,372	427,739	96,840	50,284,568	846,102	365,863	623,086
1923 ..	134	669,627	446,943	98,608	51,041,891	1,037,880	448,390	799,755
1924 ..	135	669,388	460,240	101,494	51,858,728	1,134,466	568,848	934,278
1925(a) ..	124	669,049	(b)	103,984	52,059,980	1,392,212	774,361	1,216,457

(a) From 1st October, 1925, Greater Brisbane was constituted, absorbing the areas of 2 cities, 6 towns, 10 shires, and part of 2 other shires.

(b) Total population of cities, towns, and shires, 839,634.

(b) *Revenue and Expenditure.* The revenue and expenditure (including loan moneys) of cities and towns, and of shires for each year from 1921 to 1925, are given hereunder :—

MUNICIPALITIES, QUEENSLAND.—REVENUE AND EXPENDITURE,
1921 TO 1925.

Year.	Revenue.			Expenditure.			
	Rates.	Govern- ment Loans and Subsidies.	Total.	Public Works and Services.	Govern- ment Loan Redemp- tion.	Office Expenses and Salaries.	Total.

CITIES AND TOWNS.							
	£	£	£	£	£	£	£
1921 ..	791,259	94,453	1,025,504	842,567	32,696	92,194	1,180,420
1922 ..	868,996	59,652	1,139,009	960,770	32,892	86,639	1,309,288
1923 ..	913,182	77,736	1,492,209	1,057,611a	34,907	87,320	1,432,525
1924 ..	943,558	49,165b	1,646,754	1,353,797a	29,659	99,519	1,801,017
1925 ..	1,003,533	33,918b	1,806,639	1,616,493a	32,126	128,709	2,212,883

SHIRES.							
1921 ..	666,951	86,237	844,834	671,997	22,732	134,380	925,953
1922 ..	723,478	62,424	933,771	665,229	24,545	119,776	922,811
1923 ..	740,433	93,536	1,139,324	879,942a	27,523	126,302	1,141,111
1924 ..	817,873	282,575b	1,216,646	944,876a	29,875	148,695	1,256,880
1925 ..	934,262	383,927b	1,481,211	1,157,164a	32,775	139,665	1,489,807

(a) Includes Expenditure on Main Roads.

(b) Includes Moneys received from Main Roads Commission and Federal Grants Main Roads.

4. **South Australia.**—(i) *General.* A large proportion of South Australia is unincorporated, the balance being under municipal corporations in the larger cities and towns, and district councils in outside areas. These bodies are subsidized by Government, and special grants allocated on the recommendation of the Commissioner of Highways are given for the maintenance and construction of main roads.

(ii) *Local Authorities.* (a) *Summary.* During the past five years the number of corporations and district councils has increased by 10, the total being 194, of which 11 corporations and 13 district councils are in the metropolitan area, and 28 corporations and 142 district councils in outside areas. According to the latest available information there are about 955 miles of roads in use for general traffic under the control of corporations and about 41,465 miles under the control of district councils, and of these totals, 21½ miles are wood-blocked, 35½ miles are bitumen and concrete, and 12,070 miles are tar-paved, metalled or gravelled. The following table gives the area, population, number of occupied dwellings, capital and assessment values and outstanding loans for corporations and district councils separately for the years 1921 to 1925 :—

LOCAL AUTHORITIES, SOUTH AUSTRALIA.—SUMMARY, 1921 TO 1925.

Year.	Area.	Estimated Population.	Occupied Dwellings.	Capital Value.	Assessment Value.	Outstanding Loans.
MUNICIPAL CORPORATIONS.						
	Acres.	No.	No.	£	£	£
1921	53,959	214,730	46,782	47,980,109	2,421,920	382,293
1922	59,279	220,555	48,120	51,100,946	2,544,974	439,319
1923	59,279	223,875	49,260	54,983,943	2,759,282	443,893
1924	62,699	232,044	51,441	60,792,222	3,095,439	481,060
1925	64,080	238,009	52,856	65,550,732	3,300,048	525,518
DISTRICT COUNCILS.						
1921	29,605,269	264,712	57,630	63,510,162	3,160,976	38,131
1922	30,196,509	272,104	59,737	68,293,518	3,429,776	35,358
1923	30,177,455	282,266	62,223	74,949,756	3,747,623	43,848
1924	30,535,351	285,759	63,572	81,665,583	4,083,357	47,249
1925	31,023,175	294,749	66,585	85,608,532	4,280,375	46,445

(b) *Revenue and Expenditure.* The next table gives the revenue and expenditure of corporations and district councils for the years 1921 to 1925, showing in separate columns the receipts and expenditure on main roads. The financial year of municipal corporations ends on the 30th November and that of district councils on the 30th June.

LOCAL AUTHORITIES, SOUTH AUSTRALIA.—REVENUE AND EXPENDITURE, 1921 TO 1925.

Year.	Local Government (exclusive of Government Grants Account).						Government Grants Account (Main Roads).	
	Revenue.			Expenditure.			Revenue.	Expen- diture.
	Rates.	Subsidies.	Total.	Roads.	Other Public Works.	Total.		
MUNICIPAL CORPORATIONS.								
1921	£	£	£	£	£	£	£	£
1921	279,992	29,094	420,060	147,129	184,966	444,782	23,927	21,559
1922	315,772	29,328	470,183	185,758	188,756	500,421	33,222	35,364
1923	346,844	34,576	511,078	248,270	204,314	584,005	25,637	22,541
1924	382,008	38,538	567,344	240,902	201,698	609,446	28,010	27,486
1925	412,933	38,258	713,764	278,236	211,322	727,834	23,111	23,886
DISTRICT COUNCILS.								
1921	212,801	43,316	315,166	189,332	40,048	318,614	208,608	180,886
1922	242,591	50,101	356,359	213,557	53,323	361,290	171,756	185,091
1923	277,563	56,281	407,980	222,574	59,380	403,194	217,267	213,612
1924	317,583	64,966	464,414	262,124	54,289	445,463	241,544	235,245
1925	335,690	74,797	506,889	308,068	66,215	511,725	278,065	278,086

5. **Western Australia.**—(i) *General.* In this State there are three forms of local authorities, namely :—(a) municipalities, (b) district road boards, and (c) local boards of health, the two former covering the whole of the State. Local boards of health are of three descriptions, (a) municipal, the members being the same as those of the municipal council of the municipality in which each is situated, (b) those under the control of road boards, and (c) those not under the control of road boards or municipalities. Several of the two latter are inactive. The financial year of municipalities and municipal boards of health terminates on the 31st October, and that of road boards and other local boards of health on the 30th June.

(ii) *Municipalities.* (a) *Summary.* The following table gives various particulars regarding municipalities for the years 1922 to 1926.

MUNICIPALITIES, WESTERN AUSTRALIA.—SUMMARY, 1922 TO 1926.

Year ended 31st Oct.	Municipalities.	Area.	Population.	Dwelling Houses.	Valuation of Rateable Property.		Length of Roads and Streets.
					Capital Value.	Annual Value.	
	No.	Acres.	No.	No.	£	£	Miles.
1922 ..	21	58,981	162,561	35,137	29,492,571	1,710,389	992
1923 ..	21	58,981	172,881	35,498	31,054,031	1,810,173	993
1924 ..	21	58,981	172,427	35,498	32,881,961	1,910,798	994
1925 ..	21	58,981	172,866	35,550	35,315,316	1,982,967	997
1926 ..	21	58,981	177,591	35,832	36,882,613	2,099,513	1,003

(b) *Revenue and Expenditure.* Revenue and expenditure of municipalities during the years 1922 to 1926 are given hereunder :—

MUNICIPALITIES, WESTERN AUSTRALIA.—REVENUE AND EXPENDITURE, 1922 TO 1926.

Year ended 31st October—	Revenue.				Expenditure.			
	From Rates.	From Govt. Grants.	From other Sources.	Total.	Works and Improvements.	Disbursements in respect of Loans.	Other Expenses.	Total.
	£	£	£	£	£	£	£	£
1922 ..	263,008	300	571,394	834,702	180,537	173,038	493,635	847,210
1923 ..	277,993	939	593,937	872,869	202,758	190,738	471,140	864,636
1924 ..	287,863	4,372	738,040	1,030,275	236,050	191,618	599,952	1,027,620
1925 ..	297,143	200	860,140	1,157,483	300,799	214,226	561,578	1,076,603
1926 ..	310,230	84	729,344	1,039,658	226,822	229,335	630,828	1,086,985

(c) *Assets and Liabilities.*—The table below shows the assets and liabilities of municipalities at the 31st October in each financial year 1922 to 1926 :—

MUNICIPALITIES, WESTERN AUSTRALIA.—ASSETS AND LIABILITIES, 1922 TO 1926.

Year ended 31st October—	Assets.				Liabilities.	
	Balance in Hand.	Value of Property.	Accrued Sinking Funds.	Total.	Outstanding Debentures and Bonds.	Total.
	£	£	£	£	£	£
1922 ..	45,461	1,533,276	412,578	2,100,799	1,767,562	1,857,490
1923 ..	48,580	1,574,805	477,016	2,212,099	1,802,782	1,894,126
1924 ..	51,460	1,570,010	449,007	2,193,487	1,864,993	1,961,763
1925 ..	136,917	1,580,435	487,670	2,329,990	2,135,132	2,253,841
1926 ..	92,088	1,625,556	503,428	2,361,770	2,183,885	2,323,370

(iii) *District Road Boards. (a) Summary.* In the next table the unimproved values given are approximate, allowance being made for three districts for which the annual values only are available. In other instances the annual value is also given, and those portions of districts rated under the annual value are not included in the area rated under the unimproved capital value. The population at the date of the census of 4th April, 1921, was 160,970, and the number of dwellings 41,662.

On the 30th June, 1926, the population was estimated at 204,319, and the number of dwelling-houses at 48,758. Nine districts, however, only give figures at time of the 1921 census.

DISTRICT ROAD BOARDS, WESTERN AUSTRALIA.—SUMMARY 1922 TO 1926.

Year ended 30th June—	Number of Road Districts.	Area.	Unimproved Capital Value (Approximate).	Length of Roads in Existence.	Assets.	Liabilities.	Out- standing Loans.
	No.	sq. miles.	£	miles.	£	£	£
1922 ..	121	975,828	15,088,027	37,238	356,270	286,423	172,984
1923 ..	121	975,828	16,175,944	38,907	379,649	292,915	210,755
1924 ..	122	975,828	17,310,105a	39,863	418,060	348,690	242,043
1925 ..	123	975,828	18,444,720a	41,666	448,318	388,403	280,089
1926 ..	124	975,828	20,067,252a	44,280	504,599	447,515	314,869

(a) Incomplete.

(b) *Revenue and Expenditure.* The revenue and expenditure of district road boards are shown in the following table for the years 1922 to 1926 :—

DISTRICT ROAD BOARDS, WESTERN AUSTRALIA.—REVENUE AND EXPENDITURE, 1922 TO 1926.

Year ended 30th June—	Revenue.				Expenditure.			
	Rates.	Government Grants.	Other.	Total.	Adminis- tration.	Works.	Other.	Total.
	£	£	£	£	£	£	£	£
1922 ..	166,161	35,976	87,182	289,319	38,348	185,477	83,326	307,151
1923 ..	193,018	56,518	120,202	369,738	38,704	203,267	105,315	347,286
1924 ..	213,848	74,184	146,743	434,775	44,233	288,014	113,604	445,851
1925 ..	233,770	66,516	186,452	486,738	46,166	299,204	140,092	485,462
1926 ..	241,243	98,123	231,174	570,540	47,416	378,334	146,891	572,641

(iv) *Local Boards of Health. (a) General.* On the 31st October, 1926, there were 21 local boards of health within municipalities, and on the 30th June, 1926, 81 under control of road boards, and 22 extra-municipal boards. Of the latter, 2 under the control of road boards and 5 extra-municipal boards were inactive during the year.

(b) *Finances.* The appended table shows the number of boards, their revenue and expenditure, and the assets and liabilities of such as were active from 1922 to 1926. The financial year of municipal boards ends on the 31st October, and that of other boards on the 30th June.

LOCAL BOARDS OF HEALTH, WESTERN AUSTRALIA.—FINANCES, 1922 TO 1926.

Year.	Number.	Revenue.			Expenditure.		Assets.	Liabilities.
		Rates.	Sanitary Charges and Rubbish Fees.	Total.	Sanitary and Rubbish Service.	Total.		
		£	£	£	£	£	£	£
1922 ..	126	56,362	65,786	133,280	87,479	129,941	85,768	17,689
1923 ..	125	56,523	70,700	140,056	89,430	133,191	88,456	16,192
1924 ..	122	60,255	66,378	137,047	92,324	136,099	89,311	16,549
1925 ..	123	55,907	68,738	145,844	92,236	148,265	84,526	16,348
1926 ..	124	58,640	66,658	141,624	96,770	145,478	85,503	19,651

6. Tasmania.—(i) *General*. The whole State, with the exception of the cities of Hobart and Launceston, which were incorporated under separate Acts, is divided into municipal districts.

(ii) *Municipalities*. (a) *Summary*. The following table gives the number of municipalities, valuations, outstanding loans and lengths of roads for the years 1921 to 1925. The latest available figure for inhabited dwellings is for the year 1921, when the number was 45,950.

MUNICIPALITIES, TASMANIA.—SUMMARY, 1921 TO 1925.

Year.	Number of Municipalities.	Valuations.			Outstanding Loans.	Length of Roads.
		Annual Value.	Unimproved Value.	Total Capital Value.		

HOBART AND LAUNCESTON.

	No.	£	£	£	£	Miles.
1921	2	771,297	5,768,348	13,112,954	1,700,128	178
1922	2	784,945	6,139,362	14,123,587	1,924,252	179
1923	2	887,583	6,388,152	15,140,686	2,017,691	187
1924	2	984,592	6,711,549	16,521,819	2,062,609	195
1925	2	1,088,541	6,789,728	17,056,147	2,390,189	196

COUNTRY MUNICIPALITIES.

	No.	£	£	£	£	Miles.
1921	47	1,347,839	14,670,035	28,436,345	534,127	11,563
1922	47	1,396,941	14,735,436	29,034,047	407,719	11,557
1923	47	1,423,174	15,168,896	30,318,877	417,535	11,725
1924	47	1,472,749	15,535,414	31,180,993	464,286	11,692
1925	47	1,533,372	15,944,225	32,244,369	536,339	11,871

(b) *Revenue and Expenditure.* The next table gives the revenue and expenditure of all municipalities for the years 1921 to 1925 :—

MUNICIPALITIES, TASMANIA.—REVENUE AND EXPENDITURE, 1921 TO 1925.

Year.	Revenue.			Expenditure.			
	Rates.	Government Grants.	Total.	Adminis- tration.	Works and Services.	Interest and Sinking Fund.	Total.
HOBART AND LAUNCESTON.							
1921 ..	£ 159,094	£ 250	£ 626,855	£ 24,579 ^a	£ 285,904	£ 97,237	£ 408,944
1922 ..	178,921	2,056	577,707	29,491 ^a	403,555	110,716	544,133
1923 ..	234,313	1,263	641,070	28,361 ^a	336,961	125,297	613,380
1924 ..	244,006	450	555,868	47,619	206,668 ^b	132,449	545,928 ^b
1925 ..	257,328	885	576,450	48,020	383,363 ^d	145,407	577,423 ^d

COUNTRY MUNICIPALITIES.

1921 ..	£ 144,531	£ 27,889	£ 261,162	£ 35,798	£ 167,870	£ 22,797	£ 248,468
1922 ..	156,408	30,694	269,388	36,038	193,188	24,248	270,386
1923 ..	167,616	26,026	267,674	36,003	181,087	28,438	264,395
1924 ..	179,297	31,745	284,769	37,697	129,730 ^c	28,421	27,802 ^c
1925 ..	189,759	38,646	366,282	35,327	225,927 ^e	30,225	357,207 ^e

(^a) Hobart only (Launceston figures not available). (^b) Excluding from Loans, £58,975. (^c) Excluding from Loans, £71,451. (^d) Excluding from Loans, £180,851. (^e) Excluding from Loans, £12,289.

7. Northern Territory.—(i) *Municipality of Darwin.* The following particulars relate to the year 1925–26 :—Area, 2,024 acres, population 924, number of occupied dwellings 231, of unoccupied dwellings 3, and of other buildings 132. Revenue from general rates £1,602, from Government grants £801, other sources £443, total £2,846; expenditure £3,332.

(ii) *Bagot Roads District.* During the year 1925–26 the receipts amounted to £141, and the expenditure to £4, leaving (with a balance of £185 brought forward from the previous year) a balance in hand of £322.

8. Basis for Municipal Rating and Limits for Rates.—These matters were dealt with at some length in Official Year Book, No. 17, pp. 124–25, but limitations of space preclude their repetition in the present issue.

§ 4. Summary of Municipal Finance.

1. General.—In the preceding parts of this chapter certain particulars have been given regarding local authorities in each individual State. In this paragraph, comparative figures are given for each State regarding the financial operations of the local governing bodies referred to in § 3. The particulars in the next two tables refer to financial years as follows :—New South Wales : calendar year 1925. Victoria : 30th September, 1925, except Melbourne, 31st December, and Geelong, 31st August, 1925. Queensland : calendar year 1925. South Australia : Corporations, 30th November, and district councils, 30th June, 1925. Western Australia : Municipalities, 31st October, 1925, district road boards, 30th June, 1925. Tasmania : calendar year 1925.

2. Number, Revenue, Expenditure, and Valuation of Local Authorities.—The subjoined table shows the number, revenue, expenditure, and valuation of local authorities in each State and in Australia during the years indicated above. It should be noted that, excepting in Tasmania, the metropolitan water supply systems are not under municipal control; the particulars given of revenue and expenditure for the five States other than Tasmania do not, therefore, include revenue and expenditure on account of these systems. The figures differ slightly from those given in Finance Bulletin No. 17, those herein being based on later results.

LOCAL AUTHORITIES IN EACH STATE.—FINANCIAL SUMMARY, 1925.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
No. of local authorities ..	316	194	152	194	144	49	1,049

RECEIPTS.

	£	£	£	£	£	£	£
Rates—							
General ..		3,152,570	1,437,478		406,252	157,158	
Other ..		486,905	500,317	745,959	124,701	289,929	
Government grants, etc.	9,833,628	88,335		364,461	66,716	39,531	23,293,567
Loans and other sources ..		1,851,270	1,350,055	439,475	1,046,492	912,275	
Total ..	9,833,628	5,579,080	3,287,850	1,549,895	1,644,221	1,398,893	23,293,567

EXPENDITURE.

Works, services, etc.		4,328,228	2,773,657	1,152,061	1,098,935	609,290	
Interest on loans and overdrafts		457,069	(e)	33,356	113,518	141,523	
Redemptions, sinking funds, etc. ..	10,106,909	211,152	(f) 64,901	38,340	134,098	34,109	23,924,768
Administration ..		381,815	268,374	126,564	110,371	83,347	
Other ..		521,591	595,758	174,578	105,143	259,481	
Total ..	10,106,909	5,900,455	3,702,690	1,524,899	1,562,065	1,127,750	23,924,768

VALUATIONS.

Capital value of property ..	a302,230,020	571,683,489	73,940,405	151,159,264	(c)53,760,036	49,300,516	(b)
Annual value of property ..	(b)	30,712,120	(b)	7,580,423	(d)1,982,967	2,621,513	(b)

(a) Unimproved capital value of all rateable property. (b) Not available. (c) The valuation of road districts is the unimproved capital value. (d) Excluding district road boards. (e) Included with "Other." (f) Government loans only.

3. Local Government Loans, 1925.—The following table shows the amount of loans raised by local authorities during the year 1925, of loans current at the end of that year, of liability on account of interest and sinking fund, and of loans redeemed during 1925 :—

LOCAL AUTHORITIES.—LOANS, 1925.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
Loans raised during year ..	£ 2,257,855	£ 1,229,327	£ 680,551	£ 80,500	£ 192,314	£ 511,040	£ 4,951,587
Loans current at end of year	17,721,371	8,146,750	3,800,359	571,963	2,498,754	2,926,528	35,665,725
Annual liability on account of interest ..	857,097	(a)	187,094	31,377	126,587	147,835	(a)
Total sinking fund at end of year ..	1,723,697	497,246	170,182	26,762	462,959	360,314	3,241,140
Amount of loans redeemed during year ..	(a)	(a)	(a)	34,753	108,801	123,796	(a)

(a) Not available.

§ 5. Water Supply, Sewerage, and Drainage.

1. New South Wales.—(i) *General.* In Sydney and its suburbs the water supply and sewerage systems are controlled by the Metropolitan Water, Sewerage and Drainage Board, and in Newcastle and its suburbs by the Hunter District Water Supply and Sewerage Board. In country districts, both waterworks and sewerage works are constructed by the Public Works Department, and, when completed, handed over to the municipalities affected, by which the cost must be repaid.

(ii) *Metropolitan Waterworks.* (a) *General.* During the year ended 30th June, 1926, progress was made with the pressure tunnel, 10 miles long and 10 feet in diameter, which is being constructed to convey water to the city. Service reservoirs of 36 million gallons and 19 million gallons respectively are being constructed at Killara and Waverley-Vauluse and amplification of pumping plant and mains is proceeding. The maximum day's consumption in the metropolitan area was 101,676,000 gallons. The mileage of mains now totals 3,475 miles.

(b) *Water Supplied, etc.* The following table gives the number of houses and estimated population supplied, and other details for the years 1922 to 1926 :—

WATERWORKS, SYDNEY.—WATER SUPPLIED, 1922 TO 1926.

Year ended 30th June—	Number of Houses Supplied.	Estimated Population Supplied.	Average Daily Supply.	Total Supply for the Year.	Average Daily Supply.		Mains Laid.
					Per House.	Per Head of Estimated Population.	
	No.	No.	1,000 Gallons.	1,000 Gallons.	Gallons.	Gallons.	Miles.
1922 ..	229,274	1,146,370	51,002	18,616,000	222	44.49	118
1923 ..	239,528	1,197,640	56,595	20,657,319	236	47.26	126
1924 ..	250,804	1,254,020	58,628	21,458,036	234	46.78	126
1925 ..	259,799	1,298,995	57,355	20,934,784	221	44.15	150
1926 ..	268,558	1,342,790	67,142	24,506,739	250	50.00	175

(c) *Finances.* The next table gives details of the finances for the years 1922 to 1925 :—

WATERWORKS, SYDNEY.—FINANCES, 1922 TO 1925.

Year ended 30th June—	Revenue.	Working Expenses.	Capital Cost, exclusive of Items on which Interest is not charged.	Percentage of Working Expenses on Revenue.	Percentage of Revenue on Capital Cost.	Interest Payable on Capital Cost.	Net Profit after Paying Working Expenses and Interest.
	£	£	£	%	%	£	£
1922 ..	923,798	376,203	11,130,857	40.72	8.30	543,164	4,431
1923 ..	992,702	363,102	12,019,600	36.58	8.26	597,351	32,249
1924 ..	1,105,098	380,407	13,094,176	34.42	8.43	648,011	76,680
1925 ..	1,103,682	409,578	14,734,046	37.11	7.49	691,237	2,867

(a) Includes payment of £4,882 to State Debt Commissioners in reduction of Capital Indebtedness.

In 1925-26, the method of presenting the Board's finances was altered. For that year, the figures are as follow :—

WATERWORKS, SEWERAGE, AND DRAINAGE, SYDNEY, 1925-26.

Item.	Revenue.	Working Expenses, Sinking Fund Contribution, and Renewals.	Capital Indebtedness.	Percentage of Working Expenses and Sinking Fund Contribution on Revenue.	Percentage of Revenue on Average Capital Cost.	Interest.	Deficit.
	£	£	£	%	%	£	£
Water ..	1,319,872	558,983 (a)	16,338,231	37.03	8.43	795,144	34,255
Sewerage	777,809	332,161 (b)	10,138,844	42.21	7.93	501,451	55,803
Drainage	33,790	17,256 (c)	398,796	45.25	8.6	20,189	3,655

(a) Includes payment of £66,351 to State Debt Commissioners in reduction of Capital Indebtedness, and £70,274 on Renewals.

(b) Includes payment of £38,918 to State Debt Commissioners in reduction of Capital Indebtedness, and £3,818 on Renewals.

(c) Includes payment of £1,688 to State Debt Commissioners in reduction of Capital Indebtedness, and £1,966 on Renewals.

(iii) *Metropolitan Sewerage and Drainage Systems.* (a) *General.* In addition to the usual progress made in connecting additional houses, 60 miles of new sewers were laid. the total length now being 1,416 miles. The quantity of sewage pumped was 4,188 million gallons.

(b) *Houses Drained, Population Served, Length of Sewers, etc.* Particulars for the years 1922 to 1926 are given hereunder :—

SEWERAGE AND DRAINAGE SYSTEMS, SYDNEY.—PARTICULARS OF SERVICES. 1922 TO 1926.

Year ended 30th June—	Number of Houses Drained.	Estimated Population Served.	Total Length of Sewers.	Total Length of Storm-water Drains.	Ventilating Shafts Erected.	Sewers Ventilated.
	No.	No.	Miles.	Miles.	Feet.	Miles.
1922	153,789	768,945	1,226.96	63.73	527,766	1,122
1923	159,390	796,950	1,273.71	65.70	532,470	1,162
1924	165,215	826,075	1,313.90	65.96	543,306	1,208
1925	170,774	853,870	1,358.19	66.37	556,032	1,246
1926	176,388	881,940	1,415.57	67.17	568,506	1,283

(c) *Finances.* The financial statement for 1925-26 is embodied in the table above. In earlier years it was as follows :—

SEWERAGE AND DRAINAGE SYSTEMS, SYDNEY.—FINANCES, 1922 TO 1925.

Year ended 30th June—	Revenue.	Working Expenses.	Capital Cost, exclusive of Items on which Interest is not charged.	Percentage of Working Expenses on Revenue.	Percentage of Revenue on Capital Cost.	Interest Payable on Capital Cost.	Profit after Payment of Working Expenses and Interest.
	£	£	£	%	%	£	£
1922 ..	683,434	244,916	7,553,906	35.83	9.05	373,671	64,847
1923 ..	661,964	231,672	7,857,504	34.99	8.42	395,152	35,140
1924 ..	756,539	244,480	8,145,061	32.31	9.28	409,721	102,338
1925 ..	756,624	277,696	8,462,426	36.70	8.94	411,686	67,242

(a) Includes payment of £3,274 to State Debt Commissioners in reduction of Capital Indebtedness.

(iv) *Newcastle Water Supply. (a) General.* During the year a vigorous programme of service-reservoir construction was undertaken, viz., at Waratah (capacity 8,038,000 gallons), "The Lookout," New Lambton (capacity 1,400,000 gallons), and a reservoir of similar capacity at Boolaroo.

The 24-in. trunk main from Waratah to Broadmeadow was completed and extended in 18-in. pipes to Beaumont-street, Hamilton, and further steps were taken to amplify the Water Supply to the Cessnock Division.

Forty-seven miles of water mains were laid, bringing the total up to 595 miles. The construction of works in connexion with the Chichester Dam and pipe line has been completed, but the capital debt on such works has not yet been determined.

(b) *Particulars of Services.* The following table supplies details for the years 1922 to 1926:—

NEWCASTLE WATER SUPPLY.—SUMMARY, 1922 TO 1926.

Year ended 30th June—	Number of Houses Supplied.	Estimated Population Supplied.	Average Daily Supply.	Total Quantity Supplied for the Year.	Average Daily Supply.		Mains Laid.
					Per House.	Per Head of Estimated Population.	
	No.	No.	1,000 gallons.	1,000 gallons.	Gallons.	Gallons.	Miles.
1922 ..	26,758	133,790	4,626	1,688,537	173	34.57	13
1923 ..	28,036	140,180	4,806	1,754,417	171	34.28	29
1924 ..	29,568	147,840	5,756	2,106,614	195	38.92	21
1925 ..	31,405	157,025	6,334	2,312,045	201	40.34	22
1926 ..	33,997	169,985	7,310	2,668,214	215	43.00	47

(c) *Finances.* The next table gives the revenue, working expenses, capital debt, and net profit for the years 1922 to 1926:—

NEWCASTLE WATER SUPPLY.—FINANCES, 1922 TO 1926.

Year ended 30th June—	Revenue.	Working Expenses.	Capital Debt.	Percentage of Working Expenses on Revenue.	Percentage of Revenue on Capital Debt.	Interest and Sinking Fund.	Profit or Loss after Paying Working Expenses, Interest, and Sinking Fund.
	£	£	£	%	%	£	£
1922 ..	113,217	63,736	1,819,534	56.29	6.22	50,785	— 1,304
1923 ..	110,076	62,155	2,271,295	56.47	4.85	54,632	— 6,761
1924 ..	143,138	63,883	2,730,003	44.63	5.24	58,701	20,554
1925 ..	153,045	53,319	3,046,823	34.84	5.02	61,543	38,183
1926 ..	163,807	65,328	3,244,121	39.89	5.05	69,817	28,662

NOTE.—The minus sign (—) represents loss.

The capital debt in respect of water supply set down as £3,244,121 includes expenditure amounting to £2,077,847 on the Chichester Scheme, which was vested in the Board on 26th June, 1925. The capital expenditure in respect of transferred works is £1,166,274. The percentage of revenue on transferred (and, therefore, revenue-producing) works is 14.05 per cent. as against 5.05 per cent. on total debt.

(v) *Newcastle Sewerage Works. (a) General.* The sewerage works for Newcastle and suburbs as originally designed have been completed by the Department of Public Works and vested in the Board.

The amplification, extension, and improvement of such sewerage works have been reported upon favourably, and the works will be put in hand in the near future by the Parliamentary Standing Committee on Public Works.

An Engineering Experts Committee is inquiring into the question of the amplification, extension and improvement of the stormwater drainage works of the Newcastle district. The works comprised in the Cottage Creek stormwater area have been authorized and are under construction, and the Throsby Creek catchment area scheme is now being prepared.

(b) *Sewerage Connexions and Length of Sewers.* During the year ended 30th June, 1926, the number of properties connected with sewers was 1,144, making a total of 18,071. New sewers of a total length of 6 miles were constructed by the Board, bringing the total length of sewers under the Board's control to 176 miles.

(c) *Finances.* Particulars in regard to chief items for the years 1922 to 1926 are given hereunder :—

NEWCASTLE SEWERAGE.—FINANCES, 1922 TO 1926.

Year ended 30th June—	Revenue.	Working Expenses.	Capital Debt.	Percentage of Working Expenses on Revenue.	Percentage of Revenue on Capital Debt.	Interest and Sinking Fund.	Profit or Loss after Paying Working Expenses, Interest, and Sinking Fund.
	£	£	£	%	%	£	£
1922 ..	39,477	18,863	577,833	47.78	6.83	34,446	—13,832
1923 ..	49,551	19,692	592,148	39.74	8.37	36,172	— 6,313
1924 ..	56,210	21,915	610,849	38.99	9.20	37,033	— 2,788
1925 ..	63,707	21,910	636,475	34.39	10.01	37,326	4,471
1926 ..	68,412	22,625	641,648	33.07	10.66	38,437	7,350

NOTE.—The minus sign (—) represents loss.

(vi) *Water Supply and Sewerage in Country Towns.* (a) *General.* Under the Local Government Act of 1919 the Public Works Department may, upon application by any municipal council construct, out of moneys voted by Parliament therefor, waterworks and sewerage works, and when completed transfer the control thereof to the council. The cost must be repaid in instalments, with interest fixed by the Governor, spread over a period not exceeding one hundred years.

(b) *Waterworks.* Up to the 30th June, 1926, waterworks had been completed in 68 towns and handed over to the respective municipal or shire councils, with the exception of the Junee Water Supply, which has been placed under special administration, and the Grafton Water Supply, which is vested in a Board composed of three members of the Grafton council and three members of the South Grafton council. The capital debt of all waterworks on the date mentioned was £1,942,679, and the annual amount payable in instalments and for interest was £85,675. The water supply of Broken Hill, on which loan expenditure to the amount of £481,220 was incurred, was constructed under a special Act, and the undertaking is administered by the Minister for Public Works. A few municipalities have also constructed waterworks out of their own resources.

(c) *Sewerage Works.* Sewerage and stormwater drainage works were completed in twenty municipalities at the 30th June, 1926. The capital debt thereon amounted to £632,228, and the amount payable annually in instalments and for interest to £29,692.

2. *Victoria.*—(i) *A. The Melbourne and Metropolitan Board of Works.* (a) *General.* All land within 13 miles of the General Post Office is included within the metropolitan area for water supply and sewerage purposes. This area covers 434 square miles of land area, and in 1926 embraced 22 cities, and part of another town, 1 borough, and parts of 13 shires, or a total of 38 municipalities or portions thereof. The whole of the city of Mordialloc and of the shire of Moorabbin are included in the metropolis for water supply purposes, and the Board is also empowered to supply water to certain municipalities outside the 13-mile radius, to the Metropolitan Farm at Werribee, the outfall-sewer area, and elsewhere. Various other shires also arrange for bulk supplies of water. The liability on the 30th June, 1926, for loans raised by the Board, was £17,037,090. The Board is still empowered to borrow £2,102,844 before reaching the limit of its borrowing powers.

(b) *Revenue and Expenditure.* The following table shows the actual receipts and expenditure, and the loan receipts and expenditure of the Board from 1921–22 to 1925–26 :—

**WATER SUPPLY AND SEWERAGE, MELBOURNE.—REVENUE AND
EXPENDITURE, 1921-22 TO 1925-26.**

Particulars.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
ORDINARY RECEIPTS.					
	£	£	£	£	£
Water supply	446,875	500,671	545,835	587,765	656,116
Sewerage, etc.	454,521	542,698	472,074	521,205	577,186
Live stock—Metropolitan farm ..	19,994	42,045	85,059	77,763	109,474
Interest { Water supply	1,917	4,587	12,427	10,178	3,276
{ Sewerage	8,477	11,306	11,190	16,503	14,089
Superannuation Contributions ..	..	..	..	..	3,215
Total	931,784	1,101,307	1,126,585	1,213,414	1,363,356

ORDINARY EXPENDITURE.					
	£	£	£	£	£
General management	65,612	64,027	68,803	73,739	74,536
Live stock, etc.—Metropolitan farm	53,162	46,632	101,311	86,546	103,485
Maintenance { Water supply	62,919	65,551	81,991	80,557	84,468
{ Sewerage	74,861	60,548	74,459	76,877	83,342
Interest { Water supply	179,034	203,569	238,572	283,145	305,182
{ Sewerage	411,828	430,418	441,567	475,680	506,985
Patriotic, Relief Funds, etc. ..	80	10	..	..	500
Pensions and Compensation Allowances	6,007	5,756	5,562	9,061	6,113
Contribution Government Loan Redemption .. ..	..	..	..	..	761
River Snagging .. ..	..	..	..	..	5,422
Total	853,503	876,511	1,012,265	1,085,605	1,170,794

LOAN RECEIPTS.					
	£	£	£	£	£
Water supply	11,748	19,074	18,588	19,015	21,327
Sewerage	46,120	61,950	61,992	58,348	77,654
Proceeds of loans	1,573,326	749,410	1,260,716	1,783,293	1,775,000
Miscellaneous	17,497	25,978	21,875	28,557	65,974
Alterations to water mains .. ..	..	..	..	5,426	9,757
Alterations to sewers .. ..	..	..	..	3,785	1,758
Total	1,648,691	856,421	1,363,171	1,898,424	1,951,470

LOAN EXPENDITURE.					
	£	£	£	£	£
Water supply construction	316,329	297,365	348,483	540,938	706,162
Sewerage construction	300,818	351,006	425,653	546,356	823,163
Renewals, main outfall .. ..	..	2,280	1,654	874	..
Cleaning rising main .. ..	..	..	1,156	2,409	..
Alterations to water mains .. ..	..	..	..	11,341	12,361
Alterations to sewers .. ..	..	..	..	869	1,126
Expenses in floating and redemption of loans	1,111,814	80,840	954,774	707,785	332,142
Miscellaneous	82,222	49,911	106,081	102,500	99,527
Total	1,811,183	781,402	1,837,801	1,913,072	1,974,481

B. Melbourne Water Supply. (a) Progress of Work. The principal works completed or in hand during the year ended 30th June, 1926, were:—Construction of Maroondah Dam (upper portion and outlet tower); clearing site for O'Shannassy Dam; construction of O'Shannassy Dam; raising lining of O'Shannassy Aqueduct, 37,918 lineal feet: duplication of O'Shannassy Pipe Line; stripping site of dam for Silvan Reservoir: construction of reinforced concrete elevated tank at Mitcham; laying 10,740 lineal feet of 24-in. electrically welded steel main from Surrey Hills southwards; laying 14,340 lineal feet of 24-in. lock bar steel main from Caulfield Reservoir to Elwood and St. Kilda; laying 8,973 lineal feet of 15-in. electrically welded steel main in Bell-street, Preston, and Coburg; laying 6,978 lineal feet of 15-in. electrically welded cement-lined steel main from Preston Reservoir to Murray-road, Preston; laying 4,256 lineal feet of 15-in. electrically welded steel main in Balcombe-road, Mordialloc; renewal of wooden bridge over Watts River at Fernshaw; construction of service reservoir at Broadmeadows; fencing reservoir site at Mitcham; delivery of 15-in. mild steel cement lined pipes at Victoria-street, Collingwood; laying 94 miles 67½ chains of reticulation pipes under 12-in. diameter in various parts of the Metropolis; cleaning 64 miles 71½ chains of water mains; removal of 4,637 snags from River Yarra.

(b) Quantity of Water, Number of Houses, and Population Supplied. The following table gives various particulars for the years 1922 to 1926. The rate levied over the period has remained at sixpence in the pound.

WATER SUPPLY, MELBOURNE.—PARTICULARS OF SERVICES, 1922 TO 1926.

Year ended 30th June—	Number of Houses Supplied. (a)	Estimated Population Supplied. (a)	Average Daily Consump- tion.	Total Water Consumption for the Year.	Average Daily Consumption.		Length of Mains. Reticu- lation, etc.
					Per House.	Per Head of Estimated Population.	
	No.	No.	1,000 Gallons.	1,000 Gallons.	Gallons.	Gallons.	Miles.
1922 ..	181,226	802,144	47,661	17,396,103	263.0	59.4	1,857
1923 ..	190,108	842,179	51,206	18,690,114	269.3	60.8	1,931
1924 ..	201,548	892,858	47,642	17,436,949	236.4	53.4	2,011
1925 ..	211,405	936,522	52,563	19,185,605	248.6	56.1	2,102
1926 ..	219,540	972,560 ^a	54,696	19,964,016	249.1	56.2	2,216

(a) 31st December of previous year.

(c) Capital Cost, Revenue, Expenditure and Surplus. The following table shows the total cost of construction, revenue, working expenses (exclusive of renewals and special war expenditure), interest and surplus for the five years ending 30th June, 1926, together with the total amounts to that date:—

WATER SUPPLY, MELBOURNE.—FINANCES, 1922 TO 1926.

Year ended 30th June—	Capital Cost.	Revenue.	Working Expenses.	Percentage of Working Expenses on Revenue.	Interest.	Surplus.
	£	£	£	%	£	£
1922 ..	310,578	438,399	a 86,925	19.82	b 196,746	154,723
1923 ..	285,352	507,475	a 85,407	16.83	b 217,723	204,345
1924 ..	314,521	524,165	a 86,853	16.57	b 247,883	189,429
1925 ..	513,523	579,502	a 97,992	16.91	b 294,845	186,665
1926 ..	680,889	664,926	a 105,597	15.88	b 326,476	232,853
Total to date ..	7,185,205	13,016,224	2,227,384	17.11	5,733,453	5,055,387

(a) Exclusive of Renewals.

(b) Includes Interest on Renewals and Sinking Funds.

C. Melbourne Sewerage. (a) Progress of Work. At the Pumping Station at Spotswood, the work in connexion with the duplication of the straining wells was commenced.

The Pumping Station has been completely converted to electric drive three-phase current, 440 volts 25 cycles and 415 volts 50 cycles being used. All the normal daily sewage is pumped by the electric pumps, whilst certain of the reciprocating steam pumps are held in readiness to deal with storm-water and emergencies. The total volume of sewage pumped during the year 1926 was 12,949,420,000 gallons, or 35,477,863 gallons per day.

A decrease in pumping of 499,660,000 gallons of sewage as compared with the year 1924-25 made the electrical overhead charge disproportionately high. However, despite this, the unit cost of raising 1,000 gallons 100 feet was reduced from .535d. to .511d. The station has now reached a stage at which any additional quantity of sewage and storm-water, if spread out fairly evenly over the year, can be handled very cheaply.

Venturi meters have been fitted to all the electric pumps, and the quantity of sewerage dealt with can now be ascertained accurately. In the past it was only possible to estimate this.

At the present time—in the northern and southern buildings at the Pumping Station, Spotswood—the two sewerage systems can still be handled wholly by electric energy or partly by steam, either separately or unitedly. The normal procedure, however, is to deal with everything by means of the electrical pumps in the southern building. The nominal capacity of the five electrical centrifugal pumping unit amounts to 78 million gallons of sewage daily. In addition, the seven reciprocal steam-driven pumps of 300 horse-power have a combined daily capacity of 56 million gallons, making the total available capacity equal to 134 million gallons of sewage per day. The usual practice is to deal with the normal daily load of about 36 million gallons of sewage with two 50-cycle and one 25-cycle electric pumps, the remaining two being left in reserve, while the heavy peak loads which, through storm-water entering the sewers, are sometimes experienced, are handled either by the steam engines or the remaining electric pumps, according to circumstances.

Four branch sewers were completed; 45 reticulation areas and 30 minor reticulation extensions were also completed. Two branch sewers and twelve reticulation areas were also in progress. By day labour, one main sewer was in progress, and one reticulation area was completed, also 246 minor reticulation extensions, 2,425 branches and short pieces of reticulation, and 10 alterations, &c. At 30th June, 1926, there were 16 separate contracts and day labour jobs in progress, ranging in cost from £100 to £12,078.

(b) Number of Houses Connected, etc. Particulars of services for the years 1922 to 1926 are given below :—

SEWERAGE, MELBOURNE.—PARTICULARS OF SERVICES, 1922 TO 1926.

Year ended 30th June—	Number of Houses for which Sewers are Provided. (a)	Estimated Population for which Sewers are Provided. (a)	Average Daily Pumping.	Total Sewage Pumped for the Year.	Average Daily Pumping.		Length of Sewers, etc.
					Per House.	Per Head of Estimated Population.	
	No.	No.	1,000 Gallons.	1,000 Gallons.	Gallons.	Gallons.	Miles.
1922 ..	164,413	728,350	39,236	14,320,960	238.6	53.9	1,774
1923 ..	171,125	758,084	36,335	13,262,326	212.3	47.9	1,812
1924 ..	179,183	793,781	35,750	13,084,370	199.5	45.0	1,861
1925 ..	187,153	829,085	36,847	13,449,080	196.9	44.4	1,925
1926 ..	195,618	866,588	35,478	12,949,420	181.4	40.9	2,001

(a) 31st December of previous year.

(c) *Finances.* The capital cost, revenue, working expenses (exclusive of renewals), percentage of working expenses on revenue, interest and deficiency for the years 1922 to 1926 are given below :—

SEWERAGE, MELBOURNE.—FINANCES, 1922 TO 1926.

Year ended 30th June—	Capital Cost.	Revenue.	Working Expenses.	Percentage of Working Expenses on Revenue.	Interest.	Deficiency.
	£	£	£	%	£	£
1922	242,220	441,516	a 121,045	27.41	b 422,295	101,824
1923	263,050	552,643	a 116,804	21.14	b 438,577	2,738
1924	337,740	480,748	a 119,571	24.87	b 451,168	89,991
1925	441,275	537,657	a 129,050	24.00	b 485,027	76,420
1926	665,133	600,445	a 133,988	22.31	b 520,508	54,061
Total to date	10,029,988	8,531,844	1,998,989	23.43	8,909,558	2,376,703

(a) Exclusive of Renewals. (b) Includes interest on Renewals and Sinking Funds.

(d) *Metropolitan Sewerage Farm.* On 30th June, 1926, the total area of the farm was 21,312 acres. The following table gives details in connexion therewith for the years 1922 to 1926 :—

METROPOLITAN SEWAGE FARM.—FINANCES, 1922 TO 1926.

Year ended 30th June—	Capital Cost.	Revenue.	Working Expenses.	Interest.	Net Cost of Sewage Purification.	Trading Profit.
	£	£	£	£	£	£
1922	12,472	2,993	a 23,588	28,711	49,306	(b) 4,837
1923	28,654	20,282	a 26,441	29,744	35,903	11,285
1924	36,081	28,903	a 26,786	31,995	29,878	19,968
1925	19,136	30,298	a 26,413	34,471	30,586	21,688
1926	220,847	42,391	a 25,703	41,578	24,890	33,945
Total to date ..	916,574	600,697	342,076	640,926	348,391	348,873

(a) Exclusive of Renewals. (b) Loss.

(ii) *Geelong Waterworks and Sewerage Trust.* (a) *General.* The Geelong Waterworks and Sewerage Trust, constituted in 1908, consists of five commissioners, two of whom represent the city of Geelong, one the town of Geelong West, one the town of Newtown and Chilwell, and one the shires of Bellarine, Corio and South Barwon jointly. The amount of loan money which may be raised is limited to £725,000 for water supply undertaking, £710,000 for sewerage undertaking, and £220,000 for sewerage installation to properties under the deferred payment system. The population supplied is about 41,000.

(b) *Water Supply.* The catchment area is about 16,000 acres. The works comprise the Korweinguboora Reservoir and the Bolwarra Weir on Eastern Moorabool River, together with the necessary channels, mains and reservoirs. The storage capacity of all the reservoirs is 2,738,119,808 gallons, and there are 219 miles of reticulation mains within the city of Geelong and its suburbs. The total expenditure on waterworks to the 30th June, 1926, was £552,159, and the revenue for the year 1925-26 was £48,082.

(c) *Sewerage Works.* The sewerage scheme consists of a main outfall sewer to the ocean at Black Rock, about 9 miles from Geelong, and 110.4 miles of reticulation mains have already been laid. The drainage area is 9,489 acres, and the number of buildings within the drainage area is 10,000, and within the sewered areas 9,557, while 8,657 buildings have been connected with the sewers. Up to 30th June, 1926, the total expenditure on sewerage works was £520,074 and on the cost of sewerage installations under deferred payment conditions £197,495. The revenue amounted to £41,060.

(iii) *Bendigo Sewerage Authority.* The members of the Bendigo City Council constitute this Authority. The sewerage district comprises the whole area of the city of Bendigo. The works when completed are estimated to cost £400,000, and comprise treatment works consisting of (a) non-septic liquefying tanks and oxidizing chambers without filters, but with land disposal of effluent for irrigating grass and crops; (b) main outfall sewer, main, sub-main, branch, and reticulation sewers, of which over 37 miles had been constructed by the end of March, 1927, at which date 2,450 premises had been connected to sewers. An unique feature of the scheme is the entire omission of the "boundary trap" from house sewers with resulting omission of "induct vent" to house sewers and the omission of all ventilation on street sewers, the main and reticulation sewers all being amply ventilated by the house sewer ventilation, while the consequent all round saving both of first cost and maintenance is considerable. Results are still completely satisfactory after four years in operation without boundary traps. Expenditure to end of March, 1927, was £244,044.

(iv) *Water Supply in Country Towns and Districts.* Most of the country waterworks are controlled by the State Rivers and Water Supply Commission, but a number of other waterworks is controlled by Waterworks Trusts or by municipal corporations.

The following table gives particulars regarding waterworks under the control of trusts and municipal corporations for the years 1922 to 1926 :—

COUNTRY WATERWORKS, VICTORIA.—FINANCES, 1922 TO 1926.

Year.	Under Waterworks Trusts.				Under Municipal Corporations.			
	Number of Trusts.	Capital Cost.	Capital Indebtedness.	Current Interest Outstanding.	Number of Corporations.	Capital Cost.	Capital Indebtedness.	Current Interest Outstanding.
	No.	£	£	£	No.	£	£	£
1922 ..	98	1,256,973	936,112	11,342	29	785,602	509,358	1,590
1923 ..	98	1,278,847	949,510	15,178	29	785,602	506,475	3,152
1924 ..	99	1,322,315	983,663	13,712	29	785,602	503,890	9,811
1925 ..	102	1,383,538	1,036,516	14,545	29	785,788	500,595	3,329
1926 ..	105	1,457,155	1,098,512	17,787	29	786,388	498,195	3,656

3. Queensland. (i) *The Metropolitan Water Supply and Sewerage Board, Brisbane.*

(a) *General.* The whole of the water supply in the metropolitan area including bulk supply to the town of Ipswich is filtered. The principal filtration works are situated at Holt's Hill, Mount Crosby, and consist of 11 slow sand type of filters capable of treating normally 16,500,000 gallons of water per 24 hours; Enoggera water is also filtered. The total capacity of the service reservoirs on Bartley's Hill, Highgate Hill, Wickham Terrace, and Tarragindi Hill, is about 21,000,000 gallons. The new 42-in. and 36-in. trunk mains from Mount Crosby have been in constant commission since the date of completion in 1925. The first and second units of the three new engines now being installed at Mount Crosby are now in daily use. The third unit was put under steam in December, 1926. A new weir and overbridge across the Brisbane River at Mount Crosby, was completed early in 1926, adding 530 million gallons to storage of water. An electrical pumping station for regulating the supply of water from Lake Manchester was commenced in 1925, and is now nearing completion. Works for combining the waters of Gold Creek and Enoggera Reservoirs are contemplated and a commencement is to be made early in 1927. The object is to increase the supply into certain districts by making use of Gold Creek Reservoir. Work is also in progress in laying a portion of the 24-in. trunk main to a proposed reservoir on Eildon Hill and other distributing mains therefrom. A reinforced concrete elevated

water tower to hold 100,000 gallons at Paddington Heights for the improvement of water supply to higher areas was completed in 1926 and put into commission. Preliminary work has also been carried out for the construction of a service-reservoir at Roles Hill, Wynnum, to balance the supply to higher levels generally.

(b) *Brisbane Waterworks. Summary.* The following table gives a summary of operations for the last five years:—

WATERWORKS, BRISBANE.—SUMMARY, 1922 TO 1926.

Year.	Length of Reticulation Mains.	Number of Tenements Connected.	Estimated Population Supplied.	Quantity Supplied.	Average Daily Supply.	Average Daily Supply per Head of Estimated Population
	Miles.	No.	No.	1,000 Gallons	Gallons.	Gallon-
1922 ..	576½	46,025	221,080	3,648,833	9,996,805	45.22
1923 ..	620½	48,368a	235,980	4,292,246	11,759,579	46.76
1924 ..	645½	50,152a	246,300	4,378,486	11,963,078	44.68
1925 ..	675	53,119a	258,175	4,703,044	12,885,052	45.80
1926 ..	714	56,887a	275,015	5,392,671	14,774,442	48.88

(a) Metropolitan area.

The total length of the trunk mains is 141 miles.

(c) *Brisbane Sewerage Scheme.* Reticulation work in Brisbane and South Brisbane is being proceeded with and premises within the reticulated areas are being connected to the sewers. Twenty-two and a half miles of main sewers and 79½ miles of reticulation sewers and house connexion branches have been constructed and 7,824 premises have been connected.

(d) *Brisbane Waterworks and Sewerage Works Finances.* The subjoined table gives particulars regarding finance during the years 1922 to 1926:—

WATER AND SEWERAGE WORKS, BRISBANE.—FINANCES, 1922 TO 1926.

Year.	Capital Cost.	Net Revenue.	Working Expenses.	New Works Construction.	Interest and Redemption of Loans, including Sinking Fund.
	£	£	£	£	£
1922 ..	4,360,045	305,450	105,397	481,643	180,372
1923 ..	5,106,768	339,915	119,299	746,723	224,232
1924 ..	5,872,547	402,272	157,370	785,068	284,420
1925 ..	6,364,380	481,571	187,420	491,833	368,295
1926 ..	6,776,465	516,351	198,143	412,085	373,053

(ii) *Country Towns Water Supply.* In addition to the City of Brisbane, there were at the end of the year 1925 thirty-two country towns in Queensland provided with water supply systems constructed by municipalities chiefly from Government loans. A statement in regard to the finances of all water supply, exclusive of Brisbane systems, for the year 1925 is given below:—

COUNTRY WATER SUPPLY SYSTEMS, QUEENSLAND, 1925.

Cost of Construction to 31st December, 1925—£1,661,895.

Receipts.	£	Expenditure.	£
Rates and sales of water ..	180,816	Office and salaries ..	18,014
Government and other loans ..	258,845	Construction ..	239,699
Other ..	23,939	Maintenance ..	66,159
		Interest and redemption ..	51,146
		Other expenses ..	43,348
Total receipts ..	463,600	Total ..	418,366
Assets ..	1,481,365	Liabilities ..	1,092,789

4. **South Australia.**—(i) *General.* The water supply and sewerage systems in this State are constructed and maintained by the Public Works Department.

(ii) *Adelaide Waterworks.* (a) *Summary.* The following table gives particulars for the years 1921–22 to 1925–26, the figures for consumption being recorded by gaugings taken at the reservoirs and including evaporation and absorption. There are 54,576 meters in the Adelaide district.

ADELAIDE WATERWORKS.—SUMMARY, 1921-22 TO 1925-26.

Year ended 30th June—		Number of Assessments	Annual Value.	Area Supplied.	Capacity of Reservoirs.	Length of Mains.	Annual Consumption.
		No.	£	Acres.	Million Gallons.	Miles.	1,000 Gallons.
1922	..	87,279	2,781,473	111,295	7,753	1,010	5,873,000
1923	..	91,903	3,337,345	111,295	7,753	1,034	6,599,000
1924	..	100,002	3,794,755	111,295	7,753	1,076	6,720,000
1925	..	104,301	4,202,080	111,872	7,753	1,108	6,836,000
1926	..	115,237	4,712,962	111,872	7,753	1,146	7,517,000

(a) For previous year ending 31st December.

(b) *Finances.* Particulars for the years 1921–22 to 1925–26 are given below :—

ADELAIDE WATERWORKS.—FINANCES, 1921-22 TO 1925-26.

Year ended 30th June—		Capital Cost.	Revenue.		Expenses.			Percentage of Net Revenue on Capital Cost.
			Rates.	Total.	Engineering Branch.	Revenue Branch.	Total.	
		£	£	£	£	£	£	%
1922	..	2,843,507	134,472	204,996	43,811	9,956	53,767	5.32
1923	..	2,924,702	167,465	232,478	47,532	9,737	57,269	5.99
1924	..	3,100,856	194,158	268,574	53,673	10,972	64,645	6.58
1925	..	3,166,088	220,151	280,327	59,020	11,193	70,213	6.64
1926	..	3,241,024	240,538	312,728	62,147	12,201	74,348	7.35

(iii) *Adelaide Sewerage.* Particulars for the years 1921–22 to 1925–26 are given hereunder :—

ADELAIDE SEWERAGE.—SUMMARY, 1921-22 TO 1925-26.

Year ended 30th June—		Length of Sewers.	Number of Connections.	Capital Cost of Revenue-Producing Works.	Revenue.		Working Expenses.		Percentage of Net Revenue on Capital Cost.
					Rates, etc.	Total.	Maintenance, etc.	Total.	
		Miles.	No.	£	£	£	£	£	%
1922	..	373	41,240	946,213	79,562	90,525	17,083	29,893	6.41
1923	..	390	42,879	997,604	83,266	98,657	17,356	29,514	6.93
1924	..	406	45,415	1,095,683	87,066	100,707	19,428	29,646	6.49
1925	..	424	47,413	1,166,066	95,464	105,188	19,616	28,826	6.55
1926	..	437	49,380	1,160,394	106,148	114,933	24,924	32,704	7.09

(a) Excluding £69,366 repaid to Treasury on Redemption of Loans.

(iv) *Country Towns Water Supply. (a) Summary.* The chief items of information regarding these undertakings are set forth in the table below for the years 1921-22 to 1925-26.

**COUNTRY TOWNS WATERWORKS, SOUTH AUSTRALIA.—SUMMARY,
1921-22 TO 1925-26.**

Year ended 30th June—	Number of Assessments.	Area Supplied.	Capacity of Reservoirs.	Length of Mains.	Annual Consumption.
	No.	Acres.	Million Gallons.	Miles.	1,000 Gallons.
1922	57,623	4,850,448	4,978	3,176	823,123a
1923	60,552	4,933,732	6,350	3,257	1,071,094
1924	60,200	11,252,740b	8,679	3,415	984,714
1925	60,684	11,565,800b	8,679	3,600	1,181,706
1926	45,346c	11,721,033b	9,031	3,754	1,374,555

(a) For previous year ending 31st December. (b) Includes the new Todd River Water District on Eyre Peninsula. (c) Assessments have been regrouped.

(b) *Finances.* The next table gives financial information for the years 1921-22 to 1925-26 :—

**COUNTRY TOWNS WATERWORKS, SOUTH AUSTRALIA.—FINANCES,
1921-22 TO 1925-26.**

Year ended 30th June—	Capital Cost.	Revenue.		Working Expenses.			Percentage of Net Revenue on Capital Cost.
		Rates.	Total.	Engineering Branch.	Revenue Branch.	Total.	
	£	£	£	£	£	£	%
1922 ..	4,368,091	66,527	96,373	50,475	7,821	58,296	0.87
1923 ..	4,562,092	78,649	105,865	56,039	8,034	64,073	0.90
1924 ..	5,200,184	84,241	120,599	66,007	8,303	74,310	0.89
1925 ..	6,754,682	93,124	126,032	58,840	8,077	66,917	0.87
1926 ..	7,189,448	98,573	140,318	62,442	7,040	69,482	0.98

(v) *Other Sewerage Systems.* Information in summarized form is given below regarding the two suburban sewerage systems, viz., the Glenelg system and the Port Adelaide and Semaphore system, for the years 1921-22 to 1925-26 :—

**SUBURBAN SEWERAGE SYSTEMS, SOUTH AUSTRALIA.—SUMMARY,
1921-22 TO 1925-26.**

Year ended 30th June—	Length of Sewers.	Number of Con-nexions.	Capital Cost.	Revenue.		Working Expenses.		Percentage of Net Revenue on Capital Cost.
				Rates.	Total.	Main-tenance.	Total.	
	Miles.	No.	£	£	£	£	£	%
1922 ..	63	5,868	400,198	12,145	13,520	10,347	10,978	0.64
1923 ..	67	6,576	423,620	13,055	14,449	12,693	13,307	0.27
1924 ..	72	7,208	451,709	17,538	18,855	14,595	15,165	0.81
1925 ..	78	7,756	475,340	19,552	20,884	9,118	9,755	2.34
1926 ..	84	8,390	509,483	21,240	22,422	10,745	11,405	2.16

5. **Western Australia.**—(i) *General.* The water supply and sewerage systems of Western Australia are all under the management of Government Departments, and are divided into the following categories :—(a) Metropolitan Water Supply, Sewerage and Drainage, covering Perth, Fremantle, Claremont, Guildford, Midland Junction, and Armadale District, (b) Goldfields Water Supply, (c) Water Supply of other towns, (d) Agricultural Water Supply, (e) other Mines Water Supply, and (f) artesian and sub-artesian waters. The consumption of water by the railways is not included in figures for water supplied given hereunder.

(ii) *Metropolitan Water Supply, Sewerage and Drainage.* (a) *General.* The sources of the metropolitan water supply are the Victoria Reservoir, Bickley Brook, Mundaring Reservoir, thirteen bores and the Armadale, Churchman Brook, Canning River, and Wungong pipe head dams. The sewerage system consists of septic tanks and percolating filters for Perth, and septic tanks and ocean outfall for Fremantle. At the 30th June, 1926, the number of houses connected with sewers was 16,143.

(b) *Summary.* The following table gives particulars regarding water supply for the years 1922 to 1926 :—

WATER SUPPLY, WESTERN AUSTRALIA.—SUMMARY, 1922 TO 1926.

Year ending 30th June—	Estimated Population Supplied.	Number of Houses Supplied.	Water Supplied.	Average Daily Supply.		Number of Meters.	Length of Mains.
				Per Head.	Per House.		
	No.	No.	1,000 Gallons.	Gallons.	Gallons.	No.	Miles.
1922	168,540	36,641	2,600,697	42.28	194.46	21,511	659
1923	171,560	38,002	2,714,791	43.35	195.72	21,782	677
1924	174,580	39,386	3,089,825	48.36	214.93	22,114	700
1925	178,600	40,741	2,909,095	44.62	195.63	23,416	713
1926	184,000	42,302	3,131,144	46.63	202.79	24,750	760

(c) *Finances.* The table hereunder gives separate information for the water supply and sewerage and drainage branches for the years 1922 to 1926 :—

WATER SUPPLY AND SEWERAGE AND DRAINAGE, WESTERN AUSTRALIA.—FINANCES, 1922 TO 1926.

Year ended 30th June—	Water Supply.			Sewerage and Drainage.		
	Capital Cost.	Revenue.	Expendi- ture.	Capital Cost.	Revenue.	Expendi- ture.
	£	£	£	£	£	£
1922	1,309,262	122,669	129,412	968,540	70,086	72,153
1923	1,410,442	126,028	134,316	1,015,930	74,771	74,777
1924	1,722,594	135,250	152,824	1,055,612	83,388	76,532
1925	2,162,771	140,811	169,011	1,150,261	91,073	78,830
1926	2,553,179	149,176	188,235	1,243,217	96,600	80,165

(iii) *Goldfields Water Supply.* The source of supply for the Coolgardie and adjacent goldfields, as well as for places on or near the pipe-line, is the Mundaring Reservoir, which has a capacity of 4,650 million gallons. There are three classes of consumers—the railways, the mines, and “other,” and in 1925–26 the railways consumed 8 per cent., the mines

22 per cent., and "other" 70 per cent. of the supply. The following table gives details for the years 1922 to 1926 :—

GOLDFIELDS WATER SUPPLY, WESTERN AUSTRALIA.—SUMMARY, 1922 TO 1926.

Year ended 30th June—		Total Con- sumption.	Number of Services.	Length of Water Mains.	Capital Cost.	Revenue.	Expendi- ture.
		1,000 gallons.	No.	Miles.	£	£	£
1922	..	1,153,320	10,789	1,224	3,432,234	180,127	297,027
1923	..	1,169,000	10,899	1,234	3,445,059	178,495	217,680
1924	..	1,159,000	10,628	1,303	3,487,887	167,597	212,713
1925	..	1,139,000	10,706	1,371	3,544,274	178,495	215,517
1926	..	1,161,000	10,676	1,454	3,642,059	179,402	218,956

(iv) *Water Supply of Other Towns.* During the year 1925–26 there were 23 towns provided with water supplies, of which 16 are controlled by Water Boards and 7 by the Public Works Department. The total supplies to the latter towns for the year ending 30th June, 1926, were as follows :—Domestic, 77,996,000 gallons, and Railways, 30,034,000 gallons. The estimated population was 14,000, and the average daily domestic consumption was 15 gallons per head.

(v) *Agricultural Water Supply.* During the year 1925–26, 16 tanks were excavated, and five wells sunk, of which four yielded fresh water. During the sixteen years from the 1st July, 1910, to the 30th June, 1926, 402 tanks were built, 317 wells sunk, and 2,694 bores put down to a total depth of 132,773 feet. Of the bores mentioned, 459 yielded fresh, and 245 stock-water.

(vi) *Artesian and Sub-artesian Waters.* Up to the 30th June, 1926, the total number of bores put down in search of artesian or sub-artesian water was 230, including 49 sunk in the metropolitan area, ranging in depth from 32 to 4,006 feet.

6. *Tasmania.*—(i) *Hobart Water Supply.* The cost of this undertaking to the 30th June, 1926, was £416,599, but a considerable amount of reticulation work has been done out of revenue and not charged to capital account. The outstanding loans at 30th June, 1926, amounted to £368,053. At the same date the number of tenements supplied in the city and suburbs was 10,195 and the length of reticulation mains 114½ miles. The revenue and expenditure for the years 1922 to 1926 were as follows :—

HOBART WATERWORKS.—REVENUE AND EXPENDITURE, 1922 TO 1926.

Heading.		1922.	1923.	1924.	1925.	1926.
		£	£	£	£	£
Revenue	..	36,798	35,494	34,965	34,935	39,527
Expenditure	..	33,697	35,494	34,965	34,935	39,527

(ii) *Hobart Sewerage System.* The revenue for the year ended 30th June, 1926, was £36,773. Up to that date 80 miles of sewers had been laid in connexion with the original city system at a cost of £210,897, and 8,024 tenements connected. Since the original

city was sewered, the Municipalities of Queenborough and New Town have been included in the city, and are now being sewered. In Queenborough 24½ miles of sewers, connecting with 1,276 tenements, have been constructed at a cost of £117,893. In New Town a total of 29 miles of sewers has been laid, and 957 properties connected. The cost to 30th June, 1926, including surveys and sewerage outfall, was £105,039.

§ 6. Harbour Boards and Trusts.

1. *New South Wales.*—(i) *Sydney Harbour Trust.* (a) *General.* The Sydney Harbour Trust, which consists of three Commissioners appointed by the Government, controls the whole of the wharves resumed by the Government in 1901. The Commissioners also provide and maintain the lighting and marking of the harbour, and carry out all necessary dredging. The whole of what might be termed city wharves is owned by the Commissioners and leased to various shipping companies, but the Trust directly operates and maintains a certain number of open wharves. Outside the city area the wharves are, to a large extent, privately controlled, but all structures beyond high-water mark are held under leases issued by the Trust. The extent of wharfage accommodation now available for use totals 63,000 lineal feet, inclusive of 7,800 lineal feet privately owned.

The depth of water at the entrance to the port is not less than 80 feet and in the channels there are 40 feet of low-water at spring tides. The foreshores of Sydney Harbour are about 200 miles in length. The area of the water in the port is 14,284 acres, of which 3,000 acres have a depth ranging from 35 to 160 feet.

Since its inception, the Trust has spent £6,885,742 on the reconstruction and extension of the wharfage and improvements to the port. Over 12,000 lineal feet of old and obsolete wharfage have been demolished, and 39,000 lineal feet of new berths have been constructed. Other improvements include 2,521,188 square feet of floor area of new sheds and nearly 4 miles of new roadways.

During the year 1926, 1,669,540 tons of material were dredged at a cost of £75,468. In the process of towing such material, 40,403 miles were run at a cost of £29,882.

(b) *Finances.* The subjoined table gives particulars concerning the finances of the Trust for the years 1922 to 1926 :—

SYDNEY HARBOUR TRUST.—FINANCES, 1922 TO 1926.

Year ended 30th June.	Revenue.				Expenditure.	Total Capital Debt.	Interest.	Balance.
	Wharfage and Harbour Rates.	Tonnage Rates and Berthing Charges.	Other Sources.	Total.				
	£	£	£	£	£	£	£	£
1922 ..	451,981	44,465	330,676	827,122	261,120	9,868,165	488,552	77,450
1923 ..	517,740	39,570	294,931	852,241	253,614	10,129,113	514,756	83,871
1924 ..	553,295	44,879	299,183	897,357	276,883	10,417,859	528,743	91,731
1925 ..	587,157	58,735	324,510	970,402	283,040	10,644,468	526,944	160,418
1926 ..	618,075	53,143	344,660	1,015,878	298,101	10,956,555	554,446	163,330

2. *Victoria.*—(i) *Melbourne Harbour Trust.* (a) *General.* Information regarding the origin and constitution of this Trust will be found in Official Year Book No. 12, pp. 970 *et seq.* In 1926, the length of sheds in the port was 19,168 feet, covering an area of 1,108,824 square feet. The quantity of material raised by the dredging and excavation done in the improvement of the river and bay amounts to 83,584,170 cubic yards. The Trust has expended £339,292 in reclaiming land within its jurisdiction.

(b) *Finances.* The following table gives particulars of the revenue and expenditure of the Trust from 1922 to 1926 inclusive. Up to 31st December, 1926, the total capital expenditure amounted to £6,578,283.

MELBOURNE HARBOUR TRUST.—FINANCES, 1922 TO 1926.

Particulars.	1922.	1923.	1924.	1925.	1926.
REVENUE.					
	£	£	£	£	£
Rates, rents, etc.	589,583	681,958	711,558	712,733	739,460
Interest	80	328	669	285	79
Other receipts	12,807	9,850	17,095	23,213	20,394
Total	602,470	692,136	729,322	736,231	759,933

EXPENDITURE.					
	£	£	£	£	£
Management and general expenses	61,763	60,997	74,086	85,655	98,717
Interest	144,883	124,109	131,674	151,891	159,353
Total	206,646	185,106	205,760	237,546	258,070
Less standing charges added to works	34,628	37,272	43,749	48,128	49,309
Total	172,018	147,834	162,011	189,418	208,761
Wharfage and other refunds	3,866	5,728	4,879	3,761	3,683
Consolidated revenue of Victoria	114,986	135,520	140,382	136,494	143,002
Flotation of loans expenses	35	750	5	10	15
Maintenance	126,051	85,458	130,234	166,610	142,917
Total expenditure	416,956	375,290	437,511	496,293	498,378
Surplus on revenue account	185,514	316,846	291,811	239,938	261,555
Less depreciation and renewals account and sinking fund	100,000	213,000	213,000	213,000	213,000
Net surplus on revenue account	85,514	103,846	78,811	26,938	48,555

CAPITAL EXPENDITURE.

Land and property	11,906	32,892	548	37,699	30,962
Deepening waterways	98,331	150,885	137,488	145,808	169,053
Wharves construction	45,613	67,360	194,318	285,072	129,382
Approaches construction	9,084	7,519	25,483	46,130	15,412
Other harbour improvements	25,311	8,719	23,826	18,631	40,416
Floating plant	1,708	632	3,192	97,354	9,221
General plant	925	2,025	3,440	2,718	4,891
Total	192,878	270,032	388,295	633,412	399,337

(ii) *Geelong Harbour Trust.* (a) *General.* The Geelong Harbour Trust was constituted in 1905, and is under the control of three Commissioners appointed by the Governor in Council. The Commissioners have vested in them the Port of Geelong, which includes that portion of Port Phillip east of a line from the right bank of Little River at its mouth south-easterly to a point in line with the east side of Mercer-street, Portarlington. This area comprises Corio Bay, Portarlington, and some miles of Bay frontage. In addition, certain lands abutting upon the River Barwon and Barwon River Heads are vested in the Commissioners and form part of the Port. The Commissioners have

established facilities for the export of grain, frozen meat, and other produce, and have also constructed extensive abattoirs and freezing works. A large amount of money has been expended in the reclamation of waste lands, and on part of such lands a dairy farm with a complete system of drainage and irrigation has been established.

(b) *Finances.* The following table gives financial details for the years 1922 to 1926 :—

GEELONG HARBOUR TRUST.—FINANCES, 1922 TO 1926.

Year.	Loans.	Sinking Fund.	Revenue.	Expenditure.
	£	£	£	£
1922	591,000	29,379	54,234	52,066
1923	591,000	33,045	58,680	56,065
1924	591,000	36,912	61,356	52,315
1925	591,000	41,167	70,730	57,027
1926	591,000	45,746	67,073	66,230

3. *Queensland.*—(i) *Bowen Harbour Board.* (a) *General.* The Bowen Harbour Board consists of seven members, of whom two are appointed by the Governor in Council and the remainder elected by the electors of the Town of Bowen and adjacent shires. The district under its jurisdiction comprises the area within the boundaries of the Town of Bowen, the Shires of Proserpine and Wangaratta, and division I. of the Shire of Ayr.

(b) *Finances.* The capital expenditure to the 31st December, 1926, was £81,520, while for the year 1926 the receipts were £13,453 and the expenditure £15,583.

(ii) *Bundaberg Harbour Board.* (a) *General.* The Bundaberg Harbour Board consists of nine members, of whom one is appointed by the Governor in Council, four elected by the City of Bundaberg, and two each by the Shires of Gooburru and Woongarra, these three municipalities comprising the Harbour Board District. The jurisdiction of the Board extends over the Port of Bundaberg and certain lands fronting the River Burnett.

(b) *Finances.* The revenue for the year 1926 amounted to £5,671 as against £7,335 for the previous year, and ordinary expenditure to £5,543 as compared with £7,365 for 1925. An expenditure of £5,985 has been incurred for the erection of a sugar shed, which will be available for use in 1927.

(iii) *Cairns Harbour Board.* (a) *General.* The Cairns Harbour Board consists of twelve members, representing the town of Cairns and eight adjoining shires. The wharves at Cairns, which are all under the control of this Board, are of reinforced ferro-concrete and are 1,500 feet in length, while an additional 400 feet are under construction. Mechanical sugar-handling conveyors have been installed at a cost of over £38,465. The wharves are electrically lighted and furnished with railways and electric crane service. There is a special railway wharf with facilities for handling floater logs. A cold storage plant has been built at a cost of £9,000.

(b) *Finances.* During the year 1926 the gross revenue of the Board was £70,017, derived from harbour, berthage and miscellaneous dues.

(iv) *Gladstone Harbour Board.* (a) *General.* The Gladstone Harbour Board is composed of seven members, two of whom are appointed by the Governor in Council and five elected by the electors of the town of Gladstone and the shires of Calliope and Miriam Vale. The works under the control of the Board are (i) Auckland Point Jetty and Wharf, constructed of reinforced concrete and wood, together within a two-way traffic approach and jetty for the handling of local cargo, the berth being 775 feet long, with an average depth alongside of 26 feet; (ii) the municipal wharf in Auckland-street; (iii) wool dumping plant on Auckland Point jetty, consisting of two hydraulic dumps, capable of doing either single or double dumping; (iv) three large cargo sheds, each 140 feet by 30 feet; (v) 15-ton electric crane for coal and timber.

(b) *Finances.* The total capital expenditure to the end of 1926 amounted to £91,420. The revenue for 1926 was £5,485, and the expenditure £4,778.

(v) *Mackay Harbour Board.* (a) *General.* The Mackay Harbour Board consists of nine members elected by the electors of the City of Mackay and four adjacent shires. The director wall in the Pioneer River is completed; other improvements are under consideration.

(b) *Finances.* Capital expenditure for the year 1926 was £2,908; receipts amounted to £14,128, and expenditure to £20,431.

(vi) *Rockhampton Harbour Board.* (a) *General.* The Rockhampton Harbour Board consists of eleven members, of whom seven are elected by the electors on the rolls for the city of Rockhampton, the town of Mount Morgan and the shires of Fitzroy and Livingstone. The remaining four are elected by the councillors of groups of inland shires.

In the port of Rockhampton, which comprises the tidal area of the Fitzroy River as far as the entrance to Keppel Bay, there are three principal places where steamers may lie and discharge cargo, viz., (i) Rockhampton itself, (ii) Port Alma, where the oversea steamers berth, and (iii) Broadmount, originally built for the oversea trade some years ago. The wharves at these three places are connected by rail with Rockhampton and with the main central line. The Board undertakes the work of improving the navigable channels throughout the estuary and river, and of maintaining the wharves at Port Alma and Rockhampton.

(b) *Finances.* The revenue for the year 1926 was £88,507, of which £50,689 represented loans; and the expenditure was £92,776, which included £18,142 interest on loans and overdraft.

(vii) *Townsville Harbour Board.* (a) *General.* The Townsville Harbour Board is composed of nine members, of whom two are appointed by the Governor in Council, and the remaining seven are elected by the electors of Townsville and adjacent towns and shires. All harbour works and conveniences for the use of shipping are under the control of the Board.

(b) *Finances.* The total expenditure since the inception of the Board is £1,703,276, while the receipts for the year 1926 were £61,645 and the expenditure £69,703.

(viii) *Harbour Boards—Financial Summary.* The following table shows the total revenue and expenditure of Queensland Harbour Boards and the outstanding loans for the years 1921 to 1925:—

HARBOUR BOARDS, QUEENSLAND.—FINANCIAL SUMMARY, 1921 TO 1925.

Year.	Number of Boards.	Revenue.			Expenditure.			Outstanding Loans.
		Wharfage and Harbour Dues.	Government Loans.	Total.	Works and Maintenance.	Interest and Redemption of Loans.	Total.	
		£	£	£	£	£	£	£
1921	7	117,417	46,219	183,949	101,563	65,452	199,341	979,341
1922	7	132,234	78,506	234,827	171,853	58,492	230,345	1,077,833
1923	7	142,848	120,281	320,105	233,894	56,156	290,050	1,209,022
1924	7	161,331	131,887	320,551	246,024	60,487	306,511	1,315,225
1925	7	174,196	116,304	318,891	248,976	66,727	315,703	1,433,108

4. *South Australia.*—In this State harbours are controlled by the Government through the Harbours Board.

5. *Western Australia.*—(i) *Fremantle Harbour Trust.* (a) *General.* Fremantle Harbour is controlled by a Board of five Commissioners appointed by the Governor in Council. A description of the works was given in a previous Year Book (see No. 12, p. 973). Since that account was written, the inner harbour and entrance channel have been dredged to a depth of 36 feet below the lowest known low water. The berthage accommodation at all the quays has also been deepened to 36 feet.

(b) *Finances.* The following table gives financial data for the years 1922 to 1926 :—

FREMANTLE HARBOUR TRUST.—FINANCES, 1922 TO 1926.

Year ended 30th June—	Revenue.	Expenditure.	Gross Amount Paid to the Treasury.				
			Interest.	Sinking Fund.	Renewals Fund.	Surplus Revenue.	Total.
	£	£	£	£	£	£	£
1922	282,038	126,597	80,218	20,277	2,000	56,491	158,986
1923	282,015	120,086	83,386	20,764	2,000	47,272	153,422
1924	357,450	146,177	85,703	21,185	2,000	96,612	205,500
1925	421,255	171,391	87,783	21,564	2,000	130,776	242,123
1926	443,395	185,137	90,013	21,879	2,000	113,290	227,182

(ii) *Bunbury Harbour Board.* (a) *General.* The Bunbury Harbour Board consists of five members appointed by the Government. The jetty is 4,900 feet long, with berthage accommodation of 2,700 feet on the west side and 3,000 feet on the east side, and is electrically lighted. Vessels can load alongside to depths ranging from 16 to 27½ feet. Five electric and one steam gantry cranes, each of 3 tons lifting capacity, are available.

(b) *Finances.* Details for the last five years are given hereunder. Surplus revenue is paid into the Consolidated Revenue Fund to meet interest and sinking fund :—

BUNBURY HARBOUR BOARD.—FINANCES, 1922 TO 1926.

Year ended 30th June—	Capital Expenditure.	Revenue.	Expenditure.	Paid to Consolidated Revenue Fund.
	£	£	£	£
1922	440,965	26,175	9,818	16,357
1923	448,377	25,746	8,749	16,997
1924	450,000	33,836	10,707	23,129
1925	450,000	37,625	17,001	22,000
1926	450,000	36,229	27,364	20,100

6. *Tasmania.*—(i) *Marine Board of Hobart.* (a) *General.* The Marine Board of Hobart consists of nine wardens elected by the ship-owners of the Port of Hobart and the importers and exporters of goods into or from any port within the jurisdiction of the Board. The Board has jurisdiction over all ports, harbours and waters within the limits of the coast line from South-West Cape round the southern and eastern coasts to Cape Portland, and within all islands adjacent to such coast line. The duties of the Board are to maintain all wharves within its jurisdiction which are not vested in another authority or belonging to any private person, to construct new wharves where necessary, and to improve the navigation where desirable.

(b) *Finances.* The following table gives details for the years 1922 to 1926 :—

MARINE BOARD OF HOBART.—FINANCES, 1922 TO 30th JUNE, 1926.

Year ended 30th June—	Revenue.			Expenditure.				
	Capital Debt.	Harbour Improvements, Debentures, etc.	General.	Total.	Harbour Improvements.	Interest and Sinking Fund.	General.	Total.
	£	£	£	£	£	£	£	£
1922 (6 months) ..	92,350	..	16,133	16,133	3	3,265	11,975	15,243
1923	90,350	..	32,620	32,620	373	6,511	25,670	32,554
1924	86,806	2,456	37,465	39,921	15,787	6,180	20,304	42,271
1925	86,302	300	38,764	39,064	4,192	6,220	25,644	36,056
1926	78,526	..	33,223	39,223	625	6,208	27,211	41,150

(a) Including £7,106 from revenue in reduction of loans.

(ii) *Marine Board of Launceston.* (a) *General.* The Marine Board of Launceston consists of three wardens elected by the ratepayers of the city of Launceston. The jurisdiction of the Board extends from Cape Portland along the north coast of Tasmania to Badger Head. The chief work carried out has been to deepen the channel of the River Tamar to 16 feet and to maintain the wharves. An important work completed in 1923 was the removal to a depth of 30 feet of Porpoise Rock, situated 4 miles from the entrance of the port. A deepwater port is being provided at Bell Bay. The wharfage accommodation at Launceston exceeds 2,000 feet.

(b) *Finances.* The following table gives details for the years 1922 to 1926 :—

MARINE BOARD OF LAUNCESTON.—FINANCES, 1922 TO 1926.

Year.	Total Capital Debt.	Capital Debt, Tamar Improvement.	Revenue.	Expenditure.
	£	£	£	£
1922	318,361	271,322	47,638	40,021
1923	318,361	282,710	49,928	47,588
1924	330,713	283,475	53,672	46,044
1925	329,733	302,494	48,345	47,304
1926	348,851	321,612	57,320	53,397

(iii) *Marine Board of Burnie.* The length of the breakwater is 1,250 feet, with a depth up to 42 feet at low water, and a wharf alongside, 630 feet in length by 91 feet wide, with a depth at low water from 24 to 40 feet. There are two other timber wharves, 600 feet and 400 feet long respectively. The receipts for the year ending 30th June, 1926, were £18,038, and the expenditure £18,487, including £10,650 interest on loans.

(iv) *Other Boards and Trusts.* In addition to the three Marine Boards mentioned above, there are four Marine Boards and three Harbour Trusts, which have control of the smaller ports and harbours.

(v) *Financial Summary.* The total receipts and expenditure of the ten marine Boards and Harbour Trusts for the years 1921 to 1925-26 are shown in the following table :—

MARINE BOARDS AND HARBOUR TRUSTS, TASMANIA.—FINANCIAL SUMMARY, 1921 TO 1925-26.

Year ended 30th June.	Receipts.				Expenditure.
	Taxes, Rents, etc.	Government and Loans.	Other.	Total.	
	£	£	£	£	£
1921(a)	109,363	3,867	4,957	118,187	116,358
1923(b)	143,200	19,023	21,743	183,966	172,485
1924	162,801	4,360	72,856	240,017	227,389
1925	130,807	2,284	11,560	144,651	134,508
1926	132,702	..	10,025	142,727	150,094

(a) Calendar year. (b) Figures for 18 months (except in the case of three trusts), the financial year having been changed.

§ 7. Fire Brigades.

1. *New South Wales.*—(i) *General.* Under the Fire Brigades Act of 1909-27, a Board of Fire Commissioners consisting of eight members was formed, and fire districts constituted. The cost of maintenance of fire brigades is borne in proportions of quarter, quarter, and half by the Government, the municipalities, and the insurance companies concerned, but the expenditure must be so regulated that the proportion payable by the councils in a fire district shall not exceed the amount obtainable from $\frac{1}{4}$ d. in the £ rate on the unimproved capital value of the district.

(ii) *Sydney Fire District.* (a) *Plant, etc.* The Sydney fire district includes the City of Sydney and suburbs, comprising a total area of 242 square miles. On the 31st December, 1926, the Board had under its control in this district 74 stations, 410 permanent men, 252 partially-paid firemen, 3 steam and 76 motor fire engines, 163,464 feet of hose, and 620 telephone fire-alarms. The length of wire used for telephone lines was 1,682 miles. There are in operation 116 automatic systems, 240 sprinkler installations, 4 watchman's clock systems, and 231 private fire alarms.

(b) *Finances.* The subjoined table shows the receipts and disbursements of the Board for the past five years in respect of the Sydney Fire District :—

SYDNEY FIRE DISTRICT.—FINANCES, 1922 TO 1926.

Year.	Receipts.						Disbursements.
	From Government.	From Municipalities.	From Fire Insurance Companies.	From Firms.	From other Sources.	Total.	
	£	£	£	£	£	£	£
1922	53,979	53,979	53,425	554	4,745	166,682	163,750
1923	58,153	58,153	57,551	602	5,954	180,413	178,585
1924	60,768	60,768	60,183	584	5,401	187,704	186,159
1925	60,768	60,768	60,093	675	5,154	187,458	196,672
1926	72,676	72,676	71,807	869	6,293	224,321	223,568

2. *Victoria.*—(i) *General.* The Fire Brigades Act of 1915 provides for a Metropolitan Fire Brigades Board, and a Country Fire Brigades Board, each consisting of nine members, with local committees in country districts. The income of each Board is derived in equal proportions from the Treasury, the municipalities, and insurance companies.

(ii) *Metropolitan Fire Brigades Board.* (a) *Plant, etc.* On the 30th June, 1926, the Board had under its control 40 stations, 281 permanent men, 165 partially-paid firemen, 72 special-service firemen, 1 motor drawn steam fire engine, 8 petrol motor fire pumps, 57 other petrol motor appliances, 1 steam fire engine, 102,174 feet of hose, and 445 fire-alarm circuits having 1,350 street fire alarms, 1,331 containing telephones; 1,149 auxiliary boxes and 30 automatic systems in public and other buildings; 113 circuits to sprinkler installations connecting 209 warehouses and factories; 194 telephone lines, 64 of which act as fire alarms; 117 combined fire alarm and watchman's clock systems.

(b) *Finances.* The following table gives particulars for each year from 1921-22 to 1925-26 inclusive :—

**METROPOLITAN FIRE BRIGADES BOARD, VICTORIA.—FINANCES,
1922 TO 1926.**

Particulars.	1922.	1923.	1924.	1925.	1926.
RECEIPTS.					
	£	£	£	£	£
Contributions ..	125,685	122,700	131,739	151,322	157,872
Receipts for services ..	21,857	14,028	16,486	20,138	21,180
Interest and Sundries ..	3,926	6,898	9,811	11,642	16,575
Total	151,468	142,626	158,036	183,102	195,627
EXPENDITURE.					
Salaries ..	87,523	93,033	85,477	100,651	101,215
Interest and sinking fund ..	21,136	10,219	10,821	11,682	12,982
Other expenditure ..	46,198	43,515	59,172	68,890	80,277
Total	154,857	146,767	155,470	181,213	197,474

(iii) *Country Fire Brigades Board.* (a) *Plant, etc.* At 30th June, 1926, there were 115 municipal councils and 93 insurance companies included in the operations of the Act. The brigades are composed chiefly of volunteers, but in the large centres a few permanent station-keepers and partially-paid firemen are employed. Complete fire alarm systems are installed in 27 of the larger provincial cities and townships. There were 143 registered brigades and 2,428 registered firemen at 30th June, 1926. The equipment included 14 motor pumps, 26 motor tenders, 4 steam fire engines, and numerous manual engines and hose reels.

(b) *Revenue and Expenditure.* Revenue and expenditure for the years 1922 to 1926 (30th June) are given below :—

**COUNTRY FIRE BRIGADES BOARD, VICTORIA.—REVENUE AND
EXPENDITURE, 1922 TO 1926.**

Particulars.	1922.	1923.	1924 (Six Months to 30th June).	Year ended 30th June, 1925.	Year ended 30th June, 1926.
	£	£	£	£	£
Revenue ..	22,718	22,088	16,907	25,133	30,154
Expenditure ..	23,122	22,813	16,432	23,684	31,113

3. *Queensland.*—(i) *General.* The Act of 1920 made provision for the retention of existing fire districts, and for the constitution of new districts. For each district there must be a Fire Brigades Board consisting of seven members, and the cost of maintenance of each brigade is proportioned as follows :—The Treasurer two-sevenths, insurance companies three-sevenths, and local authorities two-sevenths. All volunteer fire brigades must be registered.

(ii) *Fire Brigades Boards.* (a) *Plant, etc.* At the end of the year 1925 there were fire brigades in 30 towns, with a total strength of 134 permanent men, 302 partly paid, and 90 voluntary. The plant included 35 motor, 4 steam, and 7 manual fire engines, 53 hose

reels, consisting of 21 motor, 7 horse, and 30 hand reels, and 96,331 feet of hose. The total number of call points was 430. The Metropolitan Fire Brigade protects an area of 32 square miles and has a staff of 149 men. There are 82 fire alarm circuits, 271 street fire alarms, 49 automatic thermostats, 44 sprinkler installations, 11 push button alarms, and 6 direct telephone alarms.

(b) *Revenue and Expenditure.* The following table gives details for the years 1921 to 1925 :—

**FIRE BRIGADE BOARDS, QUEENSLAND.—REVENUE AND EXPENDITURE,
1921 TO 1925.**

Year.	Revenue.				Expenditure.			
	From Government.	From Local Authorities.	From Insurance Companies.	Total.	Salaries and Wages.	Buildings, Repairs, etc.	Plant, Stores, etc.	Total.
	£	£	£	£	£	£	£	£
1921 ..	14,637	14,524	22,313	54,685	31,513	3,866	8,856	55,263
1922 ..	14,711	14,996	22,976	53,647	34,340	3,687	8,444	56,071
1923 ..	16,054	15,094	22,455	64,190	35,803	12,336	10,166	64,597
1924 ..	17,140	16,347	24,489	61,212	40,032	3,344	10,081	65,183
1925 ..	18,485	18,597	27,928	73,295	41,280	3,970	11,461	71,330

4. *South Australia.*—(i) *General.* The Fire Brigades Act of 1913 and amendments provides for a Board of five members, and the expenses and maintenance of brigades are defrayed as to two-ninths by the Treasury, five-ninths by insurance companies, and two-ninths by the municipalities concerned.

(ii) *Fire Brigades Board.* (a) *Plant, etc.* At the end of 1926 there were altogether 24 fire brigade stations. The strength of the brigades consists of 106 permanent firemen and 87 auxiliary firemen. The plant consists of 1 steam fire engine, 5 motor engines, 24 motor hose carriages, 55,400 feet of hose, one 90-ft. turntable escape ladder, 2 telescopic currie ladders, 2 fire escapes and petrol-driven fire float. There are 323 fire alarm circuits, 11 automatic systems, and 31 sprinkler installations.

(b) *Revenue and Expenditure.* The following table shows the revenue of the Board for the years 1922 to 1926, the expenditure in each year being the same :—

FIRE BRIGADES BOARD, SOUTH AUSTRALIA.—REVENUE, 1922 TO 1926.

Heading.	1922.	1923.	1924.	1925.	1926.
	£	£	£	£	£
Revenue	37,306	35,071	38,173	47,103	52,276

5. *Western Australia.*—(i) *General.* Under the 1916 Act every municipal or road board district is constituted a fire district under the control of the Western Australian Fire Brigades Board. The income of the Board is derived as to two-eighths from Government, three-eighths from municipalities, and three-eighths from insurance companies.

(ii) *Western Australian Fire Brigades Board.* (a) *Plant, etc.* The whole of the brigades throughout the State are now controlled by the Western Australian Fire Brigades Board, and number 40. The staff at the 30th September, 1926, included a chief officer, deputy chief officer, third officer, district officer, motor engineer, electrical engineer,

9 other officers, 105 permanent, 23 partially-paid, and 492 volunteer firemen. The plant comprised 5 steam, 10 motor and 4 manual engines, 16 motor hose carriages, 37 reels, and 75,200 feet of hose. There are 278 fire alarm circuits, 510 street fire alarms, 3 automatic systems, and 27 sprinkler installations.

(b) *Finances.* The following table gives details for the years 1922 to 1926 :—

WESTERN AUSTRALIAN FIRE BRIGADES BOARD.—FINANCES, 1922 TO 1926.

Year ended 31st December—	Revenue.	Expenditure.	Estimated Value.	
			Land and Buildings.	Plant.
	£	£	£	£
1922	34,833	34,746	46,000	26,000
1923	35,553	35,463	46,000	28,000
1924	38,720	38,621	48,650	28,000
1925	50,341	46,539	60,440	29,590
1926	(a)36,314	(a)37,990	65,700	32,200

(a) Nine months only.

6. *Tasmania.*—(i) *General.* The municipal council of any municipality may, under the Act of 1920, petition the Governor to proclaim the municipality or any portion of it to be a fire district, each district to have a Board of five members. The expenses of each Board are borne in equal proportions by contributions from the Treasurer, the municipality concerned, and insurance companies insuring property within the district.

(ii) *Hobart Fire Brigade Board.* (a) *Plant, etc.* At the end of 1926 the staff consisted of 13 permanent and 15 partially-paid firemen. There were at that date also 2 motor pumps, 1 extension and 1 currie ladder, two motor hose carriages, 3 horse and 4 hand reels, 2 Pompier ladders, and 10,750 feet of hose. There are 24 fire alarm circuits, 60 street alarms, 15 auxiliary boxes, 3 automatic systems, and 3 sprinkler installations.

(b) *Revenue and Expenditure.* The revenue for the years 1925 and 1926 amounted to £6,117 and £6,401 respectively, expenditure being the same.

CHAPTER V.

LAND TENURE AND SETTLEMENT.

§ 1. Introduction.

1. *General*.—A comprehensive description of the land tenure systems of the several States was given in Official Year Book No. 4 (pp. 235 to 333), while later alterations were referred to in subsequent issues. In this chapter a summary is given of the principal features of existing land legislation together with some account of the various tenures under which Crown lands may be taken up at the present time. Special paragraphs are devoted to the settlement of returned soldiers on the land, the tenure of land by aliens, and advances to settlers. Particulars as to the areas of land alienated in each State and similar matter are also included.

2. *State Land Legislation*.—The legislation in force relating to Crown lands, Closer Settlement, Returned Soldiers' Settlement, and other matters dealt with in this chapter is summarized in the following conspectus :—

STATE LAND LEGISLATION.

New South Wales.	Victoria.	Queensland.
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CROWN LANDS ACTS.

Crown Lands Act 1913-1923 : Western Lands Act 1901-1919 : Crown Lands Purchase Validation Act 1923. Crown Lands Amendment (Disposal) Act 1923. Crown Lands and Closer Settlement (Amending) Act 1924.	Land Act 1915-1923.	Land Act 1910-1924. Upper Burnett and Callide Land Settlement Act 1923. Prickly-pear Land Act 1923. Sugar Workers' Perpetual Lease Selections Act 1923.
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CLOSER SETTLEMENT ACTS.

Closer Settlement Act 1904-1919 : Closer Settlement Purchases Validation Act 1923.	Closer Settlement Act 1915-1925.	Closer Settlement Act 1906-1925.
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MINING ACTS.

Mining Act 1906-1924 : Mining Leases (Validation) Act 1924.	Mines Act 1915-1921.	Mining Acts 1898-1925 : Mining for Coal and Mineral Oil Act 1912 : Petroleum Act 1915-1923 : Miners' Homestead Perpetual Leases Act 1913-1921 : Coal Mining Act 1925.
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SOLDIERS' SETTLEMENT ACTS.

Returned Soldiers' Settlement Act 1916-1925.	Discharged Soldiers' Settlement Act 1917-1924.	Discharged Soldiers' Settlement Act 1917-1926.
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ADVANCES TO SETTLERS ACTS.

Government Savings Bank Act 1906-1923 : Returned Soldiers' Settlement Act 1916-1925.	State Savings Bank Act 1915-1922 : Primary Products Advances Act 1919-1922 : Closer Settlement Act 1915-1924 : Fruit Act 1915-1920 : Discharged Soldiers' Settlement Act 1917-1924.	State Advances Act 1916 : Co-operative Agricultural Products and Advances to Farmers Act 1914-1919 : Agricultural Bank Act 1923.
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3. **Northern Territory Land Legislation.**—In the Northern Territory, the legislation relating to Crown lands is embodied in the Crown Lands Ordinance 1924–26, that relating to mining in the Northern Territory Mining Act 1903, the Gold Dredging Act 1899, the Tin Dredging Ordinance 1911–1920, and the Mineral Oil and Coal Ordinance 1922–1923; Encouragement of Mining Ordinance, 1913–1926; and that relating to Advances to Settlers in the Advances to Settlers Act 1923, and the Encouragement of Primary Production Ordinance 1924–26.

4. **Federal Capital Territory Land Legislation.**—In the Federal Capital Territory, the Ordinances relating to Crown lands are the Leases Ordinance 1918–1926, the Recreation Land Leases Ordinance 1923, the City Area Leases Ordinance 1924–26, the Church Lands Leases Ordinance 1924, and the Leases (Special Purposes) Ordinance 1925.

STATE LAND LEGISLATION—*continued.*

South Australia.	Western Australia.	Tasmania.
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CROWN LANDS ACTS.

Crown Lands Act 1915–1919: Pastoral Act 1904–1926.	Land Act 1898–1926.	Crown Lands Act 1911–1924.
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CLOSER SETTLEMENT ACTS.

Crown Lands Act 1915–1926.	Agricultural Lands Purchase Act 1909–1922.	Closer Settlement Act 1913–1924.
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MINING ACTS.

Mining Act 1893–1922: Gold Dredging Act 1905: Mining on Private Property Act 1909– 1916.	Mining Act 1904–1923: Sluicing and Dredging for Gold Act 1899.	Mining Act 1917–1924: Aid to Mining Act 1924.
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RETURNED SOLDIERS' SETTLEMENT ACTS.

Discharged Soldiers' Settlement Act 1917–1925.	Discharged Soldiers' Settlement Act 1918–1919.	Returned Soldiers' Settlement Act 1916–1923.
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ADVANCES TO SETTLERS ACTS.

Irrigation Act 1922–1925: Pas- toral Act 1904–1925: Dis- charged Soldiers' Settlement Act 1917–1925.	Agricultural Bank Act 1906–1924.	State Advances Act 1907–1926: Advances to Fruit-growers Act 1918–1921: Closer Settlement Act 1913–1924: Returned Sol- diers' Settlement Act 1916– 1923.
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5. **Administration and Classification of Crown Lands.**—In each of the States there is a Lands Department under the direction of a responsible Cabinet Minister who is charged generally with the administration of the Acts relating to the alienation, occupation and management of Crown lands. The administrative functions of most of the Lands Departments are to some extent decentralized by the division of the States into what are usually termed Land Districts, in each of which there is a Lands Office, under the management of a lands officer, who deals with applications for selections and other matters generally appertaining to the administration of the Acts within the particular district. In some of the States there is also a local Land Board or a Commissioner for each district or group of districts. In the Northern Territory the North Australia Commission is charged with the general administration of the Lands Ordinance and of Crown lands in the Northern Territory. In the Federal Capital Territory the administration of the Leases Ordinances is in the hands of the Federal Capital Commission.

Crown lands are generally classified according to their situation, the suitability of the soil for particular purposes, and the prevailing climatic and other conditions. The modes of tenure under the Acts, therefore, as well as the amount of purchase money or rent, and the conditions as to improvements and residence, vary considerably. The administration of special Acts relating to Crown lands is in some cases in the hands of a Board under the general supervision of the Minister, e.g., the Western Lands Board in New South Wales, the Lands Purchase and Management Board in Victoria, and the Closer Settlement Board in Tasmania.

In each of the States and in the Northern Territory there is also a Mines Department which is empowered under the several Acts relating to mining to grant leases and licences of Crown Lands for mining and auxiliary purposes.

6. **Classification of Tenures.**—The tabular statement which follows shows the several tenures under which Crown lands may be acquired or occupied in each State. In the Northern Territory perpetual leases of pastoral and agricultural land are granted, as well as miscellaneous leases, and grazing and occupation licences. The mining leases and holdings are, generally speaking, similar to those of the States. In the Federal Capital Territory only city leases and leases of other lands are issued.

STATE CROWN LANDS—TENURES.

New South Wales.	Victoria.	Queensland.
FREE GRANTS, RESERVATIONS AND DEDICATIONS.		
Free Grants : Reservations.	Free Grants : Reservations.	Free Grants : Reservations.

UNCONDITIONAL PURCHASES OF FREEHOLD.

Auction Sales : After-auction Purchases : Special Purchases : Improvement Purchases.	Auction Sales.
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CONDITIONAL PURCHASES OF FREEHOLD.

Residential Conditional Purchases : Non-residential Conditional Purchases : Additional Conditional Purchases : Conversions of various Leasehold Tenures into Conditional Purchases : Purchases of Town Leases : Suburban Holdings : Returned Soldiers' Special Holdings : Residential Leases : Week-end Leases.	Residential Selection Purchase Leases : Non-residential Selection Purchase Leases : Licences of Auriferous worked-out Lands : Conditional Purchase Leases of Swamp or Reclaimed Lands : Selection Purchase Leases of Mallee Lands : Murray River Settlements : Special Settlement Areas : Conversions into Selection Purchase Leases.
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STATE CROWN LANDS—TENURES—*continued.*

New South Wales.	Victoria.	Queensland.
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LEASES AND LICENCES UNDER LAND ACTS.

Conditional Leases: Conditional Purchase Leases: Special Conditional Purchase Leases: Homestead Selections: Homestead Farms: Settlement Leases: Special Leases: Annual Leases: Scrub Leases: Snow Leases: Inferior Lands Leases: Crown Leases: Improvement Leases and Leases under Improvement Conditions: Occupation Licences: Leases of Town Lands: Suburban Holdings: Weekend Leases: Residential Leases: Leases in Irrigation Areas: Western Lands Leases: Forest Leases: Forest Permits.	Perpetual Leases: Auriferous Lands Licences: Leases of Swamp or Reclaimed Lands: Perpetual Leases of Swamp or Reclaimed Lands: Grazing Licences: Perpetual Mallee Leases: Miscellaneous Leases and Licences: Bee Farm Licences: Bee Range Area Licences: Eucalyptus Oil Licences: Forest Leases: Forest Licences: Forest Townships.	Perpetual Lease Selections: Perpetual Lease Prickly pear Selections: Pastoral Leases: Preferential Pastoral Leases: Prickly-pear Leases: Occupation Licences: Special Leases: Grazing Selections: Auction Perpetual Leases.
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CLOSER SETTLEMENT.

Sales by Auction: After-auction Sales: Settlement Purchases.	Sales of Land: Conditional Purchase Leases: Conditional Purchase Leases in Mountainous Areas.	Perpetual Lease Selections: Settlement Farm Leases: Perpetual Town, Suburban and Country Leases.
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LEASES AND LICENCES UNDER MINING ACTS.

Holdings under Miners' Rights: Gold Mining Leases: Mineral Leases: Coal and Oil Mining Leases: Business Licences: Residence Areas.	Holdings under Miners' Rights: Gold Mining Leases: Mineral Leases: Business Areas: Residence Areas.	Holdings under Miners' Rights: Permits to Prospect for Petroleum: Petroleum Leases: Licences to Prospect for Coal and Mineral Oil: Gold Mining Leases: Mineral Leases: Business Areas: Residence Areas: Miners' Homestead Perpetual Leases.
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SETTLEMENT OF DISCHARGED SOLDIERS AND SAILORS.

Soldiers' Group Purchases: Returned Soldiers' Special Holding Leases: Returned Soldiers' Special Holding Purchases: also Purchases and Leases under Crown Lands of lands specially set apart for application by discharged soldiers exclusively.	(Same Tenures as under the Land and Closer Settlement Acts.)	Perpetual Lease Selections: Perpetual Town and Suburban Leases.
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STATE CROWN LANDS—TENURES—*continued.*

South Australia.	Western Australia.	Tasmania.
FREE GRANTS, RESERVATIONS, AND DEDICATIONS.		
Free Grants : Reservations.	Free Grants : Reservations.	Free Grants : Reservations.
UNCONDITIONAL PURCHASES OF FREEHOLD.		
Auction Sales.	Auction Sales.	Auction Sales : After-auction Sales : Sales of Land in Mining Towns.
CONDITIONAL PURCHASES OF FREEHOLD.		
Agreements to Purchase : Special Agreements to Purchase (40 years' term) : Homestead Blocks.	Conditional Purchases with Residence : Conditional Purchases without Residence : Conditional Purchases by Direct Payment : Conditional Purchases of Land for Vineyards, etc. : Conditional Purchases of Inferior Lands : Conditional Purchases by Pastoral Lessees : Conditional Purchases of Grazing Lands : Homestead Farms : Village Allotments : Workingmen's Blocks : Special Settlement Leases.	Selections for Purchase : Additional Selections for Purchase : Homestead Areas : Selections in Mining Areas : Sales by Auction : Sales by Private Contract : After-auction Sales : Special Settlement Areas.
LEASES AND LICENCES UNDER LAND ACTS.		
Perpetual Leases : Special Perpetual Leases (Free Period) : Perpetual Leases of Homestead Blocks : Miscellaneous Leases : Grazing and Cultivation Leases : Licences : Licences of Resumed Land : Pastoral Leases : Leases to Discoverers of Pastoral Country : Special Leases to Discoverers of Water : Irrigation Blocks : Town Allotments in Irrigation Areas : Forest Leases.	Pastoral Leases : Special Leases : Residential Leases : Leases of Town and Suburban Lands : Irrigation Leases.	Grazing Leases : Pastoral Leases : Leases of Land covered with Button Grass, etc. : Leases of Mountainous Land : Miscellaneous Leases : Temporary Licences : Occupation Licences : Residence Licences : Business Licences : Forest Leases, Licences and Permits.
CLOSER SETTLEMENT.		
Sales by Auction : Agreements to Purchase : Miscellaneous Leases.	Conditional Purchases : Town and Suburban Areas.	Leases with Right of Purchase : Special Sales.
LEASES AND LICENCES UNDER MINING ACTS.		
Holdings under Miners' Rights : Search Licences : Occupation Licences : Gold Leases : Mineral Leases : Business Areas : Residence Areas.	Holdings under Miners' Rights : Gold Mining Leases : Mineral Leases : Business Areas : Residence Areas : Miners' Homestead Leases.	Holdings under Miners' Rights : Prospectors' Licences : Gold Mining Leases : Mineral Leases.
SETTLEMENT OF DISCHARGED SOLDIERS AND SAILORS.		
Perpetual Leases : Pastoral Leases : Agreements to Purchase.	Ordinary Tenure : Special Tenure.	Free Grants : Ordinary Tenure : Special Tenure.

§ 2. Free Grants, Reservations, and Dedications.

1. New South Wales.—(i) *Free Grants.* Crown lands may, by notification in the *Gazette*, be dedicated for public purposes and be granted therefor in fee-simple. Such lands may be placed under the care and management of trustees, not less than three in number, appointed by the Minister.

(ii) *Reservations.* Temporary reservations of Crown lands from sale or lease may be made by the Minister.

(iii) *Areas Granted and Reserved.* During the year 1925-26, the total area for which free grants were prepared was 1,761 acres, including grants of 1,631 acres of land resumed under the 12th clause of the Public Roads Act 1902. During the same period 1,437 acres were dedicated and permanently reserved, the number of separate dedications being 118.

On the 30th June, 1926, the total area reserved, including temporary reserves, was 18,371,751 acres, of which 5,336,315 acres were for travelling stock, 2,661,733 acres for forest reserves, 697,023 acres for water, 1,181,645 acres for mining, and the remainder for temporary commons, railways, recreation reserves and parks, reserves for aborigines, and miscellaneous purposes.

2. Victoria.—(i) *Free Grants.* The Governor may grant, convey or otherwise dispose of Crown lands for public purposes.

(ii) *Reservations.* The Governor may temporarily or permanently reserve from sale, lease or license any Crown lands required for public purposes, and may except any area of Crown lands from occupation for mining purposes or for residence or business under any miner's right or business licence.

(iii) *Areas Granted and Reserved.* During the year 1925, 3 acres were granted without purchase, and reservations of both a permanent and temporary nature, comprising a net area of 7,680 acres, were made. At the end of 1925, the total area reserved was 7,556,756 acres, consisting of roads, 1,794,218 acres; water reserves, 314,603 acres; agricultural colleges, etc., 85,879 acres; permanent forests and timber reserves under Forests Act, 4,305,588 acres; forests and timber reserves under Land Acts, 329,600 acres; reserves in the Mallee, 403,258 acres; and other reserves, 323,610 acres.

3. Queensland.—(i) *Free Grants.* The Governor may grant in trust any Crown land, which is or may be required for public purposes. Under the Irrigation Act land to be used for the purpose of any undertaking under that Act may be vested in fee-simple in the Irrigation Commission.

(ii) *Reservations.* The Governor may reserve from sale or lease, either temporarily or permanently, any Crown land which is or may be required for public purposes. Reserved lands may be placed under the control of trustees who are empowered to lease the same for not more than 21 years with the approval of the Minister.

Under the State Forests and National Parks Act, the Governor may permanently reserve any Crown lands and declare them to be a State Forest or a National Park.

(iii) *Areas Granted and Reserved.* During the year 1926, 4 free grants were issued, the total area thereof being 173 acres. During the same period the area of reserves cancelled was 30,454 acres less than the area set apart as reserves. The total area reserved up to the end of 1926 was 17,622,642 acres, made up as follows:—timber reserves, 3,342,476 acres; State forests and national parks, 1,955,306 acres; for use of aborigines, 6,098,268 acres; and general, 6,226,592 acres.

4. South Australia.—(i) *Free Grants.* The Governor may dedicate Crown lands for any public purpose and grant the fee-simple of such lands, with the exception of foreshores and land for quays, wharves or landing-places, which are inalienable in fee-simple from the Crown.

(ii) *Reservations.* The Governor may reserve Crown lands for (a) the use and benefit of aborigines, (b) military defence, (c) forest reserves, (d) railway stations, (e) park lands, or (f) any other purpose that he may think fit.

(iii) *Areas Granted and Reserved.* During the year 1926 free grants were issued for a total area of 31 acres. During the same year reserves comprising 12,356 acres were proclaimed. At the end of 1926 the total area reserved was 16,309,683 acres.

5. *Western Australia.*—(i) *Free Grants.* The Governor may dispose of, in such manner as for the public interest may seem best, any lands vested in the Crown for public purposes, and may grant the fee-simple of any reserve to secure the use thereof for the purpose for which such reserve was made.

(ii) *Reservations.* The Governor may reserve any lands vested in the Crown for public purposes. Areas not immediately required may be leased from year to year. Reserves may be placed under the control of a local authority or trustees, with power to lease them for a period not exceeding 21 years, or may be leased for 99 years. Temporary reserves may also be proclaimed.

(iii) *Areas Granted or Reserved.* During the year 1926, a few small areas of land were granted in fee-simple, and 216,675 acres were reserved for various purposes.

6. *Tasmania.*—(i) *Free Grants.* The only mention in the Crown Lands Act respecting free grants of land is that the Governor may agree with the Governor-General of the Commonwealth for the grant of any Crown land to the Commonwealth, and it is expressly stated that no lands may be disposed of as sites for religious purposes except by way of sale under the Act. Under the Returned Soldiers Settlement Act of 1916, returned soldiers who applied prior to 31st March, 1922, are eligible to receive free grants of Crown land not exceeding £100 each in value, but these grants are conditional on the land being adequately improved.

(ii) *Reservations.* The Governor in Council may except from sale or lease, and reserve to His Majesty any Crown land for public purposes, and vest for such term as he thinks fit any land so reserved in any person or corporate body. Any breach or non-fulfilment of the conditions upon which such land is reserved renders it liable to forfeiture. A school allotment, not exceeding 5 acres in area, may also be reserved.

(iii) *Areas Granted or Reserved.* During the year ended 31st December, 1925, the area granted free was 2,315 acres, nearly all of which was granted to soldiers under the Returned Soldiers' Settlement Act, while during the same year, 1 free lease was issued to a local public body for municipal purposes, and 14,389 acres were reserved, of which 14,148 acres were reserved for a forest reserve, 14 acres for recreation purposes, 10 acres for a gravel reserve, 1 acre for hall site purposes, 2 acres for cemetery purposes, 213 acres for scenery purposes, and 1 acre for gaol purposes. The total area reserved to the end of 1925 was 5,018,690 acres.

7. *Northern Territory.*—(i) *Reservations.* The Governor-General may resume for public purposes any Crown lands, not subject to any right of or contract for purchase, and may reserve, for the purpose for which they are resumed, the whole or any portion of the land so resumed.

(ii) *Areas Reserved.* The area of land held under reserve at the end of 1925 was 38,235 square miles.

§ 3. Unconditional Purchases of Freehold.

1. *New South Wales.*—(i) *Auction Purchases.* Crown lands, not exceeding in the aggregate 200,000 acres in any one year, may be sold by public auction in areas not exceeding half-an-acre for town lands, 20 acres for suburban lands, and 640 acres for country lands, at the minimum upset price of £8, £2 10s., and 15s. per acre respectively. At least 10 per cent. of the purchase-money must be paid at the time of sale, and the balance within 3 months, or the Minister may allow the payment of such balance to be deferred for a period not exceeding 10 years, 5 per cent. interest being added. Town blocks in irrigation areas may also be sold by auction.

(ii) *After-auction Purchases.* In certain cases, land offered at auction and not sold may be purchased at the upset price, but one-quarter of the purchase-money must be paid as deposit with the application, and the balance as notified in the *Gazette*. Any such application is, however, subject to the approval of the Minister.

(iii) *Special Purchases.* Under certain circumstances, land may be sold in fee-simple, the purchaser paying the cost of survey and of reports thereon, in addition to the purchase-money. The minimum upset price per acre is the same as in the case of land sold by auction.

(iv) *Improvement Purchases.* The owner of improvements in authorized occupation by residence, under any Mining or Western Lands Act of land within a goldfield or mineral field, may purchase such land without competition at a price determined by the local Land Board, but at not less than £8 per acre for town lands or £2 10s. per acre for other lands. The area must not exceed $\frac{1}{4}$ acre within a town or village, or 2 acres elsewhere, and no person may purchase more than one such area within 3 miles of a similar prior purchase by him.

2. **Victoria.**—(i) *General.* Lands specially classed for sale by auction may be sold by auction in fee-simple, not exceeding 100,000 acres in any one year, at an upset price of £1 an acre, or at any higher price determined. The purchaser must pay the survey fee at the time of the sale, together with a deposit of $12\frac{1}{2}$ per cent. of the whole price; the residue is payable in equal half-yearly instalments with interest. Any unsold land in a city, town or borough, areas specially classed for sale, isolated pieces of land not exceeding 50 acres in area, and sites for churches or charitable purposes, if not more than 3 acres in extent, may be sold by auction on the same terms. Swamp or reclaimed lands may also be sold by auction, subject to the condition that the owner keeps open all drains, etc., thereon.

(ii) *Areas Sold at Auction and by Special Sales.* During the year 1925, a total of 1,499 acres was disposed of under this tenure, 813 acres being country lands, while 686 acres of town and suburban lands were sold by auction.

3. **Queensland.**—Since the end of 1916, land, not already conditionally acquired, cannot be alienated to selectors in fee-simple.

4. **South Australia.**—(i) *Sales by Auction.* The following lands may be sold by auction for cash :—(a) special blocks, (b) Crown lands which have been offered for lease and not taken up within 2 years, (c) town lands, and (d) suburban lands, which the Governor excepts from the operations of the Land Board. A purchaser must pay 20 per cent. of the purchase money in cash, and the balance within one month or within such extended time as the Commissioner of Crown Lands may allow. Town lands may be sold subject to the condition that they cannot be transferred or mortgaged for 6 years.

(ii) *Areas Sold, etc.* During the year ended 30th June, 1926, the area of town lands sold by auction was 63 acres. In addition, 45,384 acres were sold at fixed prices, and the purchases of 109,169 acres on credit were completed, making a total of 154,616 acres.

5. **Western Australia.**—(i) *Sales by Auction.* Town, suburban, and village lands, after being surveyed into lots and notified in the *Gazette*, must be sold by auction. Ten per cent. of the purchase money must be paid in cash, together with the value of any improvements, and the balance in four equal quarterly instalments. Suburban land must be fenced within 2 years, and, until that is effected, no Crown grant may be issued.

(ii) *Areas Sold.* During the year ended 30th June, 1926, the area of town and suburban allotments sold was 1,978 acres in 919 allotments.

6. **Tasmania.**—(i) *Sales by Auction.* Town lands may be sold by auction for cash or on credit, no conditions being imposed beyond the payment of the purchase money. No town land, the price of which is less than £15, may be sold on credit.

(ii) *After-auction Sales.* Town lands, not within 5 miles of any city, which, after having been offered at auction, have not been sold, may be sold at the upset prices by private contract.

(iii) *Sales of Land in Mining Towns.* Any town land in a mining area may be sold by auction for cash, provided that any person, being the holder of a residence licence or business licence in lawful occupation of a residence area or business area and the owner of permanent improvements of a value equal to or greater than the upset price, is entitled to purchase such area at the upset price, prior to the sale by auction. The upset price of the unimproved value must not be less than £10 and the area must not exceed $\frac{1}{2}$ acre.

(iv) *Areas Sold.* During the year 1925 the area sold by auction or by special sale amounted to 580 acres, as against 2,747 acres for the previous year.

§ 4. Conditional Purchases of Freehold.

1. *New South Wales.*—(i) *Residential Conditional Purchases.* Crown lands, not within certain areas, and not leased or reserved, are open for conditional purchase application at the price of 20s. per acre, unless gazetted at a different rate. The maximum area which may be conditionally purchased is 1,280 acres in the Eastern Division, and 2,560 acres in the Central Division, and the minimum area is 40 acres. These maximum areas may, however, be exceeded in certain circumstances by additional holdings out of areas set apart for the purpose in order to make up a home-maintenance area. In a special area, the areas are such as are gazetted with a maximum of 320 acres. Applications for land within a classified area need not be accompanied by a deposit if lodged during the first week the land is available, but otherwise every application must be accompanied by a deposit of 5 per cent. of the price of the land, together with the amount of survey fee or an instalment thereof and the necessary stamp duty. The balance of the purchase money, with $2\frac{1}{2}$ per cent. interest added, is payable in annual instalments of 5 per cent. of the price of the land, or, at the purchaser's option, of ninepence in the pound of the full purchase money, the first instalment being payable at the end of the third year from the date of application. The following conditions attach to a conditional purchase:—(a) the holder must reside thereon for 5 years, (b) the boundaries must be fenced within 3 years after the confirmation of the application, and such fence must be maintained for a period of 5 years from such confirmation; or, alternatively, (c) improvements must be made within 3 years to the value of not less than 6s. per acre, and within 5 years 10s. per acre, but the value of such improvements need not exceed £384 or 30 per cent. of the value of the land within 3 years, and £640 or 50 per cent. within 5 years. A Crown grant in fee-simple is issued when all the conditions have been complied with, and the balance of the purchase money, survey fee, stamp duty and deed fee have been paid.

(ii) *Non-residential Conditional Purchases.* Crown lands which are open to ordinary conditional purchase may be conditionally purchased without the condition of residence subject to the following conditions:—(a) the area must not exceed 320 acres, (b) the applicant must be not less than 21 years of age, (c) no person, without the consent of the Minister, may make a subsequent purchase, except as an additional conditional purchase which, together with the original purchase, must not exceed 320 acres, (d) the price is double that payable for the same land as a residential purchase, and the deposit is 2s. for each pound of purchase money or 5 per cent. of capital value if the land is within a classified area, the balance of which, with $2\frac{1}{2}$ per cent. interest added, is payable after the third year in annual instalments of 2s. per pound or of 9d. in the pound of the full purchase money, and (e) the boundaries must be fenced within 12 months and not less than £1 per acre expended within 5 years on other permanent improvements. Fencing may be dispensed with, subject to other approved improvements being effected to the value of 30s. per acre within 5 years after confirmation of the application.

(iii) *Additional Conditional Purchases.* An applicant for or holder of an original conditional purchase or a holder of a freehold (not in the Western Division) containing not less than 40 acres, and which with other lands held does not constitute a home maintenance area, may, subject to certain conditions, apply for an additional conditional purchase, but the whole area contained in the original purchase or freehold together with the additional purchase must not exceed the maximum allowed for an ordinary conditional purchase. An additional conditional purchase is subject to the same conditions as an original holding.

(iv) *Conversions of Leases into Conditional Purchases, etc.* (a) The holder of a conditional lease may convert the whole or part of the land comprised therein into an additional conditional purchase.

(b) A conditional purchase lease may be converted into a conditional purchase on payment of 5 per cent. deposit on the capital value of the land and the balance in equal annual instalments of 5 per cent. of the purchase money with interest at $2\frac{1}{2}$ per cent. Such conditional purchase is subject to all the unfulfilled conditions of the lease, except that of the payment of rent.

(c) A non-residential conditional purchase may be converted into an ordinary conditional purchase, and residence must commence within three months of such conversion, the period of residence being reduced by the period of *bona fide* and continuous residence on the holding immediately prior to conversion.

(d) The holder of a special lease or of an agricultural or pastoral lease granted under the Church and School Lands Dedication Act may, under certain conditions, apply to convert his holding into a conditional purchase or an additional conditional purchase. The period of residence is reduced by the period of continuous residence on the former holding immediately prior to conversion.

(e) A homestead selection or homestead farm may be converted into a conditional purchase or conditional purchase and conditional lease subject to any special provisions attached to the original holding, and to the general provisions respecting conditional purchases and conditional leases provided that, except in the case of a homestead selection acquired before 1st January, 1918, the area which may be conditionally purchased shall not, with other lands held, exceed a home maintenance area, any excess being only convertible into a non-convertible conditional lease. The term of residence commences from the date of confirmation, and is reduced by the period of continuous residence on the holding immediately prior to conversion. The deposit and payment of purchase money are the same as in the conversion of a conditional purchase lease (see (b)).

(f) The holder of a Crown lease (unless debarred by notification setting the land apart) or of a settlement lease may convert such lease into a conditional purchase or conditional purchase and conditional lease, provided that the area to be converted together with other lands held does not exceed that of a home maintenance area. Where the area of the lease together with such other lands exceeds a home maintenance area, the excess area may be held as a non-convertible conditional lease. The terms of payment and conditions are the same as in the case of conversion of a conditional purchase lease (see (b) above).

(v) *Purchases of Residential Leases.* A holder of a residential lease (including any additional residential leases) may, after the expiration of the first 5 years of his lease, apply to purchase the land held thereunder. The local Land Board fixes the price and reports to the Minister, who may either grant or refuse the application. No person may hold more than one such purchase.

(vi) *Purchases of Week-end Leases and Town Lands Leases.* The holder of a week-end lease or of a town lands lease may apply to purchase the land comprised therein, and the Minister may either grant or refuse such application. The price is the capital value of the land at the date of application and is determined by the local Land Board. The purchase money must be paid within 3 months, or within such further period as the Minister may determine, interest being chargeable at 5 per cent. per annum.

(vii) *Purchases of Suburban Holdings.* The land contained within a suburban holding may, with the consent of the Minister, be purchased by the holder thereof, on payment of the purchase money in ten equal annual instalments with $2\frac{1}{2}$ per cent. interest. The value of the land, exclusive of the improvements effected by the holder, is fixed by the local Land Board, and the purchase is subject to a condition of residence on the land for 5 years from the date of taking up the suburban holding. No transfer of land so purchased may be made without the consent of the Minister.

(viii) *Areas Sold by Auction and Special Purchases, exclusive of Town Blocks within Irrigation Areas.* During the year ended 30th June, 1926, the total area sold was 3,602 acres, of which 823 acres were sold by auction and 440 acres as after-auction purchases, while 37 acres were sold as improvement purchases and 2,302 acres as special purchases. The amount realized for the sale of the whole area was £80,587.

(ix) *Areas Alienated as Conditional Purchases.* At the 30th June, 1926, the total number of conditional purchases in existence was 69,948, covering an area of 19,263,888 acres. The following table gives particulars of conditional purchases, including non-residential conditional purchases and special area conditional purchases, from 1921-22 to 1925-26, together with the total area for which deeds had been issued up to 30th June, 1926 :—

CONDITIONAL PURCHASES, NEW SOUTH WALES, 1921-22 TO 1925-26.

Year ended 30th June—	Applications received.(a)		Applications Confirmed.(a)		Areas for which Deeds have been issued.	
	Number.	Area.	Number.	Area.	During the Year.	To end of Year.
		Acres.		Acres.	Acres.	Acres.
1922	311	59,878	424	70,233	741,263	19,970,073
1923	361	69,524	200	34,453	667,073	20,637,146
1924	379	70,784	291	41,117	596,124	21,233,270
1925	423	68,496	344	42,123	590,220	21,823,490
1926	459	83,281	372	30,223	460,217	22,283,107

(a) Exclusive of conversions from other tenures.

2. *Victoria.*—(i) *Residential Selection Purchase Leases.* A person may select from land notified in the *Gazette* as available, a selection purchase lease, the maximum area of which ranges from 200 acres of first-class land to 2,000 acres of Class 4A land. The annual rental varies from 1s. per acre in the case of first-class land to 2½d. in the case of Class 4A land, for a period of 20 years, or half those rates for 40 years. Certain specified conditions must be complied with and improvements effected during the first 6 years, and the selector is required to reside on the property for 5 years and may not transfer the same during the first 6 years. At any time after the expiration of 6 years, provided that all the conditions have been fulfilled, and the balance of the purchase money has been paid, a Crown grant may be obtained.

(ii) *Non-residential Selection Purchase Leases.* These leases are similar to the preceding with the exceptions that (a) the provision for payment during 40 years is omitted, (b) there is no residential condition, and (c) the value of the improvements to be effected is double that of those on a residential lease.

(iii) *Licences of Worked-out Auriferous Lands.* A person may obtain a licence to occupy an allotment of not more than 5 acres of worked-out auriferous lands for a period not exceeding 7 years and to a depth of not more than 50 feet, at a rental of not less than 1s. per acre per annum. Such licences contain conditions prescribed by the Governor. If the licensee has complied with all the conditions of his licence for a period of 7 years he is entitled to a Crown grant on payment of the purchase money, which is fixed by the Board of Land and Works at not less than £1 per acre, from which is deducted the amount paid in licence fees.

(iv) *Conditional Purchase Leases of Swamp or Reclaimed Lands.* A conditional purchase lease of swamp or reclaimed lands covers such term as may be agreed upon between the lessee and the Board of Land and Works, and provides for the payment of the value of the allotment with interest at the rate of 4½ per cent., by 63 half-yearly instalments. The lessee must keep open all drains, etc., and make improvements to the value of 10s. per acre in each of the first 3 years, but need not reside on the land.

(v) *Selection Purchase Leases of Mallee Lands.* The terms and conditions attached to these leases are the same as those attached to ordinary selection purchase leases, but the areas may be larger, ranging from 640 acres of first-class land to 4,000 acres of Class 4A land. The lessee must also, within 2 years, clear and cultivate at least one-fourth of his holding, and make provision for the storage of water.

(vi) *Murray River Settlements.* Crown lands near the River Murray may be subdivided into allotments not exceeding 50 acres each and taken up as conditional purchase leases. The value of the land is payable in 63 half-yearly instalments with not less than 4½ per cent. interest. Residential and improvement conditions are laid down, and after 12 years, if they have been complied with, a Crown grant may be obtained.

(vii) *Special Settlement Areas.* Crown land, upon which expenditure has been made by the Crown, may be set apart as a special settlement area, and surveyed into allotments not exceeding 200 acres each. Such allotments may be taken up as conditional purchase leases, but every Crown grant contains a condition that the land shall at all times be maintained and used for the purpose of agriculture, and the holder must reside thereon.

(viii) *Conversion of Perpetual Leases into Selection Purchase Leases.* A perpetual lease may, with the consent of the Board of Land and Works, be surrendered by the lessee, and a selection purchase lease (residential or non-residential) obtained in lieu thereof.

(ix) *Conversion of Auriferous Lands Licences into Selection Purchase Leases.* If the Minister of Mines consents, the Board may grant to the licensee of an auriferous lands licence a selection purchase lease in lieu thereof, provided that the land is improved to the value of £1 per acre and the occupation is *bona fide*.

(x) *Areas Purchased Conditionally.* The subjoined table gives particulars of the areas selected conditionally from 1921 to 1925 :—

AREAS PURCHASED CONDITIONALLY, VICTORIA, 1921 TO 1925.

(EXCLUSIVE OF SELECTION IN THE MALLEE COUNTRY.)

Particulars.	1921.	1922.	1923.	1924.	1925.
	Acres.	Acres.	Acres.	Acres.	Acres.
With residence	72,752	133,083	122,614	95,998	66,923
Without residence	26,767	53,603	77,903	61,965	26,073
Total	99,519	186,686	200,517	157,963	92,996
No. of selectors	431	741	791	552	369

3. *Queensland.*—The granting of freehold tenure having been abolished at the end of 1916, only those lands which are held under any form of conditional purchase tenure granted before the beginning of 1917 can be converted into freehold. Land cannot be taken up under any form of conditional purchase.

4. *South Australia.*—(i) *Agreements to Purchase.* Crown lands (except town lands) which have been surveyed or of which the boundaries have been delineated in the public maps, may be offered on agreement to purchase. The area which is to be cleared and rendered available for cultivation, and the payments to be made, are notified in the *Gazette*. An application must be accompanied by a deposit of an amount equal to the first half-yearly instalment of purchase money. The whole purchase money is payable in 60 equal half-yearly instalments of not less than 2 per cent. thereof. Preference is given in allotting land to the applicant who agrees to reside on the land for 9 months in each year. If no application is made within 3 months from the date of notification, the Commissioner may offer the land at a reduced price. No agreement may be granted to any person in the case of land the unimproved value of which exceeds £5,000, nor in such manner that the purchaser would hold lands under any tenure, except pastoral lease, of which the aggregate unimproved value would exceed that sum, excepting in cases where the land is suitable for pastoral purposes only, under which circumstances no agreement to purchase is granted if the carrying capacity of the unimproved land and of all other lands held by the applicant would exceed 5,000 sheep, or, if outside Goyder's line of rainfall, 10,000 sheep. The purchaser must fence in the land within 5 years and comply with specified conditions respecting improvements, and, after 6 years, if all the conditions have been complied with and the balance of the purchase money paid, may complete the purchase.

(ii) *Special Agreements to Purchase.* Where the Commissioner directs, the following provisions for payment are made :—(a) No instalments are payable during the first 4 years ; (b) from the end of the fourth to the end of the tenth year, each instalment is to be

at the rate of 2 per cent. of the value of the land, and is to be regarded as interest only ; (c) from the end of the tenth year, the interest included in the instalments is at the rate of 4 per cent. on the value of the land ; and (d) the agreement is for 40 years, and the purchase money is to be paid in 60 half-yearly instalments at the rate of £2 16s. 5d. for every £100 of the purchase money, including interest, the payment of such instalments to commence after the end of the tenth year.

(iii) *Homestead Blocks.* Any Crown lands and any lands which the Commissioner may acquire as suitable for homestead blocks may be surveyed and offered as homestead blocks, provided that the unimproved value of the fee-simple of a block does not exceed £100 and that no block is sold for a sum less than the amount paid therefor by the Government, together with the cost of offering the same. A homestead block may be held under an agreement to purchase, but only by a person gaining his livelihood by his own labour, and the holder must reside thereon for 9 months in each year. Such a block may be protected from encumbrance or seizure, if endorsed by the Commissioner as a "Protected Homestead Block."

(iv) *Lands Allotted.* The following table gives the areas of the lands allotted under Agreements to Purchase, exclusive of lands for Soldier Settlement, during the years 1921-22 to 1925-26. No Homestead Blocks have been allotted during that period.

AGREEMENTS TO PURCHASE, SOUTH AUSTRALIA, 1921-22 TO 1925-26.

Particulars.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	Acres.	Acres.	Acres.	Acres.	Acres.
Eyre's Peninsula Lands ..	65,277	50,005	111,456	90,320	121,368
Murray Lands ..	34,606	36,104	50,745	37,295	57,495
Pinnaroo Lands ..	15,834	11,886	44,291	27,633	62,245
Closer Settlement Lands ..	25,255	9,096	7,302	6,357	7,471
Homestead Lands (repurchased) ..	9	12	19	..	..
Buckleboo Railway Lands ..	..	..	5,680	10,614	46,710
Other Crown Lands ..	6,875	11,619	17,160	8,926	11,802
Total	147,856	118,722	236,653	181,145	307,091

5. *Western Australia.*—(i) *General.* Agricultural land is divided into two classes—cultivable and non-cultivable. The maximum area to be held by any one person is 1,000 acres of the former or 5,000 acres of the latter, or the equivalent of cultivable and non-cultivable land.

(ii) *Conditional Purchases with Residence.* Land may be disposed of subject to the following conditions :—(a) The price is fixed by the Governor, with a minimum of 3s. 9d. and a maximum (except with special approval) of 15s. per acre, the lease to be from 25 to 30 years ; (b) the maximum area which one person may hold is 1,000 acres, and the minimum, except in approved cases, 100 acres ; (c) 7 per cent. of the survey fee to be paid in the first 5 years of the lease, and the survey fee with interest and purchase money to be paid over the balance of the term ; (d) the lessee must reside on the lease for 6 months in each year for the first 5 years ; (e) the lessee must expend on prescribed improvements an amount equal to one-fifth of the purchase money in every 2 years for the first 10 years of his lease, and fence one-half of the holding within 5 years and the whole within 10 years ; and (f) at any time after 5 years, provided that all conditions have been complied with and the full purchase money and fee paid, the Crown grant will issue.

(iii) *Conditional Purchases without Residence.* Land may be disposed of without the residence condition, subject to all the other conditions prescribed in the previous sub-section, except that the amount to be expended on improvements must be a sum equal to the amount of purchase money, with 50 per cent. added thereto.

(iv) *Conditional Purchases by Direct Payment.* Land may also be disposed of without residence conditions, subject to the following :—(a) The price is fixed by the Governor, but at not less than 10s. per acre, payable within 12 months or sooner ; (b) the application must be accompanied by a deposit of 10 per cent. of the purchase money, and, if accepted, a licence is issued for 7 years ; (c) the balance of the purchase money must be paid in 4 equal quarterly instalments within 12 months ; (d) the lessee must fence in the whole of the land within 3 years, and must expend 10s. per acre on improvements in 7 years ; and (e) when all the conditions have been fulfilled, and the full purchase money and fee paid, a Crown grant must be issued.

(v) *Conditional Purchases of Land for Vineyards, Orchards, and Gardens.* The Governor may declare any Crown lands open for selection for vineyards, orchards, and gardens, subject to the following conditions :—(a) The price must be not less than 10s. per acre ; (b) 10 per cent. of the purchase money must be deposited with the application, and if the latter is accepted, a licence is issued for 3 years ; (c) the balance of the purchase money must be paid in half-yearly instalments within 3 years ; (d) the maximum area held by one person must not exceed 50 acres, and the minimum not less than 5 acres ; (e) the lessee must within 3 years fence in the whole of the land and plant at least one-tenth thereof with vines or fruit trees or cultivate one-tenth as a vegetable garden ; and (f) on completion of the conditions, and payment of the purchase money, a Crown grant must be issued.

(vi) *Conditional Purchases of Inferior Lands.* Land which is classed as inferior and second or third-class land may also be sold under the conditions mentioned in previous paragraphs, but the price may be reduced to not less than 3s. 9d. per acre, and that of land infested with poison plant may be reduced in price to not less than 1s. per acre.

(vii) *Conditional Purchases by Pastoral Lessees.* A pastoral lessee in the South-West Division may apply for land within his lease not exceeding one-fifth of the land leased by him under conditional purchase, with residence condition, and may hold a maximum area of 2,000 acres, and a minimum area of 200 acres. Similarly, a pastoral lessee in the Kimberley, North-West, Eastern or Eucla Divisions, who has in his possession at least 10 head of sheep or 1 head of large stock for each 1,000 acres, may apply to purchase an area not exceeding 1 per cent. of the total area held by him, the maximum area which may be so selected being 2,000 acres, and the minimum 500 acres.

(viii) *Conditional Purchases of Grazing Lands.* The Governor may declare lands situated in the South-West, Central or Eucla Divisions, which are unsuitable for agriculture, open for selection under the following conditions :—(a) The price must be not less than 3s. 9d. per acre ; (b) the maximum area which can be held by any one person is 5,000 acres, and the minimum 100 acres ; (c) on approval of the application, accompanied by a deposit of the first instalment of purchase money, a lease for 25 years is issued ; (d) the lessee must reside on the lease for 6 months in the first year, and for 9 months in each of the succeeding 4 years ; (e) the lessee must expend on improvements an amount equal to one-fifth of the purchase money in every 2 years ; and (f) when all the conditions have been fulfilled, and the purchase money and fee paid, a Crown grant must be issued.

(ix) *Homestead Farms.* Crown lands, not within a goldfield, may be made available for free farms, termed "Homestead Farms." Any person, not already the holder of more than 100 acres of freehold land, or land held under special occupation or conditional purchase, is entitled to a homestead farm of not more than 160 acres or less than 10 acres. A fee of £1 must be paid with the application, and an approved applicant receives an occupation certificate for 7 years, and neither the land nor any interest therein of the selector is liable to be taken in execution. A selector must comply with the following conditions :—(a) Reside for 6 months in each year on the land for the first 5 years ; (b) within 2 years expend not less than 4s. per acre on the total area ; (c) within 5 years expend 10s. per acre ; (d) within 7 years expend 14s. per acre on improvements and a house ; and (e) fence one-half within 5 years, and the whole within 7 years. After 7 years a selector is entitled to a Crown grant, provided all conditions are fulfilled, or at any time after 12 months, provided all improvements are made, a Crown grant may be obtained on payment of a sum of 5s. per acre.

(x) *Village Allotments.* In connexion with any land set apart for selection as homestead farms, the Governor may declare any land within 5 miles thereof a village site, and such site may be subdivided into allotments not exceeding in area 1 acre each. Any selector of a homestead farm may select an allotment in such village without payment. As soon as the selector is entitled to a Crown grant of his homestead farm, he may, on payment of £1 and the prescribed fee, obtain a Crown grant of his village allotment.

(xi) *Working Men's Blocks.* Land may be set apart for working men's blocks and subdivided into lots not exceeding $\frac{1}{2}$ acre each on a goldfield, or 5 acres elsewhere. Any person who is not already an owner of land in freehold or on conditional purchase, may obtain a lease under the following conditions:—(a) The price must be not less than £1 per acre, payable at the rate of one-tenth of the purchase money annually; (b) one person may hold one allotment only; (c) the application must be accompanied by the first instalment of purchase money, and, if approved, a lease for 10 years is issued; (d) the lessee must reside on the block for 9 months in each of the first 5 years; (e) the land must be fenced in within 3 years, and improvements, in addition, made within 5 years equal in value to double the purchase money; and (f) after 5 years a Crown grant must be issued, provided all conditions are complied with and the purchase money and fee paid.

(xii) *Special Settlement Lands.* Land may be set apart as special settlement lands, and may be cleared, drained, or otherwise improved by the Government, and disposed of under the provisions of any preceding conditional purchase tenures.

(xiii) *Areas Alienated.* The following table shows the number of holdings and the areas conditionally selected for which Crown grants were issued and conditionally alienated during the years ending 30th June, 1922 to 1926. Under the heading "Deferred payments (with residence)" are included conditional purchases of grazing lands.

CONDITIONAL PURCHASES.—WESTERN AUSTRALIA, 1921-22 TO 1925-26.

Particulars.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
NUMBER OF HOLDINGS.					
Crown Grants Issued ..	No. 1,995	No. 1,553	No. 1,557	No. 2,153	No. 3,010
Conditionally Alienated ..	3,275	2,997	2,889	2,406	2,579

AREAS FOR WHICH CROWN GRANTS WERE ISSUED.

	Acres.	Acres.	Acres.	Acres.	Acres.
Free Homestead Farms ..	112,798	53,506	40,080	38,387	50,814
Conditional Purchases ..	287,669	272,436	285,635	343,100	490,717

AREAS CONDITIONALLY ALIENATED.

	Acres.	Acres.	Acres.	Acres.	Acres.
Conditional Purchases—					
(i) Deferred Payments (with Residence) ..	1,635,911	1,619,346	1,693,342	1,462,585	1,902,316
(ii) Deferred Payments (without Residence) ..	139,602	95,011	46,380	44,487	32,319
(iii) Direct Payments (without Residence) ..	721	1,121	3,317	2,606	2,346
Free Homestead Farms ..	78,310	111,202	90,745	73,138	85,025
Working Men's Blocks ..	38	..	..	..	..
Total ..	1,854,582	1,826,680	1,833,784	1,582,816	2,022,006

6. *Tasmania.*—(i) *Selections for Purchase.* Rural land is classified into (a) first-class land if its value is £1 an acre or over, (b) second-class land if less than £1 but not less than 10s. an acre, and (c) third-class land if less than 10s. and not less than 5s. an acre, provided that no Crown land within the area and during the currency of a pastoral lease may be sold at less than 10s. per acre. Any person may select for purchase (a) one lot of first-class land not exceeding 200 acres nor less than 15 acres on payment of a small deposit and the balance of the purchase money in instalments spread over 24 years, provided that he is not the holder upon credit of any first-class land or of any unclassified rural land, for which the whole of the purchase money has not been paid, or (b) at the value per acre fixed by the Surveyor-General, one lot of second-class land not exceeding 300 acres nor less than 30 acres, provided that he is not the holder upon credit of any second-class land for which the whole of the purchase money has not been paid, or (c) at the value per acre fixed by the Surveyor-General, one lot of third-class land not exceeding 600 acres nor less than 60 acres, provided that he is not the holder upon credit of any third-class land for which the whole of the purchase money has not been paid. The terms of purchase are as follows:—a sum equal to one-third of the price is added thereto by way of premium allowed for credit, and the whole sum is payable by a small deposit in the case of (a) or by a deposit of one-fortieth part thereof in the case of (b) and (c), and the balance in 18 and 14 annual instalments respectively. The following conditions must be observed:—(a) a purchaser of first-class land must during 8 consecutive years improve the land to the extent of 2s. 6d. per acre annually, and the land must be occupied for 5 years either by himself, a member of his family, or someone employed by him, and (b) on second and third-class land, improvements must be effected during 5 consecutive years to the value of 1s. per acre annually.

(ii) *Additional Selections for Purchase.* Any selector for purchase may make a further selection and purchase under the same terms and conditions, provided that the total area held by him does not exceed the maximum allowed for each class of land.

(iii) *Homestead Areas.* Any person who is not the holder on credit of any land may select and purchase at the price fixed one lot of first-class agricultural land, not exceeding 50 acres nor less than 15 acres. The purchase money is payable by a deposit at the time of selection, and the balance in 18 years in instalments, but no instalments are payable for the first, second, and third years. The purchaser must occupy the land within 4 years for a period of 5 years, and during that period effect improvements to the value of £1 per acre.

(iv) *Selections in Mining Areas.* Any person may select and purchase in a mining area one lot of first-class land, not exceeding 100 acres, on the condition that 2s. 6d. be expended per acre per annum on improvements for 8 years. The price is fixed by the Surveyor-General. Land within 1 mile of a town may be selected and purchased only in lots of not less than 10 acres nor more than 20 acres. The residence condition is for 3 years, to be commenced within 2 years.

(v) *Sales by Auction.* (a) *Town Lands.* Town lands may be sold by auction on credit, in which case one-third of the purchase money is added thereto as interest. One-fourteenth of the purchase money so increased must be paid at the time of sale, and the balance in 13 annual instalments. Improvements must be made within 5 years to the value of a sum equal to the purchase money, otherwise such land and any improvements thereon are liable to be forfeited.

(b) *Rural Lands.* Rural lands may be sold by auction for cash or on credit. After survey and before sale such lands must be classified into first class, second class, and third class lands, with the following minimum upset prices—first class, £1 per acre; second class, 10s. per acre; and third class, 5s. per acre. Lots of less than 15 acres of first-class land may be sold only for cash. When sold on credit, one-third of the purchase money is added thereto as interest, and one-fourteenth of the whole must be paid as deposit, and the balance in 14 annual instalments. Whether sold for cash or on credit, the same conditions of residence and improvements apply as in the case of land selected for purchase.

(c) *Lands within Mining Areas.* Crown land in mining areas, not selected under (iv) above, may be sold by auction for cash or on credit, having been previously surveyed into lots of (a) not more than 100 acres nor less than 10 acres of first-class land; (b) not

less than 30 acres of second-class land; and (c) not less than 50 acres of third-class land. No land within 1 mile of a town may be sold as second-class land. The upset price may not be less than £1 per acre for first-class land, 10s. per acre for second-class, and 5s. per acre for third-class land. The usual conditions as to improvements apply, and first-class land must be occupied for at least 3 years.

(vi) *After-auction Sales.* Town lands, not within 5 miles of a city, rural lands, and lands within a mining area, which have been offered for sale by auction and not sold, may be sold at the upset price by private contract under the same conditions as if sold by auction.

(vii) *Sales by Private Contract.* Where any second-class Crown land, being less than 30 acres in area, and not contiguous to or adjacent to any other Crown land, is so situated as to make it desirable that the same should be sold, it may be sold either on credit privately on the same terms as second-class lands or by public auction. In either case, the ordinary conditions as to the improvements on the land apply.

(viii) *Special Settlement Areas.* The Commissioner of Lands may withdraw from selection any area of rural land not less than 1,000 acres in extent which is first-class land suitable for agriculture, horticulture, or dairy farming, together with adjacent inferior land, and may expend money in improving the same and subdividing it into blocks. Such blocks may be submitted to auction under the ordinary conditions applicable to first-class land, or, without having been so submitted (a) may be declared to be open to any person; or (b) may be reserved for *bona fide* immigrants to the extent of one block in every six, for purchase by private contract at such price as the Commissioner may think fit, the purchase money being spread over 24 years. The usual conditions as to residence and improvements apply also to these blocks.

(ix) *Areas Conditionally Purchased.* The following table shows the areas alienated absolutely under systems of conditional purchases and sales on credit, also the areas sold conditionally and the applications for conditional purchases received and confirmed during the years 1921 to 1925 :—

TASMANIA.—CONDITIONAL PURCHASES, 1921 TO 1925.

Particulars.	1921.	1922.	1923.	1924.	1925.
	Acres.	Acres.	Acres.	Acres.	Acres.
<i>Completion of Conditional Purchases</i> ..	76,955	67,759	81,112	69,453	55,623
<i>Sold Conditionally—</i>					
Selections for Purchase ..	52,455	40,502	20,138	16,760	24,745
Homestead Areas ..	50	78	..	..	15
Auction Sales on Credit ..	1,400	361	362	2,747	530
Town and Suburban Allotments ..	1,614	550	193	321	962
Total	55,519	41,491	20,693	19,828	26,302
<i>Applications—</i>					
Received	966	895	769	1,164	575
Confirmed	498	513	425	304	274

§ 5. Leases and Licences under Land Acts.

1. *New South Wales.*—(i) *Conditional Leases.* Any applicant for or holder of a conditional purchase may apply for a conditional lease of Crown lands adjoining his property, provided that the area of the conditional lease does not exceed three times the area of the conditional purchase and the combined area does not exceed the maximum allowed for conditional purchases. In certain circumstances the maximum area may be exceeded in order to make up a home-maintenance area. The term of the lease is 40 years, divided into three periods of 15, 15 and 10 years, but the holder of any such lease subsisting

at 24th December, 1924, may, upon application made during the last 5 years of the lease, have the term thereof extended for a period of 20 years divided into two periods of 10 years each. The annual rent is determined by the local Land Board for the first period and remains unchanged for the second and third periods unless redetermined by the Board. Where the lease is extended to 60 years the rent for the additional period is determined by the Board. Pending determination, the provisional rent is fixed at 2d. per acre. The conditions of residence and improvements are the same as those attached to a conditional purchase (see § 4 (i)) and a conditional lease may be converted into an additional conditional purchase.

(ii) *Conditional Purchase Leases.* A conditional purchase lease has a term of 50 years divided into two periods of 25 years each. The areas of the blocks and the capital values are determined by the Minister. The annual rent is $2\frac{1}{2}$ per cent. of the capital value. Five years' residence is necessary, and special conditions must be complied with. A holder of an original conditional purchase lease may apply for an additional conditional purchase lease, provided that the combined areas, with other lands held, do not substantially exceed a home-maintenance area. At any time after confirmation a conditional purchase lease may be converted into a conditional purchase or a homestead farm.

(iii) *Special Conditional Purchase Leases.* A special conditional purchase lease together with any additional special conditional purchase lease held in virtue thereof must not exceed an area of 320 acres. A deposit of rent at the rate of 6d. per acre must be made at the time of application, and, in addition to the conditions other than residence attached to a conditional purchase lease, the lessee must within 3 years effect improvements to the value of from 10s. to £1 per acre as the Minister may determine. There is no residence condition attaching to these leases. The lease may be converted into a conditional purchase without residence.

(iv) *Homestead Selections.* Conditions in regard to this method of taking up land are set out in Official Year Book No. 18, page 159, but practically no lands are now set apart under this tenure except as additions to existing holdings.

(v) *Homestead Farms.* A classified area may be subdivided into farms of such areas as the Minister may determine, the capital value and any special conditions as to improvements, etc., being notified in the *Government Gazette*. Such farms are leased in perpetuity at a rental of $2\frac{1}{2}$ per cent. of the capital value, which, after the expiration of 25 years, is re-appraised every 20 years. Residence is obligatory for 5 years, and the holder may, during the first 5 years, in lieu of paying rent, expend during each year a sum equal to not less than the amount of rent for such year in effecting permanent improvements. The holder of an original homestead farm may, in order to make up a home-maintenance area, apply also for an additional homestead farm. A homestead farm may, under certain conditions, be converted into a conditional purchase or a conditional purchase and conditional lease, or a conditional purchase lease.

(vi) *Settlement Leases.* Allusion to this method of tenure will be found in Official Year Book No. 18, page 159, but practically no lands are now set apart thereunder.

(vii) *Special Leases.* Special leases may be granted for a period not exceeding 28 years for (a) wharves and jetties; (b) miscellaneous purposes, including grazing, agriculture and business purposes, up to 320 acres; or (c) tramway or irrigation purposes not exceeding 3 chains in width without any limit in length. The rent is determined by the local Land Board. The whole or part of a special lease granted for irrigation or miscellaneous purposes may be converted into certain specified tenures.

(viii) *Annual Leases for Pastoral Purposes.* Crown lands may be offered by auction or by tender in areas not exceeding 1,920 acres on annual lease, or may be applied for in the prescribed manner, in which case the rent is fixed by the local Land Board. An annual lease is renewed by payment of rent in advance, but may be terminated by the

Minister on three months' notice. An annual lease does not exempt the land held thereunder from sale or lease of any kind. The holder of such lease may apply for the whole or part of the lease as a lease under improvement conditions, and may be granted a lease of an area sufficient for the maintenance of a home for a period not exceeding 10 years.

(ix) *Scrub Leases.* Crown land wholly or partly covered by scrub or noxious undergrowth, may be leased for a term up to 21 years, which may be extended to 28 years, subject to such conditions as the local Land Board may make for the purpose of destroying the scrub. The term of the lease is divided into such periods as the Minister may determine, and the rent for the second and subsequent periods is fixed by the local Land Board. Under certain circumstances a home-maintenance area may be converted into a homestead selection during the last year of the lease.

(x) *Snow Leases.* Land usually covered by snow for a part of each year may be leased by auction or tender in areas not exceeding 10,240 acres for a period up to 14 years, but no person may hold more than one such lease.

(xi) *Inferior Lands Leases.* Leases of land of inferior character or in isolated positions may be granted (subject to the terms notified in the *Gazette*) either by tender or sold by auction, or, if no bid is received at auction, on application at the upset price. A home-maintenance area may be converted into a homestead grant during the last year of the lease.

(xii) *Crown Leases.* Crown leases may be disposed of for agriculture or grazing, or for both, in such blocks and subject to such special conditions as the Minister may determine. The term is for 45 years with a residence condition of five years, which may in certain circumstances be fulfilled elsewhere. The annual rent is $1\frac{1}{4}$ per cent. of the capital value of the land, which is re-appraised every 15 years. The first year's rent may be remitted if permanent improvements to a like value have been effected in addition to those required under the conditions of the lease. During the last 5 years of the lease the holder, unless debarred by notification, may convert an area thereof not exceeding that of a home-maintenance area into a homestead farm. Such lease may be converted into a conditional purchase with or without a conditional lease.

(xiii) *Improvement Leases.* Crown land not in the Western Division and which is not suitable for settlement until improved may be leased subject to the following conditions:—(a) the term must not exceed 28 years; (b) the area must not exceed 20,480 acres; (c) the amount bid at auction, or offered by tender, or the upset rent, is to be the annual rent; (d) covenants may be specified for the improvement of the land; and (e) during the last year of the lease the holder may apply for a homestead grant of a portion of the lease, not exceeding a home-maintenance area, and has a tenant-right in the improvements which he has made.

(xiv) *Occupation Licences.* An occupation licence entitles the licensee to occupy Crown lands for grazing purposes, but the licence is renewable only from year to year, and the fees are liable to re-determination annually.

(xv) *Leases of Town Lands.* Crown lands within the boundaries of any town may be leased by auction or tender, such lease being in perpetuity and not subject to any term of residence. The area must not exceed $\frac{1}{2}$ acre. The value of the land is re-appraised every 20 years, and the rent is fixed at $2\frac{1}{2}$ per cent. of such value. Except in special circumstances no person may hold more than one lease. The land comprised in such lease may be purchased under certain conditions.

(xvi) *Suburban Holdings.* The Minister may set apart suburban Crown lands, or Crown lands within population boundaries, or within the Newcastle pasturage reserve, or any other Crown land, for disposal by way of suburban holdings. The area of each holding is determined by the Minister, and the title is a lease in perpetuity. Residence for 5 years is necessary. The rent is $2\frac{1}{2}$ per cent. of the capital value which is re-appraised every 20 years. An additional suburban holding may be acquired by the holder of an original holding. A suburban holding may be purchased under certain conditions.

(xvii) *Week-end Leases.* A week-end lease must not exceed 60 acres, and is held in perpetuity. The rent is $2\frac{1}{2}$ per cent. of the capital value, which, after 25 years, is re-appraised every 20 years. No residence condition is attached, but improvements other than fencing must be effected to the value of £1 per acre within 5 years, and any special conditions carried out that may be notified. No person may hold more than one week-end lease except as mortgagee.

(xviii) *Residential Leases.* A holder of a miner's right may, for the purpose of *bona fide* residence, acquire a residential lease on a goldfield or mineral field, provided that:— (a) the area does not exceed 20 acres; (b) the term does not exceed 28 years; and (c) the conditions as prescribed are fulfilled. An additional residential lease may be acquired provided the combined areas do not exceed 20 acres. A resident holder of an area on a goldfield or mineral field may similarly hold a residential lease together with the area which he already holds, but the total area of the two together must not exceed 20 acres. A residential lease may be purchased under certain conditions.

(xix) *Holdings within Irrigation Areas.* Land is made available for disposal by way of purchase in fee-simple or lease, the purchase money or annual rental being determined by the Water Conservation and Irrigation Commission. Irrigation farm purchases, irrigation farm leases and non-irrigable leases may be sold by public auction or tender. The purchase money in respect of an irrigation farm purchase and a non-irrigable purchase may be made by a deposit of £5 and a number of instalments. In the case of a town land purchase the terms are fixed by the Commission. The title to an irrigation farm lease and a town land lease is a lease in perpetuity, the annual rent for the first twenty-five years of which is fixed and is again fixed each succeeding twenty years. The title to a non-irrigable lease may be a lease in perpetuity or for such term as may be determined. The performance of residential conditions commences within six months of the grant of an application for an irrigation farm purchase and an irrigation farm lease, and, when specially provided, in cases of non-irrigable purchases and non-irrigable leases. The holder is released from residential conditions when certain improvements have been effected to the satisfaction of the Commission. No residence condition attaches to a town land purchase or lease.

Irrigation farm leases, non-irrigable leases and town land leases may, if conditions have been complied with, be converted into purchases. Upon payment of any moneys due and if all conditions have been complied with, a Crown grant for an estate in fee-simple is issued to the holder of the purchase.

(xx) *Western Lands Leases.* Under the Western Lands Act the Minister may declare Crown lands in the Western Division open for lease, and specify the area and rent. No rental may be less than 2s. 6d. per square mile or part thereof nor more than 7d. per sheep on the carrying capacity, and may not be increased by more than 25 per cent. at each re-appraisal. The successful applicant is notified in the *Gazette* and must pay the first year's rent within one month after such notification. All leases issued under the Western Lands Act expire not later than the 30th June, 1943, except extended leases.

(xxi) *Forest Permits and Leases.* Under the Forestry Act, permits may be granted (a) to graze and water horses and cattle; (b) to occupy land as the site of a sawmill or other building, or any tramway, wharf, or timber depot; (c) to occupy land for charcoal burning or bee farming or other approved purpose; (d) to occupy land for growing fodder; and (e) to ringbark or otherwise kill or destroy trees. The fees are prescribed by regulation. Leases of land within State forests may also be granted for grazing or other approved purposes for any term not exceeding 20 years.

(xxii) *Areas Occupied under Leases and Licences.* On the 30th June, 1926, there were 60,849 leases and licences current under the Lands Department and the Western Land Board, comprising 114,758,517 acres of Crown lands.

The following table shows the areas which were granted under lease or licence during each year and those held under various descriptions of leases and licences at the end of the years 1921-22 to 1925-26:—

**AREAS TAKEN UP UNDER LEASE OR LICENCE.—NEW SOUTH WALES,
1921-22 TO 1925-26.(a)**

Particulars.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
<i>Areas taken up under Crown Lands Act.</i>	Acres.	Acres.	Acres.	Acres.	Acres.
Occupation licences	10,150	34,526	11,700	41,867	40,817
Conditional leases	201,866	132,444	233,123	179,241	13,506
Conditional purchase leases	278	164	656	4,731	11,872
Settlement leases	1,292	19,753	9,900	11,872	117,299
Improvement leases	79,390	3,500	3,205	9,870	28,900
Annual leases	4,718	275,147	468,311	70,112	91,489
Scrub leases	132,119	4,718	9,812	109,692	496
Special leases	497	131,098	88,506	277	469,077
Residential leases	36,642	319	359	451,962	369,256
Permissive occupancies	48	436,425	439,682	524,632	307,259
Prickly-pear leases	700,419	550,254	406,721	2,922	5,223
Crown leases	378,180	460,502	371,816	641	419
Homestead farms	9,121	5,130	10,017	61	56
Homestead selections and grants	48	219	108	..	..
Suburban holdings	70	2	..	..	..
Week-end leases	6,213	110	22	4	11
Leases of town lands .. ..	..	1,280	..	10,053	..
Returned soldiers' special holdings .. ..	..	..	1,338	1,357	3,224
Inferior land leases .. ..	..	..	..	..	33,720
Irrigation farms .. ..	..	..	..	..	..
Snow leases .. ..	..	..	..	..	..
<i>Areas taken up under Western Lands Act.</i>	..	..	..	..	..
Leases	2,520,974	271,166	2,710,890	4,677,997	2,133,338
Permissive occupancies	169,460	382,445	38,660	180,483	82,152
Total	4,286,617	2,693,950	4,831,269	6,614,638	3,744,199

(a) See also § 7 (vii), page 185.

**AREAS OCCUPIED UNDER LEASE OR LICENCE.—NEW SOUTH WALES,
1921-22 TO 1925-26.(a)**

Particulars.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Outgoing pastoral leases	435,970	399,944	270,222	227,240	220,209
Occupation (i) Ordinary	2,782,896	2,787,985	2,455,642	2,207,313	3,271,558
licences (ii) Preferential	693,212	770,192	715,240	578,930	600,701
Homestead leases	15,207	15,207	..	..	..
Conditional leases	14,163,851	14,134,610	14,075,585	13,939,063	12,732,999
Conditional purchase leases	322,548	293,013	265,643	246,355	203,084
Settlement leases	4,032,936	3,953,363	3,836,205	3,712,740	3,474,751
Improvement leases	3,177,936	2,903,511	2,707,312	2,185,952	1,928,500
Annual leases	1,914,217	1,949,887	1,694,209	1,477,571	1,434,482
Scrub leases	1,247,926	1,165,782	1,099,355	1,046,596	816,782
Snow leases	126,020	126,020	126,020	126,020	159,746
Special leases	828,084	828,091	795,780	795,908	752,409
Inferior land leases	68,350	59,787	59,787	72,200	50,160
Residential leases (on gold and mineral fields)	12,541	11,849	11,527	10,928	10,333
Church and school lands	11	11	11	11	11
Permissive occupancies (b)	1,915,317	2,063,273	2,182,302	2,441,260	2,542,842
Prickly-pear leases	30,562	21,823	21,026	19,298	16,779
Crown leases	4,128,533	4,519,500	4,764,214	4,874,737	5,171,229
Homestead farms	2,622,756	3,014,076	3,309,141	3,772,847	3,965,944
Homestead selections and grants	895,294	915,483	951,594	917,688	958,412
Suburban holdings	51,071	59,732	56,376	53,994	52,998
Week-end leases	487	714	791	575	403
Leases of town lands	139	134	129	121	123
Returned soldiers' special holdings	26,567	28,711	23,826	24,986	18,700
Irrigation farms and blocks .. ..	..	..	129,414	282,246	285,864
Western land leases and licences (c)	75,975,852	75,368,253	75,365,499	75,642,064	76,108,958
Total	115,474,827	115,393,357	114,916,852	114,656,643	114,758,517

(a) See also § 7 (vii), page 185.

(b) Permissive occupancies in the Western Division not included.

(c) Includes permissive occupancies.

2. *Victoria.*—(i) *Perpetual Leases.* A person may take up as a perpetual lease an area of Crown land varying from 600 acres of first-class land to 2,880 acres of Class 4A land. The annual rental is fixed by the Board of Land and Works every 10 years. Specified improvements must be effected during the first 6 years, and residence on or within 5 miles of the land for 6 months during the first year and for 8 months during each of the 4 following years is necessary, but, if one-fourth of the allotment be cultivated during the first 2 years and one-half before the end of the fourth year, the residence covenant is not enforced.

(ii) *Auriferous Lands Licences.* Licences may be granted for any period not exceeding one year, entitling the holder to reside on or cultivate auriferous land not comprised within a city or town, and not exceeding in extent 20 acres. The terms and conditions are such as are approved by the Governor. No person may hold more than one licence. After the value of the land has been paid in rent, only a nominal rent is payable.

(iii) *Leases of Swamp or Reclaimed Lands.* Swamp or reclaimed lands may be leased in allotments not exceeding 160 acres, for a term of 21 years, subject to the lessee keeping open all drains, etc., thereon. The rent is fixed according to the value of the land as determined by the Board of Land and Works. The lessee must effect improvements to the value of 10s. per acre in each of the first 3 years, but residence on the land is not necessary.

(iv) *Perpetual Leases of Swamp or Reclaimed Lands.* The conditions under which these leases may be taken up are similar to those of ordinary leases, except that the lease is held in perpetuity, and the rent is fixed at 4 per cent. of the value of the land, which is re-appraised every 10 years.

(v) *Grazing Licences.* Grazing licences may be granted for a term not exceeding 7 years subject to cancellation at any time. In the case of returned soldiers, leases may be granted for 14 years. The rental varies according to the class of land.

(vi) *Perpetual Leases of Mallee Land.* Perpetual leases of Mallee land may be granted for areas ranging from 640 acres of first-class land to 4,000 acres of Class 4A land. The rent is 1½ per cent. of the value of the land, which is re-appraised every 10 years. Residence is necessary during 6 months of the first year and during 8 months in each of the following 4 years, but the residence condition is waived if one-fourth of the land is cultivated within 4 years and one-half by the end of the sixth year, or, alternatively, if improvements, ranging in value from 10s. to 2s. 6d. per acre, according to the class of land, are effected during the first 6 years.

(vii) *Miscellaneous Leases and Licences.* Leases up to 21 years at an annual rental of not less than £5, and annual licences at various rates are issued for different purposes, such as sites for residences, gardens, inns, stores, smithies, butter factories, creameries, brickworks, etc. Licensees who have been in possession of land for 5 years (if such land is situated outside the boundaries of a city) may purchase the same at a price to be determined by the Board.

(viii) *Bee Farm Licences.* Annual licences for bee farms may be issued for areas of not more than 10 acres at such fees as the Minister may fix.

(ix) *Bee-Range Area Licences.* A bee-range licence may be secured on payment of ½d. for every acre of Crown land within a radius of 1 mile of the apiary, and in connexion therewith all suitable timber may be protected from destruction although held under grazing lease or licence.

(x) *Eucalyptus Oil Licences.* A licence may be granted of land suitable for the growth of trees in connexion with the manufacture or production of eucalyptus oil. The licence is in force for such period and subject to such conditions as may be prescribed.

(xi) *Forest Leases.* Under the Forests Act, a person may obtain, for a term not exceeding 12 years, a lease of Crown land within any reserved forest for (a) the grazing of cattle; (b) sawmilling purposes, but not exceeding 3,000 acres in extent; or (c) any miscellaneous purpose for which a miscellaneous lease may be granted under the Land Act. The rent and conditions are as prescribed.

(xii) *Forest Licences.* Under the same Act, and subject to prescribed conditions, the Forests Commission may grant to any person for any term not exceeding one year

a licence to occupy (a) any area for the grazing of cattle; (b) a special area, not exceeding 640 acres, for the cutting of timber; (c) an area, not exceeding one acre, for residence purposes; or (d) an area for any of the miscellaneous purposes for which a miscellaneous licence may be granted under the Land Acts.

(xiii) *Forest Townships.* A sufficient part of any reserved forest may be set apart as a forest township site, and divided into allotments. Such allotments may, upon the prescribed terms and rental, be leased for any term not exceeding 20 years to any person engaged in the forest industry or to any business person, and these leases are renewable.

(xiv) *Areas held under Leases and Licences.* The following statement shows the areas of Crown lands occupied under leases and licences from 1921 to 1925. All grazing area leases expired on the 29th December, 1920 :—

CROWN LANDS UNDER LEASE OR LICENCE.—VICTORIA, 1921 TO 1925.

Tenure.	1921.	1922.	1923.	1924.	1925.
Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Grazing licences (exclusive of Mallee) ..	6,649,821	6,647,808	6,647,800	6,393,679	4,673,281
Mallee lands	1,680,670	2,405,320	2,405,328	1,699,422	2,142,763
Auriferous lands (licences)	64,135	61,577	56,789	53,227	46,992
Swamp lands (leases)	1,565	1,697	2,854	2,866	2,514
Perpetual leases	7,559	7,559	5,240	4,882	5,046
Perpetual leases under Mallee Lands Acts 1896-1901	128,684	113,632	102,518	100,657	106,207
Total	8,532,434	9,237,593	9,220,529	8,254,733	6,976,803

3. *Queensland.*—(i) *Perpetual Lease Selections.* The area of a perpetual lease selection must not exceed 2,560 acres, and is held under a lease in perpetuity. An applicant for such lease, who undertakes to reside on his selection during the first 5 years of his lease, has priority over other applicants, and further priority is granted to an applicant who, in addition, agrees to cultivate at least one-twelfth of his selection within the first 3 years and destroy noxious plants. The annual rent during the first 15 years is $1\frac{1}{2}$ per cent. of the notified capital value, provided that the rent for the second year is a peppercorn (if demanded). The annual rent for each period of 15 years thereafter is determined by the Land Court at a similar percentage of the unimproved capital value of the land as fixed by that Court. Where the land is in a prickly-pear area or a buffer area under the Prickly-pear Act, the maximum area allowed to one person may exceed 2,560 acres. The duration of each period of a selection under such an area is 30 years, and the Prickly-pear Land Commission, instead of the Land Court, fixes the rent.

(ii) *Perpetual Lease Prickly-pear Selections.* The maximum area for a perpetual lease prickly-pear selection is 2,560 acres, and the same conditions as to priority apply as in the case of an ordinary perpetual lease selection. The lease is in perpetuity and contains a condition for the destruction of the prickly pear and other noxious plants thereon. The rent for the first 30 years is a peppercorn (if demanded), and for each period of 30 years thereafter is $1\frac{1}{2}$ per cent. of the unimproved capital value as determined by the Prickly-pear Land Commission.

(iii) *Pastoral Leases.* The Minister may, by notification in the *Gazette*, declare any Crown land open for pastoral lease, subject to conditions as to fencing, improvements, and the destruction of noxious weeds. The notification must specify the areas to be leased, the maximum area which one person may hold, the term of the lease, which must not exceed 30 years, and the rent per square mile for the first period of 10 years. The rent for the second and third periods of 10 years is fixed by the Land Court. In a prickly-pear area or buffer area the periods are 20 years, and the Prickly-pear Land Commission fixes the rent.

(iv) *Preferential Pastoral Leases.* When the terms of the opening notification so indicate, land may be applied for during the first 6 months only as preferential pastoral leases, and, in that case, no person who is under 16 years of age or is the selector or lessee

of a grazing selection or the owner of freehold land of an area of 5,000 acres and upwards shall be competent to apply for or hold the land as a preferential pastoral lease. The holder of an ordinary pastoral lease will also be debarred from applying for or holding the specified land under preferential pastoral lease if the area of the latter combined with that of the pastoral holding exceeds the maximum area mentioned in the notification. When an applicant for a preferential pastoral lease on making his application offers that the holding shall be subject to the condition of personal residence during the first 7 years, and undertakes to perform that condition, he receives priority over applicants who do not make such offer. In other respects the conditions as regards improvements and the destruction of noxious weeds are the same as in the case of an ordinary pastoral lease. The holder of a preferential pastoral lease must hold and use the land for his own exclusive benefit, but such stipulation is not made in connexion with an ordinary pastoral lease.

(v) *Prickly-pear Leases.* The Minister, on the recommendation of the Prickly-pear Land Commission, may, by notification in the *Gazette*, declare any Crown land (being prickly-pear land) open for prickly-pear lease subject to any of the conditions applicable to pastoral holdings situated outside a prickly-pear area or buffer area. The land comprised in a prickly-pear lease or any part thereof may be resumed for agricultural or mixed farming settlement without compensation except for improvements. The rent for the second and each succeeding period of 10 years is determined by the Prickly-pear Land Commission.

(vi) *Occupation' Licences.* Annual licences are granted to occupy Crown lands, either after notification in the *Gazette* or by the Minister without competition. In the former case the rent is as notified, and in the latter is as fixed by the Minister. Licences expire on the 31st December in each year, but may be renewed from year to year upon payment of the rent on or before the 30th September, and the rent may be increased on or before that date. A licence is determinable on 3 months' notice.

(vii) *Special Leases.* The Governor may issue a lease of any portion of land for any manufactory, or for any industrial, residential or business purposes, or for any race-course or recreation purposes, for a period not exceeding 30 years upon such conditions as he thinks fit. A lease may also be issued of reserved lands which are infested with noxious weeds or scrub, conditionally on the lessee destroying such noxious plants.

(viii) *Grazing Selections.* Crown land may be leased as grazing selections, but no person may hold a grazing selection or selections exceeding 60,000 acres in the aggregate. A grazing selection must be fenced within 3 years with a stock-proof fence, a rabbit-proof fence, a marsupial-proof fence or with a fence which is both rabbit-proof and marsupial-proof as the terms of the notification opening the land for selection require, and when so fenced the selector is entitled to a lease. A condition is imposed for the destruction of noxious weeds. The annual rent for the first 7 years is as notified or tendered, and for each succeeding period of 7 years is as determined by the Land Court, except in the case of selections in a prickly-pear area or a buffer area. In such cases the Prickly-pear Land Commission determines the rent for the period of 14 years instead of 7 years. Grazing selections may be either (a) grazing farms, or (b) grazing homesteads; and when land is declared open for grazing selection it must be available for grazing homesteads only during the first 56 days. If at the expiration of that period the land has not been applied for it shall for a further period of 34 days be deemed to be withdrawn from selection, after which it will be available for selection as a grazing farm only. The lease of a grazing farm is subject to the condition of occupation during the whole term, and that of a grazing homestead to the condition of personal residence during the whole term.

(ix) *Auction Perpetual Leases.* Perpetual leases of (a) town lands, in areas not exceeding half-an-acre; (b) suburban lands, in areas not exceeding 5 acres; and (c) country lands, in areas not exceeding 640 acres, may be sold by auction to any person, to trustees for religious or charitable bodies, or to companies. Improvements to the value of at least £25 must be effected within 2 years, and the rent during the first 15 years is fixed at 3 per cent. of the upset price, or of such greater capital sum as has been bid by the purchaser. For each period of 15 years thereafter, the rent is 3 per cent. of such unimproved value of the land as is determined by the Land Court. No person may hold more than 6 town or 6 suburban leases in any one town or adjacent thereto.

(x) *Areas taken up under Lease or Licence.* The following table gives particulars of the areas taken up under lease or licence during the years 1921 to 1925:—

AREAS TAKEN UP UNDER LEASE OR LICENCE.—QUEENSLAND, 1921 TO 1925.

Tenure.	1921.	1922.	1923.	1924.	1925.
	Acres.	Acres.	Acres.	Acres.	Acres.
Pastoral leases	1,121,800	2,998,480	3,326,320	4,594,760	12,049,560
Occupation licences	5,994,440	7,993,560	7,757,440	4,291,600	5,900,280
Grazing farms	949,432	1,306,603	1,938,428	744,565	1,167,474
Grazing homesteads	1,853,990	1,673,724	2,853,341	3,083,548	2,155,991
Perpetual lease selections	419,886	250,518	205,282	278,137	366,952
Perpetual lease prickly-pear selections	270,985	154,359	140,093	85,296	169,442
Auction perpetual leases, Town	150	206	175	127	188
" " " Suburban	236	371	187	214	175
" " " Country	916	924	1,067	1,293	1,631
Special leases	11,806	18,012	25,905	55,015	58,343
Leases of reserves	28,190	18,050	46,741	33,915	94,539
Total	10,651,831	14,414,807	16,294,979	13,168,470	21,964,575

The following particulars are available respecting leases taken up in 1926:—

Grazing farms	1,270,605 acres.
Grazing homesteads	1,495,751 acres.
Perpetual lease selections	201,378 acres.
Perpetual lease prickly-pear selections	274,276 acres.

The gross area held at the end of the year 1925 for purely pastoral purposes was 339,534 square miles.

Seven non-competitive perpetual leases were issued during 1925, the total area being 91 acres.

The total areas occupied under lease or licence will be found in a table at the end of this chapter.

4. South Australia.—(i) Perpetual Leases. Crown lands (except town lands) which have been surveyed, or of which the boundaries have been delineated in the public maps, may be offered on perpetual lease. Details concerning the area which is to be cleared and rendered available for cultivation, and the rent to be paid, are notified in the *Gazette*. An applicant must deposit with his application 20 per cent. of the first year's rent (if any). Preference is given in allotting land to the applicant who agrees to reside on the lease for 9 months in each year. If no application is made within 3 months from the date of notification, the Commissioner may offer the land at a reduced rent. No lease may be granted to any person of lands the unimproved value of which exceeds £5,000, except where the land is suitable for pastoral purposes only, while no lease is granted if the carrying capacity of all the lands held by the lessee would exceed 5,000 sheep, or, if outside Goyder's line of rainfall, 10,000 sheep. The lessee must fence the land within 5 years, and clear and render available for cultivation not less than one-eighth during the first 2 years, one-eighth during the second 2 years, and then one-eighth annually until three-quarters have been so cleared and rendered available for cultivation.

(ii) *Special Perpetual Leases.* Where the Commissioner directs, the following provisions apply respecting the payment of rent:—(a) No rent is payable for the first 4 years; (b) from the end of the fourth to the end of the tenth year, rent is payable at the rate of 2 per cent. of the value of the land; and (c) thereafter, 4 per cent. of the value of the land is payable in perpetuity.

(iii) *Homestead Blocks.* The conditions applying to these blocks are the same as those for blocks held under agreement to purchase, except that they are leased in perpetuity and cannot be sold. (See § 4.)

(iv) *Miscellaneous Leases.* Leases may be granted for various purposes for any term not exceeding 21 years at such rents and upon such conditions as the Commissioner may determine.

(v) *Licences.* Licences may be granted of Crown lands for (a) fishermen's residences and drying grounds, (b) manufactories, fellmongering establishments, slaughter houses, brick or lime kilns or sawmills, (c) depasturing sheep, cattle or other animals, or (d) any other approved purpose. These licences are in force for one year only and are subject to such fees and conditions as the Commissioner may impose.

(vi) *Leases of Resumed Lands.* The Commissioner may resume possession of any well or other place where water has been found, and of not more than 1 square mile of land contiguous thereto, or, in the case of artesian water, 5 square miles. A lease of such land may be offered by private contract or by auction, the original lessee of the land having a preferential right to such lease. The lessee must maintain an accommodation house, if required, and construct facilities for watering stock.

(vii) *Pastoral Leases.* These leases are issued under the Pastoral Acts, and are granted for a term of 21 or 42 years. The rent is fixed by the Commissioner of Crown Lands, and is based on the unimproved value, which is re-appraised in the case of 42 years' leases after the expiration of 21 years. The lessee must expend in improvements such sum not exceeding 10s. per square mile per annum as is recommended by the Pastoral Board, but this covenant ceases when £3 per square mile has been expended. Conditions as to stocking must also be fulfilled.

(viii) *Leases to Discoverers of Pastoral Country, etc.* Under the same Acts, a person who has discovered pastoral lands, or has applied for a lease which has been abandoned for 3 years or more on account of vermin, may obtain a lease for 42 years at a peppercorn rental for the first 10 years, at 6d. per square mile for the next 10 years, and thereafter at a rent of 2s. per square mile annually.

(ix) *Special Leases to Discoverers of Water.* The Governor may, under the Pastoral Acts, issue a permit to any person desirous of searching for water. The permit is in force for one year and confers on the holder the exclusive right to search for water on the land specified therein, and a preferential right to a lease. The holder of a permit who has discovered a permanent supply of water equal to not less than 4,000 gallons per day suitable for great cattle may be granted a lease not exceeding 100 square miles at a similar rental to that paid by lessees who have discovered pastoral country (see preceding subsection (viii)). The conditions of stocking are modified, and for 10 years the land is exempt from rating under the Wild Dogs Act. The discoverer of such water supply is also entitled to a reward of at least £200, provided the supply is not less than 3 miles from any existing well or bore.

(x) *Irrigation Blocks.* Under the Irrigation Act, blocks of land are offered in irrigation areas on perpetual lease at rentals fixed by the Irrigation Commission. Provided that the block has not been cultivated, one-quarter only of the rent is payable for the first year, one-half for the second year, three-quarters for the third year, and thereafter the full amount annually. Not more than 50 acres of irrigable or reclaimed land may be held by one person. Residence for 9 months in each year is necessary, and certain specified improvements must be effected.

(xi) *Town Allotments in Irrigation Areas.* Perpetual leases of town allotments in irrigation areas must be offered for sale by auction, and, if not so sold, may be sold by private contract at not less than the upset price. A lessee must within 18 months effect improvements to the value of not less than 10 times the annual rent, but not less than £150 if the allotment is used for residential purposes, or £200 if used otherwise. Annual licences may also be granted to occupy town allotments.

(xii) *Forest Leases.* Leases of land comprised in any forest reserve under the Woods and Forests Act, for cultivation or grazing or both, are open to application for allotment by the Land Board for any term not exceeding 42 years. With the approval of the Commissioner of Forest Lands such land may also be leased by the Land Board. With the exception of leases in certain scheduled forest reserves, a lessee may surrender his lease and be granted a perpetual lease or agreement to purchase in lieu thereof.

(xiii) *Areas Leased.* The following table gives the areas leased during each of the years 1921-22 to 1925-26 under the different forms of lease tenure :—

AREAS LEASED.—SOUTH AUSTRALIA, 1921-22 TO 1925-26.

Particulars.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	Acres.	Acres.	Acres.	Acres.	Acres.
Perpetual leases—					
Homestead farms (repurchased)	.. 911	490	2,893	3,616	5,261
Irrigation and reclaimed lands ..	159,007	284,074	123,039	91,020	166,008
Other Crown lands ..	..	..	..	..	..
Miscellaneous leases	.. 1,294	134,159	21,626	133,898	190,137
Grazing ..	.. 11,687	64,371	4,082	116,733	519,958
Grazing and cultivation ..	..	..	..	..	..
Agricultural College land ..	.. 2,005	21,840	..	19,840	2,523
Forest ..	.. 1,437,440	2,259,200	2,727,680	958,400	391,520
Pastoral leases ..	..	..	..	..	..
Total ..	1,612,344	2,766,135	2,879,320	1,324,107	1,275,407

The total areas held under lease are given in the table at the end of this chapter.

5. *Western Australia.*—(i) *Pastoral Leases.* Crown lands may be leased for pastoral purposes, the maximum areas of the blocks and the rentals varying according to the division in which they are situated, but no person may acquire more than 1,000,000 acres. Pastoral leases must be stocked within 2 years at the rate of 10 head of sheep or 2 head of large stock for each 1,000 acres, within 5 years with double that quantity, and for the remainder of the term with 3 times that number. Pastoral leases may be held for a term expiring on the 31st December, 1948, and the rentals are re-assessed at the end of 15 years, but may not be increased by more than 50 per cent. Lessees must improve their land to the extent of £5 per 1,000 acres within 5 years, and to the extent of £10 per 1,000 acres within 10 years.

(ii) *Special Leases.* The Governor may grant special leases of Crown lands, not exceeding 25 acres in area, for a term not exceeding 21 years, at a yearly rental of not less than £2. Such leases are granted for miscellaneous purposes, such as obtaining guano, sites for inns or factories, market gardens, and similar objects.

(iii) *Residential Leases.* Any unalienated town, suburban or rural lands, may be set apart for residential leases and subdivided into lots not exceeding $\frac{1}{2}$ acre each. The terms and conditions are prescribed by regulation. Any holder of a residential lease, who has resided thereon for 2 years, may convert the same into a working-man's block.

(iv) *Leases of Town and Suburban Land.* The Governor may lease any town or suburban lands for a period of 99 years at an annual rental equal to 4 per cent. of capital value, which is to be re-appraised every 10 years.

(v) *Irrigation Leases.* Under the Rights in Water and Irrigation Act, any land may be acquired for or dedicated to the purposes of that Act, and the Minister may grant leases in perpetuity of any such land at an annual rent based on the unimproved capital value of the demised land (subject to re-appraisal at prescribed periods) and the value of the improvements thereon, subject to such conditions as are prescribed.

(vi) *Forest Permits.* Under the Forests Act, the Conservator of Forests may issue permits entitling the holders (a) to take and contract for the sale of forest produce; (b) to occupy land as the site of a sawmill, as a timber depot, for growing fodder; or (c) to work a sawmill; or (d) to make roads or tramways; or (e) to graze and water cattle or for any other approved purpose—on lands under his jurisdiction. The term of a permit must not exceed 10 years, and permits must be submitted to public auction. The Conservator of Forests may also grant forest leases on such conditions as he may think fit, for periods not exceeding 20 years, for grazing, agriculture, or other purposes not opposed to the interests of forestry.

(vii) *Areas Leased.* The subjoined table gives the number of leases and the areas of land leased by the Lands Department during the years ending 30th June, 1922 to 1926 :—

LEASES.—WESTERN AUSTRALIA, 1921-22 TO 1925-26.

Particulars.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
Number of leases issued ..	821	504	605	537	324

AREAS OF LEASES ISSUED.

	Acres.	Acres.	Acres.	Acres.	Acres.
Pastoral leases ..	28,259,124	5,738,313	20,361,793	20,841,066	8,930,446
Special leases ..	8,874	3,838	2,265	2,894	2,394
Leases of reserves ..	374,338	36,396	25,370	56,275	21,468
	28,642,336	5,778,547	20,389,428	20,900,235	8,954,308

The total areas leased are given in the table at the end of this chapter.

6. *Tasmania.*—(i) *Grazing Leases.* Leases of grazing lands are put up to auction, the upset price being fixed by the Commissioner, but at not less than an annual rent of 5s. per 100 acres. Lands not disposed of by auction may be gazetted and let by private contract.

(ii) *Leases of Land Covered with Button-grass, etc.* The Commissioner may lease to any person, for a period not exceeding 26 years, any Crown land covered with button-grass, river-grass or rushes, at a rental which must not be less than 25s. per 1,000 acres, provided that the lessee covenants to improve the area to the value of £2 10s. per 1,000 acres per annum.

(iii) *Leases of Mountainous Land.* Leases for a period not exceeding 21 years may be granted of land situated at an altitude of not less than 1,800 feet. The rent is not less than £2 10s. per 1,000 acres per annum, and the lessee must improve the land to the value of £5 per 1,000 acres annually.

(iv) *Miscellaneous Leases.* The Commissioner may lease for a period not exceeding 14 years land for wharves, jetties, watercourses, manufactories, railways, tramways etc. The lessee must carry out the conditions stated in the lease and pay the prescribed rent half-yearly.

(v) *Temporary Licences.* The Commissioner may grant to any person a temporary licence to hold, for not exceeding 12 months, any Crown lands for such purposes and on such terms and conditions as may be prescribed.

(vi) *Occupation Licences.* An occupation licence for a year expiring on the 31st December may be issued at a fee of 5s. to any person, such licence entitling him to occupy the surface of any Crown land within a mining area not exceeding $\frac{1}{4}$ acre in extent.

(vii) *Pastoral Leases.* A holder of an occupation licence or any approved person may lease within a mining area by private contract a pastoral lease for a period not exceeding 14 years, upon such terms and conditions as the Governor may see fit. No such lease may exceed 1,000 acres in area.

(viii) *Residence Licences.* A residence licence, for which a fee of 10s. is charged, and which is in force until the 31st December, entitles the holder to occupy for residence an area not exceeding $\frac{1}{4}$ acre in any town situated within a mining area which has been surveyed and gazetted as available therefor.

(ix) *Business Licences.* A business licence, costing £1 for a year, expiring on the 31st December, authorizes the holder to occupy for business purposes the surface of any Crown land within a mining area, not exceeding $\frac{1}{4}$ acre in area.

(x) *Forest Leases, Licences and Permits.* Under the Forestry Act, the following leases, permits, and licences may be granted on lands contained in State forests and timber reserves :—(a) *Forest Permits.* A forest permit confers upon the holder, for

not exceeding 15 years, exclusive rights over the land therein defined for all purposes connected with the obtaining, conversion and removal of timber and forest produce. Such permit may be submitted to public auction or tender, and is subject to the payment of royalties on all produce taken, and to the prescribed conditions; (b) *Occupation Permits*. An occupation permit may be granted for a period not exceeding 15 years for sawmill sites, timber depots, roads and tramways. A similar permit may also be issued entitling the holder to graze and water cattle; (c) *Forest Licences*. A forest licence authorizes the holder to take forest produce, subject to the payment of fees and royalties as prescribed. The term of such licence may not exceed 3 months; (d) *Forest Leases*. Land may be leased on such conditions as the Minister may think fit for not longer than 14 years for grazing, agricultural, or other purposes. No compensation is payable for improvements, but the licensee may remove any buildings or fences, or dispose of them to an incoming tenant; (e) *Plantation Leases*. The Minister may grant, for not exceeding 60 years, leases for plantation purposes at such rent and upon such conditions as may be prescribed.

(xi) *Areas Leased*. The following table gives the areas leased during each year and the total areas leased at the end of the years 1921 to 1925:—

AREAS LEASED.—TASMANIA, 1921 TO 1925.

Particulars.	1921.	1922.	1923.	1924.	1925.
AREAS LEASED DURING YEAR.					
Pastoral leases	Acres. 197,597	Acres. 89,666	Acres. 171,484	Acres. 188,652	Acres. 138,678
TOTAL AREAS LEASED AT END OF YEAR.					
Ordinary leased land	1,608,000	1,577,653	1,593,000	1,575,000	1,579,000
Islands	108,000	107,000	107,000	106,000	106,000
Land leased for timber	236,847	308,072	272,270	282,673	284,800
Total	1,952,847	1,992,725	1,972,270	1,963,673	1,969,800

7. Northern Territory.—(i) *Pastoral Leases*. A pastoral lease may be granted for such term, not exceeding 42 years, as the Commission determines. The rental for the first period is fixed by the Board, and is subject to re-appraisal on such dates as are specified in the lease or as are prescribed.

(ii) *Agricultural Leases*. Agricultural lands are classified, and the maximum area which may be included in any one lease is as follows:—Division A, Cultivation Farms, Class 1, 1,280 acres, Class 2, 2,560 acres: Division B, Mixed Farming and Grazing, Class 1, 12,800 acres, Class 2, 38,400 acres. Agricultural leases are granted in perpetuity, and the rent for the first period is fixed by the Commission, and is re-appraised every 21 years. The lessee must—(a) in the case of lands for mixed farming and grazing, stock the land to the extent prescribed by the regulations and keep it so stocked; (b) establish a home within 2 years and reside on the leased land for 6 months in each year in the case of land for cultivation, and for 4 months in each year in the case of land for mixed farming and grazing; (c) cultivate the land to the extent notified by the Commission; and (d) fence the land as prescribed. The holder of an agricultural lease may apply for a grant in fee-simple of all or portion of the lands comprised in the lease, when, subject to compliance with certain conditions provided in the lease, the grant may be made.

(iii) *Leases of Town Lands*. Leases of town lands are granted in perpetuity, the rental being fixed every 14 years. Such leases must, in the first instance, be offered for sale by public auction, and if not so sold, may be allotted by the Commission to any applicant, at the rental fixed by the Commission. The lessee must erect, within such time as is notified, buildings to the value specified in the conditions of sale. The holder of a town lease may apply for a grant in fee-simple of the lands included in the lease, and if certain conditions provided in the lease are complied with, the grant may be made.

(iv) *Miscellaneous Leases.* The Commission may grant a lease of any portion of Crown lands, or of any dedicated or reserved lands, for any prescribed or approved purpose. Such leases are for a term not exceeding 21 years, and may be offered for sale by public auction, or granted to any applicant at an annual rental fixed by the Commission.

(v) *Leases of Garden Lands.* Leases of garden lands may be granted over areas within 10 miles of a town, provided the Minister has declared the area as garden lands. Under certain conditions the leaseholder may apply for a grant in fee-simple.

(vi) *Tropical Lands.* Any company incorporated or registered in the Northern Territory may, upon entering into an agreement in the prescribed form, acquire an area of tropical lands (i.e., lands north of the sixteenth parallel of south latitude declared by the Minister to be tropical lands) not exceeding 20,000 acres for a term of 14 years for the growth of cotton or other tropical products. The company is entitled to a grant of the land in fee-simple at any time during the term of the agreement, on payment of 2s. 6d. per acre and subject to compliance with certain prescribed conditions.

(vii) *Grazing Licences.* Licences may be granted to graze stock on Crown lands for such period, not exceeding one year, as is prescribed, and at the rent and on the conditions specified.

(viii) *Occupation Licences.* Licences may be granted for any period not exceeding 5 years, and on specified rentals and conditions, for the purpose of drying or curing fish, or for any manufacturing or industrial purpose, or for any prescribed purpose.

(ix) *Miscellaneous Licences.* The Commission may grant licences for miscellaneous purposes for a period not exceeding 12 months on prescribed terms and conditions.

(x) *Leases to Aborigines.* The Governor-General may grant to any aboriginal native, or to the descendant of any aboriginal native, a lease of Crown lands not exceeding 160 acres for any term of years upon such terms and conditions as he thinks fit.

(xi) *Areas held under Leases, Licences, and Permits.* The following table shows the total areas held under lease, licence, and permit at the end of the years 1922 to 1926 :—

NORTHERN TERRITORY.—AREAS HELD UNDER LEASES, LICENCES, OR PERMITS, 1922 TO 1926.

Particulars.	1922.	1923.	1924.	1925.	1926.
	Acres.	Acres.	Acres.	Acres.	Acres.
Right of purchase leases ..	356	356			
Pastoral leases and grazing licences ..	130,410,720	134,214,800	137,209,866	143,873,866	147,418,506
Other leases and licences ..	5,167,720	2,112,816	1,945,088	2,740,840	2,702,691
Total	135,578,796	136,327,972	139,154,954	146,614,706	150,121,197

On the 31st December, 1926, the areas held under leases and licences were :—Pastoral leases, 110,937,866 acres ; annual pastoral leases, 33,280 acres ; pastoral permits, 2,211,840 acres ; grazing licences, 34,235,520 acres ; miscellaneous leases (including water leases), 1,650,004 acres ; mining leases, 1,667 acres. There were also 32,358 square miles under reserve for aboriginal natives of Australia, 4,220 square miles mostly over pastoral holdings under licences to prospect for mineral oil and coal, and 1,051,520 acres mission station leases.

8. Federal Capital Territory.—(i) General. Under the Seat of Government (Administration) Act 1910, Crown lands in the Territory may not be sold or disposed of for any estate in freehold except in pursuance of some contract entered into before the commencement of that Act. Leases of land in the City Area are granted under the City Area Leases Ordinance 1924–26, and leases of other lands under the Leases Ordinance 1918–26. Land is also leased for various purposes in the City Area under the Church Lands Leases Ordinance 1924, Leases (Special Purposes) Ordinance 1925, and the Recreation Land Leases Ordinance 1923.

(ii) *City Leases.* The Federal Capital Commission may grant leases in the city area of any Crown land for business or residential purposes. Such leases may be issued for a period not exceeding 99 years at a rental equal to not less than 5 per cent. of the

unimproved value of the land, which value is subject to re-appraisal at the expiration of 20 years, and thereafter every 10 years. A suitable building must be commenced within 2 years and completed within 3 years unless an extension of time as may be approved is allowed.

The first public auction sale of City Leases in Canberra was held on 12th December, 1924, at which 393 blocks were offered, including business and residential subdivisions. The leases of 146 blocks were sold at the auction, and 139 have been sold subsequently, while 64 blocks have been withdrawn from lease and buildings for public servants are being erected thereon by the Commission. A further sale of city leases during the year resulted in the disposal of 39 blocks, while 34 leases have been disposed of subsequent to the auction. Further subdivisions for sale and business purposes will be offered this year.

(iii) *Leases of other Lands.* Leases may be granted for grazing, fruitgrowing, horticulture, agriculture, residential, business, or other purposes for a period not exceeding 25 years. The annual rental is 5 per cent. of the assessed value of the land, including improvements which are the property of the Crown, plus the amount of rates payable. No person may hold under lease land of a greater value than £6,000, exclusive of the value of buildings and fences thereon.

(iv) *Areas of Acquired, Leased, etc., Lands.* At the end of the year 1926 the area of acquired lands was 210,567 acres; of lands alienated, 45,689 acres; of lands in process of alienation, 54,510 acres; of leases, 174,301 acres; and unoccupied, 98,593 acres. These figures are exclusive of 17,920 acres in the Jervis Bay area.

§ 6. Closer Settlement.

1. New South Wales.—(i) *Acquisition of Land.* For the purposes of the Closer Settlement Acts, the Governor may constitute three Closer Settlement Advisory Boards, but at present one such Board deals with closer settlement for the whole State. Where the Board reports that any land is suitable for closer settlement, the Governor may either purchase it by agreement with the owner, or, failing such agreement, where the value of the unimproved land exceeds £20,000, resume it compulsorily. All such purchases or resumptions must be approved by Parliament. Land within 15 miles of a railway, the construction of which is authorized, if the property of one owner, and exceeding £10,000 in value, may also be purchased or resumed.

Under the provisions of the Crown Lands Consolidation Act 1913, the Governor may acquire either by way of purchase or resumption, after report by the local Land Board, any land of any tenure for certain purposes, including settlement. Private lands may also be acquired for Closer Settlement by direct purchase under Executive Council authority.

(ii) *Disposal of Acquired Lands.*—(a) *Settlement Purchase and Soldiers' Group Purchase.*—Lands acquired or resumed for closer settlement are mainly disposed of as Settlement Purchase under the Closer Settlement Acts or Soldiers' Group Purchase under the Returned Soldiers' Settlement Acts. The capital value is as notified, and represents roughly the cost of acquisition plus the cost of subdivision, etc. Unless otherwise specified the deposit and annual instalment are $6\frac{1}{2}$ per cent. of the capital value, including interest at the rate of $5\frac{1}{2}$ per cent. per annum. The whole or any of the instalments of the purchase money may be paid at any time. Returned soldiers taking up settlement purchases or group purchases are not required to lodge any deposit. Residence for 5 years is obligatory, and in the case of a settlement purchase permanent improvements to the extent of 10 per cent. of the capital value of the land must be effected within 2 years, and an additional 15 per cent. within 5 years. Improvements existing on the land when selected are, however, taken into consideration in satisfaction of the improvement conditions. The external boundaries of a group purchase must be fenced within three years of confirmation, and any other special conditions must be complied with. Upon fulfilment of all conditions a grant in fee-simple is issued.

(b) *Sales by Auction.* Land acquired for closer settlement may also be set apart as township allotments. Such allotments, which must not exceed $\frac{1}{2}$ -acre in area, may be sold by auction, but no person may hold more than three allotments, except by way of mortgage.

(c) *After-auction Sales.* When any land has been offered for sale or lease by auction, and is not disposed of, any person may apply for the same at the upset price. A deposit of 25 per cent. of the upset price must be lodged with the application, and the balance paid according to the conditions notified in the *Gazette*. Such land may also be set apart for disposal under the Crown Lands Act.

(d) *Permissive Occupancies.* The Minister may grant permits to occupy any acquired land which remains undisposed of, upon such terms and conditions as he thinks fit.

(iii) *Closer Settlement Promotion.* Any three or more persons, or one or more discharged soldiers or sailors, each of whom is qualified to hold a settlement purchase, may negotiate with an owner of private lands to purchase a specified area on a freehold basis. If the Minister approves, the land is bought by the Crown and paid for in cash or debentures, but the freehold value including improvements must not exceed £3,000 for any one person, or in exceptional cases £3,500. If the land is suitable for grazing only, the value may be up to £4,000. If the land is purchased by the Crown for cash, the applicant pays therefor by annual instalments of $6\frac{1}{2}$ per cent. of the capital value, including $5\frac{1}{2}$ per cent. interest on the outstanding balance, but if payment for the land is made in debentures, the deposit and annual instalments are $1\frac{1}{2}$ per cent. in advance of the rate of interest paid to the vendor by the Crown, and the interest on the unpaid balance of the purchase money is $\frac{1}{2}$ per cent. in advance of the rate of interest paid by the Crown as aforesaid. Any one or more discharged soldiers or sailors may also enter into agreements to purchase on present title basis a conditional purchase, a conditional purchase lease, a conditional purchase and conditional lease, a homestead selection, a homestead farm, a settlement lease, a Crown lease, an improvement lease or scrub lease, not substantially of a greater area than is sufficient for the maintenance of a home. The vendor is paid by the Crown as in the case of freehold lands, but the transfer is made direct to the purchaser. The land continues to be held under the same tenure and subject to the same conditions as prior to transfer.

(iv) *Areas Acquired and Disposed of.* Up to the 30th June, 1926, 1,849 estates, including 952 single farm propositions acquired for discharged soldiers or sailors, had been acquired for closer settlement.

The number of farms allotted under the Promotion Sections of the Closer Settlement Acts to date is 3,756, the area 1,796,520 acres, and the amount advanced by the Crown £8,320,212.

The following statement gives particulars of the aggregate areas opened up to the 30th June in each year from 1922 to 1926 :—

CLOSER SETTLEMENT AREAS (a).—NEW SOUTH WALES, 1921–22 TO 1925–26.

To 30th June—	Areas.			Capital Values.		
	Acquired Lands.	Adjoining Crown Lands.	Total.	Acquired Lands.	Adjoining Crown Lands.	Total.
	Acres.	Acres.	Acres.	£	£	£
1922	3,454,422	94,881	3,549,303	13,006,776	176,164	13,182,940
1923	3,783,204	96,958	3,880,162	13,670,070	183,223	13,853,293
1924	3,798,493	96,958	3,895,451	13,719,343	183,223	13,902,566
1925	3,819,376	125,062	3,944,438	13,795,172	185,827	13,980,999
1926	3,845,170	125,212	3,970,382	13,880,292	213,200	14,093,492

(a) Includes 64 long-term leases resumed for closer settlement.

The total area set apart was divided into 7,774 farms, comprising 3,937,137 acres, the remaining area being reserved for public purposes (roads, stock routes, schools, etc.).

The following table gives particulars regarding the disposal of the farms by closer settlement purchase for the years ended the 30th June, 1922 to 1926 :—

CLOSER SETTLEMENT ALLOTMENTS.—NEW SOUTH WALES, 1921-22 TO 1925-26.

To 30th June—				Farms Allotted to Date.			Total Amount received in respect of Closer Settlement Farms.
				Number.	Area.	Value.	
				No.	Acres.	£	£
1922	..	..	..	6,724	3,335,677	11,746,978	2,136,307
1923	..	..	..	6,759	3,380,634	11,903,855	2,538,553
1924	..	..	..	7,585	3,799,132	13,752,891	2,932,033
1925	..	..	..	7,598	3,859,481	13,979,184	3,659,493
1926	..	..	..	7,691	3,923,802	14,641,139	4,243,229

2. *Victoria.*—(i) *Acquisition of Land.* For the purposes of closer settlement, the Closer Settlement Board may either by agreement or compulsorily acquire blocks of private land, and may also ratify any agreement made between persons resident in Victoria and an owner of land for the purchase thereof, and dispose of such land under the Closer Settlement Act. The payment for the land is made in Victorian Government stock or debentures.

(ii) *Disposal of Land.* All land acquired under the Closer Settlement Act is disposed of as conditional purchase leases, which are of three kinds :—(a) Farm allotments, each of which must not exceed £2,500 in value ; (b) workmen's homes allotments, not exceeding £250 in value ; and (c) agricultural labourers' allotments, not exceeding £350 in value. Land for public purposes may be sold in fee-simple. Land in irrigation districts is also disposed of under the Closer Settlement Act by the State Rivers and Water Supply Commission.

(iii) *Sales of Land.* Land for public purposes may be sold in fee-simple, at a price fixed by the Board, but the area of each site must not exceed 1 acre for a church or public hall, 2 acres for a butter factory or creamery, 5 acres for a school, packing-shed, cool stores, fruit works, or cemetery, or 15 acres for a quarry or recreation reserve.

(iv) *Conditional Purchase Leases.* A conditional purchase lease is for such a term of years as may be agreed upon between the lessee and the Board, and provides for the payment of the value of the land, with interest at not less than $4\frac{1}{2}$ per cent., in not more than 73 half-yearly instalments. The principal conditions under which a lease is held are as follows :—(a) Noxious animals and weeds must be destroyed within 3 years ; (b) the land must be fenced in within one year ; (c) personal residence during 8 months of each year or residence by an approved deputy for the first 5 years is necessary ; (d) improvements must be effected to the value of 2 instalments during the first year, to the value of 10 per cent. of the purchase money before the end of the third year, and to a further 10 per cent. before the end of the sixth year, or, if the residence condition is fulfilled by deputy, to the value of 10 per cent. of the purchase money during the first year, and to the value of 30 per cent. before the end of the sixth year ; (e) on a workman's home allotment, a dwelling house of the value of at least £50 must be erected within one year and additional improvements to the value of £25 within 2 years ; and (f) on an agricultural labourer's allotment, a dwelling house of the value of at least £30 must be erected within one year. After a period of 12 years, provided that all conditions are complied with and the full purchase money is paid, a Crown grant may be issued.

(v) *Conditional Purchase Leases in Mountainous Areas.* In mountainous areas, the Minister may direct that no instalments of purchase money and interest need be paid for a period not exceeding 10 years, and the term of the lease is extended accordingly. Interest at the rate of 5 per cent. for the free period is added to the capital value. During each year of such period, the lessee must reduce at least one-tenth part of the allotment to a state of clear grass or cultivation.

(vi) *Areas acquired and made available for Closer Settlement.* The following statement shows the operations under the provisions of the Closer Settlement Acts up to the 30th June, 1921, to 31st December, 1925 :—

CLOSER SETTLEMENT.—VICTORIA, 1920-21 TO 31st DECEMBER, 1925.

(INCLUDING IRRIGATED AREAS.)

Year ended 30th June.	Total Area Acquired by Government to Date.	How Made Available for Settlement.						Total Receipts to Date.	Repayments of Principal to Date.	Area Available for Settlement.	
		Total Cost to Date.	Farm Allotments.	Workmen's Homes Allotments.	Agricultural Labourers' Allotments.	Town Allotments. (a)	Roads and Reserves.				
	Acres.	£	Acres.	Acres.	Acres.	Acres.	Acres.	No.	£	Acres.	
1921	575,900	4,298,765	524,369	784	4,446	41,830	4,471	4,490	3,183,045	992,920	10,979
1922	582,870	4,346,393	530,383	784	3,966	43,320	4,417	4,534	4,454,532	1,098,296	7,922
1923	737,882	5,299,035	670,956	784	3,788	43,236	4,990	4,758	4,794,908	1,202,777	99,573
1924	849,682	6,377,166	770,374	784	3,675	49,900	5,016	5,284	5,193,488	1,347,232	47,547
1925	927,052	7,057,626	841,952	784	3,713	49,878	5,210	5,787	5,798,898	1,576,576	17,879
(b)											

(a) Includes all land sold other than under Conditional Purchase Lease.

(b) 31st December.

3. *Queensland.*—(i) *Acquisition of Land.* The Minister, with the approval of the Governor in Council, may acquire for the Crown, either by agreement or compulsorily, private land in any part of Queensland. The purchase money may be paid either in cash, or, at the option of the Minister and with the consent of the owner of the land, wholly or in part by debentures. Not more than £500,000 may be expended in any one financial year in purchasing land. The land so acquired may be disposed of as perpetual leases only.

(ii) *Perpetual Lease Selections.* These leases are subject to the same conditions as similar leases under the Land Act. The capital value is fixed by the Governor in Council, but must not be less than the price actually paid for the land with 10 per cent. added thereto. The annual rent for the first 15 years is determined by the Minister, but must not exceed the rate paid by the Crown as interest on the purchase money for the particular estate of which the land forms part, and for each subsequent period of 15 years by the Land Court at a sum equal to 5 per cent. of the unimproved capital value.

(iii) *Settlement Farm Leases.*—The maximum area allowed to any one person is 3,840 acres. The term of the lease must not exceed 28 years, divided into periods of 7 years. The annual rent for the first period is as stated in the opening notification, and rent for each subsequent period is determined by the Land Court. The lease must be enclosed within 3 years with a good and substantial stock-proof fence, rabbit-proof fence, marsupial-proof fence or fence which is both marsupial-proof and rabbit-proof, and noxious plants must be destroyed. Conditions for the cultivation of a specified area, or the making of water improvements may also be imposed. A settlement farm lease is subject to the condition of personal residence during the whole term.

(iv) *Perpetual Town, Suburban, and Country Leases.* Perpetual leases of town, suburban, and country lands may be sold by auction, as is the case under the Land Act, the conditions of tenure being the same, except that the rent for the first 15 years is fixed at 5 per cent. of the upset price or price bid, whichever is the greater, and for further periods of 15 years at 5 per cent. of the unimproved value of the land or of the amount bid at auction, whichever is the greater.

(v) *Areas Acquired and Selected.* The total area acquired to the end of 1926 was 970,778 acres, costing £2,285,869. The following table gives particulars of transactions under the Closer Settlement Act at the end of each of the years 1922 to 1926 :—

CLOSER SETTLEMENT.—QUEENSLAND, 1922 TO 1926.

Particulars.		1922.	1923.	1924.	1925.	1926.
Total area selected Acres		744,423	744,719	745,518	747,187	757,251
Number of selectors No.		2,352	2,398	2,400	2,403	2,418
Agricultural farms No.		2,112	2,118	2,114	2,108	2,107
Unconditional selections No.		256	256	256	256	256
Perpetual lease selections No.		556	563	566	575	587
Prickly-pear selections No.		4	4	4	4	4
Perpetual lease prickly-pear selections No.		4	3	5	5	4
Area sold by auction Acres		12,541	12,582	12,582	12,582	12,667

4. *South Australia.*—(i) *Acquisition of Land.* The Commissioner of Crown Lands may acquire land at a cost of not more than £600,000 in two financial years, either by agreement or compulsorily.

(ii) *Sales by Auction.* Town lands may be sold by auction for cash. Blocks which are unallotted after one year may also be sold by auction, 25 per cent. of the purchase money being paid in cash, and the balance in 5 yearly instalments with interest.

(iii) *Agreements to Purchase.* Land acquired for closer settlement is divided into blocks, but no block may exceed £4,000 in unimproved value unless suitable for pastoral purposes only, in which case the limit is £5,000. The land so divided is open to conditional purchase, the applicant agreeing (a) to reside thereon for 9 months in each year; (b) to fence it in within 5 years; (c) to spend thereon in improvements during each of the first 5 years a sum equal to £3 for every £100 of the purchase money; and (d) to pay for the block either (1) in 35 years, in half-yearly instalments, of which the first ten are to be equal and calculated at the fixed rate on the purchase price, and each of the subsequent 60 instalments at a rate sufficient to repay during the 35 years the price together with interest at a fixed rate on the balance thereof; or (2) if the Commissioner so directs, in 64 years in half-yearly instalments, of which the first sixteen are at the rate of £1 11s. 5d. for every £100 of the purchase-money and the remaining instalments calculated at a rate sufficient to repay the price together with interest on the unpaid balance.

(iv) *Miscellaneous Leases.* Any blocks remaining unallotted for one year may be let on miscellaneous lease at a rental and upon such terms as are determined by the Land Board.

(v) *Areas Acquired and Selected.* The following table shows the area of land acquired for the purposes of closer settlement, and the manner in which it has been dealt with for the years ending 30th June, 1922 to 1926 :—

CLOSER SETTLEMENT.—SOUTH AUSTRALIA, 1922 TO 1926.

Year ended 30th June—	Area of Lands Re-purchased.	Agree-ments with Covenants to Purchase.	Total Area Leased as Homestead Blocks.		Perpetual Leases.	Mis-cellaneous Leases.	Sold.	Remainder Un-occupied (including Roads and Land in Irrigation Areas).
			Right of Purchase.	Perpetual Lease.				
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1922 ..	783,863	513,118	492	1,327	45,932	144	176,441	46,409
1923 ..	729,141	513,241	473	1,342	50,103	144	127,012	36,826
1924 ..	729,141	509,040	440	1,342	50,208	171	137,934	30,006
1925 ..	735,703	501,319	408	1,291	46,118	171	149,971	36,425
1926 ..	745,905	497,065	354	1,291	35,759	151	158,275	53,010

The total area repurchased at 30th June, 1926, was 745,905 acres. The purchase money was £2,426,232. Of the total area, 692,895 acres had been allotted to 2,641 persons, the average area to each being 262 acres.

5. *Western Australia.*—(i) *Acquisition of Land.* Under the Agricultural Lands Purchase Act the Minister may purchase any land which an owner may offer to surrender at a price to be named in the offer, provided that such land is situated within 20 miles of an existing railway, or of one the construction of which is authorized by Parliament. Not more than £1,200,000 may be thus spent. The Minister may also improve any such acquired land prior to disposing of it, and the cost of such improvements must be added to the price at which it is sold to the selector.

(ii) *Disposal of Land.* Land acquired for closer settlement may be disposed of either as town and suburban areas, or under conditional purchase.

(iii) *Conditional Purchases.* Such land as is not reserved for roads, reserves, town and suburban areas, etc., is thrown open for selection under conditional purchase. The selling price is ascertained by adding to the price actually paid for the land 5 per cent. thereof and the cost of all improvements thereon, as well as the cost of subdivision and survey fee. Payment is to be made in half-yearly instalments extending over a period not exceeding 30 years. The maximum area which may be held by one person is 1,000 acres of cultivable land, or 2,500 acres of grazing land. In other respects the conditions are the same as those for ordinary conditional purchases.

(iv) *Town and Suburban Areas.* The Minister may dispose of town and suburban lands in the same manner as they may be disposed of under the Land Act.

(v) *Areas Acquired and Selected.* The total area acquired for closer settlement up to the 30th June, 1926 was 500,292 acres, costing £510,424. Of this area 15,992 acres have been set aside for roads, reserves, etc., leaving a balance of 484,300 acres available for selection. The following table gives particulars of operations under the Act for the years ending 30th June, 1922 to 1926 :—

CLOSER SETTLEMENT.—WESTERN AUSTRALIA, 1921-22 TO 1925-26.

Particulars.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
Area selected during the year Acres	11,193	44,866	..	..	11,514
Total area occupied to date Acres	351,282	396,148	396,148	375,798	387,312
Balance available for selection Acres	79,697	73,657	73,657	71,434	96,988
Total Revenue .. £	400,563	433,805	412,872	437,593	466,335

6. *Tasmania.*—(i) *Acquisition of Land.* The Minister may either purchase by agreement and acquire for the Crown private land or compulsorily acquire and take for the Crown blocks of private land. Land may be acquired only when the unimproved value thereof exceeds £12,000. Land may also be acquired by agreement when three or more persons are desirous of obtaining private land belonging to the same owner. Payment may be made in cash, or in debentures or stock bearing interest at 4½ per cent., or partly in debentures or stock at the option of the owner and with the consent of the Minister. Not more than £100,000 may be raised annually for closer settlement purposes, and the total amount borrowed must not exceed £500,000. Land so acquired may be disposed of either by leases with right of purchase or by special sales.

(ii) *Leases with Right of Purchase.* Land acquired under the Closer Settlement Act is thrown open to be leased for a term of 99 years, with the condition that the lessee has the right to purchase the same after ten years, provided that he does not own land (exclusive of the lease) of a value exceeding £1,500, exclusive of buildings, and has complied with all the following conditions :—(a) The land must be improved to the value of 2½ per cent. of the capital value in each of the first 10 years; (b) the lessee himself, or his wife, or child over 18 years of age must reside on the lease within 2 years, for 8 months in each of the following 8 years, and the lessee may not transfer, mortgage or sublet his

lease without the approval of the Minister; and (c) prescribed conditions relating to mining and cultivation, the destruction of pests and noxious weeds, etc., must be complied with. Under ordinary circumstances no allotment may exceed £1,500 in value, exclusive of any buildings thereon, but the Minister may increase the value up to £4,000.

(iii) *Special Sales.* The Minister may sell land in fee-simple as sites for (a) churches or public halls, not exceeding 1 acre; or (b) dairy factories, fruit-preserving factories, mills, or creameries, not exceeding 5 acres. The price of such land must not be less than the cost thereof, and must be paid in cash. The Minister may also reserve an area up to 100 acres in extent for township purposes, and sell blocks thereof for cash or on credit under the same conditions as those contained in the Crown Lands Act. Land not suitable for disposal by way of lease may be sold in fee-simple either by auction or by private contract.

(iv) *Areas Acquired and Selected.* Up to the 30th June, 1926, 35 areas had been opened up for closer settlement. The total purchase money paid by the Government was £366,912, and the total area acquired amounted to 100,882 acres, including 10,000 acres of Crown lands. Particulars for the years 1922 to 1926 are given in the following statement:—

CLOSER SETTLEMENT.—TASMANIA, 1922 TO 1926.

Year ended 30th June—	Number of Farms made Available.	Number of Farms Allotted.	Area of Farms Allotted.	Rental of Farms Allotted.	Total Area Purchased.
	No.	No.	Acres.	£	Acres.
1922 ..	..	..	..	..	3,618
1923 ..	..	3	685	..	810
1924 ..	..	..	..	..	..
1925 ..	19	19	1,845	826	..
1926 ..	33	26	2,909	544	2,307

7. *Summary.*—The following table gives particulars of operations under the Closer Settlement Acts at the 30th June, 1926:—

**CLOSER SETTLEMENT.—TOTAL AREAS ACQUIRED AND ALLOTTED AT
30th JUNE, 1926.**

Particulars.	N.S.W.	Victoria. (a)	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Area acquired .. acres	3,845,170	927,052	970,778	745,905	500,292	89,405	7,078,602
Purchase price .. £	13,880,292	7,057,626	2,285,869	2,426,232	510,424	366,912	26,527,355
Farms, etc., { No.	7,691	5,787	2,413	2,641	995	304	19,831
allotted { acres	3,923,802	766,853	757,251	692,895	387,312	83,597	6,611,710

(a) At 31st December, 1925.

The next table shows the areas of private lands acquired at the end of each financial year from 1922 to 1926:—

CLOSER SETTLEMENT.—AREAS OF PRIVATE LANDS ACQUIRED, 1922 TO 1926.

Year ended 30th June—	N.S.W.	Victoria.	Q'land. (a)	S. Aust.	W. Aust.	Tasmania.	Total.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1922 ..	3,454,422	579,010	785,311	726,283	446,804	88,440	6,080,270
1923 ..	3,783,204	737,882	785,311	729,141	446,804	89,250	6,571,592
1924 ..	3,798,493	849,682	785,311	729,141	446,804	89,250	6,698,681
1925 ..	3,819,376	849,682(b)	785,311	735,703	461,959	89,250	6,741,281
1926 ..	3,845,170	927,052(c)	970,778	745,905	500,292	90,882	7,080,079

(a) Year ended 31st December.

(b) Year ended 30th June, 1924.

(c) Year ended 31st December, 1925.

§ 7. Leases and Licences under Mining Acts.

1. **New South Wales.**—(i) *Holdings under Miners' Rights.* A holder of a miner's right, costing 5s. annually, is entitled to occupy Crown lands for the purpose of mining thereon. The size of a claim varies according to the nature of the mineral worked and the distance from existing workings. The principal condition of tenure is that work must be continuously carried on, unless exemption is granted. A holder of a miner's right may obtain an authority to enter and prospect on certain private lands. Water rights, machinery areas, and similar holdings may also be taken up under a miner's right.

(ii) *Gold-mining Leases.* A gold-mining lease is issued for a term not exceeding 20 years, with right of renewal for another 20 years. The maximum area granted is 25 acres, and the annual rent is 2s. per acre. A royalty of 1 per cent. of the value of all gold and minerals won must be paid to the State. Labour must be constantly employed—unless exemption is granted—at the rate of one man to every 5 acres during the first year of the lease, and thereafter one man to every 2 acres.

(iii) *Mineral Leases.* The maximum area which may be leased for mining for other than gold, coal, or oil is 80 acres. The rental and royalty are the same as for a gold-mining lease, but the labour conditions are one man to every 20 acres during the first year and one man to every 10 acres thereafter.

(iv) *Coal and Oil-mining Leases.* The term of a lease for coal or oil-mining is 20 years, the maximum area 640 acres, the rental 2s. per acre, and the royalty 6d. per ton on all coal or shale won, and 1 per cent. of the value of all oil won. Two men must be employed to each area of 320 acres for the first year and four men thereafter.

(v) *Business Licences.* A business licence, issued at an annual fee of £1, entitles the holder to occupy for the purpose of carrying on business not more than $\frac{1}{2}$ acre in a town or village, or 1 acre outside, on any gold or mineral field. No person may hold more than one area.

(vi) *Residence Areas.* A holder of a miner's right may occupy as a residence area not more than $\frac{1}{2}$ acre in a town or village, or 2 acres outside, on any gold or mineral field. Improvements to the value of £10 must be effected thereon, and no person may hold more than one area.

(vii) *Areas Occupied under Mining Acts.* The following table gives particulars of operations for the years 1922 to 1926. Of the 1,236 acres leased for gold-mining, during the six months ended 30th June 1926, 250 acres were leased for dredging for gold.

AREAS TAKEN UP UNDER MINING ACTS.—NEW SOUTH WALES, 1922 TO 1926.

Purposes for which Issued or Occupied.	1922.	1923.	1924.	1925.	1926.(a)
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AREAS TAKEN UP DURING YEAR.

	Acres.	Acres.	Acres.	Acres.	Acres.
Gold-mining	3,187	3,088	1,250	4,669	1,236
Mining for other minerals ..	11,358	22,280	19,792	74,179	30,982
Authorities to prospect ..	1,714	14,241	6,968	19,629	24,338
Other purposes	513	534	482	1,336	883
Total	16,772	40,143	28,492	99,813	57,439

TOTAL AREAS OCCUPIED AT END OF YEAR.

	10,870	10,428	8,171	10,780	12,343
Gold-mining	10,870	10,428	8,171	10,780	12,343
Mining for other minerals ..	263,227	280,756	281,751	349,744	437,121
Authorities to prospect ..	866	9,179	2,461	21,347	76,086
Other purposes	6,540	6,973	7,305	8,322	7,808
Total	281,503	307,336	299,688	390,193	533,358(b)

(a) For six months ended 30th June 1926.

(b) Includes areas held under application for leases pending at 30th June, 1926.

2. *Victoria.*—(i) *Holdings under Miners' Rights.* Under a miner's right costing 2s. 6d. annually, a miner may take up a claim on Crown lands, the area of which varies according to the nature of the ground and whether gold or minerals are to be won, conditionally on such claim being worked continuously, unless exemption is granted. Under the same tenure water rights, machinery areas, etc., may be obtained.

(ii) *Gold-mining Leases.* A gold-mining lease is granted for a period not exceeding 15 years, renewable for a further 15 years, but no maximum area is prescribed. The rent is 2s. 6d. per acre per annum, and the labour conditions are as specified in the lease; but, under certain circumstances, the expenditure of a specified amount of money may be substituted for the labour conditions.

(iii) *Mineral Leases.* A mineral lease is issued for the same period as a gold-mining lease, at a rental of not less than 1s. nor more than £5 per acre per annum, as the Minister may determine, no royalty being charged except for coal. The area must not exceed 640 acres, and the Minister fixes the amount of labour to be employed.

(iv) *Business Areas.* The holder of a business licence is entitled to occupy $\frac{1}{4}$ acre of Crown lands in a city or town, or $\frac{1}{2}$ acre in a borough, or 1 acre outside, for the purpose of residence and carrying on his business. A business licence costs 10s. a year in a city, town, or borough, or 5s. outside, together with 5 per cent. of the value of the land. A business area must be continuously occupied, unless exemption is obtained.

(v) *Residence Areas.*—The holder of a miner's right may occupy a residence area of the same dimensions as a business area under the same conditions of occupation, but no further payment than the cost (2s. 6d.) of the miner's right is required.

(vi) *Leases and Licences Issued.* During the year 1926, leases, licences, etc., were issued covering an area of 10,234 acres, the rent, fees, etc., for which amounted to £662. The following table gives particulars of operations for the years 1922 to 1926 :—

AREAS TAKEN UP UNDER MINING ACTS.—VICTORIA, 1922 TO 1926.

Particulars.	1922.	1923.	1924.	1925.	1926.
	Acres.	Acres.	Acres.	Acres.	Acres.
Area taken up during year ..	6,699	9,207	8,247	4,832	10,234
Area occupied at end of year ..	49,178	47,361	43,216	41,765	30,333

3. *Queensland.*—(i) *Holdings under Miners' Rights.* The holder of a miner's right, costing 5s. a year, may take up a prospecting area or a claim, the areas of which vary according to the nature of the mineral sought for or worked, and the distance from existing workings. Such land must be worked continuously, unless exemption is granted. A holder of a miner's right is also entitled to cut races, reside on Crown lands, cut timber thereon, etc.

(ii) *Permits to Prospect for Petroleum.* Any person may apply for a permit to prospect for petroleum. An area not exceeding 10,000 acres is allowed for a period of 2 years, and not more than two such permits may be held at the one time. A preferential right to a permit may be obtained for a period of 30 days by erecting a post or monument on the land and posting a notice in accordance with the Petroleum Act of 1923. A rental of 1d. per acre per annum is payable for the land included in the permit. Within a year the holder of the permit must erect an adequate drilling outfit on the land and commence drilling, and within 2 years drill at least 2,000 feet.

(iii) *Licences to Prospect for Coal or Mineral Oil.* Any person may apply for a licence for one year to prospect Crown lands for coal or mineral oil. An area of 2,560 acres at a rental of 1d. per acre is allowed. The licence may be renewed for one year.

(iv) *Gold-mining Leases.* The term of a gold-mining lease is 21 years renewable for a further period of 21 years, and the maximum area is 50 acres, except in the case of

a special lease, when 300 acres may be selected. The rent is £1 per acre per annum. One man must be kept constantly employed for every 4 acres, unless exemption is obtained.

(v) *Mineral Leases.* The term of a mineral lease is the same as that of a gold-mining lease, but the maximum area is, in the case of petroleum, one-fourth of the area included in the prospecting permit, with a preferential right to a further lease or leases of the balance of the area; 320 acres for mineral oil; 640 acres for coal; and 160 acres for other minerals. The annual rent per acre is (a) 1s. for coal and mineral oil, (b) 2s. for the first 2,500 acres and 4s. for the balance in the case of petroleum, and (c) 10s. for other minerals. The labour conditions are:—(a) For coal, one man for every 40 acres during the first 2 years, then one man for every 20 acres, or, alternatively, an expenditure during each half-year of £100 for every 40 and 20 acres respectively; (b) for petroleum, the installation of a drilling plant within 3 months, and the drilling of wells one at a time until a well has been drilled for every 100 acres; and (c) for other minerals, one man for every 10 acres. A royalty is payable of from 4d. to 1s. per ton on all coal raised, and of 12½ per cent. of the value of all petroleum won, there being no royalty on other minerals.

(vi) *Business Areas.* The holder of a business licence, the fee for which is £2 a year, may occupy ½ acre of land on a gold or mineral field for the purpose of carrying on a business, and must occupy the same continuously, but is entitled to obtain exemption from occupation after having expended the sum of £10 on improvements. No person may occupy more than one area with one licence.

(vii) *Residence Areas.* The holder of a miner's right may take up a residence area of ½ acre on a gold or mineral field, but may hold only one such area on the same field. Occupation is necessary in order to hold the ground, but exemption can be obtained under certain circumstances.

(viii) *Miners' Homestead Perpetual Leases.* A person, resident on a mining field, and otherwise qualified, also any corporate body carrying on business on the field, may take up a lease or leases not exceeding in area (a) 1 acre in a city, town, or township; or (b) 20 acres within 1 mile of a city, town, or township; or (c) from 80 to 640 acres outside such limits. The rent in the case of a lease sold at auction is 3 per cent. of the purchase price, and in other cases 1½ per cent. of the notified capital value of the land. The land is subject to re-appraisal every 10 years. The title is a lease in perpetuity and the land must be occupied and improved.

(ix) *Areas held under Lease or Licence.* During the year 1926 the number of miners' rights issued was 3,626, and of business licences 13. The following table gives particulars regarding the areas of land taken up under lease or licence, and the total areas occupied for the years 1922 to 1926. In addition, an area estimated at 8,000 acres was at the end of 1926 held under miners' rights.

AREAS TAKEN UP UNDER MINING ACTS.—QUEENSLAND, 1922 TO 1926.

Particulars.	1922.	1923.	1924.	1925.	1926.
AREAS TAKEN UP DURING YEAR.					
	Acres.	Acres.	Acres.	Acres.	Acres.
Gold-mining ..	354	253	225	56	134
Mining for other minerals ..	597	5,560	6,694	4,390	6,454
Coal-prospecting licences ..	26,425	21,202	8,276	7,961	5,821
Miners' homestead leases ..	31,019	8,679	8,329	6,212	3,696
Mineral oil-prospecting areas	1,280	4,160	2,000	4,340	..
Petroleum-prospecting areas	118,525	25,900	90,000	29,200	..
Total ..	178,200	65,754	115,524	52,159	16,105

AREAS TAKEN UP UNDER MINING ACTS.—QUEENSLAND, 1922 TO 1926—
continued.

Particulars.	1922.	1923.	1924.	1925.	1926.
TOTAL AREAS OCCUPIED AT END OF YEAR.					
	Acres.	Acres.	Acres.	Acres.	Acres.
Gold-mining	1,313	1,279	1,191	925	646
Mining for other minerals ..	30,954	22,012	28,753	31,306	34,133
Coal-prospecting licences ..	26,425	21,202	8,276	7,961	5,821
Miners' homestead leases ..	322,640	329,453	335,133	339,998	337,195
Mineral oil-prospecting areas	1,280	4,160	2,000	4,340	..
Petroleum-prospecting areas	118,525	66,480	123,705	71,200	44,800
Total	501,137	444,586	499,058	455,730	422,595

4. South Australia.—(i) *Holdings under Miners' Rights.* A miner's right costs 5s. per annum, and entitles the holder to take up a prospecting claim, a mining claim, a machinery area, a water right, etc. He is also entitled to take up a lease for mining purposes for a term not exceeding 21 years. The area of an alluvial gold claim is 100 feet by 100 feet, of a reef gold claim 330 feet by 660 feet, of a precious stones claim 150 feet by 150 feet, and of a mineral claim 40 acres. A gold or precious stones claim must be constantly worked by one man, a mineral claim by one man for each 20 acres, and a coal or oil claim by four men.

(ii) *Search Licences.* A search licence may be issued to the holder of a miner's right entitling him to search on any specified mineral lands, not exceeding 5 square miles in area, for precious stones, mineral phosphates, oil, or rare minerals, which have hitherto not proved payable. The licence is in force for 12 months, and the fee is £1 for every square mile. One man at least must be employed for every 640 acres. A licensee has a preferential right to a mineral lease of 40 acres for rare metals, of 100 acres for mineral phosphates, and of 640 acres for oil, or to a precious stones claim of 150 feet by 150 feet.

(iii) *Gold Leases.* A gold lease must not exceed 20 acres in area. The rent is 1s. per acre per annum, and a royalty of 6d. in the pound of the net profits must be paid. The labour conditions are 1 man to every 5 acres. For gold dredging, the maximum area allowed is 200 acres.

(iv) *Mineral Leases.* The maximum areas which may be taken up as mineral leases are for (a) coal, oil, salt, and gypsum, 640 acres; (b) other minerals, 40 acres. The annual rent per acre is for (a) coal or oil, 6d., until a marketable quantity is produced, then 1s.; and for (b) other minerals, 1s., except that a higher rent may be charged for salt or gypsum. A royalty of 6d. in the £ of the net profits is payable in the case of all minerals. The labour conditions vary according to the class of mineral won, being (a) for coal and oil, 1 man to every 40 acres; (b) for barytes, ochre, etc., 1 man for 3 months in each year; (c) for gypsum, 2 men for every 40 acres; (d) for salt, 1 man for every 40 acres from January to April; and (e) for other minerals, 1 man to every 10 acres.

(v) *Business Areas.* Any person may, on payment of £1 per annum, obtain a business licence entitling him to occupy a business claim of $\frac{1}{4}$ acre in a township, or of 1 acre elsewhere, but no person may own or occupy more than one such claim, and business must be continuously carried on thereon.

(vi) *Residence Areas.* The owner of a claim, while actively engaged in prospecting or mining thereon, may occupy a residence site not exceeding $\frac{1}{4}$ acre on Crown lands, but, in order to hold the same, must reside thereon.

(vii) *Occupation Licences.* Any person may be granted an occupation licence authorizing him to occupy for the purpose of residence and cultivation $\frac{1}{4}$ acre of Crown lands at a rental of not less than 2s. per annum. Such licence is in force for 14 years, and may be renewed from time to time until the land is required for public purposes.

(viii) *Areas Occupied under Mining Acts.* The following table gives particulars of operations for the years 1922 to 1926:—

**AREAS TAKEN UP UNDER MINING ACTS.—SOUTH AUSTRALIA,
1922 TO 1926.**

Particulars.	1922.	1923.	1924.	1925.	1926.
AREAS TAKEN UP DURING YEAR.					
	Acres.	Acres.	Acres.	Acres.	Acres.
Gold-mining leases	127	240	269	101	250
Mineral and miscellaneous leases	5,120	2,589	5,766	4,834	25
Claims	34,827	36,026	32,019	11,170	15,288
Search licences	397,440	571,520	473,600	295,040	246,400
Occupation licences	5	2	2	3	4
Total	437,519	610,377	511,656	311,148	261,967
TOTAL AREAS OCCUPIED AT END OF YEAR.					
	827	905	840	568	698
Gold-mining leases	58,682	55,505	57,959	42,168	37,333
Mineral and miscellaneous leases	55,791	62,995	61,853	35,548	26,158
Claims	397,440	534,400	465,280	290,560	246,400
Search licences	101	94	93	78	74
Occupation licences					
Total	512,841	653,899	586,025	368,922	310,663

5. *Western Australia.*—(i) *Holdings under Miners' Rights.* A miner's right, costing 5s. a year, entitles the holder to take up a prospecting area or a claim and occupy Crown lands for mining purposes or as an authorized holding. He may also construct water-races, dams, tramways, etc. Prospecting areas and claims are of various dimensions, and are held conditionally on being worked continuously.

(ii) *Gold-Mining Leases.* A gold-mining lease is granted for a period of 21 years, with the right of renewal for a further 21 years, and may contain an area of 24 acres. The rental is 5s. per acre for the first year, and £1 per acre for subsequent years. If the ground has been previously worked and abandoned, a lease may contain 48 acres, and the annual rent be not less than 5s. per acre nor more than £1 per acre. In the former case, not less than 2 men must be employed during the first 12 months, and then 1 man for every 6 acres, and in the latter case 1 man for every 12 acres.

(iii) *Mineral Leases.* The term of a mineral lease is 21 years, renewable for a similar period, and the maximum area allowed is (a) for coal, 320 acres, or for the holder of a prospecting area, 640 acres; (b) for oil, 48 acres for an ordinary lease, and 640 acres for a reward lease; (c) for precious stones, 24 acres; and (d) for other minerals, ordinary lease, 48 acres, and lease on abandoned ground, 96 acres. The annual rental per acre is for (a) 6d.; (b) ordinary lease, 6d., reward lease, a peppercorn for the first 5 years; and (c) and (d) ordinary lease, 5s., and extended lease not less than 2s. as the Governor may determine. A royalty of 3d. per ton during the first 10 years and of 6d. per ton for the balance of the lease is payable in the case of coal, and, in the case of oil, the royalty is 10 per cent. of the gross value of the output. The labour conditions are for coal and oil, during the first year, 1 man; during the second year, 2 men; and thereafter 3 men for every 60 acres; and for other minerals, 2 men for the first year, and then 1 man for every 6 acres of an ordinary lease, and for every 12 acres of an extended lease.

(iv) *Business Areas.* A holder of a miner's right may take up a business area not exceeding 1 acre in extent, and must occupy the same for carrying on business, but he may obtain exemption from occupation for 6 months, provided that he has effected improvements thereon to the value of £50.

(v) *Residence Areas.* Provided that he occupies the same, a residence area of $\frac{1}{4}$ acre may be held by the holder of a miner's right. After expending £10 on improvements he may obtain exemption from residence for 6 months.

(vi) *Miners' Homestead Leases.* A miner, resident on a gold or mineral field, may be granted a miner's homestead lease not exceeding (a) 20 acres, if within 2 miles of the nearest boundary of any township or suburban area; or (b) 500 acres if beyond, at an annual rental, for the first 20 years, of (a) 2s. per acre, where the area does not exceed 20 acres; and (b) 6d. per acre where such area is exceeded, and thereafter 1s. if demanded. Within 3 years the lessee must fence in the land, and within 5 years must improve it to the value of 10s. per acre.

(vii) *Particulars of Areas Occupied.* The following table gives particulars of operations for the years 1922 to 1926, the figures being exclusive of holdings under miners' rights and mineral oil licences. Of the areas shown as taken up in 1926, the area under lease was 1,466 acres for gold-mining, 534 for mining for other minerals, and 434 for miners' homesteads—a total of 2,434 acres. The balance was taken up under licences.

**AREAS TAKEN UP UNDER MINING ACTS.—WESTERN AUSTRALIA,
1922 TO 1926.**

Particulars.	1922.	1923.	1924.	1925.	1926.
AREAS TAKEN UP DURING YEAR.					
	Acres.	Acres.	Acres.	Acres.	Acres.
Gold-mining	17,836	21,722	14,303	12,173	9,418
Mining for other minerals	42,509	15,772	11,673	27,994	5,087
Other purposes	1,537	73	311	397	466
Total	61,882	37,567	26,287	40,564	14,971
TOTAL AREAS OCCUPIED AT END OF YEAR.					
	Acres.	Acres.	Acres.	Acres.	Acres.
Gold-mining	25,011	24,574	17,759	15,409	13,146
Mining for other minerals	78,073	66,036	38,006	73,519	53,681
Other purposes	37,896	37,219	34,783	34,035	34,276
Total	140,980	127,829	90,548	122,963	101,103

6. *Tasmania.*—(i) *Holdings under Miners' Rights.* A miner's right is issued to any person at a fee of 5s. for a year, expiring on the 31st December next after the date of issue, and entitles the holder to take possession of Crown lands and to mine thereon, also to construct water-races, build a residence thereon, etc. An ordinary claim for a single holder contains $\frac{1}{2}$ acre.

(ii) *Prospectors' Licences.* A prospector's licence, issued at a fee of 10s. for a year ending on the 31st December, empowers the licensee to take up a claim for the purpose of prospecting for gold and minerals. Such claim may be an ordinary claim with an area of up to 40 acres, or an extended claim up to 320 acres, and both must be worked continuously.

(iii) *Gold-mining Leases.* Any person may be granted a gold-mining lease of any Crown lands for a period of 21 years, renewable for a further 21 years. Reward leases may be granted to discoverers of gold, and, under certain circumstances, special leases may be issued. The maximum area allowed is 40 acres, and the rent is 10s. per acre per annum. At least £2 per acre must be expended annually in mining operations or in works connected therewith.

(iv) *Mineral Leases.* Mineral leases are also issued for a period of 21 years, renewable as in the case of gold-mining leases. The maximum area is—(a) for coal or oil, 640 acres; and (b) for other minerals, 80 acres. The annual rent per acre is—(a) for oil, 1s.;

(b) for coal, 2s. 6d.; and (c) for other minerals, 5s. At least £2 per acre must be expended annually. No royalty is charged, except on oil, for which it is fixed at 5 per cent. of the gross value of all crude oil obtained after the first 50,000 gallons.

(v) *Leases and Licences Issued and Areas Occupied.* During the year 1926, the number of leases issued was 205, of which the more important were 18 for gold-mining, covering 500 acres; 81 for tin, covering 2,034 acres; and 2 for iron, covering 34 acres. Three licences to search for coal and oil were also granted. The following table gives particulars of operations for the years 1922 to 1926:—

AREAS TAKEN UP UNDER MINING ACTS.—TASMANIA, 1922 TO 1926.

Particulars.	1922.	1923.	1924.	1925.	1926.
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AREAS TAKEN UP DURING YEAR.

	Acres.	Acres.	Acres.	Acres.	Acres.
Gold-mining	794	1,074	1,094	947	605
Mining for other minerals ..	4,309	12,884	11,362	8,911	15,819
Licences to search for coal or oil	25,481	33,473	21,120	13,910	1,920
Other purposes	186	104	196	414	337
Total	30,770	47,535	33,772	24,182	18,681

TOTAL AREAS OCCUPIED AT END OF YEAR.

Gold-mining	2,424	1,687	1,829	1,340	870
Mining for other minerals ..	43,667	37,662	32,498	33,695	35,102
Licences to search for coal or oil	137,692	34,761	39,168	14,130	10,660
Other purposes	3,732	3,517	2,697	2,868	2,834
Total	187,515	77,627	76,192	52,033	49,466

7. *Northern Territory.*—(i) *General.* Mining generally is governed by the Northern Territory Mining Act passed by the South Australian Legislature in 1903, but special Ordinances have since been promulgated by the Commonwealth respecting tin-dredging, mining for mineral oil and coal and encouragement of mining.

(ii) *Holdings under Miners' Rights.* The fee for a miner's right is 5s. for 12 months from the date of issue, and a holder thereof is entitled to occupy Crown lands for mining purposes, to construct races, to divert water, to reside on his holding, etc.

(iii) *Gold-mining Leases.* The area of a gold-mining lease must not exceed 40 acres, and the term is 42 years, renewable for a further 21 years. The rent must not be less than 1s. per acre per annum. A royalty of 6d. in the £ of the net profits must be paid, and one man must be kept constantly employed for every 10 acres, unless exemption is obtained.

(iv) *Mineral Leases.* Mineral leases may be granted in blocks not exceeding 80 acres each, but no person may hold more than 640 acres altogether, nor more than 320 acres in contiguous blocks. A mineral lease is issued for a term not exceeding 99 years, and the rent and royalty are the same as in the case of a gold-mining lease. One man for every 20 acres must be constantly employed during 9 months in each year.

(v) *Tin-dredging Leases.* These leases are issued for a term not exceeding 21 years at a rental of 1s. per acre per annum. The area must not exceed 1,000 acres, and the lessee must, after the first 12 months, keep continuously employed thereon either (a) not less than 1 man of European race or extraction for every 25 acres; or alternatively (b) fully-manned machinery of a value of not less than £500 for every 100 acres.

(vi) *Mineral Oil and Coal Licences.* A licence to search for mineral oil or coal, or for both, may be granted over an area not exceeding 1,000 square miles for a period of 5 years on payment of an annual fee of £10. At least 4 white men must be employed for not less than 6 months in each year. A holder of a mineral oil licence who discovers payable mineral oil on the land held under his licence has a preferential right to a mineral oil lease of 160 acres, together with a reward area of 640 acres thereon. A discoverer of coal in payable quantities has a preferential right to an area of 640 acres as a coal lease.

(vii) *Mineral Oil and Coal Leases.* Leases may be granted for a period of 21 years, renewable for a further 21 years, for mining for mineral oil or coal, the maximum areas being (a) for mineral oil, 160 acres; and (b) for coal, 640 acres. In the case of mineral oil, the annual rent is 1s. per acre, and a royalty of 5 per cent. on the gross value of all crude oil obtained is payable; the lessee must also work the land to the satisfaction of the Minister. In the case of coal, the rent and conditions are fixed by regulation.

(viii) *Business Licences.* A business licence is issued at the prescribed fee, and authorizes the holder to occupy on a gold-field, for the purpose of residence and carrying on his business, so much Crown land as is fixed by the Warden who issues the licence.

(ix) *Garden Licences.* The Warden may grant licences to occupy land upon any gold field or mineral-field to any person for the purpose of growing fruit or other garden produce. The conditions as to rent, etc., are as prescribed, but the area must not exceed 20 acres.

(x) *Leases Issued and Areas Occupied.* During 1926, 27 gold-mining blocks with an area of 850 acres, and 33 mineral blocks with an area of 1,160 acres were taken up, but no mining leases were issued. At the end of the year there existed 29 mineral leases for 911 acres, 23 gold-mining leases for 756 acres, protected mining lease applications for 59 blocks covering 1,410 acres and 57 mineral lease applications for 2,270 acres. In addition, 16 exclusive prospecting licences for alluvial tin ore covering approximately 44 square miles were issued.

8. *Summary.*—The following table shows the areas under leases and licences for mining purposes and the total areas occupied for mining purposes for the years 1922 to 1926 :—

CROWN LANDS, LEASES AND LICENCES FOR MINING PURPOSES, 1922 TO 1926.

Year.	N.S.W.	Victoria.	Q'land. (a)	S. Aust. (a)	W. Aust. (a)	Tas. (a)	Total.
AREAS FOR WHICH LEASES AND LICENCES ISSUED DURING YEAR.							
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1922 ..	16,772	6,699	178,200	437,519	61,882	30,770	731,842
1923 ..	40,143	9,207	67,754	610,377	37,567	47,535	812,583
1924 ..	28,492	8,247	115,524	511,656	26,287	33,772	723,978
1925 ..	99,813	4,832	52,159	311,148	40,564	24,182	532,698
1926 ..	(b)57,439	10,234	16,105	261,967	14,971	18,681	379,397
TOTAL AREAS OCCUPIED AT END OF YEAR.							
1922 ..	281,503	49,178	501,137	512,841	140,980	187,515	1,673,154
1923 ..	307,336	47,361	444,536	653,899	127,829	77,627	1,658,638
1924 ..	299,688	43,216	499,058	586,025	90,548	76,192	1,594,727
1925 ..	390,193	41,765	455,730	368,922	122,963	52,033	1,431,606
1926 ..	(c)533,358	30,333	422,595	310,663	101,103	49,466	1,447,518

(c) Exclusive of lands held under miners' rights only.

(b) For 6 months ended 30th June, 1926.

(c) Including areas held under applications pending.

§ 8. Settlement of Returned Soldiers and Sailors.

1. *General.*—Information in regard to the methods adopted in each State for providing land for the settlement of returned soldiers and sailors, together with the conditions under which such land could be acquired, is given in preceding issues of the Official Year Book (see No. 18, pp. 187–189), but limits of space preclude its repetition herein.

Particulars respecting the position of soldier settlement in each State at the latest available date are, however, given in the sub-sections immediately following.

2. **New South Wales.**—At the 30th June, 1926, the area set apart exclusively for soldiers was 9,318,276 acres, of which 1,880,616 acres comprised acquired land. The number of soldiers allotted farms was 9,263, of whom 2,334 subsequently transferred, forfeited, or surrendered their holdings. The area of the farms held at that date was 8,364,127 acres, of which 6,642,558 acres were Crown lands (including 4,005,850 acres in the Western Division taken up under the Western Lands Act), 1,667,090 acres of acquired lands, and 54,479 acres within Irrigation Areas.

3. **Victoria.**—At the 31st December, 1925, the area acquired or set apart for soldier settlement was 2,278,108 acres, of which 1,749,662 acres comprised private land purchased at a cost of £13,262,779. The number of farms allotted was 8,438, containing 2,159,210 acres.

4. **Queensland.**—At the 30th June, 1926, the area acquired or set apart for soldier settlement was 634,471 acres, of which 41,101 acres comprised private land, purchased at a cost of £270,480. The number of farms allotted was 1,731, containing 670,038 acres. Some of these selections were acquired under the ordinary provisions of the Land Act, and do not include areas specially set apart for soldiers.

5. **South Australia.**—At the 30th June, 1926, the area acquired or set apart for soldier settlement was 2,915,453 acres, of which 2,241,775 acres comprised private land purchased at a cost of £4,352,572. The number of farms allotted was 2,982, containing 2,899,380 acres.

6. **Western Australia.**—At the 30th June, 1926, the area of land acquired or set apart for soldier settlement was 14,287,643 acres, of which 345,110 acres comprised private land purchased at a cost of £605,076. The number of farms allotted was 1,134, containing 14,287,643 acres. Assistance had been given to 5,264 returned soldiers and the Agricultural Bank held 4,721 properties as security for advances. The area held, including pastoral leases, is approximately 25,864,000 acres and advances amount to £6,410,920.

7. **Tasmania.**—At the 30th June, 1926, the area acquired or set apart for soldier settlement was 331,539 acres, of which 268,209 acres comprised private land purchased at a cost of £2,010,225. The number of farms allotted was 1,935, containing 271,537 acres.

8. **Summary.**—The following table gives a summary of the area acquired, the purchase price thereof, and the number and area of farms allotted in all the States to the 30th June, 1926 :—

SOLDIER SETTLEMENT.—AREAS ACQUIRED AND ALLOTTED AT 30th JUNE, 1926.

Particulars.	N.S.W.	Victoria.(a)	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Area acquired or set apart—							
(i) Private land acquired .. acres	1,880,616	1,749,662	41,101	2,241,775	345,110	268,209	6,526,473
(ii) Crown lands set apart ..	7,437,660	528,446	593,370	673,678	13,942,533	63,330	23,239,017
Farms, etc., allotted .. No.	6,268	8,438	1,731	2,982	1,134	1,935	22,488
Price paid by Government for private land acquired ..	£ 7,931,895	13,262,779	270,480	4,352,572	605,076	2,010,225	28,433,027

(a) At 31st December, 1925.

§ 9. Tenure of Land by Aliens.

Information regarding the terms and conditions under which land can be held by aliens is contained in previous issues of the Official Year Book (see No. 18, pp. 190-1), but limits of space preclude its repetition in the present issue.

§ 10. Advances to Settlers.

1. *New South Wales.*—(i) *General.* Advances to settlers are effected through the Rural Bank Department of the Government Savings Bank, and may consist of either (a) overdraft repayable on demand; or (b) long-term loan for a period up to 31 years repayable by equal half-yearly instalments, including principal and interest, on freehold lands or any tenure under the Crown Lands Acts; or (c) advances on purchase of farms. Advances for the purchase of wire-netting are made under the provisions of the Pastures Protection Act, advances to soldier settlers under the Returned Soldiers Settlement Acts, and advances for the sinking of shallow bores on irrigation areas are made by the Water Conservation and Irrigation Commission.

(ii) (a) *Government Savings Bank of New South Wales—Rural Bank Department.* Advances are made by the Rural Bank to eligible applicants in the following ways:—(1) Long-term loans repayable by equal half-yearly instalments, including interest and part of the principal, spread over terms up to 31 years. (2) Fixed loans for definite terms not exceeding five years, during which interest only is payable, the loan being repayable at the end of the term. (3) Overdrafts on current account, interest being charged on the daily balance. Such accounts will be operative by cheque and may be overdrawn up to the limit fixed in each case. (4) A combination of the above giving the advantages of each.

(b) *Long-term Loans and Fixed Loans.* The security for loans under this heading must be first mortgage of land, either Freehold (Old System or Torrens Title) or any of the tenures created by the Crown Lands Acts. Stock, plant, machinery, crops, etc., are not acceptable security for these classes of loans.

Advances may be obtained—(1) To pay off existing encumbrances on, or to purchase the land offered as security. (2) To make improvements on the land, or to improve and develop or utilize the agricultural or pastoral resources of the land, or to enable the applicant to carry on agricultural or pastoral pursuits. (3) To build a home upon the land. (4) To pay off money owing to the Crown in respect of the land.

Advances are limited to a maximum amount of £2,000. Advances on Freeholds or any certificated tenures under the Crown Lands Acts will not exceed two-thirds of the Bank's valuation of the security, whilst on uncertificated tenures under the Crown Lands Acts advances will not exceed three-fourths of the Bank's valuation of the improvements thereon, nor two-thirds of the sale value of the security as determined by the Bank's Valuator. Advances on Orchard and/or Poultry Farm securities will be on a more conservative basis. At present the rate of interest for long-term and fixed loans is $6\frac{1}{4}$ per cent. per annum.

(c) *Overdrafts.* Overdrafts on current account must, under the Bank Act, be granted only to agricultural or primary producers, or to persons carrying on industries immediately associated with rural pursuits. As the objects of the Rural Bank are to promote settlement, and assist primary production, the purpose for which overdrafts are required must come within the scope of those objects.

For overdrafts the Commissioners prefer as the principal security land, either Freehold (Old System or Torrens Title) or any of the tenures under the Crown Lands Acts, but any other security may be submitted as collateral. On land the limit of advance will be the same as for Long-term Loans, but a larger margin will generally be required for other classes of security. Interest at $6\frac{1}{2}$ per cent. will be charged on the daily balance.

(d) *Advances to Facilitate Subdivision of Private Estates under Section 64—Government Savings Bank Act 1906.* The Commissioners, through the Rural Bank Department, are prepared to finance to the extent hereinafter set out, the subdivision of private estates suitable for Closer Settlement, the title to which is either Freehold under the Real Property Act or Certificated Conditional Purchase.

It is essential that estates offered for subdivision should, from the quality of soil, average rainfall and distance from existing railway line or shipping port (not exceeding 15 miles), be suitable for closer settlement and approved as such by the Land Settlement Board.

If the proposition is satisfactory, the Commissioners will issue certificates under Section 64 of the Bank Act stating the amount they are prepared to advance on each farm subject to the conditions specified therein. If these certificates are used as the

basis of negotiations between buyer and seller, the parties will know before committing themselves to a contract the amount they can expect from the Rural Bank by way of an advance and the conditions attaching thereto.

The maximum advance that may be made on a fully improved farm will not exceed 66½ per cent. of the Bank's value. If a farm is not fully improved, further improvements will be prescribed—to be effected by the purchaser at his own expense—and in these cases the maximum advance will not exceed 80 per cent. of the present value, or 66½ per cent. of the value when the prescribed improvements are made, whichever is the less.

The maximum sum that may be advanced by the Bank on any farm will be £3,000. Interest will be at the rate of 6½ per cent. Loans will be repayable by equal half-yearly instalments of interest and part principal over a term of 31 years.

(iii) *Returned Soldiers' Settlement Act.* Advances up to £625 may be made to returned soldiers for prescribed purposes, principal and interest being repayable on easy terms.

(iv) *Amount of Advances.* The following table gives particulars respecting advances etc., to 30th June, 1926 :—

ADVANCES TO SETTLERS.—NEW SOUTH WALES, 1925-26.

Particulars.	Advances made during 1925-26.	Total Advances at 30th June, 1926.	Amount outstanding at 30th June, 1926.
	£	£	£
Government Savings Bank Advances ..	1,786,757	15,611,145	9,280,465
Soldier Settlement Advances	297,777	6,679,660	5,769,831
Advances for Purchase of Wire Netting ..	69,962	727,907	303,256
Advances to Necessitous Farmers	139,994	2,896,291	381,551
Advances to Civilian Settlers on Irrigation Areas	30,084	449,402	304,625
Shallow Boring Advances	49,348	356,748	144,494
Total	2,373,922	26,721,153	16,184,222

2. Victoria.—(i) *General.* The principal institution which advances money to settlers is the State Savings Bank. The Closer Settlement Board is also authorized to make advances, and the Government may lend money to Cool Stores Trusts, and, under special drought circumstances, make advances to settlers for the purchase of seed, cattle, etc., for which purpose separate Acts have been and are passed from time to time as required.

(ii) *State Savings Bank Act.* The *Crédit Foncier* Department of the State Savings Bank was created for the purpose of making advances to settlers and others, and is authorized to borrow up to £10,000,000 for that object. The Commissioners may lend money to farmers, etc., on the security of any agricultural, horticultural, viticultural, or pastoral land held in fee-simple or on conditional purchase. Such loans are secured by a first mortgage on the property, and are payable either in cash or by debentures or mortgage bonds, at the option of the Commissioners. No advance may be less than £50, or more than £2,000, and each advance is limited to two-thirds, or, in the case of returned soldiers, to three-quarters, of the value of the land, and, in the case of a conditional purchase, this amount is reduced by the amount of rent outstanding. Where improvements are effected on a conditional purchase lease to the amount of £1 per acre at least, and the value of the land and improvements exceeds £2 per acre, an additional advance, not exceeding 15s. per acre, may be made. In the case of land which has acquired a special increase of value by reason of being cultivated as vineyards, hop-grounds, orchards, etc., advances may be made on the following terms :—(a) the total amount which may at any time be advanced must not exceed £100,000 ; (b) the amount of allowable advance may be increased by one-fourth, but not to a greater amount than £30 per acre ; and (c) no advance may be made for a longer period than 15 years. Repayment of advances must be made in 63 half-yearly instalments of principal and interest, a slight reduction in the amount being made in the case of returned soldiers. The Commissioners may also

advance money to companies in country districts for the erection of works for freezing, packing, or storing any commodities which are included in the Primary Products Act or in the Fruit Act, provided that shares equal in value to not less than two-thirds of the proposed expenditure have been taken up, and one-third thereof paid for in cash. The loan is granted upon such terms and conditions as the Commissioners may think fit.

(iii) *Closer Settlement Act.* The Closer Settlement Board may advance money to (a) lessees of workmen's homes and agricultural labourers' allotments in aid of the cost of fencing and erecting dwelling-houses; (b) lessees of Crown land for carrying on farming or grazing pursuits, or for adding to improvements; (c) municipalities, for making roads to any land acquired by the Board; and (d) owners of land for the purchase of wire-netting. An advance may not exceed £625, or, in the case of land which is suitable mainly for grazing, £1,000, and is repayable in 40 half-yearly instalments, with 5 per cent. interest. Where a lessee has, after not less than 6 years, obtained his compliance certificate or Crown grant, the amount of loan may be increased to £1,000, but must not exceed 60 per cent. of the value of the improvements and amount of purchase-money paid.

(iv) *Discharged Soldiers' Settlement Act.* The Closer Settlement Board may advance to a discharged soldier up to £625, or, if he is the owner or lessee of land in the mallee country or of grazing land only, up to £1,000. The rate of interest is fixed by the Minister, and is $3\frac{1}{2}$ per cent. for the first year, increasing by $\frac{1}{2}$ per cent. annually until the rate determined is reached. Repayment is as prescribed.

(v) *Primary Products Advances Act.* A company registered under the Companies Act, or a society registered under the Provident Societies Act, which is undertaking the establishment of abattoirs and freezing works, or cool storage for fish, or dried or canned fruit, or jam factories, tobacco-curing, or fruit-works, may be granted by the State Savings Bank a loan for the purpose of constructing such works. No loan may be granted unless at least one-third in number and value of the shareholders are persons engaged in the production of the primary products supplied to the company and full particulars of the proposed undertaking are furnished. The loan is repayable at such times and with such interest as the Commissioners may determine, the property must be mortgaged to the Bank, and a sum, not exceeding 5 per cent. of the value of the buildings, etc., paid annually into a depreciation fund.

(vi) *Fruit Act.* A Cool Stores Trust may be granted a loan by the Treasurer for the purchase of land and for the erection of a cool store thereon. Such loan must be a first charge on the property and revenue of the Trust, be for an agreed term of years, and provide for repayment with interest at $4\frac{1}{2}$ per cent. in 40 half-yearly instalments. The State Savings Bank Commissioners may also advance money to a company for the purpose of constructing fruit-works, provided that at least one-third in number and value of the shares are held *bona fide* by shareholders being owners or occupiers of orchards within the locality. The terms of the loan are the same as those under the Primary Products Advances Act.

(vii) *Amount of Advances.* The following table gives particulars respecting advances etc., to 30th June, 1926 :—

ADVANCES TO SETTLERS.—VICTORIA, 1925-26.

Authority Making Advances.	Advances made to—	Advances made during 1925-26.	Total Advances at 30th June, 1926.	Amount Outstanding at 30th June, 1926.
		£	£.	£
State Savings Bank	Civilians	344,573	6,634,380	2,898,417
	Discharged soldiers ..	63,150	414,270	330,238
Closer Settlement Board	Closer Settlement settlers	535,448	8,294,627	5,680,435
	Soldier settlers	488,202	21,757,614	18,859,701
Treasurer	Cool stores, canneries, etc.	4,688	610,182	456,864
Total .. ..	.. ..	1,436,061	37,711,073	28,225,655

3. *Queensland.*—(i) *General.* The principal institution which makes advances to settlers is the Agricultural Bank, established by the Agricultural Bank Act of 1923. Advances are also made by the Bank on behalf of the Minister for Lands under the Discharged Soldiers' Settlement Acts. In addition, assistance is granted by the following authorities :—Irrigation Commissioner ; Department of Public Lands, in respect to water facilities and wire-netting ; Department of Agriculture and Stock, in respect to seed wheat and drought relief.

(ii) *Agricultural Bank Act.* The Agricultural Bank makes advances on the security of a first mortgage over property which is used for agricultural, dairying, grazing, horticultural or viticultural pursuits, poultry or pig raising, or other approved rural pursuits. Further security may be required by way of stock mortgage, bill of sale, lien on crops, etc. The limit of advance to one person is £1,700, and, subject to the succeeding paragraphs, no advance may exceed 16s. in the £1 of the fair estimated security value of the land with its permanent improvements, together with those, if any, to be made by means of the advance applied for.

The purposes for which advances are granted are as follow :—(a) Payment of liabilities already existing with respect to the land or payment of the balance of any purchase money in respect of the purchase of the land or any stock, machinery, or implements therefor ; (b) effecting improvements on the land ; (c) purchase of stock, machinery, or implements ; (d) generally in respect of agricultural, dairying, grazing, horticultural, or viticultural pursuits, poultry or pig raising, or other rural pursuits on the land ; (e) relief in case of drought, flood, tempest, fire, or other adverse conditions or happenings beyond the control of the borrower ; (f) not exceeding £400 for unspecified purposes in connexion with the land, provided that the applicant is a *bona fide* settler residing on and working the land as farm land.

Advances to beginners on the land may be granted within the before-mentioned limit of £1,700 to the full value of the improvements proposed to be made for any one or more of the following objects, but not exceeding in the aggregate £500 at that special rate :—Buildings, ringbarking, clearing, fencing, draining, water conservation (including a well or bore together with lifting power), dairy house and yards, accommodation for pigs, silos, haysheds.

The term for repayment of any advance shall be the term fixed by the Bank, not exceeding 20 years, exclusive of any initial period allowed by the Bank (not exceeding 5 years) during which interest only is payable.

After the expiration of the initial interest-only period, the loan is repayable by equal half-yearly instalments of an amount sufficient to redeem the loan including interest, within the term of years fixed. Advances made on the security of terminating Crown leaseholds must be repaid within a term not later than the date upon which the lease will expire. Special advances for the purchase of dairy stock, sheep, pigs, dairying plant, etc., may be made to settlers on the security of a chattel mortgage over such purchases.

Provision is made for advances under easy terms to groups of settlers for the co-operative purchase of necessary machinery ; such groups must be registered as co-operative companies or associations. The limit of advance in these cases is £1,700 to any one company or association, and must not exceed two-thirds of the cost of the machinery.

Mortgage advances are made under prescribed conditions to co-operative companies and associations for factories and other works for the manufacture, storage, or treatment of primary produce and resultant products.

The rate of interest on any loan under the Agricultural Bank Act is fixed by the Bank when the application for the advance is approved ; the present rate is 5 per cent. per annum, except in cases where the loan is discharging liabilities on the land offered as security, when the rate is 6 per cent.

The advances outstanding under the Agricultural Bank Act, as set out in the table below, include advances originally made by the Bank's predecessors under the following legislation and taken over under The Agricultural Bank Act of 1923 :—The Agricultural Bank Act of 1901 ; The Queensland Government Savings Bank Act of 1916 ; The State Advances Act of 1916 ; The Co-operative Agricultural Production and Advances to Farmers Acts 1914 to 1919.

(iii) *Discharged Soldiers' Settlement Act.* Advances may be made by the Minister to discharged soldiers who are owners of land in fee-simple or holders of land under tenure from the Crown. Such advances may be made for the purposes of (a) the payment of purchase-money; (b) the payment of existing liabilities; (c) making improvements; (d) purchasing live stock, machinery, fruit trees, etc.; or (e) any other approved purpose. The maximum term of advance is 33 years exclusive of an initial period of 7 years during which interest only is payable. The rate of interest for the first year is $3\frac{1}{2}$ per cent., and it increases annually by $\frac{1}{2}$ per cent. up to a maximum of 5 per cent.

(iv) *Amount of Advances.* The following table gives particulars of advances, etc., to 30th June, 1926 :—

ADVANCES TO SETTLERS.—QUEENSLAND, 1925-26.

Act under which Advances were made.	Advances made during Year 1925-26.	Total Advances made to 30th June, 1926.	Amount Outstanding at 30th June, 1926.
	£	£	£
Agricultural Bank Act	451,982	4,291,037	2,337,406
Discharged Soldiers' Settlement Act (a) .. .	19,528	2,336,097	1,717,860
Water Facilities	11,044	13,749	13,676
Wire Netting	44,052	524,590	416,724
Seed Wheat	2,137	31,198	8,421
Drought Relief .. .. .	..	67,831	52,000
Total	528,743	7,264,502	4,546,087

(a) Includes advances to group settlements through the Lands Department as well as advances through the Agricultural Bank.

4. South Australia.—(i) *General.* Advances may be made to settlers and others for the purpose of discharging mortgages, making improvements, etc., under the provisions of the State Bank Act 1925, which are briefly summarized hereunder. Loans may be made under the Loans for Fencing Act and the Vermin Act for the purchase of fencing materials in vermin-infested districts. Advances may be made to homestead blockholders (a) for erecting buildings; or (b) for making improvements on their land. A loan must not exceed in the case of (a) the cost of existing improvements, and in the case of (b) one-half the value of the improvements to be effected; and in no case may a loan exceed £50. Repayment is to be made in 20 equal annual instalments at the rate of £7 7s. 2d. per cent. of the amount advanced. The State Bank may make advances to any settler on the security of his land and improvements (a) for making improvements, up to the estimated value of his lease or agreement and improvements, not exceeding £400, and up to three-fourths of such value in excess of £400, but not exceeding £250; or (b) for stocking his holding, up to £200; or (c) for discharging an existing mortgage, up to three-fourths of the value of his lease or agreement and improvements; or (d) for any other purpose, up to the same amount. Repayment must be made by 70 equal half-yearly instalments, with interest, but for the first 5 years interest only is payable.

(ii) *State Bank Act 1925.* Under this Act the State Bank of South Australia makes advances under prescribed conditions to farmers and other producers, to local authorities, to persons possessed of the necessary securities, and in aid of industries. No single advance may exceed £5,000. The Bank and the borrower may agree upon the term of years, not exceeding 42, over which repayment may be spread, as well as the interest to be paid. The Bank may, on the security of a mortgage on the property, make loans to any registered co-operative society, three-fourths of the members of which are engaged in or are about to be engaged in rural production, for purposes prescribed.

(iii) *Irrigation Act.* Settlers under this Act are entitled, under prescribed conditions, to loans under the Advances to Settlers on Crown Lands Act, as well as under the Irrigation Act, but not exceeding £600 under both Acts. Advances may be made only on the security of a first mortgage. During the first 5 years interest only is payable, but thereafter the advance must be repaid in 70 equal half-yearly instalments, with interest.

(iv) *Discharged Soldiers' Settlement Act.* Advances are made to soldier settlers for prescribed purposes on liberal terms in regard to payment of principal and interest.

(v) *Agricultural Graduates Land Settlement Act.* Under the provisions of this Act, the Minister may (a) purchase land with a view to the settlement thereon of agricultural graduates, the value of which land, with improvements, must not exceed £3,000 for each graduate, and is repayable with interest; (b) the State Bank may advance to any agricultural graduate settler up to £500 for the purpose of purchasing seeds, implements, stock, etc.; such advance being repayable on easy terms.

(vi) *Amount of Advances.* The following table gives particulars respecting advances etc., to 30th June, 1926 :—

ADVANCES TO SETTLERS.—SOUTH AUSTRALIA, 30th JUNE, 1926.

Particulars.	Advances made during 1925-26.	Total Advances at 30th June, 1926.	Amount outstanding at 30th June, 1926.
	£	£	£
Department of Lands and Survey—			
Advances to soldier settlers ..	162,898	5,132,436	4,368,560
Advances to settlers for improvements ..	10,517	633,166	333,303
Advances under Vermin and Fencing Acts ..	66,698	967,194	311,909
Advances to blockholders ..	..	41,451	330
Advances for sheds and tanks ..	10,336	71,588	63,708
Advances in drought-affected areas ..	3,027	768,851	46,827
Advances under Loans to Producers Act ..	30,016	154,992	153,526
Advances under Closer Settlement Acts ..	5,663	2,315,473	1,618,967
State Bank of South Australia ..	1,428,290	15,013,792	9,278,800
Irrigation Commission—			
Civilians ..	9,697	185,288	102,809
Soldier settlers ..	99,750	1,841,566	1,650,160
Total ..	1,826,897	27,130,797	17,928,899

5. Western Australia.—(i) *General.* Advances to settlers are made by the Agricultural Bank, which was established in 1895. Special advances are also made to returned soldiers.

(ii) *Agricultural Bank.* This Bank makes advances to a limit of £2,000 on the security of a first mortgage to persons engaged in agricultural pursuits. The borrower must pay the interest on the amount advanced for the first 5 years, and after the expiration of that term the advance with interest must be repaid within 25 years in half-yearly instalments. The interest is at such rates as may be prescribed, but if over 5 per cent. per annum, must not exceed by more than 1 per cent. the rate of interest paid by the Bank on funds raised by the Bank.

(iii) *Advances to Soldier Settlers.* A soldier settler may be granted an advance up to £625 for improvements, fertilizers, machinery, plant, etc., and the interest thereon is the full current rate charged by the Agricultural Bank.

(iv) *Amount of Advances.* The following table gives particulars respecting advances, etc., to 30th June, 1926 :—

ADVANCES TO SETTLERS.—WESTERN AUSTRALIA, 1925-26.

Particulars.	Year ended—	Advances made during Year 1925-26.	Total Advances at 30th June, 1926.	Amount outstanding at 30th June, 1926.
		£	£	£
Agricultural Bank advances ..	30.6.26	383,089	5,730,101	3,663,461
Soldier settlement advances ..	30.6.26	248,649	5,569,867	5,345,415
Advances to rural industries ..	30.6.26	162	24,703	26,466
Advances to assisted settlers ..	31.3.26	1,050,119	10,509,121	1,808,250
Total ..	..	1,682,019	21,833,792	10,843,592

6. *Tasmania.*—(i) *General.* Advances to farmers and producers may be made under the State Advances Act, to closer settlement settlers under the Closer Settlement Act, to fruit-growers formed into a registered company under the Advances to Fruit-growers Act, and to returned soldiers under the Returned Soldiers Settlement Act.

(ii) *State Advances Act.* The Agricultural Bank of Tasmania, constituted under this Act, is authorized to borrow up to £200,000 on debentures or stock for the purpose of advancing money to farmers and other primary producers who own land in fee-simple or under purchase from the Crown on credit. Advances are secured on first mortgages, and may be made for any of the purposes prescribed. The trustees reserve the right to fix the period for repayment of any loan with a maximum term of 30 years. Interest at $6\frac{1}{2}$ per cent. and instalment of principal are payable half-yearly.

(iii) *Closer Settlement Act.* Under this Act the Minister may make advances to lessees in aid of the cost of improvements. The total amount advanced may not exceed £ for £ of the sum expended by the lessee in such improvements. Loans are repayable by equal half-yearly instalments with interest, not exceeding 7 per cent., extending over a period not exceeding 21 years.

(iv) *Advances to Fruit-growers Act.* The Minister may make advances for prescribed purposes to registered companies on a first mortgage on freehold land or on a lien on other property. Generally, the amount of advance must not exceed 75 per cent. of the value of the land or plant, but, in the case of a company desiring to purchase grading machinery, it must not exceed 50 per cent. of the value thereof. Liberal terms have been arranged for repayment of principal and interest.

(v) *Returned Soldiers Settlement Act.* Advances up to £625, on easy terms as regards repayment, may be made to discharged soldiers to assist in making improvements and purchasing requisites. The Minister may in certain cases remit wholly or in part the payment of rent or instalments on the purchase-money.

A returned soldier, who has not exercised his option of acquiring a free selection, and who is already a selector of land on credit purchase, is entitled to a remission of his instalments up to £100 if he made application for same before 31st March, 1922.

(vi) *Amount of Advances.* The following table gives particulars respecting advances, etc., to 30th June, 1926 :—

ADVANCES TO SETTLERS.—TASMANIA, 30th JUNE, 1926.

Authority making Advances.	Advances made to—	Advances made during 1925–26.	Total Advances to 30th June, 1926.	Amount outstanding at 30th June, 1926.
		£	£	£
Agricultural Bank ..	Settlers ..	20,980	203,934	113,867
Minister for Lands ..	Soldier Settlers ..	11,058	671,665	308,647
„ ..	Closer Settlers ..	1,811	23,299	11,258
„ ..	Fruit Growers ..	..	1,447	922
Total ..	.. ..	33,849	900,345	434,694

7. *Northern Territory.*—(i) *Advances to Settlers Act 1923.* This Act and the Regulations thereunder provide that the Minister for Home and Territories may, out of moneys paid into a Trust Account for the purpose, make advances to the Northern Territory for the purchase of wire netting.

Applicants must offer security for payment and undertake to fulfil the prescribed conditions.

An advance cannot be made on unimproved land or on land on which the rent is overdue.

(ii) *Encouragement of Primary Production Ordinance 1924-26.* Under this Ordinance the Primary Producers Board may, out of moneys voted by Parliament, expend such sums as it deems necessary for the carrying out of its powers under this Ordinance, particularly as regards the granting of assistance to producers for the purposes prescribed. Principal and interest are repayable under easy terms.

(iii) *Amount of Advances.* During the financial year 1925-26 the sum of £2,434 was advanced, making the total amount advanced to the 30th June, 1926, £13,506. The balance outstanding at that date, including interest, was £11,072.

8. *Summary of Advances.*—The following table gives a summary for each State to the 30th June, 1926 :—

ADVANCES TO SETTLERS.—AUSTRALIA, 30th JUNE, 1926.

State.	Advances made during 1925-26.	Total Advances to 30th June, 1926.	Amount outstanding at 30th June, 1926.
	£	£	£
New South Wales	2,373,921	26,721,153	16,184,222
Victoria	1,436,061	37,711,073	28,225,655
Queensland	528,743	7,264,502	4,546,087
South Australia	1,826,897	27,130,797	17,928,899
Western Australia	1,682,019	21,833,792	10,843,592
Tasmania	33,849	900,345	434,694
Northern Territory	2,434	13,506	11,072
Total	7,883,924	121,575,168	78,174,221

§ 11. Alienation and Occupation of Crown Lands.

1. *General.*—The tables given in the previous parts of this chapter show separately the areas alienated, in process of alienation, or occupied under various tenures. The following tables set out in summarized form the position in regard to the tenure of land in each State, in the Northern Territory, and in the Federal Capital Territory during the last five years for which information is available. The area unoccupied includes roads, permanent reserves, forests, etc. In some cases, lands which are permanently reserved from alienation are occupied under leases and licences, and have been included therein. Lands occupied under leases or licences for pastoral purposes are frequently held on short tenures only, and could thus be made available for settlement practically whenever required.

2. New South Wales.—At the 30th June, 1926, of the total area of New South Wales, 21.1 per cent. had been alienated absolutely, 10.7 per cent. was in process of alienation, 58.1 per cent. was held under leases and licences, and the remaining 10.1 per cent. was unoccupied.

The following table gives particulars for each of the last five years :—

**ALIENATION AND OCCUPATION OF CROWN LANDS.—NEW SOUTH WALES,
1921-22 TO 1925-26.**

Particulars.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	Acres.	Acres.	Acres.	Acres.	Acres.
1. Alienated.					
Granted and sold prior to 1862	7,146,579	7,146,579	7,146,579	7,146,579	7,146,579
Sold by auction and other sales, 1862 to date	15,184,016	15,188,819	14,962,345	14,969,185	14,977,762
Conditionally sold, 1862 to date	19,970,073	20,637,146	21,233,270	21,823,491	22,283,707
Granted under Volunteer Land Regulations, 1867 to date	172,198	172,198	172,198	172,198	172,198
Granted for public and religious purposes	241,742	242,674	244,282	244,850	246,105
	42,714,008	43,387,416	43,758,674	44,356,303	44,826,351
Less lands resumed or reverted to Crown	2,385,700	2,466,837	2,475,501	2,496,081	2,502,668
Total	40,328,908	40,920,579	41,283,173	41,860,222	42,323,683
2. In Process of Alienation.					
Conditional purchases	18,437,500	18,200,900	18,122,045	18,156,194	19,263,888
Closer settlement purchases	2,385,411	2,427,826	2,573,115	2,674,217	2,710,516
Soldiers' group purchase .. .. .	..	..	410,567	390,396	401,609
Other forms of sale .. .. .	..	..	11,002	14,978	16,621
Total	20,823,001	20,628,726	21,116,729	21,235,785	22,392,634
3. Held under Leases and Licences.					
Total under Lands Department and Western Land Board	115,450,062	115,391,357	114,916,852	114,656,643	113,707,215
Mineral and auriferous leases and licences (Mines Department)	281,503	307,336	299,688	390,193	533,358 ^a
Total	115,731,565	115,698,693	115,216,540	115,046,836	114,240,573
4. Unoccupied (approximate)	21,153,026	20,788,502	20,420,056	19,893,657	19,079,610

(a) Includes at least 250,000 acres of under-surface leases.

Area of State—198,036,500 acres.

3. Victoria.—The total area of the State of Victoria is 56,245,760 acres, of which 45.3 per cent. had been alienated absolutely up to the end of the year 1925; 17.4 per cent. was in process of alienation under deferred payments and Closer Settlement Schemes; 12.5 per cent. was occupied under leases and licences; while 24.8 per cent. was unoccupied.

The following table shows the distribution :—

ALIENATION AND OCCUPATION OF CROWN LANDS.—VICTORIA, 1921 TO 1925.

Particulars.	1921.	1922.	1923.	1924.	1925.
	Acres.	Acres.	Acres.	Acres.	Acres.
1. <i>Alienated</i>	24,903,109	24,947,732	25,090,672	25,278,681	25,463,719
2. <i>In Process of Alienation—</i> Exclusive of Mallee, etc. ..	1,933,656	2,021,372	2,101,155	2,138,684	2,109,685
Mallee Lands	6,363,229	6,345,499	6,241,691	6,330,141	7,129,530
Under Closer Settlement Acts ..	528,545	542,978	532,274	532,274	532,727
Village Settlements	12,694	995	861	791	776
Total	8,778,124	8,910,844	8,875,981	9,001,890	9,772,718
3. <i>Leases and Licences held—</i> Under Lands Department ..	8,940,521	9,237,593	9,220,529	8,254,933	6,998,765
Under Mines Department ..	52,892	52,866	52,849	52,818	41,765
Total	8,993,413	9,290,459	9,273,378	8,307,751	7,040,530
4. <i>Unoccupied Crown Lands</i> ..	13,571,114	13,096,725	13,005,729	13,657,438	13,968,793

Total area of State—56,245,760 acres.

4. *Queensland.*—The total area of this State is 429,120,000 acres, of which, on the 31st December, 1925, 4.1 per cent. was alienated absolutely ; 1.6 per cent. was in process of alienation ; and 70.9 per cent. was occupied under leases and licences. The remainder (23.4 per cent.) was either unoccupied or held as reserves, or for roads.

The distribution is shown in the following table :—

ALIENATION AND OCCUPATION OF CROWN LANDS.—QUEENSLAND, 1921 TO 1925.

Particulars.	1921.	1922.	1923.	1924.	1925.
	Acres.	Acres.	Acres.	Acres.	Acres.
1. <i>Alienated Absolutely—</i> By Purchase	17,064,697	17,156,804	17,255,176	17,331,516	17,508,804
Without Payment	87,731	87,740	87,773	87,909	88,071
Total	17,152,428	17,244,544	17,342,949	17,419,425	17,596,875
2. <i>In Process of Alienation</i> ..	8,280,296	7,833,127	7,358,971	7,150,240	6,966,230
3. <i>Occupied under Leases and Licences—</i> Pastoral Leases	201,010,760	185,348,400	189,353,840	188,975,840	183,918,080
Occupation Licences	33,526,240	34,610,680	34,529,120	35,323,000	32,087,000
Grazing Farms and Homesteads ..	78,658,048	78,983,282	79,783,557	81,200,031	82,460,364
Scrub Selections	86,289	77,283	72,886	69,052	50,812
Leases—Special Purposes	246,783	258,706	303,853	362,778	482,773
Under Mines Department	422,368	511,137	454,586	508,058	464,731
Perpetual Lease Selections	3,060,954	3,166,134	3,147,890	3,205,349	3,548,199
Auction Perpetual Leases	10,001	11,249	12,558	13,536	15,098
Prickly-pear Leases .. .. .	..	..	..	..	1,296,800
Total	317,021,443	302,966,871	307,658,290	309,657,644	304,332,827
4. <i>Unoccupied</i>	86,665,833	101,075,458	96,759,790	94,892,091	100,224,068

Total area of State—429,120,000 acres.

5. **South Australia.**—The area of the State of South Australia is 243,244,800 acres, and at the end of the year 1926, 4.7 per cent. was alienated absolutely; 1.4 per cent. in process of alienation; 49.5 per cent. occupied under leases and licences; and 44.4 per cent. unoccupied.

The subjoined table shows the distribution :—

**ALIENATION AND OCCUPATION OF CROWN LANDS.—SOUTH AUSTRALIA,
1922 TO 1926.**

Particulars.	1922.	1923.	1924.	1925.	1926.
	Acres.	Acres.	Acres.	Acres.	Acres.
1. <i>Alienated—</i>					
Sold	10,936,750	10,987,030	11,104,386	11,216,755	11,327,527
Granted for Public Purposes ..	131,741	131,741	132,672	132,689	132,720
Total	11,068,491	11,118,771	11,237,058	11,349,444	11,460,247
2. <i>In Process of Alienation</i> ..	3,023,556	3,123,674	3,270,884	3,397,866	3,442,047
3. <i>Held under Lease and Licence—</i>					
Right of Purchase Leases ..	2,112,350	2,031,003	2,038,090	2,005,708	1,968,193
Perpetual Leases ..	14,756,565	14,956,020	14,944,537	15,041,948	15,150,156
Pastoral Leases ..	98,760,263	105,984,903	108,796,663	102,871,703	101,123,363
Other Leases and Licences ..	886,989	962,985	864,648	1,273,003	1,775,369
Mining Leases and Licences ..	512,841	653,899	586,025	368,922	310,663
Total	117,029,008	124,638,810	127,229,963	121,561,284	120,327,744
4. <i>Area Unoccupied</i>	112,123,745	104,363,545	101,506,895	106,936,206	108,014,762

Total area of State—243,244,800 acres.

6. **Western Australia.**—The total area of Western Australia is 624,588,800 acres, of which, at the 30th June, 1926, 1.9 per cent. was alienated absolutely; 3.0 per cent. was in process of alienation; while 36.9 per cent. was occupied under leases and licences issued either by the Lands or the Mines Departments. The balance of 58.2 per cent. was unoccupied.

The following table shows the distribution :—

**ALIENATION AND OCCUPATION OF CROWN LANDS.—WESTERN AUSTRALIA,
1921-22 TO 1925-26.**

Particulars.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	Acres.	Acres.	Acres.	Acres.	Acres.
1. <i>Alienated Absolutely</i> ..	9,724,931	10,051,080	10,620,028	10,889,513	11,599,231
2. <i>In Process of Alienation—</i>					
Midland Railway Concessions ..	54,800	54,800	54,800	54,800	54,800
Free Homestead Farms ..	941,485	961,492	963,700	933,793	922,761
Conditional Purchases ..	7,615,430	8,028,588	8,187,635	7,906,971	7,611,664
Selections from the late W.A. Company ..	2,193	2,193	2,193	2,143	2,143
Selections under the Agricultural Lands Purchase Act ..	539,927	565,780	572,410	558,037	537,055
Special Occupation Leases and Licences ..	1,298	820	820	722	722
Homestead or Grazing Leases ..	6,833,398	7,357,291	7,998,598	8,425,594	9,410,745
Polson Land Leases or Licences ..	42,275	42,275	42,275	40,828	40,004
Village Allotments ..	28	27	13	4	4
Working-men's Blocks ..	342	320	157	..	157
Total	16,031,176	17,013,586	17,822,601	17,922,942	18,589,055

ALIENATION AND OCCUPATION OF CROWN LANDS.—WESTERN AUSTRALIA, 1921-22 TO 1925-26—*continued.*

Particulars.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	Acres.	Acres.	Acres.	Acres.	Acres.
3. <i>Leases and Licences in Force—</i>					
(i) Issued by Lands Department—					
Pastoral Leases ..	263,403,351	258,238,151	214,818,111	228,919,930	226,610,576
Special Leases ..	57,509	49,213	40,144	41,873	41,963
Leases of Reserves ..	2,156,186	2,101,795	2,084,766	2,127,840	2,130,050
Residential Lots ..	4,422	5,769	171	145	115
(ii) Issued by Mines Department—					
Gold-mining Leases ..	8,934	8,934	8,191	7,395	6,506
Mineral Leases ..	46,056	47,275	48,214	45,407	45,199
Miners' Homestead Leases ..	35,828	35,828	33,254	32,653	32,575
(iii) Issued by Forests Department—					
Timber Leases and Concessions ..	585,453	585,110	545,334	545,274	428,318
Timber Permits ..	1,322,168	1,075,101	1,320,531	1,210,752	1,260,170
Total	267,619,907	262,147,176	218,898,716	232,931,269	230,555,472
4. <i>Area Unoccupied</i>	331,212,786	335,376,958	377,347,455	362,845,076	363,845,042

Total Area of State—624,588,800 acres.

7. *Tasmania.*—At the end of the year 1925, 33.1 per cent. of the total area had been alienated absolutely; 4.2 per cent. was in process of alienation; 14.4 per cent. was occupied under leases and licences for either pastoral, agricultural, timber, or mining purposes, or for closer or soldier settlement, or occupied or reserved by the Crown; the remainder (48.3 per cent.) being unoccupied.

The following table shows the distribution:—

ALIENATION AND OCCUPATION OF CROWN LANDS.—TASMANIA, 1921 TO 1925.

Particulars.	1921.	1922.	1923.	1924.	1925.
	Acres.	Acres.	Acres.	Acres.	Acres.
1. <i>Alienated Absolutely</i>	5,259,066	5,326,825	5,407,937	5,490,734	5,546,357
2. <i>In Process of Alienation</i>	920,206	880,410	798,043	729,861	700,000
3. <i>Leases or Licences—</i>					
(i) <i>Issued by Lands Department—</i>					
Islands	108,000	107,000	107,000	107,000	106,000
Ordinary Leased Land ..	1,608,000	1,577,653	1,593,000	1,574,000	1,579,000
Land Leased for Timber ..	236,847	308,072	272,270	282,673	284,800
Closer Settlement	80,435	93,399	93,000	90,753	93,283
Soldier Settlement	219,118	202,673	192,600	188,652	102,387
Other Leases	1,000	1,000	1,000	1,000	81,000
(ii) <i>Issued by Mines Department</i> ..	52,476	49,823	42,866	37,024	52,033
(iii) <i>Occupied by Commonwealth and State Departments</i>	18,000	18,000	18,000	18,000	18,000
(iv) <i>Reserved for Public Purposes</i> ..	100,000	100,000	100,000	100,000	100,000
Total	2,423,876	2,457,620	2,419,736	2,399,102	2,416,503
4. <i>Area Unoccupied</i>	8,174,852	8,113,145	8,152,284	8,158,303	8,115,140

Total area of State—16,778,000 acres.

8. Northern Territory.—At the end of the year 1926 only 0.14 per cent. was alienated absolutely; 44.80 per cent. was held under leases and licences; while the remaining 55.06 per cent. was unoccupied. The following table shows the distribution :—

ALIENATION AND OCCUPATION OF CROWN LANDS.—NORTHERN TERRITORY, 1922 TO 1926.

Particulars.	1922.	1923.	1924.	1925.	1926.
	Acres.	Acres.	Acres.	Acres.	Acres.
1. <i>Alienated</i> —					
Sold ..	476,508	476,508	476,864	476,864	476,864
Granted for Public Purposes ..	48	48	48	48	48
Total Alienated ..	476,556	476,556	476,912	476,912	476,912
2. <i>Leased</i> —					
Right of Purchase ..	356	356			
Pastoral ..	114,876,000	113,864,720	114,368,266	111,780,746	110,971,146
Other Leases ..	19,612,170	22,462,896	24,786,688	34,633,960	39,150,051
Total Leases ..	134,488,526	136,327,972	139,154,954	146,414,706	150,121,197
3. <i>Unoccupied (a)</i> ..	200,151,718	198,312,272	195,484,934	188,225,182	184,518,691

Total area of Northern Territory—335,116,800 acres.

(a) Including Aboriginal and other Reserves, and Mission Stations.

9. Federal Capital Territory.—In the following table the particulars given are exclusive of the Jervis Bay area. Alienated land comprised in 1926, 7.8 per cent. of the total area, land in process of alienation 9.3 per cent., and lands held under lease 29.9 per cent. of the total area.

ALIENATION AND OCCUPATION OF CROWN LANDS.—FEDERAL CAPITAL TERRITORY, 1922 TO 1926.

Particulars.	1922.	1923.	1924.	1925.	1926.
	Acres.	Acres.	Acres.	Acres.	Acres.
Area of acquired lands ..	206,056	206,000	206,296	209,531	210,567
Alienated ..	44,686	43,982	43,686	46,404	45,689
In process of alienation ..	73,345	74,070	74,070	54,832	54,510
Leased ..	123,800	119,552	119,552	103,511	174,301
Unoccupied ..	135,773	140,056	140,056	169,382	98,593

Total area of Federal Capital Territory (exclusive of Jervis Bay area)—583,660 acres.

§ 12. Classification of Alienated Holdings According to Size.

Information in regard to the number of holdings in acreage groups is not collected annually, and is not available for Queensland and the Northern Territory. With the exception of Western Australia, where the figures were brought up to the year 1923–24, the published returns relate generally to the five years ended 1921–22. Tables containing the information to hand were given in Official Year Book No. 18, pp. 204–6, but consideration of space precludes their repetition in the present issue.

§ 13. The Progress of Land Settlement.

1. Recent Progress.—The progress of settlement and the growth of land alienation under recent legislation may be gathered from the subjoined statement, which shows the condition of the public estate in each State at the end of each year from 1921 to 1925 inclusive. As leases of large areas fall in or are otherwise terminated they are in many cases not renewed, but the land is then divided for the purpose of settlement under systems of deferred payment; the State Governments, also, have in many cases acquired by repurchase considerable areas under the provisions of the various Closer Settlement Acts. Further, greater facilities have been granted to workers to acquire land, and special inducements have been offered to *bona fide* settlers by the introduction of new forms of tenure on easy terms and conditions.

From 1901 to 1925 the area alienated absolutely in the whole of Australia increased by 37,086,685 acres, or 48.7 per cent.; the area in process of alienation increased by 24,990,254 acres, or 71.3 per cent.; the area leased by 208,440,182 acres, or 28.9 per cent.; while the area unoccupied decreased by 270,517,121 acres, or 25.3 per cent.

AREAS ALIENATED, IN PROCESS OF ALIENATION, HELD UNDER LEASE OR LICENCE, AND UNOCCUPIED, 1921 TO 1925.

Year.	Alienated.		In Process of Alienation.		Held under Lease or Licence.		Occupied by the Crown or Unoccupied.	
	Area in Acres.	Per Cent.	Area in Acres.	Per Cent.	Area in Acres.	Per Cent.	Area in Acres.	Per Cent.

NEW SOUTH WALES(a).—AREA, 198,036,500 ACRES.

1921	41,971,653	21.19	20,667,746	10.44	116,411,054	58.78	18,986,047	9.59
1922	(b)40,323,908	20.36	20,823,001	10.51	115,731,565	58.44	21,153,026	10.69
1923	(b)40,920,579	20.66	20,628,726	10.42	115,698,693	58.42	20,788,502	10.50
1924	(b)41,233,173	20.86	21,116,729	10.72	115,216,540	58.17	20,420,058	10.25
1925	(b)41,860,222	21.14	21,235,785	10.72	115,046,836	58.09	19,893,657	10.05

VICTORIA.—AREA, 56,245,760 ACRES.

1921	24,903,109	44.28	8,778,124	15.60	8,993,413	15.99	13,571,114	24.13
1922	24,947,732	44.35	8,910,844	15.84	9,290,459	16.52	13,096,725	23.29
1923	25,090,672	44.61	8,875,981	15.78	9,273,378	16.49	13,005,729	23.12
1924	25,278,681	44.94	9,001,890	16.00	8,307,751	14.77	13,657,438	24.29
1925	25,463,719	45.27	9,772,718	17.37	7,040,530	12.52	13,968,793	24.84

QUEENSLAND.—AREA, 429,120,000 ACRES.

1921	17,152,428	4.00	8,280,296	1.93	317,021,443	73.88	86,665,833	20.19
1922	17,244,544	4.02	7,833,127	1.83	302,966,871	70.60	101,075,458	23.55
1923	17,342,949	4.04	7,358,971	1.71	307,658,290	71.70	96,759,790	22.55
1924	17,419,425	4.06	7,150,240	1.67	309,657,644	72.16	94,892,691	22.11
1925	17,596,875	4.10	6,966,230	1.62	304,332,827	70.92	100,224,068	23.36

SOUTH AUSTRALIA.—AREA, 243,244,800 ACRES.

1921	11,014,097	4.53	3,192,633	1.31	121,436,409	49.92	107,601,661	44.24
1922	11,068,491	4.55	3,023,556	1.24	117,029,008	48.11	112,123,745	46.10
1923	11,118,771	4.57	3,123,674	1.28	124,638,810	51.24	104,363,545	42.91
1924	11,237,058	4.62	3,270,884	1.34	127,229,963	52.31	101,506,895	41.73
1925	11,349,444	4.67	3,397,866	1.40	121,561,284	49.97	106,936,206	43.96

(a) To 30th June.

(b) Excludes lands alienated but subsequently resumed or reverted to the Crown.

AREAS ALIENATED, IN PROCESS OF ALIENATION, ETC.—*continued.*

Year.	Alienated.		In Process of Alienation.		Held under Lease or Licence.		Occupied by the Crown or Unoccupied.	
	Area in Acres.	Per Cent.	Area in Acres.	Per Cent.	Area in Acres.	Per Cent.	Area in Acres.	Per Cent.

WESTERN AUSTRALIA.(a)—AREA, 624,588,800 ACRES.

1921	9,197,088	1.47	15,034,959	2.41	258,504,334	41.39	341,852,419	54.73
1922	9,724,931	1.56	16,031,176	2.56	267,619,907	42.85	331,212,786	53.03
1923	10,051,080	1.61	17,013,586	2.72	262,147,176	41.97	335,376,958	53.70
1924	10,520,028	1.68	17,822,601	2.85	218,898,716	35.05	377,347,455	60.42
1925	10,889,513	1.74	17,922,942	2.87	232,931,269	37.29	362,845,076	58.10

TASMANIA.—AREA, 16,778,000 ACRES.

1921	5,259,066	31.35	920,206	5.48	2,423,876	14.45	8,174,852	48.72
1922	5,326,825	31.75	880,410	5.25	2,457,620	14.65	8,113,145	48.35
1923	5,407,937	32.23	798,043	4.76	2,419,736	14.42	8,152,284	48.59
1924	5,490,734	32.72	729,861	4.35	2,399,102	14.30	8,158,303	48.63
1925	5,546,357	33.06	700,000	4.17	2,416,503	14.40	8,115,140	48.37

NORTHERN TERRITORY.—AREA, 335,116,800 ACRES.

1921	476,556	0.14	..	..	137,676,653	41.09	196,963,591	58.77
1922	476,556	0.14	..	..	134,488,526	40.13	200,151,718	59.73
1923	476,556	0.14	..	..	136,327,972	40.68	198,312,272	59.18
1924	476,912	0.14	..	..	139,154,954	41.52	195,484,934	58.34
1925	476,912	0.14	..	..	146,414,706	43.69	188,225,182	56.17

FEDERAL CAPITAL TERRITORY.—AREA, 601,580 ACRES.

1921	39,967	6.64	78,064	12.98	152,378	25.32	331,171	55.06
1922	44,708	7.43	66,325	11.03	300,697	49.99	189,850	31.55
1923	43,982	7.31	74,070	12.31	119,899	19.93	363,629	60.45
1924	43,175	7.18	65,594	10.90	106,619	17.72	386,192	64.20
1925	46,404	7.71	54,832	9.11	103,511	17.21	396,833	65.97

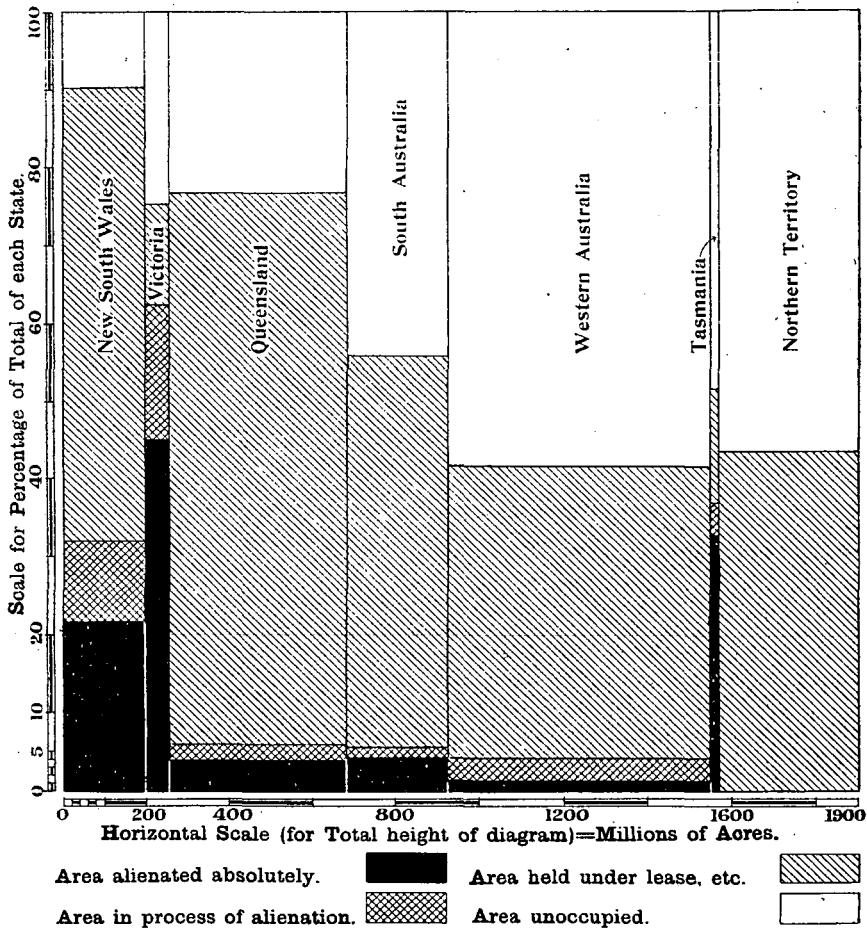
AUSTRALIA.—AREA, 1,903,732,240 ACRES.

1921	110,013,964	5.78	56,952,028	2.99	962,619,560	50.57	774,146,688	40.66
1922	109,162,695	5.73	57,568,439	3.02	949,884,653	49.90	787,116,453	41.35
1923	110,452,526	5.80	57,873,051	3.04	958,283,954	50.34	777,122,709	40.82
1924	111,749,186	5.87	59,157,799	3.11	920,971,289	48.38	811,853,966	42.64
1925	113,229,446	5.95	60,050,373	3.15	929,847,466	48.84	800,604,955	42.06

(a) To 30th June.

2. Diagram showing Condition of Public Estate.—The following diagram shows the condition of the public estate at the end of the year 1925. The square itself represents the total area of Australia, while the relative areas of individual States are shown by the vertical rectangles. The areas alienated absolutely, in process of alienation under systems of deferred payments, and the areas held under leases or licences, are designated by the differently-shaded areas as described in the reference given below the diagram, while the areas unoccupied are left unshaded :—

Land Tenure



CHAPTER VI. OVERSEA TRADE.

§ 1. Introductory.

1. **Constitutional Powers of the Commonwealth in regard to Commerce.**—The powers vested in the Commonwealth Parliament by the Commonwealth Constitution Act with respect to oversea trade and commerce will be found in sub-section 51 (i) and sub-sections 86 to 95 of the Act, which is printed in full in Chapter I. of this volume.

§ 2. Commonwealth Legislation affecting Oversea Trade.

1. **General.**—In previous issues of the Year Book brief particulars of the various Commonwealth Acts and amendments thereof affecting oversea trade have been given in chronological order. It is not proposed to repeat this information in the present issue, but the main provisions of the initial Commonwealth Customs Legislation and also of the principal Acts in operation at the present time affecting external trade are mentioned hereunder.

2. **Development of Customs Legislation.**—(i) *Customs Act of 1901.* The first Commonwealth Act relating to Customs, entitled “Customs Act 1901 (No. 6 of 1901),” came into operation by proclamation on the 4th October, 1901. This Act provided for the establishment of the necessary administrative machinery for all matters pertaining to the Customs, and prescribed, *inter alia*, the manner in which Customs duties shall be computed and paid. It did not, however, determine the rates of duties.

During the interval between the establishment of the Commonwealth, viz., on 1st January, 1901, and the coming into operation of the Customs Act 1901, the Customs Acts of the several States were administered by the Executive Government of the Commonwealth under Section 86 of the Constitution.

(ii) *Customs Act 1901–1925.* Several amendments of the original Act of 1901 have been made, and have been incorporated in the Customs Act 1901–1925, which comprises the Customs Act 1901 (No. 6 of 1901), as amended by Acts No. 36 of 1910, No. 19 of 1914, No. 10 of 1916, No. 19 of 1922, No. 12 of 1923, and No. 22 of 1925. The Customs Act 1901 has also been amended by the Spirits Act 1906 (No. 21 of 1906), section 5, and by the Customs (Interstate Accounts Act) 1910 (No. 9 of 1910), section 2. Act No. 12 of 1923 provides that aeroplanes, seaplanes, airships, etc., from parts beyond the seas shall be subject to Customs control similar to that provided for vessels from oversea. Act No. 22 of 1925 provides new conditions relating to the application of the Preferential Tariff.

(iii) *The First Tariff.* The first Commonwealth Customs Tariff was introduced in the House of Representatives on the 8th October, 1901, and the “Customs Tariff Act 1902 (No. 14 of 1902)” was assented to on the 16th September, 1902. This Act made provision that uniform duties of Customs specified in the Tariff Schedule should be imposed from the 8th October, 1901. From this date, trade between the States became free, with the exception that under Section 95 of the Constitution Act the right was reserved to the State of Western Australia to levy duty on the goods from other States for five years. Prior to the establishment of the Commonwealth, a different tariff was in operation in each State, and interstate trade was subject to the same duties as oversea trade.

3. **Customs Tariff 1921 (No. 25 of 1921).**—The date of commencement of the imposition of the duties of Customs imposed by this Act was the 25th March, 1920. The Tariff schedule provided a British Preferential Tariff, an Intermediate Tariff, and a General Tariff.

The Act of 1921 repealed the following Acts :—Customs Tariff 1908 (No. 7 of 1908) ; Customs Tariff Amendment 1908 (No. 13 of 1908) ; Customs Tariff 1910 (No. 39 of 1910) ; Customs Tariff 1911 (No. 19 of 1911) ; and with the exception of the proposals contained in such Acts relating to the Tariff on goods imported from, and the produce or manufacture of, the Union of South Africa, the Customs Tariff Validation Act 1917, and the Customs Tariff Validation Act 1919.

4. Customs Tariff 1921-1926.—The Tariff Schedule now in operation incorporates Customs Tariff 1921 (Act No. 25 of 1921), Customs Tariff 1922 (Act No. 16 of 1922), Customs Tariff (Sugar) 1922 (Act No. 32 of 1922), Customs Tariff 1923 (Act No. 22 of 1923), Customs Tariff 1924 (Act No. 1 of 1924), Customs Tariff 1926 (Act No. 26 of 1926), and Customs Tariff (No. 2) 1926 (Act No. 45 of 1926).

The Tariff Schedule provides a British Preferential Tariff, an Intermediate Tariff, and a General Tariff. The main provisions of the Act are mentioned hereunder.

The rates of duty set out in the Schedule in the column headed "British Preferential Tariff" apply to goods the produce or manufacture of the United Kingdom, subject to the condition that the goods have been shipped in the United Kingdom to Australia, and have not been transhipped, or, if transhipped, then only if it is proved satisfactorily that the intended destination of the goods, when originally shipped from the United Kingdom, was Australia (Section 8 of Act No. 25 of 1921.)

The provisions of the British Preferential Tariff may be applied wholly or in part to any portion of the British Dominions, and the provisions of the Intermediate Tariff may be applied wholly or in part to any portion of the British Dominions or to any foreign country by negotiation.

The rates of duty set out in the column headed "General Tariff" apply to all goods to which the rates set out in either of the columns headed "British Preferential Tariff" or "Intermediate Tariff" do not apply (Act No. 25 of 1921, Section 10). The General Tariff applies to all importations, excepting importations the produce or manufacture of the United Kingdom, shipped in the United Kingdom to Australia, and excepting also goods covered by the Customs Tariff (New Zealand Preference) Acts No. 3 of 1922, No. 36 of 1922, and No. 38 of 1926; the Proclamation relating to Canadian Preference, and the Customs Tariff (Papua and New Guinea Preference) Act No. 6 of 1926.

5. South African Preference.—By the Customs Tariff (South African Preference) 1906 it was provided that certain goods, specified in the Schedule to that Act, imported from, and the produce or manufacture of, any of the British South African Colonies or Protectorates included in the South African Customs Union, should be admitted to the Commonwealth at preferential rates as compared with the general rates then in force under the Schedule to the Customs Tariff 1902. Section 5 of Customs Tariff (Act No. 26 of 1926) repealed the Customs Tariff (South African Preference) 1906, and also Section 15 of the Customs Tariff 1921-24, which provided for a continuance of the South African Preference as set out in the Act of 1906. The repeal came into operation on the first day of July, 1926, and thereafter the provisions of the Customs Tariff 1921-26 apply in relation to goods imported from South Africa which are entered for home consumption on and after that date.

6. British Preference.—The Customs Tariff 1908 (No. 7 of 1908) made provision for preferential rates of Customs duties on certain goods the produce or manufacture of the United Kingdom. This Act was repealed by the Customs Tariff 1921 (No. 25 of 1921), which is now incorporated with Customs Tariff 1921-1926. The main provisions in these Acts relating to preference have already been mentioned.

7. New Zealand Preference.—(i) *General.*—The Customs Tariff (New Zealand Preference) 1922 (No. 3 of 1922) was assented to on the 23rd August, 1922, and repealed Act No. 27 of 1921. The Act was proclaimed on the 1st September, 1922, and the duties of Customs provided for in the Schedule of the Act came into force on and from that date. The Act provided that the duties of Customs on goods imported direct from, and the produce or manufacture of, the Dominion of New Zealand shall be in accordance with the following rates :—

- (a) On all goods described in the Tariff Schedule against which rates of duty are set out in the column headed "Proposed Duties against New Zealand" the rates so set out.
- (b) On all goods other than those provided for in paragraph (a) the rates of duty for the time being applicable to goods to which the British Preferential Tariff applies.

The Act ratifies and confirms the agreement made on the 11th April, 1922, between the Commonwealth of Australia and the Dominion of New Zealand, and provides that,

from and after the 1st May, 1922, duties of Customs on goods not being the produce or manufacture of New Zealand which are imported into the Commonwealth from that Dominion and upon which, if they had been imported into the Commonwealth direct from the country of origin, there would have been payable duties of Customs at the rates set out in the British Preferential Tariff shall be in accordance with the rates set forth in that particular tariff.

The Customs Tariff (New Zealand Preference, No. 2).—Act No. 36 of 1922, assented to on 18th October, 1922, relates to the rates of duty on certain imports from New Zealand specified in the Schedule to the Act. The goods specified are—Meats, preserved in tins or other airtight vessels; sheets and roofing slates composed of cement and asbestos or of similar materials; dairying machines and implements, viz.,—curd agitators and curd mixers; and corn (millet) brooms.

New Zealand Re-exports Act 1924 (No. 21 of 1924) assented to on 16th September, 1924, relates to the value for duty of goods not the produce or manufacture of New Zealand, which are imported into Australia from New Zealand.

(ii) *Customs Tariff (New Zealand Preference) (No. 38 of 1926)* ratifies an agreement made on the 30th of April, 1926, between the Commonwealth of Australia and the Dominion of New Zealand relating to preferential duties of Customs. This agreement is supplemental to an agreement under seal made on 11th April, 1922. Clause 2 of the principal agreement is varied further, as set out hereunder:—

“The Commonwealth shall not impose any Customs duty or increase the rate of any Customs duty on any article the produce or manufacture of the Dominion entering the Commonwealth from the Dominion, and the Dominion shall not impose any Customs duty or increase the rate of any Customs duty on any article the produce or manufacture of the Commonwealth entering the Dominion from the Commonwealth (whether such article is or is not specifically enumerated in the Schedule hereto, and whether such article is or is not dutiable at the date of this agreement) except by mutual agreement, until after six calendar months' notice to the other party to this agreement.”

8. *Papua and New Guinea Preference.*—The Customs Tariff (Papua and New Guinea Preference) 1926 (No. 6 of 1926) was assented to on 15th February, 1926, and relates to Customs Preference on goods the produce of Papua and the Territory of New Guinea. The importation into Australia, direct from Papua or New Guinea, of such of the goods specified in the Schedule to the Act as were produced in the Territory shall, notwithstanding anything contained in the Customs Tariff 1921–1924, be free of duty. The items specified in the Schedule are:—Coffee; fruits, dried, viz., litchi; fruits, fresh, various native fruits; fungi; ginger; ragoon beans; coconuts; and seeds, viz., kapok and sesame.

9. *Tariff Board Act 1921 (No. 21 of 1921).*—This Act, which was assented to on the 15th December, 1921, as amended by Tariff Board Act 1923 (No. 25 of 1923), provides for the appointment of a Tariff Board consisting of four members, one of whom shall be an administrative officer of the Department of Trade and Customs. This member shall be appointed Chairman of the Board. The purpose of the Tariff Board is to assist the Minister in the administration of matters relating to trade and customs. The more important matters which the Minister shall refer to the Board for enquiry and report include the classification of goods for duty; the determination of the value of goods for duty; any disputes arising out of the interpretation of any Customs or Excise Tariff; the necessity for new, increased or reduced duties; the necessity for granting bonuses; any proposal for the application of the British Preferential Tariff or the Intermediate Tariff to any part of the British Dominions or any foreign country; and any complaint that a manufacturer is taking undue advantage of the protection afforded him by the tariff by charging unnecessarily high prices for his goods or acting in restraint of trade. The Minister may refer to the Board for enquiry and report the following matters:—the general effect of the working of the Customs Tariff and the Excise Tariff; the fiscal and industrial effects of the Customs laws of the Commonwealth; the incidence between the rates of duty on raw materials and on finished or partly finished products; and any other matter affecting the encouragement of primary and secondary industries in relation to the tariff.

10. **Tariff Board Act 1924 (No. 29 of 1924).**—This Act, which was assented to on 26th September, 1924, amended the Tariff Board Act 1921–23. Section 5 of the Principal Act provided for a Tariff Board consisting of three members. The section was amended by Tariff Board Act (No. 25 of 1923) by omitting the word “three” and inserting in its stead the word “four.”

Section 6, sub-section (3), of the principal Act was amended during 1924 (Act No. 29 of 1924) by providing that members of the Board shall be appointed for a term not being less than one year nor more than three years. This amending Act provides that in inquiries conducted by the Board relating to any revision of the Tariff, any proposal for a bounty, or any complaints that a manufacturer is taking undue advantage of the protection afforded him by the Tariff, shall be held in public and evidence in such inquiries shall be taken in public on oath, unless any witness objects to giving any evidence in public which the Board is satisfied is of a confidential nature, when the Board may take such evidence in private. Evidence taken by the Board in connexion with any inquiry under the Customs Tariff (Industries Preservation) Act 1921–22 shall be taken in public on oath. Section 37 of the Principal Act relating to duration of Act is repealed.

The Annual Report of the Tariff Board, issued in accordance with Section 18 (1) of the Tariff Board Act 1921–24, reviews the work of the Board to June, 1926. The Report covers :—(a) Operation of the Tariff in regard to—(1) Primary Industries ; (2) Secondary Industries ; (3) Tariff Revision ; (4) Admission of Goods under By-laws ; (5) Deferred Duties ; (6) Bounties ; (7) United Kingdom Preference ; and (8) General. There are also attached to the Report copies of different reports made by the Tariff Board on matters of particular interest, including recommendations made by the Board relating to Tariff revision.

11. **Customs Tariff (Industries Preservation) Act 1921 (No. 28 of 1921).**—This Act, assented to on the 16th December, 1921, provides that after inquiry and report by the Tariff Board, special duties shall be collected in the following cases when the importation of the goods referred to might be detrimental to an Australian industry :—In the case of goods sold for export to Australia at a price less than the fair market price for home consumption or at a price which is less than a reasonable price, a special dumping duty shall be collected equal to the difference between the price at which the goods were sold and a fair market price. Similar provision is made for goods consigned to Australia for sale. With regard to goods exported to Australia at rates of freight less than the rates prevailing at the time of shipment, there shall be collected a dumping freight duty equal to 5 per cent. of the fair market value of the goods at the time of shipment. Special duties are also imposed in the case of goods imported from countries whose currency is depreciated. Provision is also made for the protection of the trade of the United Kingdom in the Australian market from depreciated foreign currency.

Several amendments of the Act have been recommended by the Tariff Board and have been put into effect.

The Act provides that the Minister for Trade and Customs, after inquiry and report by the Tariff Board, may publish a notice in the *Commonwealth Gazette* specifying the goods upon which special rates of duty under this Act shall be charged and collected.

Since the Act came into operation over 300 notices have been gazetted, including those which revoked previous gazettals, the majority of the notices being made under Sections 8 and 9 of the Act and relating to commodities from countries with depreciated currency to the detriment of Australian or British industries. Over 50 per cent. of the gazettals relate to goods imported from Germany. Three gazettals affect certain goods imported from all countries, while 2 affect goods from all countries excepting United Kingdom. Separate notices have been issued relating to goods from 17 different countries. The commodities brought under the various sections of the Act exceed 150 and cover a very wide range of goods.

12. **Commerce (Trade Descriptions) Act 1905 (No. 16 of 1905).**—This Act was assented to on the 8th December, 1905, and brought into operation by proclamation on the 8th June, 1906. It gives power to compel the placing of a proper description on certain prescribed goods, or on packages containing the same, being imports or exports of the Commonwealth. The imports to which a trade description must be applied are :—
(a) Articles used for food or drink by man, or used in the manufacture or preparation

of articles used for food or drink by man; (b) medicines or medicinal preparations for internal or external use; (c) manures; (d) apparel (including boots and shoes), and the materials from which apparel is manufactured; (e) jewellery; (f) agricultural seeds and plants; and (g) brushware.

13. Acts Passed in 1926.—The following Acts relating to Australian production and trade were assented to during the year 1926 :—

Customs Tariff (Papua and New Guinea Preference) (No. 6 of 1926). An Act relating to Customs Preference on goods the produce of Papua and on goods the produce of the Territory of New Guinea.

Papua and New Guinea Bounties (No. 7 of 1926). An Act to provide for the payment of Bounties on certain goods the produce of these Territories.

Power Alcohol Bounty (No. 11 of 1926). An Act to provide for the payment of Bounty on the manufacture of Power Alcohol.

Dried Fruit Advances (No. 13 of 1926). An Act to amend the Dried Fruit Advances Act 1924.

Customs Tariff (No. 26 of 1926). An Act relating to Duties of Customs.

Excise Tariff (No. 28 of 1926). An Act relating to Duties of Excise.

Shale Oil Bounty (No. 36 of 1926). An Act to amend the Shale Oil Bounty Act 1917–1923.

Commerce (Trade Descriptions) (No. 37 of 1926). An Act to amend section fifteen of the Commerce (Trade Descriptions) Act 1905.

Customs Tariff (New Zealand Preference) (No. 38 of 1926). An Act to ratify an agreement between the Commonwealth of Australia and the Dominion of New Zealand in relation to Preferential Duties of Customs.

Canned Fruits Export Control (No. 40 of 1926). An Act relating to the Export of Canned Fruits and for other purposes.

Canned Fruits Export Charges (No. 41 of 1926). An Act to impose Charges upon the Export of Canned Fruits.

Customs Tariff (No. 2) (No. 45 of 1926). An Act relating to Duties of Customs.

Cotton Bounty (No. 51 of 1926). An Act to provide for the payment of a Bounty on the production of Seed Cotton and Cotton Yarn.

§ 3. Method of Recording Imports and Exports.

1. Value of Imports.—The recorded value of goods imported from countries beyond Australia as shown in the following tables represents the amount on which duty is payable or would be payable if the duty were charged *ad valorem*. The value of goods is taken to be 10 per cent. in advance of their fair market value in the principal markets of the country whence the goods were exported. Acting upon a recommendation of the Tariff Board the section of the Customs Act relating to the valuation of imports was recently amended, and Section 154 (1) of the Customs Act 1901–1925 now provides that “when any duty is imposed according to value, the value for duty shall be the sum of the following :—

- (a) (i) the actual money price paid or to be paid for the goods by the Australian importer plus any special deduction, or
- (ii) the current domestic value of the goods, whichever is the higher;
- (b) all charges payable or ordinarily payable for placing the goods free on board at the port of export; and
- (c) ten per centum of the amounts specified under paragraphs (a) and (b) of this sub-section.

“Current domestic value” is defined as “the amount for which the seller of the goods to the purchaser in Australia is selling or would be prepared to sell for cash, at the date of exportation of those goods, the same quantity of identically similar goods to any and every purchaser in the country of export for consumption in that country.”

Section 157 of the Customs Act provides that when the invoice value of imported goods is shown in any currency other than British currency, the equivalent value in British currency shall be ascertained according to a fair rate of exchange. Under this section it was the practice of the Department of Trade and Customs, until the 8th December, 1920, to convert on the basis of the mint par of exchange. Since the date mentioned, in consequence of a ruling of the High Court, all conversions have been based on the commercial rates of exchange.

2. **Value of Exports.**—The recorded value of goods exported is taken to represent the value in the principal markets of the Commonwealth in the ordinary commercial acceptance of the term.

3. **Customs Area.**—The Customs Area, to which all Oversea Trade statistics issued by this Bureau apply, is the whole area of the Commonwealth of Australia, comprising the States of New South Wales, Victoria, Queensland, South Australia, Western Australia, Tasmania and the Northern Territory (contiguous territory). Other (non-contiguous) territories and mandated areas are treated as outside countries. Trade transactions between the Commonwealth and these non-contiguous territories are included in the oversea trade of the Commonwealth. Such transactions, however, are also registered separately, i.e., the trade of the Commonwealth with each particular country is separately recorded and tabulated.

4. **Statistical Classification of Imports and Exports.**—The Oversea Trade Bulletin No. 23 for the year 1925–26, from which the summary figures in this Year Book are extracted, was compiled according to a revised classification which came into operation on 1st July, 1922. In order to meet the demand for more detailed information relating to Imports and Exports the existing statistical classification was revised and considerably extended during the early part of 1922. The new classification is divided into 21 classes, with 1,458 separate Import items and 511 Export items.

5. **The Trade Year.**—From the 1st July, 1914, the statistics relating to Oversea Trade are shown according to the fiscal year (July to June). Prior to that date the figures showed the volume of trade during each calendar year.

6. **Records of Past Years.**—In the years preceding federation, each State independently recorded its trade, and in so doing did not distinguish other Australian States from foreign countries. As the aggregation of the records of the several States is necessarily the only available means of ascertaining the trade of Australia for comparison with later years, it is unfortunate that past records of values and the direction of imports and exports were not on uniform lines. The figures in the following table for years prior to federation have been carefully compiled and may be taken as representative of the oversea trade of Australia as a whole. On the introduction of the Customs Act 1901, the methods of recording values were made uniform throughout the States, but it was not until September, 1903, that a fundamental defect in the system of recording transhipped goods was remedied. Prior to 1905 the value of ships imported or exported was not included in the returns of trade.

7. **Ships' Stores.**—Prior to 1906 goods shipped in Australian ports on board oversea vessels as ships' stores were included in the general exports. From 1906, ships' stores have been specially recorded as such, and omitted from the return of exports. A table showing the value of these stores shipped each year since 1906 is given later on in this Chapter.

§ 4. Oversea Trade.

1. **Total Oversea Trade.**—(i) *General.* The following table shows the total trade of the Commonwealth with oversea countries from the earliest date for which records are available. To economize space, the period 1826 to 1915–16 has been divided into quinquennia, and the figures shown represent the annual averages for the quinquennia specified. The figures for individual years have been published in previous issues of the Year Book. (See "Official Year Book," No. 13, pp. 577–578).

OVERSEA TRADE.—AUSTRALIA, 1826 TO 1925-26.

Period.(a)	Recorded Value.			Value per Inhabitant.						Percentage of Exports on Imports.			
	Imports.	Exports.	Total.	Imports.	Exports.		Total.						
	£1,000.	£1,000.	£1,000.	£	s.	d.	£	s.	d.	£	s.	d.	%
1826-30 ..	638	153	791	10	12	5	2	10	11	13	3	4	23.9
1831-35 ..	1,144	613	1,757	11	19	10	6	8	6	18	8	4	53.6
1836-40 ..	2,283	1,112	3,395	14	15	9	7	4	1	21	19	10	48.7
1841-45 ..	1,906	1,378	3,284	9	0	5	6	10	5	15	10	10	72.3
1846-50 ..	2,379	2,264	4,643	6	18	10	6	12	2	13	11	0	95.2
1851-55 ..	11,931	11,414	23,345	19	12	5	18	15	4	38	7	9	95.7
1856-60 ..	18,816	16,019	34,835	18	6	1	15	11	8	33	17	9	85.1
1861-65 ..	20,132	18,699	38,831	15	17	1	14	14	9	30	11	10	93.0
1866-70 ..	18,691	19,417	38,108	12	7	4	12	16	11	25	4	3	103.9
1871-75 ..	21,982	24,247	46,229	12	7	2	13	13	6	26	0	8	110.3
1876-80 ..	24,622	23,772	48,394	11	19	7	11	10	9	23	10	4	96.6
1881-85 ..	34,895	28,055	62,950	14	4	3	11	9	5	25	13	8	80.4
1886-90 ..	34,675	26,579	61,254	11	16	11	9	1	0	20	17	11	76.6
1891-95 ..	27,335	33,683	61,018	8	5	2	10	2	5	18	7	7	123.2
1896-1900	33,763	41,094	74,857	9	5	4	11	5	6	20	10	10	121.7
1901-5 ..	39,258	51,237	90,495	10	1	10	13	2	9	23	4	7	130.5
1906-10 ..	51,508	69,336(b)	120,844	12	4	8	16	9	11	28	14	7	134.6
1911-15-16	73,411	74,504	147,915	15	7	4	15	12	10	31	0	2	101.5
1916-17 ..	76,229	97,955	174,184	15	10	0	19	18	3	35	8	3	128.5
1917-18 ..	62,335	81,429	143,764	12	10	3	16	6	9	28	17	0	130.6
1918-19 ..	102,335	113,964	216,299	20	2	9	22	8	7	42	11	4	111.4
1919-20 ..	98,974	149,824	248,798	18	13	2	28	4	11	46	18	1	151.4
1920-21 ..	163,802	132,159	295,961	30	5	7	24	8	5	54	14	0	80.7
1921-22 ..	103,066	127,847	230,913	18	14	1	23	4	1	41	18	2	124.0
1922-23 ..	131,758	117,870	249,628	23	7	8	20	18	4	44	6	0	89.5
1923-24 ..	140,618	119,487	260,105	24	9	1	20	15	8	45	4	9	85.0
1924-25 ..	157,143	162,030	319,173	26	15	1	27	11	9	54	6	10	103.1
1925-26 ..	151,638	148,562	300,200	25	6	2	24	15	10	50	2	0	98.0

(a) The figures given for the years 1826 to 1915-16 represent the annual averages for the quinquennial periods. The trade of the individual years will be found in the Official Year Book No. 13 and earlier issues.

(b) Prior to 1906 ships' stores were included in the general exports. For value of these goods shipped each year since 1906 see later table.

The graphs of the movement of the oversea trade of Australia which accompany this Chapter show that periods of depressed trade have been recurrent at more or less regular intervals of from seven to nine years, and, measured by population, each succeeding depression since 1855 carried the trade per head lower than the preceding one, until the lowest point was reached in 1894. The heavy decline in the last-mentioned year was due to the acute financial stress which culminated in the financial crisis of 1893. There was a slight recovery in 1895, and a continuous upward movement until 1901. A decline, due to drought, in the exports of primary products, reduced the figures for 1902, but from this date until 1907 there was an increase. There was a falling-off in 1908 as compared with 1907, but from 1909 the value of imports and exports showed a steady increase until 1913, the year prior to the war. The trade of 1914-15 and subsequent years was seriously disturbed by the dislocation of shipping and increased prices arising out of war conditions. The shortage of shipping was particularly marked in 1917-18, when, in order to conserve space for more essential requirements, the importation of goods which were considered to be in the nature of luxuries was prohibited or restricted. Shipping facilities having improved during 1918-19 the oversea trade of Australia increased rapidly. Imports and exports during that year show heavy increases compared with previous years. The value of imports declined during 1919-20, but exports increased enormously, the total reaching the high figure of £149,823,509.

(ii) *Trade Conditions, 1920-21.* During the year 1920-21 the value of imports increased considerably. This increase was largely due to the fulfilment of long standing orders which it had been impossible to execute earlier. In their anxiety to replenish stocks which had become depleted during the war, and to take advantage of the free spending of soldiers' gratuities and repatriation moneys, Australian importers ordered freely in the belief that their orders could not be satisfied immediately, but hoping to get a percentage thereof. The trade depression in Great Britain, and the cancellation of foreign orders, however, enabled British manufacturers to devote their attention to Australian orders, with the result that shipments, which it had been expected would be spread over a long period were received in quick succession. The rapidity with which the goods arrived created some difficulty in providing exchange, and the banks found it necessary to restrict credit for import business. The value of imports during 1920-21 reached the exceptionally high figure of £163,801,826, an amount greatly in excess of any previous year.

(iii) *Trade in 1923-24.* The total overseas trade during the year 1923-24 was £260,105,457, as compared with £249,627,982 during the previous year. The increased trade was mainly due to imports. The balance of trade during the year was greatly in favour of imports, the value of which (£140,618,293) exceeded that of exports (£119,487,164) by £21 millions.

(iv) *Trade in 1924-25.* The overseas trade during 1924-25 amounted to £319,173,455, of which £157,143,296 represented imports and £162,030,159 exports. These figures are in excess of those for the previous year, and so far as total trade and exports are concerned are the highest recorded, while in one year only (1920-21) has the figure for imports been exceeded.

(v) *Trade in 1925-26.* Imports during 1925-26 were valued at £151,638,178 and exports at £148,562,209, the total overseas trade amounting to £300,200,387, showing a decrease of £19 millions compared with the previous year. Exports declined over thirteen millions, due to the reduced quantities of wheat and butter exported. The value of wheat sent abroad during 1924-25 was £34,613,713, as against £17,187,388 during the following year. Butter exports declined from £10,006,081 to £7,006,830. The value of wool shipped overseas during each year was slightly over sixty-three millions. Export of sugar increased from £2,091,379 to £5,253,156. Imports of merchandise were greater in 1925-26 than during the previous year, the values being £151,217,425 and £146,600,489 respectively. The specie and bullion imported during the two years were: 1925-26, £420,753, and 1924-25, £10,542,807.

2. Ratio between Exports and Imports.—The foregoing table shows the percentage of exports on imports for each quinquennial period from 1826-30 to 1911-15 and for each financial year since 1915-16. Prior to the quinquennial period 1891-95 the balance of trade, with two exceptions, due to temporary dislocations, had been on the side of imports, while from that period to 1919-20 the position was reversed. From the 1st July, 1920, to the end of June, 1925, there has been an excess of imports, though the results for each of those years have not been consistently in that direction.

The excess of imports in the earlier years represents the introduction of capital into Australia in the form of Government loans or for investment in private undertakings, and the excess of exports which appears for many subsequent years represents mainly the interest and profit on the earlier investments, repayments of loans to overseas bondholders, and freight on trade carried chiefly on vessels of the United Kingdom and foreign countries. As the introduction of new capital, and the payments for interest on existing investments and for shipping and other services are continually operating in opposite directions at the same time in the statistics of trade, it follows that it is the balance only of these transactions which is reflected in the excess of imports or exports.

Trade balances are further modified by the loans floated abroad by local governing bodies, by the imports of foreign capital for private enterprises, and by the addition to or the absorption of bank balances held in London on Australian account. Definite information regarding these items is not readily available. Other factors which affect trade balances to a certain extent are the financial arrangements made by immigrants to Australia and also by tourists in Australia from abroad. The purchase in Australian ports of bunker coal and other stores for vessels owned outside Australia is also a matter of some importance.

Against these items, however, account must be taken of the capital of persons emigrating from Australia and the travelling and other expenses of tourists from Australia to other parts of the world. These expenses would include fares on all steamers not owned in Australia, and since the termination of the war would represent very large sums, the total of which could not be readily ascertained.

The following table presents the balance of trade of Australia as shown by the records of imports and exports for each year since 1st July, 1914, and also the modifications of these figures by loans raised abroad by the Commonwealth and State Governments. In the exceptional circumstances arising from the war the excess of exports during this period is somewhat understated, as much of the wool exported appeared in the records at appraised rates, whereas sales effected later by the British Australian Wool Realization Association (B.A.W.R.A.) made considerable additions to the funds available in London on Australian account. Allowance has been made in the table for this increased value of wool exported. An approximation of Australia's annual liability for interest and services is also shown: any error in these figures will be in the direction of an understatement.

The fact that at the moment of writing (June, 1927) the Associated Banks of Australia are selling telegraphic transfers on London at a premium of ten shillings per £100, whereas in 1921 similar accommodation was costing fifty shillings per £100 suggests that there are alleviating factors of considerable dimensions which might modify the results given in the table. Among these probable influences are:—Stocks of wheat still unshipped; and imports of private capital. It is estimated that at 31st March, 1927, wheat to the value of about £14 millions was awaiting export. Unfortunately, there is no information regarding the imports of private capital, but there is reason to believe that as a result of the protective tariff there has been a considerable importation of capital during recent years for which no immediate export is required.

BALANCE OF AUSTRALIAN TRADE FROM 1st JULY, 1914, TO MARCH, 1927.

Year.	Recorded excess of Exports.	Increase in Public Debt (Commonwealth and State) raised abroad.	B.A.W.R.A. Dividends.	Total of Columns (2), (3), and (4).	Approximate annual obligations abroad for interest and services.	Addition to Funds available abroad for transmission to Australia.	
						For the Year.	Accumulated from 1st July, 1914.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	£1,000,000	£1,000,000	£1,000,000	£1,000,000	£1,000,000	£1,000,000	£1,000,000
1914-15 ..	— 3.8	5.1	..	1.3	16.0	—14.7	—14.7
1915-16 ..	— 3.0	4.3	..	1.3	17.2	—15.9	—30.6
1916-17 ..	21.7	18.6	..	40.3	18.4	21.9	— 8.7
1917-18 ..	19.1	20.9	..	40.0	22.0	18.0	9.3
1918-19 ..	11.6	.5	..	12.1	22.2	—10.1	— .8
1919-20 ..	50.8	10.8	..	61.6	23.2	38.4	37.6
1920-21 ..	—31.6	11.3	7.7	—12.6	24.3	—36.9	.7
1921-22 ..	24.8	42.2	9.9	76.9	26.7	50.2	50.9
1922-23 ..	—13.9	3.9	5.9	— 4.1	26.8	—30.9	20.0
1923-24 ..	—21.1	51.2	5.3	35.4	28.5	6.9	26.9
1924-25 ..	4.9	.3	..	4.6	29.5	—24.9	2.0
1925-26 ..	— 3.1	39.2	..	36.1	32.0	4.1	6.1
1926-27 ..	—12.9	10.1	..	— 2.8	24.6	—27.4	—21.3
(9 months)							
Total ..	43.5	217.8	28.8	290.1	311.4	—21.3	..

§ 5. Direction of Trade.

1. Imports according to Country of Origin.—The following table shows the value of the imports into Australia stated to be the produce or manufacture of the undermentioned countries during the past five years:—

AUSTRALIAN IMPORTS.—COUNTRIES OF ORIGIN, 1921-22 TO 1925-26.

Country of Origin.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	£	£	£	£	£
United Kingdom	53,091,926	68,394,423	63,607,743	69,047,807	65,840,655
British Possessions --					
Canada	3,146,450	5,064,253	5,046,519	3,384,712	3,754,425
Ceylon	1,009,477	1,001,412	1,251,392	1,587,738	1,614,084
India	3,747,023	4,393,685	4,800,086	6,423,364	6,626,030
Malaya (British)	571,544	272,759	494,930	612,314	1,701,508
New Zealand	1,702,991	2,003,307	2,514,225	2,196,566	2,651,062
Pacific Islands—					
Fiji	217,248	116,290	61,866	26,241	35,841
Territory of New Guinea	619,537	418,420	99,588	261,032	327,683
Other Islands	907,547	777,085	988,449	1,133,488	1,049,220
Papua	163,232	209,193	471,953	295,199	397,902
South African Union	356,869	758,720	1,052,156	5,197,215	897,306
Other British Possessions (a)	565,213	608,210	739,198	527,017	731,520
Total British Possessions	13,007,131	15,623,334	17,520,362	21,644,886	19,786,587
Total British Countries	66,009,057	84,017,757	81,128,105	90,692,693	85,627,242
Foreign Countries—					
Belgium	950,952	906,059	902,534	901,324	850,276
China	950,772	873,579	925,045	751,960	691,751
France	2,731,739	3,231,197	4,101,137	4,216,457	3,758,740
Germany	85,976	593,812	1,368,904	2,259,691	2,821,789
Italy	944,226	1,174,489	1,242,790	1,506,383	1,446,618
Japan	3,581,614	3,936,150	3,557,834	4,146,234	4,372,083
Netherlands	498,824	580,888	597,682	705,880	818,786
Netherlands East Indies	3,236,970	4,361,302	4,607,681	5,640,881	6,191,896
Norway	848,134	1,686,439	1,415,339	1,458,112	1,106,234
Pacific Islands	119,127	94,384	86,471	127,402	129,028
Philippine Islands	151,106	168,742	170,135	249,168	311,457
Sweden	1,238,327	1,629,515	2,031,872	1,638,004	1,871,123
Switzerland	1,836,291	2,189,854	2,274,296	2,327,565	1,997,766
United States of America	18,823,113	24,851,303	34,556,529	38,728,814	37,234,257
Other Foreign Countries (b)	1,060,208	1,461,874	1,651,939	1,792,728	2,409,131
Total Foreign Countries	37,057,379	47,740,078	59,490,188	66,450,603	66,010,936
Total	103,066,436	131,757,835	140,618,293	157,143,296	151,638,178

(a) Includes Egypt for the year 1921-2. (b) Includes Egypt during the years 1922-23 to 1925-26.

(c) Exclusive of Irish Free State.

Imports increased abnormally during 1920-21, when the value reached the exceptionally high figure of 164 millions. The enhanced price of commodities and the peculiar conditions affecting Australian trade were responsible for the high value of imports during that year, and in making comparisons with imports during pre-war years these facts should be taken into consideration. The exceptional conditions affecting Australian trade during 1920-21 have already been mentioned in a previous paragraph.

Compared with 1920-21 the value of imports during 1921-22 showed a decrease of over 60 millions. This heavy decline was partly due to the exceptional importations of the previous year and partly to the lower prices of commodities during the later year. Imports in 1922-23 were greatly in excess of those for 1921-22, but the total value of the commodities imported during the year was 32 millions less than in 1920-21. The heavy importation of goods continued during the following three years. The value of imports during 1924-25 reached the high figure of £157,143,296, which has been exceeded in 1920-21 only. During 1925-26 total imports declined to £151,638,178. The value of merchandise imported showed an increase compared with the previous year, but this was more than counterbalanced by the reduction in the imports of specie and bullion.

In view of the effect that the varying prices of commodities had upon the value of imports during the period dealt with it is somewhat difficult to ascertain from the preceding table the relative importance of the various countries in the import trade of Australia. A better idea of the proportion of imports supplied by each country during each year may be obtained from the following table of percentages.

2. Percentage of Imports from Various Countries.—The following table gives the relative proportions of the import trade of Australia which have been supplied by the various countries, together with the proportions furnished by the United Kingdom, British Possessions and foreign countries respectively.

**AUSTRALIAN IMPORTS.—PERCENTAGES FROM COUNTRIES OF ORIGIN,
1921-22 TO 1925-26.**

Country of Origin.		1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
		per cent.	per cent.	per cent.	per cent.	per cent.
United Kingdom	.. ..	51.43	51.90	45.24	43.93	43.42
British Possessions—						
Canada	.. ..	3.05	3.84	3.59	2.15	2.48
Ceylon	.. ..	0.98	0.76	0.89	1.01	1.07
India	.. ..	3.64	3.33	3.41	4.09	4.37
Malaya (British)	.. ..	0.55	0.21	0.35	0.39	1.12
New Zealand	.. ..	1.65	1.52	1.79	1.40	1.75
Pacific Islands—						
Fiji	.. ..	0.21	0.09	0.04	0.02	0.02
Territory of New Guinea	.. ..	0.60	0.32	0.07	0.17	0.22
Other Islands	.. ..	0.88	0.58	0.70	0.72	0.69
Papua	.. ..	0.16	0.16	0.34	0.19	0.26
South African Union	.. ..	0.35	0.58	0.75	3.31	0.59
Other British Possessions (a)	.. ..	0.55	0.46	0.53	0.33	0.48
Total British Possessions	.. ..	12.62	11.85	12.46	13.78	13.05
Total British Countries	.. ..	64.05	63.75	57.70	57.71	56.47
Foreign Countries—						
Belgium	.. ..	0.92	0.69	0.64	0.57	0.56
China	.. ..	0.92	0.67	0.66	0.48	0.46
France	.. ..	2.65	2.45	2.92	2.68	2.48
Germany	.. ..	0.08	0.45	0.97	1.44	1.86
Italy	.. ..	0.91	0.89	0.88	0.96	0.95
Japan	.. ..	3.48	2.99	2.53	2.64	2.88
Netherlands	.. ..	0.48	0.44	0.42	0.45	0.54
Netherlands East Indies	.. ..	3.14	3.31	3.28	3.59	4.08
Norway	.. ..	0.82	1.28	1.01	0.93	0.73
Pacific Islands	.. ..	0.12	0.07	0.06	0.08	0.09
Philippine Islands	.. ..	0.15	0.13	0.12	0.16	0.21
Sweden	.. ..	1.20	1.24	1.44	1.04	1.23
Switzerland	.. ..	1.78	1.66	1.62	1.48	1.32
United States of America	.. ..	18.27	18.87	24.58	24.65	24.55
Other Foreign Countries (b)	.. ..	1.03	1.11	1.17	1.14	1.59
Total Foreign Countries	.. ..	35.95	36.25	42.30	42.29	43.53
Total	.. ..	100	100	100	100	100

(a) Includes Egypt for the year 1921-22. (b) Includes Egypt during the years 1922-23 to 1925-26.

(c) Exclusive of Irish Free State.

The percentage of imports from the United Kingdom increased during the first two years of the quinquennial period under review, the proportion increasing from 51.43 per cent. in 1921-22 to 51.90 per cent. in 1922-23. A noticeable decline in the percentage therefrom occurred, however, in 1923-24, the proportion being 45.24 per cent., a decrease of 6.66 per cent. compared with 1922-23. There was a further decline in 1924-25 and also in 1925-26 when the imports of United Kingdom origin represented 43.42 per cent. of the total imports. Whilst the proportion of imports from the United Kingdom declined, that from the United States increased from 18.27 per cent. in 1921-22 to 24.65 per cent. in 1924-25. This proportion was maintained in 1925-26. The value of imports from the last-mentioned country was £38,728,814 during 1924-25, as compared with £37,234,257 during 1925-26. The corresponding figures for the United Kingdom were £69,047,807 in 1924-25 and £65,840,655 in 1925-26. It is of interest to note, however, that imports from the United States included gold specie and bullion valued at £5,628,334 during 1924-25 and only £664 during 1925-26. It will be seen, therefore, that imports of merchandise from this country increased during the last year. The noticeable increase in the proportion of imports supplied by the South African Union during 1924-25 was due to imports of gold valued at £4,725,342. Imports from Germany increased from £2,259,691 in 1924-25 to £2,821,789 in 1925-26. There have been no outstanding alterations in the proportions of the imports supplied by other countries. Comparing the proportion of imports supplied

by the United Kingdom during 1925-26 with that for 1922-23 it will be seen that there was a reduction of 8.48 per cent. Of this loss of trade British Possessions supplied 1.20 per cent., while the balance (7.28 per cent.) was received from foreign countries.

3. Direction of Exports.—The following tables show a decreasing proportion of Australian exports to the United Kingdom, and increasing proportions to France, Italy, Germany, Netherlands, and Japan. Since the termination of the war there has been an increasing tendency towards direct shipment of the more important commodities, such as wool, skins, wheat, flour, butter, etc., to the consuming countries. The proportion of the total exports shipped to United Kingdom in 1921-22 was 45.16 per cent., but in each of the succeeding years the proportion was lower. The percentage (42.67 per cent.) in 1924-25 showed an upward trend compared with the previous year but was not maintained in 1925-26, when the proportion declined to 41.43 per cent. The value of exports shipped to the United States during 1923-24 showed a considerable decrease compared with the previous years. The figures show an upward trend during 1924-25, principally due to large shipments of wool. The exports during 1925-26 were valued at £12,953,877. The outstanding items in this total were: Wool, £6,076,012, and gold specie and bullion, £3,000,000. The proportion of the total exports taken by the United States was 8.72 per cent. in 1925-26 as compared with 5.65 per cent. in 1924-25, the increase being due to the exports of gold during the later year. The value of imports from United States generally exceeds the value of exports from Australia to that country, but the difference has been very marked during 1924-25 and 1925-26, when the value of imports from United States has been no less than 29 and 24 millions respectively in excess of the value of the Australian exports. Exports to Canada have increased during the past two years, the proportion rising from 0.20 per cent. in 1923-24 to 0.58 per cent. in 1925-26. The decline in the proportion of exports shipped to Italy was due to the reduced quantity of wheat forwarded thereto in 1925-26. The following table shows the value of exports from Australia to the more important countries during the five years 1921-22 to 1925-26:—

EXPORTS FROM AUSTRALIA TO VARIOUS COUNTRIES, 1921-22 TO 1925-26.

(INCLUDING BULLION AND SPECIE.)

Country.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	£	£	£	£	£
United Kingdom	57,742,767	51,975,381	45,508,323	689,147,229	661,547,790
British Possessions—					
Canada	373,570	364,732	235,947	716,953	858,934
Ceylon	711,163	814,435	2,453,465	831,911	506,095
Egypt	3,523,355	(a)	(a)	(a)	(a)
Fiji	573,401	352,744	389,059	435,072	570,828
Hong Kong	536,596	501,874	776,998	635,174	671,824
India	6,770,067	3,107,584	1,201,777	2,002,562	3,364,958
Malaya (British)	1,876,648	1,343,029	1,549,220	1,528,303	2,132,016
Mauritius	145,352	134,997	126,586	123,299	66,190
New Zealand	4,619,655	4,302,281	5,008,152	5,812,665	4,947,590
Papua	172,419	219,225	214,839	259,302	250,678
South African Union	1,660,359	1,967,861	2,046,099	2,657,232	2,201,531
Other British Possessions	880,614	977,326	966,503	1,810,629	1,293,970
Total British Possessions	21,843,199	14,086,088	14,968,645	16,813,002	16,864,614
Total British Countries	79,585,966	66,061,469	60,476,968	85,960,231	78,412,404
Foreign Countries—					
Belgium	5,015,976	4,299,920	6,524,109	7,182,703	6,175,337
Chile and Peru	227,538	197,845	168,119	232,422	726,118
China	509,339	278,121	1,947,030	524,812	745,784
Egypt	(b) 1,583,785	2,321,083	3,008,741	19,332,721	2,919,742
France	8,701,179	12,296,665	14,888,846	19,332,721	18,549,742
Germany	4,003,726	4,186,864	4,402,913	7,372,049	6,585,720
Italy	8,047,291	5,950,726	4,633,185	10,014,185	4,654,818
Japan	7,952,547	9,309,560	11,555,484	11,646,516	11,043,159
Netherlands	785,180	640,818	1,911,114	1,819,371	1,088,639
Netherlands East Indies	2,368,197	1,862,664	1,602,013	2,045,882	2,163,691
Norway	300,389	47,696	34,275	122,812	183,432
Pacific Islands	482,066	451,280	367,784	407,162	437,001
Philippine Islands	565,063	568,648	523,618	529,406	563,369
Spain	354,405	932	317,034	466,517	216,083
Sweden	25,180	168,112	409,466	470,006	151,339
United States of America	8,314,386	9,630,770	7,109,496	9,153,279	12,953,877
Other Foreign Countries	626,962	334,066	294,567	1,141,345	591,954
Total Foreign Countries	48,260,569	51,808,678	59,010,196	76,069,928	70,149,805
Total	127,846,535	117,870,147	119,487,164	162,030,159	148,562,209

(a) Now recorded under Foreign Countries.

(b) Previously recorded under British Possessions.

(c) Exclusive of Irish Free State.

4. Percentage of Exports to Various Countries. —The next table gives the relative proportions of the export trade of Australia with the countries specified, together with the proportions shipped to the United Kingdom, British Possessions and foreign countries respectively :—

EXPORTS FROM AUSTRALIA.—PERCENTAGES TO VARIOUS COUNTRIES,
1921-22 TO 1925-26.

Country.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	per cent.	per cent.	per cent.	per cent.	per cent.
United Kingdom	45.16	44.10	38.09	c 42.67	c 41.43
British Possessions—					
Canada	0.29	0.31	0.20	0.44	0.58
Ceylon	0.56	0.69	2.05	0.51	0.34
Egypt	2.76	(a)	(a)	(a)	(a)
Fiji	0.45	0.30	0.32	0.27	0.39
Hong Kong	0.42	0.43	0.65	0.39	0.45
India	5.30	2.64	1.01	1.24	2.27
Malaya (British)	1.47	1.14	1.30	0.94	1.43
Mauritius	0.11	0.11	0.11	0.08	0.04
New Zealand	3.61	3.65	4.19	3.59	3.33
Papua	0.13	0.19	0.18	0.16	0.17
South African Union	1.30	1.67	1.71	1.64	1.48
Other British Possessions	0.69	0.83	0.81	1.12	0.87
Total British Possessions	17.09	11.96	12.53	10.38	11.35
Total British Countries	62.25	56.06	50.62	53.05	52.78
Foreign Countries—					
Belgium	3.92	3.65	5.46	4.43	4.16
Chile and Peru	0.18	0.17	0.14	0.14	0.49
China	0.40	0.24	1.63	0.32	0.50
Egypt .. ..	.. ..	(b) 1.34	1.94	1.86	1.97
France	6.81	10.43	12.46	12.30	12.49
Germany	3.13	3.55	3.68	4.55	4.70
Italy	6.29	5.05	3.88	6.18	3.13
Japan	6.22	7.90	9.67	7.19	7.43
Netherlands	0.60	0.54	1.60	1.12	0.73
Netherlands East Indies	1.85	1.58	1.34	1.26	1.46
Norway	0.24	0.04	0.03	0.08	0.12
Pacific Islands	0.38	0.38	0.31	0.25	0.29
Philippine Islands	0.44	0.48	0.44	0.33	0.38
Spain	0.28	0.00	0.27	0.29	0.15
Sweden	0.02	0.14	0.34	0.29	0.10
United States of America	6.50	8.17	5.95	5.65	8.72
Other Foreign Countries	0.49	0.28	0.24	0.71	0.40
Total Foreign Countries	37.75	43.94	49.38	46.95	47.22
Total	100	100	100	100	100

(a) Now recorded under Foreign Countries. (b) Previously recorded under British Possessions.
(c) Exclusive of Irish Free State.

5. **Principal Imports and Exports—Countries.**—The total value of imports from, and exports to, each of the more important countries during 1925–26 in order of value of total trade, together with brief particulars of the principal commodities interchanged with such countries is given hereunder. Should further details be required reference may be made to the annual publication “Oversea Trade Bulletin, No. 23,” issued by this Bureau, which gives details of the trade of 38 of the principal countries of the world with Australia during the past five years. This publication also furnishes information regarding the country of origin of each statistical item of imports for the years 1924–25 and 1925–26, showing the value and (where available) the quantity imported from each country. The value of each item imported into each State of the Commonwealth is also shown. The publication referred to also gives information as to the country to which each item of exports was shipped during these years.

United Kingdom. Total Imports of United Kingdom Origin, £65,840,655. The two outstanding classes of goods imported were—Machines, machinery and manufactures of metal, £24,087,735, and apparel, textiles, yarns, etc., £23,386,529. Imports of the undermentioned goods also contributed largely to the total:—Paper and stationery; drugs and chemicals; whisky; optical, surgical, and scientific instruments; rubber and rubber manufactures; chinaware and earthenware; fancy goods; and glass and glassware.

Total Exports to United Kingdom, £61,547,790. Of this total £61,126,431 represented Australian produce. The principal items of export were—Wool, £23,195,387; wheat, £7,217,906; and butter, £5,784,663. Other commodities which bulked largely were—Sugar (cane); frozen meats; piglead; hides and skins; dried and fresh fruits; zinc; flour; tallow; wine; raw cotton; preserved fruits; cheese; and tin.

United States of America. Total Imports of United States Origin, £37,234,257. The following were the more important items of import:—Motor chassis, bodies, etc., £7,726,171; petroleum and shale spirit, etc., £3,890,471; undressed timber, £2,597,751; unmanufactured tobacco, £2,177,719; rubber manufactures, £1,599,650; apparel, textiles, etc.; electrical machinery, materials and appliances; motive-power machinery; metal manufactures; lubricating (mineral) oil; kerosene; paper and stationery; musical instruments; sulphur; sausage-casings; and fish preserved in tins.

Total Exports to United States, £12,953,877. Of this total £12,748,141 represented Australian produce. The principal exports were—Wool, £6,076,012; gold specie, £3,000,000; hides and skins, £2,571,775; sausage-casings; pearlshell; and tin. The value of the exports of the above commodities represents 98 per cent. of the total exports to the United States.

France. Total Imports of French Origin, £3,758,740. Chief imports were—Piece goods of silk or containing silk, £905,075; motor cars and parts, £263,776; trimmings for attire, £262,651; rubber manufactures; perfumery and toilet preparations; brandy; paper manufactures; lace for attire; gums and resins; wine; cream of tartar; olive oil; fancy goods; and bags and purses.

Total Exports to France, £18,549,742. Of this total £18,168,189 was Australian produce. Principal exports were—Wool, £15,821,883; sheep skins, £1,978,305; copra; cattle hides; beef; butter; and rabbit and hare skins.

Japan. Total Imports of Japanese Origin, £4,372,083. Principal imports—Piece goods of silk or containing silk, £2,428,576; cotton and linen piece goods, £663,115; undressed timber; china and porcelain ware; glass and glassware; fancy goods; brushware; apparel and attire; and oils.

Total Exports to Japan, £11,043,159. Of this total £10,998,034 was Australian produce. Chief exports—Wool, £5,869,969; wheat, £3,356,144; zinc; tallow; pig lead; milk and cream; trochus shell; and fertilizers.

India. Total Imports of Produce or Manufacture of India, £6,626,036. Bags and sacks valued at £4,090,154 represent 62 per cent. of the total imports. The other principal items were—Hessians, £817,861; tea, £446,416; linseed, £397,589; rice, £263,956; gums and resins; hides and skins; coffee and chicory; precious stones; paraffin wax; and spices.

Total Exports to India, £3,364,958. Of this total £3,326,069 represented Australian produce. The chief exports were—Gold, £1,273,791; silver, £1,060,086; wheat, £397,011; preserved milk and cream; tallow; undressed timber; horses; and jams and jellies.

Germany. Total Imports of German Origin, £2,821,789. Principal imports—Machinery and metal manufactures, £713,815; apparel and textiles, £678,253; pianos, £307,448; toys, £167,049; paper and stationery, £130,789; timepieces; fancy goods; fertilizers; and musical instruments.

Total Exports to Germany, £6,985,720. Of this total £6,841,416 was the produce of Australia. Chief exports were—Wool, £5,034,599; wheat, £299,027; hides and skins, £283,207; zinc, bars, blocks, etc., £252,350; pig lead, £241,119; beef, £225,063; vessels; silver and silver-lead ore and concentrates; zinc concentrates; sausage-casings; and apples.

Netherlands East Indies. Total Imports of Netherlands East Indies Origin, £6,191,895. The principal imports were—Petroleum spirit, including benzine, etc., £2,628,291; tea, £1,783,179; crude petroleum, £439,018; kapok, £395,362; crude rubber; kerosene; flax and hemp; coffee and chicory; and sago and tapioca.

Total Exports to Netherlands East Indies, £2,163,691. Of this total £2,144,468 was the produce of Australia. Chief exports were—Flour, £975,207; butter, £474,393; leather, £113,645; biscuits; preserved milk and cream; coal; bacon and hams; meats, preserved in tins; medicines; and soap.

New Zealand. Total Imports of New Zealand Origin, £2,651,062. The principal items were—Timber, £671,444; hides and skins, £465,061; gold, £335,405; butter, £245,940; meats, £103,342; flax and hemp, £100,050; linseed and other seeds; wool; potatoes; fish; horses; oakum and tow; and grain and pulse.

Total Exports to New Zealand, £4,947,590. Of this total £4,099,430 was Australian produce. The chief items were—Wheat, £823,924; coal, £510,514; machinery and metal manufactures, £483,668; timber, £430,580; manufactured tobacco, £193,783; apparel, textiles, and manufactured fibres, £192,830; flour; fruits, dried and fresh; rubber manufactures; and confectionery.

Belgium. Total Imports of Belgian Origin, £850,276. Principal imports were—Glass and glassware, £356,511; cotton and linen piece goods, £73,460; paper, £40,592; gloves; electrical machinery; motor cars and parts; and arms.

Total Exports to Belgium, £6,175,337. Of this total £6,172,036 was the produce of Australia. Chief items were—Wool, £4,221,646; beef, £487,448; wheat, £439,238; silver and silver-lead ore and concentrates, £266,076; zinc concentrates, £240,340; hides and skins; pig lead; copper in matte; and barley.

Italy. Total Imports of Italian Origin, £1,446,618. Chief imports were—Motor cars and parts, £348,355; hats, £168,277; silk piece goods, £154,993; edible nuts, £100,557; pneumatic tyres; marble; hides and skins; flax and hemp; and essential oils.

Total Exports to Italy, £4,654,818. Of this total, £4,623,816 was Australian produce. Chief exports were—Wool, £3,523,541; wheat, £1,444,834; hides and skins, £299,193; beef, £170,829; tallow, £162,178; copra; and butter.

Canada. Total Imports of Canadian Origin, £3,754,425. The principal imports were—Chassis for motor cars, £923,632; rubber manufactures, £504,841; fish preserved in tins, £407,488; agricultural, etc., implements and machinery, £376,502; printing paper, £248,336; undressed timber, £174,283; wrapping and other paper, £102,266; dressed timber; iron and steel pipes and tubes; boots and shoes; and electrical machinery and appliances.

Total Exports to Canada, £858,934. Of this total £852,874 was Australian produce. Chief items were—Sugar (cane), £384,306; butter, £171,844; wool—greasy, scoured, and tops, £121,359; meats; hides and skins; and tallow.

Malaya (British). Total Imports of (British) Malayan Origin, £1,701,508. Principal items were—Rubber and manufactures thereof, £1,517,783; spices, £91,597; sago and tapioca, £38,707; gums and resins; and bamboo and cane.

Total Exports to Malaya (British), £2,132,016. Of this total, £2,093,162 was the produce of Australia. Chief exports were—Preserved milk and cream, £869,098; flour, £712,710; butter, £100,730; frozen meats, £71,642; leather, £43,970; soap, £42,480; foddors; bacon and hams; mining machinery; and sandalwood.

Pacific Islands (British and Foreign). Total Imports of Produce of the Pacific Islands, £1,541,772. Chief items were—Rock phosphates, £742,311; copra, £560,777; hides and skins; cocoa beans; sugar, molasses, etc.; shells; raw cotton; and gold specie and bullion.

Total Exports to Pacific Islands, £1,876,906. Of this amount £1,293,328 was the produce of Australia. The exports to these islands cover a very wide range of commodities. The outstanding groups were—Foodstuffs of vegetable origin, £485,055; machines, machinery and metal manufactures, £212,887; foodstuffs of animal origin, £180,142; apparel, textiles, etc., £162,909; coal and coke, £159,229; and tobacco, cigars, and cigarettes, £118,115. The chief individual items were—Cotton and linen piece goods; flour; meats; coal; tobacco; vessels; timber; bran, pollard and sharps; biscuits; rice; coke; and sugar.

South African Union. Total Imports of Produce of South African Union, £897,306. Principal items were—Precious stones, £342,203; maize, £322,626; fish, £102,859; tanning bark; tobacco; raw cotton; and feathers.

Total Exports to South African Union, £2,201,531. Of this total £2,198,034 was the produce of Australia. Chief exports were—Wheat, £969,501; timber, £527,682; flour, £315,310; tallow, £70,642; preserved milk and cream, £69,181; butter; gelatine and glue of all kinds; soap; and sheep.

Egypt. Total Imports of Egyptian Origin, £9,370. Chief items were—Cigarettes, £1,815; raw cotton, £1,430; and gums and resins, £1,355.

Total Exports to Egypt, £2,919,742. Principal items were—Flour, £2,537,013; wheat, £209,615; frozen meat, £100,691; and butter, £39,176.

Ceylon. Total Imports of Ceylon Origin, £1,614,084. The chief items were—Tea, £1,340,149; crude rubber, £101,055; nuts, £93,582; fibres; cocoa beans; and yarns.

Total Exports to Ceylon, £506,095. Of this total £502,157 was Australian produce. The principal exports were—Flour, £247,270; undressed timber, £100,536; preserved milk; frozen meats; butter; and silver—bar, ingot.

Sweden. Total Imports of Swedish Origin, £1,871,123. Chief items were—Timber, £547,524; paper, £305,739; matches, £226,908; wood pulp, £188,881; dairy implements and machinery, £120,729; electrical machinery and appliances, £98,852; vacuum cleaners; paper boards; and roller bearings and ball bearings.

Total Exports to Sweden, £151,339. Chief items were—Wool, £44,855; wheat, £40,976; hides—cattle, £36,396; and cream separators.

Switzerland. Total Imports of Swiss Origin, £1,997,768. Chief items were—Piece goods of silk, £676,394; clocks and watches, £314,163; trimmings and ornaments for attire, £237,212; handkerchiefs; talking machines; cheese; lace for attire; and other apparel and textiles.

Total Exports to Switzerland, £9,614. Chief item was—timepieces and parts, £6,054.

Netherlands. Total Imports of Netherlands Origin, £818,786. Principal items were—Electrical machinery and appliances, £212,779; asphalt, bitumen, and natural pitch, £66,215; jewellery, £57,103; caramel, caramel paste, cocoa butter, etc.; paper; gin; drugs and chemicals; piece goods; and glass and glassware.

Total Exports to Netherlands, £1,088,639. Chief exports were—Wheat, £679,425; wool, £117,408; copra, £105,810; tallow, £73,204; hides and skins, £41,768; and butter substitutes, £34,996.

China. *Total Imports of Chinese Origin*, £691,751. The principal items were—Edible nuts, £100,016; tea, £63,287; rice, £56,597; bristles, horsehair drafts, £49,978; ginger, £42,405; oils; lace for attire; silk piece goods; fish; and grass straw.

Total Exports to China, £745,784. Of this total £738,085 was Australian produce. Principal items were—Wheat, £304,882; leather, £155,682; sandalwood, £66,639; butter, £50,408; milk and cream, £35,763; tallow; pig lead; timber; and precious stones.

Norway. *Total Imports of Norwegian Origin*, £1,106,234. Principal items were—Dressed timber, £506,705; paper, £311,965; preserved fish, £165,369; wood pulp; calcium carbide; and ores, clays, etc.

Total Exports to Norway, £183,432. Of this total the principal items were fish oils, £97,475; wheat, £74,351; and wool, £5,736.

Philippine Islands. *Total Imports of Philippine Islands Origin*, £311,457. Chief items were—Hemp, £138,278; timber, £155,596; and tobacco and cigars.

Total Exports to Philippine Islands, £563,369. Principal items were—Flour, £167,394; frozen meats, £136,691; coal, £124,793; butter; cattle; bacon and hams; and meats preserved in tins.

Hong Kong. *Total Imports of Hong Kong Origin*, £2,282. Chief items were—Cigars, and grass straw.

Total Exports to Hong Kong, £671,824. Chief items were—Sandalwood, £155,139; flour, £127,803; leather and manufactures thereof, £102,404; butter, £91,605; pig lead, £54,734; frozen meats; and bacon and hams.

Spain. *Total Imports of Spanish Origin*, £156,154. Chief items were—Corks, etc., £58,571; edible nuts, £50,444; wine; and raisins.

Total Exports to Spain, £216,083. Chief item was silver and silver-lead concentrates, £208,822.

Russia. *Total Imports of Russian Origin*, £59,522. Chief items were—Plywood; bristles, horsehair drafts; dressed furs; herrings in tins; and hides and skins.

Total Exports to Russia, £10.

6. **Imports—States, and Total.**—Imports are recorded at the port of landing and are credited to the State in which the port is situated. Records are not obtainable of interstate trade, and the State totals represent, therefore, the value of oversea goods consigned to the various States. They do not, moreover, represent the consumption within each State. Figures for the last five years are given hereunder.

IMPORTS.—STATES, AND TOTAL, 1921-22 TO 1925-26.

State.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	£	£	£	£	£
New South Wales ..	43,321,478	55,010,083	58,225,180	66,321,757	64,009,929
Victoria ..	36,352,056	46,729,100	49,592,643	54,289,690	50,327,055
Queensland ..	8,639,446	10,782,906	11,605,668	12,833,375	13,772,854
South Australia ..	9,047,242	10,846,619	12,700,321	13,970,327	14,079,788
Western Australia ..	4,308,141	6,788,165	6,662,729	8,026,452	7,896,174
Tasmania ..	1,385,958	1,588,158	1,817,320	1,681,059	1,518,210
Northern Territory ..	12,115	12,804	14,432	20,636	34,168
Total ..	103,066,436	131,757,835	140,618,293	157,143,296	151,638,178

7. **Exports—States, and Total.**—The following table gives the value of exports shipped from each State during the last five years. It must be noted that the value of goods transferred from one State to another for shipment to oversea countries is shown as an export from the State from which the goods were finally despatched.

EXPORTS.—STATES, AND TOTAL, 1921-22 TO 1925-26.

State.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	£	£	£	£	£
New South Wales ..	48,012,511	42,581,874	43,146,722	60,577,094	54,001,814
Victoria ..	34,644,182	33,768,701	29,612,548	41,641,979	33,107,576
Queensland ..	17,573,103	15,782,072	14,628,305	24,441,600	26,384,916
South Australia ..	14,747,260	13,583,003	16,912,932	19,225,027	19,450,144
Western Australia ..	10,797,000	9,679,496	12,412,625	12,859,498	12,611,631
Tasmania ..	2,067,443	2,460,374	2,766,032	3,243,017	2,970,226
Northern Territory ..	5,036	14,627	8,000	41,944	35,902
Total ..	127,846,535	117,870,147	119,487,164	162,030,159	148,562,209

8. Trade of Principal Ports.—The next table gives the value of imports received at, and exports despatched from, the principal ports of Australia during 1924-25 and 1925-26.

OVERSEA TRADE.—PRINCIPAL PORTS, 1924-25 AND 1925-26.

Port.	1924-25.			1925-26.		
	Imports.	Exports.	Total.	Imports.	Exports.	Total.
	£	£	£	£	£	£
<i>New South Wales.</i>						
Sydney ..	64,701,308	58,800,367	123,001,675	62,180,487	52,193,381	114,373,868
Newcastle ..	1,564,825	2,201,357	3,766,182	1,075,992	1,687,652	3,363,644
Other Ports ..	55,624	75,370	130,994	153,450	120,781	274,231
Total ..	66,321,757	60,577,094	126,898,851	64,009,929	54,001,814	118,011,743
<i>Victoria.</i>						
Melbourne ..	53,604,514	35,374,263	88,978,777	48,967,127	28,925,491	77,892,618
Geelong ..	565,868	4,398,176	4,964,044	1,218,449	2,560,718	3,779,167
Other Ports ..	119,308	1,869,540	1,988,848	141,479	1,621,367	1,762,846
Total ..	54,289,690	41,641,979	95,931,669	50,327,055	33,107,576	83,434,631
<i>Queensland.</i>						
Brisbane ..	10,864,222	18,859,472	29,723,694	11,712,822	17,703,213	29,416,035
Rockhampton ..	490,292	1,180,869	1,671,161	511,075	1,348,547	1,859,622
Townsville ..	846,152	1,970,706	2,816,858	871,041	2,695,283	3,566,324
Other Ports ..	632,709	2,430,553	3,063,262	677,916	4,637,873	5,315,789
Total ..	12,833,375	24,441,600	37,274,975	13,772,854	26,384,916	40,157,770
<i>South Australia.</i>						
Port Adelaide, including Adelaide ..	13,703,137	12,249,249	25,952,386	13,821,826	10,918,882	24,740,708
Port Pirie ..	239,271	3,350,851	3,590,122	213,376	5,392,050	5,605,426
Wallaroo ..	27,919	2,335,564	2,363,483	44,586	1,962,786	2,007,372
Other Ports ..	..	1,289,363	1,289,363	..	1,176,426	1,176,426
Total ..	13,970,327	19,225,027	33,195,354	14,079,788	19,450,144	33,529,932
<i>Western Australia.</i>						
Fremantle (Perth) ..	7,810,845	9,605,218	17,416,063	7,668,231	9,808,020	17,476,251
Bunbury ..	39,724	1,425,963	1,465,687	50,921	913,872	964,793
Other Ports ..	175,883	1,828,317	2,004,200	177,022	1,889,739	2,066,761
Total ..	8,026,452	12,859,498	20,885,950	7,896,174	12,611,631	20,507,805

OVERSEA TRADE.—PRINCIPAL PORTS, 1924-25 AND 1925-26—*continued.*

Port.	1924-25.			1925-26.		
	Imports.	Exports.	Total.	Imports.	Exports.	Total.
	£	£	£	£	£	£
<i>Tasmania.</i>						
Hobart	927,626	2,321,940	3,249,566	903,637	2,285,377	3,189,014
Launceston ..	701,373	643,495	1,344,868	546,576	475,322	1,021,898
Other Ports ..	52,060	277,582	329,642	67,997	209,527	277,524
Total	1,681,059	3,243,017	4,924,076	1,518,210	2,970,226	4,488,436
<i>Northern Territory.</i>						
Port Darwin ..	20,636	41,944	62,580	34,168	35,902	70,070
Grand Total ..	157,143,296	162,030,159	319,173,455	151,638,178	148,562,209	300,200,387

§ 6. Exports to Eastern Countries.

1. Principal Articles Exported.—The following table shows the value of exports from Australia to Eastern countries during the last five years. The principal countries concerned in this trade are China, India and Ceylon, Japan, Netherlands East Indies and Timor (Portuguese), Philippine Islands, Malaya (British), and Hong Kong. The particulars given in the tables apply to these countries only.

EXPORTS FROM AUSTRALIA TO EASTERN COUNTRIES.—PRINCIPAL COMMODITIES, 1921-22 TO 1925-26.

Article.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	£	£	£	£	£
Antimony	683	298	..	..	10
Biscuits	86,187	62,197	62,371	63,233	117,266
Butter	760,581	780,325	678,384	698,365	794,427
Cheese	19,036	11,527	10,295	8,029	11,299
Coal	422,323	397,632	357,230	258,561	211,899
Copper	4,239	22,350	51,546	14,170	19,620
Grain and pulse ..	..	..	..	..	..
Wheat	6,243,878	986,596	3,996,125	2,229,079	4,058,427
Flour	1,413,859	1,353,990	1,618,877	1,576,034	2,262,492
Other (prepared and unprepared) ..	47,693	9,882	33,864	16,345	13,911
Hay, chaff, and compressed fodder ..	22,110	18,576	21,272	22,787	22,082
Horses	40,382	82,834	21,713	93,077	105,092
Iron and steel (unmanufactured) ..	1,527	4,472	618	601	5,280
Jams and jellies	81,299	59,613	67,377	60,965	66,010
Lead, Pig	347,963	644,848	533,770	554,082	375,148
Leather	217,185	242,681	366,578	330,393	516,982
Meats	545,659	397,005	426,174	399,315	477,799
Milk and cream	1,305,277	1,140,775	1,002,687	1,385,142	1,334,861
Pearl shell and trochus shell	50,779	56,531	37,300	63,696	95,522
Sandalwood	75,556	110,822	357,025	205,477	252,800
Skins, hoofs, horns, bones, sinews, tallow	601,077	523,619	648,012	804,308	690,184
Sulphate of ammonia	83,346	47,249	34,053	38,411	56,054
Timber (undressed)	182,032	87,161	195,742	56,269	199,959
Wool	4,535,541	6,124,687	6,343,014	7,609,507	5,890,777
Other merchandise	1,588,522	1,338,978	1,439,621	1,291,933	1,206,556
Total merchandise	18,676,734	14,504,648	18,303,648	17,779,779	18,784,457
Specie, and gold and silver bullion ..	2,615,173	3,284,263	3,307,936	1,966,739	2,407,467
Total Exports	21,291,907	17,788,911	21,611,584	19,746,518	21,191,924

2. Destination of Exports.—The next table shows the destination of the merchandise exported to Eastern countries during the last five years.

EXPORTS FROM AUSTRALIA OF MERCHANDISE TO PRINCIPAL EASTERN COUNTRIES.—DESTINATION, 1921-22 TO 1925-26.

Country.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	£	£	£	£	£
China	371,836	244,810	1,589,414	454,061	745,784
East Indies	2,262,758	1,865,660	1,603,992	2,045,701	2,131,407
Hong Kong	536,596	501,874	776,998	631,973	661,979
India and Ceylon	5,158,346	711,432	739,712	943,820	1,524,742
Japan	7,952,547	9,308,960	11,555,484	11,646,516	11,043,159
Malaya (British)	1,829,568	1,303,264	1,514,430	1,528,303	2,114,016
Philippine Islands	565,063	568,648	523,618	529,405	563,369
Total	18,676,734	14,504,648	18,303,648	17,779,779	18,784,457

3. Chief Exports to Eastern Countries.—The series of tables given hereunder shows the value of each of the principal articles exported to the countries specified during each of the last five years.

BUTTER.

Country.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	£	£	£	£	£
China	88,358	43,123	61,571	64,879	50,408
East Indies	461,645	503,267	439,086	450,084	474,639
Hong Kong	42,116	44,411	34,968	45,271	91,605
India and Ceylon	19,237	26,150	24,060	25,588	27,247
Japan	36,721	30,358	19,676	6,511	9,897
Malaya (British)	76,751	98,877	67,523	75,814	100,730
Philippine Islands	35,753	34,139	31,500	30,218	39,901
Total	760,581	780,325	678,384	698,365	794,427

The exports of butter given above for the year 1925-26 were shipped from the several States as follows:—New South Wales, £165,566; Victoria, £560,166; Queensland, £67,057; South Australia, £1,636; Western Australia, £2.

COAL.

Country.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	£	£	£	£	£
East Indies	219,919	76,519	101,369	88,637	71,116
Hong Kong	4,293	2,259	..	..	..
India and Ceylon	65,643	118,912	18,860	21,997	3,794
Japan	2,502	889	..	..	..
Malaya (British)	70,803	48,065	76,913	43,881	12,196
Philippine Islands	59,163	150,988	160,088	104,046	124,793
Total	422,323	397,632	357,230	258,561	211,899

The exports of coal are chiefly from New South Wales.

GRAIN AND PULSE.—WHEAT.

Country.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	£	£	£	£	£
China	34,150	10,003	1,014,864	..	304,882
East Indies	7	..	28	..	..
India and Ceylon	4,248,575	296	268	529	397,329
Japan	1,961,063	976,271	2,980,952	2,228,549	3,356,144
Malaya (British)	83	7	13	1	38
Philippine Islands .. ..	..	19	..	..	34
Total	6,243,878	986,596	3,996,125	2,229,079	4,058,427

The exports of wheat given for the year 1925-26 were shipped from the following States :—New South Wales, £978,142; Victoria, £1,047,806; South Australia, £1,401,120; Western Australia, £631,359.

GRAIN AND PULSE.—FLOUR.

Country.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	£	£	£	£	£
China	63,388	3,140	128,498	3,312	1,952
East Indies	591,093	628,414	559,149	645,365	975,826
Hong Kong	124,498	71,891	126,273	181,599	127,803
India and Ceylon	94,315	98,828	104,747	149,582	266,553
Japan	83,260	19,337	162,048	2,164	10,254
Malaya (British)	301,390	404,952	393,035	444,257	712,710
Philippine Islands	155,915	127,428	145,127	149,755	167,394
Total	1,413,859	1,353,990	1,618,877	1,576,034	2,262,492

The flour exported during 1925-26 as above, was shipped from the several States as follows :—New South Wales, £901,356; Victoria, £781,945; Queensland, £11; South Australia, £116,664; Western Australia, £462,516.

GRAIN AND PULSE, OTHER THAN WHEAT AND FLOUR.

Country.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	£	£	£	£	£
China	423	120	161	199	168
East Indies	5,211	3,130	3,443	4,325	2,387
Hong Kong	1,208	514	303	515	595
India and Ceylon	6,802	3,035	2,454	5,039	4,403
Japan	10	11	23,990	2,174	478
Malaya (British)	33,857	2,976	3,506	3,735	5,709
Philippine Islands	182	96	7	358	171
Total	47,693	9,882	33,864	16,345	13,911

The exports given above for 1925-26 were shipped from the following States :—New South Wales, £1,272; Victoria, £7,077; Queensland, £8; South Australia, £8; Western Australia, £5,532; Tasmania, £14.

HAY AND CHAFF, AND COMPRESSED FODDER.

Country.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	£	£	£	£	£
China	44	42	104	749	37
East Indies	2,998	1,738	1,916	1,654	1,739
Hong Kong	1,103	953	850	936	519
India and Ceylon	4,514	4,651	2,986	11,586	10,814
Japan .. ..	..	26	..	318	199
Malaya (British)	4,550	5,129	3,946	2,154	3,516
Philippine Islands	8,901	6,037	11,470	5,390	5,258
Total	22,110	18,576	21,272	22,787	22,082

The exports given above for the year 1925-26 were shipped from the several States as follows:—New South Wales, £350; Victoria, £15,382; Western Australia, £3,147; Tasmania, £3,203.

HORSES.

Country.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	£	£	£	£	£
China .. ..	..	110	140	480	..
East Indies	6,163	4,555	2,480	2,438	7,880
Hong Kong .. ..	..	..	100	..	..
India and Ceylon	26,724	71,274	9,726	71,255	75,287
Japan	2,425	1,260	3,596	11,357	10,100
Malaya (British)	5,070	5,285	4,380	6,130	11,738
Philippine Islands .. ..	..	350	1,291	1,417	87
Total	40,382	82,834	21,713	93,077	105,092

The value of horses exported to the above countries from each State during 1925-26 was as follows:—New South Wales, £32,258; Victoria, £14,027; Queensland, £51,185; South Australia, £7,275; Western Australia, £335; Northern Territory, £12.

LEAD, PIG.

Country.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	£	£	£	£	£
China	223	15,196	49,714	84,512	28,396
East Indies	313	..	..	..	..
Hong Kong	39,695	67,512	63,865	65,424	54,734
Japan	307,732	562,140	419,988	404,146	292,018
Philippine Islands .. ..	..	..	203	..	..
Total	347,963	644,848	533,770	554,082	375,148

The exports of pig lead in 1925-26 were shipped from New South Wales, £180,129; South Australia, £195,019.

MEATS.—PRESERVED BY COLD PROCESS.

Country.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	£	£	£	£	£
China	5	1,416	..	7,915	..
East Indies	14,566	17,028	8,539	5,629	8,170
Hong Kong	20,961	21,720	36,263	21,007	44,017
India and Ceylon	16,883	20,476	21,732	25,055	22,748
Japan	4,023	5,813	23,067	11,317	5,190
Malaya (British)	89,542	77,026	64,389	75,324	71,642
Philippine Islands	148,310	80,649	118,884	115,747	136,691
Total	294,290	224,128	272,874	261,994	288,458

The exports to the above-mentioned Eastern countries during 1925-26 of meats preserved by cold process were shipped from the following States:—New South Wales, £77,123; Victoria, £12,009; Queensland, £196,042; Western Australia, £3,284.

MEATS.—OTHER THAN MEATS PRESERVED BY COLD PROCESS.

Country.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	£	£	£	£	£
China	5,193	5,621	3,757	3,063	4,873
East Indies	81,683	75,409	66,459	66,099	89,319
Hong Kong	13,303	9,410	11,126	8,385	15,915
India and Ceylon	80,220	26,229	10,048	12,879	12,754
Japan	1,619	2,251	17,611	661	130
Malaya (British)	45,529	28,789	24,047	19,497	34,916
Philippine Islands	23,822	25,168	20,252	26,737	31,434
Total	251,369	172,877	153,300	137,321	189,341

The exports given above for the year 1925-26 were shipped from the following States:—New South Wales, £69,633; Victoria, £29,510; Queensland, £90,146; South Australia, £13; Western Australia, £34; Northern Territory, £5.

SANDALWOOD.

Country.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	£	£	£	£	£
China	7,611	30,876	83,415	53,031	66,639
East Indies	66	3	..	..	245
Hong Kong	57,714	66,460	222,300	113,551	155,139
India and Ceylon	6,180	8,161	6,192	11,574	12,437
Japan	50	..	..	..	..
Malaya (British)	3,935	5,322	45,118	27,321	18,340
Total	75,556	110,822	357,025	205,477	252,800

The exports of sandalwood in 1925-26 were shipped from New South Wales, £24; Queensland, £4,121; South Australia, £10,409; Western Australia, £238,196; Northern Territory, £50.

SKINS, HOOFS, HORNS, BONES, SINEWS, AND TALLOW.

Country.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	£	£	£	£	£
China	31,161	14,522	39,374	62,729	31,991
East Indies	4,230	4,040	3,315	5,420	4,594
Hong Kong	10,289	8,369	17,018	8,460	4,163
India and Ceylon	65,883	65,934	48,244	101,499	98,611
Japan	488,554	424,462	533,498	617,804	545,834
Malaya (British)	960	2,170	6,489	8,213	3,465
Philippine Islands .. ..	..	4,122	74	183	1,526
Total	601,077	523,619	648,012	804,308	690,184

The above exports of skins, etc., in 1925-26 were shipped from the several States as follows :—New South Wales, £398,631; Victoria, £103,463; Queensland, £169,605; South Australia, £17,224; Northern Territory, £1,261.

TIMBER, UNDRESSED.

Country.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	£	£	£	£	£
China	19,796	27,418	36,951	197	17,032
East Indies	37	16	53	..	17
Hong Kong	6,580	3,883	..	..	1,618
India and Ceylon	153,117	47,860	156,638	56,072	180,426
Japan	2,478	2,169	2,100	..	841
Malaya (British)	24	5,045	..	..	25
Philippine Islands .. ..	..	770	..	..	..
Total	182,032	87,161	195,742	56,269	199,959

The above exports of undressed timber during 1925-26 from the several States were shipped as follows :—New South Wales, £2,608; Queensland, £55; Western Australia, £197,296.

WOOL.

Country.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	£	£	£	£	£
China	46,626	14,093	753	4,444	..
India and Ceylon	50,243	11,487	123,550	108,522	14,897
Japan	4,438,672	6,095,616	6,212,881	7,479,586	5,869,969
Malaya (British) .. ..	..	..	..	6,030	323
Philippine Islands .. ..	..	3,491	5,830	10,925	5,588
Total	4,535,541	6,124,687	6,343,014	7,609,507	5,890,777

The value of wool exported to the East by each State during 1925-26 was as follows :—New South Wales, £3,402,380; Victoria, £1,111,999; Queensland, £1,314,651; South Australia, £61,424; Western Australia, £323.

§ 7. Classified Summary of Australian Trade.

1. Imports.—The following table shows the value of imports into Australia during each of the last five years, arranged in classified order in accordance with the statistical classification which came into operation on 1st July, 1922:—

AUSTRALIAN IMPORTS.—IN CLASSES, 1921-22 TO 1925-26.

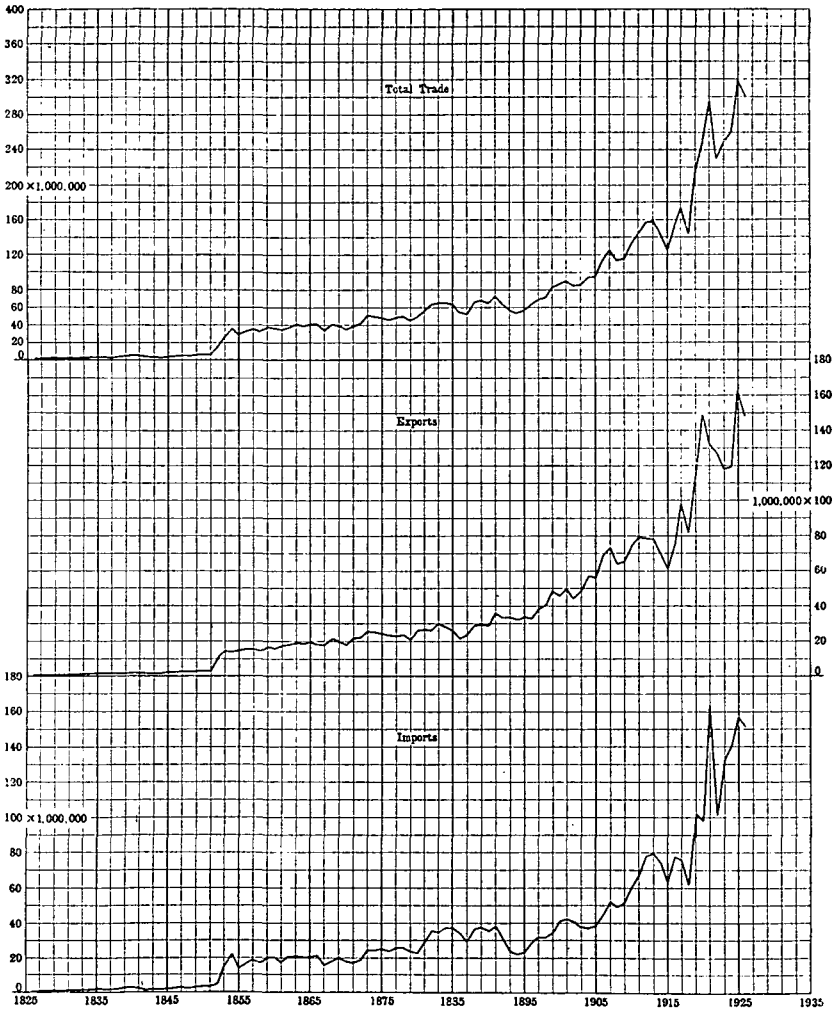
Classes.	1921-22	1922-23.	1923-24.	1924-25.	1925-26.
	£	£	£	£	£
I. Animal foodstuffs, etc. ..	1,535,308	1,770,241	2,204,883	1,978,092	2,473,756
II. Vegetable foodstuffs; non-alcoholic beverages, etc. ..	4,450,028	5,577,649	6,548,204	6,435,786	7,087,836
III. Alcoholic liquors, etc. ..	1,583,382	1,864,738	2,102,219	2,177,281	2,297,738
IV. Tobacco, etc. ..	2,467,033	2,232,910	3,213,264	2,410,190	2,760,176
V. Live animals ..	96,934	113,808	172,349	163,439	183,287
VI. Animal substances, etc. ..	703,196	960,784	1,398,676	1,202,670	1,128,242
VII. Vegetable substances, etc. ..	2,891,040	2,854,308	2,844,905	3,223,827	3,568,614
VIII. Apparel, textiles, etc. ..	34,225,443	44,570,027	38,482,446	42,372,272	39,055,392
IX. Oils, fats, and waxes ..	5,130,286	5,987,331	7,883,879	8,559,132	10,065,509
X. Paints and varnishes ..	426,039	564,038	635,814	657,075	705,748
XI. Stones and minerals, etc. ..	210,922	339,222	698,248	590,092	766,510
XII. Metals, metal manufactures, and machinery ..	25,096,571	35,203,294	43,751,850	45,594,102	45,498,784
XIII. Rubber and leather, etc. ..	1,583,611	2,643,498	3,497,381	3,384,270	5,727,019
XIV. Wood and wicker, etc. ..	2,884,550	4,767,841	6,218,902	5,046,136	5,911,637
XV. Earthenware, etc. ..	1,886,934	2,205,799	2,441,288	2,529,697	2,455,818
XVI. Paper and stationery ..	4,855,564	6,275,837	6,443,226	6,845,778	7,126,461
XVII. Jewellery, etc. ..	1,762,373	2,405,779	2,477,695	2,648,680	2,746,403
XVIII. Optical, surgical, and scientific instruments ..	943,688	1,189,254	1,472,669	1,657,928	1,843,897
XIX. Drugs, chemicals, etc. ..	3,556,742	3,895,988	3,878,526	4,120,460	4,316,482
XX. Miscellaneous ..	6,702,306	6,281,525	4,669,017	4,997,886	5,492,195
XXI. Gold and silver; and bronze specie ..	74,286	53,964	82,852	10,548,493	426,674
Total ..	103,066,436	131,757,835	140,618,293	157,143,296	151,638,178

2. Exports.—In the appended tables the exports from Australia are shown in classes according to the same classification, distinguishing (a) Australian Produce; (b) Other Produce (Re-exports); and (c) Total Exports.

EXPORTS FROM AUSTRALIA.—IN CLASSES, 1921-22 TO 1925-26.

Classes.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
(a) AUSTRALIAN PRODUCE.					
	£	£	£	£	£
I. Animal foodstuffs, etc. ..	16,355,946	15,498,298	9,717,734	19,280,478	16,415,297
II. Vegetable foodstuffs; non-alcoholic beverages, etc. ..	38,722,009	16,588,345	23,550,639	48,453,202	33,673,876
III. Alcoholic liquors, etc. ..	237,437	222,457	271,380	226,600	404,009
IV. Tobacco, etc. ..	451,940	620,430	380,127	381,504	265,627
V. Live animals ..	177,569	237,674	125,873	234,279	221,876
VI. Animal substances, etc. ..	51,552,436	64,284,144	63,047,851	72,024,630	72,116,824
VII. Vegetable substances, etc. ..	234,846	441,745	792,521	754,645	676,292
VIII. Apparel, textiles, etc. ..	318,775	171,619	260,437	173,830	177,401
IX. Oils, fats, and waxes ..	1,596,965	1,775,599	969,655	1,839,925	1,825,232
X. Paints and varnishes ..	83,983	59,462	39,325	49,877	46,945
XI. Stones and minerals, etc. ..	1,934,846	3,171,607	3,371,002	2,847,183	3,239,825
XII. Metals, metal manufactures, and machinery ..	3,912,258	4,895,991	5,905,199	6,607,261	7,053,623
XIII. Rubber and leather, etc. ..	891,039	911,652	945,034	774,682	782,138
XIV. Wood and wicker, etc. ..	1,242,562	1,116,025	1,334,668	1,662,163	1,421,842
XV. Earthenware, etc. ..	128,173	79,417	81,375	89,993	93,199
XVI. Paper and stationery ..	148,604	141,309	168,359	158,590	156,809
XVII. Jewellery, etc. ..	84,321	91,123	151,130	98,763	132,991
XVIII. Optical, surgical, and scientific instruments ..	61,076	58,336	72,990	63,727	96,555
XIX. Drugs, chemicals, etc. ..	501,326	505,228	501,598	545,309	601,642
XX. Miscellaneous ..	514,832	536,272	582,783	610,472	619,636
XXI. Gold and silver; and bronze specie ..	4,336,569	3,344,576	3,892,865	2,065,304	5,473,435
Total ..	123,487,512	114,751,309	116,162,545	158,942,417	145,495,074

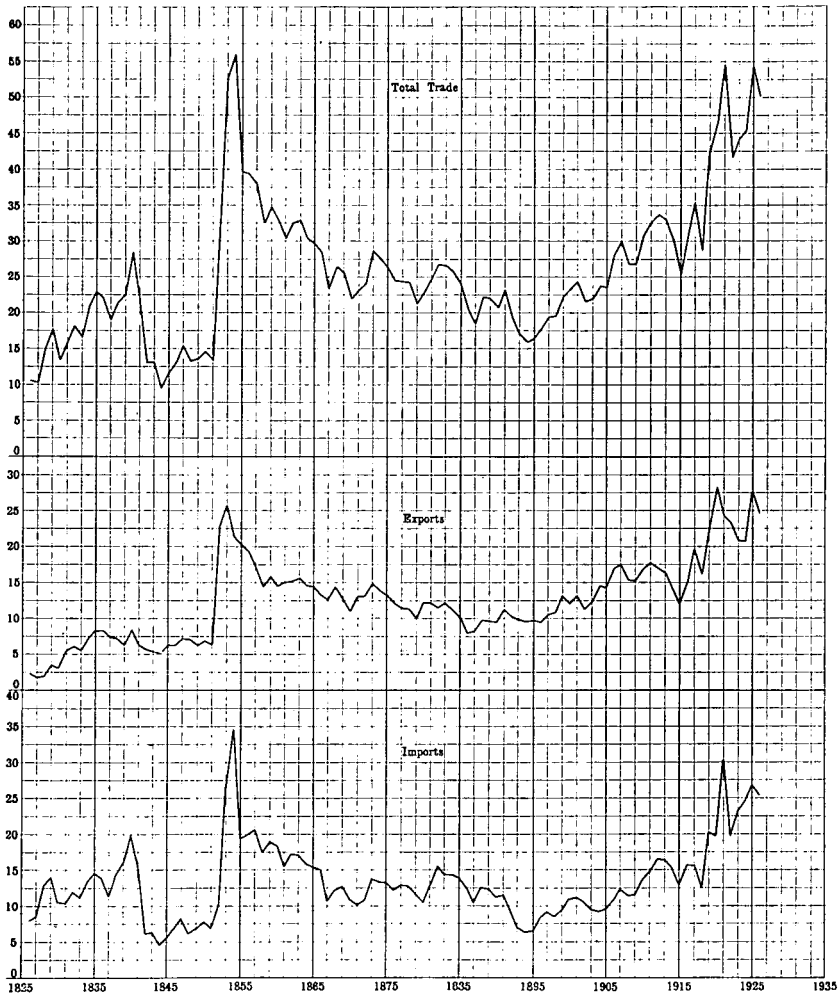
VALUES OF TOTAL TRADE, EXPORTS, AND IMPORTS, AUSTRALIA, 1826 TO 1925-26.



(See page 216.)

EXPLANATION.—The base of each square represents an interval of two years, and the vertical height ten million pounds sterling for imports and exports, and twenty million pounds sterling for total trade.

VALUES PER HEAD OF POPULATION OF TOTAL TRADE, EXPORTS, AND IMPORTS
—AUSTRALIA, 1826 TO 1925-26.



(See page 216.)

EXPLANATION.—The base of each square represents an interval of two years, and the vertical height £2 10s. 0d. per head of the population.

EXPORTS FROM AUSTRALIA.—IN CLASSES, 1921-22 TO 1925-26—*continued.*

Classes.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
(b) OTHER PRODUCE.—RE-EXPORTS.					
I. Animal foodstuffs, etc. . .	39,822	77,391	61,228	17,906	24,074
II. Vegetable foodstuffs; non-alcoholic beverages, etc. . .	427,943	435,999	544,313	518,744	359,249
III. Alcoholic liquors, etc. . .	102,889	77,246	78,268	82,036	47,069
IV. Tobacco, etc. . .	61,365	63,063	57,358	88,173	79,820
V. Live animals . . .	9,092	12,977	10,517	24,486	5,408
VI. Animal substances, etc. . .	35,803	37,865	22,448	31,131	54,893
VII. Vegetable substances, etc. . .	1,077,326	615,748	546,820	534,749	576,471
VIII. Apparel, textiles, etc. . .	964,764	616,394	411,417	426,516	375,336
IX. Oils, fats, and waxes . . .	243,834	94,646	126,056	183,463	136,630
X. Paints and varnishes . . .	5,341	7,200	4,794	8,242	10,812
XI. Stones and minerals, etc. . .	2,015	4,583	2,957	2,786	2,048
XII. Metals, metal manufactures, and machinery . . .	473,846	417,070	427,224	495,501	526,400
XIII. Rubber and leather, etc. . .	226,773	76,847	49,142	54,723	35,908
XIV. Wood and wicker, etc. . .	76,766	52,075	56,638	56,033	50,703
XV. Earthenware, etc. . .	14,129	20,140	16,917	15,152	17,029
XVI. Paper and stationery . . .	99,575	100,718	155,064	83,319	87,482
XVII. Jewellery, etc. . .	132,914	103,866	51,679	77,376	100,948
XVIII. Optical, surgical, and scientific instruments . . .	85,883	84,578	104,917	105,638	94,749
XIX. Drugs, chemicals, etc. . .	101,291	73,940	69,000	56,107	51,602
XX. Miscellaneous . . .	176,102	145,892	527,585	222,361	377,309
XXI. Gold and silver; and bronze specie . . .	1,550	600	277	3,300	53,695
Total . . .	4,359,023	3,118,838	3,324,619	3,087,742	3,067,135

(c) TOTAL EXPORTS.—AUSTRALIAN PRODUCE AND RE-EXPORTS.

	£	£	£	£	£
I. Animal foodstuffs, etc. . .	16,395,768	15,575,089	9,778,962	19,298,384	16,439,371
II. Vegetable foodstuffs; non-alcoholic beverages, etc. . .	39,149,952	17,024,344	24,094,952	48,971,946	34,033,125
III. Alcoholic liquors, etc. . .	340,326	299,703	349,648	308,636	451,078
IV. Tobacco, etc. . .	513,305	683,493	437,485	469,677	345,447
V. Live animals . . .	186,661	250,651	186,890	258,765	227,284
VI. Animal substances, etc. . .	51,588,239	64,322,009	63,070,299	72,055,761	72,171,717
VII. Vegetable substances, etc. . .	1,312,172	1,057,493	1,339,341	1,289,394	1,252,763
VIII. Apparel, textiles, etc. . .	1,283,539	788,013	671,854	600,346	552,737
IX. Oils, fats, and waxes . . .	1,840,799	1,870,245	1,095,711	2,023,388	1,961,862
X. Paints and varnishes . . .	89,324	66,662	44,119	58,119	57,757
XI. Stones and minerals, etc. . .	1,936,861	3,176,190	3,373,959	2,849,969	3,241,873
XII. Metals, metal manufactures, and machinery . . .	4,386,104	5,313,061	6,332,423	7,102,762	7,580,023
XIII. Rubber and leather, etc. . .	1,117,812	988,499	994,176	829,405	818,046
XIV. Wood and wicker, etc. . .	1,319,326	1,168,100	1,391,306	1,718,196	1,472,045
XV. Earthenware, etc. . .	142,302	99,557	98,292	105,145	110,228
XVI. Paper and stationery . . .	248,179	242,027	323,423	241,909	244,291
XVII. Jewellery, etc. . .	217,235	194,989	202,809	176,139	233,939
XVIII. Optical, surgical, and scientific instruments . . .	146,959	142,914	177,907	169,365	191,304
XIX. Drugs, chemicals, etc. . .	602,617	579,168	570,598	601,416	653,244
XX. Miscellaneous . . .	690,934	682,164	1,110,368	832,833	996,945
XXI. Gold and silver; and bronze specie . . .	4,338,119	3,345,176	3,893,142	2,068,604	5,527,130
Total . . .	127,846,535	117,870,147	119,487,164	162,030,159	148,562,209

3. Imports of Merchandise, Specie and Bullion.—The table hereunder gives the value of imports into Australia during each of the last five years, grouped under the headings—Merchandise, and Specie and Bullion. The imports of merchandise are shown under the sub-headings of “free” and “dutiable” goods.

IMPORTS OF MERCHANDISE, SPECIE AND BULLION.—AUSTRALIA, 1921-22 TO 1925-26.

Year.	Merchandise.		Specie and Bullion.	Total Imports.
	Free Goods.	Dutiable Goods.		
	£	£	£	£
1921-22	38,400,193	64,622,939	43,304	103,066,436
1922-23	43,749,955	87,977,056	30,824	131,757,835
1923-24	43,092,594	97,463,907	61,792	140,618,293
1924-25	49,827,415	96,773,074	10,542,807	157,143,296
1925-26	55,389,337	95,828,088	420,753	151,638,178

4. Exports of Merchandise, Specie and Bullion.—The next table shows the value of exports from Australia during each of the last five years, grouped under the headings—Merchandise, and Specie and Bullion; giving the exports of Australian Produce and Other Produce separately.

EXPORTS OF MERCHANDISE, SPECIE AND BULLION.—AUSTRALIA, 1921-22 TO 1925-26.

Year.	Merchandise.		Specie and Bullion.		Total Exports. (a)
	Australian Produce.	Other Produce.	Australian Produce.	Other Produce.	
	£	£	£	£	£
1921-22	119,160,362	4,357,473	4,327,150	1,550	127,846,535
1922-23	111,450,970	3,118,238	3,300,339	600	117,870,147
1923-24	112,350,326	3,324,342	3,812,219	277	119,487,164
1924-25	156,902,682	3,084,442	2,039,735	3,300	162,030,159
1925-26	140,059,350	3,013,440	5,435,724	53,695	148,562,209

(a) Does not include the value of Ships' Stores. See later table.

5. Imports in Tariff Divisions.—In the following table the imports into Australia during the last five years have been classified in accordance with the sixteen divisions of the Customs Tariff 1921–26.

**IMPORTS CLASSIFIED ACCORDING TO DIVISIONS OF THE CUSTOMS TARIFF.—
AUSTRALIA, 1921–22 TO 1925–26.**

Tariff Division.	Imports.				
	1921–22.	1922–23.	1923–24.	1924–25.	1925–26.
	£	£	£	£	£
I. Ale, Spirits, and Beverages ..	1,758,023	2,053,142	2,322,901	2,378,572	2,542,058
II. Tobacco and preparations thereof ..	2,467,033	2,232,910	3,213,264	2,410,190	2,760,176
III. Sugar ..	209,787	126,649	52,593	35,356	47,295
IV. Agricultural Products and Groceries ..	7,891,727	9,274,696	10,762,231	10,542,590	11,990,787
V. Textiles, Felts and Furs, and Manufactures thereof, and Attire ..	31,151,498	40,112,188	35,267,870	38,667,273	36,200,527
VI. Metals and Machinery	21,184,911	26,829,243	29,883,111	30,453,412	30,395,043
VII. Oils, Paints, and Varnishes ..	5,711,960	6,673,295	8,123,183	9,296,472	10,779,584
VIII. Earthenware, Cement, China, Glass, and Stone ..	2,223,380	2,837,598	3,103,866	3,260,919	3,443,166
IX. Drugs and Chemicals	3,115,647	2,691,018	2,587,796	2,716,011	2,907,140
X. Wood, Wicker, and Cane ..	2,989,968	4,767,841	6,218,902	5,046,136	5,911,637
XI. Jewellery and Fancy Goods ..	2,332,226	2,857,037	3,196,898	3,467,142	3,785,389
XII. Hides, Leather, and Rubber ..	1,738,198	3,007,484	3,926,855	3,857,376	6,179,311
XIII. Paper and Stationery	4,839,613	6,259,063	6,387,522	6,857,691	7,126,461
XIV. Vehicles ..	4,061,656	8,335,452	13,807,297	15,010,175	15,127,485
XV. Musical Instruments	426,610	741,815	1,332,776	1,373,312	1,241,344
XVI. Miscellaneous ..	8,692,515	10,847,830	7,557,313	8,344,792	7,627,608
— Free Goods not specially mentioned in Tariff ..	2,228,380	2,079,750	2,812,123	2,883,070	3,152,414
Total Merchandise	103,023,132	131,727,011	140,556,501	146,600,489	151,217,425
Specie and Bullion	43,304	30,824	61,792	10,542,807	420,753
Grand Total ..	103,066,436	131,757,835	140,618,293	157,143,296	151,638,178

§ 8. Excise.

While it does not come under the heading of oversea trade, the accompanying information in regard to Excise has been inserted here for purpose of convenience. The following table shows, in detail, the quantities of spirits, beer and tobacco on which Excise Duty was paid in Australia during each of the five years 1921–22 to 1925–26.

**QUANTITIES OF SPIRITS, BEER, AND TOBACCO ON WHICH EXCISE DUTY
WAS PAID.—AUSTRALIA, 1921-22 TO 1925-26.**

Article.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	proof gal.	proof gal.	proof gal.	proof gal.	proof gal.
Spirits—					
Brandy (Pure Australian Standard Brandy) ..	145,202	158,492	185,340	201,251	224,956
Brandy (Blended Wine Brandy, etc.) ..	11,123	14,016	13,815	8,944	2,699
Gin (Distilled from Barley, Malt, Grain, or Grape Wine, etc.) ..	50,212	54,503	54,870	47,948	50,821
Whisky (Australian Standard Malt Whisky) ..	136,349	143,190	148,088	127,251	183,622
Whisky (Australian Blended Whisky) ..	92	99	95	40	11
Rum (Australian Standard Rum) ..	448,213	468,952	520,516	511,917	557,611
Rum (Blended) ..	..	642	1,208	1,259	137
Liqueurs ..	101	635	138	333	312
Spirits, n.e.i. ..	1,054	2,756	2,035	169	448
Spirits for Industrial or Scientific Purposes ..	130,991	141,646	142,499	133,347	136,406
Spirits for Fortifying Wine (Distilled from Doradillo Grapes) ^(b) ..	..	..	..	(b)457,784	597,903
Spirits for Fortifying Wine ..	793,749	851,007	941,076	730,944	928,796
Spirits for making Vinegar ..	35,325	38,378	45,089	52,799	70,486
Spirits for Manufacture of Scents, etc. ^(a) ..	21,373	26,046	27,066	28,173	33,787
Methylated Spirits ^(a) ..	5	..	..	..	..
Amylic Alcohol and Fusel Oil ..	13	27	54	52	31
Total, Spirits ..	1,773,802	1,900,339	2,081,889	2,302,211	2,788,026
Beer ..	gal. 62,968,031	gal. 63,195,280	gal. 63,202,012	gal. 64,939,563	gal. 67,372,272
Tobacco—Manufactured, n.e.i. ..	lb. 11,872,442	lb. 11,894,776	lb. 12,208,264	lb. 12,586,337	lb. 13,007,572
Tobacco—Hand-made ..	545,532	471,147	561,628	489,913	407,156
Tobacco—Fine-cut, suitable for Cigarettes ..	36,303	33,804	29,025	27,490	21,628
Total, Tobacco ..	12,454,277	12,399,727	12,798,917	13,103,740	13,436,356
Cigars—Machine-made ..	51,187	52,812	38,879	45,178	33,107
Cigars—Hand-made ..	473,840	434,258	409,597	429,158	406,664
Total, Cigars ..	525,027	487,070	448,476	474,336	439,771
Cigarettes—Machine-made ..	4,807,118	4,410,713	4,739,115	4,827,649	5,016,871
Cigarettes—Hand-made ..	57,497	42,448	30,321	27,762	28,415
Total Cigarettes ..	4,864,615	4,453,161	4,769,436	4,855,411	5,045,286
Snuff ..	230	231	100	50	100

(a) Liquid gallons. (b) On and after 1st January, 1925.

§ 9. Ships' Stores.

Prior to 1906 goods shipped in Australian ports on board oversea vessels as ships' stores were included in the general exports. From 1906, ships' stores have been specially recorded as such, and have been omitted from the export figures. The value of these stores shipped each year during the period 1906 to 1925-26, showing bunker coal separately, is given in the following table:—

VALUE OF STORES SHIPPED IN AUSTRALIAN PORTS ON OVERSEA VESSELS,
1906 TO 1925-26.

Period.	Bunker Coal.	All Stores (including Coal).	Period.	Bunker Coal.	All Stores (including Coal).
	£	£		£	£
1906	575,471	875,966	1916-17 ..	748,852	1,676,116
1907	663,724	998,897	1917-18 ..	632,910	1,389,291
1908	867,707	1,196,106	1918-19 ..	857,507	1,765,367
1909	781,113	1,071,677	1919-20 ..	1,487,872	2,688,371
1910	740,567	1,080,133	1920-21 ..	2,027,133	3,560,648
1911	858,783	1,238,446	1921-22 ..	2,178,101	3,152,604
1912	1,008,259	1,431,985	1922-23 ..	1,988,890	2,887,399
1913	1,018,595	1,458,702	1923-24 ..	1,672,160	2,614,948
1914 (1st six mths.)	533,288	771,581	1924-25 ..	1,485,957	2,714,562
1914-15 ..	829,875	1,587,757	1925-26 ..	1,331,789	2,773,422
1915-16 ..	719,510	1,544,872			

§ 10. Exports according to Industries.

1. **Classification.**—The following table gives an analysis of the exports of Australian produce according to the main classes of industry in which the goods were produced. In certain cases in which the produce has been subjected to some initial process of manufacture, opinions may differ in regard to its classification, but in preparing the tabulation the method adopted generally has been to credit to the primary industry those products in which the value of the primary element is appreciably the greater. Thus, such commodities as flour, jams and preserved fruits, chaff and prepared fodders, etc., have been treated as the produce of agriculture; butter, cheese, preserved milk, and bacon and hams have been credited to the dairying industry; canned meats, tallow and fellmongered skins have been credited to the pastoral industry, but leather has been classed as a product of manufacturing; minerals and metals which have been smelted or otherwise refined, but not further manufactured, have been included as the produce of mining; and sawn timber as the produce of forestry.

Increasing manufacturing activity in close proximity to the centres of primary production—in some instances by co-operative association of primary producers—has the effect of merging more closely the direct interests of primary and secondary production. Prominent cases of the kind referred to are the production of butter, preserved and dried milk, bacon and hams, canned and dehydrated fruit, jam, sugar, flax fibre, etc. As, therefore, no sharp distinction can be made in such cases between the primary and secondary industries, it follows that the values allocated to these divisions in the table must be taken as a general indication only of their relative importance in the export returns. While there is in the primary products some value due to factory processes, there is, on the other hand, in the manufactured products a considerable element of Australian primary produce in the raw materials from which these manufactured products were made. As the figures given are, however, on the same basis throughout the period covered by the table, they indicate, with reasonable accuracy, the variations in the relative importance of the several industrial groups.

EXPORTS OF AUSTRALIAN PRODUCE ACCORDING TO INDUSTRIAL ORIGIN.

VALUE OF EXPORTS AS RECORDED.

Industrial Group.	1913.(a)		1924-25.		1925-26.	
	£		£		£	
Agriculture	10,677,734	100	48,702,116	456	33,982,731	318
Pastoral	42,057,346	100	80,524,818	191	80,825,753	192
Dairy and Farmyard	3,854,734	100	12,303,238	319	9,096,146	236
Mines and Quarries	14,712,242	100	10,967,554	75	15,310,380	104
Fisheries	424,849	100	489,338	115	480,923	113
Forestry	1,106,549	100	1,845,875	167	1,634,643	148
Total Primary Produce	72,833,454	100	154,832,939	213	141,330,576	194
Manufacturing	2,304,693	100	4,109,478	178	4,164,498	181
Total	75,138,147	100	158,942,417	212	145,495,074	194

(a) Base year.

2. Effect of Price Changes.—If the effect of price changes be eliminated from the above figures by the application of the export price index-numbers, the relative quantitative results will be approximately as follows :—

EXPORTS OF AUSTRALIAN PRODUCE.—ELIMINATION OF PRICE CHANGES.

Industrial Group.	1913. (a)		1924-25.		1925-26.	
	£		£		£	
Agriculture	10,677,734	100	27,986,806	262	20,179,769	189
Pastoral	42,057,346	100	32,521,982	77	46,747,110	111
Dairy and Farmyard	3,854,734	100	8,360,846	217	5,952,975	154
Mines and Quarries	14,712,242	100	7,636,159	52	10,736,592	73
Fisheries	424,849	100	470,970	111	557,915	131
Forestry	1,106,549	100	1,051,781	95	951,480	86
Total Primary Produce	72,833,454	100	78,028,544	107	85,125,841	117
Manufacturing	2,304,693	100	2,090,274	91	2,242,595	97
Total	75,138,147	100	80,118,818	107	87,368,436	116

(a) Base year.

3. Relative Importance of Industrial Groups.—In the first of the two preceding tables the value of commodities in each industrial group of exports of Australian produce is that recorded at date of shipment from Australia, while in the second table the effect of price changes during the period has been taken into account. In the table showing exports according to recorded value the pastoral group was responsible for the highest proportion of exports during each year. In 1913 the value of commodities included in this group represented 55.97 per cent. of the total exports, as compared with 50.66 per cent. during 1924-25, and 55.55 per cent. during 1925-26. Wool constitutes the greater part of the exports in the pastoral group.

The value of minerals, etc., included in the mining group exceeded the value of items in the agricultural group during the year 1913, but, during the two later years the value of agricultural produce exported was in excess of mineral exports. According to value, the agricultural group now ranks next to the pastoral group. Wheat and flour are the two items of export mainly responsible for this position. The percentage of the agricultural group on the total exports during 1924-25 was 30.65, as compared with 23.36 for the following year, the decrease being due to the reduced exports of wheat during 1925-26.

The value of exports of dairy and farmyard produce increased during 1924-25, but declined considerably during 1925-26. The downward trend in 1925-26 was due to the decline in the exports of butter. Exports included in the fisheries and forestry groups have not varied to a marked extent, but an increase occurred in 1925-26 in the manufacturing group as compared with the previous year.

The recorded value of exports for all industrial groups shows an increase of 112 per cent. during 1924-25 and of 94 per cent. during 1925-26, as compared with the total value of exports during the year 1913. The effect of eliminating price changes during the period is shown in the second table. Higher prices of commodities in 1924-25 and 1925-26 tended to inflate the value of exports during these years. On the basis of prices ruling in 1913 the exports of 1924-25 and 1925-26 were greater than those of 1913, the increases for the respective years being 7 per cent. and 16 per cent. The effect of eliminating price changes is particularly noticeable in the figures for the agricultural, pastoral, dairy produce, and manufacturing groups.

4. Australian Production and Exports according to Industry.—The following table shows the total value of Australian Production and Australian Exports during the period of ten years, 1916-17 to 1925-26, classified according to industries; the proportion of each industrial group to total production and also to total exports; and in the last column the percentage exported of the production of each industrial group:—

VALUE OF AUSTRALIAN PRODUCTION AND EXPORTS, ACCORDING TO
INDUSTRY, 1916-17 TO 1925-26.

Industrial Group.	Value of Production during Ten Years.	Percentage on Total Production.	Value of Exports during Ten Years.	Percentage on Total Exports.	Percentage Exported of the Production in each Industrial Group.
	£1,000		£1,000.		
Agriculture	808,604	22.61	293,816	24.30	36.34
Pastoral	995,846	27.85	619,884	51.26	62.25
Dairy and Farmyard	406,860	11.38	85,450	7.07	21.00
Mining	226,010	6.32	138,497	11.45	61.28
Forestry and Fisheries	98,555	2.76	15,675	1.29	15.90
Total Primary Produce	2,535,875	70.92	1,153,322	95.37	45.48
Manufacturing	1,039,694	29.08	56,032	4.63	5.39
Total	3,575,569	100	1,209,354	100	33.82

The figures relating to value of production and value of exports are subject to the qualifications mentioned in *l ante*. A period of ten years is embraced, and the values of production and of exports therein give a very fair index of the relative importance of the several industrial groups. Of the total production 70.9 per cent. was classified as primary produce and 29.1 per cent. as manufactured articles. The main contributing groups in the primary produce section were pastoral with 27.9 per cent., and agriculture with 22.6 per cent. of the total production.

Exports of primary produce represented 95.4 per cent of the total exports. The pastoral group, with 51.3 per cent. of the total, shows the highest percentage, followed by the agricultural and mining groups with 24.3 per cent. and 11.5 per cent. respectively. Exports of goods classified in the manufacturing group represented only 4.6 per cent. of the total.

The figures in the last column of the table are of special interest, as they show the percentage exported of the production of each industrial group. Of the total primary production during the period 45.5 per cent. was exported. Over one-third of the agricultural production and approximately two-thirds of the pastoral production were sent abroad.

Sixty-one per cent. of the total production of the mining industry and 21 per cent. of the produce included in the dairy and farmyard group were exported.

The percentage of manufactured goods exported was comparatively small, only 5 per cent. of the production during the period being sent abroad.

§ 11. Movement of Specie and Bullion.

1. Imports and Exports.—The following tables show the value of gold and silver, specie and bullion, and of bronze specie imported and exported during the years 1921-22 to 1925-26 :—

AUSTRALIAN IMPORTS AND EXPORTS, SPECIE AND BULLION, 1921-22 TO 1925-26.

Items.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
IMPORTS.					
	£	£	£	£	£
Gold—Specie ..	7	7	..	2,585,875	65,790
Bullion ..	6,356	3,501	5,157	7,920,458	292,672
Total ..	6,363	3,508	5,157	10,506,333	358,462
Silver—Specie ..	34,877	24,300	55,172	33,546	58,833
Bullion ..	2,041	2,130	1,425	2,866	3,414
Total ..	36,918	26,430	56,597	36,412	62,247
Bronze—Specie ..	23	886	38	62	44
GRAND TOTAL ..	43,304	30,824	61,792	10,542,807	420,753
EXPORTS.					
	£	£	£	£	£
Gold—Specie ..	3,480,420	2,219,998	2,411,512	784,944	4,006,382
Bullion ..	200	5,907	385,755	157,233	345,707
Total ..	3,480,620	2,225,905	2,797,267	942,177	4,352,089
Silver—Specie ..	6,955	5,870	17,355	16,033	63,966
Bullion ..	841,085	1,069,159	997,874	1,084,825	1,073,356
Total ..	848,040	1,075,029	1,015,229	1,100,858	1,137,322
Bronze—Specie ..	40	5	..	..	8
Total—					
Australian Produce ..	4,327,150	3,300,339	3,812,219	2,039,735	5,435,724
Other Produce ..	1,550	600	277	3,300	53,695
GRAND TOTAL ..	4,328,700(a)	3,300,939(a)	3,812,496(a)	2,043,035(a)	5,489,419

(a) Includes premium on gold exported.

2. Imports and Exports by Countries.—The next table shows the imports and exports of specie and bullion from and to various countries during the year 1925-26.

AUSTRALIAN IMPORTS AND EXPORTS—SPECIE AND BULLION BY COUNTRIES, 1925-26.

Country.	Imports.			Exports.		
	Specie.	Bullion.	Total.	Specie.	Bullion.	Total.
	£	£	£	£	£	£
Australia (a) ..	42,884	..	42,884	..	..	..
United Kingdom ..	9,821	6,655	16,476	30,161	3,049	33,210
Borneo (British) ..	123	..	123	..	..	..
Hong Kong ..	..	..	..	9,845	..	9,845
India and Ceylon ..	..	..	..	931,632	1,414,678	2,346,310
Malaya (British) ..	..	..	..	18,000	..	18,000
New Zealand ..	59,061	276,463	335,524	..	94	94
Pacific Islands—						
Fiji ..	..	..	..	8,900	1,242	10,142
Gilbert and Ellice Islands Colony..	..	..	..	1,880	..	1,880
Nauru ..	..	..	..	1,600	..	1,600
Solomon Islands ..	..	..	..	15,025	..	15,025
Territory of New Guinea ..	7,436	12,340	19,776	3,185	..	3,185
Papua ..	233	..	233	1,823	..	1,823
Total British Countries ..	119,558	295,458	415,016	1,022,051	1,419,063	2,441,114
France ..	..	211	211	..	..	..
Mexico ..	4,620	..	4,620	..	..	..
Netherlands ..	134	..	134	..	..	..
Netherlands East Indies ..	..	..	..	33,312	..	33,312
Pacific Islands: New Hebrides ..	..	..	..	14,993	..	14,993
United States of America ..	355	417	772	3,000,000	..	3,000,000
Total Foreign Countries ..	5,109	628	5,737	3,048,305	..	3,048,305
GRAND TOTAL ..	124,667	296,086	420,753	4,070,356	1,419,063	5,489,419

(a) Australian produce re-imported.

§ 12. Effect of Prices on Value of Exports.

1. General.—In comparing the value of exports from, and of imports into, any country for a series of years, the question naturally arises as to the extent to which any variation in the aggregate value is due to fluctuations in prices, or to increase or decrease of actual quantities, for, in aggregates expressed in value—the only possible method when the commodities differ—the two sources of variation are confused.

2. Methods of Computation.—The method of computation adopted consists in the taking of an annual average for an extended period of the quantities of all such articles of export as are recorded by quantity, and the application to the average quantities so obtained of the average prices in each year. The quantities used to produce the following results are the averages for 19½ years, viz., from 1st January, 1897, to 30th June, 1916, these being taken as representing the general quantitative composition or norm of the exports from Australia. The results published in issues of the Official Year Book prior to No. 12 were ascertained by applying to the quantities exported during each year the average price per unit ruling in some year arbitrarily taken as the basic year. The advantage of the method now adopted is that the results are comparable throughout, whereas under the method previously followed each year was comparable with the basic year only.

3. **Effect on Export Values.**—The following table shows the value of total exports (Australian and other produce) as actually recorded in each year specified, together with the value computed on the assumption that the prices of 1901 were maintained. The table also shows the yearly "price levels" based upon the results so ascertained, and furnishes a measure of the influence of prices on the value of exports in each year since 1901. Column IV.—values computed on 1901 prices—represents the volume of exports (less specie and gold bullion), expressed in the common denomination of value, and the figures therein show that, had the prices of 1901 remained constant, the value of the exports of merchandise during the year 1925-26, for example, would have been £66,982,410 only, instead of £144,146,146—the value actually recorded. The difference between these amounts (£77,163,736) results from a rise of 115 per cent. (i.e., from 1,000 to 2,152) in the prices of commodities for the period intervening between 1901 and 1925-26.

The column "Price levels" shows that prices as indicated by the exports rose from the beginning of the decade to the year 1906. Owing to the large proportion of the aggregate value of exports represented by wool and wheat, any change in the price of these commodities has a marked effect on the index-numbers for the total group of exports, and it is to their influence that the fall of prices in 1911 is mainly due. From that year to 1920-21 prices steadily increased, but there was a considerable decline during 1921-22. An upward trend was manifested during 1922-23, and the price level for that year for all groups of exports was 2,039 as compared with 1,721 for 1921-22. The high prices realized for wool during 1923-24 and 1924-25 were responsible for the exceptional increase in the price-levels of the pastoral group for those years, the index-number for the last year reaching a level greatly in excess of any previous year. The price level for all groups of commodities rose sharply to 2,476 during 1923-24 and to 2,803 in 1924-25. Prices were on a lower level in 1925-26, and the price-level for the combined group of commodities declined to 2,152. Every group, with the exception of that for dairy produce, showed decreases compared with the previous year. The lower price ruling for wool was mainly responsible for the fall in the price-level of the pastoral group. The slightly higher prices obtained for butter and cheese caused the increase in the price-level for the dairy produce group.

**AUSTRALIAN EXPORTS.—VALUES AND PRICE LEVELS, 1901, 1906, AND
1911 TO 1925-26.**

Year.	Exports of Specie and Gold Bullion.	Other Exports.		Total Exports (including Specie and Gold Bullion).		Price-Levels, (a) Year 1901 = 1,000.
		Values as Recorded.	Values Computed on Mass Prices of 1901.	Values as Recorded.	Values Computed on Mass Prices of 1901.	
I.	II. £	III. £	IV. £	V. £	VI. £	VII.
1901 ..	14,347,776	35,348,396	35,348,396	49,696,172	49,696,172	1000
1906 ..	16,895,059	52,842,704	42,005,330	69,737,763	58,900,389	1258
1911 ..	11,561,639	67,920,619	58,501,825	79,482,258	70,063,464	1161
1912 ..	11,881,216	67,214,874	53,218,427	79,096,090	65,099,643	1263
1913 ..	3,164,105	75,407,664	58,455,553	78,571,769	61,619,658	1290
1914-15 ..	2,474,197	58,118,379	44,740,861	60,592,576	47,215,058	1299
1915-16 ..	10,391,019	64,387,302	40,469,705	74,778,321	50,860,724	1591
1916-17 ..	11,521,815	86,433,667	43,985,398	97,955,482	55,507,213	1965
1917-18 ..	6,483,265	74,945,956	35,962,551	81,429,221	42,445,816	2084
1918-19 ..	7,252,202	106,711,774	52,489,805	113,963,976	59,742,007	2033
1919-20 ..	5,654,909b	144,168,600	64,103,424	149,823,509	68,516,379	2249
1920-21 ..	5,371,421b	126,787,491	56,249,996	132,158,912	60,330,722	2254
1921-22 ..	3,487,615b	124,358,920	72,259,686	127,846,535	75,225,164	1721
1922-23 ..	2,231,780b	115,638,367	56,713,275	117,870,147	58,818,605	2039
1923-24 ..	2,814,622b	116,672,542	47,121,382	119,487,164	49,742,586	2476
1924-25 ..	958,210b	161,071,949	57,464,127	162,030,159	58,373,048	2803
1925-26 ..	4,416,063	144,146,146	66,982,410	148,562,209	71,398,473	2152

(a) These are index-numbers for the total group of exports, excluding specie and gold bullion.

(b) Including premium on gold exported 1919-20, £1,241,954, or 28.8 per cent. on standard price; 1920-21, £1,290,695, or 32.1 per cent.; 1921-22, £522,137, or 17.6 per cent.; 1922-23, £126,450, or 6.04 per cent.; 1923-24, £193,418, or 8.72 per cent.; 1924-25, £40,289, or 6.7 per cent.

4. *Price-Levels of Exports.*—The following table of index-numbers shows the variations in price of the different classes of goods exported, grouped according to industrial origin :—

AUSTRALIAN EXPORTS.—PRICE-LEVELS, 1901, 1906, AND 1911 TO 1925-26.

Year.	Agricultural Produce.	Pastoral Produce.	Dairy Produce.	Mineral Produce.(a)	Miscellaneous.	All Classes.(a)
1901	1,000	1,000	1,000	1,000	1,000	1,000
1906	1,155	1,344	1,021	1,113	991	1,258
1911	1,243	1,193	1,085	944	1,227	1,161
1912	1,388	1,268	1,198	1,133	1,254	1,263
1913	1,324	1,334	1,124	1,114	1,329	1,290
1914-15 ..	1,480	1,323	1,176	1,066	1,221	1,299
1915-16 ..	1,927	1,589	1,488	1,393	1,106	1,591
1916-17 ..	1,726	2,131	1,690	1,650	1,357	1,965
1917-18 ..	1,954	2,250	1,624	1,760	1,401	2,084
1918-19 ..	1,864	2,166	1,855	1,692	1,775	2,033
1919-20 ..	2,145	2,393	2,023	1,787	2,150	2,249
1920-21 ..	3,177	2,093	2,854	1,813	2,179	2,254
1921-22 ..	2,108	1,717	1,507	1,427	1,845	1,721
1922-23 ..	1,931	2,213	1,845	1,459	1,701	2,039
1923-24 ..	1,700	2,930	1,785	1,529	1,803	2,476
1924-25 ..	2,304	3,303	1,654	1,600	1,942	2,803
1925-26 ..	2,230	2,306	1,717	1,589	1,859	2,152

(a) Excluding gold.

§ 13. External Trade of Australia and other Countries.

1. *Essentials of Comparisons.*—Direct comparisons of the external trade of any two countries are possible only when the general conditions prevailing therein, and the system of record, are more or less identical. For example, in regard to the mere matter of record, it may be observed that in one country the value of imports may be the value at the port of shipment, while in another the cost of freight, insurance, and charges may be added thereto. Again, the values of imports and exports in the one may be declared by merchants, whereas in the other they may be the official prices fixed from time to time by a commission constituted for the purpose. In later years, moreover, a very substantial difference in the value of imports would arise from the different methods of converting the moneys of foreign countries, *i.e.*, from the application of current rates of exchange or of the mint par. Lastly, the figures relating to the external trade of any country are also affected in varying degree by the extent to which they include transit or re-export trade. Including bullion and specie, the transit trade of Belgium, for example, represented, prior to the war, approximately 40 per cent. of the gross trade recorded; of Switzerland, 45 per cent.; of France, 20 per cent.; and of the United Kingdom, 15 per cent.; whereas in Australia the same element represents, normally, about 4 per cent., and in New Zealand even less.

2. *"Special Trade" of Various Countries.*—Special trade may be defined according to the interpretation of the British Board of Trade, as (a) imports entered for consumption in the country (as distinguished from imports for transshipment or re-export) and (b) exports of domestic products.

In the following table the figures relate as nearly as possible to imports entered for consumption in the various countries specified, and to exports of their domestic products. It is to be noted, however, that these figures do not invariably denote the same thing throughout, since, in the United Kingdom and other manufacturing countries, raw or partly manufactured materials are imported as for home consumption, and, after undergoing some process of manufacture or further modification, are re-exported as domestic production. Further, the statistical records of many countries do not distinguish between bullion and specie imported for the use of the particular country (home consumption) and the amount in transit, nor between the exports of that produced within the country and that re-exported. Nevertheless, a comparison of this character reveals

approximately the extent of the external trade which otherwise would not be manifest. The figures relating to foreign countries have been converted on the average of the commercial rates of exchange for the years subsequent to the war.

**IMPORTS FOR HOME CONSUMPTION, AND EXPORTS OF DOMESTIC PRODUCTS
—INCLUDING BULLION AND SPECIE, VARIOUS COUNTRIES.**

Country.	Year ended—	Trade.			Trade per Inhabitant.		
		Imports.	Exports.	Total.	Imports.	Exports.	Total.
		£1,000	£1,000	£1,000	£ s. d.	£ s. d.	£ s. d.
C'wealth of	30/6/26	148,571	145,495	294,066	24 15 11	24 5 7	49 1 6
Australia	31/12/13	76,323	75,113	151,436	15 17 11	15 12 10	31 10 9
United King-	31/12/26	1,117,208	651,593	1,768,801	24 14 2	14 8 4	39 2 6
dom (a)	31/12/13	671,265	525,461	1,196,726	14 11 8	11 8 4	26 0 0
Canada (a) ..	31/12/26	205,420	250,737	456,157	21 18 9	26 15 6	48 14 3
	31/3/14	132,019	89,015	221,034	16 13 6	11 7 2	28 0 8
New Zealand	31/12/26	48,958	44,339	93,292	35 4 2	31 17 10	67 2 0
	31/12/13	21,879	22,578	44,457	20 10 7	21 3 8	41 14 3
Union of	31/12/25	65,839	82,990	148,829	8 17 9	11 4 1	20 1 10
South Africa	31/12/22	51,557	60,334	111,891	7 8 11	8 14 4	16 3 3
United States	30/6/26	914,167	957,512	1,871,679	7 19 11	8 7 6	16 7 5
of America	30/6/14	331,780	433,182	884,962	4 0 0	5 0 8	9 0 8
(a)							
Argentina							
Republic	31/12/25	171,931	170,182	342,113	17 9 6	17 5 11	34 15 6
Belgium (b)	31/12/24	186,143	145,949	332,392	23 17 5	18 13 8	42 11 1
	31/12/12	210,211	160,054	370,265	27 15 3	21 2 10	48 18 1
Denmark (a)	31/12/23	78,526	63,343	141,869	23 17 6	19 5 2	43 2 8
	31/12/12	41,954	33,940	75,894	14 19 8	12 2 5	27 2 1
France ..	31/12/26	425,105	425,247	850,352	10 16 10	10 16 11	21 13 9
	31/12/12	350,482	281,495	631,977	8 18 9	7 1 11	15 18 8
Germany (a)	31/12/25	611,765	431,275	1,043,040	9 15 8	6 17 11	16 13 7
	31/12/12	523,338	438,414	961,752	7 18 1	6 12 6	14 10 7
Italy ..	31/12/25	200,412	130,523	330,935	5 1 1	3 10 4	8 11 5
	31/12/12	149,113	97,536	246,649	4 5 2	2 15 8	7 0 10
Japan (a)	31/12/24	245,340	180,703	426,043	4 1 5	3 0 0	7 1 5
	31/12/12	66,007	57,972	123,979	1 5 3	1 2 2	2 7 5
Netherlands	31/12/23	173,061	112,435	285,496	23 19 10	15 11 9	39 11 7
	31/12/20	314,717	163,412	478,129	46 8 6	24 2 2	70 10 8
Norway ..	31/12/25	49,057	28,865	77,922	18 10 3	10 17 11	29 8 2
	31/12/12	28,756	13,147	46,903	11 15 9	7 8 10	19 4 7
Spain (a) ..	31/12/23	97,283	50,611	147,894	4 9 5	2 6 6	6 15 11
	31/12/12	42,089	41,826	83,915	2 2 9	2 6 6	4 5 3
Sweden (a) ..	31/12/24	37,338	77,312	164,650	14 10 10	12 17 6	27 8 4
	31/12/12	44,095	42,257	86,352	7 17 4	7 10 10	15 8 2
Switzerland	31/12/26	95,814	72,877	168,691	24 9 1	18 12 1	43 1 2
(a)	31/12/12	81,577	55,629	137,206	21 6 7	14 10 11	35 17 6

(a) Excluding Bullion and Specie.

(b) Includes Luxembourg.

§ 14. Trade of the United Kingdom with Australia compared with that of Competing Countries.

1. Proportion of Trade from United Kingdom and Competing Countries.—The failure of the United Kingdom to maintain the position formerly held in the import trade of Australia has been a matter of more than ordinary interest for some years. Since 1908 a permanent resident Commissioner appointed by the British Board of Trade has been established in Australia for the purpose of advising manufacturers and merchants in the United Kingdom with regard to Australian trade affairs. From the 8th August, 1907, the Commonwealth Customs Tariffs have provided special rates in favour of goods from the United Kingdom with the object of assisting the British manufacturer to retain or improve his position in this market.

In an investigation into the relative position, as compared with other countries, occupied by the United Kingdom in the import trade of Australia, the comparison must, of course, be restricted to those classes of goods which are produced or manufactured in the United Kingdom. The imports to Australia include many commodities, such as tea, rice, raw coffee, unmanufactured tobacco, petroleum products, copra, timber,

etc., which the United Kingdom could not supply. These items, in addition to others not available from that country, have, therefore, been omitted from the computation hereunder.

The imports into Australia have been classified under nine headings, and the trade of the United Kingdom therein is compared with that of France, Germany, Japan, and the United States. These countries have been selected as the principal competitors with the United Kingdom for the trade of Australia under the specified headings.

AUSTRALIAN IMPORTS.—PRODUCTS OF VARIOUS COUNTRIES, 1913 AND 1922-23 TO 1925-26.

Nature of Imports.	Year.	United Kingdom.	France.	Germany.	Japan.	U.S. of America.	All Countries.
		£	£	£	£	£	£
Foodstuffs of animal origin	1913 ..	801,025	3,093	12,071	6,988	289,229	947,697
	1922-23	835,022	4,074	200	9,052	346,090	1,770,241
	1923-24	453,861	3,364	274	9,872	306,164	2,204,883
	1924-25	467,833	3,564	870	16,615	387,610	1,978,092
	1925-26	470,491	4,606	1,408	35,294	564,388	2,473,756
Spirituuous and alcoholic liquors	1913 ..	1,227,561	343,394	143,426	1,689	2,805	1,947,248
	1922-23	1,585,244	177,597	490	160	66	1,864,738
	1923-24	1,752,607	222,626	1,712	10	2,778	2,102,219
	1924-25	1,791,001	206,955	9,667	13	391	2,177,281
	1925-26	1,940,827	192,123	8,997	20	66	2,297,738
Apparel, textiles, and manufactured fibres	1913 ..	12,254,561	961,025	1,712,395	475,073	623,542	19,935,750
	1922-23	31,015,472	1,702,098	54,482	2,928,768	2,432,296	44,570,027
	1923-24	24,979,055	2,310,817	271,909	2,657,125	2,011,387	38,482,446
	1924-25	26,782,623	2,345,401	561,080	3,225,081	1,605,269	42,372,272
	1925-26	23,386,529	2,016,927	678,253	3,358,478	2,135,120	39,055,392
Metals, metal manufactures and machinery	1913 ..	13,905,483	217,148	2,380,152	7,657	3,817,705	21,670,212
	1922-23	10,959,269	306,487	229,225	73,346	10,095,490	35,203,294
	1923-24	22,347,802	484,638	319,497	57,107	15,991,224	43,751,850
	1924-25	24,627,221	543,988	431,986	30,394	16,140,794	45,594,102
	1925-26	24,087,735	416,369	713,815	32,787	16,675,170	45,498,784
Paper and stationery	1913 ..	1,789,577	21,930	266,483	10,656	403,679	3,134,750
	1922-23	3,577,157	143,373	19,918	25,052	630,867	6,275,837
	1923-24	4,064,670	171,957	47,440	19,772	677,986	6,443,226
	1924-25	4,692,738	119,671	93,273	15,098	630,344	6,445,778
	1925-26	4,909,573	124,620	130,789	20,127	680,315	7,126,461
Jewellery, time-pieces, and fancy goods	1913 ..	521,290	88,070	263,688	19,307	138,217	1,442,292
	1922-23	1,003,207	165,016	53,236	142,477	261,561	2,055,779
	1923-24	959,693	155,293	134,257	102,149	314,763	2,477,695
	1924-25	1,002,094	151,159	281,042	91,037	247,056	2,648,680
	1925-26	944,715	123,911	364,426	111,415	248,173	2,746,403
Earthenware, cements, glass, etc.	1913 ..	650,138	40,245	453,188	21,493	62,887	1,565,727
	1922-23	1,311,817	20,090	10,882	221,253	155,720	2,205,799
	1923-24	1,462,533	17,438	32,062	181,736	219,969	2,441,288
	1924-25	1,529,768	32,334	73,824	147,195	193,359	2,529,697
	1925-26	1,423,191	21,997	107,953	156,026	210,396	2,455,818
Drugs, chemicals, and fertilizers	1913 ..	1,020,647	245,426	304,179	139,178	210,758	2,721,902
	1922-23	1,982,104	266,499	57,980	31,572	586,548	3,895,988
	1923-24	1,875,757	220,889	88,735	43,495	574,636	3,878,526
	1924-25	1,873,447	231,085	117,507	40,211	614,023	4,120,460
	1925-26	1,907,766	254,448	135,748	52,690	778,239	4,316,482
Rubber and leather and manufactures thereof and substitutes therefor	1913 ..	485,216	68,686	347,045	688	433,837	1,717,035
	1922-23	687,063	152,341	15,473	759	1,151,893	2,643,498
	1923-24	692,595	147,826	13,731	2,272	1,592,065	3,497,381
	1924-25	800,003	185,339	26,260	1,467	1,449,439	3,384,270
	1925-26	1,071,315	199,167	57,649	4,276	1,782,214	5,727,019
Total above-mentioned imports	1913 ..	32,155,408	1,989,017	5,882,627	683,629	5,982,659	55,082,613
	1922-23	61,656,955	2,937,565	441,888	3,439,439	15,660,531	100,835,201
	1923-24	58,558,573	3,734,848	909,047	3,073,538	21,690,972	105,279,514
	1924-25	63,566,728	3,819,496	1,596,109	3,567,111	21,268,285	111,650,632
	1925-26	60,142,142	3,354,168	2,199,038	3,771,113	23,074,081	111,697,853
Total imports (less bullion and specie)	1913 ..	40,948,803	2,222,631	7,029,325	950,300	10,907,512	78,196,109
	1922-23	68,390,489	3,231,197	593,636	3,936,150	24,850,931	131,727,011
	1923-24	63,599,700	4,101,137	1,368,894	3,557,834	34,556,516	140,550,501
	1924-25	69,041,054	4,216,457	2,259,691	4,146,234	33,106,262	146,600,489
	1925-26	65,824,179	3,758,529	2,821,789	4,372,083	37,233,485	151,217,425

**AUSTRALIAN IMPORTS.—PRODUCTS OF VARIOUS COUNTRIES.—PERCENTAGES,
1913 AND 1922-23 TO 1925-26.**

Nature of Imports.	Year.	United Kingdom.	France.	Germany.	Japan.	U.S. of America.	All Countries.
Foodstuffs of animal origin	{ 1913 ..	31.77	0.33	12.74	0.74	30.52	100
	{ 1922-23	18.93	0.23	0.01	0.51	19.55	100
	{ 1923-24	20.58	0.15	0.01	0.45	13.89	100
	{ 1924-25	23.65	0.18	0.04	0.84	19.60	100
	{ 1925-26	19.02	0.19	0.06	1.43	22.82	100
Spirituans and alcoholic liquors	{ 1913 ..	63.04	17.64	7.37	0.09	0.14	100
	{ 1922-23	85.02	9.52	0.03	0.01	0.00	100
	{ 1923-24	83.37	10.59	0.08	0.00	0.13	100
	{ 1924-25	82.26	9.51	0.44	0.00	0.02	100
	{ 1925-26	84.47	8.36	0.39	0.00	0.00	100
Apparel, textiles, and manufactured fibres	{ 1913 ..	61.48	4.82	8.59	2.39	3.13	100
	{ 1922-23	69.59	3.82	0.12	6.57	5.46	100
	{ 1923-24	64.91	6.00	0.71	6.90	5.23	100
	{ 1924-25	63.20	5.54	1.32	7.61	3.79	100
	{ 1925-26	59.88	5.16	1.74	8.60	5.47	100
Metals, metal manufactures, and machinery	{ 1913 ..	64.17	1.00	10.98	0.04	17.62	100
	{ 1922-23	57.26	0.87	0.65	0.21	28.68	100
	{ 1923-24	51.08	1.11	0.73	0.13	36.55	100
	{ 1924-25	54.01	1.19	0.95	0.07	35.40	100
	{ 1925-26	52.94	0.92	1.57	0.07	36.65	100
Paper and stationery	{ 1913 ..	57.41	0.70	8.50	0.34	12.88	100
	{ 1922-23	57.00	2.28	0.32	0.40	10.05	100
	{ 1923-24	63.08	2.67	0.74	0.31	10.52	100
	{ 1924-25	68.53	1.75	1.36	0.22	9.21	100
	{ 1925-26	68.89	1.75	1.84	0.28	9.55	100
Jewellery, time-pieces, and fancy goods	{ 1913 ..	36.14	6.11	18.28	1.34	9.58	100
	{ 1922-23	41.70	6.86	2.21	6.21	10.87	100
	{ 1923-24	38.74	6.27	5.42	4.12	12.70	100
	{ 1924-25	37.83	5.71	10.63	3.44	9.33	100
	{ 1925-26	34.40	4.51	13.26	4.06	9.04	100
Earthenware, cements, glass, etc.	{ 1913 ..	41.52	2.57	23.04	1.37	4.02	100
	{ 1922-23	59.47	0.91	0.49	10.03	7.06	100
	{ 1923-24	59.91	0.71	1.31	7.45	9.01	100
	{ 1924-25	60.47	1.28	2.92	5.82	7.64	100
	{ 1925-26	57.95	0.90	4.40	6.35	8.57	100
Drugs, chemicals, and fertilizers	{ 1913 ..	37.49	9.02	11.18	5.11	7.74	100
	{ 1922-23	50.88	6.84	1.49	0.81	15.06	100
	{ 1923-24	48.36	5.70	2.29	1.12	14.82	100
	{ 1924-25	45.47	5.61	2.85	0.98	14.90	100
	{ 1925-26	44.20	5.89	3.14	1.22	18.03	100
Rubber and leather and manufactures thereof, and substitutes therefor	{ 1913 ..	28.26	4.00	20.21	0.04	25.27	100
	{ 1922-23	26.01	5.76	0.59	0.03	43.57	100
	{ 1923-24	19.80	4.23	0.39	0.06	45.52	100
	{ 1924-25	23.64	5.48	0.78	0.04	42.83	100
	{ 1925-26a	18.71	3.48	1.01	0.07	31.12	100
Total above-men-tioned articles	{ 1913 ..	59.38	3.61	10.68	1.24	10.86	100
	{ 1922-23	61.15	2.91	0.44	3.41	15.53	100
	{ 1923-24	55.65	3.55	0.86	2.92	20.60	100
	{ 1924-25	56.93	3.42	1.43	3.20	19.05	100
	{ 1925-26	53.84	3.00	1.97	3.38	20.66	100
Total imports (less bullion and specie)	{ 1913 ..	52.37	2.84	8.99	1.22	13.95	100
	{ 1922-23	51.92	2.45	0.45	2.99	18.87	100
	{ 1923-24	45.25	2.92	0.97	2.53	24.59	100
	{ 1924-25	47.09	2.88	1.54	2.83	22.58	100
	{ 1925-26	43.53	2.49	1.87	2.89	24.62	100

(a) The proportion of crude rubber in this group was unusually large in this year.

The total value of the commodities included in the competitive classes increased from £55,082,613 during 1913 to £111,697,853 during 1925-26. The two classes of goods which bulked largely in these totals were—(a) metals, metal manufactures and machinery, and (b) apparel, attire, and manufactured fibres. The value of goods included in these two groups represented 76 per cent. of the total value of competitive commodities during 1925-26.

Of the total value of competitive goods the United Kingdom supplied 53.84 per cent. during 1925-26 as against 58.38 per cent. during 1913 and 61.15 per cent. during 1922-23. In seven of the nine competitive groups of imports, the proportion supplied by the United Kingdom decreased during 1925-26 as compared with the previous year. The two groups which showed increased proportions were—spirituous and alcoholic liquors, and paper and stationery. The United Kingdom supplied Australia during 1925-26 with 84.47 per cent. of the total overseas purchases of spirituous and alcoholic liquors; 59.88 per cent. of apparel and attire; 68.89 per cent. of paper and stationery; 57.95 per cent. of earthenware, glassware, etc.; and 52.94 per cent. of metal manufactures and machinery.

The share of Japan in the competitive trade increased from 1.24 per cent. in 1913 to 3.41 per cent. in 1922-23, but fell to 3.38 per cent. in 1925-26. The classes of goods chiefly imported from Japan are as follows: Apparel and textiles, metal manufactures and machinery, china and porcelain ware, earthenware, glass and glassware, paper and stationery, and fancy goods.

The position of the United States in this competitive trade has improved from 10.86 per cent. in 1913 to 20.66 per cent. in 1925-26, a figure slightly higher than in 1924-25, when it represented 19.05 per cent. In the latest pre-war year (1913), the value of goods from the United States in the "competitive" groups was £5,982,659, whereas in 1925-26 it was £23,074,081. The following are the principal groups of commodities in which United States sales to Australia during 1925-26 were increased over those of 1913:—Apparel and textiles, manufactured metals and machinery (including motor cars, chassis, etc.), and rubber and manufactures thereof.

The position of France declined from 3.61 per cent. in 1913 to 3.00 per cent. in 1925-26. The proportion supplied by France has, however, not varied greatly, as the imports during the five years under review have represented about 3 per cent. of the competitive trade.

The proportion of the imports supplied by Germany in 1913 was 10.68 per cent. as compared with 58.38 per cent. from the United Kingdom; 3.61 per cent. from France; 1.24 per cent. from Japan; and 10.86 per cent. from the United States. The corresponding figures for the year 1925-26 were:—Germany, 1.97 per cent.; United Kingdom, 53.84 per cent.; France, 3.00 per cent.; Japan, 3.38 per cent.; and the United States, 20.66 per cent.

From the foregoing it will be seen that the more prominent position held by the United States of America and by Japan in the Australian import market during the past three years was not altogether at the expense of the United Kingdom, but represented a substitution of the trade formerly supplied by Germany.

Comparing the percentages of imports from each country during the period 1922-23 to 1925-26 it will be noticed that the proportions supplied by the United States, France and Germany increased, while those from Japan and the United Kingdom decreased.

2. Preferential Tariffs.—The Commonwealth Tariff Act of 1908 provided Preferential Tariff rates in favour of goods produced or manufactured in the United Kingdom. Subsequent amendments of the Tariff have extended the list of articles to which the preferential rates apply. This favourable treatment of the United Kingdom was again extended by Customs Tariff 1921 (No. 25 of 1921) and when this Act was incorporated in Customs Tariff 1921-1926 further concessions were granted.

On the introduction of the preferential treatment of British goods by the Commonwealth Tariff, it was required that British material or labour should represent not less than one-fourth the value of such goods. From the 1st September, 1911, it was required in regard to goods only partially manufactured in the United Kingdom, that the final process or processes of manufacture should have been performed in the United Kingdom and that the expenditure on material of British production and/or British labour should have been not less than one-fourth of the factory or works cost of the goods in the finished state. These conditions were superseded during the year 1925.

Important alterations in the conditions governing the entry of goods into the Commonwealth under the British Preferential Tariff were made during 1925. The amended conditions apply in regard to goods which are invoiced to Australia on and after 1st April, 1925.

Under the new conditions Preference is granted in the Commonwealth as follows :—

- (a) To goods which are wholly produced or wholly manufactured in the United Kingdom.

As to manufactured goods, these will only be considered "wholly manufactured in the United Kingdom" if in the raw materials used and in the finished goods no manufacturing process has been performed outside the United Kingdom which is being commercially performed in the United Kingdom.

The Minister shall determine what are to be regarded as raw materials, and in such determination may include partially manufactured Australian materials.

- (b) To goods, not wholly produced or wholly manufactured in the United Kingdom in the terms of paragraph (a), provided they contain at least 75 per cent. of United Kingdom labour and/or material in their factory or works cost.
- (c) Notwithstanding anything contained in the preceding paragraphs, to goods of a class or kind not commercially manufactured in Australia provided they contain at least 25 per cent. of United Kingdom labour and/or material in their factory or works cost.
- (d) It is essential in every case that the final process or processes of manufacture shall take place in the United Kingdom, and that the goods are consigned therefrom direct to Australia.

It is also provided that the conditions of preference set out above shall apply (in addition to goods from the United Kingdom) to goods, claiming preference, shipped from any country to which the Commonwealth of Australia has extended Tariff Preference, whether the rates granted be those of the "British Preferential Tariff," the "Intermediate Tariff," or special rates.

On the basis of the imports during 1913, the preferential provisions of the Tariff of 1908–11 covered 65 per cent. of the imports of merchandise of United Kingdom origin, the margin of preference being equal to 5 per cent. of the value of the goods. On the same basis the Tariff of 1921–26 has extended the application of the Preferential Tariff rates to 95 per cent. of the imports from the United Kingdom, and, at the same time, has increased the margin of preference to 12.9 per cent. *ad valorem*. The average equivalent *ad valorem* rate of duty payable under the Tariff of 1921–1926 on goods of United Kingdom origin is about 31 per cent., whereas the same goods under the General Tariff rates would be called upon to pay an average rate of about 44 per cent.

An application of the Tariff of 1921–26 to the imports from the United Kingdom entered for home consumption during the year 1925–26 shows that the value of the goods of United Kingdom origin which participated in the preferential provisions of the Tariff was £61,833,127, upon which duty to the amount of £10,324,236 was collected. Under the General Tariff the same goods would have been required to pay £18,305,408 duty. Thus, had the conditions of the General Tariff operated on these goods £7,981,172 additional duty would have been paid, representing an average of 12.9 per cent. on the value of the goods.

Of the £61,833,127 worth of goods mentioned above, £28,664,602 were "free," while the same goods if they had been imported from Other Countries would have paid duty to the amount of £3,589,154, representing an average *ad valorem* rate of 12.5 per cent.

The value of goods from countries other than the United Kingdom which were adversely affected by the preferential provisions of the Tariff amounted to £56,339,279, and the duty collected thereon was £15,382,880, or £6,051,684 more than would have been paid under the British Preference Tariff Rates.

3. Reciprocal Tariffs.—(i) *General*. The Tariff Act of 1921 introduced a new feature into Australian Tariffs in the form of an Intermediate Tariff. In submitting the schedule to Parliament, the Minister for Trade and Customs made the following statement of the object of the Intermediate Tariff:—" . . . the Minister is empowered under the Bill to enter into reciprocal arrangements with other Dominions of the British Crown. The Minister will be able, if we can arrange a satisfactory reciprocal agreement, to extend to other Dominions on individual items the British preference rate, or the intermediate rate, or, it may be, the general rate. Such agreements will be subject to the ratification of Parliament. The provision simply means that if any of our sister self-governing Dominions desires to enter into reciprocal trade relationships with us, the Minister, with the British Preference Tariff, the Intermediate Tariff, and the General

Tariff before him, may bargain with the sister Dominion and come to an agreement which, as I say, must subsequently be ratified by Parliament. . . . There is a provision of a somewhat similar character in regard to other countries than the Dominions, the only difference being that the Minister is empowered to extend to countries other than the Dominions only the Intermediate Tariff; that is to say, in entering into such negotiations, he is precluded from offering to those countries what we might term, for the purposes of this Bill, the Empire rate. He is confined in his negotiations with these other countries to the Intermediate Tariff."

(ii) *Union of South Africa.* Until 1922, the Union of South Africa was the only British Dominion with which Australia had a reciprocal Tariff arrangement. The Commonwealth Customs Tariff (South African Preference) Act, No. 17 of 1906 and subsequent amending Acts provided preferential rates of duty to be applied to certain imported goods "when those goods are imported from and are the produce or manufacture of any of the British South African Colonies or Protectorates which are included within the South African Customs Union."

The Customs Tariff (South African Preference) 1906 was repealed by the Customs Tariff, 1926. The repeal came into operation on the 1st July, 1926, at nine o'clock in the forenoon, and thereafter the provisions of the Customs Tariff 1921-1926 applied in relation to goods imported from South Africa which are entered for home consumption after that time.

(iii) *Dominion of New Zealand.* On the 11th April, 1922, an agreement was made between the Commonwealth of Australia and the Dominion of New Zealand whereby goods specified in the schedule attached to the agreement should be admitted at the rates of duty set out in the schedule. In addition to the goods specially mentioned in the schedule, it is provided that "all other goods being the produce or manufacture of Australia or New Zealand shall be dutiable at the rates applicable to goods being the produce or manufacture of the United Kingdom, upon entry into New Zealand or Australia respectively." This agreement was ratified by the Commonwealth Parliament by the Customs Tariff (New Zealand Preference) 1922, and, by Proclamation dated 24th August, 1922, came into operation on the 1st September, 1922. A variation of the original agreement was ratified by the Customs Tariff (New Zealand Preference) No. 38 of 1926. In section 2, "Commonwealth Legislation affecting Oversea Trade" of this chapter, the full text of the variation of the agreement is given.

(iv) *Dominion of Canada.* The negotiations for a reciprocal trade treaty between Canada and Australia reached finality during September, 1925, and a reciprocal Tariff agreement between the two countries is now in operation. The commodities on which Canada grants preferential rates of duty to Australia are:—Beeswax, butter, brandy, champagne, cheese, currants, eggs, eucalyptus oil, fruits (dried, fresh, and pulped), fruits in cans, glue, honey, lard, meat (fresh and canned), onions, raisins, sugar, tallow, vegetables in tins, and wine. Australia's preferential duties will apply to the following Canadian imports:—Cash registers, corsets, fish, gloves, goloshes and rubber sand boots, etc., iron and steel tubes or pipes, printing machinery, paper (printing, typewriting and writing), typewriters, and vehicles, viz., motor chassis (unassembled and assembled), and vehicle parts, including undergear, axles, springs, hoods, wheels and bodies.

(v) *Papua and New Guinea.* Customs Tariff (Papua and New Guinea) Preference 1926 provides for Customs Preference on goods the produce of Papua and on goods the produce of the Territory of New Guinea. Imports into Australia, direct from the Territory of Papua or the Territory of New Guinea, of such of the goods specified in the schedule to the Act as were produced in the Territory from which they were imported, shall, notwithstanding anything contained in the Customs Tariff 1921-1924, be free of duty. The goods specified in the schedule are coffee, dried fruit, viz., litchi, fresh fruits (various local fruits), edible fungi, green ginger, coco-nuts and kapok and sesame seeds.

4. *Preferential Tariff of the United Kingdom.*—The post-war Tariff of the United Kingdom provides Preferential Customs rates on certain goods where they are shown to the satisfaction of the Commissioners of Customs and Excise to have been consigned from and grown, produced, or manufactured in the British Empire. Manufactured articles generally are not entitled to the preferential rates unless 25 per cent. of their

value is the result of labour within the British Empire. The principal items of interest to Australia which are accorded preferential treatment under the Tariff of the United Kingdom are :—Fruits, dried and preserved ; jam ; fruit pulp ; preserved milk ; wine ; and brandy.

The question of Tariff Preference was discussed at the Imperial Economic Conference held in 1923, when the following resolution was adopted :—

“ This Imperial Economic Conference, holding that, especially in present circumstances, all possible means should be taken to develop the resources of the Empire and trade between the Empire Countries, desires to affirm the resolution on the subject of Imperial Preference passed by the Imperial War Conference of 1917.”

The resolution was agreed to by all delegates, including the representative from Great Britain. The British Ministry in power at the time was prepared to grant certain increased preferences, but stipulated that their proposals could not go beyond the established fiscal system.

Before the proposals could be submitted to the British Parliament the Ministry in power at the date of conference was defeated. The new Prime Minister (Mr. Ramsay MacDonald) announced, however, that the Imperial Preference resolutions of the Imperial Economic Conference would be discussed in the House of Commons during June, 1924, and that the debate would be unfettered and the votes on non-party lines. The proposals duly came before Parliament, and as a result of the debate on Imperial Preference, the first four resolutions, which proposed Imperial Preference without imposing any new charge upon the foreigner, were defeated by small majorities. The other six resolutions, of which notice had been given, were then withdrawn.

After the election of October, 1924, a new Ministry, with Mr. Stanley Baldwin as Prime Minister, came into office and, in the Budget submitted to the House of Commons during June, 1925, clauses dealing with increased Imperial preference on Empire-grown tobacco, preserved and dried fruits, jams and jellies, spirits, wine, sugar, and hops were proposed and adopted. The new rates of duty took effect on 1st July, 1925, excepting that relating to hops, which came into operation on 16th August, 1925.

Particulars of the imports into the United Kingdom of the quantities of Australian produce of the above commodities during the twelve months since the introduction of the new preferential rates will not be available for some time, therefore it is not possible to compute the actual effect of the concessions.

On the basis of the quantities of dried fruits, spirits, wine, sugar, canned fruits and jams and jellies imported into the United Kingdom from Australia during the year 1925, as shown in the Annual Statement of the Trade of the United Kingdom, it is estimated that £571,000 additional duty would have been collected if the same quantities of goods had been dutiable under the rates applicable to imports from foreign countries.

§ 15. Commonwealth Trade Representation in Overseas Countries.

The Commonwealth is represented in the United Kingdom by the High Commissioner for Australia (Maj.-Gen. Hon. Sir G. de L. Ryrie, K.C.M.G., C.B., V.D.), with headquarters at Australia House, London. Oversea trade matters affecting Australia come within the scope of the duties attaching to the office of High Commissioner.

The Commonwealth has a Trade Representative in France, with headquarters at Paris. This official is attached to the High Commissioner's office, London.

The first appointment of a Commissioner for Australia in the United States of America was made in 1918. The present Commissioner, Sir Hugh Denison, was appointed on 7th October, 1926, with headquarters at New York. Oversea trade matters affecting Australia come within the scope of the duties attaching to the office of Commissioner in United States of America.

Early in 1921 a Commonwealth Trade Commissioner was appointed in China, with offices at Shanghai and Hong Kong. This office was terminated in 1923. In 1922, an Australian Trade Representative in the East was appointed, with headquarters at Singapore, but the appointment was terminated in March, 1925.

CHAPTER VII.

TRANSPORT AND COMMUNICATION.

A. SHIPPING.

§ 1. System of Record.

So far as oversea vessels are concerned the system of record treats Australia as a unit, and counts, therefore, only one entry and one clearance for each voyage, without regard to the number of States visited.

On the arrival at, or departure from, a port in Australia, whether from or for an oversea country or from another port in Australia, the master or agent must "enter" the vessel with the Customs authorities at the port, and supply certain prescribed information in regard to the ship, passengers, and cargo. At the end of each month the information so obtained is entered on forms which are forwarded to the Commonwealth Bureau of Census and Statistics. These forms, which collectively provide a complete record of the movements of every vessel in Australian waters, furnish the material for the compilation of the Shipping and Migration Returns. The arrangement referred to has been in operation since the 1st July, 1924.

From the 1st July, 1914, the statistical year for the record of Trade and Shipping of Australia was altered from the calendar year to the fiscal year ending 30th June.

In all instances the tonnage quoted is net tonnage.

§ 2. Oversea Shipping.

1. **Total Movement.**—The following table gives the number and tonnage of oversea steam and sailing vessels entering Australian ports during the years 1921–22 to 1925–26 :—

TOTAL OVERSEA SHIPPING, ENTERED.—AUSTRALIA, 1921-22 TO 1925-26.

Year.	Steam.		Sailing.		Total.	
	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.
1921-22	1,429	4,466,655	138	93,726	1,567	4,560,381
1922-23	1,341	4,599,021	148	138,833	1,489	4,737,854
1923-24	1,437	4,808,129	109	103,007	1,546	4,911,136
1924-25	1,675	5,535,871	51	60,529	1,726	5,596,400
1925-26	1,537	5,245,222	46	58,583	1,583	5,303,805

The average tonnage of vessels entered has risen from 2,910 tons per vessel in 1921–22 to 3,350 tons in 1925–26.

Particulars regarding the total oversea movement of shipping for each year from 1822 to 1920–21 will be found in Official Year Book No. 15, p. 507.

2. **Comparison with other Countries.**—The place of Australia among various countries in regard to oversea shipping is indicated in the following table, which gives the latest available figures for total tonnage and tonnage per head of population.

OVERSEA SHIPPING.—VARIOUS COUNTRIES.

Country.	Calendar Year.	Tonnage Entered and Cleared.	
		Total. '000 omitted.	Per Inhabitant.
Australia	1926(a)	10,679	1.78
Belgium	1925	47,150	6.04
Brazil	1924	66,375	2.17
Canada	1926	40,981(c)	4.31
France	1925	81,888(b)	2.09
Germany	1925	64,656	1.02
Great Britain	1925	169,308	3.72
India	1925	17,136	0.05
Japan	1925	86,098	1.03
Netherlands	1925	54,432	7.34
New Zealand	1925	4,262	3.04
Norway	1925	12,703	4.79
Spain	1925	52,563	2.38
Sweden	1925	26,786	4.42
Union of South Africa	1926	12,742	1.69
United States	1926	139,695(c)	1.19

(a) To 30th June. (b) With cargoes only. (c) Exclusive of vessels trading on lakes and rivers between Canada and the United States.

3. Shipping Communication with various Countries.—In view of the defects in records purporting to show vessels and tonnage for particular countries (as pointed out on p. 265 of Official Year Book No. 17) it has been decided to restrict the statistics relating to the direction of shipping to and from Australia to the following tables in which countries situated on the main trade routes have been grouped. The grouping into larger geographical divisions to some extent avoids the limitations referred to, except in the case of Africa owing to its geographical situation as a place of call for vessels proceeding to or from other ports.

OVERSEA SHIPPING, AUSTRALIA.—DIRECTION, 1921-22 TO 1925-26.

Countries.	Cargo and Ballast.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
TONNAGE ENTERED.						
United Kingdom and European Countries	Cargo	1,333,469	1,926,907	1,769,446	1,797,322	1,815,268
	Ballast	204,680	72,819	23,690	186,256	21,444
New Zealand	Cargo	421,365	392,526	500,001	459,252	507,238
	Ballast	213,347	167,187	401,959	383,706	256,003
Asiatic Countries and Islands in the Pacific	Cargo	686,886	821,036	893,179	1,002,634	1,090,062
	Ballast	794,175	279,043	188,762	390,300	210,196
Africa	Cargo	36,170	32,025	25,036	26,709	23,070
	Ballast	215,841	122,660	24,015	145,216	66,494
North and Central America	Cargo	629,688	911,026	1,059,229	1,133,091	1,283,073
	Ballast	15,940	2,944	5,403	17,285	..
South America	Cargo	1,179	5,470	12,039	13,895	10,373
	Ballast	7,641	4,211	8,377	25,784	20,584
	Cargo	3,108,757	4,088,990	4,258,930	4,437,903	4,729,084
	Ballast	1,451,624	648,864	652,206	1,158,497	574,721
Total		4,560,381	4,737,854	4,911,136	5,596,400	5,303,805

TONNAGE CLEARED.

United Kingdom and European Countries	Cargo	1,819,444	2,193,528	2,127,662	2,786,002	2,344,201
	Ballast	13,951	11,776	13,699	8,097	17,590
New Zealand	Cargo	542,805	518,972	792,565	768,623	678,616
	Ballast	43,140	49,097	61,943	59,349	57,710
Asiatic Countries and Islands in the Pacific	Cargo	1,116,430	922,243	1,066,807	1,033,553	1,120,019
	Ballast	27,644	100,832	193,982	224,522	273,054
Africa	Cargo	581,359	121,175	105,127	174,697	154,250
	Ballast	..	..	3,558	14,020	3,418
North and Central America	Cargo	345,817	436,800	443,864	408,476	492,088
	Ballast	3,483	35,011	75,201	58,762	162,008
South America	Cargo	26,759	89,816	118,525	64,433	58,090
	Ballast	..	23,675	8,745	3,583	3,840
	Cargo	4,432,674	4,282,534	4,654,550	5,235,786	4,847,264
	Ballast	88,223	220,391	357,128	368,333	517,620
Total		4,520,897	4,502,925	5,011,678	5,604,119	5,364,884

4. *Nationality of Oversea Shipping.*—(i) *General.* The greater part of the shipping visiting Australia is of British nationality, though in 1925-26 the proportion of British tonnage, 75.14 per cent., was the lowest recorded since 1920-21, in which year the percentage was 69.69 per cent.

Particulars of the nationality of oversea shipping for the last five years are given in the following table:—

OVERSEA SHIPPING, AUSTRALIA.—NATIONALITY OF VESSELS ENTERED,
1921-22 TO 1925-26.

Nationality.	Tonnage.				
	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
BRITISH—					
Australian	589,175	645,867	486,170	424,634	381,178
United Kingdom ..	2,802,487	2,754,316	2,939,210	3,209,865	2,967,317
Canadian	88,526	110,095	95,655	70,165	63,091
New Zealand	103,471	66,521	307,928	488,481	492,255
Other British	54,464	72,438	55,302	62,772	76,226
Cargo	2,568,236	3,226,702	3,342,994	3,418,124	3,549,627
Ballast	1,069,887	422,535	541,271	837,793	435,440
Total British	3,638,123	3,649,237	3,884,265	4,255,917	3,985,067
Per cent. on total ..	79.78	77.02	79.09	76.05	75.14
FOREIGN—					
Danish	28,416	39,394	54,161	43,311	85,152
Dutch	134,662	141,264	138,716	162,385	124,824
French	69,033	114,102	84,701	104,312	109,417
German .. ..	..	44,666	44,354	81,213	76,650
Italian	105,159	50,608	61,312	115,931	62,046
Japanese	218,564	243,935	143,954	297,657	246,193
Norwegian	123,218	148,873	173,311	219,258	264,037
Swedish	65,971	82,230	90,641	86,704	96,625
United States	139,686	194,180	191,938	186,089	205,391
Other Foreign	37,549	29,365	43,783	43,623	48,403
Cargo	540,521	862,288	915,936	1,019,779	1,179,457
Ballast	381,737	226,329	110,935	320,704	139,281
Total Foreign	922,258	1,088,617	1,026,871	1,340,483	1,318,738
Per cent. on total ..	20.22	22.98	20.91	23.95	24.86
Cargo	3,108,757	4,088,990	4,258,930	4,437,903	4,729,084
Per cent. on total ..	68.17	86.30	86.72	79.30	89.16
Ballast	1,451,624	648,864	652,206	1,158,497	574,721
Per cent. on total ..	31.83	13.70	13.28	20.70	10.84
Grand Total	4,560,381	4,737,854	4,911,136	5,596,400	5,303,805

The Australian tonnage which entered Australia from overseas during the year 1925-26 represented 7.19 per cent. of the total tonnage entered. This figure was less than the average for the quinquennium, which was 10.06 per cent., the decrease being due mainly to the disposal of vessels owned by the Commonwealth Government to foreign or other Australian owners. In the latter instance, the purchasers generally are using the vessels in the interstate trade.

(ii) *Proportion of British and Foreign with Cargo.* (a) *Tonnage of Vessels.* The relative proportions of British and foreign tonnage which entered Australia with cargo during the last five years are given in the next table. These figures may be considered to indicate more accurately the proportion of the actual carrying trade done than does the total tonnage.

**OVERSEA SHIPPING, AUSTRALIA.—PERCENTAGE BRITISH AND FOREIGN
ENTERED WITH CARGO, 1921-22 TO 1925-26.**

Nationality.				1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
British	..	..	..	82.61	78.91	78.49	77.02	75.06
Foreign	..	..	..	17.39	21.09	21.51	22.98	24.94
Total	..	..	..	100.00	100.00	100.00	100.00	100.00

During the period under review the average annual proportion of foreign tonnage entering with cargo was 21.91 per cent.

(b) *Tonnage of Cargo.* In Transport and Communication Bulletin, No. 18 (p. 36) published by this Bureau, a statement is given of the tonnage of oversea cargo discharged and shipped during the year 1925-26 according to the nationalities of the vessels engaged in the carrying trade.

While the tonnage of British vessels entering with cargo represented 75.06 per cent. of the total, the amount of cargo discharged from such vessels was 72.63 per cent. The foreign country which had the largest amount of shipping tonnage engaged with Australia during the year 1925-26 was Norway, its vessels contributing 4.78 per cent. of the total tonnage entered with cargo and 6.75 per cent. of the total cargo discharged and 4.91 per cent. of the cargo shipped.

(iii) *Principal Foreign Countries Engaged.* The following table shows the tonnage entered and cleared in connexion with the principal foreign countries engaged in the oversea carrying trade of Australia :—

OVERSEA SHIPPING, AUSTRALIA.—FOREIGN TONNAGE, 1925-26.

Countries.	Nationality.							
	Japanese.		French.		United States.		Dutch.	
	Entered.	Cleared.	Entered.	Cleared.	Entered.	Cleared.	Entered.	Cleared.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
EUROPEAN COUNTRIES—								
United Kingdom	..	4,227	..	4,344	..	..	..	8,545
France	..	..	39,395	31,879	..	..	..	4,542
Other European Countries	..	..	..	6,093	..	..	55,076	60,694
ASIATIC COUNTRIES AND IS-								
LANDS IN THE PACIFIC—								
Netherlands East Indies	..	4,044	..	..	6,841	10,423	17,637	11,978
Japan	178,602	224,687	..	..	..	..	..	..
Straits Settlements	2,762	..	..	..	3,430	..	18,907	44,624
Other Asiatic Countries	5,819	12,371	..	1,109	..	7,046	30,415	..
New Zealand	..	3,075	3,202	..	..	..	..	3,379
New Caledonia	..	..	56,705	41,187	..	..	..	..
Other Pacific Islands	2,719	..	10,115	4,335	..	..	..	..
AFRICAN COUNTRIES	..	..	..	3,202	..	3,522	..	..
NORTH AMERICAN COUN-								
TRIES—								
United States	56,291	3,793	..	..	191,591	193,822	..	..
Canada	..	..	..	..	3,529	4,913	2,789	..
SOUTH AMERICAN COUN-								
TRIES	..	..	..	..	..	5,686	..	..
With Cargo	203,093	236,093	92,564	91,040	205,391	184,725	119,800	127,005
In Ballast	43,100	16,104	16,853	1,109	..	40,687	5,024	6,757
Total	246,193	252,197	109,417	92,149	205,391	225,412	124,824	133,762

The largest proportion of the foreign tonnage entered is employed between its home ports or the colonies of its own country and Australia, e.g., French shipping is engaged chiefly between Australia, France and New Caledonia, while Dutch ships are employed almost entirely between Australia and the Netherlands, the Netherlands East Indies, or Straits Settlements. The bulk of the Japanese tonnage was recorded as entering from and clearing for Japan, although there was increased activity recorded in carrying cargoes from the United States of America.

(iv) *Nationality of Steam and Sailing Tonnage.* A further analysis is appended, distinguishing between steam and sailing vessels of British and foreign nationality which entered Australia during the years 1921-22 to 1925-26.

OVERSEA SHIPPING, AUSTRALIA.—NATIONALITY OF STEAM AND SAILING VESSELS ENTERED, 1921-22 TO 1925-26.

Description and Nationality of Vessels.	1921-22.		1922-23.		1923-24.		1924-25.		1925-26.	
	Ton-nage.	Per-cent-age.	Ton-nage.	Per-cent-age.	Ton-nage.	Per-cent-age.	Ton-nage.	Per-cent-age.	Ton-nage.	Per-cent-age.
Steam—										
British ..	3,597,388	81	3,634,411	79	3,866,900	80	4,242,511	77	3,972,307	76
Foreign ..	869,267	19	964,610	21	941,229	20	1,293,360	23	1,272,915	24
Total Steam	4,466,655	100 (98)	4,599,021	100 (97)	4,808,129	100 (98)	5,535,871	100 (99)	5,245,222	100 (99)
Sailing—										
British ..	40,735	43	14,826	11	17,365	17	13,406	22	12,760	22
Foreign ..	52,991	57	124,007	89	85,642	83	47,123	78	45,823	78
Total Sailing	93,726	100 (2)	138,833	100 (3)	103,007	100 (2)	60,529	100 (1)	58,583	100 (1)
Steam and Sailing—										
British ..	3,638,123	80	3,649,237	77	3,884,265	79	4,255,917	76	3,985,067	75
Foreign ..	922,258	20	1,088,617	23	1,026,871	21	1,340,483	24	1,318,738	25
Total	4,560,381	100	4,737,854	100	4,911,136	100	5,596,400	100	5,303,805	100

As might naturally be expected there was a considerable decline in the figures for sailing tonnage during the period under review.

5. *Tonnage in Ballast.*—(i) *Total and Percentage by Nationality.* The following table shows the tonnage according to nationality of oversea vessels which entered and cleared Australia in ballast during the years 1921-22 to 1925-26 :—

OVERSEA SHIPPING, AUSTRALIA.—TONNAGE IN BALLAST, 1921-22 TO 1925-26.

Year.	Entered.			Cleared.		
	British.	Foreign.	Total.	British.	Foreign.	Total.
TOTAL TONNAGE.						
1921-22 ..	1,069,887	381,737	1,451,624	79,377	8,846	88,223
1922-23 ..	422,535	226,329	648,864	155,605	64,786	220,391
1923-24 ..	541,271	110,935	652,206	254,069	103,059	357,128
1924-25 ..	837,793	320,704	1,158,497	164,972	203,361	368,333
1925-26 ..	435,440	139,281	574,721	309,398	208,222	517,620
PERCENTAGE.						
1921-22 ..	29.41	41.39	31.83	2.22	0.93	1.95
1922-23 ..	11.58	20.79	13.70	4.49	6.23	4.89
1923-24 ..	13.93	10.80	13.28	6.48	9.45	7.13
1924-25 ..	19.68	23.92	20.70	4.41	10.93	6.57
1925-26 ..	9.15	10.66	10.84	7.63	3.88	9.64

(ii) *Tonnage entered in Ballast—States.* The tonnage which entered each State in ballast during 1925–26 was as follows :—

OVERSEA TONNAGE IN BALLAST ENTERING STATES, 1925-26.

State.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N. Ter.	Total.
Tonnage ..	265,609	33,049	18,510	118,188	125,969	8,264	5,132	574,721
Percentage on total ..	46.22	5.75	3.22	20.56	21.92	1.44	0.89	100.00

In normal times the large exports of coal from New South Wales afford special inducements to vessels in search of freights. The tonnage in ballast into New South Wales is mainly for coal cargo, into Victoria for wheat, into South Australia for wheat and ore, and into Western Australia for timber and wheat.

§ 3. Shipping of Ports.

1. *Tonnage Entered.*—The total shipping tonnage—oversea, interstate, and coast-wise—which entered the more important ports of Australia during the year 1925–26, together with similar information in regard to some of the ports of New Zealand for the year 1925 and of Great Britain for the year 1925—will be found in the next table :—

SHIPPING OF PORTS, AUSTRALIA, NEW ZEALAND, AND THE UNITED KINGDOM.

Port.	Tonnage Entered.	Port.	Tonnage Entered.
AUSTRALIA—		ENGLAND AND WALES—	
Sydney	8,717,770	London	23,590,931
Melbourne	6,653,850	Liverpool (inc. Birkenhead)	15,849,019
Newcastle	4,619,103	Southampton	10,417,994
Adelaide	4,112,367	Tyne Ports	9,013,247
Brisbane	3,044,334	Cardiff	8,466,441
Fremantle	2,884,858	Hull	5,556,609
Townsville	1,050,463	Plymouth	5,287,786
Hobart	762,845	Swansea	3,714,534
Pirie	746,791	Manchester (inc. Runcorn)	3,627,716
Kembla	659,303	Newport	3,318,952
Geelong	596,787	Bristol	3,290,229
Cairns	585,952	Middlesbrough	2,959,626
Albany	488,651	Sunderland	2,896,548
Mackay	430,016	Grimsby (inc. Immingham)	2,619,980
Launceston	382,448	Blyth	2,142,868
Burnie	361,111	Beaumaris (inc. Holyhead)	1,988,702
Thursday Island	328,895	Dover	1,951,939
Bunbury	322,141	Falmouth	1,545,441
Devonport	306,622		
Wallaroo	301,399	SCOTLAND—	
Rockhampton	274,220	Glasgow	6,052,396
Bowen	204,718	Leith	2,272,112
NEW ZEALAND—			
Wellington	3,197,673	NORTHERN IRELAND—	
Auckland	2,376,778	Belfast	4,185,556
Lytelton	1,918,477		
Otago	1,002,085		

Transport and Communication Bulletin No. 18 gives more detailed information regarding the shipping entered at Australian ports.

§ 4. Vessels Built and Registered.

1. **Vessels Built.**—The following table shows the number and tonnage of vessels built in Australia during each of the calendar years 1922 to 1926, so far as such information can be ascertained from the Shipping Registers of the various States. The Merchant Shipping Act, under which vessels are registered in Australia, does not, however, make it compulsory to register vessels under 15 tons burthen if engaged in river or coastal trade. Larger vessels are also exempt from registration if not engaged in trade. Yachts and small trading vessels may be, and frequently are, registered at the request of the owners. As the Shipping Registers are the source of information, it follows that the figures given below will be subject to additions in the future, inasmuch as vessels already built may be added to the register at some future date.

VESSELS BUILT IN AUSTRALIA, 1922 TO 1926.

NUMBER.									
Year.	Steamers built of—					Oil Motor Vessels.	Sailing.	Pontoons, Dredges, etc.	Total.
	Wood.	Iron.	Steel.	Com- posite.	Total.				
1922 ..	4	..	5	..	9	8	8	..	25
1923 ..	..	..	3	1	4	8	1	2	15
1924 ..	2	..	2	..	4	12	..	..	16
1925 ..	..	..	6	..	6	6	1	..	23
1926 ..	..	..	..	..	..	5	..	..	5

TONNAGE.											
Year.	Steamers.		Oil Motor Vessels.		Sailing.		Pontoons, Dredges, etc.		Total.		
	Gross.	Net.	Gross.	Net.	Gross.	Net.	Gross.	Net.	Gross.	Net.	
1922	..	9,239	5,093	197	152	304	251	..	..	9,740	5,496
1923	..	7,089	4,011	140	101	100	80	414	386	7,743	4,578
1924	..	19,665	11,480	319	232	..	..	..	..	19,984	11,712
1925	..	4,074	1,478	280	221	13	13	..	..	4,367	1,712
1926	103	59	..	..	..	..	103	59

2. **Vessels Registered.**—The following table shows the number and net tonnage of steam, sailing, and other vessels on the registers of the States and of the Northern Territory on the 31st December, 1926 :—

VESSELS ON THE STATE REGISTERS, 31st DECEMBER, 1926.

States and Territory.	Steam.				Sailing.				Barges, Hulks, Dredges, etc., not Self-propelled.		Total.	
	Dredges and Tugs.		Other.		Fitted with Auxiliary Power.		Other.		No.	Net Tons.	No.	Net Tons.
	No.	Net Tons.	No.	Net Tons.	No.	Net Tons.	No.	Net Tons.				
New South Wales ..	51	1,519	431	94,367	220	2,515	232	11,129	50	12,827	984	122,357
Victoria ..	35	3,843	184	185,812	38	1,118	67	4,479	68	27,575	392	222,827
Queensland ..	20	2,800	59	15,497	37	490	100	1,520	32	4,405	248	24,712
South Australia ..	17	664	78	33,018	49	2,977	36	988	51	8,804	231	46,451
Western Australia ..	10	191	29	12,569	17	415	322	4,756	23	7,210	401	25,131
Tasmania ..	6	478	51	4,458	52	1,319	68	2,653	2	563	179	9,471
Northern Territory ..	..	..	..	..	..	17	22	217	..	..	23	234
Total ..	139	9,495	832	345,711	414	8,851	847	25,742	226	61,384	2,458	451,183

Particulars of the number of vessels on the registers classified according to tonnage will be found in the Transport and Communication Bulletin issued by this Bureau.

§ 5. Interstate Shipping.

1. **System of Record.**—*Interstate Shipping* comprises two elements, viz.:—(a) Vessels engaged solely in interstate trade: and (b) Vessels trading between Australia and overseas countries and in the course of their voyage proceeding from one State to another. (It should be mentioned that these vessels, except under special circumstances, do not now engage in interstate carrying.) A detailed explanation of the methods adopted in dealing with the returns under each heading will be found on page 272 of Official Year Book No. 17, but limitation of space precludes its repetition in the present volume.

2. **Vessels and Tonnage Entered.**—The following table gives the number and tonnage of vessels recorded as having entered each State from any other State during each of the years 1921-22 to 1925-26. The shipping on the Murray River, between the States of New South Wales, Victoria, and South Australia is not included.

INTERSTATE SHIPPING.—NUMBER AND TONNAGE OF VESSELS ENTERED, 1921-22 TO 1925-26.

States and Territory.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
NUMBER.					
New South Wales ..	1,748	1,848	2,071	1,902	1,759
Victoria ..	1,797	1,886	1,920	1,815	1,743
Queensland ..	459	548	519	460	452
South Australia ..	724	822	867	798	838
Western Australia ..	484	364	363	421	337
Tasmania ..	1,072	1,169	1,193	1,091	1,024
Northern Territory ..	19	18	22	24	20
Total ..	6,303	6,655	6,955	6,511	6,173

TONNAGE.					
New South Wales ..	3,614,744	4,278,072	4,677,576	4,581,395	4,244,524
Victoria ..	3,091,313	3,581,571	3,724,273	3,593,320	3,394,123
Queensland ..	857,715	1,123,192	1,032,101	1,041,754	1,011,106
South Australia ..	1,949,071	2,453,776	2,501,928	2,348,566	2,391,535
Western Australia ..	1,817,361	1,630,730	1,668,713	1,900,077	1,648,977
Tasmania ..	937,296	1,023,645	1,200,569	1,098,556	1,161,672
Northern Territory ..	52,814	52,107	54,347	57,658	51,760
Total ..	12,320,314	14,143,093	14,859,507	14,621,326	13,903,697

3. **Oversea Vessels Moving Interstate.**—To ascertain the aggregate movement of shipping between the States during the year 1925-26, including the total interstate

movements of oversea vessels, the figures in the following table, which give the number and tonnage of vessels entered from or cleared for oversea countries via other Australian States, must be added to those in the table preceding :—

SHIPPING ENTERED AND CLEARED FROM AND TO OVERSEA COUNTRIES VIA OTHER AUSTRALIAN STATES, 1925-26.

States and Territory.	Entered.		Cleared.		Total.	
	Vessels.	Tonnage.	Vessels.	Tonnage.	Vessels.	Tonnage.
New South Wales ..	574	2,551,883	439	2,074,141	1,013	4,626,024
Victoria ..	511	2,383,689	459	2,118,041	970	4,501,730
Queensland ..	194	1,038,702	236	1,219,540	430	2,258,242
South Australia ..	306	1,520,432	256	1,316,333	562	2,836,765
Western Australia ..	46	180,528	6	21,867	52	202,395
Tasmania ..	25	100,079	86	476,195	111	576,274
Northern Territory ..	..	..	1	2	1	2
Total ..	1,656	7,775,313	1,483	7,226,119	3,139	15,001,432

Oversea vessels moving interstate are with few exceptions not engaged in the active interstate trade of Australia, but are merely proceeding to the several States in continuation of their oversea voyage.

4. **Vessels engaged Solely in Interstate Trade.**—Eliminating all interstate movements of oversea vessels, the number and tonnage of vessels engaged solely in the interstate trade for Australia as a whole during the years 1921-22 to 1925-26 were as follows :—

NUMBER AND TONNAGE OF VESSELS ENGAGED SOLELY IN INTERSTATE TRADE, 1921-22 TO 1925-26.

Year.	Entered.		Cleared.	
	No.	Tons.	No.	Tons.
1921-22	4,897	6,464,999	4,885	6,335,396
1922-23	5,230	7,506,324	5,624	7,624,311
1923-24	5,565	8,228,391	5,546	8,109,094
1924-25	4,909	6,960,923	4,906	6,953,546
1925-26	4,690	6,677,578	4,628	6,622,175

5. **Total Interstate Movement of Shipping.**—(i) *Australia.* The appended table shows the total inward interstate movement of shipping for each of the years 1921-22 to 1925-26 :—

TOTAL INWARD INTERSTATE MOVEMENT OF SHIPPING, 1921-22 TO 1925-26.

Vessels.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Oversea vessels moving interstate ..	11,579,340	14,214,800	14,437,674	15,856,487	15,001,432
Vessels solely interstate ..	6,464,999	7,506,324	8,228,391	6,960,923	6,677,578
Total ..	18,044,339	21,721,124	22,666,065	22,817,410	21,679,010

(ii) *States.* The following table shows the number and tonnage of vessels which entered and cleared each State during 1925-26, including the coastal movements of oversea vessels :—

INTERSTATE SHIPPING OF EACH STATE, 1925-26.

States and Territory.	Entered.		Cleared.	
	Vessels.	Tonnage.	Vessels.	Tonnage.
New South Wales	2,333	6,796,407	2,207	6,396,263
Victoria	2,254	5,777,812	2,324	6,108,079
Queensland	646	2,049,808	709	2,307,484
South Australia	1,144	3,911,967	1,159	3,997,773
Western Australia	1,070	1,342,200	303	1,497,754
Tasmania	362	1,749,056	1,042	1,257,164
Northern Territory	20	51,760	23	59,090
Total, Australia	7,829	21,679,010	7,767	21,623,607

6. *Interstate and Coastal Services.*—The subjoined table gives particulars, so far as they are available, of all steamships engaged in regular interstate or coastal services at the end of each of the years 1922 to 1926 :—

AUSTRALIAN INTERSTATE AND COASTAL STEAMSHIP SERVICES, 1922 TO 1926.

Particulars.	1922.	1923.	1924.	1925.	1926.
Number of companies making returns	32	35	39	41	44
Number of steamships	195	205	207	209	216
Tonnage { Gross	357,652	384,650	382,822	384,004	375,893
Net	204,219	220,042	217,609	216,390	214,028
Horse-power (Nominal)	34,886	36,934	37,841	38,750	37,129
Number of 1st class passengers	4,647	9,184	9,538	9,110	8,686
for which 2nd class and steerage	5,016	4,756	4,343	4,204	3,650
licensed	667	704	681	684	691
Complement { Masters and officers	607	645	631	645	642
of Crew { Engineers	5,175	5,614	5,336	5,190	5,102
Crew					

§ 6. Tonnage of Cargo.

The table hereunder shows the aggregate tonnage of oversea cargo discharged and shipped in Australian ports, and the tonnage of interstate cargo shipped in all ports for the years 1921-22 to 1925-26. Cargo which was stated in cubic feet has been converted to weight on the basis of 40 cubic feet to the ton.

AUSTRALIAN SHIPPING—CARGO MOVEMENT, 1921-22 TO 1925-26.

Year.	Oversea Cargo.		Interstate Cargo.
	Discharged.	Shipped.	Shipped.
	Tons.	Tons.	Tons.
1921-22	2,419,977	5,816,174	5,533,716
1922-23	3,718,795	4,064,196	5,137,651
1923-24	4,377,171	4,981,521	6,358,191
1924-25	4,696,112	6,498,098	6,413,975
1925-26	5,342,621	5,169,407	5,735,973

More detailed information regarding the volume of trade at each of the principal ports is contained in Transport and Communication Bulletin No. 18 issued by this Bureau.

§ 7. Commonwealth Government Shipping and Shipbuilding Activities.

1. *Local Building Programme.*—The original Commonwealth Government programme of ship construction in Australia provided for 48 vessels, 24 of which were to be wooden sailing vessels, and the remainder steel cargo ships. Owing to certain variations, the programme resulted in the building of 21 steel cargo vessels and 2 five-masted schooners with auxiliary power.

Particulars of the vessels built in Australia to 31st December, 1922, were included in a previous issue of this book (see Year Book Nos. 16, p. 273 and 17, p. 269).

2. *Vessels Built in the United Kingdom.*—In addition to the vessels previously referred to, five steamers each approximately 8,450 tons net were constructed in yards in the United Kingdom.

These vessels each have an approximate length of 520 feet by 68 feet beam, and a capacity of 900,000 cubic feet, of which 370,000 cubic feet are insulated.

3. *Australian Commonwealth Line of Steamers.*—(i) *Foundation of Line.* The Commonwealth Shipping Act 1923 provided for the establishment of the Australian Commonwealth Line of Steamers under the control of a Board of Directors consisting of not less than three nor more than five members. The date at which the Act was to come into force was fixed by proclamation as 1st September, 1923.

The whole of the right, title, and interest of the Commonwealth in and to the 50 vessels (155,302 tons net) of the Commonwealth Government Line of Steamers, and appurtenances used for the purposes of such vessels, was vested in the Board, also four other vessels (15,442 tons net) which were under construction at the time of transfer. The valuation of the vessels, tackle, apparel, gear, furniture, stores and equipment was fixed at £4,718,150, office furniture and fittings at £7,500, and stores on hand £23,700, making a total of £4,749,350.

The balance-sheet of the Commonwealth Shipping Board, covering the activities of the Australian Commonwealth Line of Steamers and the Cockatoo Island Dockyard to the 31st March, 1926, shows liabilities to the total of £6,387,624 and assets £5,058,790. The operations for the three years 1923 to 1926 show an accumulated loss of £1,328,834, the loss on operations for 1925-26 being £503,077.

(ii) *Present position.* At 1st June, 1927, the only vessels owned by the Commonwealth Government Line of Steamers were as follows (net tonnage in parentheses):—*Largs Bay* (8,432), *Jervis Bay* (8,423), *Moreton Bay* (8,420), *Esperance Bay* (8,415), and *Hobson's Bay* (8,413), all one-class passenger-carrying steamers, and the freighters *Fordsdale* (5,661) and *Ferndale* (5,656); a total net tonnage of 53,420 tons.

(iii) *Future arrangements.* An investigation into the operations of the Commonwealth Shipping Board has been made by the Parliamentary Joint Committee of Public Accounts, whose report will not, however, be available for some few months.

§ 8. World's Shipping Tonnage.

The table hereunder shows the number and gross tonnage of steam and motor, and of sailing vessels owned by the most important maritime countries, together with the proportion of the grand total owned by each country :—

WORLD'S SHIPPING TONNAGE, 1st July, 1926.

Nationality.	Steam and Motor.		Sailing.		Total.		Percentage on Total.	
	No.	Gross Tonnage.	No.	Gross Tonnage.	No.	Gross Tonnage.	No.	Gross Tonnage
Great Britain and Nthn. Ireland	7,964	19,263,785	405	136,012	8,369	19,399,797	26.17	31.24
Australia and New Zealand	637	799,777	22	10,335	659	810,112	2.06	1.31
Canada(a)	566	878,516	237	103,449	803	981,965	2.51	1.58
Other British	658	756,175	257	64,029	915	820,204	2.86	1.32
Total, British Empire	9,825	21,698,253	921	313,825	10,746	22,012,078	33.60	35.45
Belgium	222	503,083	3	4,390	225	507,473	0.70	0.82
Denmark	661	1,049,386	110	31,760	771	1,081,146	2.41	1.74
France	1,498	3,324,397	271	166,209	1,769	3,490,606	5.53	5.62
Germany	1,928	3,062,095	58	48,823	1,986	3,110,918	6.21	5.01
Greece	457	921,861	10	3,083	467	924,944	1.46	1.49
Holland	1,061	2,552,613	48	12,291	1,109	2,564,904	3.47	4.13
Italy	1,099	3,150,246	302	90,384	1,401	3,240,630	4.38	5.22
Japan	2,087	3,967,617	..	..	2,087	3,967,617	6.52	6.39
Norway	1,802	2,806,544	42	35,361	1,844	2,841,905	5.77	4.58
Spain	802	1,126,284	122	36,724	924	1,163,008	2.89	1.87
Sweden	1,205	1,294,576	175	43,513	1,380	1,338,089	4.31	2.16
United States of America(b)	3,213	11,472,824	885	972,888	4,098	12,445,712	12.81	20.04
Other Foreign Countries	2,629	3,139,632	550	264,613	3,179	3,404,245	9.94	5.48
Total, Foreign Countries	18,664	38,371,158	2,576	1,710,039	21,240	40,081,197	66.40	64.55
Grand Total	28,489	60,069,411	3,497	2,023,864	31,986	62,093,275	100.00	100.00

(a) Sea-going. (b) Including Philippine Islands.

The foregoing figures have been compiled from Lloyd's Register of Shipping, and vessels of 100 tons or upwards only have been included.

§ 9. Ferries.

1. New South Wales.—The ferry services in Port Jackson are under the control of two companies, which during the year 1926 had 72 vessels in commission, 69 of which were double-ended screw steamers, the remaining three being motor driven. It is claimed for the steamers that they are superior in size and equipment to boats employed on similar service in any other part of the world.

2. Victoria.—The Williamstown City Council owns one steamer which is engaged in the transport of passengers between Port Melbourne and Williamstown. There are several other steamers which are engaged during the summer season in the carriage of passengers and goods to the several seaside resorts. Particulars of these services, however, are not included in the table in sub-par. 6 following.

3. Queensland.—The Brisbane City Council and the Balmoral Shire Council control the ferry services in the Metropolitan area, but such ferries are really substitutes for bridges and have therefore not been included in the table hereunder.

4. **Western Australia.**—The ferries plying on the Swan River during 1926 were operated by a private company, and consisted of 8 petrol-driven vessels. At South Perth the Western Australian Government employed 4 vessels, 2 of which were steamers.

5. **Tasmania.**—In and around Hobart there were in 1926, 3 ferry services, 1 being controlled by a private company which had 5 steamers in commission, 1 by the Public Works Department with 2 motor-propelled vessels, and 1 by the Railway Department with 1 steamer.

6. **Particulars of Working.**—The subjoined table shows for the year 1926, so far as returns are available, the most important items in connexion with the operation of the ferry services in the several States :—

FERRIES.—PARTICULARS OF WORKING, 1926.

Particulars.	New South Wales.	Victoria.	Western Australia.	Tasmania.	Total.
Boats in Service—					
Steam .. No.	69	1	2	6	78
Other .. No.	3	..	10	2	15
Total .. No.	72	1	12	8	93
Number of passengers which boats are licensed to carry .. No.	47,868	342	1,759	2,006	51,975
Revenue .. £	763,614	5,657	14,984	20,978	805,233
Working Expenses .. £	693,894	8,829	13,981	17,772	734,476
Passengers carried(b) .. No.	50,009,315	198,000	1,037,015	1,383,580	52,677,910
Mileage of Boats .. miles	(a)	21,300	84,473	59,155	(c) 164,928
Accidents—					
Killed .. No.	..	..	..	..	..
Injured .. No.	118	..	1	..	119
Employees—					
Salaried Staff .. No.	46	..	2	7	55
Wages Staff .. No.	1,200	6	25	38	1,269

(a) Not Available.

(b) Approximate.

(c) Incomplete.

7. **Other Services.**—In addition to the foregoing there are throughout the several States a number of row-boat ferry services, and on many of the principal inland rivers punts are in operation.

§ 10. Miscellaneous.

1. **Lighthouses.**—Transport and Communication Bulletin No 14, published by this Bureau, contains a list of the principal lighthouses on the coast of Australia, giving details of the location, number, colour, character, period, candle-power, and visibility of each light so far as particulars are available.

2. **Distances by Sea.**—A statement giving the distances by sea between the ports of the capital cities of Australia and the most important ports in other countries which trade with Australia was also included in Transport and Communication Bulletin No. 14.

3. **Shipping Freight Rates.**—The Quarterly Summary of Australian Statistics gives a list of the ruling freight rates for general merchandise both in respect of oversea and interstate shipments. The latest figures available, which give the rates current at 31st March, 1927, show that the rate for general merchandise from Australia to United Kingdom and Continent was 63s. per ton weight or measurement, as compared with 55s. per ton in 1915.

4. **Depth of Water at Main Ports.**—A table compiled from information supplied by the Director of Navigation showing the depth of water at the main ports of Australia at 1st January, 1927, has been included in the Transport and Communication Bulletin No. 18, published by this Bureau.

5. **Shipping Casualties.**—Courts of Marine Inquiry are constituted by a Magistrate, assisted by skilled assessors, and when necessary are held at the principal port in each State and at Launceston (Tasmania). Such courts have power to deal with the

certificates of officers found to be at fault. Particulars of shipping casualties reported on or near the coast during the year 1925-26 are shown in the Transport and Communication Bulletin No. 18. This information has also been furnished by the Director of Navigation.

6. **Commonwealth Navigation and Shipping Legislation.**—(i) *General.* An account, in some detail, of the Commonwealth Navigation and Shipping Legislation was published in Official Year Book No. 17 (pp. 1053-5), but considerations of space preclude its repetition in this present volume.

(ii) *Amending Acts.* Under the provisions of the Navigation Act 1926 (March, 1926), permission may be granted by the Governor-General in Council in certain specified circumstances to unlicensed British ships to engage in passenger tourist traffic between any specified Commonwealth ports. Certain vessels were granted permission to engage in the carriage of passengers between the port of Hobart and the ports of Brisbane, Sydney and Melbourne during the period 6th March, 1926, to 31st May, 1926, and between the 1st January, 1927, and 31st May, 1927. This permission may be renewed from time to time as occasion demands. The Navigation Act 1925 (July, 1925), conferred authority for the suspension, for any specified time, if in the opinion of the Governor-General in Council such is expedient in the public interest, of the operation of the provisions of that part of the principal Act relating to the engagement of ships in the coasting trade by exempting under certain circumstances any ship or class of ships from compliance with any specified provision or provisions of the Act.

7. **Ports and Harbours.**—A report in two volumes on *Transport in Australia*, with special reference to Ports and Harbours facilities, has been submitted to the Commonwealth Government by Sir George Buchanan, and published as a Parliamentary Paper, but the subject-matter is too voluminous to be dealt with in this present volume.

B. RAILWAYS.

§ 1. General.

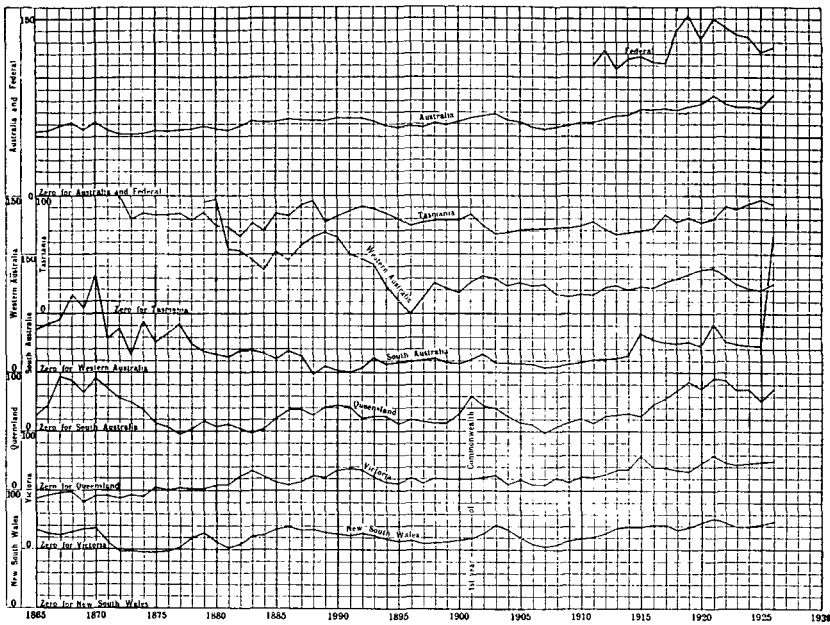
1. **Introduction.**—In the following pages statistics relating to State-owned lines are, in the main, dealt with separately from those under the control of the Commonwealth Government. The State railways are referred to throughout as "State" and the Commonwealth railways as "Federal" railways. A summary in regard to Federal and State railways will, however, be found in § 4 following.

2. **Improvement of Railway Statistics.**—Earlier issues of the Year Book contain a condensation of the report issued in 1909 by the Commonwealth Statistician to the Minister for Home Affairs on the subject of *The Desirability of Improved Statistics of Government Railways in Australia* (see Year Book No. 7, page 598).

Considerable improvement, both as regards the volume of information and the mode of presentation thereof in the statistical tables appearing in the reports of the several Railways Commissioners, has been made during recent years.

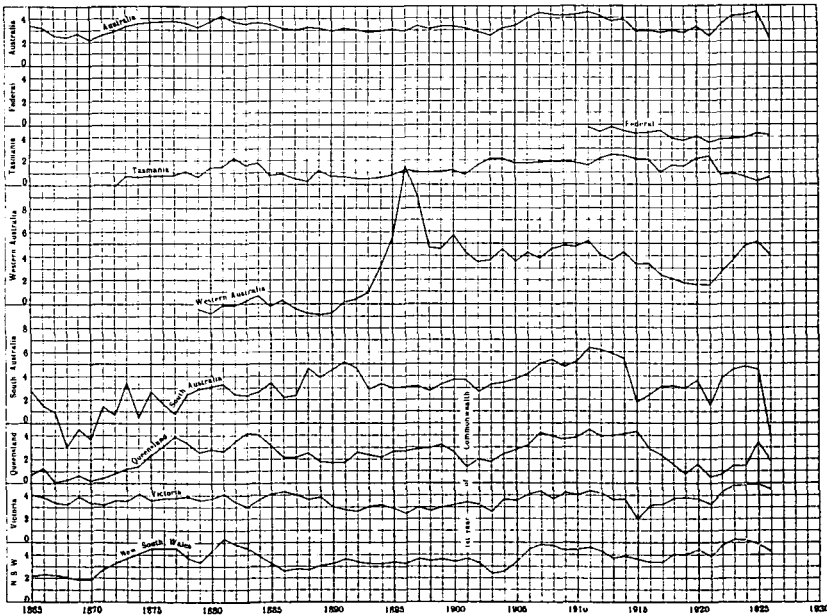
3. **Railway Communication in Australia.**—(i) *General.* An account of the progress of railway construction in Australia since the opening of the first line in 1854 will be found in Year Book No. 6, p. 681. In the eastern, south-eastern and southern parts of Australia there is now a network of railway lines converging from the various agricultural, pastoral and mining districts towards the principal ports, which are themselves connected by systems of lines running approximately parallel to the coast. In the east, lines radiating from Cairns, Townsville, Rockhampton, Brisbane and Sydney extend inland in various directions for distances ranging up to over 600 miles; in the south-east there are numerous lines, those in Victoria converging towards Melbourne, while others in New South Wales have their terminus in Sydney; in the south there are four main lines, with numerous branches, running from Melbourne; while from Adelaide one main line, with several branches to the coastal towns, runs inland in a northerly direction for a distance of nearly 700 miles and another line runs in a south-easterly direction to various ports, meeting the main line from Melbourne on the border of South Australia and Victoria near Serviceton. The South Australian and Victorian railway systems also meet on the

PERCENTAGES OF WORKING EXPENSES ON GROSS REVENUE OF GOVERNMENT
RAILWAYS, 1865 TO 1926.



EXPLANATION.—The base of each small square represents throughout one year. The vertical side of a small square denotes throughout 10 per cent., the heavy zero lines being different for each State and Australia, with, however, the exceptions that the zero lines for Australia and Federal are identical.

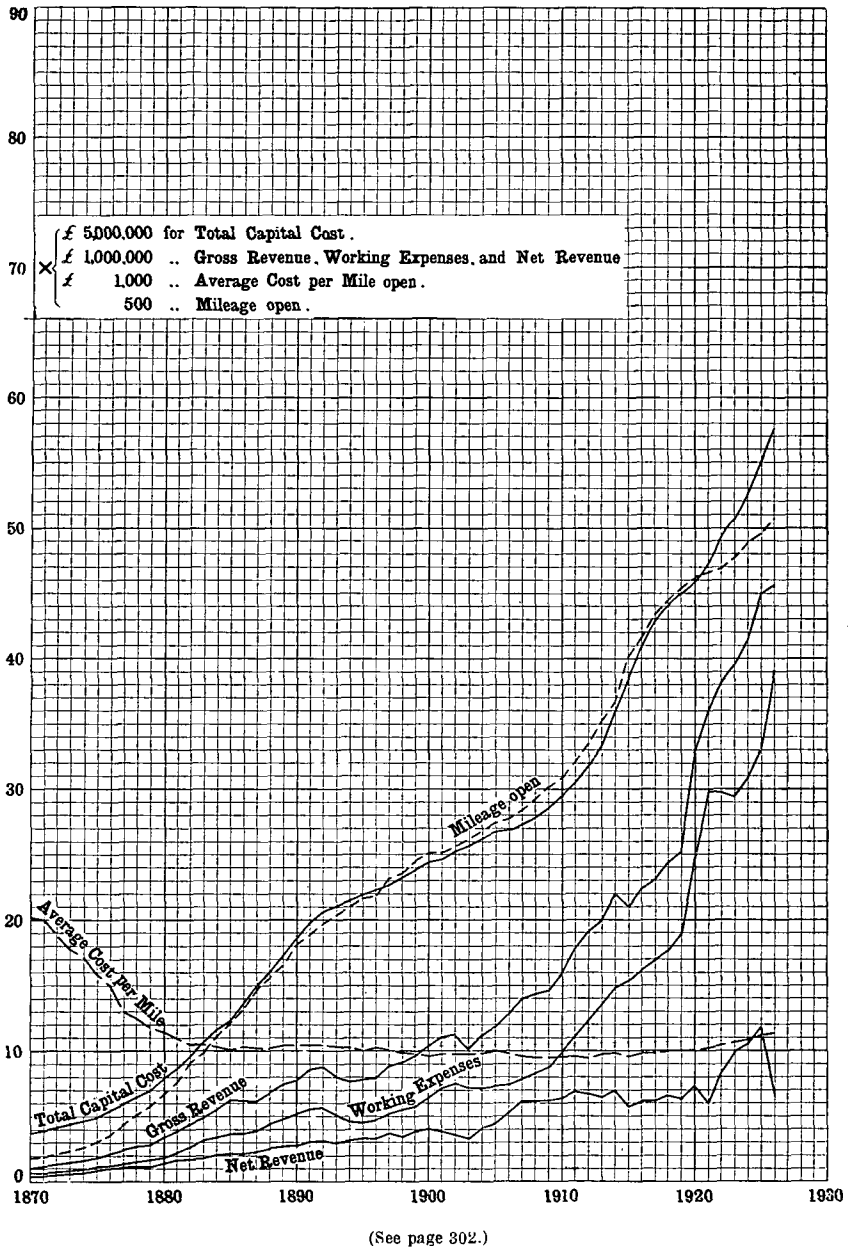
PERCENTAGES OF NET REVENUE ON CAPITAL COST OF GOVERNMENT
RAILWAYS, 1865 TO 1926.



EXPLANATION.—The base of each small square represents throughout one year. The vertical side of a small square denotes 1 per cent., the thick zero lines, however, for each State and Australia being different, but the zero line for Federal is the same as that for Australia.

Where the curve for any State falls below that State's zero line, loss is indicated, the working expenses having exceeded the gross revenue.

FINANCIAL POSITION OF THE GOVERNMENT RAILWAYS OF AUSTRALIA, 1870 TO 1926.



EXPLANATION.—The base of each small square represents throughout one year. The significance of the vertical height of each square varies according to the nature of the several curves.

In the curve for the total capital cost, the vertical side of each square represents £5,000,000.

In the curves for (i) gross revenue, (ii) working expenses, and (iii) net revenue, the vertical side of each small square represents £1,000,000. For the curve of average cost per mile open, the vertical side of each small square represents £1,000. The mileage open is shown by a dotted curve, the vertical side of each small square representing 500 miles.

border at two other points, one near Pinnaroo, and the other at Rennick, near Mount Gambier. In Western Australia there is a connected system of main or trunk lines between the ports of the State and the agricultural, pastoral, and mining districts, and two short lines, one on the north-west, the other on the south coast, which are unconnected with the main system. In the northern portion of Queensland there were also several disconnected lines running inland from the more important ports, but during the year 1924-25 an uninterrupted service as far north as Cairns was established. In Tasmania the principal towns are connected by a system of lines, and there are also, more especially in the western districts, several lines which have been constructed for the purpose of opening up mining districts.

By the opening, in 1917, of the Trans-Australian railway from Port Augusta to Kalgoorlie, through communication by rail was established between the eastern States and the Western Australian railway system.

(ii) *The Main Interstate Lines.* The main interstate lines, which permit of direct communication between the five capital cities—Brisbane, Sydney, Melbourne, Adelaide, and Perth—cover a distance from end to end of 3,474.80 miles or 3,479.82 miles via Newcastle. The schedule time for the journey from Brisbane to Perth is six days one hour forty-two minutes, the time being taken over all.

The longest railway journey which can be undertaken in Australia on one continuous line of railway is from Dajarra in Queensland to Meekatharra in Western Australia, total distance of approximately 5,500 miles.

4. *Non-conformity of Gauge.*—(i) *General.* With but few exceptions, all the railway lines in Australia open for general traffic are now owned and managed by the respective States in whose territory they run, or by the Commonwealth Government; but, unfortunately, for the purpose of interstate traffic the construction of the various systems in different parts of Australia has proceeded without uniformity of gauge. A statement giving the reasons for the adoption of the various gauges in the several States appeared in Year Book No. 15, p. 534, but considerations of space preclude its repetition in the present issue.

(ii) *Interstate Junctions.* Connexions at border stations were established as follows :—Victoria and New South Wales, at Albury, 14th June, 1883; Victoria and South Australia, at Serviceton, 19th January, 1887; and New South Wales and Queensland, at Wallangarra, 16th January, 1888. Through trains were unable to run on this latter section until the completion of the Hawkesbury River Bridge on 1st May, 1889. On the 22nd October, 1917, through communication from east to west was made possible by the opening of the Trans-Australian line.

(iii) *Proposals for Unification.* The question of the unification of gauges in the several States has been under consideration for several years, and numerous conferences on the subject have been held from time to time between the several Railways Commissioners and between the Premiers of the States concerned. Reference to these conferences has been made in previous issues of the Year Book.

Some advancement, however, has been made in this connexion by the commencement of a 4 ft. 8½ in. gauge line between Kyogle (New South Wales) and South Brisbane (Queensland), which, when completed, will establish uninterrupted standard gauge communication between Sydney and South Brisbane. The mileage involved in this project is 87.12 miles, of which 60.56 miles is in Queensland Territory. The construction of this line is under the control of a Council, consisting of the Commonwealth Railways Commissioner, the Chief Railway Commissioner for New South Wales, and the Commissioner for Railways, Queensland.

The following further proposals for modifying the disadvantages attending the multiplicity of gauges have been recommended to and accepted by Parliament by the Commonwealth Parliamentary Standing Committee on Public Works :—

- (a) Extension of the Trans-Australian Railway from Port Augusta to Red Hill, 83 miles of 4 ft. 8½ in. gauge at the expense of the Commonwealth Government, which will at the expense of the South Australian Government lay a third rail to conform to the South Australian gauge of 5 ft. 3 in. from a point near Port Pirie to Red Hill; and

- (b) Laying of a third rail from Red Hill to Adelaide by the South Australian Government at the expense of the Commonwealth Government to provide a railway of 4 ft. 8½ in. gauge over the existing 5 ft. 3 in. gauge line from Red Hill to Adelaide, a total distance of approximately 107 miles.

When these proposals are completed, through passengers over the Trans-Australian line will not need to change at Port Augusta and Terowie.

(iv) *Estimated Cost of Unification of Gauges.* The scheme recommended by the Royal Commission of 8th February, 1921, and adopted by the Prime Minister and Premiers of the several States in conference during November of the same year, as the first step, will provide a standard 4 ft. 8½ in. gauge railway between Brisbane and Fremantle, and the conversion of the whole of the broad-gauge lines of Victoria and South Australia, at an estimated cost of £21,600,000, spread over a period of approximately eight years. The details of the estimate of £21,600,000, which provides for a main trunk line between Fremantle and Brisbane, and the conversion of the 5 ft. 3 in. gauge lines in Victoria and South Australia, together with the quota from each State and the Commonwealth Government in terms of the allocation of cost agreed upon, were given in a previous issue (see Year Book No. 16, p. 278).

The estimated cost of converting the whole of the lines in the States concerned was given as approximately £57,200,000.

5. *Rolling Stock Gauges.*—Allied to the question of the gauges of the railways of Australia is that of the rolling stock gauges in use, the rolling stock gauge being the maximum transverse dimensions to which the rolling stock may be constructed. Particulars in respect of such dimensions have been published in previous issues of this work. (See Official Year Book, No. 18, p. 274.)

6. *Mileage Open for Traffic, all Lines.*—(i) *General.* In all the States the principle that the control, construction, and maintenance of the railways should be in the hands of the Government has long been adhered to, excepting in cases presenting unusual circumstances. In various parts of Australia, lines have been constructed and managed by private companies, but at the present time nearly the whole of the railway traffic is in the hands of the State or Commonwealth Governments. A large proportion of the private lines has been laid down for the purpose of opening up forest lands, mining districts, or sugar areas, and these lines are not generally used for the conveyance of passengers or the public conveyance of goods. (See § 5 *Private Railways*, hereinafter.)

The subjoined table shows the route mileage of Federal, State, and private lines open for traffic (exclusive of sidings and cross-overs) in each State for each of the years 1921–22 to 1925–26. The railway mileage given for each State includes both Federal, State, and private railways in that State:—

RAILWAYS.—GOVERNMENT AND PRIVATE.—MILEAGE OPEN, 1922 TO 1926.

State or Territory.	1921–22.	1922–23.	1923–24.	1924–25.	1925–26.
	Miles.	Miles.	Miles.	Miles.	Miles.
New South Wales ..	5,475.44	5,689.18	5,847.13	5,986.39	6,072.46
Victoria ..	4,374.73	4,393.48	4,496.34	4,542.45	4,687.68
Queensland ..	7,063.89	7,180.10	7,341.83	7,433.46	7,576.32
South Australia ..	3,487.37	3,503.40	3,577.01	3,577.01	3,624.41
Western Australia ..	4,867.48	4,844.93	4,908.77	5,040.65	5,202.23
Tasmania ..	872.49	896.36	908.38	904.08	1,072.41
Federal Capital Territory ..	4.94	4.94	4.94	4.94	4.94
Northern Territory ..	198.68	198.68	198.68	198.68	198.68
Australia ..	26,345.02	26,711.07	27,283.08	27,687.66	28,439.13

In previous issues of the Year Book particulars were given for different periods from 1855 onwards. (See No. 15, p. 537.)

(ii) *Government and Private Lines Separately.* The next table shows for each State (a) the length of lines owned by the State Government, and by the Commonwealth Government in that State, all of which lines are open for general use by the public, (b) the length of private lines available for general use by the public, and (c) the length of the private lines not so available. The mileages specified in the case of Government and private lines are to the 30th June, 1926 :—

RAILWAYS.—GOVERNMENT AND PRIVATE.—MILEAGE CLASSIFIED, 1925-26.

State or Territory.	Government Lines—		Private Lines available for General Traffic.	Total Open for General Traffic.	Private Lines used for special Purposes only.	Grand Total.
	State.	Federal.				
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
New South Wales	5,741.82	..	142.03	5,883.85	188.61	6,072.46
Victoria ..	4,627.27	..	24.94	4,652.21	35.47	4,687.68
Queensland ..	6,240.04	..	302.35	6,542.39	1,033.93	7,576.32
South Australia ..	2,499.10	1,075.41	33.80	3,608.31	16.10	3,624.41
Western Australia	3,864.38	453.99	277.00	4,595.37	606.86	5,202.23
Tasmania ..	672.90	..	192.10	865.00	207.41	1,072.41
Federal Capital Territory ..	..	4.94	..	4.94	..	4.94
Northern Territory	..	198.68	..	198.68	..	198.68
Australia ..	23,645.51	1,733.02	972.25	26,350.75	2,088.38	28,439.13

7. *Comparative Railway Facilities.*—The mileage of line open to the public^a for general traffic (including both Government and private lines) is shown in the subjoined statement in relation to population and area respectively :—

RAILWAYS.—GOVERNMENT AND PRIVATE.—COMPARISON OF FACILITIES, 1926.

Particulars.	N.S.W.	Vic.	Q'ld.	S.A.	W.A.	Tas.	Fed. Cap. Ter.	Nor. Ter.	Aust.
Mileage of Railway—									
Per 1,000 of population ..	2.62	2.76	8.62	6.49	13.87	5.12	0.89	52.66	4.71
Per 1,000 sq. miles or Territory ..	19.62	53.34	11.30	9.54	5.33	40.91	5.26	0.38	9.56

8. *Classification of Lines according to Gauge, 1925-26.*—The next table gives a classification, according to gauge, of the total mileage, exclusive of sidings and crossovers, of (i) Federal railways, given in the State or Territory in which situated; (ii) State railways; (iii) Private railways open to the public for general traffic; and (iv) Private lines open for special purposes. Particulars of Government railways are up to the 30th June, 1926; of private railways open for general traffic, to the 31st December, 1926, as nearly as possible; and of private railways open for special purposes to the 30th June, 1926.

RAILWAYS.—GOVERNMENT AND PRIVATE.—GAUGES, 1925-26.

State or Territory in which situated.	Route mileage having a gauge of—							Total.
	5 ft. 3 in.	4 ft. 8½ in.	3 ft. 6 in.	3 ft. 0 in.	2 ft. 6 in.	2 ft. 3 in.	2 ft. 0 in. 1 ft. 8 in.	

FEDERAL RAILWAYS.

	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
South Australia ..	597.46	477.95	..	..	..	..	..	1,075.41
Western Australia ..	453.99	..	..	..	..	..	..	453.99
Federal Capital Territory ..	4.94	..	..	..	..	..	..	4.94
Northern Territory ..	..	198.68	..	..	..	..	..	198.68
Total ..	1,056.39	676.63	..	..	..	..	..	1,733.02

STATE RAILWAYS.

	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
New South Wales ..	5,702.31	39.51	..	..	..	..	..	5,741.82
Victoria ..	4,505.50	..	..	121.77	..	..	..	4,627.27
Queensland ..	..	6,209.78	..	..	..	30.26	..	6,240.04
South Australia ..	1,237.91	1,261.19	..	..	..	..	..	2,499.10
Western Australia ..	..	3,864.35	..	..	..	..	..	3,864.35
Tasmania ..	..	648.07	..	..	..	24.83	..	672.90
Total ..	5,743.41	5,702.31	12,022.90	121.77	..	55.09	..	23,645.48

PRIVATE RAILWAYS OPEN FOR GENERAL TRAFFIC.

	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
New South Wales ..	78.97	36.73	..	..	..	26.33	..	142.03
Victoria ..	13.94	..	11.00	..	..	..	..	24.94
Queensland ..	..	124.10	..	7.00	..	171.25	..	302.35
South Australia ..	..	33.80	..	..	..	..	..	33.80
Western Australia ..	..	277.00	..	..	..	..	..	277.00
Tasmania ..	..	175.48	..	..	..	16.62	..	192.10
Total ..	13.94	78.97	647.11	11.00	7.00	214.20	..	972.22

PRIVATE RAILWAYS OPEN FOR SPECIAL PURPOSES.

	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
New South Wales ..	174.99	3.44	..	..	..	10.18	..	188.61
Victoria ..	18.37	..	4.50	..	..	12.60	..	35.47
Queensland ..	..	244.77	..	..	..	789.16	..	1,033.93
South Australia ..	..	..	..	2.00	3.75	10.35	..	16.10
Western Australia ..	..	557.01	..	..	..	14.00	35.85	606.86
Tasmania ..	11.25	111.78	9.47	34.03	..	40.88	..	207.41
Total ..	18.37	186.24	917.00	13.97	36.03	3.75	877.17	2,088.38

ALL RAILWAYS.

	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
New South Wales ..	5,956.27	79.68	..	..	..	36.51	..	6,072.46
Victoria ..	4,537.81	..	15.50	121.77	..	12.60	..	4,687.68
Queensland ..	..	6,578.65	..	7.00	..	990.67	..	7,576.32
South Australia ..	1,237.91	597.46	1,772.94	..	2.00	10.35	..	3,624.41
Western Australia ..	..	453.99	4,698.36	..	..	14.00	35.85	5,202.20
Tasmania ..	..	11.25	935.33	9.47	34.03	..	82.33	1,072.41
Federal Capital Territory ..	..	4.94	..	..	..	..	..	4.94
Northern Territory ..	..	198.68	..	..	..	..	..	198.68
GRAND TOTAL	5,775.72	7,023.91	14,263.64	24.97	164.80	3.75	1,146.46	28,439.10

§ 2. Federal Railways.

1. **General.**—On the 1st January, 1911, the Commonwealth Government took over the Northern Territory from the South Australian Government, and at the same time the railways from Darwin to Pine Creek in the Northern Territory, and from Port Augusta to Oodnadatta in South Australia, came under its control. Subsequently the construction of a transcontinental line from Port Augusta in South Australia to Kalgoorlie in Western Australia was undertaken by the Commonwealth Government, while a line has been constructed in the Federal Capital Territory, connecting Canberra with the New South Wales railway system at Queanbeyan. In 1917 an Act was passed by which all the Federal railways were vested in a Commonwealth Railways Commissioner.

2. **Northern Territory Railway.**—(i) *Darwin to Katherine.* On the 1st January, 1911, the line from Darwin to Pine Creek came under the jurisdiction of the then Department of External Affairs, and was worked under the Administrator of the Northern Territory. As mentioned above, the management of this railway is now vested in the Commonwealth Railways Commissioner.

In the Northern Territory Acceptance Act the construction of a transcontinental line from South Australia is provided for. The extension of the line from Pine Creek to Katherine River was completed, and the first train ran through to Emungalan (Katherine River) on 13th May, 1917.

(ii) *Proposed Extension.* The recommendations of the Parliamentary Standing Committee on Public Works in connexion with the North-South line were indicated in a previous issue of this work. (See Year Book No. 18, p. 278.)

(iii) *Line Authorized for Construction.* The Northern Territory Railway Extension Act 1923 provides for the construction of a 3 ft. 6 in. gauge line from the present terminus at Emungalan to Daly Waters, a distance of approximately 160 miles. The estimated cost of this line is £1,545,000, including the cost of a bridge over the Katherine River which was completed in May, 1926, although the first train crossed on 21st January, 1926.

3. **Port Augusta to Oodnadatta Railway.**—(i) *General.* This line was taken over by the Commonwealth Government from 1st January, 1911, but was held under lease by the South Australian Government until 31st December, 1913. From the 1st January, 1914, the line was worked under agreement by the South Australian Government for and on behalf of the Commonwealth, but from 1st January, 1926, the management devolved upon the Commonwealth Railways Commissioner.

(ii) *Extension Authorized.* The Railways (South Australia) Agreement Act 1926, assented to by the Commonwealth Parliament in February, 1926, ratified the agreement between the Commonwealth and South Australian Governments for the construction of a 3 ft. 6 in. gauge line between Port Augusta and Alice Springs. This involves the construction of an extension to Alice Springs of the existing 3 ft. 6 in. gauge line from Port Augusta to Oodnadatta. The estimated cost, exclusive of rolling stock, of the proposed extension, which comprises approximately 298 miles, is £1,700,000. One hundred and fifteen miles of the survey was completed at 30th June, 1926.

4. **Federal Capital Territory Railway—Queanbeyan-Canberra.**—This line was built by the Railway Construction Branch of the Public Works Department, New South Wales, and was completed and taken over by the Chief Commissioner of Railways for that State, who has since worked the line for and on behalf of the Commonwealth Government. The line was opened for departmental goods traffic on 25th May, 1914. It connects with the New South Wales railway system at Queanbeyan, is 4.94 miles in length, and has sidings of an aggregate length of 2.00 miles.

5. **Trans-Australian Railway (Kalgoorlie to Port Augusta).**—In the issue of the Year Book for 1918 (No. 11, pp. 663 to 666 and p. 1213), a short history of the construction of the Trans-Australian line is given, also a description of the country through which the line passes between Kalgoorlie and Port Augusta.

On the 22nd October, 1917, the first through train left Port Augusta with an official party on board for Kalgoorlie. It should be mentioned that owing to deviations from the original route, the length of this line was reduced from 1,063.39 miles to 1,051.45 miles, a saving of 11.94 miles.

6. *Lines Open, Surveyed, etc.*—The following table shows the lines open for traffic under the control of the Commonwealth Government at 30th June, 1926, together with the lines which have been or are being surveyed :—

RAILWAYS, FEDERAL, 30th JUNE, 1926.

Terminals.	Miles.
OPEN FOR TRAFFIC.	
Trans-Australian—Port Augusta (South Australia) to Kalgoorlie (Western Australia)	1,051.45
Port Augusta to Oodnadatta (South Australia)	477.95
Queanbeyan to Canberra (Federal Capital Territory)	4.94
Northern Territory Railway—Darwin to Emungalan, Katherine River ..	198.68
Total opened for traffic	1,733.02
SURVEYED OR BEING SURVEYED.	
Katherine River to Mataranka (Northern Territory)	65.44
Mataranka to Daly Waters (Northern Territory)	95.00
Kingoonya to Boorthanna (South Australia)	176.44
Oodnadatta to Alice Springs	115.00
Canberra to Jervis Bay (Federal Capital Territory)	140.22
Canberra (Federal Capital Territory) to Federal Capital Territory Border in the direction of Yass (New South Wales)	11.67
Daly Waters (Northern Territory) to Oodnadatta (South Australia) ..	851.50
Port Augusta to Crystal Brook (South Australia)	69.25
Total surveyed or being surveyed	1,524.52

In addition, a trial survey from the proposed deep water port at Rocky Island (Gulf of Carpentaria) to Borroloola has been completed in connexion with the possibility of developing a port at the mouth of the McArthur River.

7. *Mileage open, worked, and Train miles run.*—The next table shows the length of the Federal railways open for traffic, average miles worked, and the train miles run in the years 1922 to 1926 :—

RAILWAYS, FEDERAL.—MILEAGE OPEN, WORKED, AND TRAIN MILES, 1922 TO 1926.

Year ended 30th June—	Railway.				Total.
	Trans-Australian.	Oodnadatta.	Federal Capital Territory.	Northern Territory.	
	Miles.	Miles.	Miles.	Miles.	Miles.
1922	1,051	478	5	199	1,733
1923	1,051	478	5	199	1,733
1924	1,051	478	5	199	1,733
1925	1,051	478	5	199	1,733
1926	1,051	478	5	199	1,733

**RAILWAYS, FEDERAL.—MILEAGE OPEN, WORKED, AND TRAIN MILES,
1922 TO 1926—continued.**

Year ended 30th June—	Railway.				Total.
	Trans- Australian.	Oodnadatta.	Federal Capital Territory.	Northern Territory.	
AVERAGE MILES WORKED.					
	Miles.	Miles.	Miles.	Miles.	Miles.
1922	1,051	478	5	199	1,733
1923	1,051	478	5	199	1,733
1924	1,051	478	5	199	1,733
1925	1,051	478	5	199	1,733
1926	1,051	478	5	199	1,733
TRAIN MILES RUN.					
1922	471,061	242,751	1,263	16,078	731,153
1923	449,609	303,187	1,065	20,823	774,684
1924	453,742	293,529	4,731	18,412	770,414
1925 (a) ..	472,459	283,762	5,999	51,279	813,499
1926 (a) ..	471,322	192,773	7,123	60,641	731,859

(a) Traffic Train Mileage (exclusive of "Assistant" and "Light" mileages).

8. Cost of Construction and Equipment.—In the following table particulars are given of the cost of construction and equipment for traffic of the undermentioned railways for each of the years 1922 to 1926 :—

RAILWAYS, FEDERAL.—CAPITAL COST, 1922 TO 1926.

Year ended 30th June—	Railway.				Total.
	Trans- Australian.	Oodnadatta.	Federal Capital Territory. (b)	Northern Territory.	
TOTAL COST OF CONSTRUCTION AND EQUIPMENT OF LINES OPEN.					
	£	£	£	£	£
1922	7,213,923	a2,296,139	48,144	1,718,021	11,276,227
1923	7,301,433	a2,309,136	48,144	1,725,666	11,384,379
1924	7,379,785	a2,342,490	50,720	1,726,877	11,499,872
1925	7,435,771	a2,554,068	50,720	1,727,412	11,767,971
1926	7,515,553	2,663,099	50,974	1,736,360	11,965,986
COST PER MILE OPEN.					
1922	6,861	a4,804	9,746	8,647	6,507
1923	6,944	a4,831	9,746	8,686	6,569
1924	7,019	a4,901	10,267	8,692	6,636
1925	7,072	a5,345	10,267	8,694	6,790
1926	7,148	5,572	10,318	8,739	6,905

(a) Exclusive of Rolling Stock the property of South Australian Government Railways.

(b) Exclusive of Rolling Stock the property of New South Wales Government Railways.

The sum of £1,508,765 of which £97,200 was for surveys, etc., has been provided from revenue for capital purposes to 30th June, 1926, and has been included in the total shown above.

9. Gross Revenue.—(i) *Total, per average mile worked, and per train mile run.* The following table shows the total revenue from all sources, the revenue per average mile worked, and the revenue per train mile run for each of the undermentioned railways for the financial years 1922 to 1926 inclusive :—

RAILWAYS, FEDERAL.—GROSS REVENUE, TOTAL, ETC., 1922 TO 1926.

Year ended 30th June—	Railway.				Total.
	Trans- Australian.	Oodnadatta.	Federal Capital Territory.	Northern Territory.	
TOTAL GROSS REVENUE.					
	£	£	£	£	£
1922	206,826	99,462	1,847	14,364	322,499
1923	208,925	108,770	2,883	15,835	336,413
1924	227,420	105,124	4,080	16,802	353,426
1925	256,647	110,256	7,029	35,180	409,112
1926	276,430	82,649	11,665	41,347	412,091
GROSS REVENUE PER AVERAGE MILE WORKED.					
1922	197	208	374	72	186
1923	199	228	584	80	194
1924	216	220	826	85	204
1925	244	231	1,423	177	236
1926	263	173	2,363	208	238
GROSS REVENUE PER TRAIN-MILE RUN.					
	d.	d.	d.	d.	d.
1922	105.37	98.34	350.97	214.41	105.86
1923	111.52	86.10	649.69	182.51	104.22
1924	120.29	87.96	220.04	219.01	111.16
1925	130.37	93.25	281.20	164.65	120.69
1926	140.67	101.68	383.98	160.57	134.41

The revenue from coaching traffic and from miscellaneous receipts was considerably higher than in the previous year, but these gains were almost entirely neutralized by the decline in the revenue from goods and live stock.

(ii) *Classification and Percentages.* The gross revenue is composed of (a) receipts from coaching traffic, including the carriage of mails, horses, parcels, etc., by passenger trains; (b) receipts from the carriage of goods and live stock; and (c) rents and miscellaneous items. The subjoined table shows the gross revenue for 1922 to 1926 classified according to the three chief sources of receipts, together with their percentages on the total revenue. The totals of the three items are given in the preceding table.

RAILWAYS, FEDERAL.—RECEIPTS, VARIOUS SOURCES, 1922 TO 1926.

Year ended 30th June—	Railway.								Total.
	Trans-Australian.		Oodnadatta.		Federal Capital Territory.		Northern Territory.		
	Total.	Per Cent.	Total.	Per Cent.	Total.	Per Cent.	Total.	Per Cent.	
COACHING TRAFFIC RECEIPTS.									
1922	£	%	£	%	£	%	£	%	£
1922	139,192	67.30	19,669	19.78	48	2.60	2,685	18.69	161,594
1923	138,304	66.20	17,927	16.48	47	1.63	397	2.51	156,675
1924	144,352	63.48	17,764	16.90	754	18.48	2,778	16.53	165,648
1925	157,173	61.24	18,732	16.99	2,228	31.70	3,367	9.57	181,500
1926	172,371	62.35	20,418	24.72	3,144	26.95	3,852	9.31	199,785
GOODS AND LIVE STOCK RECEIPTS.									
1922	£	%	£	%	£	%	£	%	£
1922	31,081	15.03	76,710	77.12	1,779	96.32	5,194	36.16	114,764
1923	31,005	14.84	87,552	80.49	2,819	97.78	7,163	45.23	128,539
1924	34,486	15.16	84,278	80.17	3,326	81.52	6,141	36.55	128,231
1925	53,313	20.77	88,544	80.31	4,801	68.30	19,359	55.03	166,017
1926	51,370	18.59	58,479	70.74	8,521	73.05	22,886	55.36	141,256
MISCELLANEOUS RECEIPTS.									
1922	£	%	£	%	£	%	£	%	£
1922	36,553	17.67	3,083	3.10	20	1.08	6,485	45.16	46,141
1923	39,616	18.96	3,291	3.03	17	0.59	8,275	52.26	51,199
1924	45,582	21.36	3,082	2.93	..	..	7,883	46.92	59,547
1925	46,161	17.99	2,980	2.70	..	..	12,454	35.40	61,595
1926	52,689	19.06	3,752	4.54	..	..	14,609	35.33	71,050

The miscellaneous receipts for the year 1925-26 include an amount of £27,854, revenue from dining cars and refreshment services on the Trans-Australian Railway. A sum of £25,102 was received from this source during the previous year.

10. Working Expenses.—(i) *Total*. The following table shows the total working expenses, and the percentages on the corresponding gross revenues of each railway for each year from 1922 to 1926.

Details of the annual expenditure on (a) maintenance of ways, works and buildings, (b) locomotives, carriages and wagons repairs and renewals, (c) traffic expenses, and (d) compensation, general and miscellaneous charges, are given in (iii) following.

RAILWAYS, FEDERAL.—WORKING EXPENSES, TOTAL, ETC., 1922 TO 1926.

Year ended 30th June—	Railway.				Total.
	Trans- Australian.	Oodnadatta.	Federal Capital Territory.	Northern Territory.	
TOTAL WORKING EXPENSES.					
	£	£	£	£	£
1922	255,434	177,369	1,308	26,511	460,622
1923	250,280	178,181	1,588	30,984	461,033
1924	265,121	176,711	3,268	30,077	475,177
1925	294,164	158,009	4,882	40,015	497,070
1926	282,999	187,835	6,946	43,240	521,020
PERCENTAGE OF WORKING EXPENSES ON REVENUE.					
	%	%	%	%	%
1922	123.50	178.33	70.82	184.56	150.10
1923	119.79	163.81	55.08	195.67	142.83
1924	116.58	168.10	80.10	179.01	137.04
1925	114.61	143.31	69.45	113.75	134.45
1926	102.38	227.27	59.55	104.58	126.43

The increases in working expenses during the past few years are partly ascribed to increased salaries consequent on Arbitration Court awards and the increased cost of material generally. The minimum wage payable for employees on the Trans-Australian Railway has risen from 13s. *per diem* in 1921 to 14s. 8d.

(ii) *Averages*. The next table gives the working expenses per average mile worked and per train-mile run for each railway for the years 1922 to 1926:—

RAILWAYS, FEDERAL.—WORKING EXPENSES, AVERAGES, 1922 TO 1926.

Year ended 30th June—	Railway.				Total.
	Trans- Australian.	Oodnadatta.	Federal Capital Territory.	Northern Territory.	
WORKING EXPENSES PER AVERAGE MILE WORKED.					
	£	£	£	£	£
1922	243	371	265	133	266
1923	238	373	322	156	266
1924	252	370	662	151	274
1925	280	331	988	204	287
1926	269	393	1,406	218	301
WORKING EXPENSES PER TRAIN-MILE RUN.					
	d.	d.	d.	d.	d.
1922	130.14	175.36	248.55	395.73	151.20
1923	133.60	141.04	357.85	357.11	142.83
1924	140.35	147.86	176.25	392.05	149.45
1925	149.43	133.64	195.31	187.29	146.64
1926	144.01	231.09	228.64	167.92	169.94

(iii) *Classification and Percentages.* The subjoined table shows the distribution of working expenses among four chief heads of expenditure for the years 1922 to 1926, together with their percentages on the total working expenses which are given in 10 (i) hereinbefore :—

RAILWAYS, FEDERAL.—DISTRIBUTION OF WORKING EXPENSES, 1922 TO 1926.

Year ended 30th June—	Railway.								Total.	
	Trans-Australian.		Oodnadatta.		Federal Capital Territory.		Northern Territory.			
	Total.	Per Cent.	Total.	Per Cent.	Total.	Per Cent.	Total.	Per Cent.	Total.	Per Cent.
MAINTENANCE.										
1922	£	%	£	%	£	%	£	%	£	%
1922	75,941	29.73	78,780	44.42	736	56.27	14,683	55.38	170,140	36.94
1923	72,822	29.10	83,014	46.59	810	51.01	16,350	52.77	172,996	37.52
1924	77,892	29.38	71,087	40.23	711	21.76	13,858	46.08	163,548	34.42
1925	83,219	28.29	57,411	36.33	906	18.56	14,155	35.37	155,691	31.32
1926	88,490	31.27	160,583	53.55	782	11.26	15,866	36.69	205,721	39.48

MAINTENANCE.

	£	%	£	%	£	%	£	%	£	%
1922 ..	75,941	29.73	78,780	44.42	736	56.27	14,683	55.38	170,140	36.94
1923 ..	72,822	29.10	83,014	46.59	810	51.01	16,350	52.77	172,996	37.52
1924 ..	77,892	29.38	71,087	40.23	711	21.76	13,858	46.08	163,548	34.42
1925 ..	83,219	28.29	57,411	36.33	906	18.56	14,155	35.37	155,691	31.32
1926 ..	88,490	31.27	160,583	53.55	782	11.26	15,866	36.60	205,721	39.48

LOCOMOTIVE, CARRIAGE, AND WAGON CHARGES.

1922 ..	112,317	43.97	79,640	44.90	503	38.84	4,848	18.29	197,313	42.84
1923 ..	110,652	44.21	73,476	41.24	721	45.40	7,528	24.30	192,377	41.73
1924 ..	115,107	43.42	84,029	47.55	1,900	58.14	8,179	27.19	209,215	44.03
1925 ..	133,467	45.37	77,809	49.24	2,756	56.45	12,871	32.22	226,923	45.66
1926 ..	116,966	41.33	61,694	32.84	4,257	61.29	14,336	33.15	197,253	37.86

TRAFFIC EXPENSES.

1922 ..	38,416	15.04	18,609	9.36	64	4.89	6,248	23.57	61,337	13.31
1923 ..	37,139	14.84	18,583	10.43	57	3.59	6,481	20.92	62,266	13.51
1924 ..	39,936	15.06	18,533	10.49	657	20.10	7,346	24.42	66,472	13.99
1925 ..	41,164	14.00	19,313	12.23	1,220	24.09	11,186	27.95	72,886	14.66
1926 ..	40,927	14.46	19,994	10.65	1,907	27.45	11,784	27.26	74,612	14.32

OTHER CHARGES.

1922 ..	28,760	11.26	2,340	1.32	..	..	732	2.76	31,832	6.91
1923 ..	29,667	11.85	3,102	1.74	..	..	625	2.01	33,394	7.24
1924 ..	32,186	12.14	3,062	1.73	..	..	694	2.31	35,942	7.56
1925 ..	36,314	12.34	3,473	2.20	..	..	1,783	4.46	41,570	8.36
1926 ..	36,616	12.91	5,564	2.96	..	..	1,254	2.90	43,434	8.34

11. *Passenger Journeys, and Tonnage of Goods and Live Stock.*—(i) *General.* In the next table particulars are given of the passenger journeys and tonnage of goods and live stock carried on the Federal railways during the years 1922 to 1926 :—

RAILWAYS, FEDERAL.—TRAFFIC, 1922 TO 1926.

Year ended 30th June—	Railway.				Total.
	Trans-Australian.	Oodnadatta.	Federal Capital Territory.	Northern Territory.	
	No.	No.	No.	No.	No.
1922 ..	28,003	64,477	..	3,343	95,823
1923 ..	32,914	67,311	..	3,063	103,288
1924 ..	31,805	67,657	32,616	3,511	135,589
1925 ..	32,362	65,322	110,499	3,798	211,981
1926 ..	34,512	65,250	138,923	5,293	243,978

TONNAGE OF GOODS AND LIVE STOCK CARRIED.

	tons.	tons.	tons.	tons.	tons.
1922 ..	20,780	76,089	9,817	2,251	108,937
1923 ..	33,252	72,392	14,702	2,954	123,300
1924 ..	32,858	69,179	18,504	3,167	123,708
1925 ..	42,225	63,622	25,405	15,259	146,511
1926 ..	37,848	46,870	45,933	15,275	145,926

(ii) *Passenger-Mileage Summary.* The appended table gives particulars of "Passenger-Mileage" on each of the Federal railways for the year 1925-26 :—

RAILWAYS, FEDERAL.—PASSENGER-MILES SUMMARY, 1925-26.

Railway.	Passenger Train Mileage.	Number of Passenger Journeys.	Total "Passenger-Miles."	Amount Received from Passengers.	Average Number of Passengers carried per Train Mile.	Average Mileage per Passenger Journey.	Average Earnings per "Passenger-Mile."	Average Fare per Passenger Journey.	Density of Traffic per Average Mile Worked.
			,000 omitted.	£		Miles.	d.	£ s. d.	
Trans-Australian ..	372,080	34,512	29,049	138,545	78	842	1.14	4 0 3	27,627
Oodnadatta ..	46,095	65,250	2,754	15,402	60	42	1.34	0 4 9	5,761
Federal Capital Territory ..	2,862	138,923	497	2,575	174	4	1.24	0 0 4½	100,613
Northern Territory ..	8,306	5,293	426	3,420	51	81	1.92	0 12 11	2,146

(iii) *Ton-Mileage Summary.* Particulars of ton-mileage are shown hereunder in respect of each of the Federal railways for the year 1925-26 :—

RAILWAYS, FEDERAL.—"TON-MILEAGE" SUMMARY, 1925-26.

Railway.	Goods Train Mileage.	Total Tons Carried.	Total "Ton-Miles."	Goods Earnings.	Average Freight-paying Load per Train Mile.	Average Haul per ton.	Earnings per "Ton-Mile."	Density of Traffic per Average Mile Worked.
			,000 omitted.	£	Tons.	Miles.	d.	
Trans-Australian ..	98,642	37,848	9,596	51,370	97	254	1.28	9,126
Oodnadatta ..	146,678	40,870	4,973	58,479	34	106	2.82	10,405
Federal Capital Territory ..	4,261	45,933	223	8,521	54	5	8.92	46,435
Northern Territory ..	52,335	15,275	1,660	22,886	32	109	3.31	8,356

12. *Passenger Fares, Goods Rates, and Parcel Rates.*—In previous issues of the Year Book particulars were included of Passenger Fares, Goods Rates (Ordinary Goods and Agricultural Produce), and Parcels Rates, but it is not proposed to republish this information herein.

13. *Rolling Stock, 1926.*—The following table shows the numbers of locomotives and rolling stock in use on the Federal railways, classified according to gauge :—

RAILWAYS, FEDERAL.—LOCOMOTIVES AND ROLLING STOCK, 1926.

Railway.	Gauge.			Total.	Gauge.			Total.	Gauge. .			Total.
	4 ft. 8½ in.	3 ft. 6 in.			4 ft. 8½ in.	3 ft. 6 in.			4 ft. 8½ in.	3 ft. 6 in.		
	LOCOMOTIVES.				COACHING STOCK.				STOCK OTHER THAN COACHING.			
Trans-Australian	68		68	49		49	734		734			
Oodnadatta	..	17	17	..	12	12	..	195	195			
Northern Territory	..	13	13	..	12	12	..	282	282			
Total	68	30	98	49	24	73	734	477	1,211			

The Federal Capital Territory Railway is worked by the New South Wales Government Railway Department, using its own rolling stock.

14. **Employees.**—(i) *General.* The following table shows the number of employees on the Federal railways at 30th June in each year from 1922 to 1926 inclusive, classified according to salaried and wages staffs :—

RAILWAYS, FEDERAL.—EMPLOYEES, 1922 TO 1926.

Railway.	30th June—									
	1922.		1923.		1924.		1925.		1926.	
	Salaried Staff.	Wages Staff.	Salaried Staff.	Wages Staff.	Salaried Staff.	Wages Staff.	Salaried Staff.	Wages Staff.	Salaried Staff.	Wages Staff.
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Trans-Australian	161	802	157	852	162	761	173	906	218	870
Oodnadatta ..	(a) 8	(a) 54	(a) 9	(a) 71	(a) 14	(a) 107	(a) 17	(a) 147		345
Northern Territory	..	..	..	..	..	..	..	..		184
Federal Capital Territory (b) ..	..	..	..	..	..	..	..	..	..	..
Total ..	169	856	166	923	176	868	190	1,053	218	1,399

(a) Worked by South Australian Government Railways.

(b) Worked by New South Wales Government Railways.

Of the 218 salaried staff employed, 46 were engaged in the Construction Branch, but it is not possible to assign numbers to particular lines. Of the operating staffs (salaried), 133 were employed on the Trans-Australian Line, 26 on the Oodnadatta Line and 13 on the Northern Territory Line—a total of 172 persons.

(ii) *Average Employed throughout Year.* The average number of employees throughout the year 1925–26 was 208 salaried staff (45 of whom were on construction work) and 1,373 wages staff (Construction, 282).

15. **Accidents.**—(i) *Classification.* The table hereunder furnishes a classification of accidents on the Federal railways during the year 1925–26 :—

RAILWAYS, FEDERAL.—ACCIDENTS, 1925-26.

Classification.	Trans-Australian.		Oodnadatta.		Federal Capital Territory.		Northern Territory.		All Federal Railways.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Train Accidents—										
Passengers
Employees
Accidents on line (other than train accidents)—										
Passengers	2	..	1	..	..	..	..	..	3
Employees	3	1	8	..	..	..	..	1	11
Other Persons
Shunting Accidents—										
Passengers
Employees	1	..	3	..	..	..	..	..	4
Other Persons
Employees proceeding to or from duty within the Railway boundary
Persons killed or injured at crossings
Trespassers
Miscellaneous	6	..	..	..	..	..	6
Total	6	1	18	..	..	..	..	1	24

(ii) *Particulars for Quinquennium 1922-26.* The following table shows the number of accidents in each of the years 1922 to 1926 :—

RAILWAYS, FEDERAL.—ACCIDENTS, 1922 TO 1926.

Railway.	Number of Persons.									
	Killed.					Injured.				
	1922.	1923.	1924.	1925.	1926.	1922.	1923.	1924.	1925.	1926.
Trans-Australian	..	1	1	..	..	8	14	9	6	6
Oodnadatta	2	1	8	7	7	3	18
Federal Capital Territory
Northern Territory	1	..	..	1	1	1	4	..
Total	..	1	2	2	1	17	22	17	13	24

§ 3. State Railways.

1. *Administration and Control of State Railways.*—The policy of Government control of the railways has been adopted in each State, and earlier issues of the Year Book (see No. 6, p. 693) contain a description of the methods adopted by the various State Governments in the control and management of their railways.

2. *Mileage Open, 1922 to 1926.*—(i) *General.* The following table shows the length of State railways open for traffic on the 30th June in the years 1922 to 1926 :—

RAILWAYS, STATE.—MILEAGE OPEN FOR TRAFFIC, 1922 TO 1926.

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
1922	5,116	4,317	5,799	2,357	3,538	637	21,764
1923	5,318	4,333	5,906	2,373	3,555	663	22,148
1924	5,523	4,434	6,040	2,452	3,629	673	22,751
1925	5,655	4,483	6,114	2,452	3,733	673	23,111
1926	5,742	4,627	6,240	2,499	3,864	673	23,645

A graph indicating the mileage open in Australia at the end of each of the years 1870 to 1926 accompanies this chapter.

The appended statement shows the actual mileage opened for traffic in the year 1926, and also the annual average increase in mileage opened since 1916 in each State :—

RAILWAYS, STATE.—MILEAGE OPENED ANNUALLY.

Mileage.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
Mileage opened during 1925-26	86.07	143.65	125.62	47.40	131.69	..	534.43
Average annual mileage increase for 10 years to 30th June, 1926 ..	155.38	52.69	127.31	31.25	53.24	11.07	430.94

(ii) *New South Wales.* During the year ended 30th June, 1926, the following extensions and new lines were opened for traffic :—The Rock to Pulletop (25.74 miles); Trida to Ivanhoe (39.17 miles); Sydenham to Botany (5.35 miles); and Roslyn to Taralga (15.78 miles). Re-adjustments of actual mileage open increased the mileage by 0.03 miles, making a total increase for the year of 86.07 miles.

(iii) *Victoria.* The following lines were opened for traffic during 1925-26 :—Werrimul to The Hut (15.17 miles); Kooloonong to West Narrung (6.71 miles); Melbourne Yard-New Country Lines (1.85 miles); and Moama (New South Wales) to Balranald (New South Wales) (119.92 miles); a total of 143.65 miles.

(iv) *Queensland.* During 1925-26, 125.62 miles of new lines were opened for traffic, viz. :—Tara to The Gums (17.69 miles); The Gums to Hannaford (7.43 miles); Callide to Thangool (14.90 miles); Longreach to Morella (40.43 miles); and Baralaba to Nippan (45.17 miles).

(v) *South Australia.* During the year 1925-26, 47.89 miles of new 5 ft. 3 in. gauge lines were opened for traffic, as follows :—Snowtown to Red Hill (16.56 miles); and Wanbi to Yinkanie (31.33 miles). Re-adjustments of the measurements of existing mileage reduced the total increase of mileage open by 0.49 miles, making a net increase of 47.40 miles.

(vi) *Western Australia.* The following new mileage was opened for traffic during the year :—Piawaning to Miling (26.95 miles); Esperance to Salmon Gums (66.49 miles); Lake Grace to Newdegate (38.75 miles); Gilgering Deviation (0.03 miles); while 0.53 miles were dismantled, thus making the total increase for the year 131.69 miles.

(vii) *Tasmania.* No new extensions were opened during the year. The Sorell line (Bellerive to Sorell), 14.65 miles, was closed for traffic on 1st July, 1926.

3. **Length and Gauge of Railway Systems in each State.**—In all the States the Government railways are grouped, for the convenience of administration and management, into several divisions or systems. A summary showing concisely the gauge and length of the main and branch lines included in each division or system in the different States for the year ended 30th June, 1926, is given in the Transport and Communication Bulletin No. 18 issued by this Bureau.

4. **Average Mileage Worked and Train-Miles Run.**—The total mileage open for traffic at the end of each financial year has been given previously, but, in considering the returns relating to revenue and expenditure and other matters, it is desirable to know the average number of miles actually worked during each year. The next table shows the average number of miles worked and the total number of train-miles run by the Government railways of each State during the years 1922 to 1926 inclusive :—

RAILWAYS, STATE.—MILEAGE WORKED AND MILES RUN, 1922 TO 1926.

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
AVERAGE MILEAGE WORKED.							
1922 ..	5,077	4,279	5,784	2,344	3,538	635	21,657
1923 ..	5,197	4,314	5,868	2,359	3,552	663	21,953
1924 ..	5,460	4,369	5,960	2,416	3,593	668	22,466
1925 ..	5,571	4,448	6,078	2,452	3,669	673	22,891
1926 ..	5,722	4,528	6,145	2,491	3,837	673	23,396
TRAIN-MILES RUN.							
1922 ..	21,837,065	15,856,815	9,634,532	5,629,957	4,564,631	1,433,099	59,006,099
1923 ..	21,693,861	16,394,239	10,917,534	5,792,798	4,505,299	1,434,816	60,738,597
1924 ..	23,755,897	17,244,507	11,647,077	6,791,620	4,839,235	1,416,216	65,694,602
1925 (a) ..	23,304,916	17,482,006	12,107,995	6,653,248	4,843,304	1,358,980	65,750,449
1926 (a) ..	24,624,995	17,575,547	12,866,323	6,846,149	4,862,505	1,342,475	68,117,994

(a) Traffic Train Miles (exclusive of "Assistant" and "Light" mileages).

In some years the average mileage worked in Tasmania is greater than the mileage open, owing to the Railway Department having running powers over certain private lines. The particulars of train-miles run given in the foregoing table are not strictly comparable over the quinquennium owing to the fact that "assistant" and "light" mileages have been excluded for the years 1924-25 and 1925-26.

5. **Lines under Construction, and Lines Authorized, 1926.**—(i) *General.* The following statement gives particulars up to the 30th June, 1926, of the mileage of State railways (a) under construction, and (b) authorized for construction but not commenced :—

**RAILWAYS, STATE.—MILEAGE UNDER CONSTRUCTION AND AUTHORIZED,
30th JUNE, 1926.**

Particulars.	N.S.W.	Vic. (a)	Q'land.	S.A.	W.A.	Tas.	All States.
Mileage under construction	243.64	53.50	6234.00	29.35	111.50	..	671.99
Mileage authorized but not commenced ..	259.07	144.25	1,165.00	46.50	174.00	..	1,788.82

(a) See sub-section (b) below.

(b) Exclusive of 186 miles on which work has been suspended.

(c) Exclusive of 28 miles in abeyance.

(ii) *Lines under Construction.* In spite of the great extensions of State railways since the year 1875, there are still, in some of the States, immense areas of country which are as yet practically undeveloped, and in which little in the nature of permanent settlement has been accomplished. The general policy of the States is to extend the existing lines inland in the form of light railways as settlement increases, and while it is true that lines which were not likely to be commercially successful in the immediate future have been constructed from time to time for the purpose of encouraging settlement, the general principle that the railways should be self-supporting is kept in view.

(a) *New South Wales.* The total mileage under construction was 243.64 miles, consisting of the following lines:—Richmond to Kurrajong (6.89 miles); Ivanhoe to Menindie (117.44 miles); Booyong to Ballina (12.79 miles); Uranquinty towards Moon's Siding (28.33 miles); Ungarie to Naradhan (38.09 miles); Kyogle to Richmond Gap (26.66 miles); Regent's Park to Bankstown (2.35 miles); and the City and Suburban Railway (11.09 miles).

(b) *Victoria.* In this State 15.50 miles of 5 ft. 3 in. gauge lines are being constructed, viz.:—Goroke to Morea (9 miles) and Marnoo to Wallaloo (6.50 miles). The Border Railways Act 1922 (Vic. 3194) provides for the construction of 38 miles in New South Wales Territory, viz.:—Gonn Crossing to Stony Crossing. On completion this line, which is of 5 ft. 3 in. gauge, will be taken over and operated by the Victorian Railways Commissioners.

(c) *Queensland.* In previous issues of the Year Book details were given of the scheme of railway construction under the provisions of the North Coast Railway Act 1910 (see Year Book No. 15, p. 551). On the 30th June, 1926, the following lines, of an aggregate length of 506 miles, were under construction:—Northern Division—Mount Molloy Extension (7 miles) and Duchess to Mt. Isa (54 miles); Central Division—Barrimoon to Monto (31 miles); Callide to Monto (78 miles); Nippan to Castle Creek (14 miles); and Morella to Winton (69 miles); Southern Division—Ceratodus to Monto (34 miles); and Hannaford towards Surat (25 miles). The following lines are partially constructed, but work thereon is temporarily suspended:—Wallaville to Kallilwa (18 miles); Yaraka to Powell's Creek (27 miles); Dajarra to Moonah Creek (41 miles); Thangool to Monto (63 miles); and Winton to 37-Mile (37 miles); a total of 186 miles.

(d) *South Australia.*—The construction of the following lines was in progress at 30th June, 1926:—5 ft. 3 in. gauge—Bumbunga to Lochiel (5.00 miles); and Paringa to Renmark (2.50 miles); 3 ft. 6 in. gauge—Kimba to Buckleboo (21.85 miles). The conversion to 5 ft. 3 in. gauge of the Western system (3 ft. 6 in. gauge), about 206 miles, is in hand, and approximately 135 miles of main track has been completed.

(e) *Western Australia.* The following lines were in course of construction by the Public Works Department on the 30th June, 1926:—Norseman to Salmon Gums (58.50 miles); Jardee to Pemberton (17 miles); and Dwarda to Narrogin (36 miles); a total of 111.50 miles. The construction of the line from Pemberton to Denmark (28 miles) was in abeyance at 30th June, 1926.

(f) *Tasmania.* At 30th June, 1926, no railway construction work was in progress.

(iii) *Lines Authorized for Construction.* (a) *New South Wales.* At the 30th June, 1926, the following lines had been authorized for construction but not commenced:—Gilgandra to Collie (21.51 miles); Grafton to South Grafton, with bridge over Clarence

River (2.34 miles); Camurra to Boggabilla (70 miles); Wyalong to Condobolin (33 miles); Moss Vale to Port Kembla (38.08 miles); Jerilderie towards Deniliquin (25.00 miles); Rand to Bull's Plains (27.55 miles); Canowindra to Gregira (33.87 miles); and Tempe to East Hills (7.72 miles); a total distance of 259.07 miles.

(b) *Victoria*. The following lines were authorized, but construction had not been commenced up to the end of June, 1926:—5 ft. 3 in. gauge: Kanagulk to Edenhope (37.75 miles); Mildura to Murray River (4 miles); Bowser to Peechelba (11 miles); and La La Siding to Big Pat's Creek (2.50 miles). Under the Border Railways Act 1922, the following lines have been approved for construction in New South Wales territory:—Yarrowonga (Victoria) to Oaklands (New South Wales) (37 miles); Euston (New South Wales) to Benanee and beyond (New South Wales) (30 miles); and Gol Gol Extension (22 miles); an aggregate distance of 144.25 miles.

(c) *Queensland*. In addition to the new lines upon which work has been commenced, Parliament has authorized the construction of the following parts of the Great Western Railway—Section A, from Quilpie to Eromanga (120 miles); Section B, from Powell's Creek (224 miles); Section C, from 37-Mile to Springvale (324 miles); and Section D, from Moonah Creek (216 miles). The following lines were also authorized for construction—Inglewood to Texas and Silverspur (44 miles); Mount Edwards to Maryvale (28 miles); Lanefield to Rosevale (17 miles); Gatton to Mount Sylvia (11 miles); Wandoan to Taroom (42 miles); Dirranbandi extension (52 miles); Yarraman to Nanango (16 miles); Brooloo to Kenilworth (10 miles); Dobbryn to Myally Creek (50 miles); and Pearamon towards Boongee (11 miles); a total of 1,165 miles.

(d) *South Australia*. Parliament has authorized the construction of lines on the 5 ft. 3 in. gauge from Renmark to Barmera (20.25 miles); and on the 3 ft. 6 in. gauge from Kielpa to Mangala Hall (26.25 miles).

(e) *Western Australia*. The following lines were authorized for construction up to the 30th June, 1926:—Bridgetown-Jarnadup (Part) (22 miles); Pemberton to Denmark (63 miles); Yarramony eastwards (85 miles); and Brookton to Dale River (27 miles); a total distance of 197 miles.

(f) *Tasmania*. There were no new railways authorized on which work had not been commenced at 30th June, 1926.

6. *Cost of Construction and Equipment.*—(i) *General*. The total cost of construction and equipment of the State railways as distinct from those owned by the Commonwealth Government at the 30th June, 1926, amounted to £276,425,969, representing an average cost of £45.81 per head of population. If the cost of railways owned by the Commonwealth Government is included, the total capital cost (£288,391,955) is equivalent to an amount of £47.71 per head of the population of the Commonwealth, while the total mileage open (25,378.50 miles) per 1,000 of population is 4.20 miles. Particulars of the capital expenditure incurred on lines open for traffic are given in the following table:—

RAILWAYS, STATE.—MILEAGE AND COST TO 30th June, 1926.

State.	Length of Line Open (Route).	Total Cost of Construction and Equipment.	Average Cost per Mile Open.	Cost per Head of Population.	Mileage per 1,000 of Population at 30th June, 1926.
	Miles.	£	£	£	Miles.
New South Wales (a) ..	5,741.82	103,674,668	18,056	44.73	2.48
Victoria	4,627.27	(b) 68,888,145	(b) 14,887	40.65	2.73
Queensland	6,240.04	51,555,649	8,262	58.63	7.10
South Australia (a) ..	2,499.10	(c) 25,529,866	(c) 10,216	45.71	4.47
Western Australia (a) ..	3,864.35	20,327,456	5,260	54.18	10.30
Tasmania	672.90	6,450,185	9,586	30.81	3.21
All States ..	23,645.48	276,425,969	11,690	45.81	3.91

(a) Exclusive of Federal railways.

(b) Exclusive of cost of line from Murrayville to South Australian border (12.53 miles).

(c) Exclusive of cost of line from Mount Gambier to Victorian border (11.67 miles).

The lowest average cost (£5,260) per mile open is in Western Australia, and the highest (£18,056) in New South Wales, as compared with an average of £11,690 for all States. There were few costly engineering difficulties in Western Australia, and the fact that contractors were permitted to carry traffic during the term of their contracts considerably reduced expenditure, particularly in respect of all goldfield contracts.

In the table above the figures relating to cost of construction and equipment do not include the discounts and flotation charges on loans allocated to the railways. This will explain the differences between the amounts shown therein for Queensland, South Australia, and Western Australia, and those shown in the Railway Reports for these States.

(ii) *Capital Cost, All Lines.* (a) *Total.* The increase in the total capital cost of construction and equipment of Government railways for each year from 1922 to 1926 is shown in the following table:—

RAILWAYS, STATE.—CAPITAL COST OF LINES OPEN, 1922 TO 1926.

Year ended 30th June—	N.S.W.	Victoria. (a)	Q'land.	S. Aust. (b)	W. Aust.	Tasmania.	All States. (a, b)
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TOTAL COST OF LINES OPEN.

	£	£	£	£	£	£	£
1922 ..	83,789,871	62,941,964	42,519,012	19,742,821	18,330,557	5,753,381	233,077,006
1923 ..	87,713,871	64,615,435	44,823,991	20,234,003	18,555,115	6,199,725	242,142,140
1924 ..	91,792,167	65,880,792	47,367,439	21,419,602	18,967,443	6,374,784	251,793,227
1925 ..	98,060,216	67,136,069	49,453,595	23,637,283	19,643,517	6,416,194	264,346,874
1926 ..	103,674,668	68,888,145	51,555,049	25,529,866	20,327,456	6,450,185	276,425,969

COST PER MILE OPEN.

	£	£	£	£	£	£	£
1922 ..	16,378	14,560	7,332	8,376	5,181	9,035	10,707
1923 ..	16,494	14,883	7,590	8,527	5,219	9,346	10,933
1924 ..	16,621	14,856	7,842	8,733	5,227	9,474	11,067
1925 ..	17,338	14,974	8,088	9,641	5,263	9,535	11,435
1926 ..	18,056	14,887	8,262	10,216	5,260	9,586	11,690

(a) Exclusive of cost of line from Murrayville to South Australian border (12.53 miles).

(b) Exclusive of cost of line from Mount Gambier to Victorian border (11.67 miles).

(b) *From Consolidated Revenue.* The following table shows the amounts provided from Consolidated Revenue for construction and equipment to 30th June, 1926:—

RAILWAYS, STATE.—EXPENDITURE FROM CONSOLIDATED REVENUE FOR CONSTRUCTION AND EQUIPMENT TO 30th JUNE, 1926.

To 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
	£	£	£	£	£	£	£
1926 ..	659,930	4,029,914	..	834,119	658,134	16,935	6,199,032

(iii) *Loan Expenditure.* The subjoined table shows the total loan expenditure on Government railways (including lines both open and unopen) in each State, except Tasmania, and on Government railways and tramways in the latter State for the years 1922 to 1926:—

RAILWAYS, STATE.—LOAN EXPENDITURE, 1922 TO 1926.

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas. (a)	All States.
	£	£	£	£	£	£	£
1922 ..	4,399,725	3,478,021	1,226,280	572,482	323,296	490,990	10,490,794
1923 ..	4,177,273	1,674,643	2,134,162	659,120	519,557	254,120	9,418,875
1924 ..	2,914,722	1,395,282	2,318,205	779,441	561,988	250,514	8,220,152
1925 ..	4,246,963	1,483,720	1,741,805	2,151,329	534,103	28,638	10,186,558
1926 ..	6,060,259	1,489,285	2,826,188	2,764,511	642,854	17,255	13,800,352

(a) Including tramways.

The following statement shows the total loan expenditure on railways to the 30th June, 1926 :—

RAILWAYS, STATE.—TOTAL LOAN EXPENDITURE TO 30th JUNE, 1926.

State ..	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania. a	All States.
	£	£	£	£	£	£	£
Expenditure	109,283,951	67,634,835	54,875,095	26,267,702	20,168,519	6,892,582	285,122,684

(a) Including tramways.

7. Gross Revenue.—(i) General. The total revenue from all sources, the revenue per average mile worked, and the revenue per train-mile run during each financial year from 1922 to 1926 inclusive were as follows :—

RAILWAYS, STATE.—GROSS REVENUE, 1922 TO 1926.

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
	£	£	£	£	£	£	£
1922 ..	15,213,019	10,791,082	5,154,530	3,297,347	2,827,856	588,297	37,872,131
1923 ..	15,221,333	11,347,057	5,420,400	3,710,922	2,915,985	572,417	39,188,114
1924 ..	15,616,577	11,958,635	5,714,036	3,929,428	3,227,371	585,468	41,031,515
1925 ..	16,769,452	12,759,197	7,109,210	4,012,736	3,359,501	548,256	44,558,352
1926 ..	16,939,032	12,671,061	7,437,090	4,237,718	3,337,292	545,191	45,167,384

GROSS REVENUE PER AVERAGE MILE WORKED.

	£	£	£	£	£	£	£
1922 ..	2,996	2,522	891	1,406	799	927	1,749
1923 ..	2,929	2,630	924	1,573	821	863	1,785
1924 ..	2,860	2,737	959	1,627	808	877	1,826
1925 ..	3,010	2,869	1,170	1,637	916	815	1,947
1926 ..	2,960	2,798	1,210	1,701	870	810	1,930

GROSS REVENUE PER TRAIN-MILE RUN.

	d.	d.	d.	d.	d.	d.	d.
1922 ..	166.82	163.33	128.40	140.56	148.68	98.51	150.04
1923 ..	168.39	166.11	119.15	153.74	155.34	95.74	154.85
1924 ..	173.65	172.95	125.94	152.43	167.09	101.35	160.71
1925 ..	172.70	175.16	140.92	144.75	166.47	96.82	162.64
1926 ..	165.09	173.03	138.73	148.56	164.72	97.47	159.14

The amounts of revenue earned per average mile worked and per train-mile run in respect of (a) coaching and (b) goods and live stock traffic, separately, are given later.

(ii) *Coaching, Goods, and Miscellaneous Receipts.* (a) *Totals.* The gross revenue is composed of (a) receipts from coaching traffic, including the carriage of mails, horses, parcels, etc., by passenger trains; (b) receipts from the carriage of goods and live stock; and (c) rents and miscellaneous items. The subjoined table shows the gross revenue for 1922 to 1926, classified according to the three chief sources of receipts. The total of the three items specified has already been given in the preceding paragraph.

RAILWAYS, STATE.—COACHING, GOODS, ETC., RECEIPTS, 1922 TO 1926.

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
COACHING TRAFFIC RECEIPTS.							
	£	£	£	£	£	£	£
1922 ..	6,636,530	5,376,620	1,898,050	1,240,354	973,153	263,340	16,388,047
1923 ..	6,694,353	5,664,738	2,008,282	1,270,590	972,318	262,373	16,872,654
1924 ..	6,797,888	5,914,559	2,092,693	1,286,298	996,776	253,386	17,341,600
1925 ..	6,942,093	5,981,437	2,482,026	1,317,102	971,323	221,668	17,915,649
1926 ..	7,101,229	6,070,555	2,454,689	1,277,463	969,160	206,728	18,079,824

GOODS AND LIVE STOCK TRAFFIC RECEIPTS.

1922 ..	7,953,909	4,815,056	3,105,485	2,000,716	1,688,482	312,890	19,876,538
1923 ..	7,868,769	4,953,192	3,290,471	2,378,034	1,768,211	294,831	20,553,508
1924 ..	8,096,274	5,204,526	3,487,987	2,558,706	2,050,707	318,668	21,716,868
1925 ..	9,010,929	5,775,522	4,477,985	2,607,628	2,198,322	312,706	24,383,092
1926 ..	8,941,123	5,565,451	4,817,222	2,578,700	2,174,895	320,748	24,398,139

MISCELLANEOUS RECEIPTS.

1922 ..	622,580	599,406	150,995	56,277	166,221	12,067	1,607,546
1923 ..	658,211	729,127	121,647	62,298	175,436	15,213	1,761,952
1924 ..	722,415	839,550	133,356	84,424	179,888	13,414	1,973,047
1925 ..	816,430	1,002,238	149,199	88,006	189,856	13,882	2,259,611
1926 ..	896,680	1,035,055	165,179	381,555	193,237	17,715	2,689,421

The increase in miscellaneous receipts in the State of South Australia was due to the inclusion of £225,242 on account of Border Railway adjustments with the State of Victoria, and £78,619 earned by Bookstalls and Refreshment Rooms which were operated departmentally for the first time.

(b) *Percentages.* The following table shows for the two years 1924–25 and 1925–26 the percentage which each class of receipts bears to the total gross revenue :—

RAILWAYS, STATE.—PERCENTAGES OF RECEIPTS, 1925 AND 1926.

State.	1925.			1926.		
	Coaching.	Goods and Live Stock.	Miscellaneous.	Coaching.	Goods and Live Stock.	Miscellaneous.
	%	%	%	%	%	%
New South Wales ..	41.40	53.73	4.87	41.92	52.78	5.30
Victoria ..	46.88	45.26	7.86	47.91	43.92	8.17
Queensland ..	34.91	62.99	2.10	33.01	64.77	2.22
South Australia ..	32.82	64.98	2.20	30.15	60.85	9.00
Western Australia ..	28.91	65.44	5.65	29.04	65.17	5.79
Tasmania ..	40.43	57.04	2.53	37.92	58.83	3.25
All States ..	40.21	54.72	5.07	40.03	54.02	5.95

(c) *Averages for Coaching Traffic Receipts.* The subjoined table shows the receipts from coaching traffic per average mile of line worked and per passenger-train-mile in each State for the year ended the 30th June, 1926 :—

RAILWAYS, STATE.—COACHING TRAFFIC RECEIPTS, AVERAGES, 1926.

State.	Number of Passenger-Train-Miles.	Coaching Traffic Receipts.		
		Gross.	Per Average Mile Worked.	Per Passenger-Train-Mile.
	No.	£	£	d.
New South Wales	14,037,710	7,101,229	1,241	121.41
Victoria	11,767,618	6,070,555	1,341	123.81
Queensland	4,237,720	2,454,689	399	139.02
South Australia	3,662,400	1,277,463	513	83.71
Western Australia	2,076,691	969,160	253	112.00
Tasmania	596,189	206,728	307	83.22
All States	36,378,328	18,079,824	773	119.28

(a) Includes " Assistant " and " Light " Mileage.

(d) *Averages for Goods and Live Stock Traffic.* The gross receipts from goods and live stock traffic per average mile worked, per goods-train-mile, and per ton carried, for the year ended the 30th June, 1926, are given below :—

RAILWAYS, STATE.—GOODS AND LIVE-STOCK TRAFFIC RECEIPTS, AVERAGES, 1926.

State.	Number of Goods-Train-Miles.	Goods and Live-Stock Tonnage.	Goods and Live-Stock Traffic Receipts.			
			Gross.	Per Average Mile Worked.	Per Goods-Train-Mile.	Per Ton Carried.
	No.	Tons.	£	£	d.	d.
New South Wales	10,587,285	15,032,811	8,941,123	1,563	202.66	142.75
Victoria	5,807,929	8,728,496	5,565,451	1,229	229.98	153.03
Queensland	8,628,603	5,106,386	4,817,222	784	133.99	226.41
South Australia	3,183,749	3,562,245	2,578,700	1,035	194.39	173.74
Western Australia	2,976,239	3,237,496	2,174,895	567	175.38	161.23
Tasmania	761,822	694,194	320,748	477	101.05	110.89
All States	31,945,627	36,361,628	24,398,139	1,043	183.30	161.04

(a) Includes " Assistant " and " Light " Mileage.

8. *Working Expenses.*—(i) *General.* In order to make an adequate comparison of the working expenses, allowance should be made for the variation of gauges and of physical and traffic conditions, not only on the railways of the different States, but also on different portions of the same system. Where traffic is light, the percentage of working expenses is naturally greater than where traffic is heavy ; and this is especially true in Australia, where ton-mile rates are in many cases based on a tapering principle—i.e., a lower rate per ton-mile is charged upon merchandise from remote interior districts—and where on many of the lines there is but little back loading.

The following table shows the total annual expenditure and the percentage thereof on gross revenue in each State for the years 1922 to 1926 :—

RAILWAYS, STATE.—WORKING EXPENSES, 1922 TO 1926.

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
TOTAL WORKING EXPENSES.							
	£	£	£	£	£	£	£
1922	11,116,302	8,026,665	4,810,862	2,537,110	2,328,843	538,066	29,357,348
1923	10,649,974	8,181,926	4,714,262	2,781,547	2,210,348	514,350	29,052,407
1924	10,917,491	8,718,394	4,990,749	2,801,298	2,297,980	552,877	30,378,779
1925	11,939,686	9,429,728	5,425,167	2,935,755	2,355,087	531,590	32,617,013
1926	12,519,393	9,543,147	6,453,792	2,708,130	2,509,049	504,038	38,622,149

(a) See (ii) below.

PERCENTAGE OF WORKING EXPENSES ON GROSS REVENUE.

	%	%	%	%	%	%	%
1922	73.07	74.38	93.32	76.94	82.35	91.46	77.52
1923	69.97	72.11	86.97	74.96	75.80	89.86	74.14
1924	69.91	72.90	87.34	73.84	71.20	94.43	74.03
1925	71.20	73.90	76.31	73.16	70.10	96.96	73.20
1926	73.91	75.35	86.86	167.10	75.18	92.45	85.51

The variation in the percentage of working expenses on the gross revenue in each State for the years 1865 to 1926 is illustrated in the graph which accompanies this chapter.

(ii) *Special Expenditure.* The pronounced increase in the working expenses in South Australia is due to an amount of £3,982,314 on account of accumulated and deferred charges being debited against the revenue of the year. This expenditure has been shown in this way in deference to the wishes of the South Australian railway authorities. Eliminating this amount, the percentage of working expenses on gross revenue for that State would have been 73.12 per cent., and for all States 76.70 per cent.

(iii) *Averages.* The next table shows the working expenses per average mile worked and per train-mile run in each State for the years 1922 to 1926 :—

RAILWAYS, STATE.—WORKING EXPENSES, AVERAGES, 1922 TO 1926.

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
WORKING EXPENSES PER AVERAGE MILE WORKED.							
	£	£	£	£	£	£	£
1922	2,189	1,876	832	1,082	658	848	1,356
1923	2,049	1,896	803	1,179	622	775	1,323
1924	1,999	1,995	837	1,201	640	828	1,352
1925	2,143	2,120	893	1,197	642	799	1,425
1926	2,188	2,108	1,051	2,843	654	749	1,651

WORKING EXPENSES PER TRAIN-MILE RUN.

	d	d.	d.	d.	d.	d.	d.
1922	121.89	121.49	119.83	108.15	122.45	90.11	119.41
1923	117.82	119.78	103.63	115.24	117.75	86.03	114.79
1924	121.40	126.08	110.00	112.55	118.97	95.71	118.99
1925	122.96	129.45	107.54	105.90	116.70	93.87	119.05
1926	122.02	130.38	120.50	248.24	123.84	90.11	136.08

(a) See sub-section (ii) above.

The working expenses per average mile worked for the year 1925–26 were greater than the previous year in the States of New South Wales, Queensland, and South and Western Australia, while in respect of working expenses per train-mile, New South Wales and Tasmania were the only States in which decreases were recorded.

(iv) *Distribution.* The subjoined table shows the distribution of working expenses, under four chief heads of expenditure, for the years 1922 to 1926 :—

RAILWAYS, STATE.—DISTRIBUTION OF WORKING EXPENSES, 1922 TO 1926.

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
MAINTENANCE.							
	£	£	£	£	£	£	£
1922	1,940,794	1,705,539	1,162,367	400,541	557,091	152,168	5,921,500
1923	1,891,233	1,761,951	1,103,893	414,395	513,790	144,973	5,830,235
1924	1,865,096	1,861,887	1,197,992	545,987	543,387	151,186	6,165,535
1925	2,176,435	1,933,960	1,280,190	501,800	527,493	144,612	6,594,490
1926	2,001,724	1,928,597	1,513,588	a2,407,266	596,046	134,835	8,582,056
LOCOMOTIVE, CARRIAGE, AND WAGON CHARGES.							
1922	5,474,485	3,426,370	2,165,438	1,417,305	1,074,460	239,158	13,797,216
1923	5,247,980	3,482,711	2,120,267	1,579,432	1,042,751	228,308	13,701,449
1924	5,360,663	3,219,267	2,214,001	1,548,799	1,092,580	234,562	13,669,872
1925	5,772,631	3,501,911	2,459,370	1,560,923	1,124,157	223,302	14,642,294
1926	6,107,302	3,592,490	2,973,033	a3,611,130	1,157,230	218,326	17,659,511
TRAFFIC EXPENSES.							
1922	2,993,601	2,395,694	1,387,425	660,202	621,058	125,038	8,183,018
1923	2,806,970	2,399,867	1,400,869	722,641	592,445	117,607	8,040,399
1924	2,939,236	3,081,776	1,487,334	738,545	599,678	122,395	8,969,264
1925	3,121,001	3,228,361	1,593,347	792,762	639,193	122,374	9,497,638
1926	3,331,092	2,701,124	1,859,375	a863,171	683,898	117,246	9,622,906
OTHER CHARGES.							
1922	707,422	496,062	95,132	59,062	76,234	21,702	1,455,614
1923	703,791	537,397	89,233	65,079	61,362	23,462	1,480,324
1924	752,496	555,464	91,422	67,667	62,335	42,042	1,571,426
1925	869,619	734,896	92,260	80,270	64,244	41,302	1,828,291
1926	1,019,875	1,325,936	113,796	a194,563	69,875	33,631	2,757,676

(a) See sub-section (ii), page 291.

In New South Wales and Victoria the expenditure in connexion with refreshment rooms is included in "Other Charges."

9. Net Revenue.—(i) *Net Revenue and Percentage on Capital Cost.* The following table shows the net sums available to meet interest charges, also the percentage of such sums upon the capital cost of construction and equipment of lines open for traffic in each State for the years 1922 to 1926:—

RAILWAYS, STATE.—NET REVENUE AND PERCENTAGE THEREOF ON CAPITAL COST OF LINES OPEN, 1922 TO 1926.

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
NET REVENUE.							
	£	£	£	£	£	£	£
1922	4,096,717	2,764,417	344,168	760,237	499,013	50,231	8,514,783
1923	4,571,359	3,165,131	706,138	929,375	705,037	58,067	10,135,707
1924	4,699,086	3,240,241	723,287	1,028,130	922,391	35,233	10,655,418
1925	4,829,766	3,329,169	1,684,043	1,076,981	1,004,414	16,666	11,941,339
1926	4,419,039	3,122,914	977,293	-2,843,412	828,243	41,153	6,545,235
				a			
PERCENTAGE OF NET REVENUE ON CAPITAL EXPENDITURE.							
	%	%	%	%	%	%	%
1922	4.89	4.39	0.81	3.85	2.72	0.87	3.65
1923	5.21	4.90	1.58	4.59	3.80	0.94	4.19
1924	5.12	4.92	1.53	4.80	4.90	0.51	4.23
1925	4.93	4.96	3.41	4.56	5.11	0.26	4.51
1926	4.26	4.54	1.90	a - 1.11	4.07	0.63	2.37

(a) See sub-section (ii), page 291.

These figures are also represented in the graphs which accompany this chapter.

The percentage of net revenue on capital expenditure for all States during the past five years reached its maximum during the year 1924-25, with a return of 4.51. The very low return for 1925-26 is due, in a large measure, to the unusual loading of the working expenses of the year in South Australia, which was alluded to in paragraph 8. But for this circumstance the percentage of net revenue on capital would have been 4.07 per cent. for South Australia and 3.81 per cent. for the average of all States. Even this larger return, however, would be insufficient to meet interest charges, for which particulars are included in the following sub-section.

(ii) *Net Revenue, Averages.* Tables showing the gross earnings and the working expenses per average mile worked and per train-mile run have been given previously. The net earnings, i.e., the excess of gross earnings over working expenses per average mile worked and per train-mile run are shown in the following table:—

RAILWAYS, STATE.—NET REVENUE, AVERAGES, 1922 TO 1926.

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
NET REVENUE PER AVERAGE MILE WORKED.							
	£	£	£	£	£	£	£
1922	807	646	59	324	141	79	393
1923	880	734	121	394	199	88	462
1924	861	742	122	426	258	49	474
1925	867	749	277	429	273	25	522
1926	772	690	159	a-1,142	216	61	279
NET REVENUE PER TRAIN-MILE RUN.							
	d.	d.	d.	d.	d.	d.	d.
1922	44.93	41.84	8.57	32.41	26.23	8.41	30.63
1923	50.57	46.33	15.52	38.50	37.59	9.71	40.05
1924	52.25	46.87	15.94	39.88	48.12	5.64	41.72
1925	49.74	45.71	33.38	38.85	49.77	2.95	43.58
1926	43.07	42.65	18.23	a-99.68	40.88	7.36	23.06

(a) See sub-section (ii), page 291.

The net revenue per average mile worked and per train-mile run showed decreases in all States with the exception of Tasmania, where a fairly substantial increase was recorded. Here again, however, the results are prejudicially affected by the loading of the working expenses in South Australia (see page 291). But for this, the net revenue per mile worked would have been £457 in South Australia, and £450 for all States, while per train mile it would have been, respectively, 41.04d. and 38.40d.

10. *Profit or Loss.*—The following table shows the amount of interest payable on expenditure from loans on the construction and equipment of the railways, the actual profit or loss after deducting working expenses and interest and all other charges from the gross revenue, and the percentage of such profit or loss on the total capital cost of construction and equipment for the last five years:—

RAILWAYS, STATE.—PROFIT OR LOSS, 1922 TO 1926.

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
AMOUNT OF INTEREST ON RAILWAY LOAN EXPENDITURE.							
	£	£	£	£	£	£	£
1922	4,217,881	2,580,001	1,924,375	905,319	756,737	228,488	10,612,801
1923	4,487,303	2,937,099	1,998,694	923,606	768,244	255,007	11,370,563
1924	4,693,417	3,001,370	2,136,187	977,376	787,221	263,157	11,858,728
1925	4,796,829	3,085,648	2,419,503	1,018,117	813,849	279,832	12,413,778
1926	5,249,710	3,077,905	2,564,181	1,195,108	860,225	238,799	13,230,928

PROFIT OR LOSS AFTER PAYMENT OF WORKING EXPENSES, INTEREST, AND OTHER CHARGES.

	£	£	£	£	£	£	£
1922	-121,164	+184,416	-1,580,207	-145,082	-257,724	-178,257	-2,098,018
1923	+84,056	+227,422	-1,292,556	+5,769	-62,607	-196,940	-1,234,856
1924	+5,669	+238,371	-1,412,900	+50,754	+142,170	-227,874	-1,203,310
1925	+32,937	+243,821	-735,460	+58,864	+190,565	-263,166	-472,439
1926	-830,671	+45,009	-1,586,883	-4,038,520	-31,982	-242,646	-6,685,699

PERCENTAGE OF PROFIT OR LOSS ON CAPITAL COST OF CONSTRUCTION AND EQUIPMENT.

	%	%	%	%	%	%	%
1922	-0.15	+0.29	-3.72	-0.74	-1.41	-3.10	-0.90
1923	+0.10	+0.35	-2.88	+0.03	-0.34	-3.18	-0.51
1924	+0.01	+0.36	-2.98	+0.24	+0.75	-3.57	-0.48
1925	+0.03	+0.36	-1.49	+0.25	+0.97	-4.10	-0.18
1926	-0.80	+0.06	-3.08	a-1.58	-0.16	-3.76	-2.42

— Indicates a loss.

(a) See sub-section (ii), page 291.

Interest charges in 1925-26, viz., £13,230,928, show an increase of £2,618,127 over the amount payable in 1921-22. The interest payable on the cost of construction and equipment, exclusive of expenditure from Consolidated Revenue (£6,199,032) for that purpose, was at the rate of 4.90 per cent. in 1925-26. If the abnormal charges to working expenses in South Australia be eliminated, the loss in that State for 1925-26 would be 0.22 per cent., and for all States, 0.98 per cent.

11. *Traffic.*—(i) *General.* Reference has already been made to the difference in the traffic conditions on many of the lines. These conditions differ not only in the several States, but also on different lines in the same States, and apply to both passenger and goods traffic. By far the greater part of the population of Australia is confined to a fringe of country near the coast, more especially in the eastern and southern districts. A large proportion of the railway traffic between the chief centres of population is therefore carried over lines in the neighbourhood of the coast, and is thus, in some cases, open to sea-borne competition. On most of the lines extending into the interior traffic is light, as the density of population diminishes rapidly as the coastal regions are left behind, with a consequent diminution in the volume of traffic, while, in comparison with other more settled countries, there is but little back loading.

The following table gives particulars for the years 1922 to 1926 :—

RAILWAYS, STATE.—TRAFFIC, 1922 TO 1926.

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
NUMBER OF PASSENGER JOURNEYS.							
1922 ..	121,298,861	142,456,924	27,155,606	23,316,141	17,895,509	2,757,702	334,880,743
1923 ..	123,714,639	155,957,240	28,358,170	24,475,170	17,830,292	2,884,210	353,219,721
1924 ..	128,101,184	167,861,864	29,535,981	25,177,933	18,133,168	2,956,887	371,770,017
1925 ..	128,532,038	166,444,142	29,657,832	25,647,487	17,196,672	2,656,018	370,134,189
1926 ..	130,725,581	168,054,308	28,384,302	25,843,319	16,457,719	2,455,824	371,421,053

PER 100 OF MEAN POPULATION.

1922 ..	5,645	9,067	3,469	4,606	5,272	1,283	6,020
1923 ..	5,648	9,700	3,533	4,730	5,120	1,339	6,216
1924 ..	5,749	10,224	3,579	4,753	5,044	1,379	6,411
1925 ..	5,652	9,959	3,483	4,715	4,670	1,244	6,249
1926 ..	5,687	9,979	3,296	4,594	4,422	1,132	6,206

PER AVERAGE MILE OF LINE WORKED.

1922 ..	23,892	33,290	4,695	9,945	5,059	4,345	15,462
1923 ..	23,805	36,151	4,833	10,375	5,020	4,350	16,090
1924 ..	23,461	38,417	4,957	10,422	5,047	4,433	16,548
1925 ..	23,071	37,424	4,879	10,461	4,687	3,947	16,170
1926 ..	22,845	37,111	4,619	10,213	4,289	3,650	15,876

TONNAGE OF GOODS AND LIVE STOCK CARRIED.

1922 ..	14,197,055	7,491,031	3,732,413	2,827,681	2,548,258	621,751	31,418,189
1923 ..	13,801,310	7,517,216	4,208,989	3,283,594	2,624,320	568,346	32,003,775
1924 ..	15,693,127	8,309,543	4,273,926	3,565,307	3,023,299	703,961	35,572,163
1925 ..	16,208,476	8,959,556	5,083,658	3,611,313	3,284,915	690,561	37,838,479
1926 ..	15,032,811	8,728,496	5,106,386	3,562,245	3,237,496	694,194	36,361,628

PER 100 OF MEAN POPULATION.

1922 ..	661	477	477	559	751	289	565
1923 ..	630	467	524	635	754	264	503
1924 ..	704	506	518	671	841	329	612
1925 ..	719	536	597	664	892	323	645
1926 ..	654	518	593	646	870	320	608

PER AVERAGE MILE OF LINE WORKED.

1922 ..	2,796	1,751	645	1,206	720	980	1,451
1923 ..	2,656	1,743	717	1,391	739	857	1,458
1924 ..	2,874	1,902	717	1,476	842	1,059	1,583
1925 ..	2,909	2,014	836	1,473	895	1,026	1,652
1926 ..	2,627	1,928	831	1,430	844	1,032	1,554

(ii) *Metropolitan and Country Passenger Traffic and Revenue.* A further indication of the difference in passenger traffic conditions is obtained from a comparison of the volume of metropolitan and suburban, and country traffic in each State. This is shown below for the year 1925-26:—

**RAILWAYS, STATE.—METROPOLITAN AND SUBURBAN, AND COUNTRY
PASSENGER TRAFFIC AND RECEIPTS, 1925-26.**

Particulars.	Passenger Journeys.			Revenue.		
	Metropolitan and Suburban.	Country.	Total.	Metropolitan and Suburban.	Country.	Total.
	No.	No.	No.	£	£	£
N.S.W. ..	a 119,824,985	10,900,596	130,725,581	2,280,203	4,031,487	6,311,690
Victoria ..	b 158,589,397	9,464,911	168,054,308	2,693,187	2,732,617	5,425,804
Queensland ..	22,170,399	6,213,903	28,384,302	404,424	1,575,062	1,979,486
S. Australia ..	c 23,286,514	2,056,805	25,343,319	397,091	677,991	1,075,082
W. Australia ..	14,217,495	2,240,224	16,457,719	254,269	535,980	790,249
Tasmania ..	(d)	(d)	2,455,824	(d)	(d)	173,488
Total	(e)	(e)	371,421,053	(e)	(e)	15,755,799

(a) Within 34 miles of Sydney and Newcastle, including the Richmond line.
of Melbourne. (c) Within 25 miles of Adelaide. (d) Not available.

(b) Within 20 miles
(e) Incomplete.

Although the number of passenger journeys recorded in the metropolitan area in Victoria is considerably greater than in New South Wales, it must be borne in mind that in the latter State other transport facilities, viz., tramways, motor-omnibuses, and ferries, are more extensively used.

A more detailed analysis of the passenger traffic for the years ended 30th June, 1925 and 1926, is contained in the Transport and Communication Bulletin No. 18 issued by this Bureau.

(iii) *Electrification of Suburban and Country Railways.* Electrification of the Melbourne Suburban Railways was completed in April, 1923. The scheme comprised the electrification of 157 route-miles of steam-operated railway, including sidings, and the conversion and construction of the necessary rolling stock. Particulars of the lines concerned were given in Year Book No. 15, p. 564. Considerable progress has been made with the electrification of the Sydney Suburban System, and on 1st March, 1926, electric trains were operating on the Illawarra line. As the traffic on main country lines develops, it is intended to convert to electric traction busy sections which are within reasonable distance of a cheap power supply, and investigations are being made in order to determine which line offers prospects of financial success.

(iv) *Goods Traffic.* (a) *Classification.* The differing conditions of the traffic in each State might also, to some extent, be analysed by an examination of the tonnage of various classes of commodities carried, and of the revenue derived therefrom. Comparative particulars regarding the quantities of some of the leading classes of commodities

carried are available for all the States, and the following table shows the number of tons of various representative commodities carried, with the percentage of each class on the total for the financial year 1925-26 :—

RAILWAYS, STATE.—CLASSIFICATION OF COMMODITIES CARRIED, 1925-26.

State.	Coal, Coke and Shale.	Other Minerals.	Grain and Flour.	Hay, Straw, and Chaff.	Wool.	Live Stock.	All other Com- modities.	Total.
TONS CARRIED.								
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
New South Wales	7,145,225	1,858,915	1,450,813	391,877	154,946	766,557	3,264,478	15,032,811
Victoria	607,278	1,896,361	1,618,218	380,038	87,882	509,591	3,539,128	8,728,496
Queensland	717,812	446,139	1,915,762 ^a	^b	75,954	468,833	1,481,886	5,106,386
South Australia	281,456	699,465	685,608	100,936	37,236	152,959	1,604,585	3,562,245
Western Australia	209,929	523,862	674,343	100,113	16,941	93,477	1,613,831	3,237,496
Tasmania	290,975	^c	71,757 ^a	47,379	2,928	25,066	256,089	694,194
All States	9,252,675	5,424,742	6,416,501	1,020,343	375,887	2,111,483	11,759,997	36,361,628

PERCENTAGE ON TOTAL TONNAGE CARRIED.

	%	%	%	%	%	%	%	%
New South Wales	47.53	12.36	9.65	2.61	1.03	5.10	21.72	100.00
Victoria	6.96	21.73	18.54	4.35	1.01	6.87	40.54	100.00
Queensland	14.06	8.73	37.52 ^a	^b	1.49	9.18	29.02	100.00
South Australia	7.90	19.64	19.25	2.83	1.05	4.29	45.04	100.00
Western Australia	6.49	16.18	20.83	3.09	0.52	3.04	49.85	100.00
Tasmania	41.92	^c	10.34 ^a	6.82	0.42	3.61	36.89	100.00
All States	25.45	14.92	17.65	2.80	1.03	5.81	32.34	100.00

(a) Agricultural produce.

(b) Included with agricultural produce.
and shale.

(c) Included with coal, coke,
and shale.

(b) *Revenue.* The following table shows the revenue derived from goods and live stock traffic during 1925-26 according to a classification which has been adopted by all States :—

RAILWAYS, STATE.—GOODS, ETC., TRAFFIC—REVENUE, 1925-26.

Class.	New South Wales.	Victoria.	Queens- land.	South Australia.	Western Australia.	Tasmania.	Total.
	£	£	£	£	£	£	£
General merchandise	5,263,711	3,815,460	2,996,733	1,379,948	1,432,400	230,151	15,118,403
Wheat	^a	369,007	^a	248,555	302,945	^a	4920,507
Wool	683,968	218,788	535,010	71,854	58,601	4,634	1,572,855
Live stock	1,366,844	636,326	859,120	192,089	147,895	21,905	3,224,179
Minerals—							
Coal, coke, and shale	1,190,800	150,964	248,054	183,457	112,289	228,769	1,914,333
Others	435,800	374,906	178,305	502,797	120,765	635,289	1,647,862
Total	8,941,123	5,565,451	4,817,222	2,578,700	2,174,895	320,748	24,393,139

(a) Included with General Merchandise.

(b) Native coal.
(d) Incomplete.

(c) Minerals other than native coal.

In Victoria electric motor coaches are used for the transfer of parcels from the central stations to suburban stations, and also to convey luggage and parcels between the two main terminal stations.

12. *Passenger-Mileage and Ton-Mileage.*—(i) *Passenger-Miles.* The subjoined table gives particulars of passenger-mileage in respect of the States of New South Wales, Victoria, South Australia, and Tasmania for the years 1921-22 to 1925-26.

RAILWAYS, STATE.—SUMMARY OF "PASSENGER-MILES," 1922 TO 1926.

Year ended 30th June—	Passenger-Train-Mileage.	Number of Passenger Journeys.	Total Passenger-Miles.	Amount Received from Passengers.	Average Number of Passengers carried per Train.	Average Mileage per Passenger Journey.	Average Earnings per Passenger-Mile.	Average Fare per Passenger Journey.	Density of Traffic per Average Mile Worked.
	Miles. (,000 omitted.)	No. (,000 omitted.)	No. (,000 omitted.)	£	No.	Miles	d.	d.	No.

NEW SOUTH WALES.

1922	11,379	121,299	1,610,619	5,934,616	145	13.27	0.88	11.74	320,936
1923	11,822	123,715	1,679,903	6,004,702	142	13.58	0.86	11.65	323,260
1924	12,385	128,101	1,721,161	6,076,988	139	13.44	0.85	11.39	315,216
1925	12,616	128,532	1,637,381	6,186,368	130	12.74	0.91	11.55	293,907
1926	14,038	130,726	1,675,091	6,311,690	119	12.81	0.90	11.59	292,732

VICTORIA.

1922	9,865	142,457	1,231,828	4,814,820	125	8.65	0.94	8.11	287,777
1923	10,626	155,957	1,332,694	5,094,595	125	8.54	0.92	7.84	308,892
1924	11,140	167,862	1,421,771	5,330,614	128	8.47	0.90	7.62	325,391
1925	11,602	166,444	1,426,411	5,380,887	123	8.57	0.91	7.76	320,718
1926	11,768	168,054	1,460,343	5,425,804	125	8.69	0.82	7.75	322,487

SOUTH AUSTRALIA.

1922	2,749	23,330	268,558	1,045,530	102	11.51	0.93	10.76	115,110
1923	2,833	24,481	282,387	1,078,155	100	11.54	0.92	10.57	119,718
1924	2,918	25,107	290,843	1,088,046	100	11.58	0.90	10.40	120,394
1925	3,460	25,647	302,185	1,114,558	97	11.78	0.89	10.43	123,255
1926	3,662	25,343	300,950	1,075,082	82	11.87	0.86	10.18	120,836

TASMANIA.

1922	662	2,758	46,550	233,608	70	16.88	1.15	20.33	73,336
1923	692	2,884	46,032	228,458	67	15.96	1.19	19.01	69,388
1924	672	2,960	46,766	218,020	70	15.80	1.11	17.68	70,036
1925	654	2,656	45,126	187,701	69	16.99	0.99	16.96	67,061
1926	596	2,456	39,342	173,488	66	16.02	1.06	15.67	58,466

The differences in the number of passenger journeys given in this table and that in connexion with traffic in respect of the State of South Australia for the years 1922 to 1924 inclusive are accounted for by the fact that the latter table is compiled from the receipts from passenger traffic, while the former is based on the passenger traffic carried.

(ii) *Ton-Miles.* Particulars regarding total "ton-miles" are given in the following table for each of the years 1921-22 to 1925-26 in respect of all States with the exception of Queensland :—

RAILWAYS, STATE.—SUMMARY OF "TON-MILES," 1922 TO 1926.

Year ended the 30th June—	Goods-Train-Mileage.	Total Tons Carried.	Total "Ton-miles."	Earnings.	Average Freight-paying Load Carried per "Train."	Average Haul per Ton.	Earnings per "Ton-mile."	Density of Traffic per Average Mile Worked.
	No. (000 omitted.)	No. (000 omitted.)	No. (000 omitted.)	£	Tons.	Miles.	d.	Tons.
NEW SOUTH WALES.								
1922	10,508	14,197	1,365,961	7,953,910	154	96.21	1.38	269,049
1923	9,871	13,567	1,166,238	7,868,769	160	85.96	1.60	224,417
1924	11,322	15,516	1,392,390	8,096,274	163	89.74	1.37	255,005
1925	10,689	16,027	1,647,448	9,010,929	177	102.80	1.29	295,718
1926	10,587	14,809	1,509,555	8,941,123	165	101.93	1.39	263,802
VICTORIA.								
1922	5,992	7,491	684,887	4,815,056	143	91.43	1.69	160,058
1923	5,768	7,517	673,904	4,953,192	145	89.65	1.76	156,198
1924	5,939	8,310	745,301	5,204,526	154	89.69	1.68	170,588
1925	5,880	8,960	847,202	5,775,522	176	94.56	1.64	190,468
1926	5,808	8,728	776,251	5,565,451	166	88.93	1.72	171,434
SOUTH AUSTRALIA.								
1922	2,881	2,828	284,269	2,000,716	99	100.53	1.68	121,253
1923	3,374	3,284	368,525	2,378,035	113	112.23	1.55	156,241
1924	3,269	3,565	384,576	2,558,706	129	107.87	1.60	169,195
1925	3,193	3,611	393,649	2,607,628	134	109.00	1.59	160,559
1926	3,184	3,563	387,317	2,579,365	134	108.70	1.60	155,518
WESTERN AUSTRALIA.								
1922	2,689	2,548	208,347	1,688,482	77	81.76	1.95	58,894
1923	2,659	2,624	210,151	1,768,211	93	80.08	2.02	59,164
1924	2,916	3,023	252,796	2,050,707	100	83.62	1.95	70,364
1925	3,053	3,285	277,190	2,198,322	104	84.38	1.90	75,553
1926	2,976	3,237	272,611	2,174,895	106	84.20	1.91	71,048
TASMANIA.								
1922	771	602	30,850	295,480	40	51.28	2.29	48,602
1923	743	547	27,297	275,968	37	49.29	2.42	41,147
1924	744	685	30,019	300,156	40	43.83	2.39	44,955
1925	726	668	29,697	292,004	41	44.45	2.36	44,133
1926	762	669	32,000	298,078	42	47.82	2.23	47,556

(a) Based on 10 months actual and 2 months estimated.

In New South Wales the tonnage carried is exclusive of coal, on which shunting and baulage charges only have been collected, and terminal charges have also been disregarded, but in the cases of South Australia and Tasmania such charges are included. Particulars for the latter State do not include live stock.

RAILWAYS, STATE.—EMPLOYEES, 1922 TO 1926.

State.	At 30th June—									
	1922.		1923.		1924.		1925.		1926.	
	Salaried Staff.	Wages Staff.	Salaried Staff.	Wages Staff.	Salaried Staff.	Wages Staff.	Salaried Staff.	Wages Staff.	Salaried Staff.	Wages Staff.
New South Wales	5,302	36,037	5,356	34,271	5,473	36,127	5,672	36,455	5,794	38,263
Victoria	3,097	23,791	4,030	22,577	4,083	23,400	4,153	24,857	4,323	24,465
Queensland	3,458	14,862	3,250	17,621	3,298	16,380	3,362	16,522	3,617	18,419
South Australia	1,116	8,443	1,108	8,429	1,208	9,438	1,316	11,519	1,362	9,801
Western Australia	1,175	6,330	1,180	6,259	1,224	6,510	1,282	6,334	1,318	6,697
Tasmania	215	1,491	216	1,842	190	1,406	169	1,297	185	1,219
All States	14,363	90,959	15,140	90,999	15,476	93,261	15,954	96,984	16,599	98,864

In the period under review the totals of salaried and wages staffs rose from 105,322 in 1922 to 115,463 in 1926, an increase of 11 per cent.

(ii) *Average staff employed, 1925-26.* The number of employees at one point of time does not afford the best index of employment in railway work. It is considered that the following statement of the average number employed throughout the year indicates more accurately the labour requirements of the railways.

AVERAGE STAFF EMPLOYED, 1925-26.

State.	Operating Staff.		Construction Staff.		All Employees—Staff.	
	Salaried.	Wages.	Salaried.	Wages.	Salaried.	Wages.
New South Wales	5,656	36,518	190	1,918	5,846	38,436
Victoria	4,334	24,204	..	..	4,334	24,204
Queensland	3,180	14,081	307	2,282	3,487	16,363
South Australia	1,312	9,970	58	2,558	1,370	12,528
Western Australia	1,298	6,953	..	..	1,298	6,953
Tasmania	177	1,258	..	..	177	1,258
All States	15,957	92,984	555	6,758	16,512	99,742

In the States of Victoria, Western Australia, and Tasmania, railway construction work is not under the control of the Railways Commissioners.

16. *Accidents.*—(i) *Classification.* The following classification of accidents which occurred through the movement of rolling stock was adopted by each State in 1925-26.

RAILWAYS, STATE.—ACCIDENTS, 1926.

Particulars.	N.S.W.		Vic.		Q'land.		S. Aust.		W. Aust.		Tas.		All States.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Train accidents—														
Passengers	5	50	3	153	..	3	..	22	..	9	..	..	8	237
Employees	..	14	..	..	1	7	..	8	1	17	..	..	2	46
Accidents on line (other than train accidents)—														
Passengers	9	137	8	186	2	24	1	81	1	49	..	..	21	477
Employees	15	122	11	89	2	24	4	87	1	139	1	29	34	490
Others	11	44	1	2	..	1	2	2	1	..	..	..	15	49
Shunting accidents—														
Passengers	..	4	..	..	..	1	..	1	..	..	..	..	..	6
Employees	6	192	7	33	7	99	1	88	..	97	1	9	22	518
Other persons	4	1	..	1	1	4	..	..	1	..	1	..	7	6
Employees proceeding to or from their duty within railway boundaries	..	8	2	1	..	..	..	..	..	..	..	..	2	9
Persons killed or injured at crossings	7	17	28	25	5	29	12	19	3	11	..	1	55	102
Trespassers	15	5	18	8	7	3	2	4	4	3	..	..	46	23
Miscellaneous	..	..	..	..	..	17	..	17	..	16	1	..	1	50
Total	72	594	78	498	25	212	22	329	12	341	4	39	213	2,018

(ii) *Particulars for Quinquennium.* The subjoined table gives particulars of the number of persons killed and injured through train accidents and the movement of rolling stock on the Government railways in each State for each of the years 1922 to 1926 inclusive :—

RAILWAYS, STATE.—ACCIDENTS, 1922 TO 1926.

State.	In year ended 30th June—									
	1922.		1923.		1924.		1925.		1926.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
New South Wales	67	467	45	498	77	526	69	597	72	594
Victoria	58	408	51	372	51	362	47	298	78	498
Queensland	13	564	17	563	(a)	(a)	45	232	25	212
South Australia	6	192	16	262	16	211	26	203	22	329
Western Australia	15	107	14	147	16	212	16	208	12	341
Tasmania	2	34	1	34	5	36	2	17	4	39
All States	166	1,772	144	1,876	(b)165	(b)1,347	205	1,606	213	2,013

(a) Not available.

(b) Incomplete.

17. *Consumption of Oil and Fuel.*—The appended table shows the quantity and value of oil and fuel consumed by the various Government Railway Departments during the year 1925–26 :—

GOVERNMENT RAILWAYS.—CONSUMPTION AND VALUE OF OIL AND FUEL, 1925–26.

Government Railways.	Oil.									Coal.		
	Lubricating.			Fuel.								
	Gallons.	Value.	Average Cost per Gallon.	Gallons.	Value.	Average Cost per Gallon.	Tons.	Value.	Average Cost per Ton.			
		£ s. d.				s. d.		£	£ s. d.			
New South Wales	483,089	60,673	2 6.14	987,089	52,611	1 0.79	1,668,887	1,371,389	0 16 5.22			
Victoria	176,200	22,100	2 6.10	420,700	27,320	1 3.59	745,390	973,580	1 6 1.47			
Queensland	273,543	27,853	2 0.44	191,305	13,270	1 4.65	515,728	481,075	0 18 7.87			
South Australia	a 153,890	18,403	2 4.70	b	b	b	238,487	465,437	1 19 0.39			
Western Australia	53,044	5,893	2 2.66	232,622	21,028	1 9.69	269,208	264,719	0 19 8.00			
Tasmania	26,277	4,196	3 2.32	10,344	746	1 5.31	45,314	58,415	1 5 9.39			
Total States	1,166,043	139,118	2 4.63	c1,842,060	c114,975	c1 2.98	3,483,014	3,614,615	1 0 9.07			
Federal	14,665	2,076	2 9.97	46,704	5,025	2 1.82	18,973	40,660	2 2 10.32			
Grand Total, Australia	1,180,708	141,194	2 4.70	c1,888,764	c120,000	c1 3.25	3,501,987	3,655,275	1 0 10.51			

(a) Lubricating oil used on loco. cars and wagons only.

(b) Not available.

(c) Exclusive of South Australia.

The range in the average cost per ton of coal from 16s. 5d. in New South Wales to £2 2s. 10d. per ton for coal used on the Federal Railways is attributable to the comparatively low haulage expenses incurred in the coal-producing States. The average cost of coal and oil during 1925–26 varied very little from that of 1924–25.

§ 4. Government Railways Generally.

1. **Summary, Federal and State Government Railways.**—In the following table a summary is given of the working of all Federal and State Government railways for the year ended 30th June, 1926 :—

RAILWAYS, FEDERAL AND STATE.—SUMMARY, 1926.

Particulars.	Federal Railways.	State Railways.	Total for Australia.
Total mileage open Miles	1,733.02	23,645.48	25,378.50
Average miles open during the year	1,733	23,396	25,129
Total train mileage	735,801	68,117,994	68,853,795
Total cost of construction of lines open .. £	11,965,986	276,425,969	288,391,955
Cost per mile £	6,905	11,690	11,364
Gross revenue £	412,091	45,167,384	45,579,475
Working expenses £	521,020	38,622,149	39,143,169
Percentage of working expenses on gross revenue %	126.43	85.51	85.88
Net revenue £	— 108,929	6,545,235	6,436,306
Interest payable £	308,429	13,230,928	13,539,357
Number of passenger journeys No.	243,978	371,421,053	371,665,031
Tonnage of goods and live stock carried .. Tons	145,926	36,361,628	36,507,554
Number of employees at 30th June, 1926—			
Salaried No.	172	16,599	16,771
Wages	1,041	98,864	99,905
Number of persons killed and injured during the year through train accidents and movement of rolling stock—			
Killed	1	213	214
Injured	24	2,013	2,037

NOTE.—(—) Denotes a loss on working.

A graph which accompanies this chapter illustrates the total capital cost, mileage open, average cost per mile open, gross revenue, working expenses, and net revenue for each of the years 1870 to 1926.

2. **Mileage Open for Traffic.**—(i) *Route Mileage.* The Government railway route mileages open for traffic, classified according to gauge, as at the 30th June in each of the years 1923 to 1926 are set out in the following table, which gives also the percentages of the mileage of each gauge on the total on the mainland—the figures for Tasmania being shown separately, as in the case of the table hereinafter relating to rolling stock :—

RAILWAYS, FEDERAL AND STATE.—ROUTE MILEAGE, 1923 TO 1926.

Gauge.	At 30th June—							
	1923.		1924.		1925.		1926.	
	Miles.	%	Miles.	%	Miles.	%	Miles.	%
Mainland—								
5 ft. 3 in. ..	5,375.09	23.15	5,503.37	23.12	5,552.31	22.97	5,743.41	23.25
4 ft. 8½ in. ..	6,334.67	27.28	6,539.68	27.46	6,672.63	27.60	6,758.70	27.36
3 ft. 6 in. ..	11,355.71	48.91	11,615.91	48.78	11,794.20	48.79	12,051.46	48.78
2 ft. 6 in. ..	121.77	0.53	121.77	0.51	121.77	0.51	121.77	0.49
2 ft. 0 in. ..	30.26	0.13	30.26	0.13	30.26	0.13	30.26	0.12
Total ..	23,217.50	100.00	23,810.99	100.00	24,171.17	100.00	24,705.60	100.00
Tasmania—								
3 ft. 6 in. ..	638.55	..	648.07	..	648.07	..	648.07	..
2 ft. 0 in. ..	24.83	..	24.83	..	24.83	..	24.83	..
Grand Total	23,880.88	..	24,483.89	..	24,844.07	..	25,378.50	..

In the four years from 1923 to 1926 the percentage of 5 ft. 3 in. gauge mileage has increased by 0.10, the 4 ft. 8½ in. by 0.08, while the 3 ft. 6 in. gauge has decreased by 0.13.

(ii) *Track Mileage.* The following table gives the track mileages of all Government railways and sidings, exclusive of Tasmania, for the years ended 30th June, 1923 to 1926, classified according to gauge, together with the percentages on the total :—

RAILWAYS, FEDERAL AND STATE.—TRACK MILEAGE (a) 1923 TO 1926.

Gauge.	At 30th June—							
	1923.		1924.		1925.		1926.	
	Miles.	%	Miles.	%	Miles.	%	Miles.	%
5 ft. 3 in. ..	6,930.03	25.03	7,076.24	24.76	7,167.23	24.74	7,427.27	25.05
4 ft. 8½ in. ..	8,177.04	29.54	8,424.07	29.47	8,593.18	29.66	8,710.62	29.37
3 ft. 6 in. ..	12,412.02	44.83	12,915.09	45.19	13,042.93	45.04	13,353.87	45.03
2 ft. 6 in. ..	131.54	0.48	131.54	0.46	131.54	0.45	131.56	0.44
2 ft. 0 in. ..	34.00	0.12	33.00	0.12	33.00	0.11	33.00	0.11
Total ..	27,684.63	100.00	28,579.94	100.00	28,967.88	100.00	29,656.32	100.00

(a) Exclusive of Tasmania.

3. *Rolling Stock.*—The numbers of the rolling stock employed on both the Federal and State Government railways are set out hereunder, classified according to gauge, as at the 30th June, 1926, together with the percentage of the numbers for each gauge on the total for the mainland. The figures for Tasmania are shown separately.

RAILWAYS, FEDERAL AND STATE.—ROLLING STOCK, 1926.

Gauge.	Locomotives.		Coaching Stock.						Vehicles other than Coaching.	
			Ordinary.		With Motors.		Total.			
	No.	%	No.	%	No.	%	No.	%	No.	%
Mainland—										
5 ft. 3 in. ..	923	24.35	2,788	39.89	427	90.66	3,215	43.10	23,653	28.54
4 ft. 8½ in. ..	1,470	38.77	2,294	32.83	22	4.67	2,316	31.05	24,702	29.80
3 ft. 6 in. ..	1,370	36.14	1,840	26.33	22	4.67	1,862	24.96	34,122	41.17
2 ft. 6 in. ..	19	0.50	55	0.79	..	..	55	0.74	243	0.29
2 ft. 0 in. ..	9	0.24	11	0.16	..	..	11	0.15	170	0.20
Total ..	3,791	100.00	6,988	100.00	471	100.00	7,459	100.00	82,890	100.00
Tasmania—										
3 ft. 6 in. ..	89	..	228	..	8	..	236	..	1,798	..
2 ft. 0 in. ..	7	..	6	..	..	..	6	..	77	..
Grand Total	3,887	..	7,222	..	479	..	7,701	..	84,765	..

§ 5. Private Railways.

1. *Total Mileage Open, 1925-26.*—The bulk of the private railways in Australia have been laid down for the purpose of hauling timber, firewood, sugar-cane, coal, or other minerals, and they are not generally used for the conveyance of passengers or for public traffic. In many cases the lines are practically unballasted and easily removable.

The railways referred to herein include (a) lines open to the public for general passenger and goods traffic; and (b) branch lines from Government railways and other lines which are used for special purposes and which are of a permanent description. Other lines are referred to in the part of this chapter dealing with Tramways (see C. *Tramways*).

The following table gives particulars of private railways open for traffic for general and special purposes during 1925-26. A classification of these lines according to gauge has already been given in § 1.

RAILWAYS, PRIVATE.—MILEAGE OPEN, 1925-26.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
For general traffic	142.03	24.94	302.35	33.80	277.00	192.10	972.22
For special purposes	188.61	35.47	1,033.93	16.10	606.86	207.41	2,088.38
Total ..	330.64	60.41	1,336.28	49.90	883.86	399.51	3,060.60

2. Lines Open for General Traffic.—The following statement gives a summary of the operations of private railways open for general traffic for the year 1926. More detailed information regarding these lines will be found in "Transport and Communication Bulletin No. 18," published by this Bureau.

RAILWAYS, PRIVATE.—SUMMARY, 1925-26.

State.	Companies from which returns were received.	Miles Open (Route).	Capital Cost.	Gross Revenue.	Working Expenses.	Train-Miles.	Passenger Journeys.	Tonnage of Goods, etc.	No. of Employees.	Rolling Stock.			
										Locos.	Coaches.	Other Vehicles.	
	No.	Miles.	£	£	£	Miles.	No.	Tons.	No.	No.	No.	No.	
New South Wales ..	9	142.03	2,506,334	421,039	293,387	723,938	1,754,951	1,074,804	681	57	42	823	
Victoria ..	12	24.94	87,334	16,329	11,530	26,534	36,821	65,894	24	4	4	42	
Queensland ..	17	302.35	671,637	59,454	52,275	91,525	103,573	178,617	92	20	20	396	
South Australia ..	1	33.80	a	a	a	67,170	1,325	571,937	43	7	3	163	
Western Australia	1	277.00	2,104,308	178,168	83,021	255,827	51,109	125,138	213	21	20	400	
Tasmania	6	192.10	1,267,522	109,662	89,946	177,240	49,813	159,079	243	25	20	392	
All States(b)	36	972.22	6,637,135	785,552	530,159	1,342,234	1,997,592	2,175,469	1,296	134	109	2,216	

(a) Not available.

(b) Incomplete.

The particulars given in the table are incomplete in respect of the States of New South Wales, Queensland, South Australia, and Tasmania. In New South Wales and Queensland several of these lines, although owned by private companies, are operated by the Government Railway Departments, and Government rolling stock is used thereon.

§ 6. Comparative Railway Statistics, Various Countries.

In § 1.7 *ante* a table is given showing comparative railway facilities in 1925-26 in Australia.

In the appended table comparative railway statistics of a like character are given for the principal countries of the world. The figures are based upon the latest accurate returns for both population and railway mileage.

RAILWAYS, VARIOUS COUNTRIES.—MILEAGE, POPULATION, AND AREA.

Country.	Year.	Miles of Railway.	Miles of Railway—	
			Per 1,000 of Population.	Per 1,000 Sq. Miles of Territory.
Europe—				
Great Britain and Ireland	1925	21,157	0.47	223.57
Belgium	1925	3,107	0.40	264.36
Denmark	1925	3,148	0.92	189.60
France	1924	25,808	0.66	121.36
Germany	1925	34,748	0.55	191.22
Greece	1923	1,470	0.25	29.45
Italy	1925	10,229	0.25	85.45
Netherlands	1925	2,405	0.22	182.09
Norway	1925	2,240	0.85	17.93
Portugal	1923	2,040	0.34	57.48
Spain	1925	10,010	0.45	51.39
Sweden	1925	9,930	1.64	57.36
Switzerland	1925	3,607	0.92	226.29
Asia—				
India	1925	38,579	0.12	21.37
Japan	1925	9,974	0.12	38.26
Africa—				
Egypt	1925	3,124	0.22	8.16
Union of South Africa	1926	12,879	1.71	22.63
America, North and Central—				
Canada	1926	42,090	4.43	11.29
Mexico	1923	13,197	0.93	17.20
United States	1926	262,380	2.24	86.66
America, South—				
Argentina	1925	22,627	2.35	19.62
Brazil	1922	19,026	0.62	5.79
Chile	1925	5,437	1.37	18.74
Australasia—				
Australia	1926	28,439	4.71	9.56
New Zealand	1925	3,254	2.32	31.51

The figures show that per 1,000 of population Australia had the greatest mileage (in 1926), 4.71 miles; the next in magnitude being Canada (1926), with 4.43 miles.

The least mileage per 1,000 of population is shown in the cases of Japan and India (1925), with 0.12 mile.

With regard to the mileage per 1,000 square miles of territory, Belgium (1925) with 264.36 miles was easily first, followed by Switzerland (in 1925) with 226.29 miles, and Great Britain and Ireland (1925) 223.57 miles.

The least mileage open per 1,000 square miles is that of Brazil (in 1922) with 5.79 miles, and Egypt (1925) with 8.16 miles.

C. TRAMWAYS.

1. Systems in Operation.—(i) *General.* Tramway systems are in operation in all the States, and in recent years considerable extension has been made in the use of electrical traction, the benefit of which is now enjoyed by a number of the larger towns.

In many parts of Australia private lines used for special purposes in connexion with the timber, mining, sugar, or other industries are often called tramways, but they

are more properly railways, and the traffic on them has nothing in common with that of the street tramways for the conveyance of passengers, which are dealt with in the present paragraph.

(ii) *Total Mileage Open and Classification of Lines.* The following tables show the total mileage of tramway lines open for general passenger traffic for the year 1925-26, and also in Australia as a whole for the years 1921-22 to 1925-26, classified (a) according to the nature of the authority by which the lines are controlled; (b) according to the motive power utilized, and (c) according to gauge :—

TRAMWAYS.—ROUTE MILEAGE OPEN, 1925-26.

Nature of Motive Power, and Gauge.	N.S. Wales.	Victoria.	Q'land.	South Australia.	Western Australia.	Tasmania.	Total, Australia.
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GOVERNMENT.

	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
Electric	182.12	99.57	34.34	..	316.03
Steam	46.43	..	..	..	18.88	..	65.31
Cable .. ..	..	38.58	..	..	..	..	38.58
Horse .. ..	..	..	..	..	1.50	..	1.50
Total	228.55	138.15	..	..	54.72	..	421.42

MUNICIPAL.

Electric .. ..	..	..	52.25	73.05	8.61	26.86	160.77
Steam .. ..	..	..	6.65	..	..	..	6.65
Total .. ..	..	..	58.90	73.05	8.61	26.86	167.42

PRIVATE.

Electric .. ..	..	27.60	..	..	14.66	..	42.26
Steam	3.50	..	..	..	..	..	3.50
Total	3.50	27.60	..	..	14.66	..	45.76

ALL CONTROLLING AUTHORITIES.

Electric	182.12	127.17	52.25	73.05	57.61	26.86	519.06
Steam	49.93	..	6.65	..	18.88	..	75.46
Cable .. ..	..	38.58	..	..	..	..	38.58
Horse .. ..	..	..	..	..	1.50	..	1.50
Total	232.05	165.75	58.90	73.05	77.99	26.86	634.60

ACCORDING TO GAUGE.

Gauge—							
5 ft. 3 in. ..	..	5.18	..	..	..	..	5.18
4 ft. 8½ in. ..	232.05	160.57	52.25	73.05	..	..	517.92
3 ft. 6 in. ..	..	..	6.65	..	65.49	26.86	99.00
2 ft. 0 in. ..	..	..	..	..	12.50	..	12.50
Total	232.05	165.75	58.90	73.05	77.99	26.86	634.60

TRAMWAYS.—ROUTE MILEAGE OPEN, AUSTRALIA, 1921-22 TO 1925-26.

Nature of Motive Power, Controlling Authority, and Gauge.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
ACCORDING TO MOTIVE POWER.					
	Miles.	Miles.	Miles.	Miles.	Miles.
Electric	456.37	460.18	482.24	502.66	519.06
Steam	98.38	93.81	85.98	79.23	75.46
Cable	45.90	45.90	45.58	45.58	38.58
Horse	7.79	8.02	7.39	7.39	1.50
Total	608.44	607.91	621.19	634.86	634.60
ACCORDING TO CONTROLLING AUTHORITY.					
Government	403.75	448.65	459.45	423.56	421.42
Municipal	110.57	113.25	115.73	165.54	167.42
Private	94.12	46.01	46.01	45.76	45.76
Total	608.44	607.91	621.19	634.86	634.60
ACCORDING TO GAUGE.					
Gauge—					
5 ft. 3 in.	5.16	5.18	5.18	5.18	5.18
4 ft. 8½ in.	495.70	490.85	499.91	512.59	517.92
3 ft. 6 in.	90.67	94.50	98.72	99.71	99.00
2 ft. 0 in.	16.91	17.38	17.38	17.38	12.50
Total	608.44	607.91	621.19	634.86	634.60

The mileage of electric tramways has steadily increased during the period dealt with above, due principally to the conversion of the Newcastle steam tramways and the Melbourne cable systems to electrical traction. The decrease in the Government-controlled tramways in 1925 was in some measure due to the transfer of the Brisbane tramways from the Brisbane Tramway Trust to the Brisbane City Council.

(iii) *Cost of Construction and Equipment.* The table hereunder shows, as far as information is available, the total cost of construction and equipment of all tramways to the 30th June, 1926, classified according to the nature of the motive power and the controlling authority.

TRAMWAYS.—COST OF CONSTRUCTION AND EQUIPMENT, 1925-26.

Nature of Motive Power.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia.
GOVERNMENT.							
Electric	£ 10,574,708	£ 4,333,476	£ ..	£ ..	£ 949,929	£ ..	£ 15,858,113
Steam ..	572,815	..	..	..	85,037	..	657,852
Cable ..	..	1,946,380	..	..	..	..	1,946,380
Horse ..	..	..	..	..	9,728	..	9,728
Total ..	11,147,523	6,279,856	..	..	1,044,694	..	18,472,073
MUNICIPAL.							
Electric	..	..	2,053,318	2,997,976	157,236	542,309	5,750,839
Steam ..	..	..	53,129	..	..	..	53,129
Total ..	..	..	2,106,447	2,997,976	157,236	542,309	5,803,968

TRAMWAYS.—COST OF CONSTRUCTION AND EQUIPMENT, 1925-26—*continued*.

Nature of Motive Power.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia.
PRIVATE.							
Electric	£	£	£	£	£	£	£
Steam ..	..	380,299	..	..	452,318	..	832,617
	(a)	..	..	..	..	..	(a)
Total ..	(a)	380,299	..	..	452,318	..	(b) 832,617

ALL CONTROLLING AUTHORITIES.

Electric	10,574,708	4,713,775	2,053,318	2,997,976	1,559,483	542,309	22,441,569
Steam ..	(b) 572,815	..	53,129	..	85,037	..	(b) 710,981
Cable ..	..	1,946,380	..	..	..	..	1,946,380
Horse ..	..	..	..	..	9,728	..	9,728
Total ..	11,147,523	6,660,155	2,106,447	2,997,976	1,654,248	542,309	25,108,658
	(b)						(b)

(a) Not available.

(b) Incomplete.

2. New South Wales.—(i) *Government Tramways*. (a) *General*. The tramways, with some comparatively unimportant exceptions, are the property of the Government, and are under the control of the Railway Commissioners. In Sydney and suburbs the Government tramways are divided into seven distinct systems, five of which are operated by electricity and two by steam. The conversion of the Newcastle system from steam to electric traction has been undertaken, and at 30th June, 1926, 18.62 miles (route) were completed and opened for traffic.

(b) *Particulars of Working*. The subjoined statement gives particulars of the working of the electric and steam tramways in Sydney, and of other tramways under Government control in 1925-26 :—

GOVERNMENT TRAMWAYS.—NEW SOUTH WALES.—RETURNS FOR 1925-26.

Line.	Mileage Open for Traffic.		Total Cost of Construction and Equipment. (a)	Gross Revenue.	Working Expenses.	Net Earnings.	Interest.	Profit or Loss.	Percentage of Working Expenses on Gross Revenue.	Percentage of Net Earnings on Capital Cost.
	Route.	Track.								
	Miles.	Miles.	£	£	£	£	£	£	%	%
Electric	182.12	322.48	10,574,708	3,498,759	3,035,046	463,713	534,143	—70,430	86.75	4.38
Steam ..	46.43	53.27	572,815	120,737	284,950	—164,213	28,994	—193,207	236.01	28.67
Total	228.55	375.75	11,147,523	3,619,496	3,319,996	299,500	563,137	—263,637	91.73	2.69

(a) Exclusive of Stores Advance Account (£287,000).

(c) *Capital Cost.* The capital cost shown in the preceding table was made up as follows :—

GOVERNMENT TRAMWAYS.—NEW SOUTH WALES.—CAPITAL COST, 1926.

Permanent Way.	Rolling Stock.	Power-houses, Sub-stations, and Plant.	Machinery.	Workshops.	Furniture.	Total.
£	£	£	£	£	£	£
5,706,713	2,479,102	2,472,794	231,898	254,624	2,392	11,147,523

The average cost per mile open was £24,969 for permanent way, and £23,806 for all other charges, making a total of £48,775 per route mile.

(d) *Summary, Government Tramways.*—The following table gives a summary of the operations of all Government tramways for the years 1922 to 1926:—

GOVERNMENT TRAMWAYS.—NEW SOUTH WALES.—SUMMARY, 1922 TO 1926.

Year ended 30th June—	Mileage Open for Traffic. (Route.)	Total Cost of Construction and Equipment.	Gross Revenue.	Working Expenses.	Net Earnings.	Interest.	Percentage of Working Expenses on Gross Revenue.	Percentage of Net Earnings on Capital Cost.	Passengers carried.	Persons employed.
	Miles.	£	£	£	£	£	%	%	No. 000	No.
1922 ..	229.26	9,595,732a	3,610,135	3,015,616	594,519	467,328	83.53	6.26	330,139	9,734
1923 ..	224.90	9,975,031a	3,598,114	3,092,306	505,808	500,274	85.94	5.03	331,092	9,897
1924 ..	227.57	10,471,958a	3,633,915	3,091,531	542,384	532,187	85.97	5.18	340,803	11,264
1925 ..	228.46	10,844,454a	3,619,272	3,174,862	444,410	546,489	87.72	4.10	339,577	11,633
1926 ..	228.55	11,147,523a	3,619,496	3,319,996	299,500	563,137	91.73	2.69	339,412	11,459

(a) £47,455 of this sum has been paid from the Consolidated Revenue, and no interest is payable thereon.

Cost of construction and equipment to the year 1925–26 is exclusive of the amount of the Stores Advance Account (£287,000).

The net result in 1926, after providing for all working expenses and £563,137 for interest on the capital invested, was a loss of £263,637 as compared with a loss of £102,079 in the preceding year. During the year 1925–26, 339,412,000 passengers were carried, a decrease of 165,000 as compared with the previous year.

(e) *Sydney Tramways.* Official Year Book No. 15, p. 589, gave a short account of the progress of the Sydney Tramway System. Owing to limitations of space this information cannot be repeated, but the subjoined table shows certain important particulars for the years 1922 to 1926 inclusive.

ELECTRIC TRAMWAYS.—SYDNEY.—SUMMARY, 1922 TO 1926.

Particulars.	Year ended 30th June—				
	1922.	1923.	1924.	1925.	1926.
Mileage open for traffic—					
Route miles	158.78	158.99	160.51	161.24	161.83
Track miles	283.07	283.28	296.10	287.52	288.85
Total cost of construction and equipment £	8,343,096	8,680,161	8,955,747	9,168,939	9,473,497
Current used for traction purposes kilowatt hours	99,477,210	88,655,678	96,448,720a	118,031,086a	109,131,602a
Tram-miles run No.	27,768,543	28,562,113	30,318,516	31,238,517	31,087,894
Passengers carried No.	310,037,935	312,930,225	320,402,789	314,563,586	313,216,842
Gross revenue £	3,333,778	3,375,923	3,391,626	3,331,701	3,316,312
Working expenses £	2,700,686	2,759,914	2,781,148	2,823,510	2,878,855
Net revenue £	633,092	616,009	610,478	508,191	437,457
Percentage of working expenses on gross revenue %	80.53	81.75	82.00	84.75	86.81
Cars in use	1,427	1,531	1,570a	1,562a	1,567a
Persons employed	9,177	9,150	10,608a	10,255a	11,130a

(a) Includes portion of Newcastle line in process of electrification.

(ii) *Private Tramways.* A private steam tramway passes through the township of Parramatta. Commencing at the park gates, it runs as far as the Duck River, a distance of $3\frac{1}{2}$ miles, where it connects with the Parramatta River steamers which convey passengers and goods to and from Sydney. This line, which has a gauge of 4 ft. 8 $\frac{1}{2}$ in., was opened for traffic in 1883. In 1926 the number of tram-miles run was 18,200, and the number of passengers conveyed 131,785.

3. *Victoria.*—(i) *General.* In Melbourne there are several tramway systems carried on under the control of various authorities, the most important being the cable and electric systems worked by the Melbourne and Metropolitan Tramways Board, to which reference will be made further on. There were also, at 30th June, 1926, two lines of electric tramways, viz. :—(a) St. Kilda to Brighton, and (b) Sandringham to Black Rock, both of which belong to and are operated by the Railways Commissioners. In addition there are systems of electric tramways at Ballarat, Bendigo, and Geelong, constructed and run by private companies.

Numerous tramways have been constructed for special purposes in various parts of the State under the provisions of the Tramway Act 1890. These, however, are of the nature of the private railways referred to in sub-section 1 hereof.

(ii) *Melbourne and Metropolitan Tramways Board.* (a) *General.* A short account of the formation of the Melbourne Tramway and Omnibus Company, and of the Tramways Board, will be found in earlier issues of this work.

(b) *Cable and Horse Tramways.* (1) *Services.* The complete system consists of 38.58 miles of double track of 4-ft. 8 $\frac{1}{2}$ -in. gauge connecting the City of Melbourne with the nearer suburbs. The service (horse-drawn) to Royal Park was abandoned in 1923.

(2) *Particulars of Working.* A summary for the years 1922 to 1926 is given hereunder :—

CABLE TRAMWAYS.—MELBOURNE.—SUMMARY, 1922 TO 1926.

Year ended 30th June—	Mileage Open (Route).			Mileage Run during Year.			Number of Passengers Carried.		
	Tram.			Tram.			Tram.		
	Cable.	Horse.	Total.	Cable.	Horse.	Total.	Cable.	Horse.	Total.
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	No.	No.	No.
1922 ..	45.90	0.63	46.53	14,624,684	10,134	14,634,818	150,962,255	239,508	151,201,763
1923 ..	45.90	0.63	46.53	14,832,416	9,808	14,842,224	155,617,351	202,802	155,820,153
1924 ..	45.58	(a)	45.58	14,713,853	3,066	14,716,919	147,750,286	50,220	147,800,506
1925 ..	45.58	(a)	45.58	15,285,913	..	15,285,913	148,316,398	..	148,316,398
1926 ..	38.58	(a)	38.58	12,393,911	..	12,393,911	127,882,115	..	127,882,115

Year ended 30th June—	Gross Revenue.			Working Expenses.			Percentage of Working Expenses on Revenue.	No. of Employees at end of Year.
	Tram.			Tram.				
	Cable.	Horse.	Total.	Cable.	Horse.	Total.		
	£	£	£	£	£	£	%	No.
1922 ..	1,232,415	916	1,233,331	943,415	1,184	944,599	76.59	2,864
1923 ..	1,260,043	869	1,260,912	923,564	1,225	924,789	73.34	3,035
1924 ..	1,190,594	241	1,190,835	990,196	373	990,569	83.18	3,295
1925 ..	1,192,103	..	1,192,103	1,011,630	..	1,011,630	84.86	3,136
1926 ..	1,048,414	..	1,048,414	847,102	..	847,102	80.79	2,520

(a) Line abandoned from 16th November, 1923.

The reduction in mileage open and of the operating results as compared with the previous year is due to the progress made in the scheme of conversion to electrical traction.

(c) *Electric Tramways.* (1) *Services Operated.* The system controlled by the Melbourne and Metropolitan Tramways Board at 30th June, 1926, consisted of six services, viz., (a) The Prahran and Malvern Tramways; (b) The Hawthorn Tramways; (c) The Melbourne, Brunswick and Coburg Tramways; (d) The Fitzroy, Northcote and Preston Tramways; (e) The Footscray Tramways; and (f) the North Melbourne—Essendon Tramway, all of 4-ft. 8½-in. gauge.

(2) *Particulars of Working.* A summary of operations for the year 1925–26 is given hereunder:—

MELBOURNE TRAMWAYS BOARD.—ELECTRIC SERVICES.—OPERATIONS, 1922-23 TO 1925-26.

Year ended 30th June—	Mileage open for Traffic (Route.)	Total Cost of Construction and Equipment	Current used for Traction Purposes.	Tram-Miles Run.	Passengers Carried.	Gross Revenue.	Working Expenses.	Interest.	Net Profit.
	Miles.	£	Kilowatt-hours.	No.	No.	£	£	£	£
1922 ..	68.75	1,853,026	14,765,350	6,178,990	63,546,435	600,698	436,518	78,592	85,588
1923 ..	71.51	2,185,275	15,863,159	6,742,428	70,811,393	661,486	503,166	80,129	78,191
1924 ..	72.19	2,409,281	16,900,525	7,267,966	74,091,564	692,220	576,127	85,856	29,937
1925 ..	82.50	3,242,485	20,297,259	8,426,519	80,435,680	756,163	649,644	79,482	27,037
1926 ..	91.98	4,040,492	27,041,867	10,657,728	99,017,938	1,007,210	816,178	147,997	43,035

The total length of new track opened during the year was 7.98 miles; this increase combined with certain conversions from cable to electrical traction was accountable for an increased mileage of 9.48 miles route over that for 1924–25.

(iii) *Other Government Tramways.* The Victorian Railway Department owns and operates two lines of electric street railways, viz., St. Kilda to Brighton (5.18 miles of 5-ft. 3-in. gauge) and Sandringham to Black Rock (2.41 miles of 4-ft. 8½-in. gauge), a total route mileage of 7.59 miles.

Particulars of the operations of these tramways for the years 1921–22 to 1925–26 are contained in the tables hereunder.

ELECTRIC TRAMWAY.—ST. KILDA-BRIGHTON.—1922 TO 1926.

Year ended 30th June—	Total Cost of Construction and Equipment.	Current used for Traction Purposes.	Tram-Miles Run.	Passengers Carried.	Gross Revenue.	Working Expenses.	Interest.	Net Profit or Loss.
	£	Kilowatt-hours.	No.	No.	£	£	£	£
1922 ..	172,661	1,550,409	538,495	5,488,034	55,372	51,501	6,906	— 3,035
1923 ..	188,423	1,377,116	504,098	5,750,912	54,194	42,528	8,893	— 2,703
1924 ..	190,501	1,433,904	523,950	5,709,684	54,381	45,497	8,937	— 5,53
1925 ..	193,316	1,524,151	562,220	5,737,101	58,038	48,942	8,911	— 185
1926 ..	193,607	1,580,283	564,085	5,910,741	56,533	48,534	9,277	— 1,278

(—) Indicates loss.

ELECTRIC TRAMWAY.—SANDRINGHAM-BLACK ROCK.—1922 TO 1926.

Year ended 30th June—	Total Cost of Construction.	Current used for Traction Purposes.	Tram-Miles Run.	Passengers Carried.	Gross Revenue.	Working Expenses.	Interest.	Net Profit or Loss.
	£	Kilowatt-hours.	No.	No.	£	£	£	£
1922 ..	72,735	231,000	127,348	1,278,571	11,398	9,844	2,909	— 1,355
1923 ..	86,974	245,130	125,274	1,411,885	12,531	9,607	4,783	— 1,859
1924 ..	94,390	301,850	126,436	1,459,239	12,971	12,623	5,148	— 4,800
1925 ..	101,417	335,140	127,962	1,475,261	13,048	10,699	5,326	— 2,977
1926 ..	99,677	330,390	127,363	1,371,558	12,061	13,233	5,514	— 6,686

(—) Indicates loss.

(iv) *Private Tramways.* Two systems of tramways are owned and operated by private companies, viz., Ballarat and Bendigo (21.25 miles) and Geelong (6.35 miles); giving a total route mileage of 27.60 miles. Electrical traction is used on each of these lines which are constructed to the 4-ft. 8½-in. gauge.

(v) *Summary for all Electric Tramways.* The following table gives particulars of the working of all electric tramways in Victoria for each year from 1922 to 1926 inclusive :—

ELECTRIC TRAMWAYS.—VICTORIA.—SUMMARY, 1922 TO 1926.

Year ended 30th June—	Mileage open for Traffic (Route).	Total Cost of Construction and Equipment.	Current Used for Traction Purposes.	Tram-Miles Run.	Passengers Carried.	Gross Revenue.	Working Expenses.	Cars in Use.	Persons Employed.
	Miles.	£	Kilowatt-hours.	No.	No.	£	£	No.	No.
1922	109.50	2,675,023	18,755,105	8,471,039	82,444,219	790,494	585,434	309	1,836
1923	106.79	2,795,547	19,114,007	8,585,756	86,027,005	816,984	624,852	310	2,190
1924	107.47	3,046,443	20,390,335	9,192,409	88,002,067	844,189	709,293	353	2,729
1925	117.69	3,913,353	24,114,494	10,472,995	95,806,588	910,601	785,175	421	3,003
1926	127.17	4,716,775	31,920,604	12,709,671	114,692,993	1,159,557	960,485	492	3,607

4. *Queensland.*—(i) *General.* The electric tramways in the city and suburbs of Brisbane were controlled by a private company, with head office in London, until the 31st December, 1922, on which date they were purchased by the Queensland Government which, under the provisions of the Brisbane Tramway Trust Act, 1922, appointed a Trust to control and operate the system until 1st December, 1925, on which date the control passed to the Brisbane City Council. Under the provisions of the Brisbane City Council Act, 1925, the Council took over the liabilities of the Tramway Trust to the extent of £2,000,000 which had been incurred in London, and assumed complete control of the system. The total length of the Brisbane tramways was 52.25 route miles at the end of the year 1925. A steam tramway having a length of 6.65 route miles is in operation at Rockhampton.

(ii) *Brisbane Electric Tramways.* These tramways are run on the overhead trolley system, the voltage of the line current being 550. Cost of construction and equipment to the end of the year 1926 was £2,053,318, the gauge of line being 4-ft. 8½-in. The following table gives a summary for the calendar years 1922 to 1926 :—

ELECTRIC TRAMWAYS.—BRISBANE.—SUMMARY, 1922 TO 1926.

Year ended 31st Dec.—	Mileage open for Traffic (Route).	Total Cost of Construction and Equipment.	Current Used for Traction Purposes.	Tram-Miles Run.	Passengers Carried.	Gross Revenue.	Working Expenses.	Cars in Use.	Persons Employed.
	Miles.	£	Kilowatt-hours.	No.	No.	£	£	No.	No.
1922	42.60	1,640,127	12,143,194	5,102,527	71,529,033	575,088	446,472	181	1,179
1923	43.06	1,431,799	11,919,254	5,211,971	74,721,594	628,841	474,202	182	1,301
1924	47.13	1,615,282	12,650,077	5,457,800	78,367,194	663,747	503,131	201	1,731
1925	50.33	1,846,029	14,800,83	5,915,844	82,514,979	707,500	564,584	225	1,837
1926	52.25	2,053,318	15,683,288	6,301,126	81,802,945	767,708	588,262	248	1,821

(a) To 31st December, 1921.

(b) Includes motor omnibuses.

(iii) *Rockhampton Municipal Tramway.* This tramway was opened for traffic in 1909, the motive power being steam. The length of line is 6.65 route miles, and the gauge 3 ft. 6 in. The capital cost to 31st December, 1926, was £53,129. During the year 1,798,258 passengers were carried, the revenue being £17,164 and working expenses £17,947. The number of the staff at end of year was 48.

(iv) *Sugar-Mill Tramways.* In various parts of Queensland there are tramways used in connexion with the sugar-milling industry, chiefly for the purpose of hauling cane. Some of these lines are of a permanent nature, running through sugar-cane plantations, while others are portable lines running to various farms. The total length of these lines is included in the table relating to private railways given on a preceding page.

5. South Australia.—(i) *Electric Tramways.* The tramways in Adelaide and suburbs are controlled by a Municipal Tramways Trust created in 1907. Prior to this year, the system was run with horse-traction by several private companies. Electric traction was inaugurated in 1909, and at the 31st July, 1926, the Tramways Trust operated a total route mileage of 73.05 miles of 4-ft. 8½-in. gauge. A summary for the years 1922 to 1926 is given in the subjoined table :—

ELECTRIC TRAMWAYS.—ADELAIDE.—SUMMARY, 1922 TO 1926.

Year ended 31st July—	Mileage Open for Traffic (Route).	Total Cost of Construction and Equipment.	Current Used for Traction Purposes.	Tram-Miles Run.	Passengers Carried.	Gross Revenue.	Working Expenses.	Cars in Use.	Persons Employed.
	Miles.	£	Kilowatt-hours.	No.	No.	£	£	No.	No.
1922	69.45	2,190,147	12,542,540	5,960,082	56,787,339	580,505	405,230	198	1,287
1923	71.71	2,512,048	13,700,385	6,155,033	59,648,362	612,839	430,474	218	1,422
1924	73.83	2,742,985	15,705,191	6,568,985	61,737,665	635,277	463,481	231	1,583
1925	72.20	2,874,037	18,456,574	7,222,292	63,152,810	640,335	467,751	249	1,563
1926	73.05	2,997,976	19,303,228	7,393,122	66,207,356	661,058	472,412	255	1,556

(ii) *Horse Tramways.* There are also 19.86 miles of Government horse-tramways in country districts, worked in connexion with the railway system, of which 17.36 miles are used for passenger service, and 2.50 miles for special purposes.

6. Western Australia.—(i) *Government Tramways.* (a) *General.* Apart from the electric tramways, there are several Government tramways, with a total length of 20.38 miles. The lines are under the control of the Department of the North-West, and the longest is that between Roebourne and Cossack, constructed on a 2-ft. gauge, with a length of 12.50 miles, and worked by steam. This line was, however, not in operation at 30th June, 1926. The remaining 7.88 miles are made up of several short lengths worked by steam or horses in connexion with the jetties at certain ports, and providing communication between the jetties and the goods sheds or warehouses.

(b) *Steam and Horse Tramways.* The capital cost of the Government steam or horse tramways up to the 30th June, 1926, was £94,764, the gross revenue for 1925–26 being £19,106, and the working expenses £11,912. These amounts are in some instances inclusive of revenue from jetty charges and of working expenses in connexion with such services.

(c) *Perth Electric Tramways.* These tramways were opened for traffic by a private company on the 24th September, 1899, and the system was subsequently extended to many of the suburbs. Control was taken over by the Government on the 1st July, 1913, and the tramways are now worked in conjunction with the Government railways. The gauge of line is 3 ft. 6 in. The following table shows particulars of working for the years ended 30th June, 1922 to 1926 :—

ELECTRIC TRAMWAYS.—PERTH.—1921-22 TO 1925-26.

Year ended 30th June—	Mileage open for Traffic.	Total Cost of Construction and Equipment.	Current Used for Traction Purposes.	Tram-Miles Run.	Passengers Carried.	Gross Revenue.	Working Expenses.	Cars in Use.	Persons Employed.
		£	Kilowatt-hours.	No.	No.	£	£	No.	No.
1922	26.73	779,081	6,660,050	2,644,725	25,042,689	248,463	206,104	103	645
1923	30.38	850,965	7,285,200	2,770,518	25,993,933	262,689	213,928	103	551
1924	34.24	879,277	8,061,920	2,989,089	27,893,315	274,583	231,895	103	529
1925	34.28	899,741	8,296,746	3,040,505	28,894,525	281,612	236,008	113	566
1926	34.34	949,929	8,246,630	3,010,253	29,599,785	286,707	240,953	113	536

(ii) *Private Tramways.* Electric tramways with a route mileage at 31st August, 1926, of 8.61 miles, and controlled by the municipal authorities, are in operation in Fremantle. In Kalgoorlie and Boulder a private company controls the electric tramways, of which at the end of 1926 the length of line was 14.66 miles (route). All the foregoing lines are of 3-ft. 6-in. gauge.

(iii) *Summary, all Electric Tramways.* The subjoined table gives a summary for all electric tramway systems in the State for the years 1922 to 1926 :—

ELECTRIC TRAMWAYS.—WESTERN AUSTRALIA.—SUMMARY, 1922 TO 1926.

Year.	Mileage open for Traffic (Route).	Total Cost of Construction and Equipment.	Current Used for Traction Purposes.	Tram-Miles Run.	Passengers Carried.	Gross Revenue.	Working Expenses.	Cars in Use.	Persons Employed.
	Miles.	£	Kilowatt-hours.	No.	No.	£	£	No.	No.
1922	50.38	1,364,177	8,745,935	3,540,886	32,954,755	338,353	277,971	160	826
1923	53.81	1,442,094	9,326,907	3,637,126	33,638,351	350,412	281,566	166	722
1924	57.67	1,477,033	10,117,198	3,939,689	36,484,855	360,883	301,920	160	702
1925	57.55	1,504,845	10,389,250	3,975,099	37,287,791	365,156	306,378	173	751
1926	57.61	1,559,483	10,311,919	3,940,741	37,841,434	363,290	311,772	173	709

7. *Tasmania.*—(i) *Electric Tramways.* In Hobart there is a system of electric tramways consisting of 16.61 route miles of 3-ft. 6-in. gauge controlled by the Hobart Municipal Council. The Launceston City Council operates tramways in Launceston having a length of 10.25 miles of 3-ft. 6-in. gauge.

The following table gives a summary of the working of the two systems for the years 1922 to 1926 :—

ELECTRIC TRAMWAYS.—TASMANIA.—SUMMARY, 1922 TO 1926.

Year.	Mileage open for Traffic (Route).	Total Cost of Construction and Equipment.	Current Used for Traction Purposes.	Tram-Miles Run.	Passengers Carried.	Gross Revenue.	Working Expenses.	Cars in Use.	Persons Employed.
	Miles.	£	Kilowatt-hours.	No.	No.	£	£	No.	No.
1922	25.64	490,476	2,697,680	1,504,634	15,315,969	155,129	122,622	68	448
1923	26.28	517,983	3,447,310	1,747,974	16,499,999	177,057	132,011	74	438
1924	26.64	541,941	3,439,420	1,890,882	17,683,824	192,772	144,841	82	439
1925	26.75	566,717	3,510,994	1,886,231	17,725,007	180,345	137,002	90	399
1926	26.86	542,309	3,310,493	1,776,052	16,972,174	178,191	142,141	89	385

(ii) *Other Tramways.* There are several lines of privately-owned steam tramways. These are dealt with in § 5, Private Railways, as they do not come within the category of street tramways for the conveyance of passengers.

8. *Electric Tramways, Australia.*—(i) *Summary for 1926.* The subjoined table gives details regarding all electric tramways in Australia. The returns for tramways in Ballarat and Bendigo, in Brisbane, in Kalgoorlie, and in Hobart are for the calendar year 1926 : for other tramways they refer generally to the financial year 1925-26.

ELECTRIC TRAMWAYS.—AUSTRALIA.—SUMMARY, 1925-26.

State.	Mileage open for Traffic (Route).	Total Cost of Construction and Equipment.	Current used for Traction purposes.	Tram-Miles Run.	Passengers Carried.	Gross Revenue.	Working Expenses.	Percentage of Working Expenses on Gross Revenue.	Cars, Motors and Trailers.	Persons Employed.
	Miles.	£	Kilowatt-hours.	No.	No.	£	£	%	No.	No.
N. S. W. . .	182.12	10,574,708	109,131,602	33,182,283	329,834,431	3,498,759	3,035,046	86.75	1,567	11,130
Victoria . .	127.17	4,716,775	31,020,604	12,709,671	114,692,993	1,159,557	960,485	82.83	492	3,607
Q'land . .	52.25	2,053,318	15,683,288	6,301,126	81,802,945	767,708	588,262	76.63	248	1,821
S. Aust. . .	73.05	2,997,976	19,303,122	7,393,122	66,207,356	661,058	472,412	71.46	255	1,556
W. Aust. . .	57.61	1,550,483	10,311,919	3,940,741	37,841,434	368,290	311,772	84.65	173	709
Tasmania . .	26.86	542,309	3,310,493	1,776,052	16,972,174	178,191	142,141	75.53	89	385
All States	519.06	22,444,569	188,761,134	65,802,995	647,351,333	6,633,563	5,510,118	83.06	2,824	19,208

The percentage of working expenses on gross revenue for all electric tramways in Australia was 83.06, ranging from 71.46 in the case of South Australia to 86.75 in the case of New South Wales.

(ii) *Summary for Years 1922 to 1926.* The following table gives particulars of the operations of electric tramways in Australia for the years 1922 to 1926 :—

ELECTRIC TRAMWAYS.—AUSTRALIA.—1922 TO 1926.

Particulars.	1922.	1923.(a)	1924.	1925.	1926.
Mileage open for Traffic (Route) Miles	456.85	460.18	482.24	502.66	519.06
Total Cost of Construction and Equipment	£ 16,703,046	17,587,980	19,206,509	21,007,915	22,444,569
Current used for Traction Purposes	Kil. hrs. 154,361,664	146,387,481	158,756,941	189,302,481	188,761,134
Tram-miles run	No. 52,347,711	53,790,529	57,725,334	61,941,856	65,302,995
Passengers carried	569,067,250	580,472,975	606,673,314	621,691,885	647,351,333
Gross Revenue	£ 5,703,337	5,908,303	6,123,275	6,248,686	6,633,563
Working Expenses	4,583,415	4,675,289	4,930,302	5,170,814	5,510,118
Percentage of Working Expenses on Gross Revenue	% 78.33	79.13	80.51	82.75	83.06
Cars, Motors and Trailers	No. 2,343	2,487	2,598	2,720	2,824
Persons Employed	14,753	15,101	17,783	17,808	19,208

(a) Includes Queensland for the year ended 31st December, 1922.

During the five years included in the above table the percentage of working expenses on the gross revenue of all electric tramways in Australia reached a maximum of 83.06 in 1926, after a steady increase from a minimum of 78.33 which was recorded in 1922, the average over the whole period being 81.08.

D. AIRCRAFT.

1. *Historical.*—A short review of the progress of civil aviation in Australia up to the date of foundation of the Department of Civil Aviation was given in Official Year Book No. 16, pp. 334–5, but limitations of space preclude its repetition in the present volume.

2. *Foundation of Civil Aviation Department.*—(i) *Creation of.* A brief account of the foundation and the objects of this Department will be found in Official Year Book No. 19, page 299.

(ii) *Accidents Investigation Committee.* Under powers conferred by the *Air Navigation Act 1920*, a committee consisting of engineering and aircraft experts was appointed early in 1927 to inquire into and report upon accidents which occur to service and civil aircraft.

3. *Activities of Civil Aviation Department.*—(i) *Aerodromes and Landing Grounds.* Amongst the various activities have been the acquisition and preparation of civil aviation landing grounds, which have now been established over the following approved routes :— (a) Perth to Derby (1,467 miles); (b) Adelaide to Sydney (790 miles); (c) Sydney to Brisbane (550 miles); (d) Brisbane to Toowoomba (75 miles); (e) Charleville to Camooweal (825 miles); (f) Cloncurry to Normanton (220 miles); (g) Melbourne to Hay (233 miles); (h) Mildura to Broken Hill (189 miles); and (i) Melbourne to Charleville via Cootamundra (900 miles).

Preliminary surveys of the following routes also have been made, but no expenditure has yet been incurred in the preparation of landing grounds in connexion therewith :— (a) Melbourne to Perth (2,000 miles); (b) Adelaide to Port Lincoln, via Yorke Peninsula (for seaplanes), (200 miles); and (c) Melbourne to Launceston via (1) Flinders Island and North-East coast of Tasmania (293 nautical miles), and (2) via King Island and North-West Coast (299 nautical miles).

The Royal Australian Air Force has surveyed and prepared for use a service route from Camooweal to Port Darwin, via Anthony's Lagoon, Newcastle Waters, and Katherine.

Up to the present 136 landing grounds have been acquired or leased, and prepared for civil aviation purposes. There are 11 private licensed aerodromes also in use.

(ii) *Aerial Services.* (a) *General.* In addition to providing a regular and speedy transport service over fixed routes, it was considered that the granting of contracts for subsidized aerial services would give an impetus to the development of civil aviation in Australia, while the trained flying and ground personnel would provide a technical reserve for air defence in case of war.

At 31st March, 1927, three subsidized contractors were operating under contracts which provided that up to 100 lb. of mail is to be carried free on each trip, the letters for transmission being surcharged 3d. per $\frac{1}{2}$ ounce.

The various regular air services over prepared routes have completed 1,300,000 passenger-miles, and carried 10,000 paying passengers over various stages. Over 1,000,000 letters have also been carried.

All pilots and mechanics employed on these services must join the Air Force Reserve when the Reserve is constituted.

(b) *Aerial Mail Services at 30th June, 1926.* The following aerial mail services were in operation at 30th June, 1926.

(i) *Perth to Derby—Western Australia.*

This service, covering a distance of 1,467 miles, is carried out by the Western Australian Airways Limited, which is subsidized by the Commonwealth Government to the extent of £25,500 (approx.) per annum for a weekly service, machines leaving Perth on Saturdays and returning on Thursdays. Landing places for mails are—Perth, Geraldton, Carnarvon, Onslow, Roebourne, Whim Creek, Port Headland, Broome, and Derby.

With the exception of a serious accident at its inception, this service has been carried on successfully, and the facilities it has provided have been readily availed of by the residents. The number of letters carried during the first month's operations was 577, but it has increased to about 20,000 per month.

This Company also maintains a weekly supplementary service between Geraldton and Carnarvon, but no direct subsidy is granted by the Government for this service.

(ii) *Charleville to Camooweal—Queensland.*

This service is operated by the Queensland and Northern Territory Aerial Services Limited. The route covers 825 miles, and links up the western terminals of three main railway lines in Western Queensland, viz., Charleville, Longreach, and Cloncurry. The landing places for mails are—Charleville, Tambo, Blackall, Longreach, Winton, McKinlay, Cloncurry, Mt. Isa, and Camooweal.

The original contract which provided for a weekly (return) service between Charleville and Cloncurry commenced on 2nd November, 1922, and the service was extended to Camooweal on 7th February, 1925, when the subsidy was increased to £17,000 per annum.

The service has been maintained successfully, and is greatly appreciated by residents of Western Queensland and the Northern Territory. Passenger bookings have shown a steady increase since the service was instituted.

(iii) *Adelaide, Sydney, Cootamundra and Branches,
and Sydney-Brisbane Services.*

Contracts were accepted in 1921 for the maintenance of weekly return aerial services between Adelaide and Sydney, 790 miles, and Sydney and Brisbane, 550 miles, for a period of twelve months.

Owing to various causes, delays occurred in the commencement of the services, and it was not until 2nd June, 1924, that the contractors (Larkin Aircraft Supply Co.) commenced operations, which were confined to the Adelaide-Sydney section. A number of new four-seater passenger machines was placed in commission in November, 1924, and the service—once weekly in each direction—was regularly maintained until 19th July,

1925, when a further agreement was completed with the Company which, under a 3 years' contract carrying a subsidy at the rate of £29,500 per annum, began operations over the following routes on 21st July, 1925:—*Main trunk route.* Adelaide—Cootamundra, via Mildura, Hay, and Narrandera (578 miles); service once weekly in each direction; *Branch routes.* (a) Broken Hill—Mildura (189 miles); service, twice weekly in each direction; and (b) Melbourne—Hay, via Echuca (233 miles); service, twice weekly in each direction.

(iv) *Brisbane to Toowoomba—Queensland.*

A daily service is maintained between Brisbane and Toowoomba (75 miles) by the Courier Aircrafts Ltd., which however does not receive a subsidy for this service. Newspapers are carried on the outward journey to Toowoomba and passengers on the return trip.

(c) *Future Services.* In addition to the services referred to in a previous issue of the Year Book (No. 17, p. 333), proposals have been submitted to the Department for the operation of the following services:—(a) From Fremantle to Adelaide; (b) from Camoowal to Brunette; and (c) from Melbourne to Launceston.

(i) *Cloncurry to Normanton—Queensland.*

Executive approval has been given for a service to operate from 1st July, 1927, between Cloncurry and Normanton (220 miles) linking up at the former town with the main Charleville—Camoowal service.

(ii) *Perth (Western Australia) to Adelaide (South Australia).*

Tenders have been invited for the operation of a service between Perth (Western Australia) and Adelaide (South Australia) (1,500 miles), which service will probably necessitate the introduction of regular night flying. By co-ordinating the existing railway and aerial services overseas correspondents in Sydney and Melbourne will be enabled to gain one week in the transport of their English mails.

4. *Aircraft Construction.*—(i) *Experimental Work.* An important stage in aircraft development in Australia was reached with the successful completion of the official tests of a flying boat designed by Squadron Leader E. J. Wackett, D.F.C., A.F.C., R.A.A.F. This machine, known as the "Widgeon," was ordered by the Civil Aviation Department. It embodies a number of features specially designed for local conditions, and, with the exception of the engine, was wholly built at the R.A.A.F. workshops. The maximum speed attained was 103 m.p.h. with an initial climbing rate of 510 feet per minute, while the total gross weight of machine with passengers (680 lb.) and fuel (380 lb.) was 3,960 lb. A retractable land under-carriage has been fitted to this machine, which has also passed its official tests as an "amphibian." During June, 1927, it was flown non-stop from Sydney to Melbourne (520 air miles) in 5 hours 45 minutes proving absolutely airworthy in every respect.

(ii) *Constructional activities.* Aircraft manufacture, though yet in its infancy, is making some substantial progress. Two of the subsidized aerial mail contracting companies in addition to effecting major repairs have under permit from the De Havilland Aircraft Coy. constructed some DeH. 50A machines for use on their respective routes, the engines and certain metal parts being the only accessories imported. Another company has completed contracts for the supply to the R.A.A.F. of a number of airscrews, wings, &c.

5. *Training of Air Pilots.*—(i) *Flying Training Courses.* The pre-existing practice of selecting civilian applicants for training as pilots with Civil Aviation Companies was discontinued during 1925, vacancies now occurring being reserved for members of the R.A.A.F., four of whom were selected for a special training course in 1925.

Pending absorption as pilots with Civil Aviation Companies when they receive free discharges from the R.A.A.F., successful graduates revert to their ordinary training.

(ii) *Light Plane Clubs.* The Australian Aero. Club provides facilities for flying instruction and practice at a considerably lower cost than was possible prior to the advent of the light (or low-powered) aeroplanes. Since the end of 1926 the New South Wales and Victorian Sections have carried on active training and many pupils have graduated and been granted class "A" Pilot's Licences. It is interesting to record that one female pupil has obtained her pilot's licence.

Assistance to the following extent is being provided each section by the Commonwealth Government :—(a) The loan of two De Haviland " Moth " aeroplanes with spare engines and parts ; (b) Bonus of £20 per pupil trained (*ab initio*) to a standard that will enable the pupil to obtain a " Private Pilot's " Licence ; (c) Free hangar accommodation and free use of aerodrome for clubs' activities ; and (d) Technical supervision by Departmental Resident Ground Engineer.

Similar developments have also taken place in Perth, Longreach and Brisbane, where the aerial mail contractors conduct flying schools. A Bonus of £40 per pupil trained is paid to these companies, which provide the necessary aircraft, instructors, and hangars. The extension of this scheme to other centres is under consideration.

At the end of 1926 approximately 70 valid pilot's licences had been issued, but owing to the activities of the Aero Club this number will be considerably augmented in the near future.

(iii) *Refresher Courses.* Qualified pilots who are employed or about to be employed in commercial aviation enterprises are accepted on the recommendation of the Controller of Civil Aviation for short refresher courses of flying instruction at the Flying Training School, Point Cook. No charge is made for this refresher instruction, the cost of which is also borne by Royal Australian Air Force Funds.

6. *Statistical Summary.*—The collection and compilation of aircraft statistics were undertaken by the Commonwealth Bureau of Census and Statistics on the 1st July, 1922. The subjoined table gives a summary of operations in each State for the year ended 30th June, 1926, together with comparative figures for Australia for the year 1924-25 :—

AIRCRAFT.—SUMMARY, 1924-25 AND 1925-26.

Particulars.	State in which Aircraft Owners are Located.					Total.	
	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	1925-26.	1924-25.
Companies or persons							
owning aircraft .. No.	4	8	5	1	4	22	23
Aeroplanes .. No.	6	25	11	1	12	55	59
Staff employed(a)—							
Certificated pilots No.	3	13	5	1	7	29	25
Others .. No.	2	17	14	..	24	57	72
Flights carried out .. No.	347	2,855	1,261	262	1,113	5,838	4,893
	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.
Hours flown ..	200 52	2,474 19	1,409 04	148 30	2,193 50	6,426 35	5,302 44
Approx. mileage .. miles	13,742	184,965	114,530	11,086	163,280	487,603	404,420
Passengers carried—							
Paying .. No.	158	1,650	897	275	1,194	4,174	3,663
Non-paying .. No.	253	2,058	68	108	343	2,830	2,428
Total .. No.	411	3,708	965	383	1,537	7,004	6,091
Goods, weight carried lbs.	..	25,857	4,962	..	32,054	62,873	11,132
Mails, letters carried No.	..	10,409	21,689	..	240,609	272,707	225,128
Accidents involving—							
Injuries to personnel No.	..	..	..	..	1	1	1
Damage to aircraft No.	1	1	..	1	2	5	8
Persons killed .. No.	..	..	..	..	..	..	1
„ injured .. No.	..	..	..	..	1	1	3

(a) Monthly average.

The particulars shown above for Victoria include flying carried out over three States on the Adelaide-Cootamundra; Melbourne-Hay; and Mildura-Broken Hill routes by the subsidized company whose head-quarters are in Melbourne.

E. MOTOR VEHICLES.

1. **The Motor Car and Motor Industry.**—(i) *Evolution of the Motor Car.* Contrary to general belief on the subject, the application of mechanical power to road vehicles dates so far back as 1769, when the first successful steam-driven carriage (three wheeled) was built by the Frenchman, Cugnot. It was not, however, until 1884, when Gottlieb Daimler constructed his light internal combustion engine, that the first step in the evolution of the petrol motor to its present day efficiency may be said to have been taken, although in the meantime numerous English, American, and European inventors were experimenting with various types of vehicles with but moderate success.

So far as Australia is concerned the first efforts in the direction of producing a mechanically-propelled vehicle belong to the end of the nineteenth century. In 1897 the Thomson steam car, which was the first car to run successfully on Australian roads, was produced, although in the previous year some motor tricycles were in use in Sydney and Melbourne. The first interstate run from Bathurst (New South Wales) to Melbourne (Victoria), a distance of almost 500 miles, was covered by a Thomson car in 58 hours, a journey which has recently been accomplished in less than 12 hours.

(ii) *Motor Industry.* The demand for mechanical transport occasioned by the recent European conflict was in no small measure responsible for the extensive development of the internal combustion engine, and the keen competition among motor car manufacturers for the overseas markets has improved the quality and efficiency of their products.

Although, as yet, motor cars are not entirely manufactured in Australia, the money invested in assembling and body building plants has assumed considerable proportions during recent years, and some idea of the value of Australia as a market for the motor trade is instanced by the fact that during the year 1925-26 the value of 12,090 motor bodies imported was £1,200,000, and of the 88,591 chassis, £10,400,000. The value of the bodies built in Australia to equip the chassis for which bodies were not imported was approximately £3,750,000. During the period July, 1923, to June, 1926, the import value of chassis and bodies had practically doubled itself, notwithstanding the fact that several price reductions have taken place. The value of the tyre equipment, both locally produced and imported, for which figures are not, however, available, must also be taken into consideration, particularly as the prevailing practice is for distributors to retail cars on a five-tyre basis. Fuels imported during the year for use in motor vehicles were—Crude petroleum, 55 million gallons, valued at £670,000, and petroleum, etc., 116 million gallons, valued at £6,500,000. Spares, batteries, accessories, etc., also are additional factors contributing to the potentialities of Australia as a market.

At the 30th June, 1926, the number of motor cars per 1,000 of population was almost 65, which, however, is not as high as that recorded in New Zealand, viz., 104, so that it would appear that the saturation point has yet to be reached, and until that time, provided economic conditions maintain their stability, the marketing prospects remain at least as good as during the past decade.

The most noteworthy developments in the industry during 1925-26 were the establishment of branches of two of the strongest motor organizations in the world and the efforts made by British manufacturers to obtain a larger share of the Australian trade.

2. **Registration.**—The arrangements for the registration of motor vehicles and the licensing of drivers and riders thereof are not uniform throughout Australia. Methods of registration, licence fees payable, etc., in each State were referred to in Official Year Book No. 16, pp. 337-340, and later issues, but limits of space preclude the repetition of this information in the present volume.

3. **Public Vehicles.**—In all the capital cities of the States and in many of the most important provincial centres taxi-cabs and other vehicles ply for hire under licence granted either by the Commissioner of Police or the Local Government authority concerned. As most of these vehicles are independently controlled by individuals or small companies, it has not been possible to obtain complete data in respect of their operations.

4. **Motor Omnibuses.**—Motor omnibus traffic, both in urban and provincial centres, has assumed considerable proportions during recent years, and prior to the constitution of Boards empowered to allocate routes over which omnibuses may operate, had a very marked effect on Railway and Tramway services. By regulating the licensing of motor omnibuses the economic waste arising from duplication of routes and services parallel

with or contiguous to existing railway and tramway systems is avoided. The general principle governing the allocation of routes is that omnibus services should act as feeders to existing transport utilities. Revenue from licence fees is devoted principally to the maintenance or construction of roadways to enable them to withstand the wear and tear caused by the heavy traffic. Complete statistics regarding motor omnibus operations are, however, not at present available, but some indication of the effect of unrestricted motor omnibus services would have on the railways and tramways may be obtained from the operations of some services conducted by Railway and Tramway systems as adjuncts to their main services during the year 1925-26.

MOTOR OMNIBUS TRAFFIC, 1925-26.

Particulars.	By whom Operated.			
	Victorian Railways Commissioners.	Melbourne and Metropolitan Tramways Board.	South Australian Railways Commissioners.	Municipal Tramways Trust, Adelaide.
Mileage of services No.	46	20	285	31
'Buses in operation No.	2	56	18	40
Seating capacity No.	46	1,406	614	1,400
'Bus days worked days	244	12,045	1,672	13,140
Revenue £	3,911	97,304	15,616	46,647
Working expenses £	3,637	112,289	14,520	53,505
'Bus miles miles	47,214	1,449,719	900,741	205,434
Passenger journeys No.	17,504	7,164,095	3,277,115	408,231

The services operated by the Melbourne and Metropolitan Tramways Board were necessary to provide transport facilities during the conversion of certain cable tram lines to electrical traction, but it is not the intention of the Board to institute omnibus services in a general way. In other instances the omnibus service has been provided to meet the competition of private enterprise and endeavour to protect the existing transport utility provided by public bodies.

5. Motor Vehicles Registered, etc.—(i) Year 1925-26. Particulars of the registration of motor vehicles, etc., for the year 1925-26 are contained in the subjoined table :—

MOTOR VEHICLES.—SUMMARY, 1925-26.

States and Territory.	Motor Vehicles Registered.				Drivers' and Riders' Licences Issued.	Revenue derived from—		
	Motor Cars.	Motor Cycles.	Commercial Vehicles.	Total.		Vehicle Registrations and Motor Tax.	Drivers' and Riders' Licences.	Total.
	No.	No.	No.	No.		£	£	£
New South Wales ..	92,639	24,154	22,443	139,236	203,123	886,995	93,786	980,781
Victoria ..	83,480	19,929	(a) 142	103,551	126,369	643,333	(d)	643,333
Queensland ..	c44,568	6,388	(b) 2,337	53,293	40,940	192,839	13,755	206,594
South Australia ..	39,194	11,927	7,390	58,511	79,659	208,261	17,842	226,103
Western Australia ..	15,138	4,764	4,522	24,424	32,642	120,982	8,160	129,142
Tasmania ..	7,058	3,016	1,022	11,096	13,408	45,673	4,054	49,727
Northern Territory ..	122	31	36	189	170	29	42	71
Australia ..	282,199	70,209	f 37,892	390,300	496,311	2,098,112	137,639	2,235,751

(a) Motor buses. Trucks, vans, etc., included with motor cars. (b) Solid tyred vehicles.
 (c) Pneumatic tyred vehicles. (d) Included with Registrations and Motor Tax. (e) Exclusive of South Australia. (f) Incomplete.

The number of all motor vehicles per 1,000 of population shows that South Australia with 104.8 had the greatest density, followed in order of importance by Western Australia (65.1), Victoria (61.1), Queensland (60.6), New South Wales (59.9), Tasmania (53.0), and Northern Territory least with 50.1; the figure for the Commonwealth being 64.6!

(ii) *Quinquennium 1922-1926.* The following table shows the number of vehicles registered, licences issued, and revenue received therefrom during each of the years 1921-22 to 1925-26 :—

MOTOR VEHICLES.—REGISTRATIONS, ETC., 1921-22 TO 1925-26.

Year.	Motor Vehicles Registered.				Drivers' and Riders' Licences Issued.	Revenue derived from—		
	Motor Cars.	Motor Cycles.	Commercial Vehicles.	Total.		Vehicle Registration and Motor Tax.	Drivers' and Riders' Licences.	Total.
1921-22	99,270	37,578	(a)	136,848	161,903	£ (b)	£	£
1922-23	116,658	42,649	(c)13,438	172,745	208,376	575,198	44,249	476,559
1923-24	118,568	52,717	(c)18,056	239,341	296,177	801,701	62,001	619,447
1924-25	221,441	58,079	(c)26,116	305,636	310,150	1,326,672	88,508	883,702
1925-26	282,199	70,209	(c)37,892	390,300	496,311	2,098,112	137,639	1,415,180
								2,235,751

(a) Included with Motor Cars. (b) Not available. (c) Incomplete, partly included with Motor Cars.

During the period dealt with the number of motor vehicles showed an average annual increase of almost 30 %; the greatest increase (38 %) being recorded during 1923-24. The number of vehicles per 1,000 of population increased from 24.6 to 64.6.

6. *Comparative Motor Vehicle Statistics, 1927.*—The result of the 1927 World Motor Census, conducted by the "American Automobile" magazine, from which the following particulars have been extracted, shows that there were approximately 27,500,000 motor cars, trucks, and buses registered in the various countries of the world at 1st January, 1927.

COMPARATIVE MOTOR VEHICLE STATISTICS. 1st JANUARY, 1927.

Country.	Motor Cars, Trucks, and Buses.	Motor Cycles.
Australia	361,602	75,000
Argentina	222,610	2,971
Belgium	130,000	62,730
Brazil	110,741	3,500
Canada	820,222	7,876
Cuba	45,546	450
Denmark	63,170	19,701
France	901,000	155,000
Germany	318,800	274,600
Great Britain	984,368	498,255
India	100,000	22,000
Irish Free State	44,003	7,938
Italy	150,000	62,000
Mexico	45,134	765
Netherlands	65,000	35,200
Netherlands East Indies.. .. .	48,800	9,000
New Zealand	123,334	32,054
Union of South Africa	81,000	28,500
Spain	85,000	9,000
Sweden	99,200	29,000
United States of America	22,059,910	128,622

The foregoing figures are in some cases approximately stated, being based on estimates furnished by Trade Commissioners or representative motor trade organizations in the several countries. The figures for Australia are estimated at 31st December, 1926, and differ from those stated in para. 5, which are actual registrations at 30th June, 1926.

In respect of motor cars Australia now ranks fifth in importance among the countries of the world, having displaced Germany from that position during the preceding year.

F. POSTS, TELEGRAPHS AND TELEPHONES.

§ 1. Posts.

1. **The Commonwealth Postal Department.**—In previous issues of the Year Book some account was given of the procedure in connexion with the transfer to the Federal Government of the postal, telegraphic, and telephonic facilities of the separate States. (See Year Book No. 15, p. 601.)

Under the provisions of the Commonwealth Post and Telegraph Act, 1901, the Commonwealth Postal Department was placed under the control of a Postmaster-General, being a responsible Minister with Cabinet rank, and a Secretary having chief control of the Department under the Postmaster-General, whilst a principal officer in each State was provided for under the style of Deputy Postmaster-General.

2. **Postal Matter Dealt With.**—(i) *Australia.* The following table gives a summary of the postal matter dealt with in Australia during the five years 1922 to 1926. Although mail matter posted in Australia for delivery therein is necessarily handled at least twice, only the numbers dispatched are included in the table following, which consequently gives the number of distinct articles handled.

POSTAL MATTER DEALT WITH.—AUSTRALIA, 1921-22 TO 1925-26.

Year ended 30th June—	Letters and Post-cards.		Newspapers.		Packets.		Parcels.		Registered Articles.	
	Number (,000 omitted).	Per 1,000 of Population.	Number (,000 omitted).	Per 1,000 of Population.	Number (,000 omitted).	Per 1,000 of Population.	Number (,000 omitted).	Per 1,000 of Population.	Number (,000 omitted).	Per 1,000 of Population.

POSTED WITHIN AUSTRALIA FOR DELIVERY THEREIN.

1922 ..	507,239	91,099	126,165	22,659	56,622	10,169	8,284	1,488	5,516	991
1923 ..	535,596	94,161	136,137	23,934	73,267	12,881	9,158	1,610	5,768	1,014
1924 ..	579,679	99,883	143,429	24,714	93,575	16,124	9,387	1,617	5,959	1,027
1925 ..	616,804	114,027	151,484	25,548	106,089	17,892	10,615	1,790	6,147	1,037
1926 ..	649,697	108,426	154,169	25,729	118,106	19,710	11,413	1,905	6,302	1,052

OVERSEA RECEIVED.

1922 ..	30,912	5,552	9,770	1,755	2,674	480	339	61	410	74
1923 ..	32,961	5,795	10,274	1,806	2,891	508	437	77	453	79
1924 ..	34,708	5,980	13,662	2,354	4,273	736	447	77	475	82
1925 ..	40,911	6,900	14,824	2,500	5,262	887	446	75	475	80
1926 ..	42,708	7,127	16,135	2,693	6,333	1,057	454	76	518	86

OVERSEA DISPATCHED.

1922 ..	23,822	4,278	4,542	816	1,299	233	176	32	286	51
1923 ..	25,722	4,522	4,734	832	1,671	294	183	32	303	53
1924 ..	29,016	5,000	5,681	979	2,283	393	190	33	341	59
1925 ..	34,328	5,790	6,839	1,153	2,617	441	169	28	388	65
1926 ..	42,440	7,083	8,290	1,383	2,964	495	212	35	415	69

TOTAL POSTAL MATTER DEALT WITH BY THE COMMONWEALTH POSTAL DEPARTMENT.

1922 ..	561,973	100,929	140,477	25,230	60,595	10,882	8,799	1,581	6,212	1,116
1923 ..	594,279	104,478	151,145	26,572	77,829	13,683	9,778	1,719	6,522	1,146
1924 ..	643,403	110,863	162,772	28,047	100,131	17,253	10,024	1,727	6,775	1,168
1925 ..	692,043	126,717	173,147	29,201	113,968	19,220	11,230	1,893	7,010	1,182
1926 ..	734,846	122,636	178,594	29,805	127,403	21,262	12,079	2,016	7,235	1,207

(ii) *States.* The next table shows separately for each State the postal matter dealt with in 1925-26 under the classification adopted in the preceding paragraph, with the exception of registered articles, which are dealt with separately hereinafter. The returns given for South Australia in this and all succeeding tables include those for the Northern Territory, while the returns for the Federal Capital Territory are included in those for New South Wales.

POSTAL MATTER DEALT WITH.—STATES, 1925-26.

State.	Letters and Post-cards.		Newspapers.		Packets.		Parcels.	
	Number (,000 omitted).	Per 1,000 of Popula- tion.	Number (,000 omitted).	Per 1,000 of Popula- tion.	Number (,000 omitted).	Per 1,000 of Popula- tion.	Number (,000 omitted).	Per 1,000 of Popula- tion.
New South Wales	277,609	120,575	64,176	27,874	55,007	23,891	5,347	2,322
Victoria ..	182,858	108,584	38,866	23,079	17,437	10,354	2,320	1,378
Queensland ..	73,993	85,920	28,128	32,662	19,412	22,541	2,043	2,372
South Australia	50,058	90,148	8,974	16,161	14,884	26,804	853	1,536
Western Australia	33,962	91,249	6,955	18,687	6,748	18,131	678	1,822
Tasmania ..	31,217	143,836	7,070	32,576	4,618	21,278	172	793
Australia ..	649,697	108,426	154,169	25,729	118,106	19,710	11,413	1,905

POSTED FOR DELIVERY WITHIN AUSTRALIA.

New South Wales	277,609	120,575	64,176	27,874	55,007	23,891	5,347	2,322
Victoria ..	182,858	108,584	38,866	23,079	17,437	10,354	2,320	1,378
Queensland ..	73,993	85,920	28,128	32,662	19,412	22,541	2,043	2,372
South Australia	50,058	90,148	8,974	16,161	14,884	26,804	853	1,536
Western Australia	33,962	91,249	6,955	18,687	6,748	18,131	678	1,822
Tasmania ..	31,217	143,836	7,070	32,576	4,618	21,278	172	793
Australia ..	649,697	108,426	154,169	25,729	118,106	19,710	11,413	1,905

OVERSEA RECEIVED.

New South Wales	14,490	6,294	5,506	2,391	2,389	1,038	184	80
Victoria ..	19,312	11,468	4,861	2,887	1,206	716	135	80
Queensland ..	2,738	3,179	2,558	2,970	805	935	43	50
South Australia	2,604	4,689	836	1,506	511	920	39	70
Western Australia	2,784	7,480	1,948	5,234	974	2,617	40	108
Tasmania ..	780	3,594	426	1,963	448	2,064	13	60
Australia ..	42,708	7,127	16,135	2,693	6,333	1,057	454	76

OVERSEA DISPATCHED.

New South Wales	23,991	10,420	4,120	1,789	2,043	887	131	57
Victoria ..	9,661	5,737	2,826	1,678	423	251	47	28
Queensland ..	2,554	2,966	532	618	133	154	13	15
South Australia	2,422	4,362	255	459	113	203	10	18
Western Australia	2,024	5,438	318	854	54	145	9	24
Tasmania ..	1,788	8,238	239	1,101	198	912	2	9
Australia ..	42,440	7,083	8,290	1,383	2,964	495	212	35

3. *Postal Facilities.*—(i) *Relation to Area and Population.* The subjoined statement shows the number of post and receiving offices, the area in square miles and the number of inhabitants to each post office (including receiving offices) in each State and in Australia at the end of the year 1925-26. In order to judge clearly the relative postal facilities provided in each State, the area of country to each office, as well as the number of inhabitants per office, should be taken into account.

**POSTAL FACILITIES.—RELATION TO AREA AND POPULATION,
at 30th JUNE, 1926.**

State.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aus- tralia.
Number of post and receiving offices	2,679	2,714	1,284	808	732	523	8,740
Number of square miles of territory to each office in State ..	116	32	522	1,120	1,333	50	340
Number of inhabitants to each office	867	624	685	698	513	400	691
Number of inhabitants per 100 square miles ..	748	1,928	131	70	38	799	203

The foregoing table does not include "telephone" offices at which telegraph and telephone business only is transacted.

(ii) *Number of Offices.* The following table shows the number of post and receiving offices in each year from 1921-22 to 1925-26 inclusive:—

POST AND RECEIVING OFFICES AT 30th JUNE, 1922 TO 1926.

State.	At 30th June—									
	1922.		1923.		1924.		1925.		1926.	
	Post Offices.	Receiving Offices.	Post Offices.	Receiving Offices.	Post Offices.	Receiving Offices.	Post Offices.	Receiving Offices.	Post Offices.	Receiving Offices.
New South Wales	2,032	556	2,040	559	2,059	584	2,063	601	2,066	593
Victoria ..	1,721	855	1,736	859	1,774	898	1,785	923	1,792	922
Queensland ..	665	578	678	567	694	565	743	544	756	523
South Australia ..	666	139	667	137	669	136	675	132	676	132
Western Australia	414	254	426	306	445	401	465	255	472	260
Tasmania ..	413	90	413	106	428	114	411	103	414	109
Australia ..	5,911	2,470	5,960	2,534	6,069	2,698	6,142	2,558	6,196	2,544

(iii) *Employees and Mail Contractors.*—The number of employees and mail contractors in the Central Office and in each of the States is given in the appended table:—

POSTAL EMPLOYEES AND MAIL CONTRACTORS, 1922 TO 1926.

State.	At 30th June—									
	1922.		1923.		1924.		1925.		1926.	
	Employees.	Mail Contractors.	Employees.	Mail Contractors.	Employees.	Mail Contractors.	Employees.	Mail Contractors.	Employees.	Mail Contractors.
Central Office ..	87	..	95	..	100	..	110	..	130	..
New South Wales	12,451	2,087	13,255	1,732	13,947	1,791	14,413	1,915	14,244	1,924
Victoria ..	8,553	1,095	9,148	1,124	10,279	1,133	11,140	1,139	11,226	1,156
Queensland ..	4,792	766	4,978	810	6,220	819	6,322	839	6,181	850
South Australia ..	2,395	441	3,227	422	4,014	354	3,926	430	4,275	424
Western Australia	2,200	338	2,450	339	2,450	382	3,271	319	2,986	379
Tasmania ..	1,329	236	1,321	202	1,582	206	1,551	243	1,615	247
Australia ..	32,207	4,963	34,474	4,629	38,592	4,685	40,733	4,885	40,657	4,980

4. Registered Letters, Packets, etc.—Particulars regarding registered articles for the year 1925–26 are given in the table hereunder :—

REGISTERED ARTICLES POSTED AND RECEIVED, 1925-26.

State.	Posted in each State for Delivery within Australia.		Posted in each State for Delivery Overseas.		Total Posted.		Received in each State from Overseas.	
	Number (,000 omitted).	Per 1,000 of Population.	Number (,000 omitted).	Per 1,000 of Population.	Number (,000 omitted).	Per 1,000 of Population.	Number (,000 omitted).	Per 1,000 of Population.
New South Wales ..	2,353	1,022	171	74	2,524	1,096	218	95
Victoria ..	1,715	1,018	112	67	1,827	1,085	163	97
Queensland ..	934	1,085	51	59	985	1,144	49	57
South Australia ..	542	976	30	54	572	1,030	32	58
Western Australia ..	489	1,314	47	126	536	1,440	47	126
Tasmania ..	269	1,239	4	18	273	1,258	9	42
Australia ..	6,302	1,052	415	69	6,717	1,121	518	86

5. Value-Payable Parcel and Letter Post.—(i) *General.* The Postal Department undertakes to deliver registered articles sent by parcel post within Australia, or between Papua or Nauru and Australia, to recover from the addressee on delivery a specified sum of money fixed by the sender, and to remit the sum to the sender by money order, for which the usual commission is charged. The object of the system is to meet the requirements of persons who wish to pay at the time of receipt for articles sent to them, also to meet the requirements of traders and others who do not wish their goods to be delivered except on payment.

(ii) *Summary of Business.* The next statement gives particulars regarding the value-payable post in each State for the years 1922 to 1926 :—

VALUE-PAYABLE PARCELS POST.—SUMMARY, 1922 TO 1926.

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
NUMBER OF PARCELS POSTED.							
	No.	No.	No.	No.	No.	No.	No.
1922	93,621	4,092	171,848	606	48,187	111	318,465
1923	134,703	5,329	207,162	1,604	56,572	113	405,483
1924	165,360	6,421	225,040	2,456	63,393	292	462,962
1925	209,265	8,397	199,752	3,559	69,065	387	490,425
1926	236,900	11,508	204,819	5,033	69,970	316	528,546
VALUE COLLECTED.							
	£	£	£	£	£	£	£
1922	172,258	8,086	238,047	1,684	81,370	444	501,899
1923	237,209	10,826	279,508	2,485	87,508	439	617,975
1924	277,087	11,310	364,965	3,406	101,515	715	758,998
1925	347,902	15,440	331,280	5,728	108,193	1,055	809,598
1926	397,283	22,035	328,954	6,327	109,671	811	865,081

VALUE-PAYABLE PARCELS POST.—SUMMARY, 1922 TO 1926—*continued.*

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
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REVENUE, INCLUDING POSTAGE, COMMISSION ON VALUE, REGISTRATION AND MONEY ORDER COMMISSION.

	£	£	£	£	£	£	£
1922	12,144	549	22,214	177	6,259	47	41,390
1923	18,586	667	29,602	248	7,365	52	56,520
1924	23,026	855	30,318	263	8,277	42	62,781
1925	31,324	1,138	25,908	469	8,951	53	67,843
1926	32,232	1,564	26,539	634	8,872	44	69,885

The number and value of parcels forwarded in New South Wales and Queensland are greatly in excess of the transactions of any of the other States, although the system has also found favour for several years in Western Australia. These three States have the largest areas, and consequently more people at long distances from business centres who avail themselves of the value-payable system. Although South Australia, too, has a large area the population of that State is, comparatively, not widely spread. The amount of business transacted in Victoria, South Australia, and Tasmania is comparatively light, but generally increased business has been done in recent years.

6. *Sea-borne Mail Services.*—(i) *Summary.* In earlier issues of this work statements regarding the development of the principal sea-borne mail services were included but owing to the restrictions of space this information cannot be repeated. The following tabular summary, however, contains information in respect of sea-borne mail services as at 1st April, 1927 :—

SUMMARY OF AUSTRALIAN SEA-BORNE MAIL SERVICES, 1927.

Description of Service.	Frequency of Service.	Ports between which Service is maintained.	Particulars regarding Subsidies.
<i>1. To and from Ports in New South Wales—</i>			
(i) N.S. WALES—Q'LAND	Weekly	Sydney and Brisbane ..	Poundage rates
(ii) NORTHERN PORTS— (a) North Coast S.N. Co.	Once weekly	Sydney and Clarence River, Byron Bay, and Richmond River	" "
(b) " "	Fortnightly	Sydney and South Solitary Island	" "
(iii) SOUTH COAST PORTS— Illawarra and S. Coast S.N. Co.	Fortnightly	Sydney, Montague Island	" "
<i>2. To and from Northern Ports of Queensland—</i>			
(a) Hayles Magnetic Island Limited	Weekly	From Cairns to Cooktown via Port Douglas	Subsidized from 6th December, 1924, for three years. Amount of subsidy, £2,678 per annum.
(b) Other steamers	Irregularly	Various	Poundage rates

SUMMARY OF AUSTRALIAN SEA-BORNE MAIL SERVICES—continued.

Description of Service.	Frequency of Service.	Ports between which Service is maintained	Particulars regarding Subsidies.
3. To and from Ports in South Australia—			
(a) Coast Steamship Co. Ltd.	Weekly	Port Adelaide and Kingscote	Subsidized to 31st December, 1928. Amount of subsidy, £1,000
(b) Adelaide Steamship Co. . .	Weekly	Port Adelaide and Port Lincoln	Subsidized for three years from 1st January, 1926. Amount of subsidy, £3,000
(c) Adelaide Steam Tug Co. . .	As required	Port Pirie and Whyalla	Subsidized without agreement. Amount of subsidy, £120
(d) Coast Steamships Ltd. . .	Fortnightly	Port Adelaide to Streaky Bay	Poundage rates
(e) " " " " . .	Weekly (Thursdays)	Port Adelaide to Kingscote	" "
(f) McIlwraith, McEacharn Line	Monthly	Port Adelaide to Albany	" "
4. Western Australia—			
(I) TO AND FROM PORTS ON N.W. COAST—			
(a) State Shipping Service	Monthly	Fremantle and Derby . .	Subsidized by agreement dated 28th February, 1913, for three years. Later extended to a date three months after expiration of war. Subsequently extended for indefinite period. Amount of subsidy, £5,500
(b) " " " "	Once each sixty days	Fremantle and Darwin	Poundage rates
(c) West Australian S.N. Co.	About fortnightly	Fremantle and Singapore, via N.W. Ports	" "
(d) State Shipping Service	Irregularly, during the cattle season	Fremantle, Derby, Wyndham, Java and Singapore	" "
(II) TO AND FROM PORTS ON S. COAST—			
(a) State Shipping Service	Fortnightly	Albany and Esperance	Subsidized by agreement for three years, dating from 1st August, 1924. Amount of subsidy, £1,500
(b) " " " "	Quarterly	Albany and Eucla, via intermediate ports	" "
5. Tasmania—			
(a) Tasmanian Steamers Pty Ltd.	Three times a week summer; twice a week winter	Melbourne and Launceston	Subsidy, £30,000 per annum from 1st May, 1921, under contract for twelve months, and thereafter terminable on twelve months' notice by either party to the agreement
(b) " " " "	Twice a week	Melbourne and Burnie	Poundage rates
(c) Union S.S. Co. and Huddart Parker Ltd.	Weekly	Sydney, Hobart and Wellington	" "
(d) Union Steamship Co. . .	"	Sydney, Launceston, and Devonport	" "
(e) Holyman and Sons Pty. Ltd.	"	Melbourne—Launceston	" "
(f) " " " "	"	Melbourne, Launceston*	" "
(g) " " " "	"	Melbourne, Burnie, etc.	" "
(h) Huon Channel and Peninsular Co.	Thrice a week	Hobart and Kelly's Point, via Pearson's Point	Subsidized by agreement dated 1st January, 1925, for three years. Amount of subsidy, £50 per annum
(i) The Commissioner, Tasmanian Government Railways	Every two weeks	Launceston and Furneaux Group of Islands	Subsidized by agreement dated 1st January, 1925, for three years. Amount of subsidy, £375 per annum
(j) " " " "	Fortnightly	Launceston and Currie, King Island	Subsidized by agreement dated 1st January, 1925, for three years. Amount of subsidy, £400 per annum
(k) Holyman and Sons Pty. Ltd.	Weekly	Burnie and Melbourne, via Fraser River, King Island	Poundage rates

* Not operative during winter months, as under that time-table the contract vessel leaves on the same day during this period.

SUMMARY OF AUSTRALIAN SEA-BORNE MAIL SERVICES—*continued.*

Description of Service.	Frequency of Service.	Ports between which Service is maintained.	Particulars regarding Subsidies.
6. <i>To and from Northern Territory—</i>			
(a) Burns, Philp and Co. . .	Monthly	To and from Adelaide, Melbourne, and Sydney, via Queensland ports	Poundage rates
(b) State Steamship Service of Western Australia	Once each sixty days	Fremantle and Darwin..	See Item 4 (b)
7. <i>To and from New Zealand—</i>			
(a) Conjointly by Union S.S. Co. and Huddart, Parker Ltd.	Weekly	Sydney and Wellington; Sydney and Auckland	Poundage rates
(b) Other steamers . .	Irregularly, when convenient	Sydney, Wellington, Auckland, Lyttelton, and other Ports	" "
(c) " " . .	About every three weeks	Melbourne, Wellington, or Bluff	" "
8. <i>Pacific Islands—</i>			
(a) Burns, Philp and Co. . .	Every five weeks	Sydney to Lord Howe and Norfolk Islands, New Hebrides and Santa Cruz	Subsidized by Commonwealth Government
(b) " " . .	Irregularly	Sydney to Nauru and Ocean Islands, Gilbert and Ellice Groups	" "
(c) " " . .	Monthly	Sydney to Papua, via Brisbane	" "
(d) " " . .	Every three weeks	Sydney to Rabaul, via Brisbane	" "
(e) " " . .	Twice in six weeks	Sydney to Solomon Islands, via Brisbane	" "
9. <i>New Caledonia and New Hebrides—</i>			
(a) Messageries Maritimes . .	Monthly	Sydney and Noumea and to Vila (New Hebrides)	Postal Union rates
(b) Other steamers . .	About twice a month	Sydney and Noumea . .	Poundage rates
10. <i>Fiji, Friendly Islands, and Samoa—</i>			
(a) Union S.S. Co. . .	Every four weeks	Sydney and Suva . .	" "
(b) " " . .	"	Sydney, Suva, Tonga, and Samoa	" "
(c) A.U.S.N. Co. . .	"	Sydney and Suva . .	" "
(d) Oceanic S.S. Co. . .	Every three weeks	Sydney, Suva, and Samoa	" "
11. <i>To Eastern Ports—</i>			
(a) Burns, Philp and Co. . .	Monthly	Melbourne and Sydney to Java and Singapore, via Queensland Ports and Darwin	Subsidized by Commonwealth Govt.. Mails at poundage rates
(b) Aust.-Oriental Line . .	About once a month	Melbourne and Sydney to Hong Kong, Manila, China, via Queensland Ports	Poundage rates
(c) Eastern and Aus'n. Line	Monthly	Sydney to Manila, China, Japan, via Brisbane	" "
(d) Nippon Yusen Kaisha . .	Every four weeks	Melbourne and Sydney to Manila, China, and Japan, via Queensland Ports	Postal Union rates
(e) Japan-Australia Line . .	Monthly	Melbourne and Sydney to Japan via Brisbane	Poundage rates
(f) Royal Dutch Packet S.N. Co.	Monthly	Melbourne to Java and Singapore, via Sydney and Queensland Ports	" "
(g) Various other steamers	About monthly	Sydney or Newcastle and ports in Borneo, Java, Sumatra, Japan, and Malay Peninsula	" "
(h) Western Australian S.N. Co.	About fortnightly	W.A. Ports, Java, and Singapore	" "
(i) Austral East Indies Line of steamers	Monthly	Sydney, Melbourne, Adelaide, Fremantle, Java, and Singapore	" "
12. <i>South Africa—</i>			
White Star, P. and O. Branch Service, and other Companies	Irregularly	Sydney, Melbourne, Adelaide, and Fremantle to Durban and Capetown	" "

SUMMARY OF AUSTRALIAN SEA-BORNE MAIL SERVICES—continued.

Description of Service.	Frequency of Service.	Ports between which Service is maintained.	Particulars regarding Subsidies.
13. <i>To and from Europe, via Suez—</i> (a) Orient Steam Navigation Co.	Every four weeks	Brisbane, Sydney, Melbourne, Adelaide, Fremantle, and London, via Suez	Subsidy, £130,000. Commenced 20th September, 1921. Terminable on twelve months' notice by either party
(b) Peninsular and Oriental S.N. Co. Ltd.	Every four weeks	Sydney, Melbourne, Adelaide, Fremantle, and London, via Suez	Postal Union rates
(c) Commonwealth Government Line of Steamers	About every four weeks	" " "	Poundage rates
14. <i>To and from Europe, via Vancouver—</i> (a) Canadian-Aust. Line	Irregularly	Sydney and Vancouver, B.C., via Auckland, Fiji, Honolulu	" "
15. <i>To and from Europe, via San Francisco—</i> (a) Union Steamship Company	"	Sydney, Wellington, Raratonga, Tahiti, and San Francisco	Subsidized by New Zealand Govt.. Mails from Aust. at Postal Union rates
(b) Oceanic Steamship Co...	"	Sydney, Suva, Pago Pago (Samoa), Honolulu, and San Francisco	Poundage rates
16. <i>North America—</i> (a) Union S.S. Co. ..	Every four weeks	Sydney, Wellington, Tahiti, and San Francisco	" "
(b) Canadian-Aust. Line ..	"	Sydney, Auckland, Fiji, Honolulu, and Vancouver	" "
(c) Oceanic S.S. Co. ..	Every three weeks	Sydney, Suva, Pago Pago (Samoa), Honolulu, and San Francisco	" "
17. <i>South America—</i> (a) Oceanic S.S. Co. } { Union S.S. Co. }	Thrice a month	Sydney, via San Francisco to ports in Chile, Brazil, Peru, Uruguay, and Argentine	" "
(b) Various other steamers	Irregularly	Via Newcastle and Sydney to various ports	" "

(ii) *Average and Fastest Time of Mails to and from London. (a) Via Suez Canal.*

The subjoined table shows the average and the fastest times occupied in the conveyance of mails from London to Fremantle and vice versa during the year 1926-27 :—

AVERAGE AND FASTEST TIME.—MAILS VIA SUEZ CANAL, LONDON TO FREMANTLE, AND VICE VERSA DURING 1926-27.

Period.	London to Fremantle.				Fremantle to London.			
	Average Time.		Fastest Time.		Average Time.		Fastest Time.	
	Days.	Hours.	Days.	Hours.	Days.	Hours.	Days.	Hours.
4.3.26 to 28.2.27	25	15	24	12½	26	11½	25	15½

(b) *Via America.* The average and fastest times occupied in the conveyance of mails between London and Sydney via America during 1926 were:—

AVERAGE AND FASTEST TIME.—MAILS VIA AMERICA, DURING 1926.

Service.		Average Time.		Fastest Time.	
		Days.	Hours.	Days.	Hours.
London to Sydney	via Vancouver	(a)		(a)	
	via San Francisco (Oceanic) ..	34	—	34	—
Sydney to London	via Vancouver	35	10	31	—
	via San Francisco (Oceanic) ..	35	9	32	—

(a) No mails received in 1926 via Vancouver.

(iii) *Amount of Mail Subsidies Paid.* The following table shows the amounts of subsidies paid by the Commonwealth Postal Department for ocean and coastal mail services during the year ended 30th June, 1926:—

MAIL SUBSIDIES.—OCEAN AND COASTAL SERVICES, 1925-26.

Service.	Orient S.N. Co.	Queens- land Ports.	South Australian Ports.	Western Australian Ports.	Tas- manian Ports.
	£	£	£	£	£
Annual subsidy	104,738	4,009	5,420	6,208	30,000

During the year 1925-26 the amount paid for conveyance of mails at poundage rates by non-contract vessels was £41,997; by road services, £661,956; and by railway services, £452,021. The total expenditure in 1926 on the carriage of mails, as disclosed by the Profit and Loss Account, amounted to £1,304,738.

7. *Transactions of the Dead Letter Offices.*—The table hereunder shows the number of letters, postcards and letter-cards, and packets and circulars, including Inland, Inter-state, and International, dealt with by the Dead Letter Offices in 1925-26, and the methods adopted in the disposal thereof:—

DEAD LETTER OFFICES.—SUMMARY, 1925-26.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
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LETTERS, POSTCARDS, AND LETTERCARDS.

Returned direct to writers or delivered	978,058	351,775	252,284	134,469	131,174	71,082	1,918,842
Destroyed in accordance with Act. . .	105,320	86,738	42,086	28,826	10,524	6,468	279,962
Returned to other States or Countries as unclaimed	54,596	35,367	23,363	8,449	15,985	2,166	139,926
Total	1,137,974	473,880	317,733	171,744	157,683	79,716	2,338,730

PACKETS AND CIRCULARS.

Returned direct to writers or delivered	850,530	204,687	233,284	70,904	88,642	27,420	1,475,467
Destroyed in accordance with Act. . .	183,627	92,789	29,939	81,561	428	900	389,244
Returned to other States or Countries as unclaimed	3,355	28,469	9,196	1,741	743	3,456	46,960
Total	1,037,512	325,945	272,419	154,206	89,813	31,776	1,911,671
Grand Total (letters, packets, etc.)	2,175,486	799,825	590,152	325,950	247,496	111,492	4,250,401

During the year 1925-26 money and valuables to the amount of £142,793 were found in undeliverable postal articles, while 25,333 postal articles were posted without address, including 345 which contained money and valuables to the extent of £2,978.

8. Money Orders and Postal Notes.—(i) *General.* The issue of money orders and postal notes is regulated by sections 74 to 79 of the Post and Telegraph Act, 1901. A money order may be issued for payment of sums up to £20 within Australia, and not exceeding £40 (in some cases £20, and in Mauritius £10) in places abroad. A postal note which is payable only within Australia and in Papua, cannot be issued for a larger sum than twenty shillings.

(ii) *Summary for States, 1925-26.* Particulars regarding the business transacted in each State for the year 1925-26 are given hereunder :—

MONEY ORDERS AND POSTAL NOTES.—SUMMARY, 1925-26.

State.	Value of Money Orders Issued.	Value of Money Orders Paid.	Net Money Order Commission Received.	Value of Postal Notes Sold.	Poundage Received on Postal Notes.
	£	£	£	£	£
New South Wales ..	6,973,457	7,126,214	46,922	2,058,667	39,845
Victoria ..	3,192,630	3,307,388	21,874	1,572,587	30,267
Queensland ..	2,672,681	2,249,866	16,845	531,675	10,263
South Australia ..	1,049,866	927,072	7,192	357,131	7,175
Western Australia ..	1,380,008	1,212,739	9,067	284,192	5,521
Tasmania ..	575,967	542,378	3,832	142,084	2,769
Australia ..	15,844,609	15,365,657	105,732	4,946,336	95,840

The figures in the foregoing table show a substantial increase over the corresponding particulars for the previous year.

(iii) *Summary, Australia, 1922 to 1926.* The next table shows the total number and value of money orders and postal notes issued and paid in Australia from 1921-22 to 1925-26 :—

MONEY ORDERS AND POSTAL NOTES.—SUMMARY, AUSTRALIA, 1921-22 TO 1925-26.

Year ended 30th June—	Money Orders.				Postal Notes.			
	Issued.		Paid.		Issued.		Paid.	
	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.
	No. (,000).	£ (,000).	No. (,000).	£ (,000).	No. (,000).	£ (,000).	No. (,000).	£ (,000).
1922 ..	2,761	13,803	2,632	13,412	11,631	3,968	11,522	3,909
1923 ..	2,873	14,121	2,724	13,706	12,512	4,160	12,455	4,148
1924 ..	2,832	14,377	2,686	13,913	13,382	4,350	13,240	4,311
1925 ..	2,976	15,155	2,835	14,728	13,437	4,634	13,370	4,616
1926 ..	3,081	15,845	2,911	15,366	14,237	4,946	14,044	4,862

(iv) *Classification of Money Orders Issued and Paid.* (a) *Orders Issued.* The next table shows the number and value of money orders issued in each State during the year 1925-26, classified according to the country where payable :—

MONEY ORDERS ISSUED.—COUNTRY WHERE PAYABLE, 1925-26.

State in which Issued.	Where Payable.				Total.
	In Australia.	In New Zealand.	In Great Britain and Ireland.	In Other Countries.	
NUMBER.					
New South Wales ..	1,271,291	11,901	84,710	18,928	1,386,830
Victoria ..	543,740	7,217	53,628	15,256	619,841
Queensland ..	433,790	1,969	28,366	11,504	475,629
South Australia ..	193,816	1,096	18,430	7,683	221,025
Western Australia ..	225,561	1,004	20,681	5,108	252,354
Tasmania ..	115,979	1,271	6,378	1,406	125,034
Australia ..	2,784,177	24,458	212,193	59,885	3,080,713
VALUE.					
	£	£	£	£	£
New South Wales ..	6,583,117	48,587	250,028	91,725	6,973,457
Victoria ..	2,936,198	27,145	154,678	74,609	3,192,630
Queensland ..	2,502,439	8,307	90,491	71,444	2,672,681
South Australia ..	946,935	4,998	53,277	44,656	1,049,866
Western Australia ..	1,291,004	4,674	61,104	23,226	1,380,008
Tasmania ..	555,376	5,727	11,556	3,308	575,967
Australia ..	14,815,069	99,438	621,134	308,968	15,844,609

(b) *Orders Paid.* The number and value of money orders paid in each State during the year 1925-26, classified according to the country where issued, are given hereunder:—

MONEY ORDERS PAID.—COUNTRY OF ISSUE, 1925-26.

State in which Paid.	Where Issued.				Total.
	In Australia.	In New Zealand.	In Great Britain and Ireland.	In Other Countries.	
NUMBER.					
New South Wales ..	1,264,755	37,412	17,700	27,264	1,347,131
Victoria ..	602,626	20,196	11,132	5,228	639,182
Queensland ..	394,099	2,660	5,475	3,260	405,494
South Australia ..	180,333	1,210	3,043	1,148	185,734
Western Australia ..	213,083	1,731	5,346	1,391	221,551
Tasmania ..	106,421	2,696	1,370	1,888	112,375
Australia ..	2,761,317	65,905	44,066	40,179	2,911,467
VALUE.					
	£	£	£	£	£
New South Wales ..	6,833,857	145,472	87,378	59,507	7,126,214
Victoria ..	3,167,822	66,080	51,159	22,327	3,307,388
Queensland ..	2,201,555	10,377	26,019	11,915	2,249,866
South Australia ..	904,389	4,848	12,261	5,574	927,072
Western Australia ..	1,175,285	5,422	26,585	5,447	1,212,739
Tasmania ..	523,928	8,780	5,000	4,670	542,378
Australia ..	14,806,836	240,979	208,402	109,440	15,365,657

In the tables above, money orders payable or issued in foreign countries which have been sent from or to Australia through the General Post Office at London are included in those payable or issued in Great Britain and Ireland.

(v) *Classification of Postal Notes Paid.* The subjoined table shows the number and value of postal notes paid during the year 1925-26, classified according to the State in which they were issued.

Particulars regarding the total number and value of postal notes issued and paid in each of the last five years have been given previously.

POSTAL NOTES PAID.—STATE OF ISSUE, 1925-26.

Particulars.	Postal Notes Paid in—						
	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
NUMBER.							
Issued in same State	4,013,956	2,935,129	1,219,526	686,918	675,482	320,660	9,851,651
Issued in other States	518,845	397,546	840,756	68,289	30,236	2,336,916	4,192,638
Total ..	4,532,801	3,332,675	2,060,282	755,207	705,748	2,657,576	14,044,289
VALUE.							
Issued in same State	£ 1,529,254	£ 1,049,904	£ 426,037	£ 224,850	£ 246,688	£ 102,899	£ 3,579,632
Issued in other States	186,633	151,953	237,896	28,109	12,297	665,356	1,282,244
Total ..	1,715,887	1,201,857	663,933	252,959	258,985	768,255	4,861,876

The number and value of postal notes paid in Australia during the year showed an increase of 5 per cent. over the corresponding figures for the year 1924-25.

9. Profit or Loss, Postmaster-General's Department.—(i) Revenue (a) Analysis, States, 1925-26. The following table shows the gross revenue classified according to Branches in each State for the year 1925-26. The figures are supplied by the Treasury and represent the actual collections for the year.

GROSS REVENUE, POSTMASTER-GENERAL'S DEPT., ANALYSIS, 1925-26.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	£	£	£	£	£	£	£
Postage	1,837,550	1,306,183	653,807	380,817	265,302	136,695	4,580,354
Money order commission ..	86,139	51,381	27,915	14,433	14,882	6,695	201,445
Poundage on postal notes							
Private boxes and bars	19,124	11,511	11,860	7,208	3,861	2,249	55,813
Miscellaneous	138,105	96,277	53,973	28,905	48,337	12,475	378,072
Total Postal ..	2,080,918	1,465,352	747,555	431,363	332,382	158,114	5,215,684
Telegraphs (ordinary)	530,580	327,863	255,288	200,982	123,614	52,153	1,490,480
Telegraphs (radio)	5,713	11,170	1,400	2,071	687	137	21,178
Total Telegraphs	536,293	339,033	256,688	203,053	124,301	52,290	1,511,658
Telephones ..	1,562,744	1,143,906	553,541	451,575	223,196	109,452	4,044,414
Grand Total ..	4,179,955	2,948,291	1,557,784	1,085,991	679,879	319,856	10,771,756

Increased telephone revenue (£444,550) largely contributed to the total increase of £727,270 over the revenue for 1924-25.

(b) *Branches, 1922 to 1926.* The gross revenue collected in respect of each Branch of the Department during each of the past five years was as stated in the table hereunder :—

GROSS REVENUE, POSTMASTER-GENERAL'S DEPT., 1922 TO 1926.

Year ended 30th June—				Postal Branch.	Telegraph Branch.	Telephone Branch.	Total.
				£	£	£	£
1922	..	..	..	5,194,523	(a)1,401,583	2,724,554	9,320,660
1923	..	..	..	5,395,829	(b)1,413,375	2,983,069	9,792,273
1924	..	..	..	5,024,816	(c)1,430,554	3,301,651	9,757,021
1925	..	..	..	4,944,546	(d)1,500,076	3,599,864	10,044,486
1926	..	..	..	5,215,684	(e)1,511,658	4,044,414	10,771,756

Includes radio receipts (a) £25,998, (b) £7,711, (c) £4,012, (d) £18,292, and (e) £21,178.

As compared with the corresponding figures for the previous year, an increase of 7.24 per cent. is shown. The figures for each Branch increased by 5.48, 0.77, and 12.35 per cent. respectively.

(ii) *Working Expenses (a) Analysis, States, 1925–26.* Particulars of the working expenses of each Branch of the Department by States during 1925–26 are shown in the following table. As in the case of Gross Revenue, the figures have been furnished by the Treasury and represent actual payments during the financial year.

WORKING EXPENSES, POSTMASTER-GENERAL'S DEPARTMENT, 1925–26.

Branch.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia.
	£	£	£	£	£	£	£
Postal ..	1,836,149	1,252,301	654,081	385,796	327,824	180,975	4,637,126
Telegraph ..	611,252	345,381	303,742	195,504	177,838	70,988	1,704,705
Telephone ..	1,298,084	969,963	498,543	384,075	203,720	132,849	3,487,234
All Branches	3,745,485	2,567,645	1,456,366	965,375	709,382	384,812	9,829,065

The working expenses of the Postal Branch represented 47 per cent. of the total, Telegraph Branch, 17 per cent., and of the Telephone Branch, 36 per cent.

(b) *Branches, 1922 to 1926.* The appended table shows the working expenses of each Branch for the period 1921–22 to 1925–26.

WORKING EXPENSES, POSTMASTER-GENERAL'S DEPARTMENT, 1922 TO 1926.

Year ended 30th June—				Postal Branch.	Telegraph Branch.	Telephone Branch.	Total.
				£	£	£	£
1922	..	..	..	3,791,571	1,320,434	1,991,531	7,103,536
1923	..	..	..	3,979,020	1,389,302	2,283,542	7,651,864
1924	..	..	..	4,278,917	1,546,021	2,623,839	8,448,777
1925	..	..	..	4,488,021	1,613,695	3,128,914	9,230,630
1926	..	..	..	4,637,126	1,704,705	3,487,234	9,829,065

The working expenses for the Department as a whole have increased by £2,725,529 (38 per cent.) during the four years, the percentage increase in regard to each Branch being, Postal, 22 per cent. ; Telegraph, 29 per cent. ; and Telephone, 75 per cent.

(iii) *Interest Charges.*—(a) *States and Branches, 1925–26.* The interest payable on capital expenditure for the three Branches in each State during 1925–26 was as follows:—

INTEREST. CHARGES, POSTMASTER-GENERAL'S DEPARTMENT, 1925–26.

Branch.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia.
	£	£	£	£	£	£	£
Postal ..	49,729	35,836	14,645	12,093	13,482	3,299	129,084
Telegraph ..	57,754	34,066	42,581	23,780	24,851	4,682	187,714
Telephone ..	349,781	259,569	143,580	105,160	59,778	24,523	942,391
All Branches	457,264	329,471	200,806	141,033	98,111	32,504	1,259,189

Owing to the great expansion of the Telephone service during recent years, and the more expensive nature of equipment generally, the interest charges allocated to the Telephone Branch represented almost 75 per cent. of the total.

(b) *Branches, 1922 to 1926.* For the five years, 1922 to 1926, each Branch was debited with the following amounts in respect of interest on capital expenditure:—

Year ended 30th June.	Postal Branch.	Telegraph Branch.	Telephone Branch.	All Branches.
	£	£	£	£
1922	104,045	125,446	473,548	703,039
1923	105,198	134,627	540,410	780,235
1924	116,534	157,029	638,109	911,672
1925	122,442	173,288	790,816	1,086,546
1926	129,084	187,714	942,391	1,259,189

The interest payable is calculated at $3\frac{1}{2}$ per cent. on the value of the assets, particulars of which are contained in para. 11.

(iv) *Profit or Loss.*—(a) *States, 1925–26.* The operations of each Branch of the Department in the several States after providing for Working Expenses, Depreciation, and Interest Charges during the year 1925–26, showed the following results:—

PROFIT OR LOSS, POSTMASTER-GENERAL'S DEPARTMENT, 1925–26.

Branch.	—	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia.
		£	£	£	£	£	£	£
Postal ..	{ Profit	157,120	143,048	62,480	20,940	..	..	319,979
	{ Loss	..	..	..	..	34,042	29,567	..
Telegraph ..	{ Profit	..	..	..	1,827	..	..	..
	{ Loss	119,777	33,814	72,837	..	64,943	19,088	308,632
Telephone ..	{ Profit	..	..	..	..	..	..	..
	{ Loss	63,712	49,774	73,187	30,151	33,479	46,411	296,684
All Branches	{ Profit	..	59,490	..	..	..	..	..
	{ Loss	26,369	..	83,544	7,384	132,464	95,066	285,337

The introduction of the radial charge basis for telephone trunk line calls during 1924–25 still has a marked effect on telephone revenue, the average revenue per call being 8.39d. in 1925–26 as compared with 8.60d. in 1924–25, and 9.44d. in 1923–24. The reduction in general cable rates in December, 1924, and in press cable rates in July, 1925, was also reflected in the financial results for the year. Two other factors contributing generally to the adverse balance were the Arbitration Basic Wage Award, which operated for the whole of 1925–26, and increased superannuation liability and pension payments under State Acts.

(b) *Branches, 1922 to 1926.* The following statement gives particulars of the operating results of each Branch for the period 1922 to 1926 :—

PROFIT OR LOSS. POSTMASTER-GENERAL'S DEPARTMENT, 1922-26.

Year Ended 30th June.	Branch—							
	Postal.		Telegraph.		Telephone.		All Branches.	
	Profit.	Loss.	Profit.	Loss.	Profit.	Loss.	Profit.	Loss.
	£	£	£	£	£	£	£	£
1922 ..	1,258,286	..	1,809	..	280,986	..	1,541,081	..
1923 ..	1,365,064	..	..	78,460	179,455	..	1,466,059	..
1924 ..	502,667	..	..	188,982	50,667	..	364,352	..
1925 ..	243,472	..	..	227,175	..	258,619	..	242,322
1926 ..	319,970	..	..	308,632	..	296,684	..	285,337

In addition to the reasons advanced in the preceding paragraph, the reduction of postal rates in October, 1923, also had its effect on the financial results.

10. *Expenditure, Postmaster-General's Department.*—(i) *Distribution.* The following table shows, as far as possible, the distribution of expenditure on various items in each State during the year ended 30th June, 1926. The table must not be regarded as a statement of the working expenses of the Department, since items relating to new works, interest, etc., are included therein.

EXPENDITURE, POSTMASTER-GENERAL'S DEPT.—DISTRIBUTION, 1925-26.

Particulars.	Central Office.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£	£
Salaries and contingencies—								
Salaries ..	44,993	1,901,272	1,390,080	715,124	537,021	380,463	188,290	5,157,243
Conveyance of mails ..	..	479,204	258,157	233,092	92,621	103,681	43,581	1,210,336
Contingencies ..	4,909	747,972	558,568	388,383	250,438	139,132	95,617	2,185,019
Ocean mails ..	104,738	..	..	..	..	..	..	104,738
Miscellaneous ..	1,759	34,581	20,039	9,446	8,528	3,859	4,246	83,058
Pensions and retiring allowances ..	..	39,486	51,621	199	..	11,212	..	102,518
Rent, repairs, maintenance ..	522	55,324	35,186	23,311	15,857	14,945	2,714	146,859
Supervision of works ..	..	..	..	..	..	252	448	700
Proportion of Audit Office expenses ..	..	3,846	2,813	1,438	928	622	362	10,009
New works—								
Telegraph and telephone ..	8,200	1,737,692	1,533,577	747,822	628,962	325,142	88,963	5,070,358
New buildings, etc. ..	..	192,967	127,685	73,383	46,703	28,594	3,503	472,835
Interest on transferred properties ..	..	80,189	42,957	31,981	137,021	10,450	7,119	315,717
Other ..	1,410,727	..	..	..	..	..	..	1,410,727
(n)								
Total ..	1,575,848	5,272,533	4,021,283	2,223,179	1,718,079	1,024,352	434,843	16,270,117

(a) Particulars of apportionment to each State not available.

The increased expenditure over that for 1924-25 on new telegraph and telephone works (£1,085,652) was the principal factor governing the total increased expenditure of £1,382,188 for the year.

(ii) *Total, 1922 to 1926.* The next table gives the actual payments made as shown by records kept for Treasury purposes in respect of the Postal Department for each of the years ended 30th June, 1922 to 1926 inclusive.

EXPENDITURE, POSTMASTER-GENERAL'S DEPT., 1922 TO 1926.

Expenditure.	Year ended 30th June—				
	1922.	1923.	1924.	1925.	1926.
	£	£	£	£	£
Total ..	10,026,593	10,752,373	13,487,891	14,887,929	16,270,117

The total expenditure for 1925-26 increased by over 60 per cent. on the amount for 1921-22.

11. **Capital Account.**—The appended statement shows particulars of the fixed assets of the Postmaster-General's Department at 30th June, 1926.

DETAILS OF FIXED ASSETS, 30th JUNE, 1926.

Particulars.	Net Value, 1st July, 1925.	Capital Expenditure, 1925-26.	Gross Value, 1st July, 1926.	Less Deprecia- tion, &c. 1925-26. (a)	Net Value, 30th June, 1926.
	£	£	£	£	£
Telephone Lines and equipment	18,237,997	3,869,355	22,107,352	456,178	21,651,174
Telegraph Lines and Trunk Line equipment	6,958,697	1,132,066	8,090,763	92,976	7,997,787
Telegraph equipment	206,992	25,631	232,623	2,734	229,889
Postal equipment	165,123	30,475	195,598	5,703	189,895
Sites, Buildings, Furniture, and Office equipment	7,763,549	531,634	8,300,183	81,029	8,219,154
Miscellaneous	446,862	78,879	525,741	30,819	494,922
Total	33,784,220	5,668,040	39,452,260	669,439	38,782,821

(a) Includes Dismantled Assets, Depreciation written off, and Assets transferred.

During the past quinquennium the value of the fixed assets has more than doubled, the net value at 30th June, 1921, having been £19,221,175.

§ 2. Telegraphs.

1. **General.**—A review of the development of the Electric Telegraph Services in Australia was given in a previous issue of this work (see Year Book No. 15), but limitations of space preclude the repetition of this information in the present issue. The most important recent development in connexion with the Telegraph system is the application of the "Carrier-wave" system (see also § 5, Telephones). This system, with a maximum capacity of 10 duplex channels (initial equipment, 5 duplex channels), was put into operation in February, 1927, on the Melbourne-Sydney and Melbourne-Adelaide trunk line routes with one channel linked at Melbourne to provide a through carrier from Sydney to Adelaide upon which a "Creed" high speed printing telegraph is operated. A total of 5,400 channel miles (duplex) of "carrier" telegraph system is now in operation.

2. **Telegraph Offices, Length of Lines and Wire.**—(i) *Summary for Australia.* The following table shows the number of telegraph offices and the length of telegraph lines and of telegraph wire available for use in Australia in each year from 1922 to 1926 :—

TELEGRAPHS.—AUSTRALIA, SUMMARY, 30th JUNE, 1922 TO 1926.

Particulars.	1922.	1923.	1924.	1925.	1926.
Number of offices	6,641	6,987	7,709	8,576	8,904
Length of wire (miles)—					
Telegraph purposes only	62,781	62,619	63,523	66,702	64,941
Telegraph and telephone purposes	84,855	91,461	105,351	126,086	137,755
Length of line (miles)—					
Conductors in Morse cable	2,139	2,139	2,201	2,399	3,684
Conductors in submarine cable	2,067	2,193	2,415	2,919	3,598
Pole routes (miles)	62,489	66,648	71,828	80,399	85,547

(ii) *Particulars for each State.* The following table gives corresponding particulars for each State for the year 1925-26 :—

TELEGRAPHS.—STATES, SUMMARY, 30th JUNE, 1926.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Aus- tralia.
Number of offices ..	2,894	2,300	1,426	744	990	550	8,904
Length of wire (miles)—							
Telegraph purposes only	20,480	7,901	13,899	10,755	11,128	778	64,941
Telegraph and telephone purposes ..	36,884	28,980	38,159	14,135	13,215	6,382	137,755
Length of line (miles)—							
Conductors in Morse cable	1,330	1,926	393	..	21	14	3,684
Conductors in submarine cable (statute miles) ..	2,650	460	38	70	3	377	3,598
Pole routes (miles) ..	31,204	15,284	13,281	10,394	11,402	3,982	85,547

A total length of 202,696 miles of wire is available for telegraph purposes, of which 137,755 miles are also used for telephone purposes, and the figures show increases of 9,908 (5 per cent.) and of 11,669 miles (9 per cent.) respectively over the corresponding mileages for the previous year.

3. Number of Telegrams Dispatched.—(i) *Total for Australia.* The number of telegrams dispatched to destinations within Australia in each of the last five years is given hereunder :—

TELEGRAMS DISPATCHED.—AUSTRALIA, 1922 TO 1926.

Telegrams.	Year ended 30th June—				
	1922.	1923.	1924.	1925.	1926.
Number(a) ..	15,796,022	15,828,629	16,699,199	17,132,145	17,637,716

(a) Including interstate cablegrams.

(ii) *Totals for each State.* The appended table shows the total number of telegrams dispatched in each State in 1925-26 according to the class of message transmitted :—

TELEGRAMS DISPATCHED.—STATES, 1925-26.

Class of Message Transmitted within the Commonwealth.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
Paid and Collect—							
Ordinary ..	4,524,368	3,438,736	2,503,556	1,223,104	1,413,543	361,956	13,465,263
Urgent ..	869,362	303,725	251,581	111,146	77,870	19,135	1,632,819
Press ..	240,413	147,307	106,969	76,921	43,181	74,305	689,096
Lettergram ..	54,065	35,738	74,799	32,194	46,837	25,911	269,544
Total ..	5,688,208	3,925,506	2,936,905	1,443,365	1,581,431	481,307	16,056,722
Unpaid—							
Service ..	298,985	109,116	133,884	109,293	110,700	23,901	785,879
Shipping ..	61,620	127,745	17,994	4,507	20,004	10,265	242,135
Meteorological ..	165,557	82,439	68,237	70,078	142,377	24,292	552,980
Total ..	526,162	319,300	220,115	183,878	273,081	58,458	1,580,994
Grand Total ..	6,214,370	4,244,806	3,157,020	1,627,243	1,854,512	539,765	17,637,716

The figures in the foregoing table show an increase in the total volume of telegraph business of 505,571 messages as compared with the previous year.

4. **Letter-telegrams.**—Letter-telegrams are accepted at any hour at telegraph offices which are open for business after 7 p.m., subject to the condition that delivery is effected by posting at the letter-telegram office of destination.

5. **Revenue and Expenditure.**—Particulars of the revenue and expenditure of the telegraph systems for the years 1921–22 to 1925–26 were given in earlier pages.

§ 3. Submarine Cables.

1. **First Cable Communication with the Old World.**—In earlier issues of the Year Book will be found a detailed account of the connexion of Australia with the old world by means of submarine cables. (See No. 6, p. 770.)

2. **The Tasmania-Victoria Cables.**—These cables were opened to the public on the 1st May, 1909. Their aggregate length is approximately 350 nautical miles of main cable, and 20 nautical miles each of intermediate and shore-end cable, making a total of 390 nautical miles.

3. **The Eastern Extension Company's Cables.**—In addition to the first Tasmania-Victoria cable and the original cable from Darwin (see Year Book No. 6, p. 770), the Eastern Extension Company has constructed several other cables connecting with various places in Australia, viz., Darwin to Banjoewanjie (two lines); Fremantle to Durban; Fremantle to Adelaide; Java to Cocos Island, which provides another route between Australia and South Africa. A cable partly owned by this Company connects the Darwin-Singapore cable with London via Hong Kong, Shanghai, Possiet Bay (Pacific Russia), Libau (Latvia), and Newbiggin (London).

4. **The Pacific Cable.**—(i) *Cable Lines.* The Pacific Cable lines are controlled by the Pacific Cable Board, consisting of three representatives of the Imperial Government, two each from Canada and Australia, and one from New Zealand. (A Bill, which however has not yet become law, recently introduced in the Imperial Parliament provides for an amendment to the composition of the Board by which Great Britain will have two representatives only.) The main cable route known as the "All Red" runs from Southport in Queensland to Bamfield (Vancouver Is.), thence overland to Montreal. From this point messages are transmitted across the Atlantic over the cables of the Anglo-American and Commercial Companies, or, if so desired, the Marconi Wireless System between Canada and the United Kingdom may be used for either homeward or outward messages. Cable stations are established at Norfolk Island, Fiji, and Fanning Island. A branch cable approximately 600 miles long runs from Norfolk Island to Doubtless Bay, North Island of New Zealand.

The assent of each of the Governments interested was obtained for the duplication of the system south of Fiji, and a contract for the submarine cables was placed with the Telegraph Construction and Maintenance Company of Greenwich. The laying of the Sydney-Southport cable was completed on 11th July, 1923, and the Auckland-Suva cable on 12th August, 1923. The duplication of the Suva (Fiji)-Bamfield (Vancouver Island) cable was completed in November, 1926. The total cost of duplication, including the cables laid south of Fiji in 1923, approximated £2,750,000.

(ii) *Financial Summary.* The receipts for the year 1925–26 amounted to £458,758 and exceeded the ordinary working expenses (including the normal annual contribution of £30,000 to Reserve and Renewal Fund) by £149,771. After payment of the annuities of £77,545 in respect of interest and repayment of the capital of £2,000,000, and of £2,082 to the Renewal Fund in respect of loan money from that fund for the purposes of the Auckland-Sydney cable, there remained a surplus of £70,144, which was transferred to the Renewal Fund to meet the cost of duplicating the cables.

5. **New Zealand Cables.**—A submarine cable, 1,191 miles in length, from New Zealand to Australia, was laid in 1876. The Australian shore-end of the cable is at Botany Bay, while the New Zealand terminus is at Wakapuaka near Nelson in the Middle Island, whence another cable, 109 miles in length, is laid to Wanganui in the North Island. A second cable between New Zealand and Australia (Auckland to Sydney) was opened for traffic on the 31st December, 1912.

6. **The New Caledonia Cable.**—This cable was opened for use in October, 1893, the Australian shore-end being at Burnett Heads, near Bundaberg. The guarantees of the Governments of New South Wales and Queensland have since been transferred to the Commonwealth Government, but the agreement expired on 17th October, 1923, thus bringing to an end the payment by the Commonwealth Government of subsidies for cable services.

7. **Length of Cable Routes.**—The following statement shows the length of the several cable routes providing communication between Australia and Great Britain :—

LENGTH OF CABLE ROUTES.

VIA SOUTH AFRICA.		VIA VANCOUVER.	
	miles.		miles.
Sydney to Adelaide (land line)	960	Sydney to Southport (Q'ld.)	510
Adelaide to Perth	1,546	Southport (Q'ld.) to Norfolk Is.	837
Perth to Mauritius	4,274	Norfolk Is. to Suva	982
Mauritius to Durban	1,731	Suva to Fanning Is.	2,043
Durban to Cape Town	1,114	Fanning Is. to Bamfield ..	3,458
Cape Town to Madeira	5,590	Across Canada (land line)	3,400
Madeira to Port Curnow ..	1,344	Canada to Great Britain ..	3,477
Port Curnow to London (land line)	320		
Total	16,879	Total	14,707

VIA DARWIN.

	miles.
Adelaide to Darwin (land line)	2,134
Darwin to Banjoewanjie	1,444
Banjoewanjie to London	9,947
	13,525

8. **Cable Business.**—(i) *Australia.* The subjoined table shows the number of cablegrams received and dispatched in Australia from 1923-24 to 1925-26 :—

CABLEGRAMS.—AUSTRALIA, 1923-24 TO 1925-26.

Cablegrams.	Cablegrams Received.			Cablegrams Dispatched.			Total Cablegrams Received and Dispatched.		
	1923-24.	1924-25.	1925-26.	1923-24.	1924-25.	1925-26.	1923-24.	1924-25.	1925-26.
Number ..	565,981	617,394	671,047	567,571	641,408	696,208	1,133,552	1,258,802	1,367,255

(ii) *States.* The number of cablegrams received and dispatched in each State during the year 1925-26 is given hereunder :—

CABLEGRAMS.—STATES, 1925-26.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.(a)	Australia.
Number received ..	350,129	221,879	27,768	34,291	28,903	8,077	671,047
Number dispatched	350,146	230,408	33,170	39,655	34,086	8,743	696,208
Total ..	700,275	452,287	60,938	73,946	62,989	16,820	1,367,255

(a) Exclusive of interstate cablegrams, which are included with interstate telegrams.

9. **Cable and Radio (Beam) Rates.**—(i) *Ordinary Messages.* From 1st February, 1927, the cable rates (per word) between Australia and Great Britain were reduced as follows:—Ordinary, 2s. 6d. to 2s.; deferred ordinary, 1s. 3d. to 1s.; and Government, 1s. 4d. to 1s. 0½d., and substantial reductions were also made on the Canadian service (via Pacific) as from the same date. The following are the rates at present operating on traffic to the principal countries:—

CABLEGRAM AND RADIOGRAM RATES, JUNE, 1927.

To—	Rate per Word and Route.		
	Via Pacific.	Via Eastern.	Via Beam.
Great Britain	2s.	2s.	1s. 8d.
European Countries ..	2s. 6d. to 4s.	2s. 6d. to 2s. 7d.	2s. to 2s. 6½d.
Asiatic Countries ..	6s. to 6s. 4d.	2s. 6d. to 3s. 5d.	..
Africa .. ..	..	2s. 2d. to 3s. 6d.	2s. 6d. to 2s. 10d.
North America	1s. 7d. to 2s. 8d.	2s. 4d. to 3s. 10d.	..
Central America	3s. 10d. to 5s. 11d.	4s. 5d. to 6s. 1d.	..
West Indies	3s. to 8s. 10d.	4s. to 9s. 1d.	..
South America	4s. 9d. to 8s. 6d.	4s. 9d. to 8s. 4d.	..
New Zealand	4½d.	4½d.	..

On 1st March, 1927, the extra charge on cablegrams between Tasmania and oversea countries was removed, so that charges are now uniform throughout the States.

(ii) *Deferred Cable or Radio (Beam) Messages.* Under this system a reduction of 50 per cent. in the ordinary cable or radio (Beam) charges is made under certain conditions. Any such messages which have not reached their destination within 24 hours may be transmitted in turn with full-rate messages. This service, together with "Daily Letter" and "Week-end" cable services has affected the ordinary cable business to a considerable extent. "Deferred Press" cablegrams subject to a delay of 18 hours may be exchanged between Australia and (a) Great Britain at the rate of 4½d. per word; (b) Canada, at 2½d. per word; and (c) United States of America, at 3d. to 4d. per word.

(iii) *Daily Letter Services.* The "Daily Letter" service was inaugurated in September, 1923, between Australia and Great Britain and Canada, and has since been extended to most countries in the British Empire and to the United States of America. "Daily Letter" messages are accepted subject to a maximum transit delay of 48 hours (including allowance for variations of times). The rates on messages (20 word minimum) to Great Britain are 9d. per word via "Pacific" or "Eastern," and 6d. per word via "Beam," while for United States of America the rate varies from 7d. to 9d. per word.

(iv) *Week-end Messages.* Week-end messages may be exchanged with certain specified countries at the rates indicated hereunder. Messages—which may be lodged at any post office—are forwarded to reach the transmitting station by post or telegraph by midnight on Saturdays and are deliverable to the addressees on Tuesday mornings. The rates per word for messages (20 word minimum) to the following countries are:—Great Britain, 7½d.; Holland, 9d.; Canada, 5½d.; Newfoundland, 7½d.; and Fanning Island, 6d.

(v) *Press Messages.* The rate per word on press messages exchanged with Great Britain is 6d. via cable and 4d. via Radio (Beam) service.

(vi) *Night Letter Service.*—A night letter service for traffic between Australia and New Zealand was introduced on 1st May, 1924. The rate is fixed at 3s. per message of 20 words, and 2d. per word in excess of 20. On 1st December, 1924, the service was extended to take in traffic to and from Fiji at the rate of 5s. 10d. per message of 20 words, and excess words at the rate of 3½d. per word. Night letter telegrams are accepted at any time and are delivered by first post on the morning following receipt.

§ 4. Telephones.

1. **Telephone Services.**—(i) *Mileage, etc., Australia.* The following table shows the mileage of lines, etc., for telephone purposes, giving trunk lines separately, on 30th June, 1924 to 1926 :—

TELEPHONE LINES—AUSTRALIA, 30th JUNE, 1924 TO 1926.

Particulars.				1924.	1925.	1926.
Ordinary Lines—						
Conduits	..	..	duct miles	3,447	3,748	4,519
"	..	..	route miles	1,804	2,039	2,420
Conductors in aerial cables	..	..	loop mileage	32,289	29,604	11,351
Conductors in underground cables	..	..	"	362,037	434,091	517,868
Conductors in cables for junction circuits	..	..	"	54,165	62,021	80,325
Open conductors	..	..	single wire mileage	250,898	312,454	296,024
Trunk Lines—						
Telephone trunk lines only	..	..	miles	55,516	85,201	111,135
Telegraph and telephone purposes	..	..	"	105,351	126,086	137,755

(ii) *Comparison with Other Countries.* Australia at present stands seventh in the list of countries having the greatest development of telephone facilities. This position may be considered satisfactory in view of the area and distribution of population, and the average length of wire required to provide a subscriber's service. The average length of wire per instrument in Australia is 3.75 miles, as compared with 2.89 miles in the United States of America; 3.02 in New Zealand, and 2.60 miles in Canada.

(iii) *Government Policy.* A vigorous policy is pursued by the Government in providing telephone facilities, with the result that the system has developed rapidly during recent years. Many of the concessions have been of such a character as to render the services unremunerative, but it is considered that they are justified from the standpoint of national development.

(iv) *Trunk Line System.* The trunk line system of the Commonwealth aims to provide satisfactory commercial conversations irrespective of distance. This design contemplates a main arterial system between Perth (Western Australia) and Cairns (Queensland), and, in conformity with the Departmental policy of utilizing the most modern improvements and devices, 26 voice repeaters to amplify the voice currents have been installed at appropriate places. Extended use is being made of high frequency carrier current systems both in telephony and telegraphy, and transmission measuring apparatus has been placed at numerous stations on trunk line routes to ensure that transmission is maintained at the proper level for commercial conversations. The total length for telephony over which this system was in operation on 30th June, 1927, was 2,500 channel miles.

(v) *Automatic Exchanges.* At 30th June, 1926, there were 29 automatic or semi-automatic exchanges in operation providing facilities for 76,974 subscribers, 75,000 of whom were in the metropolitan areas. On the same date 21 automatic exchanges, with a total capacity of over 50,000 subscribers, were in course of construction. It is proposed eventually to convert the whole of the exchanges in the metropolitan networks to machine switching.

(vi) *Summary for States.* Particulars relating to the telephone service in each State for the years ended 30th June, 1924 to 1926, will be found in the following table :—

TELEPHONE SERVICES.—SUMMARY, 1924 TO 1926.

Particulars.	Year (30th June.)	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
No. of Exchanges	1924	1,085	1,062	499	296	216	270	3,428
	1925	1,201	1,264	618	373	315	307	4,078
	1926	1,326	1,426	743	420	404	324	4,643
No. of Telephone Offices (Including Exchanges)	1924	2,456	1,955	1,093	621	739	503	7,367
	1925	2,623	2,139	1,314	681	854	511	8,122
	1926	2,756	2,226	1,380	729	934	520	8,545
No. of lines connected	1924	97,310	71,352	30,619	22,582	12,929	7,809	242,601
	1925	107,497	83,640	34,580	23,968	14,667	8,764	278,116
	1926	117,249	93,215	39,382	33,547	16,398	9,415	309,206
No. of instruments connected	1924	125,995	97,523	38,318	29,573	16,410	9,696	317,520
	1925	139,557	114,169	43,073	37,057	18,633	10,763	363,242
	1926	152,969	127,000	48,729	42,586	20,819	11,519	403,616
(a) No. of subscribers' instruments	1924	122,216	95,418	36,815	28,700	15,661	9,175	307,985
	1925	135,527	111,786	41,371	36,118	17,992	10,124	352,918
	1926	148,681	124,682	46,928	41,558	19,906	10,816	392,571
(b) No. of public telephones	1924	1,945	1,640	1,035	588	475	399	6,082
	1925	2,165	1,900	1,212	629	586	493	6,985
	1926	2,379	1,914	1,302	666	841	522	7,624
(c) No. of other local instruments	1924	1,834	470	468	285	274	122	3,453
	1925	1,865	483	490	310	55	136	3,339
	1926	1,909	404	499	356	72	181	3,421
Instruments per 100 of population	1924	5.65	5.92	4.63	5.55	4.55	4.55	5.48
	1925	6.13	6.83	5.04	6.77	5.06	5.08	6.13
	1926	6.58	7.49	5.54	7.57	5.55	5.50	6.68
Earnings	1924	£ 1,290,972	£ 945,409	£ 454,750	£ 343,846	£ 182,153	£ 95,495	£ 3,312,615
	1925	1,411,341	1,055,390	494,103	396,975	202,066	101,235	3,661,110
	1926	1,584,153	1,179,788	568,936	459,084	230,019	110,961	4,132,941
Working expenses	1924	1,089,221	676,069	363,144	245,239	153,370	96,796	2,623,839
	1925	1,216,284	856,164	443,820	322,263	165,945	121,437	3,128,913
	1926	1,298,084	969,963	498,543	384,075	203,720	132,849	3,487,234
Percentage of working expenses to earnings	1924	84.37	71.51	79.85	71.32	84.20	101.37	79.21
	1925	86.18	81.12	89.82	81.18	83.61	119.96	85.46
	1926	81.94	82.22	87.63	83.66	88.57	119.73	84.38

The number of instruments per 100 of population has increased from 5.48 in 1923-24 to 6.68 in 1925-26. The actual number of instruments has increased from 317,520 to 403,616—an increase of 27 per cent.

(vii) *Systems in Use.* The following table shows the percentage of Automatic, Common Battery, and Magneto Telephone lines at 30th June, 1924 to 1926 :—

PERCENTAGE OF AUTOMATIC, COMMON BATTERY, AND MAGNETO LINES, 1924 TO 1926.

System.	30th June.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Automatic	1924	26.0	17.0	..	20.0	37.0	..	19.0
	1925	26.8	23.3	..	18.7	35.7	..	21.1
	1926	34.5	23.5	7.8	18.2	33.4	..	24.8
Common Battery	1924	10.0	33.0	26.0	32.0	9.0	53.0	22.0
	1925	8.4	28.1	24.4	29.2	7.9	50.9	19.8
	1926	6.5	25.9	15.8	25.0	7.4	48.7	16.5
Magneto	1924	64.0	50.0	74.0	48.0	54.0	47.0	59.0
	1925	64.8	48.6	75.6	52.1	56.4	49.1	59.1
	1926	59.0	50.6	76.4	56.8	59.2	51.3	58.7

(viii) *Subscribers' Lines and Calling Rates.* The next table gives the number of subscribers' lines and the daily calling rate at central, suburban, and country telephone exchanges in the several States for the year 1925-26 :—

TELEPHONES.—SUBSCRIBERS' LINES AND DAILY CALLING RATE, 1925-26.

State.	Central Exchanges.		Suburban Exchanges.		Country Exchanges.		Total.	
	Subscribers' Lines.	Average Outward Calls Daily per line.	Subscribers' Lines.	Average Outward Calls Daily per line.	Subscribers' Lines.	Average Outward Calls Daily per line.	Subscribers' Lines.	Average Outward Calls Daily per line.
New South Wales	13,182	9.57	51,696	3.91	46,364	1.85	111,242	3.72
Victoria	10,389	9.61	41,890	3.68	35,547	1.33	87,826	3.43
Queensland	6,138	8.29	8,605	3.42	24,420	2.28	39,163	3.48
South Australia	8,581	7.30	9,620	3.30	13,204	1.20	31,405	3.51
Western Australia	5,051	6.32	2,917	4.12	6,615	1.48	14,583	3.68
Tasmania	2,489	4.48	818	2.31	5,743	1.60	9,050	2.46
Australia	45,830	8.35	115,546	3.73	131,893	1.69	293,269	3.54

A comparison of the daily calling rates for each class of exchange shows that Victoria registered the greatest number per line at central exchanges, Western Australia at suburban exchanges, and Queensland at country exchanges. For Australia as a whole, the average number of calls per line at central exchanges was more than double the number registered at suburban exchanges, while the average for suburban exchanges was slightly more than double the number shown for country exchanges.

(ix) *Trunk Line Calls and Revenue.* In the following table the number of telephone trunk line calls recorded, the amount of revenue received, and the average revenue per call are shown for each of the States for the years 1923-24 to 1925-26 :—

TELEPHONES—TRUNK LINE CALLS AND REVENUE FOR THE YEARS 1923-24 TO 1925-26.

Particulars.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia.
Total Calls for Year—	No.	No.	No.	No.	No.	No.	No.
1923-24	6,748,101	4,709,531	2,938,267	1,886,706	855,106	984,523	18,122,234
1924-25	7,843,286	5,639,117	3,545,610	2,448,991	1,103,644	1,094,802	21,675,450
1925-26	9,278,995	6,894,247	4,273,321	3,009,375	1,365,845	1,263,448	26,085,231
Total Revenue for Year—	£	£	£	£	£	£	£
1923-24	243,529	170,959	144,781	84,027	38,803	31,013	713,112
1924-25	261,940	184,809	153,354	97,359	48,887	30,691	777,040
1925-26	323,492	225,243	191,880	116,462	62,884	35,641	955,602
Average Revenue per Call—	Pence.	Pence.	Pence.	Pence.	Pence.	Pence.	Pence.
1923-24	8.66	8.71	11.83	10.68	10.88	7.56	9.44
1924-25	8.01	7.86	10.38	9.54	10.63	6.73	8.60
1925-26	8.37	7.84	10.77	9.29	11.95	6.77	8.39

While the number of trunk line calls recorded during 1925-26 has increased by more than 4 millions over the figures for the previous year, the average revenue per call has decreased by 0.21d. per call.

The rapid growth in connexion with subscribers' services is, however, bringing about increased trunk line traffic, and extensive works are in progress to meet the growing demand and to improve the trunk line system generally.

2. Revenue from Telephones.—Particulars regarding the revenue from telephone services are included in the tables at the end of § 1.

§ 5. Radio Telegraphy and Telephony.

1. **Radio Telegraphy and Telephony.**—(i) *General.* A statement in regard to the initial steps taken to establish radio telegraphy in Australia was given in Official Year Book No. 18, p. 243, but consideration of space precludes its repetition in the present issue.

With the exception of the war period, licences for experimental and amateur stations have been issued since 1911, with restrictions on the use of transmitting equipment. At the end of June, 1927, there were in Australia 767 such experimental stations, including 423 transmitting stations.

The regulations were amended in 1920 with a view to encouraging the erection of "land" stations by pastoralists and others in remote districts, but very few satisfactory applications were received. The Department, however, at the end of 1925 opened stations at Wave Hill and at Camooweal to collect and distribute messages from private stations that might subsequently be erected in the Northern Territory or Western Queensland. One such station has been erected at Brunette Downs.

Regulations under the Navigation Act require that all ships registered in Australia of 1,600 tons or more registered tonnage, or carrying more than 12 passengers, shall be fitted with an efficient radio telegraphy installation. At the end of June, 1927, there were 118 vessels so equipped.

Two Class "A" broadcasting stations are in operation in New South Wales and in Victoria and 1 each in the other States. Class "B" stations are in operation as follows, viz.:—New South Wales, 7; Victoria and South Australia, 2 each; and Queensland 1.

On 28th January, 1927, a Royal Commission was appointed to report upon—

- (1) Wireless broadcasting within the Commonwealth in all its aspects, with power to recommend any alterations deemed necessary in the policy and practices at present in force, and
- (2) the development and utilization of wireless services for public requirements within the Commonwealth.

The report of this commission has not yet been presented, although the taking of evidence has been completed.

(ii) *Broadcasting.* (a) *Licences, etc.* The revised regulations issued in 1924 and amended in 1925 prescribe the licence fees to be paid by owners of receiving sets, and by experimenters. Each State was divided into three zones, and the annual fees and the distances from the capital city of the respective zones were fixed as follows:—

Class of Licence.	Zone 1.	Zone 2.	Zone 3.
	Up to 250 Miles.	250 to 400 Miles.	Beyond 400 Miles.
	£ s. d.	£ s. d.	£ s. d.
Broadcast listeners' licences	1 7 6	1 2 6	0 17 6
" " (Special)	10 0 0	9 0 0	7 10 0
" " (Temporary (a))	1 0 0	0 17 6	0 15 0
Experimental licences	5 0 0	3 0 0	2 0 0
Dealers' listening licences			

(a) Per week. Others for one year.

In addition to the licences referred to above, the regulations provide for the issue of the following licences, for which the respective fees per annum, payable in advance, are £1, viz.:—(a) Coast Station, (b) Ship Station, (c) Land Station, (d) Portable Station, and (e) Aircraft Station.

Of the revenue obtained from the licence fees the Postal Department retains 5s. for each special broadcast listener's licence; 2s. 6d. for each ordinary broadcast listener's licence; 25 per cent. for a temporary broadcast listener's licence; 25 per cent. for a dealer's listening licence; and 10s. for an experimental licence; the remainder of the revenue being available for distribution to the broadcasting company or companies in the State in which the revenue is collected. The companies must supply a satisfactory programme, use the authorized power, and provide effective transmission.

Two classes of broadcasting stations may operate, viz. :—Class "A"—in respect of which the receiving licence fees are payable, and Class "B"—in respect of which no receiving licence revenue is payable. In New South Wales and Victoria two Class "A" stations only may be licensed. The licensees of these stations receive respectively 70 per cent. and 30 per cent. of the licence fees available for distribution. In the other States one Class "A" station only may be licensed, and the whole of the "available revenue" for the particular State will be payable in respect of the station. The fees payable to the Department for Class "A" licences are £15, and for Class "B" £5, the licence being valid for a period of 5 years.

The following tables show the number of each class of licence issued in each State, etc., during the years 1925-26 and 1926-27 :—

WIRELESS LICENCES, 1925-26.

Station Licence.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	Aust.	Papua.	Grand Total.
Coast	1	1	5	1	5	3	1	17	2	19
Ship	32	59	7	17	3	..	..	118	..	118
Land .. ..	..	..	..	..	..	1	1	2	2	4
Broadcasting—										
"A"	2	2	1	1	1	1	..	8	..	8
"B"	7	1	1	1	..	1	..	11	..	11
Broadcast listeners—										
Ordinary ..	36,292	63,494	8,000	12,105	3,886	1,170	..	125,047	..	125,047
Special ..	9	49	8	174	1	1	..	242	..	242
Temporary ..	8	25	21	37	7	1	..	99	..	99
Experimental—										
Transmitting and										
receiving ..	124	114	37	31	26	23	..	355	2	357
Receiving only ..	185	133	40	32	24	10	..	424	6	430
Dealers' listening ..	472	797	265	315	66	77	..	1,992	..	1,992
Portable .. ..	..	..	..	..	..	..	..	..	..	..
Aircraft .. ..	..	..	..	..	..	..	..	..	..	..
Total Licences issued	37,132	64,675	8,485	12,714	4,019	1,288	2	128,315	12	128,327

WIRELESS LICENCES, 1926-27.

Station Licence.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	Aust.	Papua.	Grand Total.
Coast	1	1	5	1	5	3	1	17	2	19
Ship	32	59	7	17	3	..	..	118	..	118
Land	4	3	1	..	..	1	..	9	2	11
Broadcasting—										
"A"	2	2	1	1	1	1	..	8	..	8
"B"	7	2	1	2	..	..	..	12	..	12
Broadcast listeners—										
Ordinary ..	56,908	113,612	22,226	15,904	3,616	1,142	..	213,408	..	213,408
Special ..	46	94	13	404	4	2	..	563	..	563
Temporary ..	41	40	51	25	1	7	..	165	..	165
Experimental—										
Transmitting and										
receiving ..	134	134	52	49	31	23	..	423	2	425
Receiving only ..	149	116	26	25	20	8	..	344	6	350
Dealers' listening ..	860	943	295	324	47	52	..	2,521	..	2,521
Portable	5	..	..	..	..	..	..	5	..	5
Aircraft .. ..	..	..	..	..	..	..	..	..	..	..
Total Licences issued	58,180	115,006	22,678	16,752	3,728	1,239	1	217,593	12	217,605

Licences previously issued by the Minister for the Navy under the Naval Defence Act 1910-1918, or by the Postmaster-General under the Act, and which were in force on 1st December, 1922, are not prejudiced by these Regulations.

Licences for the Territory of New Guinea are issued by the Administrator at Rabaul.

(ii) (b) *Simultaneous Delivery.* A development of some importance was the linking-up of several radio broadcasting stations for simultaneous broadcasting, which was successfully accomplished for the first time on 20th August, 1925, to enable an address to be delivered on the War Conversion Loan then being floated.

The speech was delivered at the Central Telephone Exchange, Melbourne, and by means of the telephone trunk lines and amplifying apparatus, was distributed to the studios of broadcasting stations in Brisbane (1,243 miles), Sydney (592 miles), Melbourne, and Adelaide (485 miles). The audience was estimated at 250,000 persons, and the area covered about two million square miles.

On the occasion of the opening of Federal Parliament at Canberra on 9th May, 1927, by H.R.H. the Duke of York, the speeches and ceremonies were again similarly broadcast. Receiving sets and loud speakers were set up in schools, halls, and other public places, and voice projectors were used in some of the principal streets of capital cities.

(iii) *Beam Wireless.* The Beam wireless stations provided for under the agreement between the Commonwealth Government and Amalgamated Wireless (Australasia) Ltd. were completed early in 1927, and a direct beam wireless service to England was established on 8th April, 1927. Satisfactory communication is maintained daily over a period of hours, and the new service is being well patronized by the public. Preliminary tests have been made between Canada and Australia, and the early opening of this service is anticipated. A comparison of the rates charged for "Beam" and Cable messages is given in § 3, Submarine Cables.

(iv) *Radio Stations (Pacific Ocean).* Radio-telegraphic stations have been erected at Suva, Ocean Island, Tulagi, and Vila under the control of the High Commissioner of the Pacific, while the New Zealand Government has erected high-power stations at Awanui (Auckland), Awarua (Bluff), and Apia (Samoa), and low-power stations at Auckland, Chatham Islands, Raratonga (Cook Islands), and Wellington.

(v) *Radiotelegraphic Traffic.* (a) *Coast Stations.* The following statement shows the traffic handled by the several coast stations during the years 1924-25 and 1925-26 :—

RADIO TRAFFIC.—COAST STATIONS, 1924-25 AND 1925-26.

State or Territory.	Particulars.				
	Total. Paying Words.	Messages.			
		Paying.	Service.	Weather.	Total.
	No.	No.	No.	No.	No.
New South Wales ..	288,288	23,538	566	4,313	28,417
Victoria ..	195,984	14,549	2	1,345	15,896
Queensland ..	886,988	51,526	2,501	5,101	59,128
South Australia ..	78,393	6,271	206	1,292	7,769
Western Australia ..	238,798	17,100	409	3,762	21,271
Tasmania ..	139,310	8,946	367	173	9,486
Northern Territory ..	10,978	835	7	1,611	2,453
Australia ..	1,838,739	122,765	4,058	17,597	144,420
Papua ..	328,124	16,911	756	1,174	18,841
Grand Total ..	2,166,863	139,676	4,814	18,771	163,261

(b) *Island Stations.* Particulars of the island radio traffic dealt with during the year 1925-26 are given hereunder :—

RADIO TRAFFIC.—ISLAND STATIONS, 1925-26.

Particulars.	To Australia.	From Australia.	Inter- Island.	Ship.	Service.	Total.
Messages	10,373	8,333	4,742	2,224	5,573	31,245
Words	195,030	178,127	178,193	30,410	70,407	652,167

(vi) *Proficiency Certificates.* Proficiency certificates for commercial wireless operators are issued by the Minister to individuals who pass the specified tests. Amateur operators' certificates and watchers' certificates are, in addition, issued to successful candidates at the prescribed examinations.

Every ship-station and coast-station, in respect of which a licence is issued, must be operated by a person holding a certificate of proficiency.

At 30th June, 1926, 921 first-class and 48 second-class commercial and 264 amateur proficiency certificates, in addition to 153 watchers' certificates, had been issued.

§ 6. Research Section.

The Postmaster-General's Department, in pursuance of its policy of improving and extending the system of electrical communication in Australia, has created a Research Section, whose functions are indicated hereunder :—

- (i) Investigation of technical problems that arise in telephone, telegraph, and radio systems of the Department or under its control.
- (ii) Supervision of the transmission design of the trunk line network of the Commonwealth, wire and radio, in order to produce a co-ordinated system wherein a subscriber at any place in the Commonwealth will be able to converse easily and clearly with a subscriber in any other place. The possible future requirements of international and inter-Empire telephony are also included in these studies.
- (iii) Co-operative work with other bodies in research into the propagation of radio waves and factors influencing radio communication generally.
- (iv) Supervision of the initial installations of new forms of communication apparatus, such as carrier systems, radio links in the trunk line system, special forms of telephone repeaters and the larger simultaneous broadcasting events.

The nucleus of the staff was established in 1924, and the strength at 30th June, 1927, was 11, with laboratory equipment valued at £10,000.

CHAPTER VIII.

FINANCE.

A. COMMONWEALTH FINANCE.

§ 1. General.

1. **Financial Provisions of the Constitution.**—The main provisions of the Constitution relating to the initiation and development of the financial system of the Commonwealth are contained in Chapter IV., "Finance and Trade," being sections 81 to 105 of the Constitution Act. Two other sections which have a most important bearing on questions of Commonwealth finance are sections 69 and 51.

Section 69 provides for the transfer to the Commonwealth from the States of certain specified departments, while section 51, in outlining the powers of the Federal Parliament, implies the transfer or creation of various other departments. Section 87 deals with the financial relations between the Commonwealth and the States. These matters have been treated in some detail in previous issues of the Official Year Book up to and including No. 12, and further reference to them will not be made here.

The Commonwealth Treasury issues annually a document entitled "The Treasurer's Statement of Receipts and Expenditure during the year ended 30th June," with which is incorporated the report of the Commonwealth Auditor-General for the year. This series of annual statements is the principal authority for the majority of the tables given herein.

2. **Accounts of Commonwealth Government.**—The Commonwealth Government, like the States Governments, bases its accounts mainly upon three funds, the Consolidated Revenue Fund, the Trust Fund, and the Loan Fund. The last mentioned fund came into existence in the financial year 1911-12, but on the outbreak of war it became so important that it is now treated in two parts—a General Loan Fund mainly for purposes of Public Works, and a War Loan Fund for purely military purposes. The accounts of these funds are now so interwoven that a complete view of Commonwealth Finance can hardly be obtained by separate analysis of each. Two tables are therefore appended, showing receipts and disbursements from all sources for the last five years. The different funds will then be treated in detail in the subsequent paragraphs.

COMMONWEALTH RECEIPTS, 1921-22 TO 1925-26.

Heading.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	£	£	£	£	£
Consolidated Revenue ..	64,897,046	64,720,635	66,017,203	68,854,809	72,285,806
Trust Funds in aid of Revenue ..	6,618,327	6,408,424	7,428,574	2,591,153	3,109,530
Total	71,515,373	71,129,059	73,445,777	71,445,962	75,395,336
General Loan Fund	12,253,610	10,362,083	34,086,149	16,528,286	32,590,572
Unexpended Balance from previous years .. .. .	..	822,079	1,557,078	1,501,913	3,411,612
Total	12,253,610	11,184,162	35,643,227	18,030,199	36,002,184
War Loan Fund	14,452,902	36,784	13,662,824	37,418	324,224
Unexpended Balance from previous years	6,205,030	8,889,183	4,296,988	985,899	..
Total	20,657,932	8,925,967	17,959,812	1,023,317	324,224
Grand Total	104,426,915	91,239,188	127,048,816	90,499,478	111,721,744

COMMONWEALTH EXPENDITURE, 1921-22 TO 1925-26.

Heading.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
Expenditure from Consolidated Revenue	£ 51,453,087	£ 50,106,510	£ 48,676,907	£ 56,709,988	£ 63,048,182
Balance paid into Trust Funds ..	6,408,424	7,428,574	2,591,153	3,109,530	285,897
Expenditure from Trust Funds ..	6,618,327	6,408,424	7,428,574	2,591,153	3,109,530
Subsidy to States	7,035,535	7,185,551	7,324,538	7,535,291	7,951,727
Surplus allocated to Naval Construction .. ..	..	..	2,508,850	..	..
Redemptions from Revenue .. ..	..	..	4,915,755	1,500,000	1,000,000
Total	71,515,373	71,129,059	73,445,777	71,445,962	75,395,336
General Loan Fund Expenditure—					
New Works	5,246,503	5,383,949	6,060,048	6,341,758	7,778,856
Redemptions	6,185,028	4,243,135	28,030,116	8,276,829	22,011,103
Unexpended Balance of General Loan Expenditure	822,079	1,557,078	1,493,063	3,411,612	6,212,225
Total	12,253,610	11,184,162	35,643,227	18,030,199	36,002,184
War Expenditure from War Loan Fund	11,768,749	4,628,979	16,973,913	1,023,317	324,224
Unexpended Balance from War Loan Fund	8,889,183	4,296,988	985,899	..	..
Total	20,657,932	8,925,967	17,959,812	1,023,317	324,224
Grand Total	104,426,915	91,239,188	127,048,816	90,499,478	111,721,744

§ 2. Consolidated Revenue Fund.

Division I.—Nature of Fund.

The provisions made for the formation of a Commonwealth Consolidated Revenue Fund, and the means to be adopted for operating on that fund, are contained in sections 81, 82, and 83 of the Constitution. In section 81 it is provided that "All revenues or moneys raised or received by the Executive Government of the Commonwealth shall form one Consolidated Revenue Fund, to be appropriated for the purposes of the Commonwealth in the manner and subject to the charges and liabilities imposed by this Constitution." A strictly literal interpretation of this section would appear to require all loan and trust moneys received by the Commonwealth Executive to be paid to Consolidated Revenue. It is, however, held by Quick and Garran, in their "Annotated Constitution," that the "generic word *moneys* must be controlled by the preceding specific word *revenues*, and limited to moneys in the nature of revenue." This is the view of the matter which has been adopted by the Commonwealth Treasury in the preparation of its accounts. At present, certain moneys received by the Commonwealth, which are not of the nature of revenue, are paid to Trust Account, and other moneys are paid to Loan Account. As regards expenditure from the Consolidated Revenue Fund, section 82 provides that the costs, charges, and expenses incident to the collection, management, and receipt of the Consolidated Revenue Fund should form the first charge thereon, while section 83 stipulates that "no money shall be drawn from the Treasury of the Commonwealth except under appropriations made by law." Such appropriations are either special, and as such are provided for by means of a permanent Act, or annual, and provided for in an annual Appropriation Act.

Division II.—Revenue.

1. **Total.**—The consolidated revenue of the Commonwealth, which in 1901-2, the first complete financial year under the new régime, amounted to £11,296,985, had, in 1925-26, reached a total of £72,285,806, an increase in the period of £60,988,821.

The total amount of revenue collected by the Commonwealth Government during each of the last five years is shown in the following table :—

COMMONWEALTH CONSOLIDATED REVENUE, 1921-22 TO 1925-26.

Revenue.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	£	£	£	£	£
Total ..	64,897,046	64,720,635	66,017,203	68,854,809	72,285,806

The increase in recent years is mainly due to the expansion in taxation, which is considered in detail in a later sub-section.

2. Revenue per Head.—The next table shows the amount of revenue from various sources per head of population for the last five years :—

COMMONWEALTH CONSOLIDATED REVENUE PER HEAD, 1921-22 TO 1925-26.

Source of Revenue.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Taxation ..	9 0 4	8 17 1	8 16 11	8 19 11	9 1 6
Public Works and Services ..	1 14 8	1 14 9	1 13 11	1 15 2	1 17 1
Other Receipts ..	1 0 7	0 17 11	0 18 10	0 19 5	1 2 8
Total ..	11 15 7	11 9 9	11 9 8	11 14 6	12 1 3

3. Sources of Revenue.—(i) General. The following table furnishes details of the revenue from each source during the years 1921-22 to 1925-26 :—

COMMONWEALTH CONSOLIDATED REVENUE—SOURCES, 1921-22 TO 1925-26.

Source.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	£	£	£	£	£
Taxation—					
Customs ..	17,328,310	22,597,306	25,177,882	26,405,161	27,839,889
Excise ..	10,302,049	10,274,823	10,572,902	10,787,620	11,358,989
Land Tax ..	2,284,040	2,018,376	2,030,127	2,519,711	2,521,910
Estate Duty ..	991,378	1,172,935	1,320,911	1,381,051	1,411,336
Income Tax ..	16,790,682	12,904,518	11,057,555	11,136,344	10,858,046
Entertainments Tax ..	675,675	629,802	622,460	660,586	460,326
War Time Profits Tax ..	1,306,708	286,757	70,646	Dr. 74,783	Dr. 77,491
Total ..	49,678,842	49,885,017	50,852,483	52,835,690	54,373,005
Public Works and Services—					
Postal ..	9,320,654	9,792,273	9,757,021	10,044,486	10,771,756
Railways ..	217,301	230,136	232,406	287,037	349,708
Other ..	4,094	14,340	..	..	..
Total ..	9,542,049	10,036,749	9,989,427	10,331,523	11,121,524
Other Revenue—					
Interest, Discount, etc. ..	2,361,137	2,574,962	2,386,136	3,358,239	4,594,346
Coinage ..	178,439	137,696	151,682	107,275	332,014
Defence ..	150,297	223,402	315,708	139,078	130,662
Quarantine ..	42,639	41,388	38,445	36,599	30,553
Territories (a) ..	77,844	28,189	30,658	38,720	41,973
Patents, etc. ..	41,893	40,491	37,770	39,026	42,017
Lighthouses ..	171,967	173,363	179,733	205,170	198,353
Pension Contributions ..	57,489	58,205	56,638	51,868	56,781
Defence Trust Account ..	203,085	102,419	40,565	7,413	..
Net Profit on Australian Note Issue ..	1,261,482	1,072,893	1,264,583	1,277,975	1,048,062
Miscellaneous ..	1,130,383	345,861	673,375	426,233	316,516
Total ..	5,676,155	4,798,869	5,175,293	5,687,596	6,791,277
Grand Total ..	64,897,046	64,720,635	66,017,203	68,854,809	72,285,806

(a) Exclusive of Railways and other items which appear elsewhere under their appropriate headings.

The revenue from taxation reached its highest point in 1925-26 with upwards of £54,373,000. This represents an increase of more than £1,500,000 over that of 1924-25 the previous record collection. The increase was principally due to Customs and Excise receipts. With the exception of the year 1923-24, when there was a slight decrease, the postal receipts have shown a consistent upward tendency. During the last five financial years the operations of the shipping line have resulted in a deficit. The large amount for 1921-22, under the head of "Miscellaneous," includes £835,000, payment on account of the Army of Occupation.

(ii) *Taxation.*—(a) *Customs Revenue.* Particulars for the five years 1921-22 to 1925-26 are furnished in the following table :—

COMMONWEALTH CUSTOMS REVENUE, 1921-22 TO 1925-26.

Classes.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	£	£	£	£	£
Stimulants	1,981,882	2,294,264	2,604,200	2,740,191	2,945,846
Narcotics	1,619,916	1,699,023	1,746,785	1,889,604	2,075,940
Sugar	9,991	10,723	12,995	10,414	20,438
Agricultural products	951,816	1,156,209	1,296,361	1,118,219	1,287,944
Apparel and textiles ..	4,514,541	5,825,461	5,174,929	5,524,439	5,179,366
Metals and machinery	3,324,601	3,732,677	4,323,070	4,433,374	4,895,918
Oils, paints, etc. ..	409,768	563,257	696,235	792,994	950,991
Earthenware, etc. ..	503,941	557,017	631,056	654,120	688,321
Drugs and chemicals	395,777	536,975	444,587	465,174	525,649
Wood, wicker and cane	552,842	1,054,543	1,209,814	1,152,269	1,349,687
Jewellery, etc. ..	525,207	723,180	773,206	875,365	866,799
Leather, etc. ..	482,389	1,131,572	1,561,086	1,576,032	1,770,373
Paper and stationery	633,261	746,906	723,267	724,370	682,745
Vehicles	718,080	1,553,355	2,673,447	3,038,209	3,064,427
Musical instruments ..	170,859	248,467	460,445	504,419	466,054
Miscellaneous articles	480,461	706,572	796,069	845,993	1,007,789
Other receipts	52,978	57,105	50,330	59,975	61,602
Total Customs ..	17,328,310	22,597,306	25,177,882	26,405,161	27,839,889

The large increase in 1922-23 and 1923-24 over previous years may be ascribed to the increase in imports due to a considerable extent to heavy borrowings abroad by the Commonwealth and State Governments, while the rise in 1924-25 and 1925-26 is due mainly to increased trade resulting from the prosperity of the seasons.

(b) *Excise Revenue.* Particulars concerning the amount of Excise collected under each head during each of the years ending 30th June, 1922, to 1926, are given hereunder :—

COMMONWEALTH EXCISE REVENUE, 1921-22 TO 1925-26.

Particulars.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	£	£	£	£	£
Beer	5,473,220	5,498,800	5,501,648	5,642,646	5,847,974
Spirits	1,510,432	1,617,975	1,757,414	1,766,526	2,026,415
Tobacco	3,288,852	3,124,926	3,284,594	3,349,095	3,457,052
Starch	16,829	20,342	16,818	17,368	15,539
Licences	12,716	12,780	12,428	11,985	12,009
Total Excise ..	10,302,049	10,274,823	10,572,902	10,787,620	11,358,989

(c) *Land Tax.* Details in regard to rates of tax, etc., will be found in Official Year Book No. 14 at the end of Section XX.

A table is appended showing the actual amounts received by the Treasury for five years. The yield of the tax has been fairly constant, the decrease of £265,164 in 1922-23 being caused mainly by the abolition during the year of the additional 20 per cent. tax which was imposed under Act No. 30 of 1918, while the increase of nearly £500,000 in 1924-25 was brought about by the collection of arrears and of taxes due on Crown lease-holds.

COMMONWEALTH LAND TAX COLLECTIONS, 1921-22 TO 1925-26.

State.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	£	£	£	£	£
New South Wales ..	1,015,851	900,330	854,589	1,172,317	1,079,414
Victoria ..	910,764	748,016	818,328	944,997	1,074,265
Queensland ..	95,763	70,398	91,106	114,874	46,138
South Australia ..	174,983	181,893	162,593	182,191	198,630
Western Australia ..	45,820	80,952	64,345	62,503	78,778
Tasmania ..	40,859	37,287	39,166	42,829	44,685
Total ..	2,284,040	2,018,876	2,030,127	2,519,711	2,521,910

(d) *Estate Duty.* Collections from this source for the five years 1922 to 1926, are given hereunder :—

COMMONWEALTH ESTATE DUTY COLLECTIONS, 1921-22 TO 1925-26.

Year.	N.S.W.	Vic. (b)	Q'land.	S. Aust.(a)	W. Aust.	Tas.	Total
	£	£	£	£	£	£	£
1921-22 ..	363,731	372,126	97,785	82,698	39,865	35,173	991,378
1922-23 ..	483,616	397,489	100,158	132,833	41,455	17,384	1,172,935
1923-24 ..	477,974	555,324	87,278	147,035	27,322	25,978	1,320,911
1924-25 ..	604,358	496,723	87,820	116,950	58,380	16,820	1,381,051
1925-26 ..	547,712	515,570	95,827	180,991	41,993	29,243	1,411,336

(a) Including Northern Territory.

(b) Including Central Office.

(e) *Income Tax.* The first Commonwealth Income Tax was levied during the financial year 1915-16. The legislation on the subject comprises the Income Tax Assessment Act No. 34 of 1915, and subsequent amending Acts. Full details as to the original Acts are to be found in Commonwealth Official Year Book No. 9. The result of the last five years' collections was as follows :—

COMMONWEALTH INCOME TAX COLLECTIONS, 1921-22 TO 1925-26.

State in which Collected.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	£	£	£	£	£
New South Wales ..	5,273,221	4,274,432	3,629,203	3,579,546	3,640,219
Victoria (a) ..	7,312,618	5,525,429	4,873,611	5,159,331	4,703,200
Queensland ..	1,547,138	1,209,829	1,011,458	679,745	980,852
South Australia ..	1,494,210	1,072,821	713,042	1,110,015	844,076
Western Australia ..	692,339	524,781	552,779	327,607	501,982
Tasmania ..	463,421	292,641	274,510	277,226	185,024
Northern Territory ..	7,735	4,585	2,952	2,874	2,693
Total ..	16,790,682	12,904,518	11,057,555	11,136,344	10,858,046

(a) Including Central Office.

The rise in 1921–22 was due partly to increases in the rates of tax, and partly to the increase in money incomes associated with rising prices. The large decrease in 1922–23 is accounted for mainly by the raising of the exemption to £200, the introduction of the averaging system, the reduction of rates under Act No. 38 of 1922, and the decision to exempt bonus shares not paid out of current profits for all previous years. The falling-off in 1923–24 is due to concessions, including the increase in the deduction allowable for children, and the reduction in the Company rate from 2s. 5d. to 1s.

Agreements between the Commonwealth and all the States except Western Australia were made in 1923 with respect to the collection of Commonwealth Income Tax. These agreements came into operation in the cases of New South Wales, Victoria, and South Australia on 1st July, 1923, Tasmania on 10th October, and Queensland on 31st October, 1923. It is provided in each agreement that the Commonwealth Tax and the State Tax shall be collected by an officer acting for the Commonwealth and State, the Commonwealth appointing the State Commissioner as Deputy Commissioner for the State under the Income Tax Assessment Act of the Commonwealth. Provisions are included relating to the transfer of officers, the accounting of receipts, and the division of expenses. A joint form of Income Tax return is to be used in cases where the income is derived in one State only. The respective agreements are to remain in operation for a period of five years, and thereafter until the expiration of not less than six calendar months, upon notice in writing by either party to the agreement.

In Western Australia an arrangement was made previously by which the Commonwealth undertakes the collection of the State Income Tax.

(f) *Entertainments Tax.* The rate of Entertainments Tax, according to Amending Act No. 15 of 1922 which came into force on the 2nd October, 1922, is as follows:—For tickets of 1s., 1d.; exceeding 1s., 1d. for the first shilling, and $\frac{1}{2}$ d. for every subsequent sixpence or part of sixpence. By an Amending Act (No. 23 of 1925) the rate is now two-pence halfpenny for a payment of two shillings and sixpence, and one halfpenny for every subsequent sixpence or part thereof. The collections for the last five years are given hereunder.

The decreased returns for 1922–23 and 1923–24 as compared with 1921–22 result from the exclusion from taxation as from the 2nd October, 1922, of amounts for admission under one shilling. The decrease in the collections for 1925–26 is due to the remission of taxation on tickets less than two shillings and sixpence.

COMMONWEALTH ENTERTAINMENTS TAX COLLECTIONS, 1921–22 TO 1925–26.

State.	1921–22.	1922–23.	1923–24.	1924–25.	1925–26.
	£	£	£	£	£
New South Wales ..	276,786	256,755	248,615	274,791	183,856
Victoria	222,210	208,240	212,011	223,555	161,010
Queensland	75,048	66,512	64,194	76,533	48,745
South Australia ..	45,925	45,015	46,114	52,588	35,327
Western Australia ..	38,420	37,605	35,358	37,797	23,934
Tasmania	17,193	15,589	16,066	15,214	7,382
Northern Territory ..	93	86	102	108	72
Total	675,675	629,802	622,460	680,586	460,326

(g) *War-Time Profits Tax.* This tax came into force on the 22nd September, 1917. It provides for a tax on the amount by which the profits made in the war-time financial year (1st July to 30th June following) exceeds the pre-war standard of profits, which may be either:—(a) the average profits of two of the three years before 4th August, 1917, or (b) 10 per cent. on the capital employed in the business. The tax in respect of profits

derived in the financial year 1st July, 1915, to 30th June, 1916, was 50 per cent., and in all subsequent years 75 per cent. The collections for the last five years are given in the accompanying table. The original section 2 of the War Time Profits Tax Assessment Act stated that this Act would apply to the profits of any business arising up to 30th June next after the Declaration of Peace in connexion with the late war. After the signing of the armistice, on 11th November, 1918, the section was amended to accord with that intention, and thus fixed the final application of the Act to profits arising during the year ended 30th June, 1919. The figures for subsequent years represent delayed collections under this Act. Amendments of earlier assessments entailed the payment of large refunds in 1924-25 and 1925-26.

COMMONWEALTH WAR-TIME PROFITS TAX COLLECTIONS, 1921-22 TO 1925-26.

State in which Collected.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	£	£	£	£	£
New South Wales ..	376,480	43,524	8,412	Dr. 78,079	9,642
Victoria (a) ..	687,211	168,255	Dr. 19,595	5,428	Dr. 18,547
Queensland ..	83,892	70,402	33,767	Dr. 6,683	Dr. 35,553
South Australia ..	86,603	Dr. 15,302	42,944	Dr. 386	Dr. 32,337
Western Australia ..	44,351	15,377	3,777	316	51
Tasmania ..	28,172	4,501	1,341	4,621	Dr. 747
Total ..	1,306,709	286,757	70,646	Dr. 74,783	Dr. 77,491

(a) Including Central Office.

(b) Including Northern Territory, £1,334.

(h) *War Postage.* This was a new source of revenue derived from an additional halfpenny rate imposed on postages from the 28th October, 1918. The amount credited to "War Postage" is the excess over the normal increase of revenue from postage. The amount collected for the balance of the financial year 1918-19 was £463,317, and in 1919-20 it was £745,962. In 1920-21 it fell to £197,928, as credits under this head of revenue ceased on 1st October, 1920.

(iii) *Public Works and Services.*—(a) *Postal Revenue.* Particulars concerning this branch of revenue for each of the financial years from 1921-22 to 1925-26 are contained in the following table :—

COMMONWEALTH POSTAL REVENUE, 1921-22 TO 1925-26.

Particulars.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	£	£	£	£	£
Private Boxes and bags ..	42,606	44,542	48,132	52,301	55,813
Commission—					
Money orders and postal notes ..	172,861	179,571	181,663	192,809	201,445
Telegraphs ..	1,375,584	1,405,664	1,426,542	1,481,784	1,490,480
Telephones ..	2,724,552	2,983,069	3,301,651	3,599,864	4,044,414
Postage ..	4,682,964	4,913,162	4,362,660	4,333,461	4,580,354
Radio Receipts ..	25,995	7,711	4,012	18,291	21,178
Miscellaneous ..	296,092	258,554	432,361	365,976	378,072
Total ..	9,320,654	9,792,273	9,757,021	10,044,486	10,771,756

The decrease of £550,502 in 1923-24 as compared with the preceding year under the sub-head "Postage" was due to reductions in postal rates. The installation of additional telephones was responsible for the large increase of £298,213 under the item "Telephones" in 1924-25, and £444,550 in 1925-26. The item "Miscellaneous" includes a subsidy from the Commonwealth Bank for the conduct of Savings Bank business, payments by the United Kingdom in respect of mail transit rates, and certain allowances.

(b) *Railway Revenue.* The Commonwealth Government is responsible for four lines—the Kalgoorlie-Port Augusta, the Port Augusta-Oodnadatta, the Darwin-Katherine River, and the Federal Capital Territory line. The appended table shows the amounts paid into the credit of the Consolidated Revenue Fund on account of each of these railways for the past five years. Under an arrangement which came into effect on 1st January, 1914, the Port Augusta-Oodnadatta Railway was worked by the South Australian Government, and the Commonwealth Government paid the deficiency on the working. This arrangement was terminated on 31st December, 1925, since when this railway has been worked by the Commonwealth Railway Commissioner.

COMMONWEALTH RAILWAY REVENUE, 1921-22 TO 1925-6.

Railway.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	£	£	£	£	£
Kalgoorlie-Port Augusta ..	201,084	215,368	215,945	254,291	276,278
Port Augusta-Oodnadatta ..	(a)	(a)	(a)	(a)	27,035
Darwin-Katherine River ..	14,370	14,768	16,461	29,105	38,879
Federal Capital Territory ..	1,847	(b)	(b)	3,641	7,576
Total	217,301	230,136	232,406	287,037	349,768

(a) See paragraph (b) above.

(b) Not available.

(c) *Commonwealth Steamships.* For the year 1925-26 the estimated earnings, including those of the detained enemy vessels, were £1,911,731, and the estimated expenditure £2,414,808, leaving a loss of £503,077 on the year's operations. Further information relative to the Commonwealth Government Line of Steamers will be found in Chapter VII., part A, Shipping.

(iv) *Other Sources of Revenue.*—(a) *Interest, Discount, etc.* The most important investments of the Commonwealth Government from which interest is derived are—Loans to States, General Trust Funds, Loans placed in London, Fixed Deposits with the Commonwealth and other Banks, and certain advances and overdrafts. In 1925-26 they included Interest on Loans and Advances to States, £3,792,556; Interest on General Trust Fund Investments, £326,359; and Interest, Nauru Island Agreement, £87,265.

(b) *Coinage.* The Commonwealth Revenue under this head is derived from profit on coin issued, and for 1925-26 was made up of £317,215 for silver and £14,799 for bronze.

(c) *Defence.* The income from this source (which is derived from both Defence and Navy Offices) arises chiefly from sales of material and stores supplied, forfeitures, fines, costs, etc. In 1925-26, £100,625 was contributed by the Defence Department (Military), £5,470 by the Air Services, and £24,567 by the Navy Office.

(d) *Patents, etc.* This heading includes Patents, Trade Marks, Copyright and Designs. In 1925-26, £31,482 was obtained from Patents, and £10,535 from Trade Marks, Copyright and Designs.

(e) *Defence Trust Account.* This is credited with receipts from Parliamentary appropriations, and from the Departments and the public for work done and material supplied. In the year 1924-25, only the unexpended balance of Trust Fund Clothing Factory, viz., £7,413, was transferred to the Consolidated Revenue Fund, thus closing the account.

(f) *Miscellaneous.* This includes several items which are either small in themselves, or not included under separate headings, as they are virtually non-recurring. Thus in 1922-23 there was a payment into revenue of £168,709 on account of Sugar—Interest on Overdraft; in 1923-24, a sum of £195,000 being a repayment of advances to Trust Fund—Cockatoo Island Dockyard Account; receipts under the Commerce Act amounted to £55,210 in 1924-25 and to £44,391 in 1925-26.

Division III.—Expenditure.

1. *Nature of Commonwealth Expenditure.*—The disbursements by the Commonwealth Government of the revenue collected by it fell naturally, under the "book-keeping" system, into three classes, viz. :—

- (a) Expenditure on transferred services.
- (b) Expenditure on new services.
- (c) Payment to States of surplus revenue.

Of these three, only the first two were actual expenditure, the last being merely a transfer, the actual expenditure being incurred by the States. In accordance with the provisions of the Constitution, the expenditure on transferred services was, under the "book-keeping" system, debited to the several States in respect of which such expenditure was incurred, while the expenditure on new services was distributed *per capita*. Surplus Commonwealth revenue was paid to the States monthly. During the earlier years of Federation, viz., until the end of the year 1903-4, new works, etc., for transferred departments were treated as transferred expenditure, and were charged to the States on whose behalf the expenditure had been incurred. In subsequent years all such expenditure was regarded as expenditure on new services, and distributed amongst the States *per capita*. Under the arrangement, which superseded the "book-keeping" system, a specific subsidy of 25s. per head of population is made annually by the Commonwealth to the States, and there is no further debiting of expenditure to the several States. The States Grants Act (No. 4 of 1927) provides for the abolition of the *per capita* payments as from 30th June, 1927. Further details in connexion therewith will be found in part B, § 3 of this chapter.

2. *Total Expenditure.*—The total expenditure by the Commonwealth Government and the expenditure per head of population during the period 1921-22 to 1925-26 are shown in the following table :—

COMMONWEALTH EXPENDITURE, 1921-22 TO 1925-26. (a)

Particulars.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	£	£	£	£	£
Total	65,106,949	63,700,485	63,438,869(b)	68,336,432	75,109,438
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Per head	11 16 3	11 6 1	11 0 8	11 12 9	12 10 8

(a) Including expenditure from Trust Funds and subsidies to States.

(b) Excluding £4,915,755 used for Debt redemption.

The largely increased expenditure in recent years is due partly to Old-age and Invalid Pensions, but mainly to the expenditure from Revenue upon War Services and to the general rise in prices.

* For an exposition of the "book-keeping system" see Commonwealth Year Book No. 6, page 780.

3. Details of Expenditure from Consolidated Revenue.—(i) *General.* The following table gives details of the expenditure from Consolidated Revenue during the last five years. The amounts quoted for each Department represent the expenditure incurred on behalf of that Department :—

**COMMONWEALTH EXPENDITURE—CONSOLIDATED REVENUE,
1921-22 TO 1925-26.**

Heads of Expenditure.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
<i>Cost of Departments—</i>	£	£	£	£	£
Governor-General	27,897	28,045	27,845	26,777	29,928
Parliament	346,192	446,464	336,012	355,257	469,419
Prime Minister	733,528	908,527	1,094,661	1,023,844	944,379
Attorney-General	148,045	162,797	162,136	169,015	185,427
Treasury	6,984,277	7,180,785	8,034,480	8,406,285	9,640,409
Trade and Customs	889,121	2,243,809	1,627,818	1,298,275	1,541,864
Defence	4,456,198	3,785,582	3,852,531	3,784,415	4,004,827
Postmaster-General	8,188,686	8,242,025	9,273,494	10,288,438	10,631,925
Home and Territories	695,708	526,033	522,640	524,983	699,756
Works and Railways	609,327	1,127,306	669,331	1,335,267	1,811,098
Health	172,227	155,912	167,917	187,799	176,672
Markets and Migration .. .. .	..	..	..	869,717	685,714
Total	23,251,206	24,807,285	25,768,865	28,270,072	30,841,418
<i>Miscellaneous—</i>					
New Works	2,571,794	720,927	629,510	343,916	316,941
War Services	31,337,164	30,100,472	28,770,106	29,982,761	30,171,850
Subsidies to States	7,035,535	7,185,551	7,324,538	7,535,291	7,951,727
Interest—State Loans Act	911,250	886,250	945,850	1,216,253	2,084,757
Special Defence Provision .. .. .	..	..	..	988,139	3,742,745
Total	41,855,743	38,893,200	37,670,004	40,066,360	44,268,020
Grand Total	65,106,949	63,700,485	63,438,869a	68,336,432	75,109,438

(a) Excluding £4,915,755 used for Debt redemption.

The amounts shown under the heading "Treasury" include payments from the Trust Fund on account of Pensions.

The items included under the above general heads are referred to in some detail in the succeeding sub-sections.

(ii) *Cost of Departments.*—(a) *Governor-General.* Section 30 of the Constitution enacts that, until the Commonwealth Parliament otherwise provides, there shall be payable out of the Consolidated Revenue Fund for the salary of the Governor-General an annual sum of ten thousand pounds, and a proviso is made that the salary of the Governor-General shall not be altered during his continuance in office. The total expenditure in connexion with the Governor-General and establishment for the five years 1921-22 to 1925-26 is as follows :—

**EXPENDITURE.—GOVERNOR-GENERAL AND ESTABLISHMENT,
1921-22 TO 1925-26.**

Details.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	£	£	£	£	£
Salary	10,000	10,000	10,000	10,000	10,000
Governor-General's Establishment	11,708	11,046	10,931	9,924	12,761
Contingencies (a)	6,189	6,999	6,914	6,061	6,314
Interest on Commonwealth Treasury Bills .. .. .	..	..	..	792	853
Total	27,897	28,045	27,845	26,777	29,928

(a) Represents official services outside the Governor-General's personal interests, and carried out in the main at the instance of the Government.

(b) *Parliament.* Under this head have been grouped all the items of expenditure connected with the Parliamentary government of the Commonwealth for the five years 1921-22 to 1925-26.

EXPENDITURE.—COMMONWEALTH PARLIAMENT, 1921-22 TO 1925-26.

Details.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	£	£	£	£	£
Salaries of Ministers	15,300	14,598	13,569	14,408	15,300
Allowances to Senators	34,916	34,790	35,312	35,135	34,769
Allowances to Members of House of Representatives	69,395	65,275	74,359	74,628	66,055
Officers, staff, contingencies, etc. ..	63,253	61,484	61,418	60,353	64,089
Repairs, maintenance, etc.	2,529	1,800	1,894	2,284	2,281
Printing	24,912	23,108	24,244	24,323	28,182
Travelling expenses of Members and others	12,262	29,300	20,200	19,898	20,144
Insurance	342	342	342	342	342
Electoral Office	72,816	78,706	74,401	81,791	83,285
Election expenses	5,201	89,808	721	2,951	106,704
Administration of Electoral Act	42,548	44,703	25,576	32,437	41,568
Miscellaneous	2,718	2,550	3,976	6,707	6,700
Total	346,192	446,464	336,012	355,257	469,419

In section 66 of the Constitution, provision is made for payment out of the Consolidated Revenue Fund of the Commonwealth, for the salaries of Ministers of State, of an annual sum which, until Parliament otherwise provides, shall not exceed £12,000. This was modified in 1915-16, when the Minister of the Navy was given separate Cabinet rank. Allowances to senators and members of the House of Representatives are also provided for in the Constitution, section 48 of which specifies that until Parliament otherwise provides, each such allowance shall consist of £400 a year reckoned from the day on which the member takes his seat. During the second session of the Parliament in 1907 an Act was passed raising the annual allowance from £400 to £600, such increase to date from 1st July, 1907. In 1920, the salaries of members of both Houses were further increased to £1,000 per annum.

(c) *Prime Minister's Department.* This Department was created during the financial year 1911-12. In addition to the Prime Minister's Office it includes the Audit Office taken from the Treasury, the Executive Council taken from the External Affairs Department, the Public Service Commissioner's Office (now the Public Service Board's Office) taken from the Home Affairs Department, and Commonwealth Shipbuilding. In 1916-17 it assumed control of the High Commissioner's Office in London, which was detached from the old External Affairs Department when the latter was merged in the Home and Territories Department. It has recently enlarged its activities by administering the affairs of the Mandated Territory of Nauru, while the control of immigration and mail services to the Pacific Islands has been transferred to other departments. The expenditure for the last five years is shown in the following table :—

EXPENDITURE.—PRIME MINISTER'S DEPARTMENT, 1921-22 TO 1925-26.

Details.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	£	£	£	£	£
Salaries, contingencies, etc.	38,191	38,896	34,800	41,623	41,483
Audit Office	34,689	34,754	35,382	36,052	33,459
Rent, repairs, etc.	9,021	7,710	10,348	10,094	8,454
Public Service Board's Office	34,960	33,745	47,491	50,849	50,485
High Commissioner's Office, London ..	69,417	59,024	54,508	60,664	63,744
Australian Commissioner's Office, New York	9,353	6,466	11,489	14,875	12,270
Interest on Commonwealth Securities ..	204,316	439,054	464,071	530,006	548,709
Sinking Fund on Commonwealth Securities	550	31,013	48,967	48,177	48,179
Mail Service to Pacific Islands	49,167	46,805	52,953	(a)	(a)
Contribution to Secretariat, League of Nations	40,984	37,470	34,620	25,500	24,893
Immigration	72,175	69,560	66,866	(a)	(a)
Interest on Transferred Properties ..	30,370	30,370	29,480	29,945	29,965
Miscellaneous	140,335	73,660	203,686	176,059	82,738
Total	733,528	908,527	1,094,661	1,023,844	944,379

(a) Transferred to other Departments.

The "Miscellaneous" vote for 1921-22 included £49,070 for relief of distress in Europe, and £32,500 as payment to the South African Government on account of wheat. The agreement with the Amalgamated Wireless Limited for the upkeep of Coastal Stations accounted for £47,330 of the "Miscellaneous" vote in 1922-23. In 1923-24 this item was debited with £137,697, payment to Central Wool Committee in respect of wool supplied for the local manufacture of wool-tops, and £14,109, British Empire Exhibition. In 1924-25, the largest item was a further payment of £137,697 to the Central Wool Committee. The largest items in 1925-26 were—Oil Agreement, £26,992, and American Fleet visit, £19,198.

(d) *Attorney-General's Department.* The extra expenditure connected with this Department of late years has been caused in large measure by the extension of the Federal High Court, and an increase in the item "Patents, Trade Marks, etc." Details for the five years 1921-22 to 1925-26 are furnished hereunder :—

EXPENDITURE.—ATTORNEY-GENERAL'S DEPARTMENT, 1921-22 TO 1925-26.

Details.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	£	£	£	£	£
Attorney-General's Office	18,358	20,010	17,949	19,555	21,596
Crown Solicitor's Office	18,248	18,829	19,478	21,997	22,690
Salaries of Justices of High Court ..	21,500	21,500	21,500	21,500	21,500
High Court expenses	12,276	13,957	14,104	13,269	14,000
Court of Conciliation and Arbitration	4,949	11,182	8,378	11,995	12,958
Public Service Arbitrator's Office ..	4,524	3,604	3,955	4,027	3,953
Rent, repairs, etc.	8,200	12,797	11,081	11,472	12,571
Patents, Trade Marks, etc.	43,602	43,973	42,935	45,598	48,691
Investigation Branch	7,496	7,904	8,905	9,184	9,970
Miscellaneous	8,892	9,041	13,851	10,418	17,498
Total	148,045	162,797	162,136	169,015	185,427

(e) *Treasurer's Department.* The sub-departments under the control of the Commonwealth Treasurer are the Treasury, the Pensions Department, the Taxation Office, the Supply and Tender Board, and Superannuation. Details of the expenditure of this Department for the last five years are given in the following table :—

EXPENDITURE.—TREASURER'S DEPARTMENT, 1921-22 TO 1925-26.

Details.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	£	£	£	£	£
Treasury	56,084	50,698	51,007	54,413	51,808
Taxation Office	592,149	576,424	516,887	463,176	426,425
Pensions Office	88,687	84,535	88,405	92,999	97,761
Maternity Allowance Office	15,143	15,764	14,512	16,117	15,384
Coinage	50,785	31,979	16,273	23,836	54,905
Rent, repairs, etc.	33,002	29,426	22,993	13,085	15,305
Miscellaneous	77,693	(b) 279,508	130,347	61,549	45,579
Departmental Expenditure	913,543	1,068,334	840,424	725,175	707,167
Invalid and Old-age Pen- sions (a)	5,290,056	5,337,936	6,426,752	6,896,401	8,146,636
Maternity Allowance	690,700	688,435	670,175	688,205	680,855
Maintenance of persons in charitable institutions	89,978	86,080	97,129	96,504	105,751
Total	6,984,277	7,180,785	8,034,480	8,406,285	9,640,409

(a) Including the following amounts spent from Trust Funds :—In 1921-22, £4,417,704 ; in 1922-23, £3,204,212 ; in 1923-24, £3,714,287 ; in 1924-25, £1,723,162 ; and in 1925-26, £1,884,530. (b) Including Taxation Officers' Compensation, £200,000.

The increase in the departmental expenditure had been largely on account of the Taxation Office, but, during 1923-24, 1924-25 and 1925-26 expenditure under this item decreased by £59,537, £53,711 and £36,751 respectively. The "Miscellaneous" vote for

1922-23 included a loan of £25,000 to the Returned Soldiers' Woollen Company and £200,000 Taxation Officers' Compensation. In 1923-24 it included £60,000, donation to Japanese Earthquake Fund, a loan of £21,000 to the Port Huon Fruit Growers' Association, and £10,000 to the Returned Soldiers' Woollen Company.

(f) *Trade and Customs.* Under this head have been included the expenditure of all the sub-departments under the control of the Minister of Trade and Customs, as well as the amounts payable as sugar and other bounties, and the expenses in connexion therewith. The administration of Patents, Trade Marks, and Copyright is now entrusted to the Attorney-General's Department, that of Quarantine to the Department of Health, and that of the Institute of Science and Industry to the Department of Markets and Migration. Particulars for the five years 1921-22 to 1925-26 are given in the following table :—

EXPENDITURE.—TRADE AND CUSTOMS DEPARTMENT, 1921-22 TO 1925-26.

Details.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	£	£	£	£	£
Chief Office	68,677	70,037	72,238	78,159	79,813
Customs (ordinary) .. .	477,566	439,462	503,150	531,189	551,161
Navigation	18,188	25,426	39,927	44,484	44,726
Analyst	5,794	5,829	6,039	5,854	(b)
Audit (proportion) .. .	6,869	9,371	10,970	10,552	11,030
Pensions and retiring allowances ..	16,946	18,736	20,365	22,499	22,724
Rents, repairs, etc. .. .	23,089	21,445	22,616	32,191	26,148
Sugar and other bounties .. .	29,793	192,114	455,859	304,548	498,582
Lighthouses	160,518	162,946	169,045	184,298	199,057
Interest on transferred properties ..	42,497	47,162	49,541	47,217	46,986
Interest on Commonwealth securities ..	1,741	4,943	8,180	13,667	21,224
Bureau of Commerce and Industry ..	5,000	4,659	3,484	..	..
Institute of Science and Industry ..	17,201	22,591	22,679	(a)	(a)
Miscellaneous	15,242	1,219,088	243,725	23,617	40,413
Total	889,121	2,243,809	1,627,818	1,298,275	1,541,864

(a) Transferred to Department of Markets and Migration.

(b) Included in Customs (Ordinary).

The "Miscellaneous" vote in 1922-23 includes Loans for purchase of Wire Netting, £250,000, and Losses and Advances on Fruit Pools, £863,000. In 1923-24, an amount of £141,262, British Empire Exhibition, was included.

(g) *Defence.* The expenditure in connexion with Defence, which in 1901-2 amounted to £861,218, had by 1925-26 grown to £4,004,827, of which £1,587,549 was expended on Military Services, £2,136,114 on Naval Services, and £281,164 on Air Services. Expenditure on the Air Service is included for the first time in 1920-21. Particulars for the last five years are as follows :—

EXPENDITURE.—DEFENCE, COMMONWEALTH, 1921-22 TO 1925-26.

Details.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	£	£	£	£	£
Chief Office	150,384	89,732	96,645	103,438	103,913
Military	1,386,042	1,208,005	1,289,171	1,269,799	1,307,815
Naval	2,198,268	1,942,227	1,916,384	1,842,937	1,943,911
Air Services	155,282	179,337	222,657	216,544	281,164
Audit (proportion) .. .	15,032	14,374	17,169	9,474	8,625
Pensions and retiring allowances ..	2,623	2,921	2,899	2,797	3,352
Rents, repairs, etc. .. .	107,312	92,894	107,871	113,281	127,983
Interest on transferred properties ..	93,586	97,112	94,459	95,706	94,121
Interest on Commonwealth securities ..	18,776	84,756	79,823	100,162	123,028
Miscellaneous	328,883	74,224	25,453	30,277	10,915
Total	4,456,198	3,785,582	3,852,531	3,784,415	4,004,827

The large sum under "Miscellaneous" for 1921-22 includes £300,000 for compensation under the Defence Retirement Act.

(h) *Postmaster-General's Department* Details of the expenditure of this Department for the last five years are given in the table hereunder:—

EXPENDITURE.—POSTAL DEPARTMENT, 1921-22 TO 1925-26.

Details.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	£	£	£	£	£
Chief Office	33,954	37,800	46,685	48,643	51,660
Postal Department (ordinary) ..	7,722,459	7,556,391	8,121,381	8,950,694	8,705,960
Audit (proportion)	8,927	10,293	10,663	10,630	10,009
Pensions and retiring allowances	81,171	84,057	92,436	95,928	102,518
Superannuation .. ..	..	7,748	28,999	45,687	59,136
Rents, repairs, etc.	101,047	123,405	138,092	174,012	195,464
Interest on transferred properties	186,752	193,103	198,699	198,923	(a)315,398
Interest on Commonwealth Securities	19,516	90,421	353,387	494,054	855,507
Sinking Fund on Commonwealth Securities	16,193	23,218	107,552	269,469	355,891
Miscellaneous	18,667	115,589	85,600	398	382
Total	8,188,686	8,242,025	9,273,494	10,288,438	10,651,925

(a) Includes £110,734 arrears of interest on value of Overland Telegraph Line, Adelaide to Darwin.

The "Miscellaneous" item for 1922-23 includes £47,330 for upkeep of coastal wireless stations; for 1923-24, £59,560 for compensation of officers retired compulsorily.

(i) *Home and Territories.* Under this Department, created in the financial year 1916-17, is placed the bulk of the old External Affairs Department (after the removal of the London office), the Census and Statistics, Meteorological and Lands and Survey Offices, taken from the old Home Affairs Department, and the Mandated Territory of New Guinea. The Darwin-Katherine River Railway is administered by the Works and Railways Department. The Shipping and Mail Services to the Pacific Islands were transferred from the Prime Minister's Department in 1924-25, and the Lands and Survey branch to the Department of Works and Railways in 1925-26. The Electoral Office which is administered by this Department is for the purposes of this Chapter shown under Section (b) above.

EXPENDITURE.—HOME AND TERRITORIES DEPARTMENT, 1921-22 TO 1925-26.

Details.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	£	£	£	£	£
Chief Office	21,594	21,141	24,544	27,891	27,369
Census and Statistics	18,936	20,438	19,575	23,394	26,240
Meteorological Branch	88,932	80,911	39,245	34,656	34,562
Lands and Survey	22,226	15,124	12,354	15,035	(c)
Papua	179,245	80,894	79,139	71,239	96,745
Northern Territory	193,950	195,886	212,469	145,685	147,120
Federal Capital Territory	32,741	..	..	..	..
Norfolk Island	3,000	3,500	3,500	3,500	3,945
New Guinea .. ..	..	..	..	10,064	10,214
Shipping and Mail Services, Pacific Islands	(b)	(b)	(b)	52,834	50,418
Interest on Commonwealth Securities (a)	34,280	46,843	68,226	75,226	88,209
Sinking Fund, Commonwealth Securities (a)	2,535	4,346	7,711	8,771	8,854
Rents, repairs, etc.	15,941	23,128	22,615	15,319	12,074
Miscellaneous	82,328	33,822	33,262	41,369	194,006
Total	695,708	526,033	522,640	524,983	699,756

(a) Includes Federal Capital Territory.

(b) Included in Prime Minister's Department.

(c) Included in Department of Works and Railways.

The "Miscellaneous" in 1924-25 includes Census expenditure £11,999, and a grant of £10,000 for medical purposes in New Guinea. In 1925-26 were included sums of £100,000 to aid prospecting, and £46,217 paid to States towards losses arising out of the payment of a guaranteed price to cotton growers.

(j) *Works and Railways Department.* The extension of Commonwealth Works and Railways led, in 1916-17, to the separation of these branches from the former Home Affairs Department and the constitution of a separate Works and Railways Department. To this Department was entrusted the administration of the railways originally under the control of the old External Affairs Department and the Lands and Survey branch which was transferred to it from the Department of Home and Territories in 1925-26. The expenditure for the last five years was as follows :—

EXPENDITURE.—WORKS AND RAILWAYS DEPARTMENT, 1921-22 TO 1925-26.

Details.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	£	£	£	£	£
Chief Office	31,724	32,939	34,274	33,495	35,683
Kalgoorlie-Port Augusta Railway	255,776	249,289	265,293	285,912	285,876
Port Augusta-Oodnadatta Rail- way, and Northern Territory and Federal Capital Territory Railways	180,034	183,293	188,441	131,238	213,898
Lands and Survey .. .. .	..	..	..	..	(a) 13,952
Interest on transferred properties	374	..	..	..	1,654
Interest on Commonwealth Se- curities	100,408	127,717	135,085	332,266	425,737
Sinking Fund on Commonwealth Securities	13,200	16,178	15,007	37,713	45,283
Rent, repairs, etc.	4,544	5,526	4,928	7,648	7,939
Royal Commission—Unification of Gauge	9,229	449	560	..	..
Main Roads Development .. .. .	..	500,000	..	500,000	750,000
Miscellaneous	14,038	11,915	25,743	6,995	31,076
Total	609,327	1,127,306	669,331	1,335,267	1,811,098

(a) Previously included in Department of Home and Territories.

(k) *Health Department.* This department came into existence in the financial year 1921-22. Details of expenditure are as follow :—

EXPENDITURE.—HEALTH DEPARTMENT, 1921-22 TO 1925-26.

Details.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	£	£	£	£	£
Central Administration	9,601	8,486	9,898	12,432	13,543
Salaries, Contingencies, etc. .. .	134,934	114,429	106,298	116,291	121,588
Interest on Treasury Bills	87	965	1,804	2,083	3,128
Interest on Transferred Properties	6,909	7,979	7,466	7,674	7,668
Rent and repairs	10,065	14,858	15,292	12,697	20,670
Miscellaneous	10,631	9,195	27,159	36,622	10,076
Total	172,227	155,912	167,917	187,799	176,672

Included under the item Miscellaneous in 1924-25 is an expenditure of £22,488 in connexion with the rinderpest outbreak in Western Australia.

(l) *Markets and Migration Department.* This department, which was formed in the financial year 1924-25, took over various functions previously performed by other departments. Details of expenditure are as follow :—

EXPENDITURE.—MARKETS AND MIGRATION DEPARTMENT, 1924-25 AND 1925-26.

Details.	1924-25.	1925-26.
	£	£
Chief Office	1,529	9,989
Immigration	63,058	93,588
Commonwealth Council for Scientific and Industrial Research	24,796	32,574
British Empire Exhibition	13,567	21,133
Loan under Hop Pool Agreement Act	24,500	..
Dried Fruits Export Control	19,072	29,229
Dairy Produce Export Control .. ..	..	26,728
Fruit Pool Losses	154,000	..
Assistance to Primary Production	500,000	..
Interest on Commonwealth Securities	30,325	95,780
Miscellaneous	38,870	376,693
Total	869,717	685,714

The item "Miscellaneous" includes in 1925-26 Scientific and Industrial Investigations £250,000, and Science and Industry Endowment, £100,000.

(iii) *Miscellaneous.* (a) *New Works.* Particulars of the expenditure on new works, etc., during the last five years are given in the following table :—

EXPENDITURE ON NEW WORKS, 1921-22 TO 1925-26.

Department.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	£	£	£	£	£
Parliament	2,086	..	..	..	..
Prime Minister	1,029	143	31,250	..	5,844
Treasury	54,242	..	..	..	..
Attorney-General .. ..	..	..	..	..	3,251
Trade and Customs	7,249	3,609	1,675	7,887	714
Defence	1,507,758	460,734	311,323	309,277	247,398
Postmaster-General	940,114	221,709	248,876	..	..
Home and Territories	31,463	13,885	15,282	16,613	33,629
Works and Railways	109	..	..	..	17,677
Health	27,744	20,847	21,104	10,139	8,018
Markets and Migration .. ..	..	..	..	..	410
Total	2,571,794	720,927	629,510	343,916	316,941

(b) *War Services.* Full details concerning the expenditure from Consolidated Revenue upon War and Repatriation will be found in a later sub-section.

(c) *Interest—State Loans Act.* The amount of £2,084,757 is the interest on the sum of £47,728,340 borrowed by the Commonwealth and advanced to the States.

Division IV.—Subsidy Paid to States.

1. *Payments to the States.*—The following table furnishes particulars of the subsidies paid to the States on account of each of the financial years 1921-22 to 1925-26 :—

COMMONWEALTH SUBSIDY PAID TO STATES, 1921-22 TO 1925-26.

State.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	£	£	£	£	£
New South Wales	2,632,036	2,690,198	2,738,725	2,796,928	2,853,850
Victoria	1,918,967	1,969,772	2,014,746	2,055,834	2,090,951
Queensland	952,728	978,673	1,005,486	1,035,791	1,069,286
South Australia	621,862	635,833	650,453	668,084	684,932
Western Australia	554,704	554,828	558,573	561,741	(b)915,231
Tasmania	355,238	356,247	356,555	(a)416,913	337,477
Total	7,035,535	7,185,551	7,324,538	7,535,291	7,951,727

(a) Including a special payment of £61,656 income tax received by the Commonwealth in respect of prizes won on lotteries and paid to the State under Section 4 of the Tasmania Grant Act 1921.

(b) Including a special grant of £353,112.

The amounts of subsidy given in the table are based upon an annual payment of £1 5s. per capita, with special concessions to Western Australia and Tasmania, and are in accordance with the provisions of the "Commonwealth Surplus Revenue Act" passed in 1910 which came into effect on the 1st July of that year for a period of ten years, subject to revision on the expiration thereof. This period expired on the 30th June, 1920, and it was then possible for Parliament to extend the Act for a further period, or to enter into new financial relations with the States. The "per capita" payment has been continued provisionally up to the present time. A Conference of Commonwealth and State Ministers was held in May, 1926, to consider the question of the inter-relation of Commonwealth and State finance. No satisfactory conclusions were arrived at, but the Commonwealth Government has since passed legislation terminating these payments at 30th June, 1927. See further Section B § 1, 3, hereinafter.

§ 3. Trust Fund and Miscellaneous.

1. **Trust Accounts.**—The Trust Fund balances on 30th June, 1926, totalled £14,410,826 as compared with £17,358,801 for the corresponding date in the year ending 30th June, 1925. Details concerning the most important trust accounts are contained in the following table :—

COMMONWEALTH TRUST FUNDS AT 30th JUNE, 1926.

Trust Accounts.	Balance at 30th June, 1926.	Trust Accounts.	Balance at 30th June, 1926.
	£		£
Admiralty	2,759	New Guinea Agency	6,164
Australian Notes and Bond Printing ..	1,229	Northern Territory	32,049
Australian Soldiers' Repatriation ..	13,961	Other Trust Moneys	769,914
Australian Soldiers' Repatriation Con- tribution	73,918	Primary Production	455,293
Canned Fruit Bounty	4,161	Prospecting for Precious Metals ..	39,000
Cockatoo Island Dockyard	24,658	Prospecting for Petroleum ..	60,000
Commonwealth Government Ships ..	24,189	Public Trustee	30,691
Defence—Clothing Material	76,707	Railway Plant and Stores Suspense ..	85,049
Naval Construction	3,552,999	Railway Provision Stores	5,568
Reserve	313,908	Science and Industry Endowment ..	100,000
Small Arms	25,538	Science and Industry Investigations ..	250,000
Small Arms Ammunition	206,883	Stamp Printing	15,990
Stores, London Liabilities	1,210,984	State Loans Expenses Suspense ..	36,237
Deferred Pay	487,513	Superannuation Fund	1,098,955
General Average Deposits	12,243	Suspense	10,485
Imperial Pensions	27,302	Taxation Officers' Compensation ..	164,102
International Postal and Money Order ..	14,354	Treaty of Peace—Clearing Office ..	5,915
Invalid and Old-age Pensions	285,897	Unclaimed Militia Pay	605
Loans—Wire Netting	32,451	War Savings Certificates Interest ..	133,300
London Loans Expense Suspense	376,084	War Service Homes Insurance ..	92,511
Main Roads Development	380,865	Miscellaneous	61,646
Money Order	539,500		
National Debt Sinking Fund	3,269,249	Total	14,410,826

2. **Flotations on behalf of States.**—Act No. 17 of 1916 authorized the Treasurer to borrow £8,940,000 in the United Kingdom, and Act No. 16 of 1917 to raise £8,000,000, also to lend the amount to the several States, other than New South Wales, and, pending the borrowing of the money, to advance the amounts set forth in the Acts out of loans made by the Government of the United Kingdom to the Commonwealth. In pursuance of these Acts, £16,907,287 was distributed to the States up to 30th June, 1924. Other loans have since been floated in London, New York and Australia. The totals so raised have been distributed as shown in the following table :—

COMMONWEALTH LOANS RAISED ON BEHALF OF STATES AS AT 30th JUNE, 1926.

State.	Amount floated in—			Total.
	London.	New York.	Australia.	
	£	£	£	£
New South Wales	275,275	..	2,981,850	3,257,125
Victoria	2,838,615	1,926,436	6,102,553	10,867,604
Queensland	5,868,649	770,574	2,918,555	9,557,778
South Australia	4,389,812	770,574	8,228,129	13,388,515
Western Australia	5,446,027	1,541,149	1,823,581	8,810,757
Tasmania	1,067,000	..	779,561	1,846,561
Total	19,885,378	5,008,733	22,834,229	47,728,340

In addition to these amounts, the Commonwealth Government has made further advances to the States for various purposes which are set out as follows, the figures representing sums outstanding at 30th June, 1926 :—

ADVANCES TO STATES AT 30th JUNE, 1926.

Advances to—	Amounts.	Total.
	£	£
Government of New South Wales—		
Settling returned soldiers	9,805,983	10,305,983
Silos for wheat storage	500,000	
Government of Victoria—		
Settling returned soldiers	11,794,075	11,881,950
Providing employment	87,875	
Government of Queensland—		
Settling returned soldiers	2,700,583	4,496,414
Providing employment	400,000	
Forestry	71,132	
Advances for Public Works	1,250,000	
Advances for Workers' Dwellings	74,699	
Government of South Australia—		
Settling returned soldiers	2,833,005	2,861,801
Providing employment	28,796	
Government of Western Australia—		
Settling returned soldiers	5,431,202	7,433,502
Advances for Immigration	1,500,000	
Advances for Public Works	502,300	
Government of Tasmania—		
Settling returned soldiers	2,129,563	2,195,778
Advances for Public Works	66,215	
Total .. ..	..	39,175,428

3. **Surplus Revenue.**—Until the end of 1906-7, the balance of the Consolidated Revenue Fund was paid to the States. From 1907-8, until the abolition of the book-keeping provisions of the Constitution, the States received only three-fourths of the net Customs and Excise Revenue, and the balance of the Consolidated Revenue Fund was transferred to the Invalid and Old-age Pensions Trust Account and the Naval Defence Trust Account to provide for expenditure in subsequent years. A statement of surpluses and deficiencies for the past five years is appended hereto.

COMMONWEALTH SURPLUS REVENUE, 1921-22 TO 1925-26.

Year.	Surplus.	Deficiency.	Accumulated Surplus at end of Year.
	£	£	£
1921-22 .. ..	..	209,903	6,403,424
1922-23	1,020,150	..	7,428,574
1923-24	2,578,334	..	(a) 10,006,908
1924-25	518,376	..	3,109,529
1925-26 .. ..	..	(b) 2,823,632	285,897

(a) Of this sum £4,915,755 was used in debt redemption and £2,500,000 transferred to Trust Funds.

(b) After transferring £2,974,950 to various Trust Funds to be spent in succeeding years.

§ 4. Commonwealth Loan Funds and Public Debt.

1. **General.**—Although it was not until 1915 that the Federal Government came into the loan market as a borrower, there had previously existed a Commonwealth Public Debt which included several items, such as the balance of the debt taken over from South Australia and the money owing to the States for transferred properties. The debt still includes the items mentioned, in addition to the General Loan Fund, the loans for military purposes, etc. In view of the large expansion of the Public Debt, and its present importance in Commonwealth public finance, the different items are treated seriatim in the following sub-sections:—

2. **Loans taken over from South Australia.**—The first portions of the debt were contracted at the beginning of 1911, when the Commonwealth assumed responsibility for the payment of interest on transferred properties (further dealt with in sub-section 4) and for the administration and the liabilities of the Northern Territory and the Port Augusta—Oodnadatta Railway. At 30th June, 1911, the debt on account of the former was £3,657,836, and on account of the latter, £2,274,486—a total of £5,932,322. As the securities fall in they are redeemed by the Commonwealth Government; the money required being taken from the Loan Fund. The item is thus constantly diminishing, and on 30th June, 1926, stood at £2,193,496, of which £1,117,619 was on account of the Northern Territory, and £1,075,877 on account of the railway.

3. **Loan Fund for Public Works Redemptions, etc.**—Up to the year 1911 the Commonwealth Government had met its Public Works expenditure out of revenue. In that year, however, in view of the heavy prospective cost of the Transcontinental Railway and the Federal Capital Territory, it was decided to institute a Loan Fund similar to those of the States. The initiation of this Fund was greatly assisted by the fact that the Treasury at that time held a large quantity of gold, principally on behalf of the Australian Notes Account. Up to 30th June, 1914, the money required for loan expenditure was obtained mainly from this source at 3½ per cent., and inscribed stock of an equivalent value was created. Since the outbreak of war, the money required for the Loan Fund has been mainly obtained by the issue of Treasury Bills and other securities issued in London and New York as well as in Australia. The details of the expenditure for the last five years and the total expenditure to 30th June, 1926, are given in the following table:—

COMMONWEALTH LOAN EXPENDITURE FOR WORKS, 1921 TO 1926 AND TOTAL.

Particulars.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.	Total to 30/6/1926.
	£	£	£	£	£	£
Railway Construction—						
Trans-Australian Railway ..	69,072	82,500	62,506	52,113	69,565	6,375,779
Northern Territory ..	6,436	7,651	20,420	50,535	195,123	672,822
Grafton—South Brisbane Railway .. ..	..	..	..	..	840,000	840,000
Other	8,946	12,997	33,355	211,074	91,489	397,590
Papua—Railways and Wharves	15,700	47,720	..	..	..	111,556
Posts and Telegraphs—						
Purchase of land ..	7,706	138,875	47,348	41,330	33,179	492,700
Construction of conduits, etc.	795,085	2,059,523	3,855,673	4,495,662	5,505,454	18,127,306
Acquisition of land (a)—						
London	18,651	6,921	4,395	..	500	880,190
Perth	45,000	90,239	..	..	..	152,205
Federal Capital Territory ..	148,425	354,041	499,349	296,061	..	2,014,697
Elsewhere (b)	32,757	4,968	19,220	24,396	5,750	216,821
Defence Machinery ; Dockyards, Cockatoo Island ; Naval Bases, etc.	159,769	43,566	66,089	56,807	78,027	1,526,532
Ship Construction ..	3,369,118	1,515,713	626,646	312,952	..	9,329,457
General Arsenal ; Small Arms etc. ; Cordite	181,095	27,525	91,796	219,271	67,720	912,445
Royal Australian Air Force —Construction of Buildings ..	..	..	..	..	126,000	126,000
Lighthouses	14,556	10,400	26,285	18,155	67,359	150,565
Contribution under River Mur- ray Waters Act	112,372	176,921	235,609	192,500	205,000	1,074,125
Wireless Telegraphy	133,848	..	62,500	62,500	79,560	234,295
Immigration .. ..	..	199,483	203,744	181,193	362,589	1,953,531
Construction of Roads ..	..	217,944	31,788	..	..	249,732
Subscription to Capital of Oil Refining Company	75,000	50,000	100,000	93,750	..	343,750
Miscellaneous	52,967	36,962	82,175	33,459	51,541	1,559,336
Total	5,246,503	5,383,949	6,065,898	6,341,758	7,778,856	47,741,434
Repayment of Loans ..	6,185,028	4,243,135	28,090,116	8,276,829	22,011,103	70,417,959

(a) Including cost of erection of buildings. (b) Excluding purchases for Posts and Telegraphs.

4. **Properties Transferred from States.**—At the time of Federation, when the Commonwealth took over the control of a great many departments which had previously been administered by the States, a large amount of property was handed over to the Commonwealth Government. A valuation was made, with results set out in detail in Official Year Book No. 14, page 694, and the Commonwealth now pays interest at the rate of $3\frac{1}{2}$ per cent. to the States on account of all the transferred properties.

Since the valuation mentioned, some transfers and retransfers have been made. The estimated value of the transferred properties for the last five years is given in the table in sub-section 7 hereinafter.

5. **War Loan from the Imperial Government.**—On the outbreak of the European war in 1914, the Commonwealth Government obtained a loan from the Imperial Government for the purpose of financing the prospective large military expenditure. At first, the arrangement was that the Imperial Government should advance the sum of £18,000,000. Subsequently further loans totalling £31,500,000 were negotiated. In addition to this capital indebtedness of £49,500,000, a further sum of £42,696,500 was due to the British Government for the maintenance of Australian troops.

Early in 1921 an arrangement was concluded with the Imperial Government, by means of which almost the entire debt (upwards of £92,000,000) was consolidated. The Commonwealth Government undertook to extinguish the debt by annual payments of approximately £5,550,000, spread over about 35 years, the payment representing 6 per cent. on the original debt. This provides for interest at nearly 5 per cent., and a sinking fund of a little more than 1 per cent., and may be regarded as a very satisfactory arrangement for the Commonwealth, since it entails only a moderate rate of interest, and provides for the ultimate extinction of nearly one-fourth of the National War Debt. The amount outstanding on 30th June, 1926, was £86,865,883, which will diminish steadily year by year owing to the operation of the sinking fund.

6. **Flotation of War Loans in Australia.**—In addition to the advances from the Imperial Government, the Commonwealth Government raised large amounts of money in Australia. Full details of the seven War Loans are given in Official Year Book No. 14.

7. **Flotation of Loans, 1925-26.**—During the year 1925-26, the six loans raised by the Commonwealth amounted to a total of £101,406,277, of which £87,147,724 was for Commonwealth purposes and £14,258,553 for the States. For the first time the Commonwealth appeared as a borrower in New York, in which centre a loan of 75,000,000 dollars was negotiated. The most important transaction, however, was the conversion and redemption of the $4\frac{1}{2}$ per cent. war loan maturing in December, 1925. This operation, involving over £67,000,000, was carried through successfully.

COMMONWEALTH LOANS FLOATED, 1925-26.

For whom raised.	Amount Raised.				Rate of Interest.	Date of Maturity.	Price.
	London.	New York.	Australia.	Total.			
	£	£	£	£	%		£
Commonwealth £10,402,754	..	15,411,487	..	15,411,487	5	1952-55	99½
States 5,008,733	..	..	..	..	..	..	..
Commonwealth 3,375,000	5,000,000	..	..	5,000,000	5	1945-75	99½
States 1,825,000	..	..	..	..	..	..	..
Commonwealth 67,369,970	..	..	27,073,360	27,073,360	5½	1931	} 100
(Conversion and Redemption)	..	..	12,890,560	12,890,560	5½	1936	
..	..	..	27,406,050	27,406,050	5½	1941	
..	..	..	2,349,680	2,349,680	5½	1931	
States .. 6,274,820	..	..	884,630	884,630	5½	1936	} 100
..	..	..	3,040,510	3,040,510	5½	1941	
States .. 1,350,000	..	..	1,350,000	1,350,000	5½	1941	100
Commonwealth 6,000,000	6,000,000	..	..	6,000,000	5	1945-75	99½
Total	11,000,000	15,411,487	74,994,790	101,406,277	..	..	..

8. **Commonwealth Public Debt.**—(i) *Total Debt.* Separate consideration has already been given to the items composing the Public Debt. The table appended shows the debt of the Commonwealth (apart from the States) at yearly intervals since 1922.

COMMONWEALTH PUBLIC DEBT AS AT 30th JUNE, 1922 TO 1926.

Details.	1922.	1923.	1924.	1925.	1926.
	£	£	£	£	£
Balance of loans taken over from South Australia—					
(a) On account of Northern Territory	2,209,294	2,209,169	2,208,719	1,192,419	1,117,619
(b) On account of Oodnadatta railway	1,742,452	1,693,745	1,670,432	1,077,678	1,075,876
Value of properties transferred by States	11,186,169	11,042,987	10,860,591	10,858,093	11,065,129
Inscribed Stock and Bonds	23,764,716	23,764,716	36,227,255	42,527,255	62,851,813
Treasury Bills	2,843,125	2,843,125	5,021,545	7,247,505	4,202,583
War Loan from British Government	91,453,288	90,388,604	89,270,922	88,097,605	86,865,833
Commonwealth Internal Loans	241,879,840	241,746,090	249,751,997	245,623,618	242,598,682
Loans raised on behalf of States	16,750,000	16,750,000	17,787,461	32,997,311	47,727,060
Gratuities	23,082,153	19,508,481	700,900	64,452	32,370
Miscellaneous	1,153,472	1,049,399	2,100,277	1,262,126	906,336
Total	416,070,509	410,996,316	415,600,099	430,948,062	458,443,351
Commonwealth Debt <i>per capita</i>	£74 14 6	£72 5 2	£71 12 3	£72 13 7	£75 17 0

During 1925–26, the Public Debt increased by £27,495,289, of which £14,708,678 was incurred on behalf of the States.

(ii) *Place of Flotation.* The loans taken over from South Australia, which constituted the first portion of the Federal Public Debt, included both London and Australian securities. The presence in the Treasury of a large holding of gold, and the moderate rate of interest ruling on gilt-edged securities, made the conditions in 1911 and for some little time afterwards very favourable for the flotation of local loans. London securities were redeemed as they fell due, and replaced by the $3\frac{1}{2}$ per cent. stock of the Loan Fund. Consequently, up to 1914 the amount of the securities repayable in London fell steadily, and the amount repayable in Australia rose rapidly. In 1915 the military loan from the Imperial Government caused a sharp rise in the amount of the securities repayable in London, which was maintained in the two following years. This was, however, more than offset by the flotation of the local war loans. In 1925–26 a loan of £15,411,487 was raised in New York. The appended table gives particulars of Commonwealth loans outstanding in each of the last five years which had been floated in London, New York, and Australia respectively. A separate column is devoted to the cost of the transferred properties which, for obvious reasons, it is impossible to allocate. The percentage of loans floated in each centre is also given and shows that approximately one-third of loan moneys has been obtained abroad and the remaining two-thirds has been raised locally.

COMMONWEALTH PUBLIC DEBT.—PLACE OF FLOTATION, 1922 TO 1926.

At 30th June.	Payable—				Value of Transferred Properties.		Total.
	Abroad.		In Australia.		Amount.	Per- centage on Total Debt.	
	Amount.	Per- centage on Total Debt.	Amount.	Per- centage on Total Debt.			
	£	%	£	%			
1922..	131,278,780	31.55	273,605,560	65.76	11,186,169	2.69	416,070,509
1923..	126,165,389	30.70	273,787,939	66.61	11,042,988	2.69	410,996,316
1924..	142,524,394	34.29	262,215,114	63.09	10,860,591	2.62	415,600,099
1925..	146,117,023	33.91	273,972,946	63.57	10,858,093	2.52	430,948,062
1926..	(a) 171,294,986	37.36	276,083,236	60.22	11,065,129	2.42	458,443,351

(a) Including £15,411,487 (3.36 per cent.) payable in New York.

(iii) *Amount of Debt at Various Rates of Interest.* When the first debt was taken over from South Australia, it consisted mainly of securities bearing interest varying from 3 per cent. to 4 per cent., the average rate of interest for the first year being £3 12s. 4d. For the first three years the increase in the debt was due almost entirely to the expansion of the 3½ per cent. stock of the Loan Fund, consequently the average rate of interest fell steadily, until on 30th June, 1914, it stood at £3 11s. 10d. Then came the loans for military and repatriation purposes, and the fall in the average rate was ultimately converted into a rise which was steadily maintained until at 30th June, 1922, the average rate stood at £4 19s. 9d. At the 30th June, 1923, however, the average rate had fallen to £4 19s. 3d. per cent., but by the 30th June, 1926, it had risen to £5 3s. 11d. per cent.

The accompanying table gives particulars of rates of interest for the five financial years ended 30th June, 1926 :—

COMMONWEALTH PUBLIC DEBT.—RATES OF INTEREST, 1922 TO 1926.

Rates of Interest.	At 30th June—				
	1922.	1923.	1924.	1925.	1926.
	£	£	£	£	£
3 %	35,063	35,063	35,063	35,063	33,261
3½ %	15,119,558	14,976,377	14,793,980	14,791,482	14,998,518
£3/12/3 ..	703,860	655,153	631,840	576,288	576,288
3¾ %	833,870	833,745	833,295	833,295	758,495
3½ % .. ..	..	..	..	375,000	..
4 %	5,053,405	9,053,405	5,504,903	5,504,903	4,484,361
4½ %	122,093,692	120,835,510	116,908,700	113,520,010	46,600,260
4½ % .. ..	..	..	..	6,000,000	6,000,000
£4/18/4 ..	91,453,288	90,388,604	89,270,922	88,097,605	86,865,883
5 %	61,280,220	67,298,328	82,400,498	81,125,491	103,243,689
5¼ %	27,088,153	19,508,481	700,900	..	8,614,820
5½ %	12,750,000	12,750,000	12,750,000	12,750,000	80,109,440
6 %	79,659,400	74,661,650	91,578,657	107,218,818	105,890,122
Overdue ..	..	..	191,341	120,107	268,214
Total ..	416,070,509	410,996,316	415,600,099	430,948,062	458,443,351
Average rate of interest ..	£4/19/9	£4/19/3	£5/0/1	£5/0/10	£5/3/11

(iv) *Amount of Interest Payable.* A table is appended showing the amounts payable as interest on the Commonwealth Public Debt as at 30th June in the years 1922 to 1926 inclusive. The rapid increase is due not only to the great expansion of the Loan Fund, but also to the high rate of interest on recent loans.

COMMONWEALTH PUBLIC DEBT.—INTEREST PAYABLE IN LONDON, NEW YORK AND AUSTRALIA, AS AT 30th JUNE.

30th June—	Payable in —				Total.
	London.	New York.	Australia.		
			Loans.	Transferred Properties.	
	£	£	£	£	£
1922 ..	6,677,781	..	13,630,843	391,516	20,700,140
1923 ..	6,413,668	..	13,591,968	386,505	20,392,141
1924 ..	7,289,787	..	13,131,877	380,121	20,801,785
1925 ..	7,454,001	..	13,943,932	380,033	21,777,966
1926 ..	7,949,761	770,575	14,719,956	387,280	23,827,572

(v) *Dates of Maturity.* The dates of maturity of the several portions of the Commonwealth debt are shown hereunder. The Commonwealth Government has refrained from issuing interminable stock, although as regards about 3 per cent. of the debt no definite date of maturity had been assigned on 30th June, 1926. It will be noticed that about £190,000,000 falls due in the space of five years 1926 to 1930, the bulk of this being represented by the balance of the first eight internal loans. While the actual dates of maturity extend from 1926 to 1975, or a period of 49 years, the average period till maturity is only 9.83 years.

**COMMONWEALTH PUBLIC DEBT.—DUE DATES OF AMOUNTS OUTSTANDING ON
30th JUNE, 1926. (a)**

Due Dates.		Amounts.	Due Dates.		Amounts.
		£			£
1926	.. ..	3,917,921	1945	.. ..	22,500,000
1927	.. ..	87,591,735	1948	.. ..	10,184,790
1928	.. ..	21,676,270	1955	.. ..	15,411,487
1929	.. ..	2,806,818	1960	.. ..	6,000,000
1930	.. ..	73,421,450	1972	.. ..	3,764,716
1931	.. ..	29,410,510	1975	.. ..	11,000,000
1933	.. ..	39,387	Overdue	.. ..	252,590
1934	.. ..	3,861,696	Indefinite	.. ..	1,314,197
1935	.. ..	4,630,942	Annual Repayments	.. ..	86,865,883
1936	.. ..	14,760,246	Transferred Properties	.. ..	11,065,129
1937	.. ..	1,200			
1938	.. ..	18,376	Total	.. ..	458,443,351
1939	.. ..	151,448			
1941	.. ..	47,796,560	Average period to maturity		9.83 years

(a) Those loans in the case of which the Government has the option of redemption during a specified period have been in each case classified according to the latest date of maturity.

(vi) *Sinking Fund.* At an early stage of its public debt experience the Commonwealth Government established a sinking fund against most of the securities which constitute its public debt. Part of the inscribed stock issued for works purposes carried a sinking fund of 5 per cent., and the remainder one of $\frac{1}{2}$ per cent. The internal issues carried sinking funds, partly of $\frac{1}{2}$ per cent., and partly of 1 per cent. The War Savings Certificates carried a sinking fund of $\frac{1}{2}$ per cent., and the Northern Territory and Port Augusta-Oodnadatta Railway loans one of $\frac{1}{4}$ per cent. These sinking funds were invested partly in Treasury Bills, partly in Commonwealth Inscribed Stock, and partly in Bonds (War Issnes).

(vii) *National Debt Sinking Fund.* This fund was created by virtue of the National Debt Sinking Fund Act 1923, No. 5 of 1923, which was assented to on the 11th August, 1923. Provision is made therein for the merging of the Loans Sinking Fund, the Northern Territory Sinking Fund, and the Port Augusta Railway Sinking Fund into the National Debt Sinking Fund, the Loans Sinking Fund Act of 1918 being repealed. This Act also provides for the payment annually to the Fund of the sum of £1,250,000, for the payment thereto of a sum equal to 10 shillings per cent. of the net debt created, also a sum equal to £5 per cent. of debt redeemed and cancelled by the Commission in pursuance of the Act. In addition, there is to be paid to the Fund repayments of advances from Loan Fund made to States and to Territories under the authority of the Commonwealth; of advances for the erection of wheat silos; of advances under the Nauru Island agreement; of advances for such purposes as are prescribed; of purchase money and repayments of advances under the War Service Homes Act; and unexpended balances of the Loan Fund. The provision as to payment of £5 per cent. to the Fund does not, however, apply to these repayments, purchase money, and unexpended balances. The Fund also benefits by half the net profits derived by the Commonwealth Bank of Australia on or after the first day of July, 1923, in place of the payment hitherto made to the Bank Redemption Fund.

The Act was amended in 1924 to provide for additional payments being made to the Fund in respect of expenditure from the Loan Fund by the Postmaster-General's Department.

Further amendments made by the National Debt Sinking Fund Act 1925, provide that reparation moneys received under the Treaty of Peace with Germany, and Sinking Fund contributions received from the States in respect of loans raised for them by the Commonwealth, shall be paid into the National Debt Sinking Fund.

The National Debt Commission was created for the purpose of taking general control of all Sinking Fund moneys, and of deciding when and how these moneys shall be invested or used for the redemption of the debt. The situation of the Sinking Funds, as at 30th June, 1923, is set out in the accompanying table :—

COMMONWEALTH PUBLIC DEBT.—SINKING FUNDS, 1919 TO 1923.

At 30th June—	Total Accumulation to date.	Total Securities Cancelled to date.	Balance Available.
	£	£	£
1919 ..	3,740,824	1,636,621	2,104,203
1920 ..	5,139,281	2,969,980	2,169,301
1921 ..	8,391,349	7,386,822	1,004,527
1922 ..	10,292,881	9,335,129	957,752
1923 ..	11,756,992	9,606,739	2,150,253

The old Sinking Funds were merged in the National Debt Sinking Fund on 11th August, 1923. Particulars of receipts and expenditure are as follows :—

**COMMONWEALTH PUBLIC DEBT.—NATIONAL DEBT SINKING FUND, 1923-24
TO 1925-26.**

Items.	1923-24.	1924-25	1925-26.
	£	£	£
Cr. Brought forward .. .. .	..	2,059,372	4,152,992
Balance transferred to fund on 11th August, 1923	2,262,982	..	..
From Consolidated Revenue	1,430,141	3,111,216	2,796,722
Repayments of Sundry Loans	513,073	16,482	33,157
Purchase Money and Repayments under War			
Service Homes Act	675,174	746,012	744,548
Half net Profit Commonwealth Bank ..	61,673	130,477	226,176
Reparation Moneys .. .. .	..	257,692	302,922
Interest on Investments	117,926	94,271	83,950
Contributions by States .. .. .	..	..	76,711
Total	5,060,969	6,415,522	8,417,178
Dr. Redemptions	3,001,597	2,262,530	5,147,929
Carried Forward	2,059,372	4,152,992	3,269,249
Total	5,060,969	6,415,522	8,417,178

The Imperial Government loan comes in a different category from the others, since it is being liquidated by the funding arrangement described in detail on a previous page.

§ 5. Cost of War and Repatriation.

1. **General.**—In view of the importance of the subject, a further reference is here made to the cost of the war. The general policy of the Commonwealth Government has been to pay from Consolidated Revenue all recurring charges for interest, sinking fund, pensions, and other charges consequent upon the war, and part of the expense of repatriation. On the other hand, the whole direct cost of the war and the larger proportion of the cost of repatriation have been paid from loans. The total cost from both sources to the 30th June, 1926, is set out in the following table :—

COST OF WAR SERVICES TO 30th JUNE, 1926.

Year.	From Revenue. (a)	From War Loan Fund.	Total.
	£	£	£
1914-15	640,218	14,471,117	15,111,335
1915-16	3,778,378	37,423,568	41,201,946
1916-17	8,427,329	53,114,237	61,541,566
1917-18	11,863,251	55,095,109	66,958,360
1918-19	21,255,101	62,192,889	83,447,990
1919-20	24,751,732	45,385,586	70,137,318
1920-21	33,286,233	24,148,501	57,434,734
1921-22	31,337,164	7,576,977	38,914,141
1922-23	30,100,472	1,762,694	31,863,166
1923-24	28,770,106	2,412,015	31,182,121
1924-25	28,482,761	975,612	29,458,373
1925-26	29,171,850	324,224	29,496,074
Total Expenditure ..	251,864,595	304,882,529	556,747,124
Indebtedness to the Government of the United Kingdom for payments made, services rendered, and goods supplied during the war ..			43,398,098
War Gratuity Paid in Cash			27,451,086
Total			627,596,308

(a) Including the amounts spent from Trust Fund War Pensions Account.

§ 6. Old-age and Invalid Pensions.

1. **General.**—In previous issues of this work an account was given of the introduction of the old-age pension system into Australia, together with a detailed description of the Commonwealth Invalid and Old-age Pensions Act of 1908 which became operative on 1st July, 1909. (See Year Books, Nos. 3 to 8.) An amendment of this Act, assented to on 30th September, 1916, made a very important alteration. Section 24 originally enacted that the pension “shall not exceed the rate of twenty-six pounds per annum in any event, nor shall it be at such a rate as will make the pensioner’s income, together with pension, exceed fifty-two pounds per annum.” It was amended (a) by omitting the words “twenty-six pounds,” and inserting in their stead the words “thirty-two pounds ten shillings,” and (b) by omitting the words “fifty-two pounds” and inserting in their stead the words “fifty-eight pounds ten shillings.” Section 26 originally enacted that if an applicant for pension was in receipt of board or lodging, the actual or estimated value or cost thereof should be counted as income, to an extent not exceeding five shillings per week. This was amended by omitting the words “five shillings” and inserting in their stead the words “seven shillings and sixpence.”

In 1919 the Act was again amended, and the rate of pension raised to £39 per annum and the maximum amount allowable to £65 per annum. The estimated value of board and lodging was raised to 10s. per week, while a further amending Act in 1923 raised the rate of pension to £45 10s. per annum and the maximum amount allowable to £78 per annum.

In 1925 an amending Act increased the rate of pension to £52 per annum and the maximum amount allowable to £84 10s. per annum from 1st October, 1925.

In 1920 special provision was made for a permanently blind person, by which the amount of pension may be at such a rate (not exceeding £52) per annum, as will make his income, together with the pension, equal to an amount not exceeding £221 per annum or such other amount as is declared to be a basic wage.

2. *Old-age Pensions.*—(i) *Summary, 1926.* Details regarding Old-age Pensions as at 30th June, 1926, are as follows :—

OLD-AGE PENSIONS.—SUMMARY, 1926.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Claims examined during year ended 30th June, 1926 ..	9,275	6,410	2,884	1,430	1,201	1,091	22,291
Claims rejected ..	1,092	522	451	128	138	72	2,403
Claims granted ..	8,183	5,888	2,433	1,302	1,063	1,019	19,888
Transfers from other States ..	611	635	206	232	106	119	1,909
Existing 30th June, 1925 ..	45,592	33,845	15,120	10,655	6,448	5,856	117,516
	54,386	40,368	17,759	12,189	7,617	6,994	139,313
Deduct—							
Deaths ..	3,685	2,531	1,186	741	439	369	8,951
Cancellations and transfers to other States ..	1,313	1,037	323	336	238	197	3,444
	4,998	3,568	1,509	1,077	677	566	12,395
Old-age Pensions existing on 30th June 1926 ..	49,388	36,800	16,250	11,112	6,940	6,428	126,918

(ii) *Sexes of Pensioners.* Of the 126,918 persons in receipt of pensions at 30th June, 1926, 51,458 (or 40 per cent.) were males, and 75,460 (or 60 per cent.) were females. Details for the several States are as follows :—

OLD-AGE PENSIONS.—SEXES OF PENSIONERS, 1926.

State.	Males.	Females.	Total.	(a) Masculinity.
New South Wales ..	20,969	28,419	49,388	—15.08
Victoria ..	13,889	22,911	36,800	—24.52
Queensland ..	7,072	9,178	16,250	—12.96
South Australia ..	3,962	7,150	11,112	—28.69
Western Australia ..	3,031	3,909	6,940	—12.65
Tasmania ..	2,535	3,893	6,428	—21.13
Total ..	51,458	75,460	126,918	—18.91

(a) Excess of males over females in each 100 of total pensioners. It will be noted that in every State there is an excess of female pensioners.

(iii) *Ages and Conjugal Condition of Pensioners.* The recorded ages of the 19,888 persons to whom pensions were granted during the year 1925-26 varied considerably, ranging from 3,019 at age 60 to two at age 97. Particulars for quinquennial age-groups are as follows :—

OLD-AGE PENSIONS GRANTED 1925-26—AGES AND CONJUGAL CONDITION OF PENSIONERS.

Age Groups.	Males.				Females.				Grand Total.
	Single.	Married.	Widowed.	Total.	Single.	Married.	Widowed.	Total.	
60-64 ..	353	785	202	1,340	780	3,149	2,622	6,551	7,891
65-69 ..	1,377	3,256	1,040	5,673	245	1,131	852	2,258	7,931
70-74 ..	320	979	425	1,724	75	413	415	903	2,627
75-79 ..	94	280	186	560	30	109	256	395	955
80-84 ..	16	80	83	179	12	26	123	161	340
85-89 ..	2	27	32	61	3	3	43	49	110
90 and over ..	2	2	10	14	..	4	16	20	34
Total ..	2,164	5,409	1,978	9,551	1,145	4,835	4,357	10,337	19,888

3. *Invalid Pensions.*—(i) *Summary, 1926.* Details as at 30th June, 1926, are given hereunder :—

INVALID PENSIONS.—SUMMARY, 1926.

Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Total.
Claims examined during year ended 30th June, 1926 ..	4,392	2,711	1,614	536	711	454	10,418
Claims rejected ..	966	539	467	124	239	136	2,471
Claims granted ..	3,426	2,172	1,147	412	472	318	7,947
Transfers from other States..	238	97	77	74	31	31	548
Existing 30th June, 1925 ..	18,375	12,950	6,223	2,864	2,392	2,036	44,840
	22,039	15,219	7,447	3,350	2,895	2,385	53,335
Deduct—							
Deaths ..	1,106	752	393	191	179	122	2,743
Cancellations and Transfers to other States ..	740	405	254	173	84	133	1,789
	1,846	1,157	647	364	263	255	4,532
Invalid Pensions existing 30th June, 1926 ..	20,193	14,062	6,800	2,986	2,632	2,130	48,803

(ii) *Sexes of Pensioners.* Of the 48,803 persons in receipt of invalid pensions on 30th June, 1926, 21,795, or 45 per cent., were males, and 27,008, or 55 per cent., were females. Details for the several States are as follows :—

INVALID PENSIONS.—SEXES OF PENSIONERS, 1926.

State.	Males.	Females.	Total.	(a) Masculinity.
New South Wales	8,896	11,297	20,193	—11.04
Victoria	6,420	7,642	14,062	—7.14
Queensland	3,232	3,568	6,800	—2.75
South Australia	1,071	1,915	2,986	—2.63
Western Australia	1,277	1,355	2,632	—2.20
Tasmania	899	1,231	2,130	—13.33
Total	21,795	27,008	48,803	—9.32

(a) Excess of males over females in each 100 of total pensioners.

(iii) *Ages and Conjugal Condition of Pensioners, 1926.* The recorded ages of the 7,947 persons to whom invalid pensions were granted during the period under review varied from 16 to 83. The following table gives particulars of those up to age 20, and in decennial age-groups after age 20 :—

INVALID PENSIONS.—AGES AND CONJUGAL CONDITION OF PENSIONERS, 1926.

Age Groups.	Males.				Females.				Grand Total.
	Single.	Married.	Widowed.	Total.	Single.	Married.	Widowed.	Total.	
16-19	337	..	..	337	364	1	..	365	702
20-29	342	88	..	430	509	23	11	543	973
30-39	221	276	17	514	296	91	68	455	969
40-49	223	540	27	790	264	218	226	708	1,498
50-59	420	914	162	1,496	300	610	756	1,666	3,162
60-69	63	154	43	260	28	83	130	241	501
70-79	6	35	20	61	6	24	47	77	138
80 and over .. ..	..	..	3	3	..	..	1	1	4
Total	1,612	2,007	272	3,891	1,767	1,050	1,239	4,056	7,947

4. *Cost of Administration.*—Under the State régime the cost of administration differed considerably in the several States, and for 1908-9 represented in New South Wales 4.17 per cent. of the amount actually paid in pensions. In Victoria for the same year the corresponding percentage was 0.70. During the year 1925-26 the total cost to the Commonwealth of administering the Old-age and Invalid Pensions Department was £99,620, or about 1.2 per cent. of the amount actually paid in pensions. Details concerning the cost of administration for 1925-26 are as follows :—

OLD-AGE AND INVALID PENSIONS.—COST OF ADMINISTRATION, 1925-26.

Heading.	Amount.
	£
Salaries	43,666
Payments to State Governments and payment of commission to Postmaster-General's Department, at 11s. 6d. per £100 paid	38,729
Postage and telegrams	4,334
Medical examinations	6,301
Other expenses	3,590
Total	96,620

The actual sum disbursed in Old-age and Invalid Pensions in the financial year 1925-26, apart from the cost of administration and exclusive of the amount paid to asylums for the maintenance of pensioners, was £8,252,387.

5. Summary.—The following table gives detailed statistical information concerning the working of the Act for the last five years :—

OLD-AGE AND INVALID PENSIONS.—SUMMARY, AUSTRALIA, 1922 TO 1926.

Financial Year ended 30th June—	Number of Pensioners.			Amount Paid in Pensions.	Amount Paid to Asylums for Maintenance of Pensioners.	Total Payment to Pensioners and Asylums.	Cost of Administration.	Cost of Administration per £100 paid to Pensioners and Asylums.	Average Fortnightly Pension on last day of Financial Year.
	Old-age.	Invalid.	Total.						
				£	£	£	£	£ s. d.	s. d.
1922	105,096	39,019	144,115	5,290,056	89,978	5,380,034	93,608	1 14 10	28 9
1923	107,389	40,064	147,453	5,337,936	86,080	5,424,016	87,910	1 12 5	28 9
1924	113,054	42,617	155,671	6,426,752	97,129	6,523,881	92,366	1 8 4	33 9
1925	117,516	44,840	162,356	6,896,401	96,504	6,992,905	94,486	1 7 0	33 8
1926	126,918	48,803	175,721	8,146,636	105,751	8,252,387	99,620	1 4 2	38 7

§ 7. Maternity Allowance.

During the session of 1912 the Federal Parliament passed an Act (assented to on 10th October, 1912) providing for the payment of maternity allowances. The scope and main provisions of the Act are given in Year Book No. 14, p. 1047. The most important conditions are that the sum of five pounds is payable in the case of each confinement resulting in the birth of a viable child whether such child was born alive or dead. The mother must be a native of the Commonwealth, or intend to settle permanently therein. No payment is made in the case of an aboriginal or an Asiatic.

The following table gives a summary in connexion with the working of the Maternity Allowance Act for the years 1922 to 1926 :—

MATERNITY ALLOWANCE.—SUMMARY, 1922 TO 1926.

Year.	Claims Paid.	Claims Rejected.	Amount Paid.	Cost of Administration.	Cost per £100 of allowance paid.
			£	£	£ s. d.
1921-22 ..	138,140	520	690,700	15,441	2 4 9
1922-23 ..	137,687	421	688,435	16,008	2 6 6
1923-24 ..	134,035	432	670,175	14,770	2 4 1
1924-25 ..	137,641	455	688,205	16,425	2 7 9
1925-26 ..	136,171	517	680,855	15,702	2 6 1

§ 8. War Pensions.

1. **General.**—An Act for the provision of war pensions was passed in 1914 and amended in 1915 and 1916. Its scope can be determined by the following extract from section 3. "Upon the death or incapacity of any member of the forces whose death or incapacity results, or has resulted, from his employment in connexion with warlike operations in which His Majesty is, or has since the commencement of the present state of war been engaged, the Commonwealth shall, subject to this Act, be liable to pay to the member or his dependants, or both, as the case may be, pensions in accordance with this Act."

2. **Number of Pensioners.**—The following table shows the number of pensioners and the places where payments were made at the 30th June, 1926 :—

WAR PENSIONS.—NUMBER OF PENSIONERS, 1926.

Where Paid.	Incapacitated Members of the Forces.	Dependants of—		Total.
		Deceased Members.	Incapacitated Members.	
New South Wales	24,261	11,163	43,886	79,310
Victoria	23,569	12,776	47,908	84,253
Queensland	7,861	3,552	14,361	25,774
South Australia	4,249	3,520	8,375	16,144
Western Australia	7,445	3,545	14,937	25,927
Tasmania	2,884	1,651	6,454	10,989
London	1,552	4,508	3,181	9,241
South Africa	50	44	68	162
New Zealand	235	238	293	766
Other Overseas	22	7	14	43
Total	72,128	41,004	139,477	252,609

3. **Expenditure on War Pensions, 1926.**—The expenditure on war pensions for the year ended 30th June, 1926, is given in the table hereunder :—

WAR PENSIONS.—EXPENDITURE, 1925-26.

Where Paid.	Amount.	Where Paid.	Amount.
	£		£
New South Wales	2,551,661	London and elsewhere ..	343,413
Victoria	2,130,993		7,347,246
Queensland	774,268	Payments in Australia in respect of other countries	333,999
South Australia	488,615		7,681,245
Western Australia	760,613	Less amounts from other countries, including pay- ments by contra ..	337,579
Tasmania	297,683	Total	7,343,666

4. **Cost of Administration.**—The cost of administration in 1925-26 was £155,123, or 2.0 per cent. on the total amount paid in pensions, made up as follows :—

WAR PENSIONS.—COST OF ADMINISTRATION, 1925-26.

Items.	Total.
	£
Salaries	73,339
Postage and telegrams	2,349
Medical examinations	6,675
Services of Registrars, Police, and Postal Officials	47,708
London Office	5,792
Fees for State Boards	2,763
Miscellaneous	16,497
Total	155,123

§ 9. Commonwealth Public Service Superannuation Fund.

This Fund, which was inaugurated on the 20th November, 1922, is maintained by contributions of officers of Parliament, of employees of the Commonwealth Public Service and the Defence Department, and by payments from the Consolidated Revenue—the latter being made when the officers retire on pension. Full particulars as to the benefits etc., will be found in Official Year Book No. 18, page 383.

The number of contributors to the fund at 30th June, 1926, was 28,660, viz., 25,340 males and 3,320 females, and the average pension contributed for was £103 17s. per annum.

For the year ended 30th June, 1926, receipts were £508,720, of which £361,453 represented employees' contributions, £89,696 from the Consolidated Revenue, and £56,163 from interest. Payments amounted to £133,042 including £102,985 paid in pensions. Of the balance of £1,110,833 which remained on hand on the 30th June, 1926, £1,071,537 was invested in Commonwealth Inscribed Stock.

Pensions in force on the 30th June, 1926, numbered 1,587 with an annual liability of £113,684, of which £97,439 represents the share payable from the Consolidated Revenue.

B. STATE FINANCE.

§ 1. General.

1. **Functions of State Governments.**—In comparing the financial returns of the States allowance must be made for the various functions discharged by the respective Governments, and for local conditions in each case. Direct comparisons of expenditure are difficult, owing to the fact that functions which in one State are assumed by the Central Government are in another relegated to local governing bodies, and that costly developmental work may, under certain conditions, be not only economically justifiable, but may be essential to progress, while parsimonious expenditure may be an economic blunder. A large expenditure may, therefore, be an indication either of gross extravagance and bad economy on the one hand, or of healthy progress and good economy on the other. Similarly, as regards revenue, imposts which in some States are levied by the Central Government, are in others dealt with locally. Care, therefore, is needed in instituting comparisons, and the particulars contained in this chapter should be read in connexion with those contained in the chapter dealing with Local Government. In many respects, moreover, the budgets of the Australian Governments differ materially from those of most European countries, owing to the inclusion therein of the revenue and expenditure of departments concerned in rendering public services, such for instance as railways, tramways, water supply, etc., which in other countries are often left to private enterprise.

2. **Accounts of State Governments.**—The various financial transactions of the States are in each case concerned with one or other of three Funds—the “Consolidated Revenue Fund,” the “Trust Funds,” and the “Loan Funds.” All revenue collected by the State is placed to the credit of its Consolidated Revenue Fund, from which payments are made under the authority of an Annual Appropriation Act passed by the Legislature, or by a permanent appropriation under a special Act. The hypothecation of the revenue from a specific tax to the payment for some special service is not practised in Australia, all statutory appropriations ranking on an equality as charges on the Consolidated Revenue Fund. The Trust Funds comprise all moneys held in trust by the Government, and include such items as savings’ banks funds, sinking funds, insurance companies’ deposits, etc. The Loan Funds are debited with all loan moneys raised by the State, and credited with the expenditure therefrom on public works or other purposes.

3. **Inter-relation of Commonwealth and State Finance.**—The principal alteration in State finance brought about by Federation was that the States transferred to the Commonwealth the large revenue received by the Customs and Postal Departments, and were relieved of the expenditure connected with these and the Defence Departments, while, in their place, a new item of State revenue was introduced, viz., the payment to the States of a Commonwealth subsidy. With regard to this, an important development in the financial relations of the Commonwealth and State Governments was discussed at the Premiers’ Conference of May, 1923. The main problem for settlement was that arising from the raising and allocation of the revenues of the Commonwealth and States. The Conference aimed at the termination of the present arrangement under which the Commonwealth pays to the States on a *per capita* basis part of the revenue which it collects; concurrently it was hoped to simplify the entire taxation systems of Australia.

The Commonwealth Prime Minister submitted a scheme intended to secure the attainment of both of these objects, but it did not prove acceptable to the State Ministers, who put forward counter-proposals for the complete retirement of the Commonwealth from the field of income taxation. The States were willing on that condition to relinquish the capitation payments and to contribute to the Commonwealth Treasury sums to cover any Commonwealth loss entailed under the proposals.

As Commonwealth Ministers could not accept the offer of the States, the Prime Minister proposed that the Commonwealth should vacate the field of income taxation so far as it related to individuals, but should retain the right to tax companies up to a maximum limit of 2s. 6d. in the £1. As a set-off against this the Commonwealth would cease the payment to the States of the capitation allowances and the interest on the transferred properties. Before completing the new scheme it would be necessary to ascertain the exact value of the field to be vacated by the Commonwealth, because certain cash payments to be made by the Commonwealth to the States to save embarrassment of State finances could not be calculated until that value was ascertained.

These suggestions were much more favourably received, and ultimately five of the States—New South Wales dissenting—agreed to accept the principle of the new Commonwealth proposals.

The statistics relating to income tax were carefully investigated, and it was found that figures on which to base payments to the States would not be available for some time. The operation of the scheme was therefore deferred for one year. In June, 1924, the scheme was again considered by the Commonwealth Government, but owing to the continuance of opposition the operation of the proposals was further postponed until early in the year 1926.

A satisfactory conclusion was not reached at the Conference of Commonwealth and State Ministers held in May, 1926. In his Budget Speech of 8th July, 1926, however, the Commonwealth Treasurer outlined the Government’s proposals for terminating the present relations. In pursuance of these proposals the Commonwealth Parliament passed the States Grants Act (No. 4 of 1927) repealing the *per capita* payments specified by the Surplus Revenue Act (No. 8 of 1910). The Act further provides for the payment to the States on a population basis of any surplus revenue in the hands of the Commonwealth Treasurer on 30th June, 1928, and of each year thereafter. The payments to be made to the States during 1927–28 will be equal in amount to those which would have been made under the provisions of the Surplus Revenue Act 1910, and are designed to afford the States ample time to adjust their finances to the impending changes. The

Commonwealth Government invited the States to a further conference in June, 1927, at which the whole question was discussed in the light of the changes made by the provisions of the States Grants Act. See Appendix for further particulars.

Meanwhile efforts were made to arrange for one collecting authority for both State and Federal income taxes. Agreements were made between the Commonwealth, on the one hand, and all the States except Western Australia, on the other, under which the State taxation officers collect both taxes, except where the Commonwealth incomes are derived from two or more States. In Western Australia there has been for some years one collecting authority only—the Commonwealth.

Provision for the taking over by the Commonwealth of certain of the public debts of the States is made in section 105 of the Constitution, and a proposed law extending this provision to the whole of the State indebtedness, which passed both Houses of the Federal Legislature by the statutory majority, was submitted to a referendum at the election in April, 1910, and received the requisite endorsement by the electorate. No action had, however, been taken in connexion therewith, until the Conference referred to above. For further information refer to Appendix.

§ 2. State Consolidated Revenue Funds.

Division I.—Revenue.

1. General.—The principal sources of State revenue are :—

- (a) Taxation.
- (b) The public works and services controlled by the State Governments.
- (c) Sale of and rental from Crown lands.
- (d) The Commonwealth subsidy.
- (e) Miscellaneous sources, comprising fines, fees, interest, etc.

Of these sources, that yielding the largest revenue for the States as a whole is the group of public works and services, the principal contributor being the Government railways and tramways. Next in magnitude comes Taxation, followed in order by the Commonwealth Subsidy and Land Revenue.

2. Revenue Received.—The following table furnishes particulars of the total amounts and the amounts per head of consolidated revenue received by the several States during the five years 1921–22 to 1925–26 :—

STATE CONSOLIDATED REVENUE, 1921–22 TO 1925–26.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
TOTAL COLLECTIONS.							
	£	£	£	£	£	£	£
1921–22	35,637,820	20,357,733	12,311,378	7,771,752	6,907,107	2,181,395	85,167,185
1922–23	36,145,944	21,634,677	12,599,403	8,431,700	7,207,492	2,174,062	88,193,278
1923–24	37,351,809	23,075,968	13,428,039	8,932,340	7,865,595	2,447,677	93,101,428
1924–25	38,822,588	24,304,887	14,897,256	9,733,038	8,381,446	2,762,013	98,901,228
1925–26	38,540,031	25,269,756	15,599,718	10,474,094	8,808,166	2,726,482	101,418,247
PER HEAD OF POPULATION.							
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1921–22	16 15 0	13 2 7	16 0 6	15 9 5	23 13 4	9 19 10	15 9 2
1922–23	16 12 8	13 12 1	15 19 6	16 8 7	20 11 6	9 18 7	15 13 1
1923–24	16 17 8	14 3 11	16 11 1	17 0 6	20 19 7	11 3 6	16 3 10
1924–25	17 4 5	14 13 4	17 16 10	18 1 6	22 4 7	12 13 7	16 16 9
1925–26	16 15 4	15 0 1	18 2 3	18 19 9	23 13 4	12 11 3	16 18 6

During the four years from 30th June, 1922, to 30th June, 1926, the aggregate revenue of the States increased by no less a sum than £16,251,062, or about 19 per cent. Increases were in evidence in all the States, the largest being that of £4,912,023 in Victoria. This general advance is the more notable since, during recent years, a smaller amount has been received from the Commonwealth in the way of subsidy than was the case up to 1910.

There has been a marked increase in the collections per head in all the States. Western Australia throughout the period has occupied the premier position, and in 1925-26 the revenue per head in that State exceeded the average for Australia by about 40 per cent. In Tasmania, however, the revenue per head has averaged about 74 per cent. only of the average for Australia.

3. Sources of Revenue.—(i) *General*.—Classifying the revenue of the several States in the manner indicated in 1 *ante*, particulars for the year 1925-26 are as follows:—

STATE CONSOLIDATED REVENUE.—SOURCES, 1925-26.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
TOTAL REVENUE.							
	£	£	£	£	£	£	£
Taxation	8,850,877	5,170,269	4,104,122	2,660,419	1,418,050	1,239,967	23,452,704
Public works and services	23,499,763	14,425,073	7,864,930	5,901,439	4,640,108	953,738	57,285,051
Land	2,126,419	431,122	1,446,016	306,291	541,738	77,673	4,929,259
Commonwealth subsidy	2,853,850	2,090,951	1,068,378	684,932	(a)588,511	(b)337,477	7,624,099
Miscellaneous	1,209,122	3,143,341	1,116,272	921,013	1,619,759	117,627	8,127,134
Total	38,540,031	25,269,756	15,599,718	10,474,094	8,808,166	2,726,482	101,418,247

PER HEAD OF POPULATION.

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Taxation	3 17 0	3 1 6	4 15 3	4 16 5	3 16 2	5 14 3	3 18 3
Public works and services	10 4 6	8 11 4	9 2 8	10 14 0	12 9 4	4 7 11	9 11 3
Land	0 18 6	0 5 1	1 13 7	0 11 1	1 9 1	0 7 2	0 16 5
Commonwealth subsidy	1 4 10	1 4 10	1 4 10	1 4 10	1 11 8	1 11 1	1 5 5
Miscellaneous	0 10 6	1 17 4	1 5 11	1 13 5	4 7 1	0 10 10	1 7 2
Total	16 15 4	15 0 1	18 2 3	18 19 9	23 13 4	12 11 3	16 18 6

(a) Including special grant of £100,000.

(b) Including special grant of £68,000.

In connexion with the item Public Works and Services, it should be borne in mind that services performed by the Government in one State may, in another, be carried out by a Board or Trust. For instance, in New South Wales and Western Australia the tramway systems are controlled by the Government, while in the other States ownership is largely vested in Trusts or private companies. Harbour and river services and water supply and sewerage are also controlled in some cases by the State and in others by Trusts.

The magnitude of the revenue per head from public works and services in the case of Western Australia is mainly due to the fact that the number of miles of railway in that State is large compared with the population, while the revenue earning power of the railways is also high. In New South Wales and Western Australia the revenue from tramways is also included.

(ii) *Relative Importance of Various Sources*. The following table indicates the relative importance of the different sources of revenue in the several States, by showing the percentage which each item of revenue bears on the total for the State for the year 1925-26:—

STATE CONSOLIDATED REVENUE.—PERCENTAGE OF ITEMS, 1925-26.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
	%	%	%	%	%	%	%
Taxation	22.97	20.50	26.31	25.40	16.10	45.48	23.13
Public works and services ..	60.97	57.08	50.42	56.34	52.68	34.98	56.48
Land	5.52	1.71	9.27	2.93	6.15	2.85	4.86
Commonwealth subsidy ..	7.40	8.27	6.85	6.54	6.68	12.38	7.52
Miscellaneous	3.14	12.44	7.15	8.79	18.39	4.31	8.01
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00

(iii) *Revenue from Taxation.*—(a) *General.* Prior to Federation, duties of Customs and Excise constituted the principal source of revenue from taxation. At present, the most productive State tax is the income tax, imposed in all the States, and representing for 1925-26 nearly 60 per cent. of the total taxation revenue. For 1925-26, stamp duties occupied second place. In addition to these, a State land tax and licence fees of various kinds are collected in all the States, while a dividend tax is levied in Western Australia. The total revenue from taxation collected by the States during the year 1925-26 was £23,452,704, details of which are set forth in the table hereunder:—

STATE CONSOLIDATED REVENUE FROM TAXATION, 1925-26.

Taxation.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
	£	£	£	£	£	£	£
Probate and succession duties	1,171,364	940,609	356,758	269,332	84,635	74,370	2,897,068
Other stamp duties ..	1,562,363	1,017,351	443,702	463,677	231,407	177,858	3,896,358
Land Tax	2,667	457,411	468,020	244,132	145,830	126,251	1,444,341
Income Tax	5,392,946	2,238,429	2,617,253	1,422,993	832,239	721,231	13,225,091
Licences	240,559	390,473	112,926	64,997	69,410	43,771	922,136
Other Taxation	480,978	134,966	105,463	195,288	54,529	96,486	1,067,710
Total	8,850,877	5,179,269	4,104,122	2,660,419	1,418,050	1,239,967	23,452,704

(a) Includes £265,895 Dividend Tax.

The total amount and the amount per head raised from taxation by the several State Governments during the five years 1921-22 to 1925-26 are given in the following table:—

STATE CONSOLIDATED REVENUE FROM TAXATION, 1921-22 TO 1925-26.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
TOTAL.							
	£	£	£	£	£	£	£
1921-22	7,249,017	3,791,174	3,420,296	1,778,576	881,159	727,701	17,847,923
1922-23	7,799,118	4,077,046	3,330,885	1,816,776	987,558	728,175	18,739,558
1923-24	7,988,131	4,476,158	3,617,201	1,841,720	1,173,568	928,360	20,025,138
1924-25	8,115,151	4,819,580	3,914,161	2,290,754	1,224,030	1,306,361	21,670,037
1925-26	8,850,877	5,179,269	4,104,122	2,660,419	1,418,050	1,239,967	23,452,704

PER HEAD OF POPULATION.

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1921-22	3 8 2	2 8 11	4 9 0	3 10 10	2 12 6	3 6 8	3 4 9
1922-23	3 11 9	2 11 3	4 4 6	3 10 10	2 17 6	3 6 6	3 6 6
1923-24	3 12 3	2 15 1	4 9 2	3 10 2	3 6 4	4 4 9	3 9 8
1924-25	3 12 0	2 18 2	4 13 9	4 5 1	3 7 3	5 19 11	3 13 9
1925-26	3 17 0	3 1 6	4 15 3	4 16 5	3 16 2	5 14 3	3 18 3

During the period between 30th June, 1922, and 30th June, 1926, State revenue from taxation increased by about 30 per cent., the increase varying considerably in the different States and in the different sources of taxation. During this period the income tax collections expanded from £9,543,424 in 1921–22 to £13,225,091 in 1925–26, an increase of almost 40 per cent., which was principally due to the broadening of the basis of assessment and the raising of the rates of tax. This increase occurred in every State, varying from 19 per cent. in Queensland to 67 per cent. in Western Australia and 103 per cent. in Tasmania.

Taking the States as a whole, taxation increased by 13s. 6d. per head during the period from 1921–22 to 1925–26, the most marked increase, £2 7s. 7d., occurring in the case of Tasmania. It may also be mentioned that Tasmania was the only State showing a decrease in taxation per head for the year 1925–26 as compared with 1924–25.

(b) *Probate and Succession Duties.* Probate duties have been levied for many years in all the States, but the provisions of the Acts governing the payment of duty differ widely both in regard to the ordinary rates and those which apply to special beneficiaries. A table showing the values of the estates in which probates and letters of administration were granted is given later. (See Private Finance § 8 hereinafter.)

The duties collected for the financial years 1921–22 to 1925–26 are as follows :—

STATE PROBATE AND SUCCESSION DUTIES.—COLLECTIONS, 1921–22 TO 1925–26.

State.	1921–22.	1922–23.	1923–24.	1924–25.	1925–26.
	£	£	£	£	£
New South Wales ..	907,307	1,176,596	965,200	1,248,336	1,171,364
Victoria	706,181	697,482	798,315	802,333	940,609
Queensland	295,748	257,402	280,472	334,801	356,758
South Australia ..	197,764	205,382	191,373	225,999	269,332
Western Australia ..	76,817	45,997	66,969	68,114	84,635
Tasmania	61,142	56,530	71,750	88,404	74,370
Total	2,244,959	2,439,389	2,374,079	2,767,987	2,897,068

(c) *Other Stamp Duties.* The revenue derived from stamp duties (exclusive of probate and succession duties) for the years 1921–22 to 1925–26 is shown in the accompanying table :—

STATE STAMP DUTIES.—COLLECTIONS, 1921–22 TO 1925–26.

State.	1921–22.	1922–23.	1923–24.	1924–25.	1925–26.
	£	£	£	£	£
New South Wales ..	1,343,389	1,460,436	1,538,924	1,478,392	1,562,363
Victoria	932,649	1,117,839	1,179,364	963,307	1,017,351
Queensland	308,991	353,745	405,056	416,539	443,702
South Australia ..	346,918	397,050	430,045	442,823	463,677
Western Australia ..	164,929	173,453	194,176	204,108	231,407
Tasmania	144,125	166,424	180,773	182,996	177,858
Total	3,241,001	3,668,947	3,928,338	3,688,165	3,896,358

(d) *Land Tax.* All the States impose a Land Tax, although Queensland, the last State to fall into line, collected its first levy in 1915–16. In the other States the impost is of long standing. In New South Wales the State Land Tax is levied on the unincorporated portion of the western division of the State only.

The following table shows the amount collected by means of such taxes during the financial years 1921-22 to 1925-26 :—

STATE LAND TAX.—COLLECTIONS, 1921-22 TO 1925-26.

State.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	£	£	£	£	£
New South Wales ..	2,490	2,570	2,657	2,569	2,667
Victoria ..	372,060	392,594	412,165	421,662	457,441
Queensland ..	480,518	417,865	445,873	452,481	468,020
South Australia ..	162,104	197,107	184,226	185,681	244,132
Western Australia ..	42,549	79,983	71,449	113,867	145,830
Tasmania ..	97,031	97,352	120,657	124,114	126,251
Total ..	1,156,752	1,187,471	1,237,027	1,300,374	1,444,341

(e) *Income Tax.* A tax on the incomes of persons, whether derived from personal exertion or from property, is also imposed in all the States. As might be expected, the rates, exemptions, etc., are widely divergent, but the general principles of the several Acts are similar. The Dividend Duties Act of Western Australia supplied to a certain extent the place of an income tax in that State in former years, but, with the increasing demands upon the Treasury, the levying of a direct income tax was found necessary.

The following table shows the total amount collected in the several States during the years 1921-22 to 1925-26. In the case of Western Australia the amount of dividend duty collected is included.

The total for 1925-26 represents an increase of over 38 per cent. on the collections in 1921-22.

STATE INCOME AND DIVIDEND TAXES.—COLLECTIONS. 1921-22 TO 1925-26.

State.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	£	£	£	£	£
New South Wales ..	4,077,897	4,196,228	4,373,519	4,661,892	5,392,946
Victoria ..	1,443,209	1,514,256	1,702,483	2,076,656	2,238,429
Queensland ..	2,194,361	2,149,607	2,300,044	2,509,913	2,617,253
South Australia ..	975,043	903,460	894,283	1,268,898	1,422,993
Western Australia ..	497,879	579,060	719,160	716,109	832,239
Tasmania ..	355,035	325,151	431,271	781,194	721,231
Total ..	9,543,424	9,667,762	10,420,760	12,014,662	13,225,091

(f) *Commonwealth and State Taxation.* The table hereunder shows the combined Commonwealth and State taxation for each of the years 1921-22 to 1925-26, as well as the amount per head of population :—

TOTAL COMMONWEALTH AND STATE TAXATION, 1921-22 TO 1925-26.

Particulars.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	£	£	£	£	£
Commonwealth taxation ..	49,678,842	49,885,017	50,852,483	52,835,690	54,373,005
State taxation ..	17,847,923	18,739,558	20,025,138	21,670,037	23,452,704
Total ..	67,526,765	68,624,575	70,877,621	74,505,727	77,825,709
Taxation per head ..	£12/5/1	£12/3/7	£12/6/7	£12/13/8	£12/19/9

Whilst Customs and Excise revenue expanded during the period by £11,568,519, and other Commonwealth taxation decreased by £6,874,356, resulting in a net increase in Commonwealth taxation of £4,694,163, the State taxation advanced by £5,604,781, the aggregate increase being £10,298,944. The amount *per capita* of total taxation has increased about 6 per cent. in the period under review.

(iv) *Public Works and Services.* A very large proportion of State revenues is made up of receipts from public works and services under the control of the Governments. The principal of these are railways and tramways, harbour works, and water supply and sewerage, while, in addition, State batteries for the treatment of auriferous ores exist in Western Australia, and various minor revenue-producing services are rendered by the Governments of all States. For the year 1925-26 the aggregate revenue from these sources was £57,285,051, or 56 per cent. of the revenue from all sources. Details of revenue from public works and services for the year 1925-26 are as follows:—

STATE REVENUE FROM PUBLIC WORKS AND SERVICES, 1925-26.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
	£	£	£	£	£	£	£
Railways and tramways ..	20,985,362	12,423,715	7,392,241	4,118,388	3,604,914	543,066	49,067,686
Harbour services ..	1,326,924	209,242	84,746	639,063	245,283	..	2,505,258
Public batteries ..	..	..	..	..	27,336	..	27,336
Water supply and sewerage ..	232,218	647,072	..	592,278	469,519	..	1,764,087
Other public services ..	955,259	1,322,044	387,943	551,710	293,056	410,672	3,920,684
Total ..	23,499,763	14,425,073	7,864,930	5,901,439	4,640,108	953,738	57,285,051

(a) Railways only.

(b) Water supply only.

(v) *Lands.* The revenue from the sale and rental of Crown lands has, with few exceptions, been treated from the earliest times as forming part of the Consolidated Revenue Funds, and has been applied to meet ordinary expenses. Where the rentals received are for lands held for pastoral or residential purposes such application of the revenue would appear justifiable. On the other hand, where the rentals are for mineral and timber lands, and in all cases of sales of lands, the proceeding is essentially a disposal of capital to defray current expenses, and is, therefore, open to criticism. The following table gives the revenue from sales and rentals of Crown lands for the year 1925-26:—

STATE LAND REVENUE, 1925-26.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
	£	£	£	£	£	£	£
Sales ..	108,473	98,763	20	41,213	336,791	26,392	611,652
Rentals ..	2,017,946	332,359	1,445,996	265,078	204,947	51,281	4,317,607
Total ..	2,126,419	431,122	1,446,016	306,291	541,738	77,673	4,929,259

(vi) *Commonwealth Subsidy.* The payments to the States of Commonwealth subsidy represent in each instance a considerable proportion of the States' revenue, and for the year 1925-26 aggregated £7,624,099. A reference to the proposals to discontinue the payment of this subsidy will be found in Section B, §1. 3. of this chapter. The percentage represented by the subsidy received by each State for 1925-26 on the total revenue of that State is shown in the following table:—

COMMONWEALTH SUBSIDY PAID TO EACH STATE, 1925-26.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
	£	£	£	£	£	£	£
Commonwealth subsidy ..	2,853,850	2,090,951	1,068,378	684,932	(a) 588,511	(b) 337,477	7,624,099
Total revenue ..	38,540,031	25,269,756	15,599,718	10,474,094	8,808,166	2,726,482	101,418,247
Percentage of subsidy on revenue ..	%	%	%	%	%	%	%
	7.40	8.27	6.85	6.54	6.68	12.38	7.52

(a) Including special grant of £100,000.

(b) Including special grant of £63,000.

(vii) *Miscellaneous.* In addition to the foregoing, there are in each State several miscellaneous sources of revenue, including such items as interest, fines, fees, etc., which for the year 1925-26 aggregated £8,127,134. Of this amount, interest was responsible for £4,464,946.

Division II.—Expenditure.

1. *General.*—The principal heads of State expenditure from Consolidated Revenue Funds are :—

- (a) Interest and sinking funds in connexion with public debt.
- (b) Working expenses of railways and tramways.
- (c) Justice.
- (d) Police.
- (e) Penal establishments.
- (f) Education.
- (g) Medical and charitable expenditure.
- (h) All other expenditure.

Of these, that of working expenses of railways and tramways was the most important, and for the year 1925-26 represented about 38 per cent. of the aggregate expenditure from the Consolidated Revenue Fund. Next in importance for that year was the item of interest and sinking fund in connexion with the public debt, then education, medical and charitable expenditure, and police, in the order named.

2. *Total Expenditure.*—The total expenditure from Consolidated Revenue Funds in the several States, and the expenditure per head of population during each of the years 1921-22 to 1925-26 are given in the table hereunder :—

STATE EXPENDITURE.—CONSOLIDATED REVENUE FUNDS, 1921-22 TO 1925-26.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
TOTAL.							
	£	£	£	£	£	£	£
1921-22	36,966,525	20,297,279	12,499,970	7,826,241	7,639,242	2,302,077	87,531,334
1922-23	35,342,436	21,611,309	12,784,382	8,426,517	7,612,856	2,472,523	88,250,023
1923-24	37,251,419	23,050,968	13,415,332	8,985,599	8,094,753	2,658,382	93,456,453
1924-25	39,579,058	24,170,483	14,880,288	9,680,037	8,439,844	2,675,618	99,425,328
1925-26	39,814,335	25,559,583	16,154,404	10,460,943	8,907,308	2,698,262	103,594,835

PER HEAD OF POPULATION.

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1921-22	17 7 5	13 1 9	16 5 5	15 11 6	22 15 1	10 10 11	15 7 8
1922-23	16 5 4	13 11 10	16 4 3	16 8 4	22 3 2	11 5 11	15 13 4
1923-24	16 16 10	14 3 8	16 10 9	17 2 6	22 17 7	12 2 9	16 5 1
1924-25	17 11 1	14 11 9	17 16 5	17 19 6	23 3 7	12 5 8	16 18 6
1925-26	17 6 5	15 3 6	18 15 2	18 19 3	23 18 8	12 8 8	17 5 9

Details of the expenditure are given in the next table.

3. Details of Expenditure for 1925-26.—(i) *General*. The following table shows the total expenditure and expenditure per head under each of the principal items :—

STATE EXPENDITURE.—DETAILS, 1925-26.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
TOTAL.							
	£	£	£	£	£	£	£
Public debt (interest, sinking fund, etc.)	8,398,049	6,967,593	4,577,650	3,831,200	3,304,185	1,112,468	28,191,145
Railways and tramways (working expenses)	16,379,652	a9,958,888	b6,457,799	b3,103,918	2,764,144	b512,351	39,178,752
Justice	587,011	270,029	200,522	74,561	81,932	27,480	1,241,535
Police	1,171,171	804,645	554,879	249,632	209,459	84,266	3,074,052
Penal establishments	163,407	116,542	39,874	45,779	23,351	9,446	398,399
Education	3,966,463	2,369,026	1,491,666	829,125	624,916	297,129	9,578,325
Medical and charitable	2,072,406	1,212,282	871,072	461,808	414,260	178,499	5,210,327
All other expenditure	7,076,176	3,860,578	1,960,942	1,864,920	1,485,061	476,623	16,724,300
Total	39,814,335	25,559,583	16,154,404	10,460,943	8,907,308	2,698,262	103,504,835

PER HEAD OF POPULATION.

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Public debt (interest, sinking fund, etc.)	3 13 1	4 2 9	5 6 4	6 18 11	8 17 7	5 2 6	4 14 1
Railways and tramways (working expenses)	7 2 6	a5 18 4	b 7 9 11	b5 12 6	7 8 6	b2 7 3	6 10 9
Justice	0 5 2	0 3 3	0 4 8	0 2 9	0 4 5	0 2 6	0 4 2
Police	0 10 2	0 9 6	0 12 11	0 9 0	0 11 3	0 7 9	0 10 3
Penal establishments	0 1 5	0 1 4	0 0 11	0 1 8	0 1 3	0 0 11	0 1 4
Education	1 14 6	1 8 1	1 14 8	1 10 1	1 13 7	1 7 5	1 12 0
Medical and charitable	0 18 0	0 14 5	1 0 3	0 16 9	1 2 3	0 16 5	0 17 4
All other expenditure	3 1 7	2 5 10	2 5 6	3 7 7	3 19 10	2 3 11	2 15 10
Total	17 6 5	15 3 6	18 15 2	18 19 3	23 18 8	12 8 8	17 5 9

(a) Including 7.59 miles of electric tramways operated by the Victorian Railways. (b) Railways only.

(ii) *Relative Importance of Various Items*. The relative importance of the items varies considerably, and the following table shows for each State the percentage under each item on the total expenditure :—

STATE EXPENDITURE.—PERCENTAGES OF ITEMS, 1925-26.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
	%	%	%	%	%	%	%
Public debt (interest, sinking fund, etc.)	21.09	27.26	28.34	36.62	37.10	41.23	27.21
Railways and tramways (working expenses)	41.14	a38.96	b39.98	b29.67	31.03	b18.99	37.82
Justice	1.47	1.06	1.24	0.71	0.92	1.02	1.20
Police	2.94	3.15	3.43	2.39	2.35	3.12	2.97
Penal establishments	0.41	0.46	0.25	0.44	0.26	0.35	0.38
Education	9.96	9.27	9.23	7.93	7.02	11.01	9.25
Medical and charitable	5.21	4.74	5.39	4.41	4.65	6.62	5.03
All other expenditure	17.78	15.10	12.14	17.83	16.67	17.66	16.14
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00

(a) Including 7.59 miles of electric tramways operated by the Victorian Railways. (b) Railways only.

The interest and sinking fund on the public debt, together with the working expenses of the railways and tramways, represented for the year 1925-26 about 65 per cent. of the aggregate State expenditure, a proportion which has been maintained with great regularity for many years past.

Division III.—Balances.

1. Position on 30th June, 1926.—On various occasions in each of the States the revenue collected for a financial year has failed to provide the funds requisite for defraying the expenditure incurred during that year, the consequent deficit being usually liquidated either by cash obtained from trust funds, or by the issue of Treasury bills. During the period of financial stress resultant upon the crisis of 1893 and the drought conditions of succeeding years, the accumulated overdrafts of several of the States grew very rapidly, and the position now is that no State, except South Australia, has a credit balance. The situation on 30th June, 1926, was as follows :—

STATE CONSOLIDATED REVENUE FUND BALANCES, 30th JUNE, 1926.

State.	Debit Balance.		Net Debit Balance.
	Cash Overdraft.	Overdraft liquidated by Treasury Bills.	
	£	£	£
New South Wales	4,705,119	..	4,705,119
Victoria	289,827	687,678	977,505
Queensland	985,021	..	985,021
South Australia	Cr. 13,151	..	Cr. 13,151
Western Australia	173,433	6,124,195	6,297,628
Tasmania	394,552	349,401	743,953
Total	6,534,801	7,161,274	13,696,075

§ 3. State Trust Funds.

1. Nature.—In addition to the moneys received as revenue and paid to the credit of their respective Consolidated Revenue Funds, considerable sums are held by the State Governments in trust for various purposes. In most of the States also, sinking funds for the redemption of public debt are provided, and the moneys accruing thereto are paid to the credit of the appropriate trust funds. A similar course is followed in the case of municipal sinking funds placed in the hands of the Governments. In all the States except New South Wales, life assurance companies operating are required to deposit a substantial sum in cash or approved securities with the Government, and these deposits help to swell the trust funds. Various other deposit accounts, superannuation funds, suspense accounts, etc., also find a place. The trust funds have at various times enabled the several State Treasurers to tide over awkward financial positions, but the propriety of allowing deficits to be liquidated in this manner is open to question.

2. Extent.—The amount of trust funds held on the 30th June, 1926, was as follows :—

STATE TRUST FUNDS, 30th JUNE, 1926.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
	£	£	£	£	£	£	£
Amount of trust funds	25,069,338	10,117,452	Dr. 1,768,574	1,068,239	20,854,306	2,050,928	57,391,689

§ 4. State Loan Funds.

Division I.—Loan Expenditure.

1. **General.**—So far back as the year 1842, revenue collections were supplemented with borrowed moneys, the earliest loan being by New South Wales for the purpose of assisting immigration, at rates of interest varying from 2½d. to 5½d. per £100 per diem, or approximately from 4½ per cent. to 8 per cent. per annum. Australian public borrowing, however, is mainly due to the fact that the State Governments, in addition to ordinary administrative duties, undertake functions which in other countries are usually entrusted to local authorities or left to private enterprise. Foremost amongst these are the construction and control of the railway systems, but loan moneys have largely been used for improvements to harbours and rivers, and the construction of water supply and sewerage works. The State loan expenditure and public debt thus differ very materially from those of most European countries, and from those of the Commonwealth, where such expenditure was very largely incurred for purposes of defence, or in the prosecution of war. As shown above, the State debts consist chiefly of moneys raised and expended with the object of assisting the development of the resources of the country, and are, to a very large extent, represented by tangible assets.

2. **Loan Expenditure, 1925-26.**—For the year ended 30th June, 1926, State expenditure from loan funds was £34,303,077, New South Wales with a total of £11,180,482 being the principal contributor to this amount. Expenditure on railways and tramways is a very heavy item, but in recent years the settlement of returned soldiers upon the land has absorbed large sums. Details for the year for each State are given in the following table :—

STATE LOAN EXPENDITURE, 1925-26.

Heads of Expenditure.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
	£	£	£	£	£	£	£
Railways and tramways	6,335,943	1,489,285	2,754,551	2,764,511	659,234	17,255	14,020,779
Water supply, sewerage and water conservation ..	1,959,255	1,587,477	135,945	731,876	678,461	..	5,093,014
Harbours, rivers, etc. ..	1,548,360	1,145,666	385,344	686,087	316,138	207,699	4,289,294
Roads and bridges ..	713,337	394,655	218,180	214,066	77,795	44,056	1,662,089
Public buildings ..	..	..	..	..	..	..	..
Development of mines, etc. ..	..	..	61,897	..	84,079	..	145,976
Advances to settlers ..	1,162,444	..	..	964,611	..	34,237	..
Land purchases for settlement ..	850,000	1,307,819	306,184	31,390	1,901,551	47,214	5,123,354
Loans to local bodies ..	25,528	..	611,263	..	..	72,923	678,658
Rabbit-proof fences ..	33,474	42,628	24,539	8,629	..	..	109,290
Other Public works and purposes ..	291,915	2,033,845	452,925	213,144	361,428	211,196	3,180,623
Total ..	11,180,482	8,001,375	4,950,848	5,551,534	4,078,686	540,152	34,303,077

(a) Repayment.

(b) Including £1,822,378 for Electricity supply.

3. **Loan Expenditure, 1921-22 to 1925-26.**—The following table gives the loan expenditure during each of the years 1921-22 to 1925-26 :—

STATE LOAN EXPENDITURE, 1921-22 TO 1925-26.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
TOTAL.							
	£	£	£	£	£	£	£
1921-22	10,442,732	11,804,991	2,599,573	2,689,422	2,454,924	2,097,364	32,089,006
1922-23	9,794,019	8,764,306	3,701,750	3,480,281	3,389,299	1,153,645	30,283,300
1923-24	7,735,480	8,407,526	4,650,199	3,971,938	3,936,833	712,214	29,414,190
1924-25	9,175,686	8,799,531	4,081,741	3,520,305	4,099,021	242,485	29,918,769
1925-26	11,180,482	8,001,375	4,950,848	5,551,534	4,078,686	540,152	34,303,077

PER HEAD OF POPULATION.

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1921-22	4 18 2	7 12 3	3 7 8	5 7 1	7 6 3	9 12 2	5 16 6
1922-23	4 10 2	5 10 3	4 13 11	6 15 8	9 17 4	5 5 5	5 7 6
1923-24	3 9 11	5 3 6	5 14 8	7 11 5	11 2 6	3 5 0	5 2 4
1924-25	4 1 5	5 6 2	4 17 9	6 10 9	11 5 2	1 2 3	5 1 10
1925-26	4 17 3	4 15 0	5 15 0	10 1 3	10 19 2	2 9 9	5 14 6

The loan expenditure per head of population varies in the different States and in different years, reaching its highest point for the five years under review in Western Australia in 1924-25 with £11 5s. 2d. per head, and its lowest in Tasmania in 1924-25 with £1 2s. 3d. per head.

4. Total Loan Expenditure to 30th June, 1926.—(i) *General.* The total loan expenditure of the States from the initiation of borrowing to the 30th June, 1926, amounted to £624,419,184. The purposes for which this sum was expended are shown in the following table :—

TOTAL STATE LOAN EXPENDITURE TO 30th JUNE, 1926.

Heads of Expenditure.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
	£	£	£	£	£	£	£
Railways and tramways	121,182,518	67,634,835	54,875,095	26,267,702	21,108,678	6,892,582	297,961,410
Telegraphs and telephones	1,761,845	..	996,587	991,772	..	142,410	3,892,614
Water supply, sewerage and water conservation	43,744,770	20,653,134	1,819,785	17,405,970	7,375,409	..	90,999,068
Harbours, rivers, etc.	24,319,774	8,861,269	3,949,576	8,934,347	5,409,616	5,904,160	57,378,742
Roads and bridges	..	..	..	..	..	..	..
Defence	1,457,536	149,323	363,085	291,615	..	128,224	2,389,783
Public buildings	8,451,346	4,365,491	3,206,132	2,081,161	1,174,849	1,551,005	20,829,984
Immigration	738,092	20,000	2,763,071	..	455,405	235,000	4,211,568
Development of mines, etc.	..	520,421	..	..	2,183,402	..	2,703,823
Land purchases for settlement	6,897,000	30,963,625	2,714,345	1,772,272	16,413,467	2,964,021	77,815,049
Advances to settlers	670,633	..	..	15,080,070	..	339,616	17,038,321
Loans to local bodies	78,568	1,827,064	8,777,780	..	..	1,604,293	12,287,705
Rabbit-proof fences	317,534	475,487	373,752	208,120	328,703	..	1,703,596
Other public works and purposes	9,985,756	15,247,768	12,420,565	3,359,406	6,524,189	4,708,158	52,245,842
Total	219,605,372	150,718,417	92,259,773	76,392,435	60,973,718	24,469,469	624,419,184

The figures in the table show the amounts actually spent, and differ from those given later in the statements relating to the public debt, which represent the amount of loans still unpaid. The statement above includes all expenditure, whether the loans have been repaid or are still in existence. In the public debt statement, however, loans repaid are not included, and in the case of loans still outstanding, each is shown according to the amount repayable at maturity, and not according to the amount originally available for expenditure.

(ii) *Relative Importance of Items.* The relative importance of the various items of loan expenditure is indicated in the following table, which gives the percentage of each loan on the total loan expenditure in each State and for the States as a whole to 30th June, 1926 :—

TOTAL STATE LOAN EXPENDITURE TO 30th JUNE, 1926.—PERCENTAGES OF ITEMS.

Heads of Expenditure.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
	%	%	%	%	%	%	%
Railways and tramways	55.18	44.87	59.48	34.39	34.02	28.17	47.72
Telegraphs and telephones	0.80	..	1.08	1.30	..	0.58	0.62
Water supply, sewerage and water conservation	19.92	13.70	1.97	22.78	12.10	..	14.57
Harbours, rivers, etc.	11.07	5.88	4.28	11.70	8.87	24.13	9.19
Roads and bridges	..	..	..	..	..	..	..
Defence ..	0.66	0.10	0.39	0.38	..	0.52	0.38
Public buildings ..	3.85	2.90	3.48	2.72	1.93	6.34	3.34
Immigration ..	0.34	0.01	2.99	..	0.74	0.96	0.68
Development of mines, etc. ..	..	0.35	..	..	3.58	..	0.43
Land purchases for settlement ..	3.14	20.54	2.94	2.32	26.92	12.11	12.46
Advances to settlers ..	0.31	..	..	19.74	..	1.39	..
Loans to local bodies ..	0.04	1.21	9.52	..	..	6.56	1.97
Rabbit-proof fences ..	0.14	0.32	0.41	0.27	0.54	..	0.27
Other public works and purposes ..	4.55	10.12	13.46	4.40	10.70	19.24	8.37
Total ..	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Division II.—State Public Debts.

1. **General.**—The first government loan raised in Australia was obtained by New South Wales in 1842. This and nine other loans prior to 1855 were all procured locally. In the last-mentioned year, Australia approached the London market, the occasion being the placing of the first instalment of the New South Wales 5 per cent. loan for £683,300. Victoria first appeared as a borrower in 1854, and made its first appearance on the London market in 1859. In the other States the first public loans were raised in the following years:—Queensland 1861, South Australia 1856, Western Australia 1845, and Tasmania 1867.

2. **State Debts, 1922 to 1926.**—The table hereunder shows the State public debts and the amounts owing per head of population at the 30th June in each year from 1922 to 1926 inclusive. The totals include sums advanced by the Commonwealth to the States for settling returned soldiers on the land, and for this reason they differ in some cases from those given in previous issues. On the transfer of the Queensland State Savings Bank business to the Commonwealth Bank in 1920, Queensland Government securities were handed to the latter for the Savings Bank current account credit balance and for amounts owing on account of Advances to Settlers and Workers' Dwellings. This transaction added a total of £5,936,916 to the Public Debt without involving any additional borrowing. Repayments reduced this amount at 30th June, 1926, to £4,339,868.

STATE PUBLIC DEBTS, 30th JUNE, 1922 TO 1926.

Date.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
TOTAL.							
	£	£	£	£	£	£	£
30th June, 1922..	190,857,535	109,099,199	85,691,228	60,936,238	54,959,778	21,945,411	523,489,389
" 1923..	197,936,092	118,562,029	88,005,001	65,451,873	58,485,555	22,438,091	550,878,641
" 1924..	224,179,515	124,108,326	90,561,350	70,016,829	62,765,782	23,732,685	595,364,487
" 1925..	215,331,110	131,169,565	96,389,067	74,780,835	64,493,261	23,894,416	606,058,254
" 1926..	223,504,771	140,264,989	102,316,866	81,473,624	70,806,921	24,477,590	642,844,761

PER HEAD OF POPULATION.

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
30th June, 1922..	88 17 1	69 9 6	109 7 2	120 14 0	161 12 4	102 17 8	94 0 4
" 1923..	90 5 6	73 15 0	109 4 9	125 15 9	168 0 1	104 19 2	96 18 11
" 1924..	100 10 3	75 13 9	109 8 9	132 7 10	174 3 7	111 6 4	102 11 9
" 1925..	94 15 7	78 10 1	112 14 2	137 13 9	175 4 10	112 15 2	102 4 3
" 1926..	96 8 8	82 15 6	116 7 0	145 17 9	188 14 9	116 18 2	106 7 3

The greatest increase in indebtedness was experienced in New South Wales, which added £32,647,236 during the period under review. The public debt of the whole of the States increased during the same period by £119,355,372, or at the rate of nearly £30,000,000 per annum.

3. **Place of Flotation of Loans.**—(i) *For each State.* As pointed out previously, the yearly loans, usually for comparatively small amounts, were raised locally, but, with the increasing demand for loan funds and the more favourable terms offering in the London market, the practice of raising loans in London came into vogue, and for many years local flotations, except for short terms or small amounts, were comparatively infrequent. In more recent years, however, the accumulating stocks of money in Australia seeking investment have led to the placing of various redemption and other loans locally, with very satisfactory results. Moreover, certain loans have been placed in New York on account of all States except New South Wales. The following table gives particulars of loans outstanding on the 30th June, 1926, which had been floated abroad and in Australia respectively :—

STATE PUBLIC DEBTS.—PLACE OF FLOTATION OF LOANS, 30th JUNE, 1926.

State.	Floated Abroad.		Floated in Australia.		Total Public Debt.
	Amount.	Percentage on Total Debt.	Amount.	Percentage on Total Debt.	
	£	%	£	%	£
New South Wales ..	140,338,679	62.79	83,166,092	37.21	223,504,771
Victoria ..	(a) 54,603,506	38.93	85,661,483	61.07	140,264,989
Queensland ..	(b) 66,148,134	64.65	36,168,732	35.35	102,316,866
South Australia ..	(c) 35,756,239	43.89	45,717,385	56.11	81,473,624
Western Australia ..	(d) 50,527,029	71.36	20,279,892	28.64	70,806,921
Tasmania ..	13,361,147	54.59	11,116,443	45.41	24,477,590
Total ..	360,734,734	56.12	282,110,027	43.88	642,844,761

(a) Including £1,926,436, floated in New York.

(b) Including £4,520,703, floated in New York.

(c) Including £770,574, floated in New York.

(d) Including £1,541,149, floated in New York.

(ii) *Total, All States.* The next table showing similar particulars of aggregate State indebtedness at the end of the years 1921-22 to 1925-26, indicates the rapidity with which the local holdings have increased.

STATE PUBLIC DEBTS.—PLACE OF FLOTATION OF LOANS, 30th JUNE, 1922 TO 1926.

Year.	Floated Abroad.		Floated in Australia.		Total Public Debt.
	Amount.	Percentage on Total Debt.	Amount.	Percentage on Total Debt.	
	£	%	£	%	£
30th June, 1922 ..	300,274,441	57.36	223,214,948	42.64	523,489,389
„ 1923 ..	309,216,201	56.13	241,662,440	43.87	550,878,641
„ 1924 ..	342,660,422	57.55	252,704,065	42.45	595,364,487
„ 1925 ..	339,590,567	56.03	266,467,687	43.97	606,058,254
„ 1926 ..	360,734,734	56.12	282,110,027	43.88	642,844,761

In the course of four years the oversea indebtedness of the States has increased by £60,460,293, while the local indebtedness has increased by £58,895,079. In other words, the Australian proportion had on 30th June, 1926, grown to more than three-sevenths.

The total indebtedness of the States increased during the year 1925-26 by £36,786,507, and is accounted for chiefly by the loans from the Commonwealth Government, which has either advanced money to the States, or acted as agent in obtaining loans from London and New York. The sums raised have been largely spent in settling returned soldiers on the land, in constructing silos for wheat storage, and in providing employment through the medium of local bodies.

4. Rates of Interest.—(i) *At 30th June, 1926.* As mentioned previously, the highest rate of interest paid for the earliest State loans was fivepence farthing per £100 per diem, or, approximately, 8 per cent. per annum. At present the rates vary from $7\frac{1}{4}$ per cent. to 1 per cent., no fewer than twenty-eight separate rates being involved. It is probable however, that the debt at the higher rates will largely increase in the future, since conversion can scarcely be effected at present at a lower rate of interest than 5 per cent. The average rate payable on the aggregate indebtedness is more than $4\frac{7}{8}$ per cent. For the separate States the average varies considerably, being lowest in the case of Western Australia and highest in that of South Australia, the difference between these two average rates being more than $\frac{1}{2}$ per cent. The table hereunder gives particulars of the rates of interest payable at the 30th June, 1926 :—

STATE PUBLIC DEBTS.—RATES OF INTEREST PAYABLE, 30th JUNE, 1926.

Rate of Interest.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
0%	£	£	£	£	£	£	£
$7\frac{1}{4}$	2,311,068	565,814	769,222	513,564	1,380,000	268,649	5,808,317
$7\frac{1}{2}$	..	..	2,465,838	..	..	..	2,465,838
$\frac{15}{2}$	1,250,000	613,248	10,742	..	477,802	..	2,351,792
$\frac{14}{-}$	..	..	74,699	..	500,000	19,280	593,979
$\frac{13}{2}$	6,500,000	..	3,100,690	3,000,000	250,000	3,434,165	16,284,855
$\frac{12}{-}$	4,535,099	5,480,743	1,580,780	1,730,158	1,939,883	900,000	16,166,663
$\frac{11}{2}$	..	..	..	..	..	116,804	116,804
$\frac{10}{-}$	..	..	502,000	..	..	..	502,000
$\frac{9}{2}$	..	..	362,000	..	..	..	362,000
$\frac{8}{-}$	..	..	386,000	..	..	..	386,000
$\frac{7}{2}$	19,173,016	5,903,997	6,530,265	16,756,837	6,782,023	1,776,576	56,922,714
$\frac{6}{-}$	25,914,452	10,000	..	..	1,500,000	..	27,424,452
$\frac{5}{2}$	..	..	..	28,796	..	..	28,796
$\frac{4}{-}$	38,448,461	27,321,419	19,734,344	15,715,598	7,932,234	3,661,993	112,814,049
$\frac{3}{2}$	..	200,000	..	..	..	..	200,000
$\frac{2}{-}$	2,124,411	3,553,124	501,241	522,283	1,045,559	600,000	8,346,618
$\frac{1}{2}$	85,405	1,581,146	309,730	67,000	87,958	341,635	2,472,874
$\frac{1}{-}$	6,152,367	12,797,592	3,787,442	6,513,241	793,305	421,375	30,465,322
$\frac{1}{2}$	44,426,110	44,684,700	21,005,084	13,926,316	10,459,596	2,649,102	137,150,908
$\frac{1}{4}$	..	200,000	..	..	..	..	200,000
$\frac{1}{8}$	..	6,335,980	..	500,000	..	..	6,835,980
$\frac{1}{16}$	19,265,134	954,598	5,369,518	50,934	6,453,558	365,444	32,459,186
$\frac{1}{32}$	..	37,400	..	..	..	140,750	178,150
$\frac{1}{64}$	20,762,390	5,561,724	12,790,762	7,452,857	9,559,818	4,432,144	60,559,695
$\frac{1}{128}$	1,911,650	220,000	2,025,300	3,896,580	1,000,000	..	9,053,530
$\frac{1}{256}$	14,018,456	12,865,771	15,521,826	5,676,090	11,045,185	4,899,673	64,027,001
$\frac{1}{512}$	16,626,752	9,637,560	5,489,383	5,123,370	7,350,000	450,000	44,677,065
$\frac{1}{1024}$	..	230,173	..	..	2,250,000	..	2,480,173
Not fixed	..	41,510,000	..	..	..	..	1,510,000
Total	223,504,771	140,264,989	102,316,866	81,473,624	70,806,921	24,477,590	642,844,761
Average rate	£4/19/8	£4/18/1	£4/16/2	£5/0/9	£4/10/5	£4/18/6	£4/17/10

(a) Taken as 5 per cent.

(ii) *All States, 1922 to 1926.* The rapid increase recently in the amounts bearing interest at the higher rates is exhibited in the table hereunder, which shows the aggregate amount of indebtedness at the several rates of interest at the 30th June in each of the years 1922 to 1926 :—

STATE PUBLIC DEBTS.—RATES OF INTEREST PAYABLE, 30th JUNE, 1922 TO 1926.

Rate of Interest.	30th June, 1922.	30th June, 1923.	30th June, 1924.	30th June, 1925.	30th June, 1926.
%	£	£	£	£	£
7½	122,123	144,015	144,015	.. .. .	.. .. .
7¼	4,499,529	5,790,670	5,890,671	5,828,917	5,808,317
7	2,466,091	2,466,091	2,466,091	2,466,091	2,465,838
£6/15/2	2,369,792	2,369,792	2,369,792	2,369,792	2,351,792
£6/14/- .. .. .	.. .. .	.. .. .	519,280	610,925	593,979
6½	16,149,635	16,806,663	16,317,190	16,287,355	16,284,855
£6/7/-	16,209,463	16,209,463	16,209,463	16,209,463	16,166,663
6¼	8,651,849	5,696,341	266,430	164,644	116,804
£6/3/6 .. .. .	.. .. .	.. .. .	.. .. .	502,000	502,000
£6/2/2 .. .. .	.. .. .	.. .. .	.. .. .	362,000	362,000
£6/1/3 .. .. .	.. .. .	.. .. .	.. .. .	386,000	386,000
6	30,630,929	29,807,617	33,475,342	54,977,437	56,922,714
5½	31,565,051	32,539,261	30,677,685	28,164,742	27,424,452
£5/13/2	28,796	28,796	28,796	28,796	28,796
5¼	58,264,168	66,573,879	80,310,921	92,708,890	112,814,049
£5/6/11	8,357,218	8,357,218	8,357,218	8,357,218	8,346,618
£5/5/3	3,012,870	2,980,759	2,472,947	2,472,874	2,472,874
5 .. .. .	.. .. .	.. .. .	.. .. .	.. .. .	200,000
5	24,111,789	24,082,463	16,230,527	15,967,072	30,465,322
5	18,657,115	38,526,496	94,794,861	111,693,813	137,150,908
4½	1,000,000	1,050,000	350,000	100,000	200,000
4¼	2,148,160	2,406,010	1,335,980	6,585,980	6,835,980
£4/14/5 .. .. .	.. .. .	18,000,000	18,106,000	18,237,931	.. .. .
£4/14/3	5,010	398	.. .. .	.. .. .	.. .. .
4½	29,966,961	38,823,200	44,921,339	31,458,870	32,459,186
4¼	837,010	874,410	874,410	778,150	178,150
4	18,000,000	.. .. .	.. .. .	.. .. .	.. .. .
4	84,773,988	77,444,696	69,732,087	60,868,665	60,559,695
3¾	12,213,148	11,583,660	10,027,900	9,786,705	9,053,530
3½	103,420,420	102,811,575	93,081,666	70,393,496	64,027,001
3	46,028,274	46,005,168	46,403,876	45,566,428	44,677,065
1 .. .. .	.. .. .	.. .. .	.. .. .	2,480,173	2,480,173
Not fixed .. .. .	.. .. .	.. .. .	.. .. .	2,724,000	1,510,000
Total	523,489,389	550,878,641	595,364,487	606,058,254	642,844,761
Average rate	£4/12/0	£4/13/0	£4/14/4	£4/16/11	£4/17/0

The increase in the average rate started in 1912, but was accelerated by the war, which has virtually made 5 per cent. the present minimum rate of interest for gilt-edged securities. The average rate is likely to rise for some time, since many of the securities falling due in the near future will have to be renewed at a higher rate of interest than they are at present bearing.

5. Interest per Head.—The relative burden of the State debts in respect of interest will be seen from the following table, which gives for the 30th June, 1926, the amount of interest payable on the public debt outstanding at that date, and the corresponding amount per head of population :—

STATE PUBLIC DEBTS.—INTEREST PAYABLE, 30th JUNE, 1926.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
	£	£	£	£	£	£	£
Total annual interest payable—							
Abroad	6,679,595	2,525,676	3,164,518	1,634,870	2,068,020	592,012	16,714,691
In Australia	4,458,470	4,355,216	1,754,574	2,419,045	1,131,733	613,764	14,732,802
Total	11,138,065	6,880,892	4,919,092	4,103,915	3,199,753	1,205,776	31,447,493
Annual interest payable per head	£4/16/1	£4/1/2	£5/11/10	£7/7/0	£8/10/7	£5/15/2	£5/4/1

6. Dates of Maturity.—Securities like the British Consols are interminable, but Australian debts have in most cases a fixed date for repayment, there being a few exceptions which are included in the following table under the headings "interminable," "interminable at Government option," and "not yet fixed." Those "interminable at

Government option" include amounts which are payable by the respective Governments after giving a specified notice, and those "not yet fixed" consist of certain amounts owing to the Commonwealth Government. In most cases at date of maturity renewal is effected in respect of the greater portion of the loan, as provision for redemption has been made in exceptional cases only. In order to avoid application to the market at an unfavourable time, several States have adopted the practice of specifying a period prior to the date of maturity within which the Government, on giving twelve, or in some cases six months' notice, has the option of redeeming the loan. The Government can, therefore, take advantage of opportunities that may offer during the period for favourable renewals. Particulars concerning the due dates of the State loans outstanding on the 30th June, 1926, are given in the following table.

Those loans in the case of which the Government has the option of redemption during a specified period have been in each instance classified according to the latest date of maturity.

While the latest dates of maturity of the various loans extend over the period 1926 to 1975, the average for the States as a whole is slightly more than 15 years.

**STATE PUBLIC DEBTS.—DUE DATE OF AMOUNT OUTSTANDING
ON 30th JUNE, 1926.**

Year of Maturity.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
	£	£	£	£	£	£	£
Overdue	11,300			36,475			47,775
1926	6,972,941	2,504,207	380,600	565,185	433,420	350,859	11,207,212
1927	18,386,676	5,213,600	4,824,150	6,924,910	6,434,719	1,940,961	43,725,016
1928	1,165,611	12,847,162	846,800	2,348,159	665,819	1,506,707	19,380,258
1929	1,306,990	17,977,676	12,862,434	6,304,434	714,959	1,620,361	40,786,854
1930	15,452,469	12,694,956	5,649,510	6,979,654	1,114,942	2,082,643	43,974,174
1931	3,803,256	3,607,057	473,220	1,998,622	3,768,759	277,916	13,928,830
1932	14,214,200	2,037,366		1,626,071	1,183,654	37,007	19,098,298
1933	17,838,922	344,960		2,354,818	965,879	358,750	21,863,329
1934	14,347,823	8,092,675	3,347,800	4,266,187	2,012,247	1,750	32,068,482
1935	23,444,726	1,235,900	397,270	6,667,321	8,830,485	272,210	40,847,912
1936	538,251	1,466,189	3,151,880	5,669,533	1,276,920	54,030	12,156,803
1937	98,700	40,000		1,169,083		4,934	1,312,717
1938	84,456		2,357,177	101,440	1,667,250		4,210,317
1939	2,900	312		2,734,050	106,603		2,843,865
1940	16,506,000	4,248,900	2,000,000	6,014,861	4,500,000	7,810,022	41,079,783
1941	5,100	1,910,557	3,820,330	2,162,329	215,050	90,287	8,203,653
1942	4,008,100	14,485,100	15,000	7,055,268	61,697	1,176,784	26,801,949
1943	765,700	3,600		1,037,925	756,100		2,563,325
1944	252,900	400					253,300
1945	11,006,000	1,856,943	7,631,253	798,812	5,906,027	200,000	27,399,040
1946		217,400				250,000	467,400
1947	3,200		6,553,558		2,250,000		8,806,758
1948	6,500						6,500
1949	2,900	11,699,371				42,000	11,744,271
1950	22,061,783	11,881,950	10,047,183	2,861,801	5,431,202	4,929,564	57,213,483
1951			999,600				999,600
1952	3,100		125,400				128,500
1953	6,500		2,147,809				2,154,309
1954	2,900	123,874					126,774
1955	22,001,500	1,926,436	770,574	770,574	5,978,149		31,447,233
1960		8,979,700	20,228,800	2,989,616	1,000,000		33,198,116
1962	10,500,000				6,000,000		16,500,000
1964					1,566,000		1,566,000
1965	10,500,000				3,000,000		13,500,000
1970			2,000,000				2,000,000
1975	275,275	6,859,721	353,141	2,814,744	3,000,000	599,897	13,902,778
Interminable	532,890		1,385,000	98,382			2,016,272
Interminable at Government option	7,395,208	6,086,858		5,123,370			18,605,436
Annual Drawings			71,132		18,500		89,632
Half-yearly			9,877,240			774,548	10,651,788
Date not fixed		1,922,119			1,948,540	96,360	3,967,019
Total	223,504,771	140,264,989	102,316,866	31,473,624	70,806,921	24,477,590	642,844,761
Average date of maturity	14.57 years	14.17 years	18.37 years	11.65 years	18.79 years	13.23 years	15.11 year

7. **Sinking Funds.**—The practice of providing sinking funds has been consistently adopted in the case of Western Australia only. This State has established, in connexion with each of its loans, sinking funds varying from 1 per cent. to 3 per cent. per annum of the nominal amount of the loan. The funds are placed with trustees in London, by whom they are invested in securities, and applied from time to time to the redemption of loans falling due. In the other States the sinking fund provision made is varied, consisting in certain instances of the revenues from specified sources, in others of the Consolidated Revenue Fund surplus, and in others again of fixed annual amounts. The following table gives the sinking funds and net indebtedness of each State at the 30th June, 1926:—

STATE SINKING FUNDS AND NET INDEBTEDNESS, 30th JUNE, 1926.

State.	Gross Indebtedness.	Sinking Fund.	Net Indebtedness.	Net Indebtedness per Head.
	£	£	£	£ s. d.
New South Wales ..	223,504,771	718,381	222,786,390	96 2 5
Victoria ..	140,264,989	4,897,751	135,367,238	79 17 9
Queensland..	102,316,866	1,407,790	100,909,076	114 14 11
South Australia ..	81,473,624	1,467,530	80,006,094	143 5 2
Western Australia ..	70,806,921	10,654,493	60,152,428	160 6 9
Tasmania ..	24,477,590	1,585,574	22,892,016	109 6 8
Total ..	642,844,761	20,731,519	622,113,242	102 18 8

C. COMMONWEALTH AND STATE PUBLIC DEBTS.

The table hereunder, showing the public debts of the Commonwealth and the States, contains a column headed "deduction for debts counted twice." For each year this includes certain advances made by the Commonwealth to the States.

COMMONWEALTH AND STATE PUBLIC DEBTS, 1921-22 TO 1925-26.

Year ended 30th June.	Public Debt of Commonwealth.	Public Debt of States.	Aggregate.	Deduction for Debts Counted Twice.	Balance, i.e., Public Debt of Australia.	Public Debt per Capita.
	£	£	£	£	£	£ s. d.
1922..	416,070,509	523,489,389	939,559,898	55,182,665	884,377,233	158 16 8
1923..	410,996,316	550,878,641	961,874,957	56,390,011	905,484,946	159 3 9
1924..	415,600,099	595,364,487	1,010,964,586	55,953,000	955,011,586	164 11 1
1925..	430,948,062	606,058,254	1,037,006,316	71,135,472	965,870,844	162 17 11
1926..	458,443,351	642,844,761	1,101,288,112	87,531,051	1,013,757,061	167 14 8

D. THE AUSTRALIAN LOAN COUNCIL.

The Australian Loan Council, consisting of the Treasurers of the Commonwealth and of the States, was created as the result of representations made by the Commonwealth Government, and has for its object the prevention of undue competition and clashing in the raising of loans.

At its first meeting, held on 1st February, 1924, the Loan Council recognized the necessity for co-operation in the raising of loans. The terms to be offered by the several governments for loans in Australia up to 30th June, 1924, were agreed to, and arrangements were made to prevent unnecessary clashing during the period required by the Commonwealth for the flotation of its War Gratuity Redemption and Conversion Loan.

The loan operations of the Commonwealth and States in 1924-25 were conducted in accordance with the plans adopted by the Council. The Council, acting as a central borrowing authority, issued two loans in Australia on behalf of the States—one for £10,300,000 of new money for State Public Works, and one for the conversion or redemption of £4,909,850 of maturing State securities.

The chief problem confronting the Council in 1925-26 was the conversion of £67,000,000 of Commonwealth War Loan maturing on 15th December, 1925. It was agreed that no other borrowing should be undertaken in Australia during the period required for this conversion. This transaction was successfully carried out at a rate of $5\frac{1}{2}$ per cent. Subsequent loans have been raised in Australia at $5\frac{1}{4}$ per cent., which rate seems well established.

Up to June, 1925, the Commonwealth and States issued their own loans in London and elsewhere outside Australia, but the amounts were limited to sums agreed upon at the Loan Council by the several Treasurers. About the middle of 1925, however, the Loan Council decided that there should be no competition for loans in the American market, and that borrowing in America, and borrowing simultaneously in America and London, on behalf of the Commonwealth and the States, should be conducted solely by the Commonwealth. The successful flotation in July, 1925, of a loan of £20,000,000 in London and New York was regarded as proof of the soundness of the Council's new policy.

Late in year 1925-26 the Commonwealth raised a loan in London of £6,000,000 at 5 per cent., the price of issue being £99 10s.

Until July, 1925, the Council consisted of the Treasurers of the Commonwealth and of each of the States, but in August of that year the Treasurer of New South Wales withdrew from the Council.

E. PRIVATE FINANCE.

§ 1. Coinage.

1. *Australian Mints.*—(i) *General.* Soon after the discovery of gold in Australia steps were taken for the establishment of a branch of the Royal Mint in Sydney. The formal opening took place on the 14th May, 1855. The Melbourne branch was opened on the 12th June, 1872, and the Perth branch on the 20th June, 1899. The States of New South Wales, Victoria, and Western Australia provide an annual endowment in return for which the mint receipts are paid into the respective State Treasuries, and it might be said until recently that, apart from expenditure on buildings, new machinery, etc., the accounts paid into the Treasuries fairly balanced the mint subsidies. Early in 1923, however, it was announced that owing to losses incurred in the operations of recent years, the New South Wales Government had decided to close the Sydney branch at the end of 1923. This decision was, however, not carried out at that time, but the mint was closed at the end of 1926.

(ii) *Gold Receipts and Issues in 1926.* (a) *Assay of Deposits Received.* The deposits received during 1926 at the Sydney Mint reached a gross weight of 130,902 ozs.; at the Melbourne Mint, a gross weight of 170,980 ozs.; and at the Perth Mint, a gross weight of 547,293 ozs. The average composition of these deposits in Sydney was, gold 961.3, silver 21.0, base 17.7, in every 1,000 parts; Melbourne, gold 876.1, silver 64.3, base 59.6, in every 1,000 parts; and Perth, gold 803.1, silver 127.8, base 69.1, in every 1,000 parts.

(b) *Issues.* The Australian mints, besides issuing gold coin in the shape of sovereigns and half-sovereigns, also issue gold bullion, partly for the use of local manufacturers (jewellers and dentists), and partly for export, India taking a considerable quantity of gold cast into 10-oz. bars. During recent years the export was subject to regulation by the Commonwealth Government, but the embargo was lifted in 1925. The issues during 1926 are shown in the table below:—

AUSTRALIAN MINTS.—ISSUES OF GOLD, 1926.

Mint.	Coin.			Bullion.	Total.
	Sovereigns.	Half-sovereigns.	Total.		
	£	£	£	£	£
Sydney ..	1,031,050	..	1,031,050	358,237	1,389,287
Melbourne ..	211,107	..	211,107	149,100	360,207
Perth ..	1,313,578	..	1,313,578	551,644	1,865,222
Total ..	2,555,735	..	2,555,735	1,058,981	3,614,716

(c) *Withdrawals of Worn Coin.* The mints receive light and worn coin for recoinage. The total withdrawals of worn gold coin were as follows:—Sydney, £1,110,867; Melbourne, £865,582 (since and including 1890); Perth, £1,401.

(iii) *Total Gold Receipts and Issues.* (a) *Receipts.* The total quantities of gold received at the three mints since their establishment are stated in the gross as follows:—Sydney, 42,082,927.85 ozs.; Melbourne, 40,787,947.44 ozs.; and Perth, 31,268,696 ozs. As the mints pay for standard gold (22 carats) at the rate of £3 17s. 10½d. per oz., which corresponds to a value of £4 4s. 11½d. per oz. fine (24 carats), it is possible to arrive at an estimate of the number of fine ounces from the amounts paid for the gold received. These amounts were:—Sydney, £156,771,141; Melbourne, £159,884,196; Perth, £108,737,408; corresponding to—Sydney, 36,907,045 ozs. fine; Melbourne, 37,639,940 ozs. fine; and Perth, 25,598,961 ozs. fine. In the case of deposits containing over a certain minimum of silver, the excess is paid for at the rate fixed from time to time by the Deputy-Master of the branch mint concerned.

(b) *Issues.* The total values of gold coin and bullion issued by the three mints are shown in the table hereunder. It may be said that about four-sevenths of the total gold production of Australasia has passed through the three Australian mints, the production of Australia to the end of 1926 being valued at £624,000,000, and that of New Zealand at approximately £92,000,000, or a total of about £716,000,000.

AUSTRALIAN MINTS.—TOTAL ISSUES OF GOLD TO END OF 1926.

Mint.	Coin.			Bullion.	Total.
	Sovereigns.	Half-sovereigns.	Total.		
	£	£	£	£	£
Sydney ..	144,435,550	4,781,000	149,216,550	7,574,408	156,790,958
Melbourne ..	145,987,722	946,780	146,934,502	12,672,607	159,607,109
Perth ..	98,971,691	367,338	99,339,029	9,373,085	108,712,114
Total ..	389,394,963	6,095,118	395,490,081	29,620,100	425,110,181

(iv) *Silver and Bronze Coinage.* (a) *Prices of Silver.* The value of silver has greatly decreased since its demonetization and restricted coinage in almost the whole of Europe. A noticeable increase, however, took place for some years after 1915, the price of silver following the general trend of world prices. Its average price in the London market in recent years is shown in the table in Chapter XXI. Mineral Industry.

(b) *Profits on Coinage of Silver.* As sixty-six shillings are coined out of one pound troy of standard silver, the silver required to produce £3 6s. of coin cost on the average about £1 11s. 11d. during 1925-26; the difference represents, therefore, the gross profit or seigniorage made on the coinage of every £3 6s. Negotiations for the coinage of silver and bronze coin in Australia took place for a number of years between the Imperial authorities and the Governments of New South Wales and Victoria, but no decision was arrived at. As section 51 of the Commonwealth Constitution makes legislation concerning "currency, coinage, and legal tender" a Federal matter, the question remained in abeyance until 1907, when the matter was discussed at the Colonial Conference, London, with the result that in the latter part of 1908 the Commonwealth Treasurer announced his intention of initiating the coinage. Since 1916 silver and bronze coins have been minted in Australia on behalf of the Commonwealth Treasury.

(c) *Silver and Bronze Issues.* The total issues of silver and bronze coinage on account of the Commonwealth since 1910 as obtained from returns furnished by the Treasury, are set out in the following table:—

AUSTRALIAN MINTS.—SILVER AND BRONZE ISSUES, 1910 TO 1926.

Year.	Silver.					Bronze.		
	2/-.	1/-.	6d.	3d.	Total.	1d.	½d.	Total.
	£	£	£	£	£	£	£	£
1910-18 ..	1,730,950	1,138,600	303,700	295,100	3,468,350	92,220	42,950	135,170
1919 ..	98,600	48,900	28,500	37,725	213,725	29,204	9,930	39,134
1920 ..	94,800	93,000	54,800	53,775	296,375	33,320	8,555	41,875
1921 ..	118,300	58,400	72,500	82,900	332,100	30,779	10,525	41,304
1922 ..	129,100	37,400	40,400	40,650	247,550	31,770	4,400	36,170
1923 (30th June)	50,850	35,900	13,100	7,000	106,850	9,650	370	10,020
1923-24 ..	146,200	58,800	25,400	29,250	259,650	30,650	4,560	35,210
1924-25 ..	150,000	16,800	25,900	34,150	226,850	20,000	420	20,420
1925-26 ..	409,000	121,700	108,200	77,850	716,750	1,710	6,175	7,885
Total ..	2,927,800	1,609,500	672,500	658,400	5,868,200	273,303	87,885	367,188

(d) *Withdrawals of Worn Silver Coin.* The value of worn silver coins received during 1926 was as follows:—Sydney, £12,500; Melbourne, £211,324; Perth, £18,931. The total withdrawals of worn silver coin were:—Sydney, £1,248,672; Melbourne, £1,301,835; Perth, £104,538.

(v) *Standard Weight and Fineness of Coinage.* The coinage of Australia, so far as the coins minted are concerned, is the same as that of the United Kingdom, and the same provisions as to legal tender apply, viz., gold coins are legal tender to any amount, silver for an amount not exceeding forty shillings, and bronze up to one shilling. As will be seen from the table below, the standard weights of the sovereign and half-sovereign are respectively 123.27447 grains and 61.63723 grains, but these coins will pass current if they do not fall below 122.5 grains and 61.125 grains respectively.

AUSTRALIAN COINAGE—STANDARD WEIGHT AND FINENESS.

Denomination.	Standard Weights.	Standard Fineness.
	Grains.	
GOLD—		
Sovereign ..	123.27447	} Eleven-twelfths fine gold, viz.— Gold .. 0.91667 } 1.00000 Alloy .. 0.08333
Half-sovereign ..	61.63723	
SILVER—		
Florin ..	174.54545	} Thirty-seven-fortieths fine silver, viz. :— Silver .. 0.925 } 1.000(a) Alloy .. 0.075
Shilling ..	87.27272	
Sixpence ..	43.63636	
Threepence ..	21.81818	
BRONZE—		
Penny ..	145.83333	} Mixed metal, viz. :— Copper .. 0.95 } 1.00 Tin .. 0.04 Zinc .. 0.01
Halfpenny ..	87.50000	

(a) The fineness of Australian silver coins is still 925, but since December, 1920, the fineness of British silver coins has been reduced to 500.

§ 2. Cheque-Paying Banks.

1. *Banking Legislation.*—(i) *Commonwealth Legislation.* Under Section 51 of the Commonwealth Constitution Act the Commonwealth Parliament has power to legislate with respect to "Banking, other than State banking, also State banking extending beyond the limits of the State concerned, the incorporation of banks, and the issue of paper money." Legislation under this authority comprises the following Acts: No. 27 of 1909, dealing with Bills of Exchange, Cheques, and Promissory Notes; No. 11 of 1910, dealing with Australian Notes; and No. 14 of 1910, a Bank Notes Tax Act. The Notes Act and the Bank Notes Tax Act were supplemented in the following year by the passing of No. 18

of 1911, "An Act to provide for a Commonwealth Bank," which passed both Houses and was assented to on 22nd December, 1911. Some account of the foundation of the Bank appeared in No. 6 to No. 10 issues of the Official Year Book.

As the initial expenses of the bank were heavy, the early operations resulted in a small loss, but with the increasing prosperity of the institution the early deficit was gradually reduced, until on 30th June, 1915, it was entirely extinguished. The following table shows the aggregate net profits from the initiation of the bank to the end of each of the last five financial years:—

COMMONWEALTH BANK.—AGGREGATE PROFITS, 1922 TO 1926.

Date.	Aggregate Net Profit to Date.		
	General Bank.	Savings Bank.	Total.
	£	£	£
30th June, 1922	3,577,317	424,342	4,001,659
„ 1923	3,869,219	534,768	4,403,987
„ 1924	3,964,620	690,053	4,654,673
„ 1925	4,098,392	890,838	4,989,230
„ 1926	4,309,787	1,140,740	5,450,527

In accordance with the provisions of section 30 of the Bank Act and section 9 (2) of the National Debt Sinking Fund Act, half of the net profits of the Bank have been placed to the credit of the Bank's Reserve Fund and half to the credit of the National Debt Sinking Fund. Up to 30th June, 1926, the latter fund has benefited to the extent of £418,326.

The Commonwealth Bank Act, 1924 was assented to on 20th August, 1924, and was brought into operation on 10th October, 1924. This Act was passed to broaden the scope of the Commonwealth Bank and to enable it to perform the functions for which it had been established. Five main amendments to the Bank Act 1911-20 are included, in accordance with which the following changes have been made:—(1.) A Board of Directors has been appointed to control not only the general business, but also that of the note issue. The Board consists of the Governor of the Bank, the Secretary to the Treasury, and six others who are or have been actively engaged in agriculture, commerce, finance or industry. In addition to the above Board there is a Board of Advice in London. (2.) The bank has been strengthened by the capitalization of £4,000,000 of the accumulated profits, and the Treasurer is authorized to raise by loans sums aggregating £6,000,000 and to lend the proceeds to the Commonwealth Bank as additional capital. The Ministry does not propose to interfere with the authority already included in the Commonwealth Bank Act to issue debentures up to £10,000,000. (3.) The Board is to fix and publish its discount rate. (4.) The associated banks settle their exchanges through the Commonwealth Bank. (5.) The associated banks supply to the Treasurer each quarter a statement of average weekly liabilities and assets in accordance with the schedule prescribed.

Since the 1st July, 1927, the Bank has published a weekly Statement of the accounts of the note issue and general banking departments of the Bank.

(ii) *State Legislation.* The Acts under which the various banks are incorporated differ somewhat. While most of the older banks were incorporated by special Act or Charter, e.g., the Bank of New South Wales, by Act of Council 1817; the Bank of Australasia, by Royal Charter; the Bank of Adelaide, by Act of the South Australian Parliament; and the Bank of New Zealand, by Act of the General Assembly of New Zealand, the newer banks are generally registered under a "Companies Act," or some equivalent Act. This is also the case with those banks which, after the crisis of 1893, were reconstructed.

(iii) *Australian Note Issue.* In December, 1920, the Australian Note Issue was handed over to the control of the Commonwealth Bank, the notes, however, still remaining Treasury Notes. The Note Issue Department of the Bank is administered by the above-mentioned Board of Directors. The notes in circulation on 28th June, 1926, amounted to £53,890,226, of which approximately 56 per cent. was held by the Banks and 44 per cent. by the public. Against this there was a reserve of gold coin amounting

to £28,182,387, or 52 per cent., and other assets including investments of £28,049,199. The investments are set out in detail as follows :—

**AUSTRALIAN NOTES ACCOUNT.—PARTICULARS OF INVESTMENTS AS AT
30th JUNE, 1926.**

Investment.	Amount.	Rate of Interest.	Date of Maturity.	Annual Amount of Interest.
	£	%		£
Commonwealth Government Securities	1,505,750	6	31/5/27	90,345
	63,640	5½	15/12/41	3,500
	1,000,000	5½	15/12/41	52,500
	244,140	5	15/7/35	12,207
	3,014,716	3½	1/4/62 to 1/4/72	105,515
New South Wales Securities	5,400,000	5½	31/12/30	297,000
Victorian Securities	49,000	5½	1/7/26	2,695
	2,400,000	5½	1/2/29	132,000
Queensland Securities	583,000	5½	1/4/34	30,608
	1,490,000	5½	1/4/34	78,225
South Australian Securities	1,600,000	5½	1/4/29	88,000
	326,000	5½	1/4/34	17,115
Western Australian Securities	590,000	5½	1/1/31	32,450
	2,100,000	5½	1/4/31	115,500
	335,000	5½	1/4/34	17,587
Tasmanian Securities	50,000	5½	1/10/30	2,750
	500,000	5½	31/12/30	27,500
	402,000	5	1932	20,100
United Kingdom Securities	247,449	£4/5/8	9/9/26	10,598
	247,420	£4/5/8	9/10/26	10,597
Total	(a) 22,148,115			1,146,792

(a) Exclusive of other assets amounting to £3,699,724.

2. **Banks in Operation.**—The twenty-one banks trading in Australia at the 30th June, 1926, are arranged in the table hereafter according to the situation of their head offices. Where reference to the banks is made by name they will be dealt with in the order thus given, with the exception of the Commonwealth Bank, which is placed first :—

CHEQUE-PAYING BANKS AT 30th JUNE, 1926.

Bank.	Head Office.
Commonwealth Bank of Australia	Sydney
Joint Stock Banks—	
Bank of Australasia	London
Union Bank of Australia Limited	"
English, Scottish, and Australian Bank Limited	"
Bank of New South Wales	Sydney
Commercial Banking Company of Sydney Limited	"
Australian Bank of Commerce Limited	"
Primary Producers' Bank of Australia Limited	"
National Bank of Australasia Limited	Melbourne
Commercial Bank of Australia Limited	"
Bank of Victoria Limited	"
Royal Bank of Australia Limited	"
Ballarat Banking Company Limited	Ballarat
Queensland National Bank Limited	Brisbane
Federal Deposit Bank Limited	"
Queensland Deposit Bank Limited	"
Bank of Adelaide	Adelaide
Western Australian Bank	Perth
Bank of New Zealand	Wellington
Comptoir National d'Escompte de Paris	Paris
Yokohama Specie Bank Limited	Yokohama

Amalgamations, which have been such a feature in British banking of late years, have also been effected in Australia, the number of competitive joint-stock banks being thereby reduced considerably. During the calendar years 1917 and 1918 the following

were recorded:—(a) the Royal Bank of Queensland Limited with Bank of North Queensland Limited; (b) City Bank of Sydney with Australian Bank of Commerce Limited; (c) National Bank of Tasmania Limited with Commercial Bank of Australia Limited; and (d) National Bank of Australasia Limited with Colonial Bank of Australasia Limited. A further amalgamation took place in August, 1920, viz., the London Bank of Australia Ltd. and the English, Scottish and Australian Bank Ltd., and these banks absorbed the Commercial Bank of Tasmania in May, 1921. The National Bank of Australasia also absorbed the Bank of Queensland. Since 30th June, 1926, further amalgamations have been recorded, viz., the Bank of Victoria Ltd., with the Commercial Banking Company of Sydney Ltd.; the Western Australian Bank with the Bank of New South Wales, and the Royal Bank of Australia Ltd. with the English, Scottish, and Australian Bank Ltd.

3. **Capital Resources.**—The paid-up capital of the cheque-paying banks, together with their reserve funds, the rate per cent., and the amount of their last dividends, are shown in the table hereunder. The information relates to the balance-sheet last preceding the 30th June, 1926. In regard to the reserve funds it must be noted that in the case of some of the banks these are invested in Government securities, while in other cases they are used in the ordinary business of the banks, and in a few instances they are partly invested and partly used in business:—

CHEQUE-PAYING BANKS.—CAPITAL RESOURCES, 30th JUNE, 1926.

Bank.	Paid-up Capital.	Rate per cent. per annum of last Dividend and Bonus.	Amount of last Half-yearly Dividend and Bonus.	Amount of Reserved Profits.
	£	%	£	£
Commonwealth Bank of Australia ..	4,000,000	..	..	822,313
Joint Stock Banks—				
Bank of Australasia	4,000,000	10 and Bonus 3	260,000	3,892,886
Union Bank of Australia Ltd. ..	3,500,000	15	262,500	4,242,902
English, Scottish and Australian Bank Ltd. ..	2,250,000	12½	243,750 (b)	2,133,414
Bank of New South Wales	6,000,000	10	150,000 (a)	4,530,755
Commercial Banking Coy. of Sydney Ltd. ..	3,500,000	10	175,000	2,920,227
Australian Bank of Commerce Ltd. ..	1,840,000	8	73,600	794,559
Primary Producers' Bank of Australia Ltd. ..	386,830	..	..	7,691
National Bank of Australasia Ltd. ..	4,000,000	10	200,000	2,532,958
Commercial Bank of Australia Ltd. ..	3,065,722	4 Pref., 15 Ord.	98,013	833,036
Bank of Victoria Ltd.	1,478,010	10	73,900	856,755
Royal Bank of Australia Ltd.	750,000	10	37,500	678,036
Ballarat Banking Coy. Ltd.	127,500	8	5,100	69,821
Queensland National Bank Ltd. ..	1,500,000	10	37,447 (a)	725,950
Federal Deposit Bank Ltd.	172,245	12	7,862	51,732
Queensland Deposit Bank Ltd. ..	47,378	8	1,709	40,000
Bank of Adelaide	875,000	10	43,750	824,974
Western Australian Bank	700,000	17½	61,250	1,310,680
Total Australian Banks	38,192,685	..	1,731,381	27,268,689
Bank of New Zealand	6,154,989	13½ Ord., 10% "A" Pref., 11½ "B" Pref.	712,392 (b)	3,390,378
Comptoir National d'Escompte de Paris ..	10,000,000	12	1,200,000 (b)	3,276,653
Yokohama Specie Bank Ltd.	10,000,000	12	600,000	9,230,599
Grand Total	64,347,674	..	4,243,773	43,166,319

(a) Dividend for quarter.

(b) For twelve months.

4. **Liabilities and Assets.**—(i) *Liabilities, each State, Quarter ended 30th June, 1926.* Banks transacting business in any State are obliged, under the existing State laws, to furnish a quarterly statement of their assets and liabilities, which contains the averages of the weekly statements prepared by the bank for that purpose, and they have since the year 1908 furnished quarterly statements to the Commonwealth Statistician. As all other financial returns in this work generally refer to a period closing on the 30th June, the banking figures are given throughout for the June quarter of each year. The liabilities are those to the general public, and are exclusive of the banks' liabilities to their shareholders, which are shown in the preceding table. As the Commonwealth Bank

also engages in Savings Bank business, it has been deemed desirable to keep the figures for this bank separate from those of the Joint Stock banks. The figures set out in the tables which follow are, therefore, exclusive in every case of the Commonwealth Bank.

JOINT STOCK BANKS—LIABILITIES, JUNE QUARTER, 1926.

States and Territory.	Notes in Circulation not Bearing Interest.	Bills in Circulation not Bearing Interest.	Balances Due to Other Banks.	Deposits.			Total Liabilities.
				Not Bearing Interest.	Bearing Interest.	Total.	
	£	£	£	£	£	£	£
New South Wales	64,990	1,263,057	830,736	46,874,498	57,497,948	104,372,446	106,531,229
Victoria ..	86,601	482,843	1,316,330	33,618,224	56,449,495	90,067,719	91,953,493
Queensland ..	(a)	712,604	343,623	14,734,021	18,934,007	33,668,028	34,724,255
South Australia	22,346	143,651	712,430	8,348,074	13,014,922	21,362,996	22,241,423
Western Australia	25,285	145,870	195,845	5,281,276	4,283,946	9,565,222	9,932,222
Tasmania ..	2,329	44,044	135,070	2,468,416	3,072,249	5,540,665	5,722,108
Northern Territory	..	11	15,596	95,600	119,475	215,075	230,682
Total ..	201,551	2,792,080	3,549,630	111,420,109	153,372,042	264,792,151	271,335,412

(a) In Queensland, Treasury Notes were used instead of banknotes.

(ii) *Liabilities, all States, June Quarters, 1922 to 1926.* In the next table, which shows the average liabilities of the Joint Stock Banks for the quarters ended 30th June, 1922 to 1926, for Australia as a whole, the growth in liabilities is almost entirely due to an increase in the deposits bearing interest.

JOINT STOCK BANKS—LIABILITIES, JUNE QUARTER, 1922 TO 1926.

Year.	Notes in Circulation not Bearing Interest.	Bills in Circulation not Bearing Interest.	Balances Due to Other Banks.	Deposits.			Total Liabilities.
				Not Bearing Interest.	Bearing Interest.	Total.	
	£	£	£	£	£	£	£
1922 ..	209,894	2,132,280	4,273,238	104,582,491	117,776,754	222,359,245	228,974,657
1923 ..	207,228	2,279,149	3,724,411	108,937,936	131,903,047	240,840,983	247,051,771
1924 ..	204,830	2,439,835	4,037,173	106,378,836	133,273,020	239,651,856	246,333,744
1925 ..	202,875	2,584,705	3,239,759	105,562,243	142,023,225	250,585,468	256,612,807
1926 ..	201,551	2,792,080	3,549,630	111,420,109	153,372,042	264,792,151	271,335,412

(iii) *Assets, each State, Quarter ended 30th June, 1926.* The average assets of the banks are shown in the following table:—

JOINT STOCK BANKS.—ASSETS, JUNE QUARTER, 1926.

States and Territory.	Coined Gold and Silver and other Metals.	Gold and Silver in Bullion or Bars.	Government and Municipal Securities.	Landed and House Property.	Notes and Bills of other Banks.	Balances Due from other Banks.	Discounts, Over-drafts, and all other Assets.	Australian Notes and Cash with Commonwealth Bank.	Total Assets.
	£	£	£	£	£	£	£	£	£
N.S.W.	12,104,518	74,851	9,217,462	2,796,691	769,681	1,462,083	85,124,897	8,819,827	120,370,010
Victoria	8,462,690	48,124	6,427,484	1,729,417	863,375	912,479	67,568,544	6,833,737	92,845,850
Q'land.	1,898,517	1,653	1,216,843	967,363	365,102	685,727	28,272,761	2,596,840	36,004,806
S. Aust.	1,828,249	217	236,077	484,013	169,235	526,493	15,017,374	2,332,598	20,594,256
W. Aust.	1,517,857	158,186	134,605	381,251	131,917	257,205	12,712,905	1,467,717	16,761,043
Tasmania	571,532	99	..	172,771	21,908	35,796	4,546,061	581,936	5,930,103
Nor. Ter.	3,650	190	..	500	..	..	9,478	2,805	16,623
Total	26,387,013	283,320	17,232,471	6,532,006	2,321,218	3,879,783	213,252,020	22,635,460	292,523,291

(iv) *Assets, all States, June Quarters, 1922 to 1926.* The average assets of the banks for the June quarters of each of the years 1922 to 1926 are given below.

JOINT STOCK BANKS.—ASSETS, JUNE QUARTERS, 1922 TO 1926.

Year.	Coined Gold and Silver and Other Metals.	Gold and Silver in Bullion or Bars.	Landed and Other Property.	Notes and Bills of Other Banks.	Balances Due from Other Banks.	Discounts, Overdrafts, and all Other Assets.(a)	Australian Notes.	Total Assets.
	£	£	£	£	£	£	£	£
1922	19,010,983	541,200	5,292,681	1,762,379	3,114,741	183,331,660	25,584,150	238,637,794
1923	18,716,430	559,004	5,721,410	1,920,488	5,390,423	203,526,917	25,037,449	260,872,121
1924	19,473,457	570,859	6,057,635	2,037,235	4,901,198	209,981,484	22,644,850	265,996,718
1925	22,567,729	4,484,679	6,257,546	2,126,838	8,019,978	210,578,929	23,211,903b	273,147,652
1926	26,337,013	283,320	6,532,006	2,321,218	3,879,783	230,484,491	22,635,460b	292,523,291

(a) Including Government and Municipal securities.

(b) Including Cash with Commonwealth Bank.

5. Percentage of Coin, Bullion, and Australian Notes on Liabilities at Call.—

(i) *General.* Although it is not strictly correct to assume that the division of deposits into those bearing interest and not bearing interest would in every case coincide with a division into fixed deposits and current accounts, the division, in default of a better one, is adopted, and in the following table "liabilities at call" are therefore understood to include the note circulation of the banks and the deposits not bearing interest. Since 1912, however, the former item has steadily decreased, and is now almost negligible as compared with the latter.

JOINT STOCK BANKS.—PERCENTAGE ON LIABILITIES OF COIN, BULLION, AND AUSTRALIAN NOTES, 1922 TO 1926.

Year.	Liabilities at Call.			Coin, Bullion, and Australian Notes.	Percentage on Liabilities at Call.
	£			£	%
1922	104,792,385			45,136,333	43.07
1923	109,145,164			44,312,883	40.60
1924	106,583,666			42,989,166	40.33
1925	108,765,118			50,264,311	46.21
1926	111,621,660			49,305,793	44.17

The figures in the last column show that the banks generally consider it advisable to hold from 40 to 50 per cent. of the amount of liabilities at call in coin, bullion, and notes.

(ii) *Queensland Treasury Notes.* In Queensland, Treasury notes took the place of bank notes in 1893. These Treasury notes are disregarded in the quarterly statements of the banks; according to Treasury returns the amount outstanding on 30th June, 1926, was £22,641. Under the Australian Notes Act, previously referred to, the issue of notes by a State is now prohibited.

(iii) *Percentage in each State.* The proportion of coin, bullion, and Australian notes to liabilities at call varies considerably amongst the States, and sometimes in the same State from year to year. A table is appended showing the percentage for each State for the quarter ended 30th June in each of the years 1922 to 1926 :—

**JOINT STOCK BANKS.—PERCENTAGE ON LIABILITIES AT CALL OF COIN,
BULLION, AND AUSTRALIAN NOTES, 1922 TO 1926.**

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N. Ter.	All States.
	%	%	%	%	%	%	%	%
1922 ..	40.79	44.61	32.95	57.26	54.99	52.38	14.51	43.07
1923 ..	39.46	40.82	31.54	54.32	50.68	45.54	10.96	40.60
1924 ..	39.99	39.85	33.20	49.96	48.96	42.61	11.29	40.33
1925 ..	49.49	46.07	31.50	50.79	50.60	48.63	8.43	46.21
1926 ..	44.73	45.53	30.52	49.71	59.24	46.69	6.95	44.17

6. **Deposits and Advances.**—(i) *Deposits.* The amount and average per head of population of deposits held by the banks during each of the last five years are given hereunder.

JOINT STOCK BANKS.—DEPOSITS, 1922 TO 1926.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	N. Ter.	All States.
TOTAL.								
	£	£	£	£	£	£	£	£
1922	86,960,221	76,546,572	26,655,927	18,499,834	8,523,244	4,988,004	185,443	222,350,245
1923	94,079,939	85,135,739	28,442,137	18,486,483	9,185,087	5,333,688	177,910	240,840,983
1924	90,529,921	84,301,488	29,649,564	20,085,213	9,236,755	5,661,494	187,421	239,651,856
1925	98,812,293	85,674,995	31,204,955	20,217,717	9,164,244	5,249,078	202,186	250,585,468
1926	104,372,446	90,067,719	33,668,028	21,362,996	9,565,222	5,540,665	215,075	264,792,151

PER HEAD OF POPULATION.

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1922	40 10 7	48 17 1	34 4 9	36 13 10	25 2 10	23 5 8	50 7 0	40 1 0
1923	42 19 4	53 1 6	35 11 2	35 16 8	26 9 5	24 16 3	49 3 2	42 8 9
1924	40 13 4	51 9 0	36 1 7	38 1 3	25 15 5	26 8 6	52 1 6	41 0 7
1925	43 9 6	51 6 8	36 16 9	37 5 7	24 19 1	24 12 7	54 13 9	42 7 0
1926	45 0 3	53 4 2	38 10 10	38 6 11	22 17 7	26 5 9	57 11 1	43 18 2

(ii) *Advances.* In the quarterly statements furnished by the banks, the column headed "all other debts due to the banks" is made up of such miscellaneous items as bills discounted, promissory notes discounted, overdrafts on personal security, overdrafts secured by deposit of deeds or by mortgage, etc. The form prescribed for quarterly returns furnished to the Commonwealth Statistician in 1908 and 1909 provided for a division of the amounts under this heading into a number of sub-headings, but all the banks were not in a position to make the necessary division, and as it is impossible to separate these items the totals in the column must, therefore, be treated as advances. The following table shows the totals for each State during the years 1922 to 1926:—

JOINT STOCK BANKS.—ADVANCES, 1922 TO 1926.

Year	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	N. Ter.	All States.
	£	£	£	£	£	£	£	£
1922	67,724,902	53,151,759	21,173,091	12,246,764	9,571,052	4,226,561	12,742	168,106,871
1923	74,737,819	61,055,847	23,361,167	14,234,371	10,107,456	4,732,433	6,455	188,235,548
1924	78,861,693	63,914,412	26,076,079	14,310,376	10,748,734	4,831,856	7,625	198,750,775
1925	77,993,259	63,181,481	26,738,792	13,623,369	11,216,634	4,688,567	8,800	197,450,902
1926	85,124,897	67,568,544	28,272,761	15,017,374	12,712,905	4,546,061	9,478	213,252,020

(iii) *Proportion of Advances to Deposits.* The percentage of advances on total deposits shows to what extent the needs of one State are supplied by the resources of another State, and, where the percentage for Australia as a whole exceeds 100 (as it did

in the early years of the century), the banks must have supplied the deficiency from their own resources, or from deposits obtained outside Australia. The following figures show, however, that the banking business of Australia has been self-contained in every State, except Western Australia, during the period under review :—

**JOINT STOCK BANKS.—PERCENTAGE OF ADVANCES ON DEPOSITS,
1922 TO 1926.**

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N. Ter.	All States.
	%	%	%	%	%	%	%	%
1922 ..	77.88	69.44	79.43	66.20	112.29	84.73	6.87	75.60
1923 ..	79.44	71.72	82.14	77.00	110.04	88.73	3.63	78.16
1924 ..	87.11	75.82	87.95	71.25	116.37	85.35	4.07	82.93
1925 ..	78.93	73.75	85.51	67.38	122.39	89.32	4.35	78.79
1926 ..	81.56	75.02	83.98	70.30	132.91	82.05	4.41	80.54

7. *Commonwealth Bank of Australia.*—(i) *Liabilities, June Quarter, 1926.*—On account of the magnitude of the Savings Bank business of this bank, the figures have been separated from those of the Joint Stock banks, and are shown hereunder. The total deposits amounted to £73,522,065, of which Savings Bank deposits accounted for £43,068,182 or 59 per cent.

COMMONWEALTH BANK OF AUSTRALIA.—LIABILITIES, JUNE QUARTER, 1926.

States and Territory.	Bills in Circulation.	Balances Due to Other Banks.	Deposits.				Total Liabilities.
			Not Bearing Interest.	Bearing Interest.	Savings Bank Deposits.	Total Deposits.	
	£	£	£	£	£	£	£
New South Wales	91,459	2,743,901	10,755,888	1,584,918	8,928,872	21,269,678	24,105,038
Victoria ..	180,954	2,073,744	3,225,469	1,077,530	5,705,035	10,008,034	12,262,732
Queensland ..	56,297	629,974	5,954,816	2,731,487	21,959,562	30,645,865	31,332,136
South Australia	12,225	208,000	1,800,231	105,434	2,518,411	4,424,076	4,644,301
Western Australia	12,765	257,081	1,260,104	1,278,086	2,420,910	4,959,100	5,228,946
Tasmania ..	1,540	133,194	354,026	325,845	1,501,000	2,180,871	2,315,605
Northern Territory	..	..	..	49	34,392	34,441	34,441
Total ..	355,240	6,045,894	23,350,534	7,103,349	43,068,182	73,522,065	79,923,199

(ii) *Liabilities, all States, June Quarters, 1922 to 1926.*—The average liabilities in the years specified are given in the table below.

**COMMONWEALTH BANK OF AUSTRALIA.—LIABILITIES, JUNE QUARTERS,
1922 TO 1926.**

Quarter ended 30th June—	Bills in Circulation.	Balances Due to Other Banks.	Deposits.				Total Liabilities.
			Not Bearing Interest.	Bearing Interest.	Savings Bank Deposits.	Total Deposits.	
	£	£	£	£	£	£	£
1922 ..	167,590	104,466	19,236,693	10,812,159	36,137,065	66,185,917	66,457,973
1923 ..	204,576	29,849	17,718,999	14,658,671	38,102,850	70,480,520	70,714,945
1924 ..	212,362	29,061	23,004,674	6,899,902	38,273,478	68,178,054	68,419,477
1925 ..	265,936	3,940,022	23,381,481	7,828,650	39,708,481	71,008,612	75,214,579
1926 ..	355,240	6,045,894	23,350,534	7,103,349	43,068,182	73,522,065	79,923,199

(iii) *Assets, June Quarter, 1926.* The assets for the June Quarter, 1926, are as follows :—

COMMONWEALTH BANK OF AUSTRALIA.—ASSETS, JUNE QUARTER, 1926.

States and Territory.	Coin.	Bullion.	Government and Municipal Securities.	Landed and House Property.	Notes and Bills of Other Banks.	Balances Due from Other Banks.	Discounts, Overdrafts, and all other Assets (not including Contingent Assets).	Australian Notes.	Total Assets.
	£	£	£	£	£	£	£	£	£
N.S.W. ..	2,480,241	..	14,965,054	315,652	214,577	1,477,703	5,060,060	5,542,973	30,056,260
Victoria ..	1,743,577	..	3,663,876	341,000	161,061	577,063	2,068,885	2,727,848	11,283,310
Queensland ..	380,661	71	19,671,863	93,149	295,696	216,652	4,503,071	1,545,327	26,706,490
S. Australia ..	21,870	..	1,366,238	70,027	120,402	403,769	820,408	1,656,649	4,459,363
W. Australia ..	1,365,671	874	806,767	28,588	87,659	95,466	485,707	433,996	3,304,728
Tasmania ..	24,883	..	1,804,310	..	30,240	59,448	174,768	312,346	2,405,795
Nor. Ter. ..	..	..	..	..	45,000	59,617	152	..	104,769
Total ..	6,016,703	945	42,278,108	848,416	954,635	2,889,718	13,113,051	12,219,139	78,320,715

(iv) *Assets, all States, June Quarters, 1922 to 1926.*—The great increase in Australian Notes is due in part to the obligation imposed by the Commonwealth Bank Act, 1924, on the Joint Stock banks of settling their exchanges through the Commonwealth Bank.

COMMONWEALTH BANK OF AUSTRALIA.—ASSETS, JUNE QUARTERS, 1922 TO 1926.

Quarter ended 30th June—	Coin.	Bullion.	Government and Municipal Securities.	Landed and House Property.	Notes and Bills of Other Banks.	Balances Due from Other Banks.	Discounts, Overdrafts, and all other Assets (not including Contingent Assets).	Australian Notes.	Total Assets.
	£	£	£	£	£	£	£	£	£
1922 ..	2,339,719	10,151	34,760,870	599,960	3,487,074	3,488,840	14,130,747	4,730,493	63,547,854
1923 ..	2,637,450	9,397	37,479,846	762,730	5,138,747	2,772,000	14,035,767	3,750,438	66,586,375
1924 ..	2,100,874	6,683	39,537,851	917,413	966,787	4,872,321	11,999,432	9,084,343	69,485,704
1925 ..	4,675,665	2,251	38,811,260	943,624	980,030	3,330,693	11,950,338	14,000,587	74,694,448
1926 ..	6,016,703	945	42,278,108	848,416	954,635	2,889,718	13,113,051	12,219,139	78,320,715

8. Clearing Houses.—The Sydney Banks' Exchange Settlement, and the Melbourne Clearing House, at which settlements are effected daily between the banks doing business in New South Wales and Victoria respectively, publish figures of the weekly clearances effected. From these it appears that in 1926 the total clearances in Sydney amounted to £954,000,000, and in Melbourne to £790,000,000. Owing to the different distribution of the banking business in the two cities, the figures do not necessarily afford a fair comparison of the volume of banking business transacted in Sydney and Melbourne. With the exception of Melbourne, where a decline of nearly £13,000,000 was recorded, the clearing house returns for 1926 show an increase over those for 1925. The average weekly clearances for each month are published in the Quarterly Summary of Australian Statistics. Returns of all Australian Clearing Houses for the last five years are shown in the following table :—

CHEQUE-PAYING BANKS.—CLEARING HOUSE RETURNS, 1922 TO 1926.

Year.	Sydney.	Melbourne.	Brisbane.	Adelaide.	Perth.	Hobart.
	£	£	£	£	£	£
1922	726,583,000	623,789,000	172,836,000	147,374,000	75,279,000	..
1923	805,032,000	697,050,000	194,915,000	160,524,000	83,730,000	..
1924	845,855,000	734,080,000	212,220,000	179,335,000	97,920,000	..
1925	909,114,000	803,083,000	192,968,000	171,092,000	101,085,000	25,557,000
1926	954,253,000	790,111,000	195,710,000	178,898,000	103,525,000	25,691,000

§ 3. Savings Banks.

1. **General.**—In the following tables dealing with Savings Banks the figures for all the States except Tasmania refer to financial years ended 30th June. In the case of Tasmania, figures for the two trustee savings banks are made up to the last day of August. The figures in each State are inclusive of the Savings Bank Department of the Commonwealth Bank made up to the 30th June.

2. **Accounts Open.**—The number of accounts open, not of individual depositors, and the number per 1,000 of the population, at 30th June in each of the last five years are shown in the following table:—

SAVINGS BANKS.—ACCOUNTS OPEN, 1922 TO 1926.

30th June.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	N. Ter.	All States.
NUMBER.								
1922 ..	1,186,948	1,127,892	337,621	414,570	225,136	120,252	861	3,413,280
1923 ..	1,246,191	1,188,437	355,902	432,438	250,214	124,850	869	3,598,901
1924 ..	1,306,948	1,268,629	375,025	452,342	264,842	130,032	844	3,798,662
1925 ..	1,374,976	1,337,093	397,710	470,599	278,071	132,841	911	3,992,201
1926 ..	1,446,432	1,396,438	420,908	489,148	292,353	136,309	978	4,182,566
PER 1,000 OF POPULATION.								
1922 ..	552	718	431	821	662	564	235	613
1923 ..	568	739	442	836	719	583	238	633
1924 ..	586	774	453	855	735	610	233	655
1925 ..	604	800	465	866	756	627	242	673
1926 ..	624	824	479	876	779	651	259	692

In connexion with the number of accounts open per 1,000 of the population, it must be borne in mind that savings bank accounts are not restricted to adults, since many accounts are opened in the names of children. The proportion, notwithstanding, is a very large one, amounting in the case of Australia to two-thirds, and rising in Victoria to more than four-fifths and in South Australia to seven-eighths of the population. As it is possible in some States for the same person to have accounts in both Commonwealth and State Savings Banks, the figures given are somewhat in excess of the number of individual depositors. Allowance must also be made for the fact that the funds of various societies, small trust funds, etc., are sometimes deposited in Savings Banks.

3. **Deposits.**—The deposits in Australia reached in 1926 the large sum of £195,451,540, and would no doubt be even larger if the banks did not restrict interest-bearing deposits to certain limits. While not granting facilities to draw cheques, the Australian savings banks practically afford the small tradesman all the advantages of a current account, and in addition allow interest on the minimum monthly balance instead of charging a small fee for keeping the account, as is the practice of the ordinary banks. All the Savings Banks have a reciprocity arrangement, under which money deposited in one State may be drawn out in another State, even by telegraph.

The table below shows the amount at credit of depositors, the average per account open, and the average amount deposited per head of population at the end of each of the last five years:—

SAVINGS BANKS.—DEPOSITS, 1922 TO 1926.

30th June.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	N. Ter.	All States.
TOTAL.								
	£	£	£	£	£	£	£	£
1922	61,791,273	52,131,032	19,394,156	16,931,678	7,759,317	4,224,662	41,115	162,273,233
1923	64,324,670	56,101,260	20,483,581	18,249,540	8,033,419	4,414,653	36,689	171,643,812
1924	66,162,055	58,028,190	20,410,364	19,351,127	8,218,147	4,670,804	30,790	176,871,477
1925	69,149,433	59,551,895	21,339,901	20,152,175	8,303,933	4,505,476	32,961	183,035,774
1926	73,807,650	63,253,525	22,836,909	21,778,970	8,969,824	4,768,085	36,577	195,451,540

AVERAGE PER SAVINGS BANK ACCOUNT.

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1922	52 1 2	46 4 5	57 8 10	40 16 10	34 9 4	35 2 7	47 15 1	47 10 10
1923	51 12 4	47 4 1	57 11 1	42 4 0	32 2 1	35 7 2	42 4 5	47 13 10
1924	50 12 6	45 14 10	54 8 6	42 15 7	31 0 7	35 18 5	36 9 7	46 11 3
1925	50 5 10	44 10 9	53 13 2	42 16 5	29 17 3	33 18 4	36 3 8	45 16 11
1926	51 0 6	45 5 11	54 5 1	44 10 6	30 13 8	34 19 7	38 0 0	46 14 7

PER HEAD OF POPULATION.

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1922	28 15 5	33 3 10	24 13 10	33 10 6	22 17 1	19 15 11	11 4 6	29 2 10
1923	29 6 9	34 17 11	25 8 6	35 6 5	23 1 6	20 13 0	10 1 2	30 3 6
1924	29 13 4	35 7 9	24 13 3	36 11 10	22 16 1	21 18 2	8 9 10	30 9 6
1925	30 7 7	35 12 10	24 19 1	37 2 1	22 11 3	21 5 3	8 15 0	30 17 5
1926	31 16 10	37 6 7	25 19 5	38 19 11	23 18 2	22 15 6	9 13 10	32 6 9

A comparison of the number of accounts open and the amount of deposits shows that the average amounts to the credit of each account are considerably larger in some States than in others; in other words, in one State a comparatively larger proportion of the population makes use of the savings banks than in another, with the result that there is a smaller amount to the credit of the individual account. Within the same State there is a little variation in the figures from year to year, except that each State generally shows a steady advance.

The average amount deposited per head of population increased during the period by 11 per cent., the figures for Victoria and South Australia being particularly noticeable.

4. **Rates of Interest.**—The rates of interest allowed, and the limits of interest-bearing deposits, are as follows:—New South Wales, Government Savings Bank, 4 per cent. up to £500 and 3½ per cent. on the excess up to £1,000; Victoria, 4 per cent. on first £500 and then 3 per cent. for a further £500, also 4 per cent. on deposit stock up to £1,000. Commencing 1st July, 1927, however, the rate is 4 per cent. up to £1,000 and 4½ per cent. on deposit stock up to £1,000. South Australia 4 per cent. on accounts closed during the year, and 4½ per cent. up to £500 on accounts remaining open; Western Australia, 3½ per cent. on current accounts, and 4½ per cent. on deposits up to £1,000; Hobart Trustees' Savings Bank, 4½ per cent. up to £300; Launceston Trustees' Savings Bank, 4½ per cent. up to £150, and Commonwealth Savings Bank, 3½ per cent. on the first £1,000, and 3 per cent. upon another £300.

5. **Annual Business.**—The business transacted by the savings banks is very large when compared with the total amount of deposits. This is of course due to the fact that many accounts are used as convenient current accounts. Thus, during the last year of the period under review, the total amount deposited and withdrawn (exclusive of interest added) was almost double the total amount of deposits at the end of the previous

year, while the amount at credit of depositors (inclusive of interest added) increased 5 per cent. during the same year. The following table shows the business transacted during the year 1925-26 :—

SAVINGS BANKS.—TRANSACTIONS, 1925-26.

States and Territory.	Total Deposits at end of Year 1924-25.	Amounts Deposited during Year 1925-26.	Interest Added during Year 1925-26.	Total.	Amounts Withdrawn during Year 1925-26.	Total Deposits at end of Year 1925-26.
	£	£	£	£	£	£
New South Wales ..	69,149,433	72,395,851	2,543,533	144,088,817	70,281,167	73,807,650
Victoria ..	59,551,895	57,043,586	2,183,522	119,381,003	56,127,478	63,253,525
Queensland ..	21,339,001	24,423,729	714,445	46,478,075	23,641,166	22,836,909
South Australia ..	20,152,175	17,517,584	376,052	38,546,711	16,707,741	21,778,970
Western Australia ..	8,303,933	9,662,184	282,283	18,248,400	9,278,576	8,969,824
Tasmania ..	4,505,476	3,820,035	138,453	8,463,964	3,695,879	4,768,085
Northern Territory ..	32,961	35,230	1,107	69,348	32,771	36,577
Total ..	183,035,774	185,500,249	6,740,295	375,276,318	179,821,773	195,451,540

6. **Commonwealth Savings Bank.**—The figures in the preceding tables include those relating to the Savings Bank Department of the Commonwealth Bank, which commenced operations in Victoria on the 15th July, 1912, in Queensland on the 16th September, 1912, in the Northern Territory on the 21st October, 1912, and in the States of New South Wales, South Australia, and Western Australia on the 13th January, 1913. Extensive use is made of the country post-offices as local agencies.

The Commonwealth Bank absorbed the Tasmanian State Savings Bank in January, 1913, on terms set out in Official Year Book No. 6. The transfer of the Queensland Savings Bank was effected in 1920.

The following table gives the number of accounts, and the amount at credit on 30th June, 1926, at the various branches of the Commonwealth Savings Bank :—

COMMONWEALTH SAVINGS BANK, 30th JUNE, 1926.

Locality.	Number of Accounts.	Amount at Credit.
		£
New South Wales ..	302,891	9,436,386
Victoria ..	160,335	5,912,911
Queensland ..	420,908	22,836,910
South Australia ..	59,884	2,640,988
Western Australia ..	77,982	2,541,829
Tasmania ..	62,964	1,569,465
Northern Territory ..	978	36,577
Papua and New Guinea ..	1,951	78,677
London ..	7,269	483,862
Total ..	1,095,162	45,537,605

§ 4. Companies.

1. **General.**—Returns in regard to registered companies are defective, and, with few exceptions, are not available for Tasmania. They embrace (a) Returns relating to Trustees, Executors and Agency Companies; (b) Returns relating to Registered Building and Investment Societies; and (c) Returns relating to Registered Co-operative Societies.

2. **Trustees, Executors and Agency Companies.**—Returns are available for eight Victorian, two New South Wales, one Queensland, four South Australian, two Western Australian, and three Tasmanian companies. The paid-up capital of these twenty companies amounted to £1,124,470; reserve funds and undivided profits to £744,579; other liabilities, £299,259; total liabilities, £2,168,308. Among the assets are included—Deposits with Governments, £197,504; other investments in public securities, fixed deposits, etc., £580,686; loans on mortgage, £270,538; property owned, £729,439;

other assets, £390,141. Of the twenty companies, nine show the total amount of the estates, etc., under administration, the total for 1926 being over £86,000,000. Net profits for the year totalled £189,745, of which £126,778 was paid in dividends.

3. Registered Building and Investment Societies.—(i) *General*. Returns have been received relating to 86 societies, viz., 7 in New South Wales, 27 in Victoria, 10 in Queensland, 23 in South Australia, 15 in Western Australia, and 4 in Tasmania. The information is not exhaustive, as particulars regarding unimportant organizations are not included.

REGISTERED BUILDING AND INVESTMENT SOCIETIES.—SUMMARY, 1925-26.

Particulars.	N.S.W.	Victoria. (c)	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
Number of societies ..	7	27	10	23	15	4	86
Number of shareholders ..	2,375	10,050	5,621	16,242	10,280	2,433	47,001
Number of shares ..	27,774	(a)	1,203,704	61,372	30,060	31,195	61,354,105
Number of borrowers ..	4,586	10,618	3,205	2,782	1,860	1,398	24,449
Income for year from interest ..	£ 111,207	£ 311,069	£ 59,003	£ 31,548	(d)	£ 36,870	£ 549,697
Working expenses for year ..	£ 96,450	£ 137,054	£ 9,329	£ 15,007	£ 37,165	£ 5,338	£ 300,343
Amount of deposits during year ..	£ 299,892	£ 1,548,022	£ 136,904	£ 27,029	£ 184,299	£ 39,230	£ 2,235,376
Repayment of loans during year ..	£ 314,698	£ 879,332	£ 178,050	£ 123,569	£ 111,827	£ 89,268	£ 1,696,744
Loans granted during year ..	£ 277,244	£ 970,284	£ 216,969	£ 162,516	£ 155,785	£ 70,636	£ 1,853,434

(a) Not available. (b) Exclusive of Victoria. (c) For year 1925. (d) Included in repayment of Loans.

(ii) *Liabilities*. The balance-sheets cover various periods ended during the second half of 1925 and the first half of 1926, so that the returns may be assumed to correspond roughly to the financial year 1925-26.

REGISTERED BUILDING AND INVESTMENT SOCIETIES.—LIABILITIES, 1925-26.

State.	Paid-up Capital or Subscriptions.	Reserve Funds.	Deposits.	Bank Overdrafts and other Liabilities.	Total Liabilities.
	£	£	£	£	£
New South Wales ..	417,651	280,192	561,733	18,929	1,278,505
Victoria (a) ..	1,773,059	549,954	1,493,119	286,905	4,103,037
Queensland ..	814,443	31,232	9,410	68,308	923,393
South Australia ..	529,253	84,409	21,348	11,975	646,985
Western Australia ..	440,194	18,316	78,761	11,184	548,455
Tasmania ..	204,021	73,955	223,560	12,339	513,875
Total ..	4,178,621	1,038,058	2,387,931	409,640	8,014,250

(a) For year 1925.

(iii) *Assets*. The assets of the companies for the same period were as follows:—

REGISTERED BUILDING AND INVESTMENT SOCIETIES.—ASSETS, 1925-26.

State.	Advances on Mortgage.	Landed and House Pro- perty, Furni- ture, etc.	Cash in hand and on Deposit and other Assets.	Total Assets.
	£	£	£	£
New South Wales ..	1,114,144	88,333	76,028	1,278,505
Victoria (a) ..	3,882,236	101,372	119,429	4,103,037
Queensland ..	860,563	24,107	33,723	923,393
South Australia ..	590,301	20,471	36,213	646,985
Western Australia ..	516,693	9,786	21,976	548,455
Tasmania ..	446,918	10,390	56,567	513,875
Total ..	7,410,855	254,459	348,936	8,014,250

(a) For year 1925.

4. Co-operative Societies.—(i) *General.* The returns relating to Co-operative Societies have been divided into two classes—(i) those engaged in the manufacture and marketing of primary products and trade requirements, and (ii) those engaged in retailing general household requirements. The former may be described briefly as Producers' Co-operative and the latter as Consumers' Co-operative Societies. The following table shows the number of societies, the membership, and the financial result for the year 1925-6:—

CO-OPERATIVE SOCIETIES.—NUMBER, MEMBERSHIP AND TRADING RESULTS, 1925-26.

Heading.	N.S.W.	Vic.(a)	Qld.	S.A.(a)	W.A.	Tas.	All States.
Producers' Co-operative Societies—							
Number of societies ..	115	71	52	32	35	14	319
Membership ..	45,256	52,425	31,093	6,969	2,894	5,017	143,654
Gross turnover (Sales) £	9,975,068	12,375,858	5,719,789	401,076	445,174	201,519	29,118,484
Total working expenses £	610,561,830	2,044,814	1,603,334	152,442	62,614	233,235	14,658,269
Rebates and bonuses £	71,759	11,111	1,315	7,717	4,946	1,266	98,114
Dividends on share capital £	40,370	38,249	9,929	6,539	2,473	1,520	99,080
Rate per cent. ..	4.6	3.0	1.8	3.8	3.5	2.0	3.3
Consumers' Co-operative Societies—							
Number of societies ..	54	53	11	10	12	4	144
Membership ..	67,494	17,305	27,019	32,757	2,705	711	147,991
Gross turnover (Sales) £	4,742,219	1,365,594	220,253	1,365,459	170,697	107,630	7,971,852
Total working expenses £	64,467,877	222,128	157,357	243,625	79,635	103,421	5,274,043
Rebates and bonuses £	300,490	12,776	..	44,375	..	1,515	359,156
Dividends on share capital £	34,588	10,695	1,057	24,155	1,332	1,077	72,904
Rate per cent. ..	4.3	4.8	0.9	4.3	4.6	4.9	4.2

(a) For year 1925.

(b) Includes payments to suppliers.

(ii) *Liabilities and Assets.* The next table gives the liabilities and assets.

CO-OPERATIVE SOCIETIES.—LIABILITIES AND ASSETS, 1925-26.

Heading.	N.S.W.	Vic.(a)	Q'land.	S.A.(a)	W.A.	Tas.	All States.
Producers' Co-operative Societies—	£	£	£	£	£	£	£
Liabilities—							
Paid-up capital ..	879,085	1,254,521	561,031	170,102	70,621	75,539	3,010,899
Loan capital ..	61,590,988	290,147	213,556	197,005	9,828	10,120	3,414,803
Overdraft ..	..	734,030	221,320	71,678	36,281	33,843	..
Reserves and undivided profits ..	443,693	436,199	280,804	90,705	52,916	19,846	1,324,163
Other liabilities ..	49,521	946,037	391,718	148,147	74,202	131,567	1,741,192
Total liabilities ..	2,963,287	3,660,934	1,668,429	677,635	243,848	276,924	9,491,057
Assets—							
Land, building, and plant ..	1,314,810	1,409,862	1,024,621	336,514	54,653	94,806	4,235,266
Stocks ..	307,169	439,843	233,126	133,998	73,853	50,513	1,238,502
Other assets ..	1,341,308	1,811,229	410,682	207,123	115,342	131,605	4,017,289
Total assets ..	2,963,287	3,660,934	1,668,429	677,635	243,848	276,924	9,491,057
Consumers' Co-operative Societies—							
Liabilities—							
Paid-up capital ..	800,822	220,725	116,521	560,449	28,962	21,981	1,749,460
Loan capital ..	..	54,082	171	148,029	1,709	6,004	..
Overdraft ..	(b) 342,999	124,005	5,347	24,320	6,873	6,074	719,613
Reserves and undivided profits ..	391,287	152,370	229,626	134,708	7,990	11,143	927,124
Other liabilities ..	4,373	121,285	84,822	59,059	23,126	20,091	312,756
Total liabilities ..	1,539,481	672,467	436,487	926,565	68,660	65,293	3,708,953
Assets—							
Land, buildings, and plant ..	437,578	202,248	139,488	285,539	24,064	19,798	1,108,715
Stocks ..	466,180	223,961	15,315	340,150	17,304	21,426	1,084,336
Other assets ..	635,723	246,258	281,684	300,876	27,292	24,069	1,515,902
Total assets ..	1,539,481	672,467	436,487	926,565	68,660	65,293	3,708,953

(a) For year 1925.

(b) Includes sundry creditors.

§ 5. Life Assurance.

[NOTE.—A Conspectus of Australian Life Assurance Legislation was published in Official Year Book No. 18, 1925, in Chap. XXVII. "Miscellaneous."]

1. *General*.—Under section 51 of the Commonwealth Constitution Act, the Commonwealth Parliament is empowered to legislate in regard to "insurance, other than State insurance; also State insurance extending beyond the limits of the State concerned." With the exception of Act No. 12 of 1905, "An Act relating to assurance on the lives of children by life assurance companies or societies," no legislation relating to life assurance has been passed by the Commonwealth Parliament, and life assurance companies carry on their business under State laws where such laws are in existence, or otherwise under the provisions of various companies or special Acts.

Returns for the year 1925 have been collected from life assurance societies, with results which are in the main satisfactory. The figures below refer to Australian business only.

2. *Companies Transacting Business*.—(i) *General*. The number of companies transacting life assurance business in Australia during 1925 was 35, of which the full name and location of head office are set out in the table below.

LIFE ASSURANCE SOCIETIES OPERATING IN AUSTRALIA, 1925.

Full Name of Company or Society.	Head Office.	Business Transacted.
Australian Mutual Provident Society	Sydney	Ord. Ind.
Mutual Life and Citizens' Assurance Company Limited ..	"	"
City Mutual Life Assurance Society Limited	"	Ord.
Australian Provincial Assurance Association Limited ..	"	"
Producers' and Citizens' Co-operative Assurance Company of Australia Limited	"	Ord. Ind.
Commonwealth Life Assurance Society Limited	"	"
Australian Metropolitan Life Assurance Company Limited ..	"	"
Assurance and Thrift Association Limited	"	Ord.
Commonwealth General Assurance Corporation Limited ..	"	Ord. Ind.
Empire Life and General Assurance Company Limited ..	"	Ord.
Citizens' and Graziers' Life Assurance Company Limited ..	"	Ord. Ind.
Farmers' and General Assurance Corporation Limited ..	"	"
Australian Group and General Assurance Company Limited ..	"	"
Australian Federal Life and General Assurance Company Limited	"	Ord.
Great Pacific Life Assurance Association Limited	"	"
Australasian Catholic Assurance Company Limited	"	Ord. Ind.
Australian Benefit Life Assurance Society Limited	"	Ord.
Australian Natives' Association Limited	"	Ord. Ind.
Colonial Provident Life and General Assurance Company Limited	"	Ord.
People's Prudential Assurance Company Limited	"	Ord. Ind.
National Mutual Life Association of Australasia Limited ..	Melbourne	Ord.
Australasian Temperance and General Mutual Life Assurance Society Limited	"	Ord. Ind.
Colonial Mutual Life Assurance Society Limited	"	"
Southern Cross Assurance Company Limited	"	Ord.
Life Insurance Company	"	"
New Era Insurance Company of Australasia Limited	"	"
Victoria Life and General Insurance Company	"	"
Australian Alliance Assurance Company Limited	"	"
Queensland State Insurance Office.	Brisbane	"
Equitable Life Assurance Company of Queensland Limited ..	"	"
Queensland Probate Insurance Company Limited	"	"
Western Australian Insurance Company Limited	Perth	"
Provident Life Assurance Company	Dunedin	Ord. Ind.
Liverpool and London and Globe Insurance Company ..	Liverpool	Ord.
Mutual Life Insurance Society of New York	New York	"

Of the Australian companies seven are purely mutual, and twenty-four are proprietary companies with a paid-up capital aggregating £1,842,963, part of which is, however, used in fire, marine, and accident insurance business. One office is a State government institution. Three overseas companies transacted business in Australia in 1925, one being mutual and two proprietary companies.

(ii) *Ordinary and Industrial Business.* Of the societies enumerated in the preceding paragraph, fifteen transacted both ordinary and industrial business. Ordinary and industrial business have, where possible, been kept separate, while figures relating to companies whose head offices are in New Zealand or in Europe or America have been restricted to the Australian business.

3. **Australian Business, 1925.**—(i) *Ordinary.* The subjoined table shows the ordinary life business in force for each of the last five years. While the total sum assured has increased by almost 55 million pounds, the average per policy has increased from £248 to £283. The amount assured in 1925 represents an average of £39 per head of population.

ORDINARY LIFE ASSURANCE.—AUSTRALIAN BUSINESS, 1921 TO 1925.

Year.			Policies.	Amount.	Average per Policy.	Annual Premium Income.
			No.	£	£	£
1921	..	..	730,010	180,694,068	248	6,074,375
1922	..	..	769,893	196,844,810	256	6,526,907
1923	..	..	795,887	210,049,945	264	6,925,581
1924	..	..	820,138	224,129,981	273	7,388,353
1925	..	..	834,925	235,687,567	282	7,783,781

(ii) *Industrial.* Information in regard to the industrial business of the fifteen societies transacting it is given in the following table.

The amount assured has increased by nearly 65 per cent. in the period under review. The average amount per policy in 1925 was £39, comparing with an average of £31 in 1921.

INDUSTRIAL LIFE INSURANCE.—AUSTRALIAN BUSINESS, 1921 TO 1925.

Year.			Policies.	Amount.	Average per Policy.	Annual Premium Income.
			No.	£	£	£
1921	..	..	973,019	30,314,759	31	1,789,846
1922	..	..	1,061,569	35,303,233	33	2,087,148
1923	..	..	1,144,004	40,009,115	35	2,387,187
1924	..	..	1,233,925	45,256,580	37	2,681,774
1925	..	..	1,310,642	49,907,583	39	2,923,519

4. **Income and Outgo.**—(i) *Ordinary Business.* The following table shows the aggregate Australian income for 1922, 1923, 1924, and 1925 of all the societies doing business in Australia. In the latter year premiums—new and renewal—amounted to 58 per cent., and interest, dividends, and rent to nearly 36 per cent. of the Australian income.

ORDINARY LIFE ASSURANCE.—AUSTRALIAN INCOME, 1922 TO 1925.

Heading.	Amount.			
	1922.	1923.	1924.	1925.
	£	£	£	£
Premiums—New	925,146	976,682	991,367	1,049,159
Renewal	5,601,761	5,948,899	6,396,986	6,734,622
Consideration for annuities	76,993	48,191	78,434	57,378
Interest, dividends, and rents	3,762,410	4,078,407	4,488,989	4,809,117
Other receipts	152,247	218,961	208,350	875,609
Total income	10,518,557	11,271,140	12,164,126	13,525,885

In 1925 outgo amounted to £7,769,395, of which claims accounted for nearly 56 per cent., surrenders over 12 per cent., expenses of management 11 per cent., and commission 9 per cent.

ORDINARY LIFE ASSURANCE.—AUSTRALIAN OUTGO, 1922 TO 1925.

Heading.	Amount.			
	1922.	1923.	1924.	1925.
	£	£	£	£
Claims	3,796,599	3,926,371	4,079,237	4,379,233
Surrenders	689,869	838,066	819,874	920,675
Annuities	93,273	95,550	101,880	99,662
Commission	544,686	611,914	637,833	718,346
Expenses of management	788,391	817,508	817,119	838,455
Licence fees and taxes	101,310	113,302	128,922	131,861
Shareholders' dividends	49,279	58,037	83,515	68,480
Cash bonuses paid to shareholders	311,394	309,429	338,120	362,041
All other expenses	325,667	387,849	205,083	250,642
Total outgo	6,700,468	7,158,026	7,211,583	7,769,395

A summary for the last five years is given hereunder :—

ORDINARY LIFE ASSURANCE.—AUSTRALIAN INCOME AND OUTGO,
1921 TO 1925.

Year.	Income.	Outgo.	Excess Income.
	£	£	£
1921	9,599,866	5,813,414	3,786,452
1922	10,518,557	6,700,468	3,818,089
1923	11,271,140	7,158,026	4,113,114
1924	12,164,126	7,211,583	4,952,543
1925	13,525,885	7,769,395	5,756,490

(ii) *Industrial Business.* The aggregate Australian income for 1922, 1923, 1924, and 1925 of societies transacting industrial business was as follows :—

INDUSTRIAL LIFE ASSURANCE.—AUSTRALIAN INCOME, 1922 TO 1925.

Heading.	Amount.			
	1922.	1923.	1924.	1925.
	£	£	£	£
Premiums—New and renewal	2,087,148	2,387,187	2,681,774	2,923,519
Consideration for annuities	23	268	13	13
Interest, dividends, and rents	399,477	512,644	598,335	709,943
Other receipts	18,143	20,584	19,847	22,699
Total income	2,504,791	2,920,683	3,299,969	3,656,174

Outgo during 1925 totalled £2,078,527. Claims amounted to £731,480, or 35 per cent., commission 34 per cent., and expenses of management 18 per cent.

INDUSTRIAL LIFE ASSURANCE.—AUSTRALIAN OUTGO, 1922 TO 1925.

Heading.	Amount.			
	1922.	1923.	1924.	1925.
	£	£	£	£
Claims	425,359	514,156	601,908	731,480
Surrenders	34,103	50,846	71,627	95,658
Annuities	295	295	295	295
Commission	505,716	539,029	692,975	699,452
Expenses of management	240,867	321,692	355,350	379,905
Licence fees and taxes	15,693	17,297	20,777	23,619
Shareholders' dividends	57,421	56,809	54,766	60,742
Cash bonuses paid to shareholders .. .. .	..	13	26	..
All other expenses	76,358	87,509	66,829	87,346
Total outgo	1,355,812	1,637,646	1,864,553	2,078,527

The aggregate income and outgo for the last five years were as follows :—

INDUSTRIAL LIFE ASSURANCE.—AUSTRALIAN INCOME AND OUTGO, 1921 TO 1925.

Year.	Income.	Outgo.	Excess Income.
	£	£	£
1921	2,223,319	1,122,920	1,100,399
1922	2,504,791	1,355,812	1,148,979
1923	2,920,683	1,637,646	1,283,037
1924	3,299,969	1,864,553	1,435,416
1925	3,656,174	2,078,527	1,577,647

5. Liabilities and Assets, 1925.—(i) *General.* The liabilities of the Australian societies consist mainly of their assurance funds; as already mentioned, however, some of the societies are proprietary, and in these cases there is a further liability on account of the shareholders' capital. The assets consist chiefly of loans on mortgage and policies, Government, municipal, and similar securities, shares, freehold property, etc. As in some cases the Australian liabilities exceed the Australian assets, this table should be read in connexion with the table dealing with assets. Loans on personal security are granted by very few of the Australian societies.

(ii) *Ordinary and Industrial Business.* For various reasons several societies do not attempt the division of liabilities and assets between the industrial and ordinary branches, and a few societies cannot state the amount of liabilities in Australia. In the following table, therefore, the figures relate to both branches. Australian liabilities amounted in 1925 to £76,590,114, including assurance and annuity funds, £66,119,414, other funds, including those used in fire and marine business, £6,018,968, and paid-up capital, £1,842,963.

Australian assets aggregated £100,582,333, of which the following are the principal items :—Government and municipal securities, £55,512,895; mortgages, £22,521,893; loans on companies' policies, £9,812,751; and landed and house property, £3,605,283. Details regarding liabilities for the years 1922 to 1925 are given in the next table :—

ORDINARY AND INDUSTRIAL LIFE ASSURANCE.—AUSTRALIAN LIABILITIES, 1922 TO 1925.

Heading.	Amount.			
	1922.	1923.	1924.	1925.
	£	£	£	£
Shareholders' capital, paid up. . .	1,122,109	1,307,877	1,469,795	1,842,963
Assurance and annuity funds . . .	52,098,875	56,480,692	60,022,243	66,119,414
Other funds . . .	3,923,512	4,380,967	5,069,632	6,018,968
Claims admitted but not paid. . .	695,348	632,116	695,404	799,584
All other liabilities . . .	1,637,333	1,299,212	1,517,967	1,809,185
Total Australian liabilities (a) . .	59,477,177	64,100,864	68,775,041	76,590,114

(a) Excluding Mutual Life and Citizens, People's Prudential, National Mutual, Western Australian, London and Liverpool and Globe, and Mutual Life of United States.

Assets for the years specified are set out in detail in the table hereunder :—

ORDINARY AND INDUSTRIAL LIFE ASSURANCE.—AUSTRALIAN ASSETS, 1922 TO 1925.

Heading.	Amount.			
	1922.	1923.	1924.	1925.
	£	£	£	£
Government and municipal securities . .	46,488,751	49,261,981	52,967,836	55,512,895
Mortgages . . .	17,603,444	19,546,248	21,066,410	22,521,893
Loans on companies' policies . . .	7,492,847	8,138,547	9,156,489	9,812,751
Railway debentures and stock . . .	423,102	504,548	812,998	935,207
Landed and house property . . .	3,168,158	3,576,368	3,472,159	3,605,283
Life interests and reversions . . .	124,885	131,565	138,730	148,447
Other investments . . .	1,465,865	1,209,171	1,474,049	1,512,833
Outstanding premiums . . .	619,349	714,157	742,614	772,918
Outstanding interest, dividends, and rents	730,409	783,755	861,471	895,096
Cash . . .	1,223,727	1,256,994	2,357,630	2,138,263
Establishment and organization accounts	442,276	693,484	796,095	1,016,751
All other assets . . .	1,191,122	2,282,198	1,613,216	1,709,996
Total Australian assets	80,973,935	88,099,016	95,459,697	100,582,333

The next table gives the Australian liabilities and assets for the latest five years available :—

ORDINARY AND INDUSTRIAL LIFE ASSURANCE.—AUSTRALIAN LIABILITIES AND ASSETS, 1921 TO 1925.

Year.	Liabilities.(a)	Assets.
	£	£
1921 . . .	54,258,431	77,127,498
1922 . . .	59,477,177	80,973,935
1923 . . .	64,100,864	88,099,016
1924 . . .	68,775,041	95,459,697
1925 . . .	76,590,114	100,582,333

(a) Excluding Mutual Life and Citizens, People's Prudential, National Mutual, Western Australian, London and Liverpool and Globe, and Mutual Life of United States.

(iii) *Total Assets.* It has been thought advisable to restrict the figures relating to life assurance to business in Australia. Several of the companies whose head offices are in Australia transact, however, a large amount of business elsewhere, viz., in New

Zealand, in South Africa, and in the United Kingdom, while in the case of the foreign companies, the Australian business is insignificant compared with that done elsewhere. Particulars as to this foreign business of both Australian and foreign companies will be found in "Finance Bulletin No. 17" (published by this Bureau), and a short table only is inserted here, showing the total assets of the various companies. The decrease in the total assets in 1923 and 1925 is due to the purchase by Australian companies of the Australian business of the Equitable Life Assurance Society of United States and of the New York Life Insurance Company.

LIFE ASSURANCE COMPANIES.—TOTAL ASSETS, 1922 TO 1925.

Heading.	Amount.			
	1922.	1923.	1924.	1925.
	£	£	£	£
Government and municipal securities	176,458,610	144,837,468	142,684,880	106,982,929
Mortgages	122,341,469	101,969,269	114,888,595	58,813,526
Loans on companies' policies ..	84,250,676	65,091,066	66,748,612	34,013,687
Railway debentures and debenture stock	175,796,865	136,685,044	142,239,598	77,339,213
Landed and house property	12,349,551	10,190,544	9,812,306	8,461,054
Life interests and reversions	307,697	339,294	350,910	379,477
Other investments	7,149,051	2,057,446	7,299,239	3,854,031
Outstanding premiums	7,200,994	6,621,985	7,039,200	5,270,428
Outstanding interest, dividends, and rent	7,789,990	6,323,469	6,792,303	3,550,668
Cash	7,240,532	5,114,661	6,153,494	5,306,790
Establishment and organization accounts	452,626	703,834	796,095	1,016,751
All other assets	4,704,812	4,241,335	3,996,897	2,663,233
Total assets	606,042,873	484,175,415	508,802,129	307,656,787

6. New Policies issued in Australia, 1925.—(i) *Ordinary Business.* During 1925, 89,739 new policies were issued for £32,910,450. The average amount per policy was £367, which compares with an average of £282 per policy for all policies which were in existence in 1925.

(ii) *Industrial Business.* New policies to the number of 270,378 were issued during the year for a total of £13,223,016. The average per policy was £49, which is 25 per cent. more than the average for all industrial policies which were current in 1925.

7. Policies Discontinued in Australia, 1923, 1924 and 1925.—(i) *Ordinary Business.* The volume of business which from various causes becomes void in each year is always large. The number and amount of policies discontinued in 1923, 1924 and 1925, and the reasons for discontinuance are given in the following table :—

ORDINARY LIFE ASSURANCE.—POLICIES DISCONTINUED IN AUSTRALIA, 1923 TO 1925.

Mode.	1923.		1924.		1925.	
	No. of Policies.	Amount.	No. of Policies.	Amount.	No. of Policies.	Amount.
		£		£		£
Death or maturity	13,216	2,928,407	14,348	3,101,543	14,516	3,193,285
Surrender	18,612	3,720,874	15,697	3,430,204	17,346	3,623,783
Forfeiture	35,637	9,951,997	34,139	9,945,305	33,345	9,788,132
Total	67,465	16,601,278	64,184	16,477,052	65,207	16,610,200

(ii) *Industrial Business.* The number of policies discontinued in this branch each year is also very large. Of the total amount of discontinuance during 1925 only 9 per cent. was due to death or maturity, while 87 per cent. was due to forfeiture.

**INDUSTRIAL LIFE ASSURANCE.—POLICIES DISCONTINUED IN AUSTRALIA,
1923 TO 1925.**

Mode.	1923.		1924.		1925.	
	No. of Policies.	Amount.	No. of Policies.	Amount.	No. of Policies.	Amount.
		£		£		£
Death or maturity ..	25,902	562,568	31,385	701,722	35,188	775,695
Surrender ..	7,048	374,517	6,596	327,879	6,905	313,342
Forfeiture ..	128,837	6,258,021	133,984	6,649,206	148,037	7,324,709
Total ..	161,787	7,195,106	171,965	7,678,807	190,130	8,413,746

8. **Conspectus of Australian Life Assurance Legislation.**—A conspectus of Australian Life Assurance Legislation appeared in Official Year Book No. 18, pp. 1041 to 1059, but considerations of space preclude its insertion in the present issue.

§ 6. Fire, Marine, and General Insurance.

1. **Australasian Business.**—(i) *General.* Returns are available showing the revenue and expenditure, assets and liabilities, and investments of 44 insurance companies having their head offices either in Australia, New Zealand, or Fiji. The names of these companies, with the location of their respective head offices, are given in the following table:—

AUSTRALASIAN FIRE, MARINE, AND GENERAL INSURANCE COMPANIES.

Company.	Head Office.
Assurance and Thrift ..	Sydney
Australian Mutual Fire ..	"
Australian Provincial ..	"
Australian Traders' ..	"
Australian General ..	"
Bankers and Traders' ..	"
City Mutual Fire ..	"
Commonwealth General ..	"
Commonwealth Traders' ..	"
Empire Life and General ..	"
Farmers' and Settlers' ..	"
Federal Mutual ..	"
Insurance Office of Australia ..	"
Mercantile Mutual ..	"
Manufacturers' Mutual ..	"
Queensland Insurance Co. ..	"
United ..	"
United Service ..	"
Australian Alliance ..	Melbourne
Australian National ..	"
Automobile ..	"
Chamber of Manufacturers ..	"
Colonial Mutual Fire ..	"
Commercial of Australia ..	"
Co-operative ..	"
Southern Star ..	"
Southern Union ..	"
Victoria ..	"
Victoria General ..	"
Victoria State Accident ..	"
Queensland State Government ..	Brisbane
South Australian Government ..	Adelaide
Western Australian Insurance Co. ..	Perth
Derwent and Tamar ..	Hobart
Tasmanian Government ..	"
Mutual Fire Insurance Co. of Tasmania ..	Launceston
New Zealand Insurance Co. ..	Auckland
South British ..	"
National of New Zealand ..	Dunedin
Standard of New Zealand ..	"
New Zealand State Fire Insurance Office ..	Wellington
New Zealand Government Accident ..	"
Farmers' Co-operative, New Zealand ..	Christchurch
Pacific Insurance Co. ..	Fiji

(ii) *Revenue and Expenditure.* The accounts given hereunder relate approximately to calendar years. The most important items of revenue and expenditure are given below. While the receipts from premiums have increased substantially during the period under review, the amounts debited to expenses, commission, and taxation and to losses have also increased by to almost equal extent, with the result that the trade surplus for 1925-26 is little greater than that for 1921-22.

FIRE, MARINE, AND GENERAL INSURANCE COMPANIES.—SUMMARY OF REVENUE AND EXPENDITURE, 1921 TO 1926.

Heading.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	£	£	£	£	£
Premiums, less re-insurances ..	6,143,416	5,740,063	6,083,246	6,558,823	7,249,917
Losses ..	3,361,584	3,378,013	3,345,408	3,452,351	3,993,076
Expenses, commission, and taxes	2,194,452	2,264,598	2,319,513	2,414,946	2,614,007
Trade surplus ..	587,380	97,452	418,325	691,526	642,834
Interest, rent, etc. ..	499,382	515,487	608,823	680,875	682,957
Total surplus ..	1,086,762	612,939	1,027,148	1,372,401	1,325,791
Dividends and bonuses paid ..	450,477	461,940	523,982	590,412	620,812
Ratio to premium income of—					
(a) Losses .. per cent.	54.72	58.85	54.99	52.64	55.08
(b) Expenses, etc. .. per cent.	35.72	39.45	38.13	36.82	36.05
(c) Trade surplus .. per cent.	9.56	1.70	6.88	10.54	8.87

(iii) *Liabilities and Assets.* The liabilities and assets for the same period are set out in the following tables. Comparison of the results for 1925-26 with those for 1921-22 shows that paid-up capital increased by 32 per cent. and reserves by 33 per cent. While loans on mortgage expanded only 18 per cent., Government securities increased by 50 per cent., and landed and other property showed a growth of over 50 per cent.

FIRE, MARINE, AND GENERAL INSURANCE COMPANIES, 1921 TO 1926.

Heading.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
PAID-UP CAPITAL, RESERVES, AND LIABILITIES.					
	£	£	£	£	£
Paid-up capital ..	4,652,348	5,100,651	5,688,108	5,851,076	6,131,149
Reserves and re-insurance funds(a)	5,574,784	5,530,537	6,099,482	6,784,411	7,401,536
Undivided profits ..	493,388	455,992	608,361	645,024	664,181
Losses unsettled ..	811,979	861,973	828,398	852,267	913,982
Sundry creditors, etc. ..	1,970,797	1,815,836	1,914,873	2,216,401	2,436,815
Dividends, etc., to pay ..	322,257	326,287	326,047	350,057	384,029
Life assurance funds (b) ..	736,083	947,669	1,390,170	1,867,294	2,208,553
Total liabilities ..	14,561,636	15,038,945	16,855,439	18,566,530	20,140,245

INVESTMENTS AND OTHER ASSETS.

	£	£	£	£	£
Loans on mortgage ..	995,702	908,972	841,059	1,017,259	1,175,228
Government securities, etc. ..	7,274,220	8,177,285	9,283,301	10,231,700	10,989,880
Landed and other property ..	1,929,951	2,001,155	2,454,598	2,644,736	2,908,637
Fixed deposit, etc. ..	1,440,612	1,119,008	1,308,128	1,403,416	1,467,234
Loans on life policies (b) ..	17,062	18,844	34,631	46,989	60,533
Investments ..	93,704	98,630	89,721	121,363	165,153
Cash and bills receivable ..	785,979	706,739	819,536	868,604	899,232
Sundry debtors and other assets ..	2,024,406	2,008,312	2,024,465	2,232,463	2,474,348
Total assets ..	14,561,636	15,038,945	16,855,439	18,566,530	20,140,245

(a) Including amount required as reserve against unexpired risks.

(b) Some of the companies transact Life Business.

(iv) *Marine Insurance.* Separate returns regarding this branch of insurance are not available. Act No. 11 of 1909, "An Act relating to Marine Insurance," passed by the Commonwealth Parliament, and assented to on the 11th November, 1909, altered the conditions under which marine policies had up till then been issued.

§ 7. Friendly Societies.

1. **General.**—Friendly societies are an important factor in the social life of the community, as probably one-third of the total population of Australia comes either directly or indirectly under their influence. Their total membership is nearly 560,000, but as certain benefits, such as medical attendance and free medicines, and in many cases funeral expenses, are granted to members' families as well as to members themselves, this figure must, even when due allowance is made for young and unmarried members, be multiplied by about four to arrive at the total number of persons more or less connected with these societies. Legislation has conferred certain privileges on friendly societies, but, on the other hand, it insists on their registration, and it is the duty of the Registrars in the various States, prior to registering a new society, to see that its proposed rules are conformable to the law, and that the scale of contribution is sufficiently high to enable the promised benefits to be conferred on members. Societies are obliged to forward annual returns as to their membership and their finances to the Registrar, and reports are published in most of the States dealing with the returns thus received.

In the following tables the figures refer to the year 1925–26, with the exception of South Australia and Tasmania, the figures for which relate to the year 1925, and of Queensland, the figures for which are for the year 1924.

2. **Number of Societies, Lodges, and Members.**—The number of different societies and lodges, the total number of benefit members at the end of the year, and their average number during the year are shown in the following table:—

FRIENDLY SOCIETIES.—SOCIETIES, LODGES, AND MEMBERS, 1925-26.

State.	Number of Registered Friendly Societies.	Number of Lodges.	Benefit Members at end of year.	Average No. of Benefit Members during the year.
New South Wales	34	2,307	216,268	212,650
Victoria	63	1,468	157,820	156,599
Queensland (a)	18	630	61,571	60,618
South Australia (b)	17	656	75,896	74,984
Western Australia	14	339	22,225	21,782
Tasmania (b)	20	184	24,487	24,448
Total .. ..	..	5,584	558,267	551,081

(a) For 1924.

(b) For 1925.

With regard to the number of registered Friendly Societies no total is given for Australia, since many of the societies operate in all the States.

3. **Sickness and Death Returns.**—Sick pay is generally granted for a number of months at full rates, then for a period at half rates, and in some societies is finally reduced to quarter rates. The following table shows the total number of members who received sick pay during the year, the number of weeks for which they received pay in the aggregate, and the average per member sick, and further the number of benefit members who died during the year, together with the proportion of deaths per thousand average members:—

FRIENDLY SOCIETIES.—SICKNESS AND DEATH RETURNS, 1925-26.

State.	Number of Members who received Sick Pay.	Total Number of Weeks Sick Pay Granted.	Average Number of Weeks per Member Sick.	Deaths of Benefit Members and Wives.	Proportion of Deaths to 1,000 Average Benefit Members.
New South Wales	(a)	(a)	(a)	(a)	(a)
Victoria	30,786	281,377	9.14	1,971	12.59
Queensland (c)	10,586	82,941	7.83	446	7.36
South Australia (d)	12,000	131,307	10.94	1,052	14.03
Western Australia	3,911	28,793	7.36	146	6.70
Tasmania (d)	4,175	37,561	9.00	339	15.81
Total (b)	61,458	561,979	9.14	3,954	11.68

(a) Not available.

(b) Exclusive of New South Wales

(c) For 1924.

(d) For 1925.

4. **Revenue and Expenditure.**—(i) *Revenue.* The financial returns are not prepared in the same way in each State, but an attempt has been made in the subjoined table to group the revenue under the main headings :—

FRIENDLY SOCIETIES.—REVENUE, 1925–26.

State.	Entrance Fees, Members' Contributions, and Levies.	Interest, Dividends, and Rents.	All other Income.	Total Revenue.
	£	£	£	£
New South Wales	766,772	172,039	61,850	1,000,661
Victoria	523,403	221,814	75,333	820,550
Queensland (b)	222,005	65,483	(a)	287,488
South Australia (c)	227,306	103,795	20,043	351,144
Western Australia	62,442	22,707	39,158	124,307
Tasmania (c)	81,593	18,572	14,946	115,111
Total	1,883,521	604,410	211,330	2,699,261

(a) Included in interest, dividends, and rents. (b) For 1924. (c) For 1925.

(ii) *Expenditure.* The returns relating to expenditure are more complete than those for revenue. The figures show that the excess of revenue for the year was £591,249 for Australia. The revenue exceeded the expenditure by more than one pound per average benefit member.

FRIENDLY SOCIETIES.—EXPENDITURE, 1925–26.

State.	Sick Pay.	Medical Attendance and Medicine.	Sums Paid at Death of Members and Members' Wives.	Adminis- tration.	All other Expendi- ture.	Total Expendi- ture.
	£	£	£	£	£	£
New South Wales	269,768	307,380	65,913	148,808	35,376	827,245
Victoria	180,074	210,224	33,522	101,224	80,914	605,958
Queensland (a)	58,622	87,082	22,750	48,023	(b)	216,477
South Australia (c)	77,718	79,497	34,276	45,846	13,925	251,262
Western Australia	19,928	24,984	4,853	23,443	35,826	109,034
Tasmania (c)	25,331	26,721	17,328	17,692	10,964	98,036
Total	631,441	735,888	178,642	385,036	177,005	2,108,012

(a) For 1924. (b) Included in administration. (c) For 1925.

It appears from the above figures that sick pay averaged about 22s. per week, but, as the returns include pay at half and quarter rates, and as the proportion of these to full rates is not stated, the average given must be taken for what it is worth. Medical attendance and medicine came to about 26s. per average benefit member.

5. **Funds.**—The two foregoing tables show that the surplus of revenue over expenditure in all States amounted to £591,249 for the year, and a small surplus must, of course, result annually in every society which levies adequate contributions to enable it to meet all possible claims. These accumulations of profits are generally invested, and the subjoined table shows the division into invested and uninvested funds :—

FRIENDLY SOCIETIES.—FUNDS, 30th JUNE, 1926.

State.	Invested Funds.	Uninvested Funds.	Total Funds.
	£	£	£
New South Wales	3,215,470	(a)	3,215,470
Victoria	4,199,714	80,686	4,280,400
Queensland (b)	1,293,343	4,509	1,297,852
South Australia (c)	1,917,604	24,411	1,942,015
Western Australia	358,946	9,998	368,944
Tasmania (c)	328,941	14,619	343,560
Total	11,314,018	134,223	11,448,241

(a) Included in Invested Funds.

(b) At 31st December, 1924.

(c) At 31st December, 1925.

The total funds amounted, therefore, to over £20 10s. per member at the close of the year under review.

§ 8. Probates.

1. Probates and Letters of Administration.—The value of the estates left by deceased persons gives some idea of the distribution of property among the general population. There were in 1925, 42,160 deaths of adult persons, while the number of probates and letters of administration granted during the same period was 16,559. It would therefore appear that about two-fifths of the adults who died during the year were possessed of sufficient property to necessitate the taking out of probate. The details for each State are shown in the table hereunder :—

PROBATES AND LETTERS OF ADMINISTRATION, 1925.

States and Territory.	Number of Estates.			Net Values of Estates.		
	Probates.	Letters of Administration.	Total.	Probates.	Letters of Administration.	Total.
				£	£	£
New South Wales (b)	6,909	(a)	6,909	18,390,924	(a)	18,390,924
Victoria	3,764	1,440	5,204	13,227,243	(a)	13,227,243
Queensland	762	135	897	3,095,486	272,298	3,367,784
South Australia	1,470	472	1,942	4,049,328	317,097	4,366,425
Western Australia	707	331	1,038	1,498,344	226,383	1,724,727
Tasmania	464	77	541	1,214,114	47,989	1,262,103
Northern Territory (b)	15	13	28	9,088	1,158	10,246
Total	14,091	2,468	16,559	41,484,527	864,925	42,349,452

(a) Included with Probates.

(b) For year ended 30th June, 1926.

2. Intestate Estates.—The number of intestate estates placed under the control of the Curator during the year, and the amount of unclaimed money paid into Consolidated Revenue in each State during the year 1925, are given hereunder :—

INTESTATE ESTATES, 1925.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N. Ter.	Total.
Intestate estates placed under control of Curator during 1925—								
Number	(a)	(b)	1,343	405	356	(b)	13	(c) 2,117
Value	(a)	(b)	749,004	176,748	19,594	(b)	712	(c) 946,058
Unclaimed money paid into Consolidated Revenue by Curator during 1925	136,153	6,578	16,754	1,601	4,515	..	314	165,915

(a) Included with Probates.

(b) Not available.

(c) Excluding New South Wales, Victoria and Tasmania.

CHAPTER IX.

EDUCATION.

§ 1. Evolution of Educational Systems in Australia.

1. Educational Systems of the States.—(i) *Place of New South Wales in Australian Education.* The first settlement in Australia being in New South Wales, it is but natural that Australian education should have had its beginning in that State. In the evolution of educational method and system in Australia, New South Wales also has played a leading part, and has had practically a dominating influence. The subject is dealt with in some detail in No. I. and No. II. issues of the Commonwealth Official Year Book, but it is not proposed to repeat it in the present volume. (See also 2 hereunder.)

(ii) *Educational Systems of other Commonwealth States.* A more or less detailed account of the origin and development of the educational systems of the other States also appears in No. I. and No. II. issues of the Year Book. Later details are given hereunder.

(iii) *Medical Inspection of State School Children.* See Chapter XII., Public Hygiene.

2. Recent Development in State Educational Systems.—(i) *New South Wales.* In previous issues of the Year Book a brief account was given of the development of the New South Wales educational system since the year 1911. (See Year Book No. 17, p. 447.) Reference was made to the linking-up of the State School System with the University following on the passing of the University Amendment Act and Bursary Endowment Act of 1912; to the influence on attendance of the provisions of the amending Public Instruction Act of 1916; to the increased attention devoted in recent years to school hygiene and to medical and dental inspection, and to the methods adopted of dealing with the problem of the backward or deficient child. Attention was also directed to the spread of agricultural teaching by the establishment of special agricultural schools, together with the special "rural schools" in country centres. (See also § 2, 4 (vi) hereinafter.)

The Reports for the last few years draw attention to the disabilities under which the Education Department labours owing to shortage of teachers and lack of necessary funds for new buildings, equipment, and renovations. During the year 1925 the difficulty in regard to sufficiency of teachers was to some extent mitigated by the greater facilities available for the training of applicants, while the field of selection was widened by the receipt of applications for employment from teachers outside the State. Expenditure on buildings for the year amounted to £621,000, as compared with £766,000 in the preceding year, but outlay on a far greater scale is required to provide adequately for existing and prospective demands.

Excellent work is being done by the Parents' and Citizens' Associations which have replaced the old School Boards.

(ii) *Victoria.* Some account of the development of educational activity in Victoria up to the close of the year 1922 was given in Year Book No. 17, p. 448. The principal task confronting the educational authorities during the last few years has been to overtake arrears in the way of providing sufficient new schools and remodelling existing unsatisfactory buildings, and this work has been energetically pursued since 1920. In 1924 increased attention was given by teachers and inspectors to the use of intelligence tests as a means to secure more effective classification of pupils. A group test was worked out by the Training College and, in conjunction with examination tests, is proving of great value to teachers. Experiments in this direction are being steadily continued. During the last few years several of the higher grade teachers from Victorian schools have taught in England and in Canada under the exchange system, and others were granted leave for travel and study chiefly in England and France. Considerable benefit has accrued, especially in the case of teachers of modern languages, of history and of geography. In some cases the teachers who have come to Victoria under the system have elected to remain in Australia at the end of their term of service. The "Teachers Act of 1925," in addition to making more effective provision for the staffing of schools, considerably increases the chances of promotion of all teachers, and, coupled with the "Superannuation Act of 1925" has had a stimulating influence on the service generally. Excellent work is being done by the various local committees, parents' guilds, fathers' guilds, and mothers' clubs formed in connexion with the schools, and it is estimated that

more than 20,000 people are interesting themselves in this direction. A notable feature of recent years has been the success attending the establishment of the nine Schools of Domestic Art, and the demand for places greatly exceeds the available accommodation. Specially trained teachers of housewifery from these institutions have been attached to the "Better Farming" trains organized by the Department of Agriculture.

(iii) *Queensland.* A brief account was given in Year Book No. 17, p. 448, of the changes introduced into the educational system of Queensland by the Act of 1910. Reference was also made to the establishment of High Schools in 1912, of a Teachers' Training College in 1914, of rural schools in 1917, and other matters. Tuition by correspondence was initiated in 1922. In 1923 classes were formed at various centres for giving special instruction to backward, sub-normal, and defective children, and operations in connexion therewith were extended in 1924 and 1925. A Travelling Domestic Science School was initiated at Cunnamulla towards the end of the year, a specially designed and equipped railway car having been constructed for this object. Apart from the rural schools and technical classes, special vocational classes were opened in several centres in 1923. In 1925 an additional Travelling Domestic Science School for girls was provided, and a Travelling Manual Training School for boys was established. Additional dental treatment was arranged for by means of a Travelling Dental Clinic. A specially trained officer has been appointed to take over the work of organization of physical exercises and sport.

(iv) *South Australia.* In Year Book No. 17, p. 449, attention was drawn to the modifications introduced into the educational system in 1921, in the way of a new course of instruction in the primary schools; the adoption of new methods of training, examination, and classification of teachers; and the revision of the system of inspection. During the year 1925 three types of Central School came into operation—Commercial Schools for Boys, Junior Technical Schools for Boys, and Home-making Schools for Girls. The object of these institutions is to provide education and training with a vocational bias for pupils from 13 to 16 years of age who intend to enter on commercial, industrial, or home-making pursuits. Several new schools were built during the year, and the work of remodelling the older schoolrooms to bring them into conformity with modern requirements was continued. The Medical Branch also was reorganized, its staff was increased, and a more comprehensive scheme of work was initiated. All children will now be medically examined at least twice during their primary school life.

The recent substitution of local School Committees, each of which functions for one school only in place of the Boards of Advice which looked after groups of schools, has been attended by very satisfactory results. Greater provision of helpful equipment for schools has ensued, libraries have been established or extended, and playgrounds improved, etc. Excellent work has also been done by the mothers' clubs established in connexion with the Infant Schools.

(v) *Western Australia.* A brief account was given in Official Year Book No. 17, pp. 449–50, of the changes and improvements introduced into the educational system of Western Australia during the years 1912 to 1921, but considerations of space preclude its repetition in the present issue. During recent years efforts are being made at a more systematic correlation of the work done in the various courses at the central schools with the practical needs in the life work of the scholars. To assist children in the outback districts the number of special rural schools, referred to later, is being increased as opportunity offers, while the system of teaching by correspondence has been greatly extended. Excellent work is being done by the Parents' and Citizens' Associations formed in connexion with the schools. The spread of secondary education has resulted in a satisfactory increase in efficiency of candidates for the teaching profession, while good results have attended the arrangements for an interchange of teachers with the London County Council authorities.

(vi) *Tasmania.* Allusion was made in Year Book No. 17 (page 450) to the development on modern lines in recent years of the primary branch of the educational system of Tasmania, the establishment of secondary schools and of special infant schools, the extension of correspondence teaching, the provision of schools of method as an adjunct to a more efficient system of training teachers, and the means adopted for dealing with the problem of retardation. Limits of space preclude the repetition of this information in the present issue. In common with other States, some difficulty has been experienced

in securing suitable living accommodation for teachers in charge of outback schools, but it is hoped that this will in part be met by the scheme of consolidation of schools. Conveyance to Central schools was inaugurated in 1924, and was carried out in connexion with 6 areas in 1925. It is proposed to extend this system as opportunity allows. In connexion with the problem of retardation, a Girls' Welfare School was established in 1924 at New Town, and represents the first attempt to deal with children from 14 to 16 years of age. Provision for elementary instruction in agriculture at primary schools in certain centres was also made in 1924. Recently the practice has been adopted of allowing inspectors to make periodical visits to the mainland States for the purpose of gaining additional experience.

(vii) *Northern Territory.* Although the number of children of school age in the Territory is small, nevertheless ample provision has been made by the Commonwealth Government for primary education. State schools are in operation at Darwin, Parap, Pine Creek, Alice Springs, and Emungalan. There is also a school for aboriginal and half-caste children at Kahlin Compound, Darwin. Children of scattered settlers are visited and instructed by an itinerant teacher, while six families are receiving tuition by correspondence. In 1924, an inspector from the Queensland Education Department re-organized the educational system on the lines of that existing in Queensland, and the schools are now working in accordance with the Queensland curriculum. An inspection is made annually by an officer from the Queensland Department, and scholarships awarded may be taken out at approved secondary schools in Queensland. Of the 268 children on the rolls at the end of June, 1925, 76 were Chinese, 14 were quadroons, and 59 half-castes.

(viii) *Present position of State Education in Australia.* Throughout Australia primary education is compulsory and free, while there exists in all States a more or less liberal provision of scholarships and bursaries to the Higher State Schools, to the Secondary Schools, and to the Universities. Provided that the requisite standard is reached, it is, of course, permissible for children to receive home tuition, or to attend so-called private schools. The orientation, lighting, and ventilation of school buildings are being modernized. In all of the States periodical medical inspection of the children is in force. (A detailed statement of the work being done in this direction will be found in the chapter dealing with Public Hygiene.) *Methods of training teachers are now better developed, and although the "pupil teacher" system with its effects has not been wholly eliminated, it appears to be gradually vanishing.* (The methods adopted in the various States for the selection and training of teachers are described in some detail in § 2, 6, hereinafter.) There has been a wider employment of kindergarten and Montessori principles in the early stages, and the more or less purely abstract teaching of the older days has been largely replaced by concrete methods. Self-activity on the part of the pupils is being further cultivated by the partial adoption of the "Dalton" system or modifications thereof. Such subjects as nature study, manual training, music, drawing, business practice, and domestic economy have received a general impetus. Greater attention has been given to the scientific classification of pupils, and to the difficult problem of dealing with sub-normal or defective children. (In the Report of the Education Department of South Australia for the year 1923, the Medical Inspector asserts that a large proportion of juvenile delinquency is due to mental deficiency.) Moreover, as will be seen from the above, and from § 2, 4, the State Education Departments are increasing their activities in the direction of secondary education. Lastly, the system of inspection has been considerably remodelled. Under the old system, the inspector was little more than an examining officer, but, under the present régime the primary duty of this officer consists in guiding and directing the teaching in accordance with approved methods. (See also § 6, Technical Education.)

(ix) *Co-ordination of Educational Activities.* As pointed out already, the educational system of New South Wales may now be considered as a more or less homogeneous entity, the various stages succeeding one another by logical gradation from kindergarten to university. In the other States development is proceeding on somewhat similar lines, activity in this respect being greatly helped by interstate conferences of directors of education and of inspectors and teachers. At the conference of directors in 1925, amongst other subjects, the use of wireless broadcasting as an educational aid was considered, and, while its educative value for adults was fully recognized, it was agreed that it can

have only a restricted application in the limited field of elementary education. The use of the cinematograph was also considered. In this connexion it may be noted that a Committee was appointed in 1923 by the Imperial Education Conference to deal with the matter, and to present a Report to the Conference in 1927.

§ 2. State Schools.

1. *General*.—The State Schools, or, as they are sometimes termed, the “public” schools, of Australia comprise all schools directly under State control, in contradistinction to the so-called “private” schools, the bulk of which, though privately managed, nevertheless cater for all classes of the community. Separate information regarding Technical Education is given in § 6, but the junior technical schools are included hereunder.

2. *Returns for Year 1925*.—(i) *General*. The following table shows the number of State Schools, together with the teachers employed and the enrolment and “average attendance” in each State during the year 1925:—

STATE SCHOOLS.—RETURNS, 1925.

State or Territory.	Schools.(a)	Teachers.(b)	Scholars Enrolled.	Average Attendance.	Percentage of Attendance on Enrolment.
New South Wales (c)	.. 3,434	10,561	320,400	272,634	85.1
Victoria ..	.. 2,675	7,448	242,186	195,097	80.6
Queensland ..	.. 1,737	4,110	138,224	106,994	77.4
South Australia ..	.. 1,014	2,831	84,060	69,411	82.6
Western Australia ..	.. 841	1,969	55,045	49,089	89.2
Tasmania ..	.. 528	1,311	32,293	27,539	85.3
Northern Territory ..	.. 6	11	265	211	79.6
Australia ..	.. 10,235	28,241	872,473	720,975	82.6

(a) Schools open during year.

(b) Exclusive of sewing mistresses.

(c) Including Federal Capital Territory.

(ii) *Schools in the Federal Capital Area*. During the year 1925 twelve State Schools were in operation in the Federal Capital Territory (Yass-Canberra). The pupils enrolled numbered 658 and the average attendance 552. Cost of upkeep amounted to £6,355. By arrangement with the Federal Government these schools are conducted by the New South Wales Education Department on the same lines as the ordinary State Schools, the Department being recouped for expenditure. Ample provision has been made for both primary and secondary education, and this will be increased to meet requirements. The question of the establishment of a University at Canberra is at present under consideration.

3. *Growth of Enrolment and Attendance*.—The enrolment and average attendance at the State Schools in Australia are given below for the years 1891, 1901, 1911, and for each year of the period 1921 to 1925:—

STATE SCHOOLS.—ENROLMENT AND ATTENDANCE.—AUSTRALIA, 1891 TO 1925.

Year.	Total Population. (a)	Enrolment.	Average Attendance.	Year.	Total Population. (a)	Enrolment.	Average Attendance.
1891 ..	3,421	561,153	350,773	1922 ..	5,633	837,426	688,264
1901 ..	3,825	638,478	450,246	1923 ..	5,750	848,882	685,233
1911 ..	4,573	638,850	463,799	1924 ..	5,874	861,256	705,990
1921 ..	5,509	819,042	666,498	1925 ..	5,992	872,473	720,975

(a) At 31st December, in thousands.

During the last five years the average attendance increased by 8 per cent., the figures ranging from 8.8 and 8.5 in South Australia and New South Wales respectively to 7.3 in Western Australia and 5.3 in Tasmania.

4. *Distribution of Educational Facilities.*—(i) *In Sparsely-settled Districts.* It has always been the aim of the State to carry the benefits of education into the remotest and most sparsely-settled districts. This is effected in various ways :—(a) By the establishment of Provisional Schools, i.e., small schools in which the attendance does not amount to more than about a dozen pupils, these institutions merging into the ordinary public school list when the attendance exceeds the minimum : (b) When there are not enough children to form a provisional school, what are known as Half-time Schools are formed, the teacher visiting them on alternate days : (c) In still more sparsely-peopled districts, an itinerant teacher goes from house to house within a certain radius. Thus, in Queensland during 1925 the 10 itinerant teachers' districts covered 305,000 square miles of country, while a distance of 41,895 miles was travelled in visiting 989 children. Further, in New South Wales, Victoria, South Australia, Western Australia and Tasmania parents in the thinly-peopled areas are allowed to club together and build a school, which receives aid from the Government in the form of a yearly subsidy and grant of school material. In some cases the Department also provides the building. During 1925, subsidy was paid to 645 schools in New South Wales. Victoria had 1 school of this type, Western Australia 16, and Tasmania 48 : (d) Several "travelling" schools have been established in New South Wales, the teacher being supplied with a van carrying a tent for himself and one for use as a school, together with books and apparatus for primary teaching. South Australia has devised attractive portable schools to meet the needs of new districts and temporary settlements. Queensland has three travelling housecraft schools for the instruction of girls, as well as adults, in the smaller centres, and in 1925 established a travelling manual training school for boys. Railway Camp Schools are established in some States on the sites of extensive railway works : (e) All the States provide also for education, by correspondence, of children in localities not at present reached by the methods outlined above, or for the purpose of supplementing the instruction given by the itinerant teachers. At the end of 1925 over 2,500 children were on the roll of the Correspondence School in New South Wales, and 60 teachers were occupied solely in this branch of teaching. About 1,900 children attending 527 small schools were also receiving super-primary teaching by correspondence. In Victoria, about 800 invalid and isolated children were receiving instruction by this means, the numbers taking primary and secondary work being almost equal. As evidence of the success of the system, it is stated that in some cases where families have moved into a district where attendance at school is possible, the parents have asked for the correspondence lessons to be retained. In Queensland the net enrolment in the Correspondence Schools at the end of 1925 amounted to 2,523. In cases where parents can afford some assistance to the children it is considered that better results are obtained than by the itinerant teacher system. In South Australia the activities of the Correspondence School at Adelaide extend as far as Point Charles in the Northern Territory, and in 1923 a Dutch family near Hermansburg Mission Station in Central Australia applied for enrolment. During the year 1925, 753 children received instruction. A library has been established in connexion with the school, and the books are much appreciated by both parents and children "outback." Early in 1925 the work of the school was extended to meet the needs of 28 chronic in-patients at the Children's Hospital. The enrolment in correspondence classes in Western Australia of isolated children during 1925 was about 1,100. In addition, 1,095 children at small schools, and 73 who had left school, were taking correspondence lessons in special subjects. The staff employed in this work in 1925 comprised 1 head teacher, 20 assistant teachers, and 2 clerks. There are eight teachers attached to the Correspondence School in Hobart, and a visiting teacher tours the whole island, calling, as far as possible, at all the isolated dwellings. The number on the roll in 1925 was about 250. In the Northern Territory during 1925 an itinerant teacher visited and instructed 17 children living on scattered holdings chiefly in the vicinity of the railway line.

(ii) *Centralization of Schools.* The question of centralization of schools adopted so successfully in America and Canada has received some attention in Australia, and particularly in New South Wales. It is recognized that a single adequately staffed and well-equipped central institution can give more efficient teaching than a congeries of small

scattered schools in the hands of less highly trained teachers, and the small schools in some districts were therefore closed and the children conveyed to the central institution. The principle was first adopted in New South Wales in 1904, and in 1925 a sum of £39,706 was expended in boarding allowance and conveyance to central schools. Cost of conveyance to State Schools in Victoria during 1925 was returned as £6,949. In South Australia the sum of £2,281 was disbursed in 1925 in connexion with travelling expenses of school children, while £12,592 was spent in Western Australia, and about £1,250 in Tasmania.

(iii) *Education of Retarded and Defective Children.*—(a) *New South Wales.* A school for the deaf and dumb and the blind has been in operation for many years, and a scheme is under consideration for the provision of skilled teaching for the retarded and defective. A certain amount of scientific work in this connexion has been carried out at the Training College. In March, 1925, a contract was let for the erection at Glenfield of a special school for defectives. Two Committees, one composed of departmental officers, and the other of experts in mental problems will assist the Department in administering the scheme of training. The buildings have been planned to accommodate 128 resident pupils, but it is expected that the demand will be greatly in excess of this provision.

At the end of 1925 the pupils on the roll at the Institution for the Deaf, Dumb, and Blind numbered 155.

(b) *Victoria.* In this State there is a special school for the deaf and dumb and the blind, a school for epileptics, two schools for the feeble-minded, and an open-air school for delicate children selected by the school medical officers from congested metropolitan areas. Backward children in the metropolitan area and in several provincial centres are drafted into tutorial classes, under specially-trained teachers, and it is proposed to establish a residential training home. The average attendance at the school for the deaf and dumb and the blind in 1925 was 144, at the Bell-street and Montague schools for defectives 99, at the school for epileptics at Clayton 27, and at the open-air school at Blackburn, 17.

(c) *Queensland.* Classes for the special instruction of backward and sub-normal or defective children have been in operation since 1923. The classes are held in Brisbane and the chief provincial towns. During the year 1925, eight "backward" classes were in operation, with an enrolment of 336 pupils, and 92 of these had made such progress that it was found possible to return them to the ordinary schools. Two special classes for boys over eight years of age with distinctively sub-normal mentality were attended by 35 pupils, and the results so far obtained were regarded as very encouraging.

(d) *South Australia.* An expert psychologist has been appointed to examine and classify retarded and mentally defective children, train the special teachers required, and give instruction to students at the Training College. In 1925, 560 children from 7 schools were examined, and it was found necessary to establish special classes for the benefit of 166. Five classes were established in the metropolitan schools, and in many cases the children made very satisfactory progress.

(e) *Western Australia.* In collaboration with the school medical officers, the teachers keep records of special or defective children and take steps to ensure attention and help in making improvement.

(f) *Tasmania.* Special classes to deal with retarded or defective children have been established in various centres, and in 1924 a Girls' Welfare School was opened at New Town, this being the first attempt to deal with children from 14 to 16 years of age.

(iv) *Evening Schools.* Evening Public Schools have been in existence for many years in some of the States, but their progress has been uncertain. In New South Wales the 55 Evening Continuation Schools had an effective enrolment of 4,476 and an average attendance of 3,332 in 1925. The schools for boys are classed as commercial, commercial preparatory, junior technical, and junior technical preparatory, and for girls as domestic and domestic preparatory. Attendances at the schools for boys numbered 2,654, and at those for girls 678. The comparatively high proportion of attendance to enrolment shows that the institutions are attractive. In Victoria there were 7 evening continuation classes in operation during 1925, the average attendance being 51. Although the Education Act in Victoria gives authority for the establishment of evening continuation classes at which the attendance of boys up to the age of seventeen years and living within a radius of 2 miles may be made compulsory for six hours a week, considerations of expense have

prevented the free exercise of this power. Evening Continuation Schools have been established under regulation in South Australia, and are intended principally to help the working boy to improve his general education. In Western Australia evening continuation classes were held at 21 centres in 1925, with an average enrolment of 2,415 pupils.

(v) *Higher State Schools.* (a) *New South Wales.* In New South Wales, public schools which provided advanced courses of instruction for two years for pupils who have completed the primary course were classed as Superior Schools. These were reorganized in 1913 as Day Continuation Schools, and divided into Superior Commercial Schools, Superior Junior Technical Schools, and Superior Domestic Schools for Girls. During 1925 there were 98 schools of this type in operation, of which 15 were in the Commercial group, 26 in the Junior Technical, and 57 in the Domestic group, with an average attendance of 14,258 in the sixth and seventh classes. It is believed, however, that greater efficiency could be achieved by reducing the number of these schools and establishing Central "Superior Public Schools" instead. Provision has also been made for the more advanced education of children in country centres by the establishment of 14 District Schools. These schools, which in 1925 had an average attendance of 997, are specially staffed, and, in addition to the usual work, undertake the preparation of students for admission to the training colleges. In addition, there are 30 High Schools in the State. These had in 1925 an average attendance of 7,898. The growing demand for High School education in the metropolis and in country centres led to the establishment of Intermediate High Schools, and in 1925 the number had increased to 32, with an average attendance of 6,029.

The Sydney Grammar School (not a "State" School in the ordinary acceptance of the term), which receives a State endowment of £1,500 a year, had, in 1925, an enrolment of 643 pupils, and an average attendance of 608.

(b) *Victoria.* In Victoria, action was taken in January, 1912, to give effect to the provisions of the Education Act of 1910, with regard to the decentralization of the system of secondary education. Forty-six Higher Elementary and 33 District High Schools have been established, and, to obviate congestion at the High Schools, Higher Elementary Classes are carried on at 26 "Central" Schools. The average attendance for 1925 at the Higher Elementary Schools was 3,294, of whom 1,595 were girls, at the District High Schools 6,962, of whom 3,486 were girls, while 1,500 boys and 1,564 girls were receiving secondary teaching in the Central Schools. The qualifications for admission to the High Schools and Higher Elementary Schools are that pupils shall be not less than 12 years of age, shall possess the qualifying certificate or its equivalent, and that their parents shall undertake that the children will remain at school for four years. For the first two years there is a common course for all pupils, thereafter replaced by four special courses:— (1) A preparatory professional course for pupils preparing to proceed to the University, to enter the teaching profession, or to gain a sound general education; (2) an agricultural course to be taken in Agricultural High Schools; (3) a commercial course; and (4) a domestic arts course for girls. Parallel with these courses an industrial course has been developed for pupils who intend to enter upon some form of industrial occupation.

The demand for places in the metropolitan High Schools is in excess of the available accommodation, and although the "Central" Schools, already referred to, have to some extent relieved the congestion, increased provision is urgently needed.

In the Junior Technical Schools pupils are enrolled at 12 to 13 years of age for a course extending over three years designed to qualify for entrance to the Senior Technical Schools. There were 27 of these junior schools in operation at the end of 1925 with a net enrolment of 5,247 pupils.

Nine Schools of Domestic Arts have been established, and have met with such success that the accommodation is already overtaxed. At these institutions, in addition to continuing their general education, the girls receive special instruction in cookery, needlework, and various home duties.

(c) *Queensland.* Prior to the year 1912, Queensland did not possess any distinctly secondary schools under State control, but in February of that year High Schools were opened at Warwick, Gympie, Bundaberg, Mount Morgan, Mackay, and Charters Towers. Tuition at these schools is free, but students must pass a qualifying entrance examination. Three courses of study—General, Commercial, and Domestic are provided. The General Course leads up to the University, and students are enabled to matriculate from the

High Schools. In 1917 and 1920 High Schools were opened at Gatton and Roma respectively. "The Brisbane Junior High School" was opened in 1920, but from 1st July, 1921, was constituted a fully developed High School. High Schools are also conducted as departments of the technical colleges at Toowoomba, Rockhampton, Cairns, and Townsville. In smaller centres where an average of not less than 25 qualified pupils can be obtained, secondary tuition was provided at existing State Schools, and this was arranged for at Herberton, Childers, Dalby, Kingaroy, Pittsworth, Southport, Cairns, Wynnum Central, and Emerald. Owing to diminished attendance some of these secondary "tops" have been eliminated. The enrolment at High Schools in 1924 was 1,606, and the daily attendance 1,175. There are, moreover, ten Grammar Schools—six for boys and four for girls—each of which was subsidized by the State to the extent of £750 per annum, and in addition received a payment of £250 per annum for providing five scholarships for State scholars. Owing to representations regarding increased cost of maintenance, the grants were increased in 1920, and the total endowment paid to these schools in 1925 amounted to £17,800. The Government also pays *per capita* fees in payment for the tuition of State scholarship-holders in attendance at the Grammar Schools. During 1925 the payments for fees came to £14,734. The enrolment at the Grammar Schools in 1925 was 2,011 and the average attendance 1,650. Since the year 1909 these schools have been regularly examined by the inspectors of the Education Department.

(d) *South Australia.* Including the Adelaide High School, there were altogether 24 High Schools open in South Australia in 1925, with an enrolment of 3,908, an average attendance of 3,339, and a staff of 154 teachers. In addition to giving secondary education, these institutions form a valuable source from which the Department can draw a supply of young teachers. One hundred qualifying exhibitions to these schools are open to pupils who have completed the primary course, 50 of such exhibitions being reserved for country children. The exhibitions are of the value of £10 each, with an additional allowance of £20 per annum if it is necessary for the holder to live away from home.

In order to meet the needs of children who have gained the qualifying certificate but are unable to attend High Schools, 21 Higher Primary Schools have been established. These had an enrolment in the upper classes of 351. The 18 Central Schools provide an education with a vocational bias for pupils who will leave school at the ages of 13 to 16 years to enter upon industrial, commercial, or domestic pursuits, and in 1925 had an enrolment of 1,368.

(e) *Western Australia.* The enrolment at the seven High Schools in 1925 was 1,423 and the average attendance 1,357. In addition, the primary schools include a number of Central Schools in which the upper classes are collected from various contributory schools in the surrounding districts. These schools provide graduated professional, commercial, industrial, and domestic courses. Altogether 2,975 pupils were taking these courses, while 584 children in country towns were receiving instruction beyond the primary stage. Entrants to State secondary schools must have passed an examination identical with that for secondary school scholarships, and boarding allowance up to £30 per annum is provided where necessary. Evening continuation classes were attended at 21 centres in 1925 by about 2,400 pupils. The classes are intended to provide some measure of higher education to those who leave school as soon as they reach the compulsory age of 14 years. Admission to these classes is free, but pupils must attend regularly three evenings a week. A scheme of carefully compiled correspondence lessons with the object of giving some measure of secondary education to suitable scholars in scattered country areas has also been arranged.

(f) *Tasmania.* The enrolment and average attendance at the High Schools in 1925 were 1,044 and 1,001 respectively. These provide for five classes of pupils—(i) Those who desire to become teachers; (ii) University students; (iii) Commercial; (iv) Mechanics; (v) Home duties (girls). The full secondary course covers five years.

(g) *Northern Territory.* Owing to the dwindling attendance, the High School class was abandoned in 1925, and a scholarship tenable at an approved secondary school in Queensland was substituted.

(h) *Scholarships and Bursaries.* As pointed out in § 1.2 viii. *ante*, an excellent scheme of scholarships and bursaries to the higher State schools, and where required, to private secondary schools and to the Universities is in force in each State.

(vi) *Agricultural Training in State Schools.* (a) *New South Wales.* During 1921 the whole subject of agricultural education was revised, and, under a Supervisor of Agriculture, a definite course of scientific and practical instruction was evolved. This course is now being taken at the residential schools at Glenfield and Yanco, and it is proposed to establish similar schools in other parts of the State. The necessary number of teachers to initiate the work has been provided, and students will be trained at the University to meet future requirements. Rural Schools, giving a course in elementary agriculture, nature study, and farm mechanics for boys, and domestic science and horticulture for girls were established in 1923. In 1925 the rural course was in operation in 15 country schools. The course extends over three years, and includes such subjects as elementary agriculture, applied farm mechanics, and rural economics in the case of boys, while the girl pupils receive training in domestic science and horticulture. A model farm, varying in extent from 1 to 5 acres, is attached to each school. Average attendance at these schools in 1925 was 854.

(b) *Victoria.* In Victoria, Agricultural High Schools have been established in various country centres. Pupils must be at least fourteen years of age, and have passed beyond the curriculum of the elementary school, or else be able to afford satisfactory proof that they are qualified to profit by the instruction offered. The schools are practically secondary schools with an agricultural bias, and form a link between the rural school and the agricultural college. They are also used as a preliminary stage in the education of boys and girls who wish to become teachers and eventually graduate in the State Training College and the University. At some of the schools short courses in agriculture have been instituted for farmers' sons who have left school. A local council is appointed for each school, and exercises a general oversight over its operations. The experimental plots at these schools have aroused much interest among the farmers from the surrounding districts. A Supervisor of Agriculture reports and gives advice on the teaching of agriculture in the State Schools. A fair number of teachers has gained diplomas in agriculture, and is capable of giving practical instruction at the High Schools. Schools of Agriculture are conducted by the Agricultural Department at the State Research Farm, Werribee. Teachers in the wheat-growing districts are also instructed for short periods by the organizing Inspector of Agriculture at the University, and their services are utilized as leaders or group supervisors in their districts. The elementary principles of agriculture are taught in a large number of State Schools, and progress has been made in the direction of establishing agricultural clubs and home-project organizations. Experimental work at the Moriac School proved to the residents in the locality that onion-growing was a payable proposition. A Horticultural Society has been established, with a number of schools in affiliation, while practical help in school gardening is afforded by the departmental supervisor. The Society has a nursery and distributing centre for plants and seeds at Oakleigh, and sub-nurseries have been established at various schools. Recently an officer has been detailed to promote the establishment of school plantations on blocks adjacent to school properties, the subsequent care of the trees, etc., to be undertaken by the pupils. Since the year 1923 plantations have been established at 120 schools, and the trees planted to the 30th June, 1926, numbered 104,360.

(c) *Queensland.* In Queensland the Government provides a small grant to encourage the study of agriculture, horticulture, and kindred subjects in the State Schools, while a departmental teacher of agriculture visits the schools and gives assistance in agricultural, horticultural, and nature study work. Excellent experimental work has been carried out at some of the schools, and gardens have been established wherever circumstances permitted. Cotton culture was undertaken by some hundreds of schools, in many cases, with marked success, the product being harvested and sold at a satisfactory price. Several of the schools, with their surroundings of well-grown shade and ornamental trees, make attractive spots in the country landscape. In some cases forestry work has been taken up by schools, and, with the aid of the Forestry Department, it is proposed where feasible to plant school reserves with commercial timbers. Short courses of instruction for teachers have been instituted at the Gatton College. This institution was placed under the control of the Education Department in September, 1923, and was re-organized so as to include an Agricultural High School, which, in addition to ordinary secondary education, will provide graded courses in agriculture. Provision has also been made for non-resident students, and vacation courses have been arranged for State School

teachers. In January, 1925, the Summer School was attended by 44 teachers drawn from different parts of the State. A Tractor School for farmers held during the year had an enrolment of 73 students. A large number of teachers has gained a practical knowledge of milk and cream testing and dairy farming methods generally, and the subject is now added to the programme of instruction in several of the dairying districts. The practical advice and help given has resulted in many instances in marked improvement in the dairy herds. Rural Schools have been established at Boonah, Home Hill, Marburg, Nambour, Clifton, Gordonvale, Murgon, Gayndah, Imbil, Beenleigh, and Stanthorpe. In addition to the ordinary subjects of the curriculum these schools provide for instruction in farming, fruit growing, dairying, etc., with dress-making, millinery and cookery for girls, and woodwork, leatherwork, and tinsmithing for boys. Many of the pupils are expert milk-testers, and others are first-class fruit packers. Training in business methods, shorthand and typewriting is also available. Supplies of trees for distribution to other schools are raised at Nambour, and many schools distribute trees and plants for home planting. A feature of the work in 1923 was the successful inauguration of "home project" schemes, whereby subjects of practical agricultural interest are studied out of school hours.

(d) *South Australia.* In South Australia the Public Schools' Floral and Industrial Society, founded in 1880, holds annual exhibitions of school work from all parts of the State. In addition, it has for some years undertaken the distribution of flower seeds among school children at a very cheap rate, and has thus fostered the love of horticulture. A special instructor has been appointed to give assistance to teachers desirous of making their school gardens aid in nature study work. Assistance is given by personal visits as well as by correspondence, and by instruction at vacation Summer Schools. Teachers in training receive instruction in nature knowledge and the art of conducting nature studies. Elementary agriculture is taught in 102 schools, and 315 teachers have qualified as instructors in the subject. A seed wheat competition amongst school children inaugurated in 1911 has proved very successful. In 1919 two of the competitors who entered on the work of wheat-breeding produced wheat of such quality that they were unable to supply the orders for seed grain received from South Australia, as well as from other States. Milk-testing is carried out in several schools, and the various home projects schemes, and agricultural training generally are greatly helped by the practical co-operation of the farmers. The number of school agricultural clubs at the latest available date was 91. A Forest Camp School is held annually during the summer and autumn months in the Kuitpo forest, the scholars receiving practical training in forestry and allied subjects.

(e) *Western Australia.* In Western Australia an advisory teacher of nature study visits the schools and gives advice in regard to proper methods in horticulture and experimental agricultural work. The number and usefulness of the gardens and experimental plots attached to State Schools show marked improvement each year. Special attention is being paid to the needs of the country schools, and as far as possible the instruction is given a practical bias. In some districts definite projects are undertaken of importance to a rural community, i.e., vegetable growing, bee-keeping, and pig and poultry keeping. The boys are also trained in useful manual work, and the girls, wherever possible, are taught simple cookery, and the drying and preserving of fruit and vegetables. Forty special rural schools have been established in different parts of the State, and the project system has as far as possible been made portion of the curriculum. A considerable amount of help is afforded to these schools by the Correspondence staff. Early in 1914 a school was opened on the Narrogin State Farm. The pupils are taken directly from the primary schools, and the course of instruction lasts for two years. On its completion students are qualified to enter on the diploma course at the University. The school was brought under the control of the Education Department in 1921, and has so justified its existence that it cannot accommodate all the applicants for admission. During 1925 there was a full quota of 70 students. Provision has been made for practical work in agriculture at the High School at Northam, and, by arrangement, some of the pupils spend a portion of their time each year at the State Experimental Farm at Merredin. The Education Department is also interesting itself in finding employment on farms for town boys who have difficulty in obtaining employment at home.

(f) *Tasmania.* In Tasmania the organizing teacher of nature study visits and advises the teachers at the State Schools, and also gives addresses and model lessons at the schools of instruction. During 1924 a beginning was made with the work of giving agricultural teaching at selected primary schools, and the results in 1925 were regarded as distinctly encouraging. The subject of agriculture has been added to the list for the intermediate examination. Considerable success has attended the establishment of classes in Hobart for instruction in apple-grading and packing, and similar classes have been formed at several other centres.

5. **Teachers.**—The distribution of the teaching staff in the State Schools during the year 1925, including teachers of needlework, was as follows :—

STATE SCHOOLS.—TEACHING STAFF, 1925.

State.	Principal Teachers.		Assistants.		Pupil or Junior Teachers.		Sewing Mistresses.	Total.		
	Males.	Fem.	Males.	Fem.	Males.	Fem.		Males.	Fem.	Total.
New South Wales	2,343	1,134	2,116	4,968	..	..	216	4,459	6,318	10,777
Victoria ..	1,605	1,124	722	2,063	389	1,545	376	2,716	5,108	7,824
Queensland ..	1,022	690	587	1,388	171	252	..	1,780	2,330	4,110
South Australia	536	545	350	1,001	140	259	159	1,026	1,964	2,990
Western Australia	422	383	275	716	19	154	126	716	1,379	2,095
Tasmania ..	200	332	76	397	67	239	3	343	971	1,314
Northern Territory	4	4	..	2	..	1	..	4	7	11
Total ..	6,132	4,212	4,126	10,535	786	2,450	880	11,044	18,077	29,121

The figures for principal teachers include mistresses of departments, while students in training colleges have been grouped with assistants. Some of the teachers in sole charge of small schools have had very little training, but future permanent appointments will be confined as far as possible to those who have gone through a regular course of instruction.

It will be observed that there is a fairly large number of junior teachers, or pupil teachers, as they are called in some of the States. Although expert pedagogical opinion throughout the world is against the pupil-teacher system, motives of practical expediency compel its retention, or some modification thereof, in most countries. Allusion to the methods of training will be found in the next sub-section.

In New South Wales and in some of the other States attention has recently been drawn to the difficulty of securing an adequate supply of teachers, particularly male teachers for small schools in out-back districts. Difficulty is also experienced in some of the States in securing suitable living accommodation for teachers of these small schools.

6. **Training Colleges.**—The development of the training systems of the various States has been alluded to at some length in earlier issues of the Year Book. The present position is as follows :—

(i) *New South Wales.* At the end of 1925 the total number of students in training was 1,042 (372 men and 670 women), of whom 250 were taking the twelve months' course for rural teachers or assistants, and the balance the various courses up to five years, and the special courses arranged in accordance with departmental requirements. Practically all accessible metropolitan schools are used as practice schools for giving training-college students opportunity to acquire practical skill in teaching. Formerly the limits of accommodation at the College were responsible for the employment in the schools of a number of untrained juniors, but during recent years teachers entering the service have at least six months' professional training. The Principal of the College is also Professor of Education at the University. Coupled with its educational research the College issues a scientific educational periodical written almost exclusively by the staff, while members of the staff are from time to time afforded opportunities of visiting foreign countries on study leave. In addition to the help and advice afforded by the inspectorial staff, teachers in rural districts receive the advantage of tuition by lectures and correspondence from members of the Training College staff. The Department also arranges for schools of instruction in various subjects during vacations.

(ii) *Victoria*. During recent years the educational and professional attainments of the general body of teachers in Victoria have greatly improved. Prior to the establishment of the High Schools, the pupil or junior teachers were recruited from the ranks of those who had obtained the Merit Certificate in the eighth grade of the elementary schools, and the acquirement of the necessary literary qualifications for promotion was greatly hindered by the circumstance that they were engaged in teaching for the greater portion of the day. Under present conditions, candidates spend at least two years in a High School, and consequently enter on their professional duties with a better mental and physical equipment. A number of High School pupils after serving as junior teachers for a year is awarded studentships at the Training College. The present Training College dates back to 1874, but during the retrenchment period, viz., from 1893 to 1900, it was closed. The institution was reopened in February, 1900, with an enrolment of 57 students. In addition to the metropolitan institution there are now branch Training Colleges at Ballarat and Bendigo. At the end of the year 320 trained teachers will be available from the Melbourne Teachers' College, and 40 from each of the auxiliary colleges to take up duty in the schools. In addition to the correspondence courses and the Saturday and evening classes, classes are conducted for private kindergarten students, and for students of manual and domestic arts, so that altogether over 700 students were in receipt of instruction. Several practising schools are attached to the Training College, and infant rooms with attached kindergartens have been specially equipped for the training of infant teachers. The University High School gives secondary teaching practice to both departmental and private students. Five courses of training are provided for at the Melbourne College, i.e., for kindergarten or infant teachers, for primary teachers, for secondary teachers, for teachers of manual arts, and for teachers of domestic arts. The branch institutions at Ballarat and Bendigo will devote their attention chiefly to training teachers for work in the rural schools. Teachers are also greatly helped by district Conferences, and by special training at the Vacation Schools. Excellent results have been attained at the psychological laboratory attached to the Training College.

(iii) *Queensland*. The great majority of the teachers in Queensland originated in the pupil-teacher system, under which beginners, at the age of fourteen or thereabouts, were selected from the senior classes of the primary schools and placed in charge of classes, their efforts being to some extent supervised by the head teachers or senior assistants. In addition to the strain involved in teaching, the neophytes had to prepare notes of lessons, and to study for the annual examinations. During recent years, however, the juniors have been largely recruited from the secondary schools, and their more advanced physical and mental development renders them better fitted for their duties. At the end of 1925 there were 112 of these apprentice-teachers receiving tuition at the Training College. Arrangements have been made to increase the number as early as possible, and in order to attract candidates of a suitable type, teacher-scholarships are granted in accordance with a definite scheme.

At the Training College, which was opened in 1914, the activities comprise—(a) training of teacher-scholarship holders; (b) short courses of training for unclassified teachers selected from small country schools; (c) tutorial classes and correspondence tuition courses to assist students preparing for departmental examinations or for matriculation. During 1925 the number of students under training or tuition was 501, comprising 21 senior and 91 junior scholarship holders, 82 teachers at evening classes, 22 short course students, and 285 teachers receiving tuition by correspondence. In addition, 115 students, principally public servants, were receiving tuition at evening classes.

(iv) *South Australia*. In preceding Year Books a brief account was given of the scheme of training for teachers introduced in 1920. (See No. 17, p. 461.) During the year 1925 additional facilities were provided for instruction in domestic art, woodwork, and elementary agriculture. The total number of students in attendance at the Training College during 1925 was 299. Practical work in teaching is carried out at selected schools for the various types of teachers. Lectures on subnormality and delinquency in children were given for the first time in 1925. The disability under which the College has laboured for many years through having no premises of its own will be remedied by the erection of a specially-designed building, work on which was started during the year. In order to provide an adequate supply of qualified students, provision is made for the award of 150 scholarships annually, tenable at a High School.

(v) *Western Australia.* A Training College for teachers was opened at Claremont in 1902. The original building provided accommodation for 60 students, but extensions were opened in 1908 and the number in training in 1925 was 212. Of the long-course students, 33 were in the first year, and 40 in the second year, while 13 were taking the special course for graduates and third year students. The remaining 126 were taking the one year's course for teachers of country schools. A fair proportion of the full-course students attend lectures at the University, and some remain for a third or fourth year to complete degree work. In addition to the ordinary schools at which teachers gain professional experience, special practising schools have been established for the proper training in teaching and managing the smaller country schools. The standard for entry into the teaching profession has been considerably raised during recent years. Formerly young people were taken at the age of fourteen years from the primary schools and appointed as "pupil" teachers. At present the probationary teachers or monitors must be seventeen years of age, and are expected to possess a good secondary education. After a short period of probation they enter the Training College for special professional training. University graduates receive a special course of one year's duration. Untrained applicants are appointed only when the supply of trained teachers is insufficient. The teachers in the metropolis are greatly helped by periodical conferences of inspectors and teachers, while in rural areas schools of instruction are conducted by inspectors at convenient centres. Teachers in isolated areas are assisted by the correspondence classes.

(vi) *Tasmania.* During 1917 the scheme for the training of teachers was recast and grouped in four divisions:—(1) A short course to supply the professional training required for the less important positions in the primary schools and for teachers of the smaller provisional and Sixth Class schools; (2) Training of infant teachers; (3) Training for positions in the larger primary schools; (4) Training of high school teachers. Practical training for the various classes is given in well-equipped practising schools and in model small schools. The inspectors hold schools of instruction for teachers of small schools, and teachers of moderate attainments are also helped by the Correspondence School. The enrolment at the Training College in 1925 numbered 93.

7. *Expenditure.*—(i) *Maintenance—All Schools.* The net expenditure on maintenance in all grades of schools, excepting technical schools, and the cost per head of average attendance, for the five years ended 1925 are shown below. The figures do not include expenditure on buildings, which is given separately in a subsequent table.

STATE SCHOOLS.—EXPENDITURE ON MAINTENANCE, 1921 TO 1925.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Nor. Ter.	Total.
TOTAL.								
	£	£	£	£	£	£	£	£
1921	3,227,245	1,615,882	1,210,592	452,364	464,136	230,131	2,607	7,202,957
1922	3,234,549	1,759,692	1,186,537	444,373	521,110	239,117	2,943	7,388,321
1923	3,185,085	1,814,185	1,200,636	491,341	526,739	225,261	3,463	7,446,710
1924	3,296,669	1,859,809	1,264,005	538,744	543,395	240,787	4,015	7,747,424
1925	3,520,903	1,963,214	1,364,844	597,960	548,426	246,429	4,326	8,246,102
PER HEAD OF AVERAGE ATTENDANCE.								
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1921	12 16 9	8 19 5	11 18 1	7 1 9	10 2 11	8 16 0	10 12 11	10 15 4
1922	12 11 3	9 8 8	11 10 10	6 15 0	10 16 1	8 16 1	15 16 5	10 14 8
1923	12 7 1	9 17 9	11 9 1	7 7 4	10 17 0	8 12 0	18 18 6	10 17 4
1924	12 5 6	9 16 10	11 16 7	7 16 8	11 5 0	8 19 0	19 6 1	10 19 6
1925	12 18 3	10 1 3	12 9 0	8 12 4	11 3 5	8 19 0	20 10 0	11 8 9

The growth in cost of maintenance in 1925 as compared with 1921 has been brought about by the higher salaries and allowances paid to teachers, and the increased expenditure in connexion with the supply of materials and equipment.

The figures for Queensland include expenditure in connexion with State scholarship holders at Grammar Schools and other approved secondary institutions, allowance being made for the number of these pupils in arriving at the cost per head of attendance.

(ii) *Maintenance—Secondary Schools.* The figures given in the preceding table refer to expenditure on maintenance of all State primary and secondary schools, exclusive of technical colleges. It has been thought desirable by the State Education Departments to give separate information in regard to the cost of secondary education. Any satisfactory estimate of this nature is, however, rendered difficult by the circumstance that there is no exactly comparable definition of the term "secondary" as applied in the various States, while difficulties arise in connexion with the correct apportionment amongst the various branches of expenses of administration, inspection, and the training of teachers. A further complication is caused by the fact that both elementary and higher education are in some instances given in the same school and by the same teacher. The figures quoted in regard to cost hereunder have been extracted from the Reports of the State Education Departments, and are subject to the qualifications above enumerated.

STATE SECONDARY SCHOOLS.—EXPENDITURE ON MAINTENANCE, 1925.

State.						Cost.	Cost Per Head of Population.
						£	s. d.
New South Wales	..	..	..	..	..	397,878	3 6
Victoria	..	..	..	..	..	204,420	2 5
Queensland	..	..	..	..	..	96,772	2 3
South Australia	..	..	..	..	..	66,729	2 6
Western Australia	..	..	..	..	..	100,850	5 6
Tasmania	..	..	..	..	..	16,264	1 6

The figures in all cases are exclusive of cost of buildings. For Queensland, the figure quoted does not include the cost of the Agricultural High School and College, which amounted in 1925 to £28,292.

(iii) *Buildings.* Expenditure on school buildings in each of the years quoted was as follows :—

STATE SCHOOLS.—EXPENDITURE ON BUILDINGS, 1921 TO 1925.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Nor. Ter.	Total.
	£	£	£	£	£	£	£	£
1921	293,420	176,099	67,490	64,885	70,533	53,059	..	725,486
1922	464,015	349,562	83,754	70,506	81,773	31,329	..	1,080,939
1923	628,592	481,372	93,760	85,024	55,173	12,751	..	1,356,672
1924	766,019	531,571	157,683	107,466	71,634	20,643	184	1,655,200
1925	621,109	459,303	126,392	138,132	63,373	43,248	823	1,452,380

The large increases in expenditure shown in most instances during the last four years were due to the efforts made to overtake arrears in necessary buildings and repairs.

(iv) *Total.* The net total cost during the year 1925 was as follows :—

STATE SCHOOLS.—NET TOTAL COST, 1925.

Item.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Nor. Ter.	Total.
	£	£	£	£	£	£	£	£
Net cost of education, including buildings	4,142,012	2,422,517	1,491,236	736,092	611,799	289,677	5,149	9,698,482

The figures in this and the preceding tables refer to all grades of State schools (with the exception of technical schools), and include evening schools. Including buildings, the net cost per scholar in average attendance for the whole of the State schools in Australia amounted in 1925 to £13 9s., as compared with £4 9s. 3d. in 1901.

8. *School Savings Banks.*—Returns show that these institutions are in existence in three States. In New South Wales, there were 885 banks at the end of 1924, the deposits amounting to £62,182 and withdrawals to £66,696. Since the establishment of the banks in 1887, deposits totalled £1,011,918, and withdrawals £999,855. Of the latter sum the withdrawals of accounts of £1 and upwards for deposit in the Government Savings

Bank as children's individual accounts amounted to £187,208. At the close of the year 1924 the control of these banks passed from the Department to the Commissioners of the Government Savings Bank of New South Wales. In connexion with this matter, the Commissioners expressed the opinion that the school bank did not in the true sense of the word encourage saving, as the depositors received no interest, and the psychological effect of the payment of interest was therefore lost. Under the new arrangement interest is payable at the same rates as allowed to ordinary depositors. In Victoria banks were in operation at 1,473 schools at the end of 1925. On the 30th June deposits amounted to £73,574 and withdrawals to £31,911. Since the inauguration of the school bank system in 1912 the total deposits reached £241,612, and the withdrawals £127,376. In South Australia, there were 45,325 depositors, with £66,834 to their credit; and in Western Australia, there were 655 school banks, with 45,512 depositors and £78,930 to their credit.

§ 3. Private Schools.*

1. Returns for 1925.—The following table shows the number of private schools, together with the teachers engaged therein, and the enrolment and average attendance in 1925:—

PRIVATE SCHOOLS, 1925.

State.	Schools.	Teachers.	Enrolment.	Average Attendance.
New South Wales	696	4,243	99,292	68,342
Victoria	495	2,212	64,835	(a)55,100
Queensland	181	1,138	29,023	23,344
South Australia	175	841	17,088	12,952
Western Australia	122	512	11,609	10,539
Tasmania	67	316	6,612	4,911
Northern Territory	1	4	105	95
Total	1,737	9,266	228,564	175,283

(a) Estimated.

The totals for New South Wales include returns from the Sydney Grammar School, which receives a yearly State subsidy of £1,500, and which, in 1925, had an enrolment of 643, and an average attendance of 608.

The figures for Queensland include the returns from Grammar Schools, of which there are ten—six for boys and four for girls, with an enrolment of 1,235 boys and 776 girls. These schools are governed by boards of trustees, partly nominated by Government, and partly by the subscribers to the funds. The trustees make regulations regarding the fees of scholars, the salaries of teachers, and generally for the management of the schools. The total Government aid received in 1925 amounted to £17,803. In addition, a sum of £14,734 was received for Government scholarships and bursars' fees. The Grammar Schools are inspected annually by officers of the Department of Public Instruction.

2. Growth of Private Schools.—The enrolment and average attendance at private schools during 1891, 1901, 1911, and in each year of the period 1921 to 1925 are as follows:—

PRIVATE SCHOOLS.—ENROLMENT AND ATTENDANCE, 1891 TO 1925.

Year.	Enrolment.	Average Attendance.	Year.	Enrolment.	Average Attendance.
1891	124,485	99,588	1922	201,574	167,362
1901	148,659	120,742	1923	206,910	169,466
1911	160,794	132,588	1924	229,543	175,614
1921	198,688	164,073	1925	228,564	175,283

The increase in average attendance during the last five years amounted to about 7 per cent., as compared with 8 per cent. for the State schools during the same period.

3. Registration of Private Schools.—Conditions in regard to the registration of private schools were alluded to in previous Year Books (*vide* No. 18, p. 451), but consideration of space precludes the repetition of this information in the present issue.

* Private schools include all schools not wholly under State control. The term "private," though popularly applied, is, of course, a misnomer.

§ 4. Free Kindergartens.

The following information regarding Free Kindergartens has been compiled from particulars supplied by the principals of the chief institutions or the organizing secretary in each State, except in the case of Western Australia, the details for which were furnished by the Education Department.

FREE KINDERGARTENS, 1925.

State.	No. of Schools.	Average Attendance.	Permanent Instructors.	Student Teachers.	Voluntary Assistance.
New South Wales (Sydney)	14	721	27	30	16
Victoria (Melbourne)	27	1,458	71	28	400
(Ballarat)	1	38	2	..	14
Queensland (Brisbane)	6	512	8	14	2
South Australia (Adelaide)	7	290	10	22	2
Western Australia (Perth)	6	210	9	25	4
Tasmania (Hobart)	4	128	5	11	..
(Launceston)	2	91	4	3	5
Total	67	3,448	136	133	443

In New South Wales there were 72 students at the Kindergarten Training College. At the Melbourne College, 28 students were in training. The Brisbane Training College had 14 students in training during 1925, the Training College at Adelaide 22, and at Perth 25. Eleven students were in training at Hobart, and 3 at Launceston.

The information given above refers to institutions under private kindergarten unions or associations, and is exclusive of the kindergarten branches in the Government schools of the various States.

§ 5. Universities.

1. *Origin and Development.*—(i) *University of Sydney.* The Act of Incorporation of the University of Sydney received Royal Assent on the 1st October, 1850, and the first Senate was appointed on the 24th December of that year. The first matriculation examination was held in October, 1852, when 24 candidates passed the required test, and the formal inauguration ceremony took place on the 11th October of the same year. A Royal Charter was granted to the University on the 27th February, 1858. Women students were admitted in 1881. The passing of the University (Amendment) Act of 1912 marks an important epoch in the development of the educational system of New South Wales. The Act aims at placing the University in a more effective position as the culminating point in a thoroughly co-ordinated system of State education, and it is claimed that the passing of this measure made the educational system—from the Primary Schools through the Secondary Schools to the Technical Colleges or to the University—form a progressive and continuous whole. More extended reference to this Act and to the liberal scheme of exhibitions provided thereunder for scholars from the State and Private Schools was given in Official Year Book No. 15, page 745. At the inception of the University there were only three professorships. The present staff consists of 31 professors, 7 associate, 5 assistant professors, and 163 lecturers and demonstrators. There are, in addition, 25 honorary lecturers.

(ii) *University of Melbourne.* This institution was established by Act of Parliament assented to on the 22nd January, 1853, and its first council was appointed on the 11th April of that year. The foundation stone of the main building was laid on the 3rd July, 1854, and the University was formally inaugurated on the 13th April, 1855. By Royal Letters Patent, issued in 1859, its degrees are, like those of the Sydney institution, declared of equal status with those of any other University in the British Empire. Women students were admitted to degree courses for the first time in 1880. The University, which began in 1855 with schools of Arts and Law, has now a staff of 22 professors, 5 associate professors, 142 lecturers and demonstrators, and 135 various assistants. The Conservatorium of Music has a staff numbering 46.

(iii) *University of Queensland.* The Act to establish the University of Queensland was passed in 1909, and the first Senate was appointed on the 14th April, 1910. The University was opened on the 14th March, 1911, when 60 students were matriculated.

Provision has been made for a Correspondence Study department in connexion with the institution, and at the request of the Brisbane branch of the Workers' Educational Association weekly lectures are given in History and Economics. At the present time there are 13 professors, with 18 independent lecturers, 3 assistant lecturers and demonstrators, and 21 miscellaneous assistants.

(iv) *University of Adelaide.* This University was established by Act of Parliament in 1874. Its origin and progress were largely due to the munificence of the late Sir Walter Watson Hughes and Sir Thomas Elder, G.C.M.G., the total gifts of the latter amounting to over £100,000. The academical work of the institution was commenced in March, 1876, when 8 matriculated and 52 non-graduating students attended lectures. The foundation stone of the University buildings was laid on the 30th July, 1879, and the buildings were opened in April, 1882. In 1881, by Royal Letters Patent, the degrees granted by the institution were recognized as of equal distinction with those of any University in the British Empire. The Elder Conservatorium of Music was opened in 1898. Power was given by Act of Parliament in 1880 to grant degrees to women. At first there were only four professorships in the University, whereas the present staff consists of 19 professors, 113 lecturers and demonstrators, and 65 miscellaneous assistants, while the staff at the Conservatorium, included in the foregoing figures, numbers 18.

(v) *University of Western Australia.* The University of Western Australia was established under an Act which received Royal assent on the 16th February, 1911, and the first Senate was appointed on the 13th February, 1912. The University was opened in March, 1913. There are now 10 professors, in addition to 31 lecturers and demonstrators and 21 miscellaneous assistants. Associates of the Perth Technical School or the Kalgoorlie School of Mines may, under prescribed conditions, obtain a reduction in period of attendance for the B.E. degree, and students from the School of Mines may be admitted to the examinations and take portion of their course at the University. Under the will of the first chancellor, Sir J. Winthrop Hackett, the University will receive a sum of more than £400,000, in addition to the endowment of the Chair of Agriculture.

(vi) *University of Tasmania.* The Act to establish the University of Tasmania (Hobart) was assented to on the 5th December, 1889. At the present time the institution, which is small but efficient, possesses a staff of 7 professors, 13 independent lecturers, and 7 assistant lecturers and 2 miscellaneous assistants. Under Statutes the Zeehan School of Mines and Metallurgy and the School of Mines and Industries at Mount Lyell were affiliated to the University.

2. Teachers and Students.—The following table shows the number of professors and lecturers, and the students in attendance at each of the State Universities during the year 1925 :—

UNIVERSITIES.—TEACHERS AND STUDENTS, 1925.

University.	Professors.	Lecturers and Demonstrators.	Students attending Lectures.		
			Matriculated.	Non-matriculated.	Total.
Sydney	43	188	2,121	490	2,611
Melbourne	27	142	..	..	(a) 2,353
Queensland (Brisbane)	13	21	346	111	457
Adelaide	19	113	798	676	(b) 1,474
Western Australia (Perth)	10	31	372	..	372
Tasmania (Hobart)	7	20	134	39	173

(a) Exclusive of 201 music students.

(b) Exclusive of 644 music students.

Students at the Conservatorium of Music have been excluded in the case of Melbourne and Adelaide. The Conservatorium in Sydney, while attached to the Education Department, is not under the control of the University.

3. University Revenue.—The income of the Universities from all sources during the year 1925 was as shown in the table below. The figures in the column "private foundations" refer to income from investments, the cash value of benefactions received during the year being shown separately in the appended notes.

UNIVERSITIES.—REVENUE, 1925.

University.	Government Grants.		Fees.	Private Foundations.	Other.	Total.
	Ordinary.	Special.				
	£	£	£	£	£	£
Sydney	32,000	(a)90,270	40,731	(b)67,157	7,472	237,630
Melbourne ..	45,000	22,166	70,942	(f)15,362	3,131	156,601
Queensland (Brisbane) ..	22,300	1,050	9,188	(d)15,546	(e) 11,497	59,581
Adelaide	24,000	18,747	23,503	(c)14,668	750	81,668
Western Australia (Perth) ..	19,250	..	1,805	785	2,521	24,361
Tasmania (Hobart) ..	15,344	1,658	3,062	1,514	53	21,631
Total	157,894	133,891	149,231	115,032	25,424	581,472

(a) Building Vote, £50,000. (b) New foundations, £34,806. (c) New foundations, £49,599.
 (d) New foundations, £7,141. (e) Including £11,000 from McCaughey fund. (f) New foundations, £26,815.

The extent to which the older-established Universities have benefited by private munificence will be apparent from the following table. The amounts quoted represent actual cash received, special mention being made of individual gifts of £5,000 and over. In some instances the figures include annual gifts or annual income from donations, and are exclusive of bequests of books, scientific apparatus, etc., the cash value of which cannot be stated :—

UNIVERSITIES.—BENEFACTIONS.

University of Sydney.		University of Melbourne.		University of Adelaide.	
Donor.	Amount.	Donor.	Amount.	Donor.	Amount.
	£		£.		£
J. H. Challis ..	276,750	Sir Samuel Gillott ..	34,500	Sir Thos. Elder ..	98,760
Sir P. N. Russell ..	100,000	Sir Samuel Wilson ..	30,000	The Hon. Sir Lang-	
W. O. Watt ..	39,360	James Stewart ..	25,624	don Bonython ..	40,000
Thos. Fisher ..	30,000	Hon. Francis Ormond ..	20,000	Mrs. Jane Marks ..	30,000
Miss Elizabeth Caird ..	9,576	John Hastie ..	19,140	R. Barr Smith	
Sir Hugh Dixson ..	9,050	David Aitchison and		and family ..	21,150
Edwin Dalton ..	8,000	Miss E. C. Hickman ..	13,269	Sir W. Hughes ..	20,000
J. F. Archibald ..	7,135	Robert Dixon ..	10,837	Family of John	
Hon. Sir W. Macleay ..	6,221	Mrs. E. R. Moran ..	10,000	Darling ..	15,000
Mrs. Hovell ..	6,000	Sir J. M. and Lady		Mrs. G. A. Jury ..	12,000
Thos. Walker ..	6,200	Higgins ..	9,700	Hon. J. H. Angas	10,000
Mrs. M. H. Dalley ..	5,000	John Dixon Wyse-		Other donations ..	34,038
Miss E. S. Hebden ..	5,000	laskie ..	8,400		
Other donations ..	69,832	Edward Wilson (" Ar-			
		gus " Trust) ..	8,050		
		W. R. Pearson ..	7,800		
		R. J. Fletcher ..	7,500		
		Mr. and Mrs. F. Knight	6,000		
		David Kay ..	5,764		
		E. J. B. Nunn ..	5,300		
		Cuming Smith & Co.			
		Ltd. ..	5,250		
		Subscribers, Ormond			
		Exhibitions in Music	5,217		
		Henry T. Dwight ..	5,000		
		Wm. Thos. Mollison ..	5,000		
		Other donations ..	100,097		
Total	578,124	Total	342,448	Total	280,948

The figures for the Sydney University are exclusive of the bequest by the late Hon. Sir Samuel McCaughey, M.L.C., of property producing an annual income of £19,000 to be applied to the general purposes of the University.

The credit balances of some of the above endowments now amount to very considerable sums. For example, on the 31st December, 1925, the Challis Fund amounted to nearly £337,000, and the Fisher Fund to £40,000, while in the case of Melbourne University the Stewart Fund on the 31st December, 1925, stood at £30,900, and the Dixon Fund at £17,000.

In addition to the above there were various other bequests to Sydney University—e.g., collection of Egyptian antiquities, etc., by Sir Charles Nicholson, and Natural History collection by Mr. Geo. Masters, while the building for the Natural History Museum was given by Sir W. Macleay. Numerous prizes and scholarships have also been given to the various colleges. In Melbourne, the Hon. Francis Ormond's benefactions to Ormond College amounted to about £108,000. Private benefactions to the University of Queensland amounted in 1925 to £106,000, of which £56,000 was received from the trustees of the late Sir Samuel McCaughey and £11,700 from the Walter and Eliza Hall Trust. A gift of £10,000 was received from the British Red Cross Association in 1920, and a similar sum was presented in 1923 by Miss Kate Garrick. With a view to advancing the cause of education in agriculture, forestry and allied subjects, Mr. Peter Waite transferred to the Adelaide University in 1914 the whole of the valuable Urrbrae estate at Glen Osmond. The estate comprises 134 acres of land with a fine mansion. In 1915, he presented the estate of Claremont and part of Netherby, comprising 165 acres, adjoining Urrbrae, while in 1918 he transferred to the University 5,880 shares in a public company to provide funds to enable the University to utilize the land for the purposes intended. The value of these bequests is not stated in the University returns. In addition to the sum of £30,000 mentioned above, presented by Mrs. Jane Marks in 1922, Adelaide University benefited during that year by a gift of property valued at £20,000, presented by Mrs. A. M. Simpson and Miss A. F. Keith Sheridan. In Western Australia the Chair of Agriculture was founded by an endowment of Sir Winthrop Hackett, and the University also benefits to the extent of over £400,000 under the terms of his will. Private benefactions to the University of Tasmania amount to about £6,800, this figure, however, including in some instances amounts received annually, and not including bequests of books, apparatus, etc., the value of which was not stated.

4. University Expenditure.—For the year 1925 the expenditure by the Universities under various headings was as follows:—

UNIVERSITIES.—EXPENDITURE, 1925.

University.	Salaries and Administration.	Scholarships, Bursaries, etc.	General Maintenance.	New Buildings and Additions.	Other.	Total.
	£	£	£	£	£	£
Sydney	130,276	6,332	43,376	(a) 63,361	2,505	245,850
Melbourne	102,805	12,305	18,701	5,881	(d) 32,648	172,340
Queensland (Brisbane) ..	27,079	832	6,977	..	6,604	41,492
Adelaide	49,312	1,534	10,154	(b) ..	(c) 16,523	77,523
Western Australia (Perth)	20,035	390	2,640	..	(e) 2,476	25,541
Tasmania (Hobart) ..	12,509	1,220	(g) 4,300	..	(f) 1,089	19,118
Total	342,016	22,613	86,148	69,242	61,845	581,864

(a) From Building Vote Account. (b) The Engineering and Physics building was provided by the S.A. Govt. at a cost of £48,500, the actual expenditure in 1925 being £19,708. (c) Research £11,981. (d) Laboratory and Research, £18,303. Examiners' Fees, £10,800. (e) Research work. (f) Research, £812. (g) Laboratory, £1,349.

5. University Extension.—Extension lectures were instituted at Sydney University in 1886, and in 1892 a Board was appointed which receives and considers applications from country centres, and makes provision for engaging lecturers and managing the entire business connected with the various courses. The Board also arranges for courses of lectures in other States. In 1925 provision was made for 25 courses, 9 of which were delivered in Sydney and suburbs, and 16 in country towns.

Evening tutorial classes open to both matriculated and unmatriculated students have been established in various centres in accordance with the University Amendment Act of 1912. Sixty-one of these classes, attended by about 1,600 students, were in operation during 1925.

University extension lectures in Victoria date from the year 1891, when a Board was appointed by the Melbourne University for the purpose of appointing lecturers and holding classes and examinations at such places and in such subjects as it might think fit. A joint committee composed of representatives from the Extension Board and the Workers' Educational Association respectively controls the organization of tutorial classes. The Board also arranges for advising country students by correspondence on social and cultural subjects. The tutorial classes during the year numbered 23, of which 10 were held in Melbourne, 8 in the suburbs, and 5 in country towns, the combined attendance reaching 960. In addition 310 students were receiving tuition by correspondence. A Vacation School was in operation from 26th May to 6th June, and was attended by 400 students, a large proportion of whom were teachers. Extension lectures were given in the city and in 10 country centres, and 42 wireless lecturettes were broadcasted during the year.

As pointed out previously, a correspondence study department has been inaugurated in connexion with the University of Queensland in order to overcome, as far as possible, the difficulties of students who desire to benefit by University teaching, but who for various reasons are unable to attend the lectures. In 1924 there were 155 students on the roll. In addition, 6 public lectures and 3 intra-mural courses were given in Brisbane, and 9 lectures in country towns, while 8 classes were conducted in Brisbane and 3 in the country for members of the Workers' Educational Association, and attended by 165 and 49 students respectively, and correspondence lectures were provided for 1,134 country students. Five extension classes in country towns were provided with notes and text-books, and a tutor was appointed to supervise the work.

The Adelaide University has instituted short courses of extension lectures in Arts and Science, to which students are admitted on payment of a nominal fee. Public intimation of these lectures is made from time to time during the session. Five lectures were delivered in 1925. Enrolments at the twelve tutorial classes and the various study circles, etc., in 1925 numbered 750.

In Western Australia provision has been made for the giving of courses of extension lectures in Perth and suburbs, and also—by arrangement with local committees—in country centres. During the year 1925, six lectures were given in Perth, and 37 in the country. The professor of agriculture visits the chief farming districts for the purpose of giving lectures to, and holding conferences with the primary producers. Special short courses for farmers are given at the University, and 42 broadcasted lectures were given from the Westralian Farmers' station. Short courses of popular lectures are also given in the evening by various professors at the University.

In Tasmania during 1919 the University Extension Board which had previously controlled the work of providing extra-mural tuition was replaced by the Committee for Tutorial Classes. The Professor of Economics is director of tutorial classes, and visited and lectured at all centres during the year 1925. Five full courses, six classes with 12 or more lectures each, and 9 courses of 6 lectures were provided, the latter being in country centres. Effective students (60 per cent. attendance) numbered 241.

6. Workers' Educational Association.—In 1913 Workers' Educational Associations were formed in all the States of Australia, and later in New Zealand. The movement has for its object the bringing of the University into closer relationship with the masses of the people, and thereby providing for the higher education of the workers in civic and cultural subjects. The work of the Association is gaining in popularity year by year, and the growth of the movement has been phenomenal. The Government of New South Wales at first granted the University of Sydney the sum of £1,000 to initiate a scheme for tutorial classes. There are now direct grants from all State Governments except Western Australia, and an additional University grant in New Zealand. The particulars of grants for classes are as follow:—New South Wales, £5,970, 61 classes; Victoria, £4,500, 25 tutorial classes and extension work; Tasmania, £1,780, 20 classes; South

Australia, £2,550, 23 classes; Queensland, £3,000, 8 classes and 24 study circles. In addition, the New South Wales Association receives a Government grant for general organizing purposes of £400, paid on the basis of £1 for £1 on subscriptions and donations up to this amount. Correspondence courses form a strong feature of the work in Queensland, groups of construction workers and other outback pioneers being reached thereby. The total number of students throughout Australia is approximately 5,000, the greater number of whom are taking three-year courses while working at their daily occupations. An analysis of these occupations showed that the great majority of the students were wage-earners. The principal subjects chosen in all States are Industrial History, Economics, Political Science, and Sociology, but there is an increasing number of classes in other subjects such as History, Psychology, Philosophy, Literature, Music, Physiology, and Biology. Each University co-operates with the W.E.A. in the formation of a joint committee which appoints tutors and generally supervises the work with the assistance of a University officer with the title of Director of Tutorial Classes. In addition to the longer and more serious courses, a great many preparatory classes, study circles, and summer schools are organized by the Association, numerous courses of public lectures are delivered, educational conferences promoted, and an extensive book service is spreading educational literature throughout Australia. A strong feature of the work of the Association is the organization of a number of country branches to carry facilities for higher education to districts in which these have hitherto been lacking. This work has been particularly successful in New South Wales, Victoria, Queensland, and Tasmania. A Commonwealth Conference held at Adelaide in 1918 resulted in the formation of a federal organization now known as "The Workers' Educational Association of Australia." Its central office is in the Education Department, Melbourne. The Federal Council co-ordinates the activities of the W.E.A. in all States, and has inaugurated a series of publications on sociological and economic subjects. Nine books have been published to date, including "Modern Economic History" by Professor H. Heaton; "Marx and Modern Thought," by G. V. Portus; "Shadows and Realities of Government," by F. A. Bland; "A New Province for Law and Order," by Mr. Justice Higgins; "A Life of Society," by Prof. J. B. Condliffe; "A Study in Social Economics: The Hunter River Valley," by F. R. E. Mauldon. The Federal Council also publishes "The Highway," a monthly magazine now in its ninth year, which contains notes on the movement, and general discussions on educational work.

§ 6. Technical Education.

1. **General.**—Although provision has been made in all of the States in respect to many necessary forms of technical education, the total provision made would imply that this branch of education has not been regarded as of outstanding importance. As will be seen later on, the expenditure on technical education for the whole of Australia is comparatively small.

2. **New South Wales.**—Some account of the origin and development of technical education in New South Wales was given in Official Year Book No. 15, page 750, but considerations of space preclude its repetition in this issue. It may be noted, however, that technical education had its origin in this State in 1883, but it was not until the year 1913 that a definitely co-ordinated scheme was adopted. The branch Technical Colleges, with the exception of those at Newcastle and Broken Hill, were then superseded by Trade Schools, admission to which was restricted to those actively engaged in the trade concerned, and was dependent also on the possession of a certain degree of preparatory knowledge. Courses of instruction in which workshop experience is not necessary to train the efficient worker—such as Art, Science, and Commercial Courses—are, however, open to all students who have the requisite preliminary knowledge. Advisory committees were appointed for each trade or group of trades and have proved very helpful. The first two or three years' course of instruction is given in the Trade Schools, and students may then go on for a further two or three years' advanced teaching at the Technical Colleges. The higher courses embrace instruction in advanced trades' work

qualifying for the position of manager or foreman, but no attempt is made to train for the professional standing. It is hoped, however, that the scheme will develop so that part of the graduates may proceed to the University. Admission to the higher courses will eventually be restricted to those who have either graduated in the Trade Schools of the Department, or who evidence possession of a similar standard of knowledge. In addition to the courses given in the Technical Colleges and Trade Schools, elementary instruction has been provided at various centres where there has been a demand for it, and provision has been made also for special courses of instruction by correspondence. A liberal scheme of scholarships has been drawn up for students passing from the day or evening Junior Technical Schools or Domestic Science Schools, to the Trades and Science Schools, as well as scholarships to the University at the close of the diploma course.

The average attendance at the junior technical schools in 1925 amounted to 5,344, an increase of over 900 on the figures for the preceding year. Evidence of the success of these schools is afforded by the circumstance that the pupils are eagerly sought for as apprentices in skilled trades.

The table below gives some idea of the development of technical education in New South Wales during the five years 1921 to 1925 :—

TECHNICAL EDUCATION.—NEW SOUTH WALES, 1921 TO 1925.

Year.	Number of Classes.	Number of Enrolments.	Individual Students.	Number of Lecturers and Teachers.	Fees Received.
					£
1921	636	18,974	9,696	447	12,641
1922	646	21,328	9,806	470	13,627
1923	664	23,496	10,234	478	14,042
1924	674	25,462	11,386	499	16,644
1925	679	26,796	11,787	519	17,882

A sum of £2,000 has been placed on the Estimates for 1926–7 to provide a Vocational Guidance Bureau, with the object of establishing more effective contact between employers and those seeking work, and of counteracting the tendency amongst thoughtless youths to engage in dead-end occupations.

3. *Victoria.*—Technical instruction in mining has for many years received considerable attention in Victoria, the Ballarat School of Mines, which was established as far back as 1870, having achieved an Australasian reputation. Fine work was also done at the School of Mines in Bendigo, and later on excellent courses of training were evolved at The Working Men's College in Melbourne. The general scheme of instruction, however, lacked cohesion, and it was not until after the publication of the Report of the Royal Commission on Technical Education, which was appointed in 1899, that many defects were remedied. Prior to 1910 the whole of the schools were under the control of local councils, but in the year mentioned the control passed to the Education Department. At the end of 1925 there were 27 Technical Schools receiving State aid. The largest technical institution in Melbourne is the Working Men's College, founded in 1887. The College, in addition to giving instruction in a large number of technical subjects, is also a School of Mines. During 1925 the classes in operation numbered 180, and the average enrolments per term amounted to 2,600. Such institutions as the Swinburne Technical College, and the Ballarat and Bendigo Schools of Mines, have also an extensive curriculum embracing the more important industrial subjects. Special attention has been given in recent years to the provision of technical education for girls. There are, moreover, 24 Junior Technical Schools in existence, giving a two or three years' course of instruction to boys between the ages of 12½ and 15 years, thereby preparing them for the more advanced teaching in the higher schools.

Particulars regarding the growth of technical education in Victoria during the last five years are given in the appended table :—

TECHNICAL EDUCATION.—VICTORIA, 1921 TO 1925.

Year.	Number of Classes.	Number of Enrolments.	Average Attendance.	Fees Received.
				£
1921	116	15,105	10,663	25,831
1922	120	16,168	12,236	28,725
1923	125	17,679	12,804	32,286
1924	122	19,234	13,832	32,404
1925	125	19,439	15,018	31,250

In his report for the year 1925 the Chief Inspector of Technical Schools alludes to the difficulty of obtaining and retaining the services of a sufficient trained technical staff. During 1925 the full-time teachers employed in technical schools numbered 536, and the part-time teachers or outside experts numbered 238.

4. **Queensland.**—Up to the passing of the "Technical Instruction Act of 1908," technical education in Queensland was controlled by local committees, the State simply providing financial aid. Under the provisions of this Act, the State took over the technical colleges at Brisbane, South Brisbane and West End, and formed therefrom a Central Technical College. By an amending Act in 1918, power was taken to assume the control of other technical institutions, and in 1919 the colleges at Toowoomba and Rockhampton came under departmental control. In 1923 the Colleges at Cairns, Townsville, and Bowen, and in 1924 the institution at Bundaberg, were taken over. Technical High Schools were inaugurated in 1921 at the Central and Ipswich Technical Colleges, and the vocational courses given in the High Schools connected with the Colleges at Toowoomba and Rockhampton attracted a large number of students. The Department's policy of combining Technical Colleges with High Schools in the country centres has proved very successful. During 1925 there were seventeen technical colleges in operation, while classes in technical subjects were held in a number of smaller centres. Twelve colleges were directly controlled by the Department and five by local committees. Preparatory Day Trade Schools were established at Ipswich and Brisbane in 1916, and Domestic Science Day Schools at Brisbane and Ipswich in 1915, and at Townsville in 1918. A certain amount of technical and vocational work is also provided for at the Rural Schools (See § 2, 4 (vi.c.)). Two Travelling Domestic Science Schools and a Manual Training School for boys have been constructed to meet the needs of districts where the population is not sufficient to warrant the establishment of permanent classes, and these institutions have been very successful. The schools are housed in specially-fitted railway cars, and remain for seven weeks at each of the towns visited. The progress of technical education since 1921 is shown in the following table :—

TECHNICAL EDUCATION.—QUEENSLAND, 1921 TO 1925.

Year.	Number of Classes.	Enrolments.	Average Weekly Attendance.	Number of Teachers.	Fees Received.
					£
1921	522	11,993	(a) 9,500	372	13,882
1922	512	12,069	(a) 10,000	396	14,549
1923	607	11,565	(a) 10,000	387	13,220
1924	611	13,002	(a) 11,000	364	13,633
1925	615	13,349	(a) 11,500	433	13,959

(a) Estimated.

Greater attention is being devoted to the development of trade classes, and under the Apprenticeship Act of 1923, apprenticeship is controlled by the Minister for Works, while committees consisting of representatives of employers and employees have been appointed for the various skilled trades. Attendance at apprentices' classes is compulsory in the towns to which the provisions of the scheme have been extended, and this has had the effect of considerably increasing the number of student hours of instruction as compared with earlier years.

5. **South Australia.**—Prior to the year 1917 the condition of affairs in regard to technical education in South Australia was regarded by the Education Department as unsatisfactory. There was a School of Mines and Industries in Adelaide, and in addition Schools of Mines at Moonta, Port Pirie, Kapunda, Mount Gambier, and Gawler. While the Government bore the bulk of the cost of maintenance of these institutions, they were controlled by independent councils, and there was no regular co-ordination in regard to staffs, curriculum, etc. A Director of Technical Education was appointed in 1916, and the reorganization of the system was thereupon undertaken. The position in 1921 was, however, still unsatisfactory, as the control of technical education in the State rested with two bodies, (a) the Council of the South Australian School of Mines and Industries whose activities are confined to the metropolitan area; and (b) the technical branch of the Education Department, which deals with schools in the metropolis, as well as throughout the country districts. During that year, an amending Act dealing with the technical education of apprentices was passed, and, by proclamation, the scope of the original Act was widened so as to include over 150 separate trades. Regular meetings of the Apprentices Advisory Board were held, and improvements in conditions of apprenticeship were made on their recommendation. In 1925, 747 apprentices and probationers were enrolled in the various classes. The total number of registrations since the inception of the Act was 3,040, and of these 425 had completed the full three years' course and received certificates. The Country Technical Schools previously alluded to were maintained in 1925, as also the new schools opened in 1922 at Kadina and Wallaroo. Classes were established at Murray Bridge and Mannum, and a Technical School, opened in 1924 at Thebarton, was attended by 200 pupils in 1925. By means of Saturday classes and special Vacation Schools, a large number of male teachers and a few women teachers have qualified as instructors in woodwork.

Particulars regarding the position of technical education in the State during the five years 1921 to 1925 are given hereunder:—

TECHNICAL EDUCATION.—SOUTH AUSTRALIA, 1921 TO 1925.

Year.	Number of Classes.	Enrolments.	Average Attendance.	Number of Teachers.	Fees Received.
					£
1921	357	10,499	7,187	183	5,713
1922	311	10,609	7,875	160	6,008
1923	332	11,339	8,834	175	6,309
1924	421	12,312	9,416	185	6,465
1925	479	13,098	10,036	202	6,456

6. **Western Australia.**—A Technical School was established at Perth in 1900, and since its opening has progressed rapidly. During the year 1925 there was an average enrolment of 2,196 students each term. The school is affiliated to the University, and provides instruction for evening students in University work in mathematics, physics, chemistry, and geology. Arrangements have been made for co-operation also with the University in the provision of a diploma course of engineering for the Technical School students. The trade classes are well supported, and particular attention is devoted to subjects of value to the skilled tradesman. Committees, including representatives of employers' and workers' unions, have been formed for each group of trades, and confer regularly with the trade instructors, make inspections,

and furnish recommendations. Full time day classes in engineering are provided for pupils who have passed through the Junior Technical School, and a number of railway apprentices attends the day-classes at Perth and Midland Junction. Classes are also held for mechanics in the Postal Department. The Fremantle School, which had 535 individual students on the roll in 1925, is being gradually developed on the trade side. Midland Junction had 125 students, exclusive of railway apprentices, Boulder had 168, and Kalgoorlie 97. Smaller groups of classes were conducted at other centres. The schools are all under the control of the Education Department, the officer entrusted with the supervision being styled Director of Technical Education.

Returns for the last five years are embodied in the table hereunder:—

TECHNICAL EDUCATION.—WESTERN AUSTRALIA, 1921 TO 1925.

Year.	Number of Classes.	Enrolments.	Average Weekly Attendance.	Number of Teachers.	Fees Received.
					£
1921	461	6,773	(a)3,466	145	1,920
1922	449	6,920	(b)5,679	153	3,139
1923	446	6,850	(c)5,552	146	2,988
1924	451	7,002	(d)5,633	147	2,837
1925	453	7,486	(e)6,146	147	3,116

(a) Individual students. (b) 3,471 individual students. (c) 3,409 individual students. (d) 3,423 individual students. (e) 3,554 individual students.

7. **Tasmania.**—Provision for technical education dates from the year 1888, but in the report of the Commission appointed in 1906 to inquire into the condition of technical education in Tasmania, allusion was made to the want of co-ordination between existing institutions and the Education Department, and it was recommended that the schools should be taken over by the Government, and a trained technologist appointed as organizing inspector. The inspector was appointed in 1917 and a Technical Education Branch was established in 1918. The scheme of technical education includes provision for courses of training in industrial, commercial, and domestic pursuits. Under the first-mentioned, the scheme provides for junior technical schools, applied science schools, technical trade schools, and art and applied art schools, and it is to this group that the activities of the Department have hitherto been almost exclusively confined. The co-operation of employers and employees has been obtained, and certain of the more advanced courses have been co-ordinated with the courses given at the University. There are Junior Technical Schools at Hobart, Launceston, and Queenstown, which had enrolments in 1925 of 204, 147, and 53 respectively. Senior Technical Schools are in operation at Hobart and Launceston organized into Departments of Engineering and Applied Science, Art, and Trade; and at Queenstown and Zeehan, courses in Metallurgical and Mining Engineering are undertaken. The Queenstown School is assisted by a subsidy given by the Mount Lyell Company, and the Zeehan institution receives support from the Electrolytic Zinc Company in the shape of a yearly subsidy of £150.

TECHNICAL EDUCATION.—TASMANIA, 1921 TO 1925.

Year.	Number of Classes.	Enrolments.	Average Weekly Attendance.	Number of Teachers.	Fees Received.
					£
1921	167	1,218	860	65	1,286
1922	209	1,098	(a)	55	1,069
1923	254	1,151	(a)	72	1,133
1924	(a)	1,351	971	83	1,533
1925	254	1,450	978	90	1,412

(a) No record.

8. **Expenditure on Technical Education.**—The expenditure on technical education in each State during the period 1921 to 1925 is shown below :—

TECHNICAL EDUCATION.—EXPENDITURE 1921 TO 1925.

Year.		N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
		£	£	£	£	£	£	£
1921	(a)	210,515	162,596	62,321	40,864	19,212	17,808	513,316
	(b)	13,972	29,619	4,854	4,172	580	259	53,456
1922	(a)	169,925	202,228	59,075	43,744	18,406	18,222	511,600
	(b)	48,978	21,750	1,577	708	1,030	151	74,194
1923	(a)	146,158	215,320	60,824	46,655	18,189	18,271	505,417
	(b)	16,971	45,649	13,379	3,461	1,590	366	81,416
1924	(a)	166,844	239,319	62,888	56,140	18,229	20,415	563,835
	(b)	7,100	53,572	3,514	5,811	1,003	127	71,127
1925	(a)	169,002	255,790	78,720	56,821	18,391	20,353	599,077
	(b)	27,504	95,686	4,632	9,760	522	57	138,161

(a) Maintenance. (b) Buildings.

The expenditure on maintenance for technical education in 1925 amounted to 2s. per head of the population of Australia, as compared with 27s. 10d. per head expended on maintenance for primary and secondary education.

§ 7. Business Colleges and Shorthand Schools.

There has been considerable development in recent years both in the number and scope of privately conducted institutions which aim at giving instruction in business methods, shorthand, typewriting, the use of calculating machines, etc. Particulars for all States excepting Queensland are given in the following table :—

BUSINESS COLLEGES, SHORTHAND SCHOOLS, ETC., 1925.

State.	Schools.	Teachers.	Students Enrolled.		Average Attendance.		Fees Received.
			Males.	Females.	Males.	Females.	
New South Wales ..	22	148	1,882	5,590	721	2,781	£ 50,279
Victoria ..	13	153	3,946	2,898	2,744	2,109	(b)
Queensland(a) ..	..	..	..	..	..	..	..
South Australia ..	6	45	737	1,124	550	783	13,096
Western Australia ..	11	40	785	1,252	(b)	(b)	19,615
Tasmania ..	3	18	135	633	91	268	5,080

(a) Included in private schools. (b) Not available.

The figures for New South Wales are exclusive of students instructed at home through the medium of correspondence classes.

In Victoria it is explained that the preponderance of male students is due to the larger enrolment of males in the correspondence classes.

§ 8. Diffusion of Education.

1. **General Education.**—A rough indication of the state of education of the people is obtained at each Census under the three headings, "read and write," "read only," and "cannot read." The grouping of the whole population, exclusive of aborigines.

in these three divisions is given for each Census since 1871. Particulars for each State and Territory were included in previous issues of the Official Year Book (see No. 19, p. 439).

EDUCATION AT CENSUS PERIODS, AUSTRALIA, 1871 TO 1921.

Division.	1871.	1881.	1891.	1901.	1911.	1921.
Read and write ..	1,037,601	1,591,556	2,394,339	3,020,665	3,766,251	4,610,123
Read only ..	177,596	138,282	108,870	78,614	18,599	15,380
Cannot read ..	447,842	520,356	671,183	674,522	670,155	810,231

It will of course be understood that the heading "cannot read" includes a large proportion of children under five years of age.

The proportion in Australia of the various classes per 10,000 of the population is shown below for each Census period:—

PROPORTION OF EDUCATED AND ILLITERATE PER 10,000 PERSONS, 1871 TO 1921. (AUSTRALIA.)

Division.	1871.	1881.	1891.	1901.	1911.	1921.
Read and write ..	6,239	7,073	7,543	8,004	8,454	8,481
Read only ..	1,068	615	343	208	42	28
Cannot read ..	2,693	2,312	2,114	1,788	1,504	1,491

As pointed out previously, the "cannot read" group includes a large proportion of children under five years of age.

2. Education of Children.—The figures in the preceding tables refer to the entire population of Australia, and as the age constitution of those dwelling in the various portions thereof underwent considerable modifications during the period dealt with, a far more reliable test of the diffusion of education will be obtained by a comparison of the Census returns in regard to children of school age. For comparative purposes this has been taken to include all children in the group over five and under fifteen years of age, and the degree of education of these at each Census from 1861 to 1921 for Australia will be found below. Particulars for each State and Territory were given in preceding issues of the Official Year Book.

EDUCATION OF CHILDREN OF SCHOOL AGE AT CENSUS PERIODS, AUSTRALIA, 1861 TO 1921.

Division.	1861.	1871.	1881.	1891.	1901.	1911.	1921.
Read and write ..	107,201	255,374	394,001	549,049	711,004	800,139	980,416
Read only ..	59,219	89,818	70,662	53,136	42,856	2,614	1,272
Cannot read ..	58,945	86,961	93,381	121,443	136,712	83,659	143,110

The variation in degree of education may be more readily seen by reducing the foregoing figures to the basis of proportion per 10,000, and the results so obtained are embodied in the following table, a glance at which is sufficient to demonstrate the remarkable strides that at least the lower branches of education have made since 1861. In that year, only 48 per cent. of the children of school age could read and write, while 26 per cent. were illiterate. The returns for 1921 show that the proportion of those who could read and write had increased to over 87 per cent., while the totally illiterate had declined to 13 per cent.

**EDUCATION OF CHILDREN (AGES 5 TO 14) PER 10,000 AT CENSUS PERIODS,
AUSTRALIA, 1861 TO 1921.**

Division.	1861.	1871.	1881.	1891.	1901.	1911.	1921.
Read and write ..	4,757	5,910	7,061	7,588	7,984	9,027	8,717
Read only ..	2,628	2,078	1,266	734	481	29	11
Cannot read ..	2,615	2,012	1,673	1,678	1,535	944	1,272

3. Education as shown by Marriage Registers.—Another common method of testing the spread of education is to compare the number of mark signatures in the marriage registers with the total number of persons married during each year of a series. The percentage signing with a mark to the total persons married in the Census year 1921 was only 0.17, as compared with 24.60 in 1861.

§ 9. Miscellaneous.

1. Scientific Societies.—(i) *Royal Societies.* Despite the trials and struggles incidental to the earlier years of the history of Australia, higher education and scientific advancement were not lost sight of. Thus the origin of the Royal Society dates as far back as 1821, when it was founded under the name of the Philosophical Society of Australasia, Sir Thomas Brisbane being its first president. Scientific work was fitfully carried on by means of a Society whose name varied as the years rolled on. It was called the Australian Philosophic Society in 1850. In 1856 the old Australian Society merged into a resuscitated Philosophical Society of New South Wales, and its papers were published up to 1859 in the Sydney Magazine of Science and Art (2 vols., 1858–9). Its present title dates from 1866. Some of the papers of the old Philosophical Society were published in 1825 under the title of “Geographical Memoirs of New South Wales” (Barron Field), and contain much that is interesting in regard to the early history of Australia. One volume containing the Transactions of the Philosophical Society of New South Wales (1862–65) was published in 1866. The journal of the Society did not begin to bear a serial number, however (vol. 1), until the year 1867. “Transactions of the Royal Society of New South Wales” were published in 1867, the title of the series being altered to “Journal” in 1878. Up to the end of 1926, 60 volumes had been published. The exchange list comprises the names of 385 kindred societies. At the present time the library contains over 30,000 volumes and pamphlets, valued at about £9,000. Income and expenditure for the year ended 31st March, 1926, were £1,879 and £1,847 respectively, and the Society had on the same date 371 members.

The Royal Society of Victoria dates from 1854, in which year the Victorian Institute for the Advancement of Science and the Philosophical Society of Victoria were founded. These were amalgamated in the following year under the title of the Philosophical Institute of Victoria, whilst the Society received its present title in 1860. The first volume of its publications dates from 1855. Up to 1926, 71 volumes of proceedings had been issued. The Society exchanges with 300 kindred bodies. The constitution of the Society states that it was founded “for the promotion of art, literature, and science,” but for many years past science has monopolized its energies. A mathematical and physical section encourages discussion in these sciences. The library contains over 17,000 volumes, valued approximately at £4,500. Income for the year 1926 amounted to £628, and expenditure to £634. There are 206 members on the roll.

The inaugural meeting of the Royal Society of Queensland was held on the 8th January, 1884, under the presidency of the late Sir A. C. Gregory. The Society was formed “for the furtherance of the natural and applied sciences, especially by means of original research.” Shortly after its formation it received an addition to its ranks by the amalgamation with it of the Queensland Philosophical Society, which was started at the time when Queensland became a separate colony. At the end of 1926 the members numbered 170; publications issued, 38 volumes; library, 7,500 volumes; societies on exchange list, 230. Income and expenditure in 1926 amounted to £436 and £432 respectively.

The Royal Society of South Australia grew out of the Adelaide Philosophical Society, which was founded in 1853, its object being the discussion of all subjects connected with science, literature, and art. Despite this programme, the tendency of the papers was distinctly scientific, or of a practical or industrial nature. With the advent of the late Professor Tate, the Society became purely scientific. Permission to assume the title of "Royal" was obtained in 1879, the Society thenceforward being known as "The Royal Society of South Australia." In 1903 the society was incorporated. In 1925 the number of members was 139. The income for the year 1925 was £733, and expenditure £532. Up to 1926 the Society had issued 50 volumes of proceedings and 8 parts of memoirs, exclusive of several individual papers published in earlier years. The exchange list numbers about 220, while the library contains 4,500 volumes and over 1,950 pamphlets. The Field Naturalists section of the Society comprises 186 members, and issues a small quarterly journal called "The South Australian Naturalist."

Permission to assume the title of Royal Society was granted to the Natural History and Science Society of Western Australia in March, 1914. This Society has grown out of the Mueller Botanic Society, founded in July, 1897. The objects of the Society are the study of natural history and pure science, promoted by periodical meetings and field excursions, the maintenance of a library, and issue of reports of proceedings. It numbers at present 231 members. The income and expenditure in 1925-26 were £267 and £279 respectively. Five volumes of proceedings were issued as Journal of the Natural History and Science Society of Western Australia, and eleven as of the Royal Society. Its publications are exchanged with 100 institutions at home and abroad. The library contains some 200 volumes, and over 1,000 unbound journals, pamphlets, etc.

The Royal Society of Tasmania (the first Royal Society outside the United Kingdom) was inaugurated by Sir Eardley Wilmot, Lieutenant-Governor of Van Diemen's Land on the 14th October, 1843. It may be mentioned, however, that a scientific society had been formed as far back as 1838 under the presidency of Sir John Franklin, then Governor of the colony, and in 1841 the number of resident members was 31, and corresponding members, 38. The meetings of this parent society were held at Government House, and three volumes of proceedings were issued. A large portion of the Colonial Gardens, together with a grant of £400, was given to the Society. A library and museum were established in 1848. In 1885 the museum and gardens were given back to the State, the Society being granted room in the museum for its library and meetings. The names of Captains Ross and Crozier, of H.M.S. *Erebus* and *Terror*, appear in the list of the first corresponding members. The Society, which, since 1844, has published 64 annual volumes of proceedings, possesses 230 members, 8 corresponding members, 7 life members, exchanges with 230 kindred bodies, and has a library containing 14,000 volumes, in addition to manuscripts, etc., valued at over £10,000. Income for the year 1926 was £325 and expenditure £322.

(ii) *The Australasian Association for the Advancement of Science.* This Association was founded in 1887, with head-quarters at the Royal Society's House in Sydney. It was recognized that in addition to Royal, Linnean, and Naturalists' Societies generally, there was a decided necessity for an organization representative of scientific education in Australia and New Zealand "to give a stronger impulse and a more systematic direction to scientific inquiry, to promote the intercourse of those who cultivate science in different parts of the Commonwealth of Australia, the Dominion of New Zealand, and in other countries, to obtain more general attention to the objects of science, and a removal of any disadvantages of a public kind which may impede its progress." The Association aims at co-operation between the workers in the various branches of science on the one hand, and between the professional scientist and the general public on the other. Its meetings are usually held biennially within the various States and in the Dominion of New Zealand. The next meeting will be held in Hobart in January, 1928. Although the actual funds of the Association are small, liberal aid has always been forthcoming from the various State Governments, especially in connexion with the printing of the important volumes of its proceedings, of which Vol. XVI. is the latest issued. The library of the Association contains 4,000 volumes. Not the least important of the activities of the Association was the giving a constitution to the Australian National Research Council which brought in its train the Pan-Pacific Scientific Congress of 1923.

(iii) *Other Scientific Societies.* The Linnean Society of New South Wales, with headquarters in Sydney, was founded in 1874. The soundness of its present position is due to the benefactions of Sir William Macleay, who during his lifetime and by his will endowed the Society to the amount of £67,000, which has been increased by judicious investment to nearly £80,000. Income for the year 1926 amounted to £5,754 and expenses to £4,419, including £1,667 for research purposes. The Society maintains a research bacteriologist, and offers annually 4 research fellowships in various branches of natural history. The library comprises some 14,000 volumes, valued at about £7,000. Fifty volumes of proceedings have been issued, and the Society exchanges with some 200 kindred institutions. The ordinary membership at the end of 1926 was 163.

The British Astronomical Society has a branch in Sydney, and in some of the States the British Medical Association has branches.

In addition to the societies enumerated above, there are various others in each State devoted to branches of scientific investigation.

2. *Public Libraries.*—In each of the capital cities there is a well-equipped Public Library, the institutions in Melbourne and Sydney especially comparing very favourably with similar institutions elsewhere. The following statement gives the number of volumes in the Public Library of each capital city :—

METROPOLITAN PUBLIC LIBRARIES, 1925.

City.	Number of Volumes in—			Total.
	Reference Branch.	Ordinary Lending Branch.	Country Lending Branch.	
Sydney	(a) 341,307	(b)	49,983	391,290
Melbourne	327,953	43,565	.. .. .	371,518
Brisbane(c)	45,834	.. .. .	.. .. .	45,834
Adelaide	134,140	50,733	.. .. .	184,873
Perth	123,344	.. .. .	17,121	140,465
Hobart(c)	25,000	.. .. .	.. .. .	25,000

(a) Including 116,601 volumes in the Mitchell Library.

(b) The maintenance and control of the ordinary lending branch of the Public Library at Sydney were transferred in 1908 to the Municipal Council. At the end of December, 1925, the books numbered 48,288.

(c) 1924 figures.

During 1921 the Public Library authorities in Sydney inaugurated the system of lending boxes of children's books to country schools, and a large number of these children's travelling libraries is now in operation. Boxes are forwarded to out-back schools distant from towns. Each box contains about 40 books, and is lent for a period of four months, and then exchanged for another collection, the Library Trustees defraying the cost of carriage both ways.

A special research staff attached to the Public Library gives valuable assistance in making readily available to inquirers the store of information contained in books, etc. which, owing to limitations of space, are not in open access.

The Mitchell Library in Sydney consisted of over 60,000 volumes and pamphlets, and 300 paintings, principally relating to Australasia, valued at £100,000, and bequeathed in 1907 by Mr. D. S. Mitchell, together with an endowment of £70,000. The testator stipulated that the regulations of the British Museum were to be adopted as far as practicable, hence the library is the resort of specialists. There are now about 117,000 volumes in the library in addition to valuable collections of Australian postage and fiscal stamps.

Amongst other important libraries in New South Wales may be mentioned the "Fisher" Library at Sydney University, with 160,000 volumes; the library at the Australian Museum, 25,000; the Teachers' College library, 25,000; Sydney Technical College library, 12,000; and the library at the Botanic Gardens, 9,500.

The reading room at the Melbourne Public Library ranks among the finest in the world. It was opened in 1913, and has a diameter of 114 feet, with a similar height, and is capable of seating 320 readers at a time, all of whom are under efficient supervision from the centre of the room. During the year 1925, 2,756 volumes were lent to Mechanics' Institutes and Free Libraries, and 1,261 books were sent by post to borrowers in the country.

The library at Brisbane (South) contained about 14,000 volumes at the end of 1923.

For some years past efforts have been made in South Australia to collect original documents likely to be of service in compiling a history of the State. So far back as 1914 Professor Henderson, of Adelaide University, under commission from the South Australian Government, visited and reported on the system of keeping archives in England, France, Belgium, Holland, and Ceylon, and obtained valuable information also from the United States and Canada. A department of historical documents has been created under the care of an archivist, and valuable work has been done in connexion with examination, classification, and permanent preservation of the available papers. A suitable building for housing the documents and the staff was provided in 1921.

During 1922 the Tasmanian Public Library adopted the plan of lending books to individual country borrowers and to families or committees of residents in country districts. The Public Library at Launceston contains 31,000 volumes.

Mention may be made here of the free library attached to the Commonwealth Patents Office, which contains over 10,000 volumes, including literature dealing with patents in the principal countries of the world.

Statistics in regard to libraries generally are not available for all States, while the information supplied is not in all cases complete. Returns for Victoria in 1925 showed a total of 526 libraries in receipt of State or municipal aid, containing 1,332,000 books; Queensland returned 249 libraries, with 482,000 books; South Australia, 245 libraries and 754,000 books; Western Australia, 265 libraries and 288,000 books; Tasmania, 23 libraries and 121,000 books; while there are 3 libraries, with 5,000 books, in the Northern Territory.

3. Public Museums.—The Australian Museum in Sydney, founded in 1836, is the oldest institution of its kind in Australia. In addition to possessing fine collections of the usual objects to be met with in kindred institutions, the Museum contains a very valuable and complete set of specimens of Australian fauna. The cost of construction of the building was £79,000. The number of visitors to the institution in 1925 was 255,000, and the average attendance on week-days 647, and on Sundays 1,326. The expenditure for 1925 amounted to £19,600. A valuable library containing about 24,000 volumes is attached to the Museum. Courses of evening popular lectures are delivered, and lecturers also visit distant suburbs and country districts, while afternoon lectures for school children are provided. Nature talks are also broadcast by wireless. Representative collections illustrative of the natural wealth of the country are to be found in the Agricultural and Forestry Museum, and the Mining and Geological Museum. The latter institution prepares collections of specimens to be used as teaching aids in country schools. The "Nicholson" Museum of Antiquities, the "Macleay" Museum of Natural History, and the Museum of Normal and Morbid Anatomy, connected with the University, and the National Herbarium and Botanical Museum at the Sydney Botanic Gardens, are all accessible to the public. There is a fine Technological Museum in Sydney, with branches in five country centres. Valuable research work is being performed by the scientific staff in connexion with oil and other products of the eucalyptus, and the gums, kinos, tanning materials, and other economic products of native vegetation generally. During 1922 the work of the Museum was strengthened by the appointment of an advisory committee representing the scientific, general, and industrial activities of the State.

The National Museum at Melbourne, devoted to Natural History, Geology, and Ethnology, is located in the Public Library Building. The National Art Gallery is situated in the same building. The Industrial and Technological Museum, also housed under the same roof, contains about 10,000 exhibits. Cost of construction for the combined institutions is set down at £327,000. There is a fine Museum of Botany and Plant

Products in the Melbourne Botanic Gardens. In addition to the large collection in the geological museum attached to the Mines Department in Melbourne, well-equipped museums of mining and geological specimens are established in connexion with the Schools of Mines in the chief mining districts.

The Queensland Museum dates from the year 1871, but the present building was opened in January, 1901. Since its inauguration the Government has expended on the institution a sum of £113,971, of which buildings absorbed £20,735, purchases £32,150, and salaries £61,086. The number of visitors during 1925 was 106,000, of whom 45,000 visited the institution on Sundays. The Queensland Geological Survey Museum has branches in Townsville, opened in 1886, and in Brisbane, opened in 1892.

Under the Public Library Act of 1884 the South Australian Institute ceased to exist, and the books contained therein were divided amongst the Museum, Public Library, and Art Gallery of South Australia, and the Adelaide Circulating Library. The Museum was attended by 81,000 visitors in 1925. Cost of construction of the Museum building was returned as £65,000.

The latest available returns show that the Western Australian Museum and Art Gallery contains altogether 101,000 specimens, of an estimated value of £81,700. The Museum, Art Gallery, and Library are housed in one building, and the visitors to the combined institutions during the year reached 82,000. At the 30th June, 1926, the structure was valued at £65,000.

There are two museums in Tasmania—the Tasmanian Museum at Hobart, and the Victoria Museum and Art Gallery at Launceston—both of which contain valuable collections of botanical, mineral, and miscellaneous products. The Museums received aid from the Government during 1925–26 to the extent of £1,725. The cost of construction in each case is included in that of Art Galleries given below.

4. Public Art Galleries.—The National Art Gallery of New South Wales originated in the Academy of Art founded in 1871. Cost of construction of the present building amounted to about £94,000. At the end of 1925 its contents, which are valued at £172,000, comprised 546 oil paintings, 427 water colours, 842 black and white, 181 statuary and bronzes, and 817 ceramics, works in metal and miscellaneous. During 1925 the average attendance on week days was 450, and on Sundays 1,500. Since the year 1895 loan collections of pictures have been regularly forwarded for exhibition in important country towns.

The National Gallery at Melbourne at the end of 1925 contained 704 oil paintings, 5,450 objects of statuary, bronzes, ceramics, etc., and 15,056 water colour drawings, engravings, and photographs. The Gallery is situated in the same building as the Museum and Public Library, the total cost of construction being £327,000. Several munificent bequests have been made to the institution. That of Mr. Alfred Felton, given in 1904, amounts to about £8,000 per annum. In 1913, Mr. John Connell presented his collection of art furniture, silver, pictures, etc., the whole being valued at £10,000. The Art Gallery at Ballarat contains over 400 oil paintings and water colours, with some fine statuary, bronzes, etc., while there are some valuable works of art in the small galleries at Bendigo, Castlemaine, Geelong, and Warrnambool, and in some cases pictures are sent on loan from the National Gallery.

The Queensland National Art Gallery, situated in the Executive Buildings, Brisbane, was founded in 1895, and contains a small, but well chosen collection of pictures. At the end of 1923 there were on view 104 oil paintings, 28 water colours, 147 black and white, and 33 pieces of statuary, together with various prints, mosaics, and miniatures. Exclusive of exhibits on loan, the contents are valued at about £11,300. Visitors during the year averaged 130 on Sundays and 105 on week days.

The Art Gallery at Adelaide dates from 1880, when the Government expended £2,000 in the purchase of pictures, which were exhibited in the Public Library Building in 1882. The liberality of private citizens caused the gallery rapidly to outgrow the accommodation provided for it in 1889 at the Exhibition Building, and on the receipt of a bequest of £25,000 from the late Sir T. Elder, the Government erected the present building, which was opened in April, 1900. The Gallery also received bequests of £16,500 in 1903 from the estate of Dr. Morgan Thomas, and of £3,000 in 1907 from Mr. David Murray. At

the 30th June, 1926, there were in the Gallery 641 paintings in oil and water colour, 277 drawings and black and white, 251 statuary, furniture, and art work, 6,404 prints, and 1,431 ceramics and miscellaneous. Building and site are valued at upwards of £31,000. Visitors during the year 1926 numbered 77,000. The cost of construction of the Art Gallery amounted to £22,000.

The foundation stone of the present Art Gallery at Perth in Western Australia was laid in 1901, and, as in the case of Melbourne, the Public Library, Museum, and Art Gallery are all situated in the one structure. The collection comprises 107 oil paintings, 53 water colours, 256 black and white, 275 statuary, and 1,150 ceramic and other art objects. Visitors to the Museum and Art Gallery in 1926 numbered 82,000.

In Tasmania, the Art Gallery at Hobart was opened in 1887. Its present contents consist of 125 oil paintings, 132 water colours, 21 black and white, and 175 etchings, engravings, etc., the value of the contents being estimated at £5,000. The cost of construction of the building was £4,500.

The Art Gallery at Launceston was erected in 1888 at a cost of £6,000, and opened on the 2nd April, 1891. Only a small proportion of the contents belongs to the gallery, the bulk of the pictures being obtained on loan. At latest date there were on view 100 oil paintings, 65 water colours, and miscellaneous exhibits, the whole being valued at £4,900.

5. State Expenditure on all Forms of Educational Effort.—The expenditure from the Consolidated Revenue in each State and Territory on all forms of educational and scientific activity during each of the last five financial years was as follows :—

EXPENDITURE ON EDUCATION, SCIENCE, AND ART, 1921-22 TO 1925-26.

State or Territory.		1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
New South Wales ..	Total £	3,736,294	3,777,551	3,779,896	3,987,709	3,994,722
	Per head	35/1	34/9	34/2	35/4	34/8
Victoria ..	Total £	1,955,036	2,048,949	2,166,763	2,259,529	2,392,948
	Per head	25/3	25/9	26/8	27/3	28/5
Queensland ..	Total £	1,362,197	1,349,387	1,410,089	1,510,944	1,596,474
	Per head	35/6	34/3	34/9	36/2	37/1
South Australia ..	Total £	627,075	623,902	709,728	764,914	876,620
	Per head	25/0	24/4	27/0	28/5	31/9
Western Australia ..	Total £	596,518	604,947	621,168	628,755	644,459
	Per head	35/6	35/3	35/1	34/6	34/8
Tasmania ..	Total £	281,677	281,602	271,321	286,334	297,406
	Per head	25/10	25/9	24/9	26/3	27/5
Northern Territory	Total £	4,860	4,884	4,515	4,858	7,937
	Per head	26/0	27/6	25/5	27/0	43/5
Australia ..						
	Total £	8,563,657	8,691,222	8,963,480	9,443,043	9,810,566
	Per head	31/1	30/10	31/2	32/2	32/9

The comparatively heavy increases during the last five years are partly due to the expanding provision for State-aided education, to greater cost of building, equipment, and maintenance, and to increments in teachers' salaries and allowances.

CHAPTER X. PUBLIC JUSTICE.

§ 1. Police.

1. *General*.—In early issues of the Year Book a résumé was given of the evolution of the police force in Australia up to the passing of the Police Act of 1862 (25 Vic. No. 16) in New South Wales, but considerations of space preclude its inclusion in the present volume.

2. *Strength of Police Force*.—(i) *General*. The strength of the police force in each State during the five years ended 1925 is given in the table hereunder. It may be mentioned that the police forces are entirely under State control, but, by arrangement, the Commonwealth Government utilizes their services in various directions, such as the collection of particulars for Commonwealth electoral rolls, etc.

POLICE FORCES.—STRENGTH, 1921 TO 1925.

State.	Area of State in Sq. Miles.	1921.	1922.	1923.	1924.	1925.
New South Wales ..	310,372	2,738	2,799	2,825	2,890	2,937
Victoria ..	87,884	1,736	1,741	1,251	1,810	1,875
Queensland ..	670,500	1,105	1,113	1,114	1,127	1,182
South Australia ..	380,070	593	576	599	616	632
Western Australia ..	975,920	493	489	502	523	532
Tasmania ..	26,215	240	240	240	241	240
Northern Territory	523,620	30	32	32	32	38
Total ..	2,974,581	6,935	6,990	6,563	7,239	7,436

The figures for New South Wales for 1925 are exclusive of 32 "black trackers," i.e., natives employed in detection of offenders chiefly in outlying districts, and 4 female searchers. For Queensland the figures exclude 66 native trackers and 1 female searcher; for South Australia 10 "black trackers" and 1 female searcher, and for the Northern Territory 30 "black trackers." There are also 50 "black trackers" and 5 female searchers in Western Australia, not included in the table. According to the returns, women police are employed in all the States except Queensland, the respective numbers being—New South Wales 4, Victoria 4, South Australia 10, Western Australia 5, and Tasmania 2. Their work is mainly preventive, and the importance and usefulness of their duties have been referred to in very high terms by the Commissioners of Police.

The strength of the force in Victoria for the year 1923 was below normal, owing to dismissals consequent on the dispute which occurred in November of that year.

(ii) *Proportion to Population*. The average number of inhabitants to each officer in each State during the same period is as follows. In considering these figures, allowance must, of course, be made for the unequal area and unequal distribution of the population of the various States.

POLICE FORCES.—COMPARISON WITH POPULATION, 1921 TO 1925.

State.	Number of Persons per Sq. Mile. 1921 Census.	Inhabitants to each Police Officer.				
		1921.	1922.	1923.	1924.	1925.
New South Wales ..	6.80	770	769	777	772	776
Victoria ..	17.42	885	902	1,285	907	891
Queensland ..	1.13	690	702	720	732	720
South Australia ..	1.30	839	879	864	860	861
Western Australia ..	0.34	677	695	694	687	691
Tasmania ..	8.15	889	895	897	891	889
Northern Territory ..	..	130	114	113	113	97
Total ..	1.83	787	797	867	802	798

As explained previously the figures for Victoria for the year 1923 are abnormal.

3. **Duties of the Police.**—In addition to the ordinary employment attaching to their office, the police are called upon to perform many duties which in other countries are carried out by various functionaries. Thus, in New South Wales, according to the Report of the Inspector-General, the time of one-fifth of the force was taken up during 1921 in extraneous duties unconnected with the protection of life and property, while the cash value of the services rendered to other Government departments was stated as over £200,000 per annum. The Queensland Commissioner refers to the circumstance that in 1925 no less than 70 subsidiary offices were held by the police. In South Australia, the Commissioner alludes to the large number of subsidiary duties performed by police officers, and mentions that in 1925 over 140,000 hours were devoted to carrying out work on behalf of other departments.

While these special tasks doubtless involve some degree of sacrifice of ordinary routine duties, the fact that the general intelligence of the police is adequate for their performance, besides being most creditable, results in a large saving of the public money.

4. **Cost of Police Forces.**—The expenditure from Consolidated Revenue on the police forces, and the cost per head of population in each State during the five years 1921 to 1925, are given in the following table :—

POLICE FORCES.—COST, 1921 TO 1925.

State.	1921.	1922.	1923.	1924.	1925.
TOTAL.					
	£	£	£	£	£
New South Wales ..	1,150,323	1,205,557	1,219,244	1,317,320	1,331,978
Victoria ..	579,351	600,856	755,698	741,126	768,939
Queensland ..	458,955	455,519	461,446	497,484	554,879
South Australia ..	211,428	216,109	221,635	246,646	250,915
Western Australia ..	184,245	181,893	185,945	193,461	216,798
Tasmania ..	79,105	77,096	78,313	81,318	84,340
Northern Territory ..	15,520	16,011	16,070	17,923	19,004
Total ..	2,678,927	2,753,041	2,938,351	3,095,278	3,226,853

PER HEAD OF POPULATION.

	s. d.	s. d.	s. d.	s. d.	s. d.
New South Wales ..	10 10	11 1	11 0	11 8	11 7
Victoria ..	7 6	7 7	9 4	8 11	9 2
Queensland ..	11 11	11 7	11 5	11 11	12 11
South Australia ..	8 5	8 5	8 5	9 2	9 1
Western Australia ..	11 0	10 7	10 6	10 7	11 8
Tasmania ..	7 3	7 0	7 2	7 6	7 9
Northern Territory ..	81 6	90 2	90 5	99 7	104 0
Total ..	9 9	9 9	10 3	10 6	10 9

In view of the small number of its white population and the vast extent of country to be patrolled, the figures for the Northern Territory necessarily show a very high average. The duties of the police, moreover, chiefly pertain to matters connected with the control of aborigines.

The total for New South Wales in 1925 includes £153,650 payment to the Police Superannuation Fund. Similar payments in Victoria and Queensland amount to £121,000 and £45,300 respectively. It may be noted that the high cost and cost per

head in Victoria shown for the year 1923, as compared with previous years, are accounted for by expenditure in connexion with the police dispute in 1923.

The general advance in cost during the period under review is due to increases in salaries, and rise in prices of supplies and equipment.

5. Interstate Police Conferences.—In February, 1921, a Conference of the chief officers of the police forces of the various States was held in Melbourne. In addition to the discussion of matters of common interest, arrangements were made for the interchange of detectives. The results were so satisfactory that it was decided to hold similar Conferences annually. In 1926 the Conference met in Sydney, and the next was held in Hobart in January, 1927.

§ 2. Lower (Magistrates') Courts.

1. General.—In considering the criminal returns of the various States, due allowance must be made on account of several factors, such as the relative powers of the courts, both lower and higher, etc. In the case of lower courts, the actual number of laws in each State the breach of which renders a person liable to fine or imprisonment must be taken into account. Again, the attitude of the magistracy and police towards certain classes of offences is a factor, for in the case of liquor laws, or laws connected with vagrancy or gaming, the views of magistrates, and instructions issued to the police, may be responsible for considerable variations in the returns. The strength and distribution of the police forces, and the age-constitution and distribution of the States' population, also influence the results. Due weight should also be given to the prevalence of undetected crime, but information on this point is not available for all States. It may be mentioned that each State has its own separate judicial system, the Commonwealth jurisdiction being confined to the High Court of Australia, which is largely a Court of Appeal intermediate to the Privy Council, although it has also original jurisdiction, and the Commonwealth Court of Arbitration and Conciliation. Full particulars regarding the judicial power of the Commonwealth will be found in Chapter III. of the Commonwealth Constitution, which is quoted in full in Chapter I. of this work.

2. Powers of the Magistrates.—In New South Wales there is no general limit to the powers of the magistrates in regard to offences punished summarily, their authority depending in each case on the statute which creates the offence and gives them jurisdiction. Except in the case of a very few statutes, and excluding cumulative sentences, the power of sentence is limited to six months. Imprisonment in default of payment of fine is regulated by a scale limiting the maximum period according to the sum ordered to be paid, but in no case exceeding twelve months. Actions for debt and damage within certain limits also come within magisterial jurisdiction. In cases of debts, liquidated or unliquidated, the amount recoverable is not exceeding £50 before a court constituted of a stipendiary or police magistrate at certain authorized places, and not exceeding £30 at any other place before a court constituted of a stipendiary or police magistrate or two or more justices of the peace. The amount in actions of damage is limited to £10, but may extend to £30 by consent of parties.

In Victoria, the civil jurisdiction of magistrates is restricted to what may be designated ordinary debts, damages for assault, restitution of goods, etc., where the amount in dispute does not exceed £50. No definite limit is fixed to the powers of the magistrates on the criminal side, and for some offences sentences up to two years may be imposed. The proportion of long sentences is, however, comparatively small.

In Queensland, generally speaking, the maximum term of imprisonment which justices can inflict is six months, but in certain exceptional cases, such as offences against sections 233 and 445 of the Criminal Code (betting-houses and illegally using animals) sentences of twelve months may be imposed. No limit exists as to the extent to which cumulative sentences may be applied, but in practice the term is never very lengthy.

In South Australia, under the Minor Offences Act, magistrates can impose sentences up to six months, and under the Summary Convictions Act, up to three months. The Police Act of 1916 gives power to sentence up to one year, with hard labour, in the case of incorrigible rogues; while under the Quarantine Act of 1877, and the Lottery and Gaming Act of 1875, sentences of two years may be imposed.

Under the Petty Offences Act of 1867, in Tasmania, any person charged with having committed, or with having aided or abetted in the commission of an offence in regard to property of a value not exceeding £10, may, on conviction for a first offence before two or more justices in Petty Sessions, be imprisoned for any term not exceeding one year, and for a term not exceeding two years for a second or subsequent offence.

3. Persons Charged at Magistrates' Courts.—The total number of persons who were charged before magistrates in each State is given below for the five years 1921 to 1925 :—

MAGISTRATES' COURTS.—PERSONS CHARGED, 1921 TO 1925.

State.	1921.	1922.	1923.	1924.	1925.
New South Wales ..	94,685	96,989	104,519	98,101	102,377
Victoria ..	62,402	63,713	67,112	68,494	73,346
Queensland ..	24,479	25,185	25,956	24,017	28,634
South Australia ..	10,622	11,821	14,321	15,812	20,651
Western Australia ..	10,775	10,844	10,182	10,679	11,358
Tasmania ..	7,185	7,106	8,479	8,001	7,035
Northern Territory ..	115	186	154	204	180
Total ..	210,263	215,844	230,723	225,308	243,631

Investigation of the returns shows that considerable variations in the figures for single States are occasioned by breaches of new Acts, or the more stringent enforcement of the provisions of existing Acts. Any deductions drawn from the total returns as to the increase or otherwise of criminality must, therefore, be largely influenced by a careful analysis of the detailed list of offences.

4. Convictions and Committals.—The figures given in the tabulation above include, of course, a number of people who were wrongly charged, and statistically are not of general importance. The actual number of convictions in connexion with the persons who appeared before the lower courts in each year of the period 1921 to 1925 is, therefore, given hereunder. A separate line is added showing the committals to higher courts.

MAGISTRATES' COURTS.—CONVICTIONS AND COMMITTALS, 1921 TO 1925.

State.		1921.	1922.	1923.	1924.	1925.
New South Wales ..	{ Convictions	80,214	82,263	88,864	83,019	85,970
	{ Committals	2,594	2,495	2,654	2,327	1,806
Victoria ..	{ Convictions	46,924	49,464	53,183	54,376	58,879
	{ Committals	776	733	634	602	744
Queensland ..	{ Convictions	22,479	22,982	23,072	21,476	26,148
	{ Committals	328	331	341	233	326
South Australia ..	{ Convictions	8,968	10,048	12,647	13,790	18,556
	{ Committals	121	146	193	176	181
Western Australia ..	{ Convictions	9,605	9,748	8,985	9,534	10,047
	{ Committals	120	68	92	92	91
Tasmania ..	{ Convictions	6,474	6,385	7,601	7,271	6,415
	{ Committals	88	79	78	59	95
Northern Territory	{ Convictions	100	171	117	145	121
	{ Committals	8	4	3	5	..
Total ..	{ Convictions	174,764	181,061	194,469	189,611	206,136
	{ Committals	4,035	3,856	3,995	3,494	3,243

5. **Convictions for Serious Crime.**—While the figures given in the preceding table refer to the entire body of convictions, the fact must not be overlooked that they include a large proportion of offences of a technical nature, many of them unwittingly committed, against various Acts of Parliament. Cases of drunkenness and minor breaches of good order, which, if they can be said to come within the category of crime at all, at least do so in a very different sense to some other offences, also help to swell the list. The following table has therefore been prepared for the purpose of showing the convictions at magistrates' courts for what may be regarded as the more serious offences, i.e., against the person and property, either separately or conjointly, and forgery and offences against the currency :—

MAGISTRATES' COURTS.—CONVICTIONS FOR SERIOUS CRIME, 1921 TO 1925.

State.	1921.	1922.	1923.	1924.	1925.
TOTAL.					
New South Wales ..	8,057	7,744	7,543	7,210	7,543
Victoria	3,719	2,909	3,188	2,815	3,044
Queensland	1,747	1,835	2,021	1,881	2,274
South Australia ..	855	653	883	724	864
Western Australia ..	976	977	930	941	1,108
Tasmania	550	577	637	549	550
Northern Territory ..	42	60	17	25	5
Total	15,946	14,755	15,219	14,145	15,388
PER 10,000 OF THE POPULATION.					
New South Wales ..	38.2	36.0	34.4	32.3	33.1
Victoria	24.2	18.5	19.8	17.1	18.2
Queensland	22.9	23.5	25.2	22.8	26.7
South Australia ..	17.2	12.9	17.1	13.7	15.9
Western Australia ..	29.2	28.8	26.7	26.2	30.1
Tasmania	25.8	26.9	29.6	25.6	25.8
Northern Territory ..	107.5	164.2	47.1	69.4	13.6
Total	29.2	26.5	26.8	24.4	25.9

6. **Decrease in Serious Crime, 1881 to 1925.**—(i) *Rate of Convictions.* The figures quoted in the preceding table show that during the last five years the rate of serious crime has decreased considerably, while if the comparison be carried back to 1881 the position is seen to be still more satisfactory. The rate of convictions at magistrates' courts per 10,000 of the population is given below for each of the years 1881, 1891, 1901, 1921, and 1925. Only the more serious offences particularized in the preceding sub-section have been taken into consideration.

MAGISTRATES' COURTS.—SERIOUS CRIME.—RATE OF CONVICTIONS. 1881 TO 1925.

Year.	Convictions per 10,000 Persons.
1881	69.3
1891	44.8
1901	29.1
1921	29.2
1925	25.9

The figures already quoted refer to total convictions, and in respect of individuals necessarily involve a considerable amount of duplication, especially as regards the less important offences, such as petty larcenies, etc.

(ii) *Causes of Decrease.* The statistics given above show that there has been a considerable decrease in crime throughout Australia during the period dealt with. The results so far quoted are restricted entirely to the lower or magistrates' courts. There has also been a gratifying decrease in regard to offences tried at the higher courts, as will be seen later.

Attempts have been made to account for this decline: e.g., advance in education, enlightened penological methods, etc. Much depends upon what is meant by education. Many classed in census statistics as "educated" can barely read and write. In this connexion, moreover, it ought not to be forgotten that collaterally with the introduction of ordinary intellectual education certain people have departed from their pristine virtues. In regard to the deterrent effect of punishment, it may be said that in respect of many offences, notably drunkenness, vagrancy, petty larcenies, etc., it appears to be almost negligible. In general, punishment has declined in brutality and severity, and has improved in respect of being based to a greater extent upon a scientific penological system, though in this latter respect there is yet much to be desired. Recent advances in penological methods will be referred to in a subsequent sub-section. Here it will be sufficient to remark that under the old régime, a prisoner on completion of a sentence in gaol was simply turned adrift on society, and in many cases sought his criminal friends, and speedily qualified for readmission to the penitentiary. Frequently, he was goaded to this by mistaken zeal on the part of the police, who took pains to inform employers of the fact of a man having served a sentence in gaol. For a long time any assistance to discharged prisoners was in the hands of private organizations, such as the Salvation Army Prison Gate Brigade, but in some of the States, and notably in New South Wales, the authorities themselves look after the welfare of discharged prisoners in the way of finding work, providing tools, etc. Improvements in the means of communication and identification have been responsible for some of the falling-off noticeable in the criminal returns, the introduction of the Bertillon system having contributed to certainty of identification. In his report for the year 1910 the Inspector-General of Police in New South Wales stated that "criminals have a wholesome dread of the finger-print system, and I have not the slightest doubt that it is one of the principal causes of the diminution of serious crimes." Part of the improvement may no doubt be referred also to the general amelioration in social conditions that has taken place in modern years.

7. *Drunkenness.*—(i) *Cases and Convictions.* The number of cases of drunkenness and the convictions recorded in connection therewith during the period 1921 to 1925 will be found in the following table:—

DRUNKENNESS.—CASES AND CONVICTIONS, 1921 TO 1925.

State.	1921.		1922.		1923.		1924.		1925.	
	Cases.	Convictions.	Cases.	Convictions.	Cases.	Convictions.	Cases.	Convictions.	Cases.	Convictions.
New South Wales	29,047	28,702	30,918	30,723	33,118	32,938	31,468	31,260	30,669	30,160
Victoria ..	7,621	4,334	8,773	5,204	10,131	6,207	9,814	6,033	9,430	5,767
Queensland ..	12,166	11,744	13,014	12,632	12,376	11,832	11,458	11,005	13,020	12,476
South Australia ..	3,465	3,443	3,775	3,764	4,512	4,496	4,972	4,981	5,330	5,795
Western Australia	4,135	4,103	3,740	3,715	3,198	3,165	3,259	3,231	3,149	3,131
Tasmania ..	539	531	539	535	506	501	473	464	364	361
Northern Territory	51	51	112	104	37	37	43	39	44	44
Total ..	57,024	52,908	60,871	56,677	63,878	59,176	61,487	56,993	62,506	57,733

The number of convictions is, as might naturally be expected, almost identical with the number of cases. Victoria, however, is an exception, but in this State it is explained that offenders are generally discharged on a first appearance, and no conviction is recorded, a similar procedure being also adopted in the case of those arrested on Saturday and detained in custody till Monday. The logic of excluding these cases from the list of convictions is open to doubt.

(ii) *Convictions per 10,000 of Population.* The convictions for drunkenness per 10,000 of the population during each of the years from 1921 to 1925 are given hereunder :—

DRUNKENNESS.—CONVICTIONS PER 10,000 INHABITANTS, 1921 TO 1925.

State.	1921.	1922.	1923.	1924.	1925.
New South Wales	136.0	142.7	148.9	140.0	132.3
Victoria	28.2	33.1	38.2	36.7	34.5
Queensland	153.9	161.7	145.9	133.4	146.5
South Australia	69.2	74.4	85.7	93.7	106.5
Western Australia	122.9	109.4	89.5	99.3	85.0
Tasmania	24.9	24.9	22.9	21.6	16.9
Northern Territory	130.6	284.7	104.1	108.2	119.5
Total	96.9	101.8	102.9	98.7	97.3

The convictions for drunkenness taken by themselves are not an altogether satisfactory test of the relative sobriety of the inhabitants of each State, inasmuch as several important factors must be taken into consideration. The age and sex constitution of the people, for example, is by no means identical in all the States. (Owing to the smallness of the population the figures for the Northern Territory are, of course, abnormal.) The avocations of the people affect the result, since persons engaged in strenuous callings are, on the whole, more likely to indulge in alcoholic stimulants than those employed in less arduous ones. The distribution of the population is also a factor, the likelihood of arrest or summons for drunkenness obviously being greater in the more densely populated regions, while allowance must be made for the attitude of the magistracy, the police, and the public generally in regard to the offence. Due account also must be taken of the effect of legislation dealing with the limitation of hours during which liquor may be sold in hotels.

(iii) *Consumption of Intoxicants.* It is not unusual to supplement statistics of drunkenness by furnishing also the relative consumption of alcoholic beverages. Deductions drawn therefrom will be very misleading if they fail to take into account also the consumption of non-intoxicating beverages such as tea and coffee, and the general habits of the people. Throughout the greater part of Europe, tea and coffee are consumed but sparingly, while Australia, as is well known, is one of the greatest tea-drinking countries of the world.

The following table shows the consumption of spirits, wine, and beer per head of the population in Australia during each year of the quinquennium 1922–26 :—

INTOXICANTS, CONSUMPTION.—AUSTRALIA, 1922 TO 1926.

Year.	Consumption per Head of Population.		
	Spirits.	Wine.	Beer.
	Imp. Galls.	Imp. Galls.	Imp. Galls.
1921–22	0.36	0.50	11.49
1922–23	0.39	0.50	11.30
1923–24	0.43	0.50	11.08
1924–25	0.43	0.50	11.15
1925–26	0.44	0.50	11.34

The figures in regard to wine are approximate, and are probably to some extent understated, as it is impossible to ascertain the exact quantity of the production which goes into consumption in the form of wine.

(iv) *Treatment of Drunkenness.* (a) *General.* Though the problem of the correct method of dealing with dipsomania is by no means an easy one, it seems fairly clear that the present plan of bringing offenders before magistrates, and subjecting them to the penalty of imprisonment or fine, has little deterrent effect, as the same offenders are constantly reappearing before the courts. Further, the casting of an inebriate into prison, and placing him in his weakened state in the company of professional malefactors, certainly lowers his self-respect, and doubtless tends to swell the ranks of criminals. Examination of the prison records in New South Wales some years ago

disclosed the fact that over 40 per cent. of the gaol population had commenced their criminal career with a charge of drunkenness. During the last few years the dangers of moral contamination in this way have been more accurately appreciated, and a system of classification of prisoners has been adopted whereby the petty offender is as far as possible kept from association with the more evilly-disposed. The Comptroller-General of Prisons in Queensland stated in his Report for the year 1907 that "the drunken habit in many cases is merely one of the many symptoms which jointly indicate the existence of a graver condition than simple habitual drunkenness."

(b) *Remedial.* Legislation has been passed in each State, providing for the commitment of inebriates to special Government institutions. The laws in the various States are as follows:—New South Wales, Inebriates Act 1912; Victoria, Inebriates Act 1915 and 1923; Queensland, Inebriate Institutions Act 1896; South Australia, Inebriates Acts 1908, 1913, and 1920; Western Australia, Inebriates Acts 1912 and 1919; Tasmania, Inebriates Acts 1885, Inebriate Hospitals Act 1892. Curative work was first undertaken by the Government of New South Wales in 1907. In most cases the institutes are connected with the gaols, and, naturally, custodial measures are still a strong feature in their management; nevertheless, the results of remedial measures have been encouraging.

8. *First Offenders.*—In all the States statutes dealing with first offenders have been in force for some years, the dates of passing the Acts being as follows:—New South Wales, 1894; Victoria, 1890, 1908, and 1915 (Crimes Act, sec. 340); Queensland, 1887; South Australia, 1887, 1913, 1924 and 1925; Western Australia, 1892; Tasmania, 1886. The method of procedure is practically the same in all cases, i.e., with regard to most first offenders the magistrate or judge is empowered to allow the offender to go free on recognizances being entered into for his good behaviour for a certain period. In practice, this humane law has been found to work excellently, very few of those to whom its provisions have been extended having been found to relapse into crime.

9. *Children's Courts.*—Special courts for the trial of juvenile offenders have been established in New South Wales, Victoria, Western Australia, Tasmania, and New Zealand within the last few years, while Children's Courts, although not under that name, are practically provided for by the State Children's Acts of 1895 and 1900 in South Australia. The object of these Courts is to avoid, as far as possible, the unpleasant surroundings of the ordinary police court.

10. *Committals to Superior Courts.*—(i) *General.* In a previous sub-section it has been pointed out that comparisons of criminality based on a consideration of the total returns from magistrates' courts are somewhat inadequate, seeing that the figures include numbers of cases which are merely technical breaches of laws having in some instances a purely local significance. The committals to higher courts give a better basis of comparison, although even in this connexion allowance must be made for the want of uniformity in jurisdiction. The table below gives the number of committals in each year from 1921 to 1925, with the rate of such committals per 10,000 of the population.

COMMITTALS TO SUPERIOR COURTS, 1921 TO 1925.

State.		1921.	1922.	1923.	1924.	1925.
New South Wales	{ No.	2,594	2,495	2,654	2,327	1,806
	{ Rate	12.3	11.6	12.1	10.4	7.9
Victoria	{ No.	776	733	634	602	744
	{ Rate	5.0	4.7	3.9	3.7	4.5
Queensland	{ No.	328	331	341	233	326
	{ Rate	4.3	4.2	4.2	2.8	3.8
South Australia	{ No.	121	146	193	176	181
	{ Rate	2.4	2.9	3.7	3.3	3.3
Western Australia	{ No.	120	68	92	92	91
	{ Rate	3.6	2.0	2.6	2.6	2.5
Tasmania	{ No.	88	79	78	59	95
	{ Rate	4.1	3.7	3.6	2.7	4.4
Northern Territory	{ No.	8	4	3	5	..
	{ Rate	20.5	10.9	8.3	13.9	..
Total ..	{ No.	4,035	3,856	3,995	3,494	3,243
	{ Rate	7.4	6.9	7.0	6.0	5.5.

(ii) *Decrease in Rate since 1861.* The figures in the preceding table show that the rate of committals for serious crime has decreased by over 25 per cent. during the last five years, but if the comparison be carried further back, it will be found that there has been a very considerable improvement. This will be evident from an examination of the following figures, which show the rate of committals per 10,000 persons in Australia at various periods since 1861 :—

RATE OF COMMITTALS, AUSTRALIA, 1861 TO 1925.

Year	1861.	1871.	1881.	1891.	1901.	1911.	1921.	1925.
Committals per 10,000 inhabitants	22	14	12	11	8	6	7	5

The decline in proportion to population since 1861 has therefore been about 77 per cent.

§ 3. Superior Courts.

1. *Convictions at Superior Courts.*—The number of convictions at superior courts with the rate per 10,000 of the population is given below for each of the years 1921 to 1925 :—

SUPERIOR COURTS.—CONVICTIONS, 1921 TO 1925.

State.		1921.	1922.	1923.	1924.	1925.
New South Wales	{ No.	1,111	1,040	1,059	1,002	1,060
	{ Rate	5.3	4.8	4.8	4.5	4.7
Victoria	{ No.	520	463	400	401	510
	{ Rate	3.4	2.9	2.5	2.4	3.1
Queensland	{ No.	338	378	278	222	234
	{ Rate	4.4	4.8	3.5	2.7	2.7
South Australia	{ No.	97	113	120	104	123
	{ Rate	2.0	2.2	2.3	2.0	2.3
Western Australia	{ No.	70	40	80	64	67
	{ Rate	2.1	1.2	2.3	1.8	1.8
Tasmania	{ No.	57	55	56	53	66
	{ Rate	2.7	2.6	2.6	2.5	3.1
Northern Territory	{ No.	3	3	2	1	2
	{ Rate	7.7	8.2	5.5	2.8	5.4
Total						
	{ No.	2,196	2,092	1,995	1,847	2,062
	{ Rate	4.0	3.8	3.5	3.2	3.5

The rate in 1901 was 4.6 per 10,000, and the decrease to the end of 1925 was, therefore, about 24 per cent.

In considering the above figures allowance must be made for the various factors enumerated in a preceding paragraph. South Australia, Western Australia, and Tasmania, it will be noted, show the smallest proportion of serious crime, while the rates for New South Wales and the Northern Territory are the highest, the figures for the latter, however, owing to the particular conditions prevailing there being abnormal.

2. *Offences for which Convictions were recorded at Superior Courts.*—In the following table will be found a classification of the principal offences for which persons were convicted at the higher courts during each year of the period 1921 to 1925. Owing to lack of uniformity in the presentation of the returns the information is confined to the chief offences against the person only.

SUPERIOR COURTS.—CONVICTIONS, SERIOUS CRIME, AUSTRALIA, 1921 TO 1925.

Offences.	1921.	1922.	1923.	1924.	1925.
Murder, and attempts at ..	29	36	15	21	31
Manslaughter ..	17	10	15	13	10
Rape, and attempts at ..	8	5	9	5	8
Other offences against females ..	87	95	130	100	120
" " " the person	235	240	246	217	253
Total ..	376	386	415	356	422

The total convictions for similar offences in 1901 amounted to 432, the decline during the period 1901 to 1925 amounting therefore to about 2 per cent. Stated according to the proportion per 10,000 of mean population, the rate in 1925 amounted to 0.71, as compared with a rate of 1.14 in 1901, the decrease for the period amounting, therefore, to over 37 per cent.

3. **Habitual Offenders.**—In New South Wales the Habitual Criminals Act of 1905 gives judges the power of declaring a prisoner, after a certain number of sentences, to be an habitual criminal, and as such to be detained until, in the opinion of the authorities, he is fit to be at large. At the end of 1925 there were 49 persons in prison under this Act. Since the passing of the Act, 128 offenders, including 1 female, have been declared to be habitual criminals. So far the indeterminate sentence has been applied to the older hardened offender, but under the Crimes Amendment Act of 1924 when an accused person has been convicted on more than three occasions before a magistrate, the magistrate may direct an application to be made by the Clerk of the Peace to a Judge, to have the person so convicted declared an habitual offender. The Indeterminate Sentences Act came into force in Victoria in July, 1908, and up to the end of June, 1925, 909 individual prisoners have been detained under its provisions. Of the 800 who were released on probation, 479 have not been returned, and, so far as is known, have not been reconvicted in any other State. At the 30th June, 1926, the number under indeterminate detention was 187. The Criminal Code Amendment Act of 1914, which makes provision for the detention and control of habitual criminals, was assented to in Queensland on the 3rd December, 1914, and the first cases in connexion therewith were dealt with in 1922, when 2 prisoners were declared to be habitual criminals. Up to the end of 1924, 15 prisoners had been declared habitual criminals, of whom 3 had completed the definite portion of their sentence, but none of them has been released. The provisions of the Habitual Criminals Amendment Act of 1907 were put into force in South Australia in 1909, and 25 criminals had been declared to be habitual offenders up to the end of 1925. Of these, 23 had been released after serving the indeterminate portion, and 2 were serving the definite portion of their sentences. In Western Australia, under the Criminal Code Amendment Act of 1918, power is given to declare a prisoner after a certain number of convictions to be an habitual criminal. The number under preventive detention on the 30th June, 1926, was 30, and the total number dealt with since the passing of the Act was 168. During the period in which the Habitual Criminals and Offenders Act of 1907 (now Indeterminate Sentences Act 1921) has been in force in Tasmania, 141 prisoners have been released under its provisions, and the results, according to the Sheriff, have been satisfactory, only four prisoners having defaulted. The Indeterminate Sentences Act came into operation during 1924, and since then four prisoners have been discharged under its provisions.

The Comptroller-General of Prisons in New South Wales points out that the system has exercised a wholesome deterrent effect on the criminal who is not a prisoner, while the Indeterminate Sentence Board in Victoria states that it has become impressed with the advantages which this form of sentence offers, both from a reformatory and deterrent standpoint, over the ordinary sentence. In New South Wales it is stated that while old associations and habits have in some cases proved too strong for the released "habitual," many of them have done well, and, generally, there is hope of reformation in the average prisoner other than the sexual offender.

According to the Report of the English Prison Commissioners for the year 1925, however, the main value of preventive detention was considered to lie in the protection of the public rather than in the hope of any widespread reformation in the ranks of the professional criminal.

4. **Capital Punishment.**—The table below gives the number of executions in each State during the period 1921 to 1925:—

EXECUTIONS, 1921 TO 1925.

State.	1921	1922.	1923.	1924.	1925.
New South Wales	2	..
Victoria	1	..	1	..
Queensland
South Australia
Western Australia	1	..	..	..
Tasmania	1	..	..	..
Total	3	..	3	..

In the early days of the history of Australia the penalty of death was attached to a large number of offences, many of which at the present time would be dealt with in the lower or magistrates' courts. With the growth of settlement, and the general amelioration in social and moral conditions, the list was, however, considerably curtailed, and the existing tendency is practically to restrict death sentences to cases of murder. It may be remarked that in cases of rape, which is a capital offence in some of the Australian States, the penalty has been but sparingly inflicted during the last few years. Juries are reputed to be loth to convict on this charge, owing to the uncertainty whether sentence of death will be pronounced.

Under the Criminal Code Amendment Act of 1922, capital punishment was abolished in Queensland.

During the period 1861 to 1880 the annual average number of executions in Australia was 9, from 1881 to 1900 the average was 6, for the period 1901 to 1910 the figure was 4, from 1911 to 1920 it was 2, while the average for the last five years was 1.

§ 4. Prisons.

1. **Prison Accommodation and Prisoners, 1925.**—The table below shows the number of prisons in each State, the accommodation therein, and the number of prisoners in confinement at the end of 1925:—

PRISON ACCOMMODATION AND PRISONERS, 1925.

State.	Number of Prisons.	Accommodation in—		Prisoners at End of Year.
		Separate Cells.	Wards.	
New South Wales	24	(a) 2,475	..	1,404
Victoria	14	1,234	397	894
Queensland	8	569	312	295
South Australia	13	617	426	280
Western Australia	22	669	848	219
Tasmania	1	130	..	94
Northern Territory	3	..	54	5
Total	85	5,694	2,037	3,191

(a) Total accommodation.

The figures refer to prisoners under sentence and are exclusive of aborigines.

2. **Prisoners in Gaol, 1921 to 1925.**—The number of prisoners in gaol at the 31st December in each of the years 1921 to 1925 is given below. As stated above, the figures refer to prisoners under sentence, and are exclusive of aborigines. A separate line is added in each instance showing the proportion per 10,000 of the population.

PRISONERS IN GAOL. 1921 TO 1925.

State.		1921.	1922.	1923.	1924.	1925.
New South Wales	Number ..	1,273	1,373	1,339	1,411	1,404
	Proportion	6.0	6.4	6.1	6.3	6.2
Victoria ..	Number ..	733	719	765	749	894
	Proportion	4.8	4.6	4.8	4.6	5.3
Queensland ..	Number ..	309	331	279	230	295
	Proportion	4.1	4.2	3.5	2.8	3.5
South Australia	Number ..	252	265	267	250	230
	Proportion	5.1	5.2	5.2	4.7	5.1
Western Australia	Number ..	211	196	226	201	219
	Proportion	6.3	5.8	6.5	5.6	5.9
Tasmania ..	Number ..	95	62	79	74	94
	Proportion	4.5	2.9	3.7	3.4	4.4
Northern Territory	Number ..	4	4	2	13	5
	Proportion	10.2	10.9	5.5	36.1	13.6
Total ..	Number ..	2,877	2,950	2,957	2,928	3,191
	Proportion	5.3	5.3	5.2	5.0	5.4

The proportion to population of prisoners in gaol under sentence has risen slightly in Australia during the last five years, but, if the comparison be carried farther back, the position is seen to be more favourable, the proportion in 1891 being as high as 16 per 10,000.

3. Improvement of Penological Methods.—(i) *New South Wales.* During recent years Australia, in common with most other civilized countries, has introduced considerable modifications and improvements in methods of prison management. Under the old system, punishment partook more or less of the character of reprisal for wrongdoing, and the idea of constituting the prison as a reformatory agency was in the background. But in recent years there has been an earnest attempt at effecting a moral reformation in the unfortunates who lapse into crime. This aspect of prison management has been specially prominent in New South Wales. A short account of the reorganization of the prison system in this State appeared in the earlier Year Books, but considerations of space preclude its repetition here. At the present time it is found that good results have followed the principles of scientific classification and restricted association of prisoners, together with the provision of separate institutions for the treatment of inebriates. Until recently the prison authorities were confronted with a difficult problem arising from the fact that so little could be done in the case of short-sentenced prisoners, but the passing of the Crimes Act of 1924, alluded to previously, under which such persons could, after repeated convictions, be declared "habituals," and as such liable to reformatory detention, will, it is hoped, lead to considerable improvement. Special efforts are put forward to provide reproductive work of a regular and intelligent nature, and for the year 1925 the value of the prisoners' labour amounted to £76,000, as compared with £35,000 in 1913. Very few skilled tradesmen are received into gaol, the great majority of prisoners being unskilled at any trade, and many being drunkards, vagrants, and physical and moral degenerates. At the chief penitentiaries for males and females in the metropolis, a careful classification of prisoners is carried out, and provision is made for the treatment of special cases at some of the larger country gaols. Young first offenders are employed at the Emu Plains Prison Farm, and first offenders over the age of 25 years are drafted to the Prisoners' Afforestation Camp at Tuncurry, on the Manning River. This institution, which was opened in 1911, has given very satisfactory results. The total area set apart for afforestation is 3,380 acres, of which about two-thirds have been planted. About 250,000 pine seedlings were raised in 1925, and over 2,000,000 trees, some exceeding 50 feet in height, are flourishing. The Shaftesbury Inebriate Institution was established in 1915 for the treatment of non-criminal inebriates, and in the following year provision was made for the accommodation and treatment of voluntary paying guests. Suitable cases from the Long Bay prison are transferred to the Shaftesbury Institution.

In many instances prisoners received into the gaols are found to be suffering from contagious diseases, and, under the Prisoners Detention Act such persons may be detained until cured.

Amongst other improvements introduced during the last few years were the relieving of the monotony of non-working hours at week-ends by the provision of concerts, lectures,

and suitable picture shows at the principal gaols, by more open-air exercise on Saturday afternoons and Sundays, and by the supply of a greater variety of interesting books and magazines to the prison libraries. These libraries now contain over 22,000 volumes. Prisoners are encouraged to take up courses of study likely to be of service to them on their discharge, writing materials are provided, and, within reason, the text-books required are purchased for their use. Tutorial classes for young prisoners have been instituted, and the results so far have been very encouraging. As the Comptroller-General points out, these changes have been brought about, not from sympathy with the criminal, but as ordinary necessities to the wholesome functioning of the mind. In 1924 a revised dietary scale came into operation, under which prisoners are supplied with greater quantity and greater variety of food.

In 1902 the system of finger-print identification of criminals was introduced, and in the following year bureaux were established in the various States for the exchange of records. Very successful results have attended the introduction of the system.

Allusion may be made here to the excellent work performed by the Prisoners' Aid Association, which has branches in the country towns where there are prisons. Members of the organization meet prisoners on their discharge, help in restoring hopeful cases to reputable relatives and friends, assist in obtaining situations, and generally maintain a friendly supervision over those in need of assistance.

(ii) *Victoria.* In Victoria there is an excellent system of classification and allocation of prisoners in various grades to different gaols, while at the important penal establishment at Pentridge careful segregation into several classes is carried out. First offenders are placed in the "special" division, and it is stated that out of 1,052 prisoners in this class discharged from Pentridge during the decade ending in 1925 only 107 are known to have been reconvicted. In common with the other States the latest humane methods of accommodation and prison treatment have for some time been employed. The younger prisoners spend a portion of each week day at school, and evening school or recreational classes are held from 7 p.m. to 9 p.m. at the Reformatory. Voluntary classes for older prisoners have been formed by the Prisoners' Aid Society. In addition, where the necessary arrangements can be made, well-behaved prisoners are allowed to take correspondence lessons from outside institutions. An afforestation camp known as McLeod Settlement, French Island, was opened in 1916, and at the 31st December, 1925, there were 36 inmates. In addition to the work of afforestation, portion of the land has been laid down in crops, and some attention given to poultry and pig-keeping. It is stated that the experiment has resulted in improvement both in demeanour and physique of prisoners, and in many cases has led to a return to honest citizenship. A farm has been established about 3 miles from the prison at Castlemaine with provision for 13 inmates, while others are taken to and fro daily. The number in confinement at the end of December, 1925, was 71. The orchard planted in connexion with the farm contains about 1,000 fruit trees. A large number of poultry is kept, and provision has been made for practical instruction in carpentering and other work which will help in securing employment for prisoners on release.

The results of intelligence tests carried out in 1924 at the Castlemaine Reformatory show a considerable amount of mental deficiency, particularly amongst sexual offenders. Further tests in regard to larger numbers of the latter class will, however, be necessary to determine whether mental deficiency is characteristic of this class.

Under the Venereal Diseases Act, prisoners where necessary receive medical treatment, and after release the treatment where required is continued outside the prison at places gazetted by the Health Department. Provision is also made for dental attention where necessary, the treatment being free if the prisoner is unable to pay or to make arrangements for payment.

In their Report for the year 1924-25, the Indeterminate Sentences Board advocate the application of the indeterminate sentence in the case of the habitual petty offender.

Aid is given to discharged prisoners by the Salvation Army and by various church organizations and welfare committees.

(iii) *Queensland.* Queensland prisons have been considerably modernized during the last few years. Amongst recent reforms may be mentioned the provision of a separate institution at Brisbane for long-sentence prisoners, and the extension of the principle of classification and separation. Juvenile offenders, i.e., those between the ages of 16 and 21 years, are kept apart from other prisoners and treated in accordance with the latest reformative methods. Many of the prisoners received, both in the adult and junior stage, come from the ranks of the idle, the thriftless, and the unskilled, and efforts are made to

teach these some useful calling, and to help them to form habits of industry. It has been found in Queensland, as is the case elsewhere, that very few skilled workmen are criminals. The penal establishment at St. Helena has been converted into a farm colony, and well conducted prisoners receive special treatment there during the later stages of their sentences. Greater facilities have been provided for the instruction of prisoners in trades which will afford them a means of earning a livelihood on their release, and the prison libraries have been replenished with useful and interesting literature. The cells in the principal prisons have been provided with lights, and prisoners are allowed to read and study up to a reasonable hour at night. Under the provisions of the Health Act, prisoners suffering from venereal disease may be detained until danger of infection has ceased.

Excellent work in aid of discharged prisoners is carried on by the Salvation Army, while the "William Powell Home," through its secretary, renders valuable service. In the Report for the year 1924 attention is again drawn to the need of an organized State system of assisting released prisoners.

(iv) *South Australia*.—The present system of gaol administration was drafted mainly on English and European lines by the late W. R. Boothby, C.M.G., and has since been as far as possible adapted to modern penological procedure. At the Yatala Labour Prison, which is the largest in the State, the number in confinement on the 31st December, 1925, was 133. The prisoners are graded into three classes—first offenders, second offenders, and old offenders, the various classes being kept apart. Declared inebriates under "The Convicted Inebriates Act 1913" are as a rule received at the Adelaide Gaol and thence transferred to the Institution at Gladstone. Admissions to this Institute in 1925 numbered 56, of whom 13 were females. During the year 1924 new regulations were introduced chiefly with the view to encourage prisoners to take greater interest in the results of their labour. Industrious prisoners are able to earn monetary payment, and are allowed to remit a portion of their earnings to dependents in need of pecuniary help. A more liberal dietary scale has been introduced, and well-conducted prisoners are allowed to supplement this from their earnings. Permits are granted to prisoners to earn money by working in their cells at night. Facilities are afforded to help prisoners who desire to improve themselves educationally, and greater provision has been made for recreation.

Various religious organizations devote attention to the periodical visiting of prisoners in the gaols, while fine work is done by the Prisoners' Aid Association in helping released prisoners to obtain employment, or return to their homes in other States.

(v) *Western Australia*. A Royal Commission in 1911 recommended the adoption of various reforms in connexion with the prison system of Western Australia. The bulk of these were carried out, and included, amongst other things, an extension of the principle of separate treatment, improvement in prisoners' dietary scale, more satisfactory arrangements in regard to remission of sentences, and better conditions in regard to hours of labour, leave of absence, etc., for the staff. Amongst other improvements introduced may be mentioned the grant of an eight hours' day to officers, enlargement and improved hygiene of cells, additional library facilities, assistance to discharged prisoners by provision of railway passes and monetary aid, appointment of committees to look after the welfare of discharged prisoners, and the remodelling of the "mark" system. Under the Prisons Act Amendment Act of 1918 a portion of Fremantle Prison was set aside as a reformatory prison in 1919, and first offenders are kept separate from other prisoners. It is pointed out, however, that reformatory treatment is greatly hampered by the lack of a suitable institution away from the ordinary gaol surroundings. In common with other penologists the Comptroller-General alludes to the weakness of the definite sentence, and points to the necessity for skilled consideration of all the circumstances that have led to wrongdoing, coupled with skilled medical, psychological, and penological treatment of the prisoner whilst undergoing confinement. The Prison Gate Committee affords assistance to discharged prisoners by finding work and helping in other ways.

(vi) *Tasmania*. The number of convicted prisoners in confinement in Tasmanian gaols at the end of 1925 was 74. The completion of alterations to the Hobart gaol has facilitated the classification of offenders, and afforded greater opportunities for teaching trades. Youthful offenders are kept apart from ordinary prisoners.

(vii) *Psychology of the Criminal*. The Director of the State Psychological Clinic at Hobart recently stated that an examination of the prisoners in Hobart Gaol showed that nearly two-thirds were "deviates" from the normal, and he stressed the necessity for devising means for the discovery and possible correction of abnormal tendencies in

childhood. He alluded also to the connexion between brain development and mental development, and pointed out that in Hobart Gaol 84 per cent. of the defectives were small-headed. In the Prisons Report for New South Wales for the year 1925 the Visiting Surgeon to the State Penitentiary remarks: "The majority of cases that have come under my observation this year are undoubtedly persons below the normal standard of mentality, and the question always arises, are they mentally responsible or no?" Attention is also drawn to the fact that many adult criminals are mentally and morally under the age of discretion. Intelligence tests conducted at the Pentridge Gaol, Melbourne, in 1924-5 showed a percentage of 61 in the sub-normal stage.

§ 5. Civil Courts.

1. Lower Courts.—The transactions of the lower courts on the civil side during each of the last five years are given in the table hereunder. As pointed out previously, the jurisdiction of the courts is by no means uniform in the various States:—

LOWER COURTS.—CIVIL CASES, 1921 TO 1925.

State.		1921.	1922.	1923.	1924.	1925.
New South Wales	{ Cases No.	37,557	38,828	48,760	53,997	70,798
	{ Amount £	145,176	163,803	198,558	220,442	249,418
Victoria	{ Cases No.	45,319	47,140	58,502	73,264	82,589
	{ Amount £	202,606	295,697	413,417	497,833	552,788
Queensland	{ Cases No.	14,339	16,023	18,329	17,607	17,226
	{ Amount £	84,277	122,684	155,314	178,018	189,742
South Australia	{ Cases No.	20,334	23,030	25,839	29,101	33,650
	{ Amount £	103,715	123,569	142,217	182,930	197,924
Western Australia	{ Cases No.	15,240	15,991	16,649	18,705	21,029
	{ Amount £	63,162	71,457	76,208	91,100	97,415
Tasmania	{ Cases No.	1,442	7,246	7,879	7,950	10,332
	{ Amount £	36,571	59,137	57,014	62,234	73,415
Total	{ Cases No.	134,231	148,258	175,958	200,624	235,624
	{ Amount £	635,507	836,347	1,042,728	1,232,557	1,360,702

The figures just given represent the returns from Petty Sessions Courts in New South Wales and Victoria, the Petty Debts Courts in Queensland, the Local Courts of South Australia and Western Australia, and the Courts of Requests in Tasmania.

2. Superior Courts.—In the next table will be found the transactions on the civil side in the Superior Courts during each of the years 1921 to 1925.

The New South Wales returns refer to the total amounts of judgments in the District Courts, and are exclusive of judgments signed in the Supreme Court, for which the amount is not available.

SUPERIOR COURTS.—CIVIL CASES, 1921 TO 1925.

State.		1921.	1922.	1923.	1924.	1925.
New South Wales	{ Causes No.	1,344	1,386	1,557	1,618	1,563
	{ Amount £	475,816	500,862	578,774	259,327	257,211
Victoria	{ Causes No.	906	863	996	1,041	1,032
	{ Amount £	226,736	213,597	237,145	303,140	341,184
Queensland	{ Causes No.	231	187	245	225	242
	{ Amount £	32,513	21,914	17,645	9,861	13,114
South Australia	{ Causes No.	52	55	60	146	174
	{ Amount £	5,673	10,300	3,923	7,654	64,821
Western Australia	{ Causes No.	288	195	205	272	300
	{ Amount £	54,339	40,119	34,207	87,495	87,653
Tasmania	{ Causes No.	246	474	525	548	624
	{ Amount £	13,651	28,952	30,127	42,624	26,667
Total	{ Causes No.	3,067	3,160	3,588	3,850	3,945
	{ Amount £	808,728	815,744	901,821	710,101	790,650

3. **Divorces and Judicial Separations.**—The number of divorces and judicial separations in each State during the period 1921 to 1925 is shown below. The figures refer in the case of divorces to decrees made absolute in each year and include decrees for nullity of marriage.

DIVORCES AND JUDICIAL SEPARATIONS, 1921 TO 1925.

State.	1921.		1922.		1923.		1924.		1925.	
	Divorces.	Judicial Separations.	Divorces.	Judicial Separations.	Divorces.	Judicial Separations.	Divorces.	Judicial Separations.	Divorces.	Judicial Separations.
New South Wales ..	789	18	684	9	739	13	838	7	1,071	11
Victoria ..	388	1	376	12	429	12	407	1	455	3
Queensland ..	56	12	47	..	75	12	105	..	85	12
South Australia ..	88	1	76	..	90	..	77	..	85	..
Western Australia ..	119	..	110	1	101	..	89	..	121	..
Tasmania ..	40	..	33	..	29	..	20	..	37	..
Northern Territory ..	..	..	..	..	..	..	..	..	..	..
Total ..	1,480	22	1,326	12	1,463	17	1,536	8	1,854	16

The average annual number of divorces and judicial separations in Australia at decennial periods from 1871 to 1920 and during the quinquennium 1921–25 was as follows:—

DIVORCES AND JUDICIAL SEPARATIONS.—AUSTRALIA, 1871 TO 1925.

	1871–1880.	1881–90.	1891–1900.	1901–10.	1911–20.	1921–25.
Averages ..	29	70	358	401	707	1,552.

The bulk of the divorces and judicial separations refer to New South Wales and Victoria, the Acts of 1899 and 1889 in the respective States having made the separation of the marriage tie comparatively easy. In some statistical works it is customary to compare the divorces in any year with the marriages in the same year. The comparison is, however, quite valueless, as there is no necessary connexion between the figures.

4. **Probates.**—The number of probates and letters of administration granted, together with the value of the estates concerned, are given below for each State for the period 1921 to 1925:—

PROBATES AND LETTERS OF ADMINISTRATION, 1921 TO 1925.

State.	1921.	1922.	1923.	1924.	1925.
New South Wales ..	Number 5,461 Value £ 13,895,765	5,681 15,441,378	6,281 16,429,860	6,410 17,970,385	6,909 18,390,924
Victoria ..	Number 5,769 Value £ 12,554,865	5,445 12,641,263	6,283 15,070,725	5,540 12,831,268	5,204 13,227,243
Queensland ..	Number 1,130 Value £ 4,039,379	1,002 3,591,531	1,073 3,594,467	922 3,258,981	897 3,367,734
South Australia ..	Number 1,784 Value £ 3,115,106	1,786 3,683,202	1,823 4,043,547	2,001 4,065,615	1,942 4,366,425
Western Australia ..	Number 1,059 Value £ 1,854,099	942 979,214	907 1,358,846	949 1,639,479	1,038 1,724,727
Tasmania ..	Number 518 Value £ 1,207,252	545 1,211,764	569 1,283,638	622 1,281,006	541 1,262,103
Northern Territory ..	Number 10 Value £ 3,864	27 5,411	19 6,006	20 27,953	28 10,246
Total ..	Number 15,731 Value £ 36,670,330	15,428 37,553,763	16,955 41,787,089	16,464 41,074,687	16,559 42,349,452

5. **Bankruptcies.**—(i) *General.* The returns in bankruptcy during each of the last five years are given in the following table.

For several reasons comparisons drawn from these figures are of little value. In the first place, the statements of assets and liabilities are notably unsatisfactory, particularly in regard to the former. Then, again, there is wide dissimilarity in regard to the laws in force in the various States and the methods of procedure thereunder in connexion with bankruptcy. The figures quoted in the table exclude private arrangements in Victoria, South Australia, and Western Australia, and the liquidations in Queensland and Tasmania.

The Bankruptcy Act (No. 37 of 1924) and the Bankruptcy Act (No. 3 of 1927) passed by the Commonwealth Parliament provide for the transfer of jurisdiction in Bankruptcy to the Commonwealth, but these acts have not yet been proclaimed.

BANKRUPTCIES, 1921 TO 1925.

State.		1921.	1922.	1923.	1924.	1925.
New South Wales ..	Number ..	394	481	668	668	716
	Liabilities £	311,900	440,856	659,314	742,079	878,708
	Assets £	166,457	251,185	282,657	303,315	438,796
Victoria ..	Number ..	300	322	414	520	563
	Liabilities £	180,044	349,118	323,540	504,678	446,438
	Assets £	92,048	189,016	152,602	311,290	249,251
Queensland ..	Number ..	150	148	204	247	275
	Liabilities £	65,603	90,790	109,211	184,979	170,053
	Assets £	18,760	42,012	55,185	76,462	100,259
South Australia ..	Number ..	67	110	137	167	161
	Liabilities £	121,987	158,987	173,632	262,959	344,542
	Assets £	96,658	102,738	116,333	167,982	236,713
Western Australia ..	Number ..	30	36	41	44	44
	Liabilities £	43,944	36,510	50,449	36,488	37,962
	Assets £	35,899	16,961	24,018	23,388	11,219
Tasmania ..	Number ..	6	1	4	3	4
	Liabilities £	1,829	1,170	3,148	1,705	6,964
	Assets £	1,599	..	535	692	3,377
Northern Territory ..	Number ..	..	2	2	1	..
	Liabilities £	..	175	141	(a)	..
	Assets £	..	..	40	(a)	..
Total ..	Number ..	947	1,100	1,470	1,650	1,763
	Liabilities £	725,307	1,077,606	1,319,435	1,732,888	1,884,667
	Assets £	411,421	601,912	631,370	883,129	1,039,615

(a) Not stated.

(ii) *Deeds of Arrangement, etc.* The figures given above are, as explained, exclusive of private arrangements. For New South Wales the returns show that no compositions were effected in 1924. In Victoria during 1925 the deeds of arrangement numbered 233, the declared liabilities and assets being £321,877 and £273,933 respectively. Liquidations under the Insolvency Act in Queensland numbered 19, the total liabilities and assets amounting to £36,128 and £30,909 respectively. In South Australia, 212 compositions were arranged during the year. Under the Bankruptcy Amendment Act of 1898, 11 compositions, 13 schemes of arrangement, and 63 deeds of assignment were made in Western Australia. In Tasmania, 18 liquidations involving liabilities £11,609 and assets £4,087, were arranged during 1925.

6. **High Court of Australia.**—Under the provisions of section 71 of the Commonwealth Constitution Act, the judicial power of the Commonwealth is vested in a Federal Supreme Court, called the High Court of Australia, and in such other courts as the Parliament creates or invests with federal jurisdiction. The Federal High Court possesses both original and appellate jurisdiction. The powers of the Court are defined in Chapter III. of the Constitution Act and in the Judiciary Acts of 1903–20. At present the Court consists of a Chief Justice and six other judges. Sittings of the Court are held in the capitals of the various States as occasion may require. The following statement shows the transactions of the High Court for the quinquennium 1921–25 :—

COMMONWEALTH HIGH COURT.—TRANSACTIONS, 1921 TO 1925.

Items.	1921.	1922.	1923.	1924.	1925.
I. ORIGINAL JURISDICTION.					
Number of writs issued ..	155	183	82	88	138
Number of causes entered for trial ..	24	30	15	7	21
Verdicts for plaintiffs ..	13	6	5	4	8
Verdicts for defendants ..	4	9	1	1	3
Otherwise disposed of ..	22	61	9	2	10
Amount of judgments ..	£15,403	£18,579	£5,525	£23,724	£11,810
II. APPELLATE JURISDICTION.					
Number of appeals set down for hearing ..	68	96	72	101	76
Number allowed ..	31	39	27	39	24
Number dismissed ..	24	48	35	46	34
Otherwise disposed of ..	13	9	10	16	18
III. AMOUNT OF FEES COLLECTED.					
Amount in each year ..	£742	£802	£586	£789	£1,185

During the year 1925 the Court dealt also with other matters as follows :—

Appeals from Assessments under the Taxation Assessment Acts ..	23
Special cases stated for the opinion of the Full Court ..	10
Applications for Prohibition	4

7. Commonwealth Court of Conciliation and Arbitration.—A more or less detailed statement regarding the operation of this Court, which was established under the provisions of the Commonwealth Conciliation and Arbitration Act of 1904-26, will be found in Chapter XIII.

§ 6. Cost of Administration of Justice.

1. Expenditure by the States.—The table below shows the expenditure from Consolidated Revenue during each of the last five years in connexion with the administration of justice in each of the States. Expenditure on police and on prisons are given on separate lines. With regard to the figures quoted for "other" expenditure, a slight allowance has to be made for the fact that some extraneous expenditure has been included which it was found impossible to disentangle from the total, but the amount is in no instance large.

STATE EXPENDITURE ON JUSTICE, 1921 TO 1925.

State.	1921.	1922.	1923.	1924.	1925.
	£	£	£	£	£
New South Wales .. { Police	1,150,323	1,205,557	1,219,244	1,317,320	1,331,978
Gaols	120,136	145,887	138,137	150,052	162,411
Other	400,943	395,691	415,420	428,437	428,726
Victoria .. { Police	579,351	600,856	755,698	741,126	768,939
Gaols	74,161	80,363	101,233	99,732	117,577
Other	224,670	233,452	252,995	259,626	265,743
Queensland .. { Police	458,955	455,519	461,446	497,484	554,879
Gaols	36,236	34,068	34,635	38,239	39,874
Other	143,592	144,341	149,492	170,350	190,495
South Australia .. { Police	211,428	216,109	221,635	246,646	250,915
Gaols	33,359	34,520	37,388	41,257	46,240
Other	54,129	50,459	64,549	65,447	70,431
Western Australia .. { Police	184,245	181,893	185,945	193,461	216,798
Gaols	28,715	27,440	26,102	25,970	25,989
Other	89,987	91,605	99,250	92,816	97,364
Tasmania .. { Police	79,105	77,096	78,313	81,318	84,340
Gaols	10,097	9,643	9,475	9,426	9,446
Other	34,114	32,921	33,487	38,381	37,680
Northern Territory a { Police	15,520	16,011	16,070	17,923	19,004
Gaols	4,171	4,403	4,148	4,469	4,432
Other	3,289	2,664	2,611	3,078	3,226
Total .. { Police	2,678,927	2,753,041	2,938,351	3,095,278	3,226,853
Gaols	306,875	336,324	351,118	369,145	405,969
Other	950,724	951,133	1,017,804	1,058,135	1,093,670

(a) See 2, Federal Expenditure, next page.

The rise in expenditure during the last few years was due chiefly to increases in wages and salaries and heavier outlay on stores and supplies.

For the purposes of comparison the figures in the table above have been reduced to a population basis, and the results are given in the table following:—

STATE EXPENDITURE ON JUSTICE—PER HEAD, 1921 TO 1925.

State.	1921.	1922.	1923.	1924.	1925.
	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
New South Wales	Police 10 10	11 1	11 0	11 8	11 7
	Gaols 1 2	1 4	1 3	1 4	1 5
	Other 3 9	3 8	3 9	3 10	3 9
Victoria	Police 7 6	7 7	9 4	8 11	9 2
	Gaols 0 11	1 0	1 3	1 2	1 5
	Other 2 11	2 11	3 1	3 2	3 2
Queensland	Police 11 11	11 7	11 5	11 11	12 11
	Gaols 0 11	0 10	0 10	0 11	0 11
	Other 3 9	3 8	3 8	4 1	4 5
South Australia	Police 8 5	8 5	8 5	9 2	9 1
	Gaols 1 4	1 4	1 5	1 6	1 8
	Other 2 2	2 0	2 6	2 5	2 7
Western Australia	Police 11 0	10 7	10 6	10 7	11 8
	Gaols 1 9	1 7	1 6	1 5	1 5
	Other 5 4	5 4	5 7	5 1	5 3
Tasmania	Police 7 3	7 0	7 2	7 6	7 9
	Gaols 0 11	0 11	0 10	0 10	0 10
	Other 3 1	3 0	3 1	3 6	3 6
Northern Territory (a)	Police 81 6	90 2	90 5	99 7	104 0
	Gaols 22 4	24 10	23 4	24 10	24 3
	Other 17 7	15 0	14 8	17 1	17 8
Total	Police 9 9	9 9	10 3	10 6	10 9
	Gaols 1 1	1 2	1 3	1 3	1 4
	Other 3 6	3 5	3 6	3 7	3 8

(a) See 2 below.

Owing to the smallness of the white population, large area to be policed, and cost of supplies, transport, etc., the figures for the Northern Territory must necessarily appear somewhat abnormal.

The total expenditure in connexion with the administration of justice in the various States has risen from 10s. per inhabitant in 1901 to 15s. 9d. in 1925. Police expenditure increased by 4s. 9d. per head, the average for gaols by 1d. per head, while the expenditure on courts and the remaining machinery of justice increased by 6d. per head during the period. Increased salaries and allowances, and the heavier cost of materials and equipment were largely responsible for the rise in the rate per head during the last few years.

2. Federal Expenditure.—(i) *High Court*. With the exception of that for the Northern Territory, the expenditure shown in the foregoing tables is that incurred by the State Governments only, and does not include expenditure in connexion with the Federal High Court, which is given hereunder for the period 1920–21 to 1925–26:—

EXPENDITURE ON FEDERAL HIGH COURT, 1920-21 TO 1925-26.

Year.	Amount.	Year.	Amount.
	£		£
1920–21	34,669	1923–24	35,645
1921–22	33,776	1924–25	34,769
1922–23	35,458	1925–26	35,500

(ii) *Total Expenditure*. Other items of expenditure during 1925–26 by the Commonwealth Attorney-General's Department include—Secretary's office, £30,512; Crown Solicitor, £22,691; Court of Conciliation and Arbitration, £12,958; Public Service Arbitrator, £3,953; Investigation Branch, £9,970. Including the High Court expenditure, but excluding that in connexion with Patents and Copyright, the total expenditure by the federal law authorities in 1925–26 amounted to £136,735.

CHAPTER XI. PUBLIC BENEVOLENCE.

§ 1. Introductory.

1. **General.**—Charity and charitable effort in Australia may be classified under three headings, viz. :—(a) State ; (b) public ; (c) private. To the first belong all institutions wholly provided for by the State, such as the principal hospitals for the insane in the various States, the Government hospitals in Western Australia, and the Government asylums for the infirm in New South Wales. The second class comprises public institutions of two kinds, viz. :—(i) those partially subsidized by the State or State endowed, but receiving also private aid, and (ii) those wholly dependent upon private aid. To the former division belong such institutions as the principal metropolitan hospitals. In the latter are included institutions established and endowed by individuals for the benefit of the needy generally. All charitable movements of a private character are included in the third group. A more or less accurate statistical account is possible in classes (a) and (b), but in regard to (c) complete tabulation is, for obvious reasons, impossible. Owing to differences in the method and date of collection and tabulation, it is impossible to bring statistics of charitable institutions to a common year.

No poor-rate is levied in Australia, and Government aid without return is required only for the aged and disabled. Moreover, although Old-age Pensions, Invalid Pensions, and Maternity Allowances are paid by the Commonwealth, the payments are looked upon rather in the light of a citizen's right than as a charity. Reference to these matters will be found in § 6 and 7 of Chapter VIII. "Finance."

From time to time relief funds have been organized for famine-stricken countries in various parts of the world, or for places where plagues, flood, fire, or earthquake have shown the need of urgent relief. Special funds were also raised for persons disabled or bereaved through war. Complete statistical information in regard to these forms of charity is not, however, available. It may be mentioned that the daily Press frequently accepts the duty of collectorship in charity appeals. In regard to subscriptions to the various patriotic funds which were instituted in consequence of the war, the total for Australia is estimated to exceed £12,500,000 sterling.

§ 2. The Larger Charities of Australia.

1. **Hospitals.**—(i) *General.* All the State capitals have several large and well-equipped hospitals, and there is at least one in every important town. In large centres there are hospitals for infectious diseases, consumptives, women, children, incurables, etc.

(ii) *Principal Hospitals in each State.* The particulars given herein refer to general hospitals at latest available date, and include all institutions affording general hospital relief.

(a) *New South Wales.* A Government hospital, with a staff of 32 medical officers and accommodation for about 720 patients, is established at Little Bay, near Sydney. Altogether, there are 4 hospitals for women, 1 for women and children, and 3 for children in the metropolis. The Royal Prince Alfred Hospital, with a medical staff of 90 and with 584 beds, is the largest metropolitan subsidized institution. Amongst other large metropolitan hospitals may be mentioned the Sydney Hospital, with a medical staff of 69 and with 415 beds, St. Vincent's with 58 doctors and 220 beds, and Lewisham with 46 medical attendants and 292 beds. In extra-metropolitan areas the Waterfall Hospital for Consumptives, which is a Government institution, provides accommodation for 419 patients. The Newcastle Hospital has 188 beds and a medical staff of 21. At the Carrington Convalescent Home at Camden there is provision for 110 patients. The hospital in the Broken Hill district can accommodate 186. Upwards of 300,000 out-patients received treatment at the various hospitals.

(b) *Victoria.* There are several large metropolitan hospitals in Victoria. In 1925–26 the largest of these, the Melbourne Hospital, had 358 beds, while attendances of out-patients in the twelve months were nearly 250,000 ; the Alfred Hospital had 340 beds, outpatients' attendances numbered 172,000 ; the Austin Hospital for Incurables had 294 beds, St. Vincent's 120, and the Homœopathic 73. Amongst the country institutions, Bendigo had 222 beds, Geelong 162, and Ballarat 202.

(c) *Queensland.* Of the metropolitan hospitals, the largest is the Brisbane General, which can accommodate 361 patients. The Children's Hospital has 260 beds, the

Diamantina 167, and the Mater Misericordiæ 127. The larger country hospitals are those at Ipswich, Toowoomba, Rockhampton, Townsville, Bundaberg, Charters Towers, and Maryborough.

(d) *South Australia.* Including the Consumptive Home and Infectious Diseases Block, the Adelaide Hospital can accommodate a total of 580 patients. The most important of the country hospitals are at Port Augusta, Port Pirie, and Wallaroo. The Adelaide Children's Hospital has 98 beds.

(e) *Western Australia.* Information regarding the capacity of the Western Australian hospitals is not available, but some idea of their comparative importance may be gained from the figures relating to cases treated. In the metropolis, 5,388 cases were treated at the Perth Hospital in 1925, and 1,929 at the Perth Children's Hospital. Of the country hospitals, the more important are those at Kalgoorlie, Fremantle, Northam, and Wooroloo.

(f) *Tasmania.* There are well-equipped general hospitals in Hobart and Launceston. The former can accommodate 225 patients, with additional verandah accommodation if required, and the latter has 226 beds. Hospitals for women have been established in both centres, and there is a sanatorium for consumptives at New Town. Outside the metropolitan area there are institutions in the important country centres, the principal being the Devon Cottage, and the Lyell District Hospitals.

(g) *Northern Territory.* In addition to the hospitals at Darwin and Pine Creek, supplies of medicines and first aid are available to outlying stations.

(iii) *Number, Staff, and Accommodation, 1925.* Details regarding the number of hospitals, staffs, and accommodation for the year 1925, or nearest available year, are given in the appended table:—

GENERAL HOSPITALS.—NUMBER, STAFFS, AND ACCOMMODATION, 1925.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N. Ter.	Total.
Number of Hospitals—								
Government ..	4	..	4	11	26	3	5	53
Other ..	155	53	103	34	38	12	2	397
Total ..	159	53	107	45	64	15	7	450
Medical Staff—								
Males ..	1,152	109	264 13	185 9	63	45	2	1,822
Females ..								
Total ..	1,152	109	277	174	63	45	2	1,822
Nursing Staff and Attendants—								
Males ..	94	..	356	101	127	2	2	682
Females ..	2,977	(a) 879	1,977	860	722	228	12	(a) 7,655
Total ..	3,071	(a) 879	2,333	961	849	230	14	(a) 8,337
Accommodation—								
Number of dormitories, wards, etc.	1,187	445	690	372	274	154	12	3,134
Capacity, in cubic feet	9,126,294	5,117,813	4,537,909	2,248,894	3,050,529	1,044,455	135,000	25,260,894
Number of beds, etc.	8,063	3,801	4,229	1,746	2,027	807	45	20,718
Cubic feet to each bed	1,131	1,346	1,072	1,288	1,505	1,294	3,000	1,220

(a) Victorian figures are exclusive of 787 nursing staff and 17 dispensing staff, sexes not available.

(iv) *Patients Treated.* The table hereunder furnishes particulars respecting patients treated. In addition to the facilities provided in the ordinary wards, a considerable amount of accommodation for certain classes of cases is furnished in out-door or verandah sleeping places, and this can be augmented; full particulars in connexion with these are not available. So far as the returns show, there were 1,166 out-door beds in New South Wales, 176 in South Australia, 11 in Western Australia, 78 in Tasmania, and 42 in the Northern Territory. These figures are not included in the totals given in the table below:—

GENERAL HOSPITALS.—PATIENTS TREATED, 1925.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N. Ter.	Total.
Indoor Relief: Persons Treated—								
Males	57,688	21,002	36,873	11,338	11,504	5,960	269	144,634
Females	55,490	16,182	22,920	10,224	8,545	6,193	123	119,677
Total	113,178	37,184	59,793	21,562	20,049	12,153	392	264,311
Inmates at beginning of year—								
Males	2,885	1,296	1,806	624	718	229	23	7,581
Females	2,431	918	1,022	431	380	242	5	5,429
Total	5,316	2,214	2,828	1,055	1,098	471	28	13,010
Admissions and Re-admissions during year—								
Males	54,803	19,706	35,067	10,721	10,786	5,731	246	137,060
Females	53,059	15,264	21,898	9,864	8,165	5,951	118	114,319
Total	107,862	34,970	56,965	20,585	18,951	11,682	364	251,379
Discharges—Recovered :								
Males	30,724	a 17,191	a 32,112	6,594	5,781	a 5,003	219	106,624
Females	42,153	a 13,833	a 20,164	6,915	5,613	a 5,360	101	94,139
Total	81,877	a 31,024	a 52,276	13,509	11,394	a 10,363	320	200,763
Relieved:								
Males	9,855	b	b	2,833	3,829	b	..	c
Females	7,175	b	b	1,968	1,960	b	..	c
Total	17,030	b	b	4,801	5,789	b	..	c
Unrelieved or Incurable :								
Males	1,757	239	664	532	321	370	..	3,883
Females	1,379	173	436	406	165	324	..	2,883
Total	3,136	412	1,100	938	486	694	..	6,766
Not stated or Indefinite :								
Males .. ..	..	174	..	36	..	34	..	244
Females .. ..	..	116	..	54	..	19	..	189
Total .. ..	..	290	..	90	..	53	..	433
Deaths—								
Males	3,612	2,003	2,022	754	902	302	19	9,614
Females	2,311	1,084	981	516	381	232	6	5,511
Total	5,923	3,087	3,003	1,270	1,283	534	25	15,125
Inmates at end of year—								
Males	2,740	1,395	1,763	596	671	251	31	7,447
Females	2,472	978	1,142	436	426	253	16	5,726
Total	5,212	2,371	2,905	1,032	1,097	509	47	13,173
Average Daily Resident—								
Males	c	2,360	3,049	628	714	253	29	c
Females				539	457	265	17	
Total	c	2,360	3,049	1,167	1,171	518	46	c

(a) Including relieved.

(b) Included in recovered.

(c) Not available.

(v) *Summary for Five Years, 1921 to 1925.* Returns for the last five years of the number of hospitals in Australia, admissions, patients treated, deaths, and expenditure, are given in the following table. Figures for general hospitals only are tabulated, since the working of "special" institutions is not properly comparable with those which treat every class of case.

GENERAL HOSPITALS.—SUMMARY, AUSTRALIA, 1921 TO 1925.

Particulars.	1921.	1922.	1923.	1924.	1925.
Number of institutions ..	404	424	426	435	450
Number of beds ..	18,342	18,969	19,590	19,986	20,718
Admissions during year ..	205,072	209,018	227,168	237,846	251,379
Indoor patients treated ..	215,278	218,209	237,339	249,786	264,311
Deaths ..	13,969	13,485	14,637	14,784	15,125
Expenditure ..	£ 2,332,116	2,441,075	2,632,360	2,800,5.8	3,090,546

In addition to those admitted to the institutions, there are large numbers of out-patients. The exact number of these cannot be given, but a rough estimate of distinct cases places the total at about 500,000.

(vi) *Revenue and Expenditure.* The revenue and expenditure for the year 1925 were as follow :—

GENERAL HOSPITALS.—REVENUE AND EXPENDITURE, 1925.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N. Ter.	Total.
	£	£	£	£	£	£	£	£
Revenue—								
Fees of patients, etc.	184,961	75,647	95,186	79,260	61,489	29,607	700	526,850
Government grants	614,459	108,852	267,711	191,657	102,376	43,713	5,693	1,334,461
Other ..	604,999	305,907	191,168	49,729	52,987	10,024	..	1,214,814
Total ..	1,404,419	490,406	554,065	320,646	216,852	83,344	6,393	3,076,125
Expenditure—								
Salaries and Main-tenance ..	976,722	365,282	555,644	215,697	196,387	60,558	4,733	2,375,023
Buildings ..	255,669	101,030	33,229	93,223	2,314	5,739	960	492,164
Other ..	134,701	12,695	24,461	15,529	13,005	22,968	..	223,359
Total ..	1,367,092	479,007	613,334	324,449	211,706	89,265	5,693	3,090,546

2. *Benevolent and Destitute Asylums.*—(i) *General.* There has been a great increase in recent years in the amount of aid provided for the aged. Two elements, each of them independent of the growth of population, have influenced this increase. One is, that the general age of the community has advanced—the large flow of immigration of sixty and seventy years ago having been mostly of persons in the prime of life; the other is the increased regard paid in all British communities to the well-being of the helpless. In Australia numerous establishments have been founded for the housing and protection of persons no longer able to care for themselves. The institutions are supported by Government and municipal aid, public subscriptions, charity performances, bequests, etc.; and in many cases relatives of indigent and afflicted persons contribute to their maintenance.

The impossibility of an entirely satisfactory statistical tabulation in regard to all forms of charitable aid is especially marked in the case of benevolent institutions, since the conditions under which they have been established in the different centres in Australia have resulted in differences in the classes of cases treated by them. For example, in Western Australia, the Home for Destitute Women includes a maternity ward, for which the statistics are not separately kept. Since the chief function of the

institution is aid to the destitute, it has been included amongst benevolent asylums. In Victoria, although nine of the hospitals are also benevolent asylums, they have been classed under hospitals. In South Australia, the Destitute Asylum includes lying-in and children's departments.

(ii) *Principal Institutions.* The principal institutions of this nature in each State are as follows :—

(a) *Government Asylums for the Infirm, New South Wales.* There are five asylums for the infirm maintained by the Government—four for men and one for women. Rookwood, the largest of these, had in 1924 an average number resident of 1,485, Newington 707, Liverpool 631, and the Parramatta Homes 459. The State Labour Depot and Refuge at Randwick had 61 inmates.

(b) *Benevolent Asylums, Victoria.* Exclusive of the asylums attached to hospitals, there are eight institutions in Victoria. The daily average of indoor patients approaches 2,000, with about 300 distinct cases of outdoor relief.

(c) *Benevolent Asylums, Queensland.* There are four institutions in Queensland, with 1,259 beds. The most important of these is at Dunwich (Stradbroke Island), and there are small institutions at Nundah, Rockhampton, and Toowoomba. The inmates of the four institutions number about 1,200.

(d) *Homes for Aged, South Australia.* At the Old Folks' Home, Magill, there were 450 inmates at the end of 1925, and 67 in the Aged Men's Home, Beaumont.

(e) *Homes for the Destitute, Western Australia.* There are two homes in Western Australia supported by public funds. The Old Men's Home at Claremont had 603 inmates at the end of 1925, and the Women's Home, Fremantle, which receives children also, had 85 adult inmates.

(f) *Charitable Establishments, Tasmania.* There are two principal Government charitable establishments in Tasmania. The New Town Infirmary and Consumptive Home, with 230 beds, and the Home for Invalids, Launceston, with 31 beds, were fully tenanted during 1925.

(iii) *Revenue and Expenditure.* Details regarding revenue and expenditure for the year 1925 are given in the following table :—

BENEVOLENT ASYLUMS.—REVENUE AND EXPENDITURE, 1925.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
	£	£	£	£	£	£	£
Revenue—							
Government aid ..	132,410	24,683	46,871	8,865	11,518	9,987	234,334
Municipal aid ..	..	874	..	..	..	..	874
Public subs., legacies, etc.	1,546	28,212	2,647	..	..	..	32,405
Fees ..	13,462	22,846	..	3,757	12,765	4,574	57,404
Other ..	6,130	11,295	476	6,567	..	1,566	26,034
Total ..	153,548	87,910	49,994	19,189	24,283	16,127	351,051
Expenditure—							
Buildings ..	3,284	12,590	113	171	..	199	16,357
Maintenance ..	143,958	62,978	49,362	13,877	24,283	11,137	305,595
Other ..	6,984	4,828	497	5,158	..	4,791	22,258
Total ..	154,226	80,396	49,972	19,206	24,283	16,127	344,210

3. **Orphanages, Industrial Schools, etc.**—(i) *General.* The organization of charitable effort varies greatly in regard to orphans and waifs. In many institutions, shelter and some form of industrial training are offered to destitute children of all classes whether orphans or not, while some of those styled orphanages do not confine their relief strictly to orphans. The expenditure on orphanages in 1925 was approximately £200,000.

(ii) *Principal Institutions.* The principal institutions in each State are as follows :—

(a) *New South Wales.* The care of destitute and neglected children is entrusted to the State Children's Relief Board, whose officers supervise the welfare of the children and the treatment of them by those to whom they are boarded out. Provision is made for instruction in various trades and callings.

There are also orphanages, farm homes, country homes for children, etc., with upwards of 2,000 children under care.

There are several reformatory and industrial schools maintained by the State. At the Parramatta Industrial School for Girls, to which a Training Home is attached, there were on 31st December, 1924, 152 inmates. At the Farm Home for Boys, Gosford, there were 248 inmates.

(b) *Victoria.* There are ten orphanages in Victoria, with 1,726 beds. The daily average of the inmates was 1,671 in 1924–25. The expenditure in the same year was £69,437.

At the end of 1925 there were two industrial and four reformatory schools in the State. Of these, one in each class is wholly controlled by the Government, being used merely as a receiving and distributing depot. The children are sent thence to situations, foster homes, or other institutions dealing with State wards. The other schools are under private management, receiving an allowance for State wards. Many of the reformatory children are placed with friends, or licensed out.

(c) *Queensland.* There are twelve orphanages in Queensland. The number under care is about 1,000, and the annual expenditure for the year, £30,000.

There are also eight industrial and reformatory schools with about 180 boys and 60 girls under detention.

(d) *South Australia.* The State Children's Department exercises a supervision over the probationary and industrial schools and the reformatory. The total number of admissions into these institutions in 1925–26 was 271. The number of inmates on the 30th June, 1926, was 310; in addition to which 1,391 were placed out, or had been adopted or apprenticed.

There are three orphan asylums. The number under care during 1925 was 326, and the number of inmates on 31st December, 1925, was 243. There were no deaths during the year, and the expenditure amounted to £4,236.

(e) *Western Australia.* In Western Australia there were, at 30th June, 1926, thirteen institutions classed as orphanages, industrial schools, etc., containing 408 boys and 288 girls. There were also 27 boys and 17 girls at the Government Receiving Depot.

(f) *Tasmania.* There are four industrial schools and one orphanage in the State. The average daily number of inmates is 175. Annual expenditure is about £10,000.

(iii) *Transactions of State Departments.* The following table summarizes the transactions in 1925 of State Departments for the relief of neglected children :—

STATE RELIEF OF NEGLECTED CHILDREN.—SUMMARY, 1925.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Number of children in institutions, boarded out, or on probation—							
Males ..	22,295	14,894	4,147	930	721	338	48,631
Females ..			3,669	771	612	254	
Total ..	22,295	14,894	7,816	1,701	1,333	592	48,631
Number of children boarded out with their own mothers and female relatives included in above figures—							
Males ..	16,718	8,154	2,744	166	55	..	30,603
Females ..			2,566	137	63	..	
Total ..	16,718	8,154	5,310	303	118	..	30,603
Gross cost to State of children's relief ..	£ 587,626	£ 339,391	£ 194,229	£ 50,329	£ 26,158	£ 15,454	£ 1,213,187
Receipts, from parents' contributions, etc. ..	16,427	16,681	12,769	5,292	5,756	1,362	58,287
Net cost ..	571,199	322,710	181,460	45,037	20,402	14,092	1,154,900

4. *Lepers.*—Lazarets for the treatment of lepers have been established in New South Wales (Little Bay); Queensland (Peel Island, near Brisbane, and Dayman Island, Torres Strait); and the Northern Territory (Mud Island). Quarantine and isolation stations have also been used for the segregation of patients. Up to 1915, 545 cases of leprosy had been recorded in Australia. Later information is not available, but between the calendar years 1916 and 1926 there were 62 deaths from the disease. At the end of 1925 there were 17 lepers in the Little Bay lazaret.

5. *Hospitals for the Insane.*—(i) *General.* The method of compiling insanity statistics has been fairly uniform throughout the States, but differences in diagnosis of the early stages of the disease introduce an element of uncertainty which considerably affects the value of comparisons.

(ii) *Hospitals, Staff, etc., 1925.* Particulars regarding the number of institutions, medical and nursing staff, and accommodation are given in the appended table for the year 1925 :—

HOSPITALS FOR THE INSANE.—NUMBER, STAFFS, ACCOMMODATION, 1925.

Particulars.	N.S.W.	Vic.(a)	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Number of institutions—							
Government	11	9	3	2	3	1	29
Private	2	(b) 4	..	..	1	..	7
Total	13	13	3	2	4	1	36
Medical Staff—							
Males	28	26	6	6	4	2	74
Females	1						
Total	29	26	7	6	4	2	74
Nursing Staff and Attendants—							
Males	760	646	242	99	131	54	1,932
Females	719	624	182	93	80	64	1,762
Total	1,479	(g) 1,270	424	192	211	118	3,694
Accommodation—							
Number of dormitories ..	(f)	1,335	566	507	44	407	(f)
Capacity, in cubic feet ..	(f)	3,964,873	2,046,916	891,163	714,714	878,590	(f)
Number of beds ..	(c) 6,840	5,919	2,802	1,348	1,186	702	13,797
Cubic feet to each bed ..	{ (d)(c) 600 (e)(c) 1,000 }	670	731	661	605	1,252	(f)

(a) Exclusive of Receiving House, Royal Park, and of the Receiving Wards at Bendigo and Geelong Hospitals. (b) There are four private licensed houses in Victoria, in which there were 90 cases at the end of 1925. Complete figures for these private asylums are not available. (c) Government hospitals only. (d) Ordinary dormitory. (e) Hospital dormitory. (f) Information not available. (g) Also 29 on clerical staff (males).

(iii) *Patients, 1925.* Information regarding patients treated, deaths, etc., for the year 1925 is given in the table hereunder :—

HOSPITALS FOR THE INSANE.—PATIENTS, DEATHS, ETC., 1925.

Particulars.	N.S.W.	Vic.(a)	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Admissions and re-admissions during year—							
Males	839	399	302	220	104	46	1,910
Females	699	347	208	181	56	40	1,531
Total	1,538	746	510	401	160	86	3,441
Discharges—Recovered—							
Males	256	82	132	80	16	22	588
Females	276	85	98	70	8	19	556
Total	532	167	230	150	24	41	1,144
Relieved and unrelieved—							
Males	100	65	11	48	15	8	247
Females	69	60	12	53	14	14	222
Total	169	125	23	101	29	22	469

(a) Exclusive of inmates of the Receiving House, Royal Park, and of Receiving Wards attached to the hospitals at Bendigo and Geelong, and of four private licensed houses.

HOSPITALS FOR THE INSANE.—PATIENTS, DEATHS, ETC., 1925—*continued.*

Particulars.	N.S.W.	Vic.(a)	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Absconders not retaken—							
Males	11	4	..	2	1	..	18
Females .. ..	..	2	..	..	..	..	2
Total	11	6	..	2	1	..	20
Deaths—							
Males	395	198	136	55	58	16	858
Females	265	158	56	39	18	22	558
Total	660	356	192	94	76	38	1,416
Number of patients on books at end of year—							
Males	4,612	2,977	1,863	722	728	303	11,205
Females	3,785	3,215	1,120	580	360	300	9,360
Total	8,397	6,192	2,983	1,302	1,088	603	20,565
Average daily number resident—							
Males	4,387	2,592	1,822	703	719	301	10,524
Females	3,478	2,802	1,077	572	348	307	8,584
Total	7,865	5,394	2,899	1,275	1,067	608	19,108
Number of patients on books at end of year per 1,000 of population—							
Males	3.93	3.55	4.10	2.55	3.65	2.80	3.66
Females	3.36	3.80	2.75	2.16	2.08	2.75	3.20
Persons	3.65	3.67	3.46	2.36	2.92	2.78	3.43
Average number of patients resident in hospitals for insane per 1,000 of mean population—							
Males	3.74	3.09	4.00	2.48	3.60	2.79	3.44
Females	3.09	3.31	2.65	2.13	2.01	2.81	2.93
Persons	3.42	3.20	3.37	2.31	2.86	2.75	3.19

(a) Exclusive of inmates of the Receiving House, Royal Park, and of Receiving Wards attached to the hospitals at Bendigo and Geelong, and of four private licensed houses.

In some States persons well advanced towards recovery are allowed to leave the institutions and reside with their relatives or friends, but they are under supervision and their names are kept on the books. The figures for admissions, etc., include absconders captured and re-admitted. Generally, very few escapees succeed in avoiding capture.

(iv) *Summary for Australia, 1921 to 1925.* The table hereunder gives a summary for hospitals for the insane in Australia for each of the five years 1921 to 1925. Licensed houses (except as regards expenditure) are included in the totals for New South Wales and Victoria, in the latter the figures are exclusive of reception houses, and observation wards in gaols:—

HOSPITALS FOR THE INSANE.—SUMMARY, AUSTRALIA, 1921 TO 1925.

Particulars.	1921.	1922.	1923.	1924.	1925.
Number of institutions (a) ..	35	36	35	35	36
Number of beds	17,224	18,047	18,303	18,387	18,797
Admissions	3,254	3,226	3,342	3,325	3,441
Discharged as recovered, relieved, etc. ..	1,723	1,648	1,691	1,638	1,613
Deaths	1,473	1,267	1,433	1,413	1,416
Expenditure £	1,398,148	1,303,907	1,401,459	1,494,025	1,649,626

(a) Exclusive of receiving wards at general hospitals, and including licensed houses for insane in Victoria.

(v) *Number of Insane, 1921 to 1925.* The proportion of insane, as well as the total number returned as under treatment, has changed very little during recent years. The next table gives the number of insane under official care in Australia and the proportion per 1,000 of population for the last five years.

INSANE PERSONS IN INSTITUTIONS, 1921 TO 1925.

State.	1921.	1922.	1923.	1924.	1925.
NUMBER.					
New South Wales	7,970	7,991	8,112	8,231	8,397
Victoria	5,842	5,997	6,026	6,096	6,192
Queensland	2,753	2,842	2,869	2,983	2,983
South Australia	1,190	1,224	1,248	1,248	1,302
Western Australia	1,104	1,079	1,036	1,047	1,088
Tasmania	584	599	608	618	603
Total	19,443	19,732	19,929	20,223	20,565
PER 1,000 OF POPULATION.					
New South Wales	3.75	3.93	3.67	3.65	3.65
Victoria	3.77	3.77	3.71	3.68	3.67
Queensland	3.58	3.61	3.54	3.57	3.46
South Australia	2.37	2.39	2.38	2.30	2.36
Western Australia	3.48	3.15	3.00	2.87	2.92
Tasmania	2.67	2.74	2.78	2.84	2.78
Australia	3.53	3.61	3.47	3.44	3.43

For the period embraced in the tables Victoria and New South Wales show the highest rate of insanity, roughly 1 in 270 persons. It is stated that this is chiefly owing to the proportionately greater number of the aged in those States. On the other hand, in South Australia a considerably lower insanity rate has prevailed, averaging about 1 in 420, Tasmania being next with an average of about 1 in 360.

A more rational attitude towards the treatment of mental cases has resulted in a greater willingness in recent years to submit afflicted persons to treatment at an earlier stage. Hence an increase in the number of recorded cases does not necessarily imply an actual increase in insanity, and the small increment in the numbers in the first of the immediately preceding tables is probably, if not solely, due to this circumstance.

(vi) *Causes of Insanity.* The proportion of causes of insanity to the total ascertained causes in Australia in the five years 1921 to 1925 shows that hereditary influence has been the chief factor, more than one-fifth of the total ascertained causes coming under this head. Domestic troubles, adverse circumstances, etc., have also been a fruitful source. Cases due to intemperance in drink range from one in 9 to one in 13.

INSANITY.—PERCENTAGE OF CAUSES, AUSTRALIA, 1921 TO 1925.

Causes, Previous History, etc.	1921.	1922.	1923.	1924.	1925.
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
Domestic trouble, adverse circumstances, mental anxiety ..	10.6	12.6	11.4	13.1	15.0
Intemperance in drink ..	7.7	8.9	9.4	8.0	8.4
Hereditary influence, ascertained; congenital defect, ascertained ..	21.2	21.8	22.9	24.6	22.8
Pregnancy, lactation, parturition and puerperal state, uterine and ovarian disorders, puberty, change of life	7.5	7.6	7.0	8.4	7.1
Previous attacks	11.5	12.4	13.6	12.9	11.4
Accident, including sunstroke ..	0.8	1.3	1.5	1.3	1.2
Old age	9.2	11.7	11.1	10.8	10.1
Veneral disease	5.6	3.3	5.2	5.5	5.8
Other causes ascertained ..	25.9	20.4	17.9	15.4	18.2
All ascertained causes ..	100.0	100.0	100.0	100.0	100.0

(vii) *Length of Residence in Hospital.* (a) *New South Wales.* Particulars are not available regarding the average length of residence in hospitals during the year of persons who died or were discharged. There are three State Reception Houses, where suspected persons are confined for observation, being subsequently either discharged or transferred to lunatic asylums. In one of the gaols, observation wards have been instituted with similar functions.

(b) *Victoria.* Particulars are not available as to the average length of residence in hospitals during the year of persons who died or were discharged. There are lunacy wards in two of the general hospitals; also a State receiving house where persons are placed for observation, and subsequently discharged or transferred to asylums.

(c) *Queensland.* The average residence in the institutions of those who died during the year was 7 years 79 days for males and 10 years 127 days for females; and of those who were discharged, 315 days for males and 1 year 52 days for females. There are three reception houses for observation of the insane.

(d) *South Australia.* The average residence of those who died was 10 years 242 days for males and 5 years 32 days for females; of those discharged, 129 days for males and 1 year 28 days for females.

(e) *Western Australia.* The period of residence of those who died during the year averaged about 8 years 300 days for males and 6 years 150 days for females; of those who were discharged, 2 years 120 days for males and 2 years 13 days for females.

(f) *Tasmania.* The period of residence of those who died was 9 years 290 days for males and 10 years for females; that of those discharged, 1 year 204 days for males and 1 year 131 days for females.

(viii) *Revenue and Expenditure, 1925.* The revenue of Government asylums is small in comparison with their cost, and consists chiefly of patients' fees. The proportion of expenditure borne by the State amounts to about 87 per cent.

HOSPITALS (GOVERNMENT) FOR THE INSANE.—FINANCES, 1925.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
	£	£	£	£	£	£	£
Revenue (Exclusive of Government Grants)—							
Fees of Patients	81,595	58,569	22,689	15,642	11,778	7,532	197,805
Other	2,667	6,466	1,167	716	5,517	438	16,971
Total	84,262	65,035	23,856	16,358	17,295	7,970	214,776
Expenditure—							
Salaries	356,715	259,261	124,089	44,549	56,873	29,465	870,952
Maintenance	224,554	181,325	67,319	45,145	42,594	21,988	778,674
Buildings	39,194	109,731	17,031	20,967		714	
Other		6,053	1,161	507		391	
Total	620,463	556,370	209,600	111,168	99,467	52,558	1,649,626

6. *Care of the Feeble-minded.*—An account of the treatment of the feeble-minded, supplied by the Public Health Department of Tasmania, appeared in Official Year Book No. 19, pp. 477 and 478. Considerations of space, however, preclude its repetition in the present volume.

7. *Protection of Aborigines.*—For the protection of the aboriginal Australian race there are institutions, under the supervision of Aborigines Boards, where the blacks are housed and encouraged to work, the children receiving elementary education. The work is usually carried on at mission stations, but many of the natives are nomadic, and receive food and clothing when they call, whilst others but rarely come under the notice of the Boards. The native race is extinct in Tasmania. The approximate annual expenditure on maintenance, etc., is—New South Wales, £38,000; Victoria, £6,000; Queensland, £44,000; South Australia, £25,000; Western Australia, £30,000; Northern Territory, £10,000; total for Australia, £153,000. In 1924 in New South Wales

the number of full-bloods receiving aid was 1,855, in addition to which there were half-castes, quadroons, and octoroons; in Victoria there were 318 under the care of the Aborigines Protection Board; in Queensland in 1926 there were more than 5,000 full-bloods in supervised camps; in South Australia, in 1924, there were about 519 inmates at mission stations, while in Western Australia the adult aborigines and half-castes in the native institutions in the year 1925 numbered 663. At the mission stations in the Northern Territory about 1,500 were in residence, but casual assistance and medical attendance are given to large numbers of natives every year.

8. **Royal Life Saving Society.**—In each of the State capitals, “centres” of the Royal Life Saving Society have been established. Life preservation is the object of the Society, and its immediate aims are (a) educative and (b) remedial. The encouragement of swimming and life-saving in schools, colleges, clubs, etc., will bring about a more widespread knowledge of these necessary matters, and there is increasing provision of life-belts, reels, lines, and other first-aid appliances on ocean beaches, wharves, and other suitable places. Upwards of 3,000 certificates of proficiency in various grades are issued annually after examination.

9. **Royal Humane Society.**—The Royal Humane Society of Australasia has for its objects (a) to grant awards for skill, promptness, and perseverance in life saving; (b) to provide assistance in cases of danger and apparent death; (c) to restore the apparently drowned; (d) to collect and circulate the latest information regarding approved methods and apparatus for life saving. Awards of medals and certificates are made numbering about 100 annually. Upwards of 350 lifebuoys have been provided at various places on the coasts, rivers, lakes, and reservoirs in the various States. Swimming is encouraged amongst school children, and awards are made for proficiency.

10. **Other Charitable Institutions.**—Owing to variety of name and function of other charitable institutions it has been found impracticable to give detailed results. The aid given in kind—food, clothing, tools of trade, etc.—is considerable, whilst the shelter and treatment afforded range from a bed for a night for casual callers in establishments ministering minor charity, to indoor treatment over long periods in those that exist for the relief of the aged and infirm. The institutions not so particularized include asylums for the deaf, dumb, and blind, maternity institutions and infant homes, homes for the destitute and aged poor, industrial colonies, night shelters, crèches, homes of hope, rescue homes, free kindergarten and ragged schools, auxiliary medical charities, free dispensaries, benevolent societies and nursing systems, ambulance and health societies, boys’ brigades, humane and animals’ protection societies, prisoners’ aid associations, shipwreck relief societies, bush fires and mining accident relief funds, etc.

11. **Total Expenditure on Charities.**—The table below gives the total expenditure on charities in each of the last five years, the figures for the various States being compiled, as far as possible, on the same basis. For the reason given in § 1. 1. the cost of old-age and invalid pensions and of maternity allowances is not included:—

TOTAL EXPENDITURE ON CHARITIES, 1921 TO 1925.

State or Territory.	1921.	1922.	1923.	1924.	1925.
	£	£	£	£	£
New South Wales ..	2,540,606	2,532,039	2,754,759	2,941,515	3,230,625
Victoria ..	1,459,163	1,521,278	1,488,058	1,653,974	1,944,306
Queensland ..	1,017,817	975,028	991,753	991,753	1,145,535
South Australia ..	520,879	551,596	546,528	621,315	679,088
Western Australia ..	475,802	457,661	468,179	508,809	534,522
Tasmania ..	206,513	216,580	215,494	228,246	237,834
Northern Territory ..	6,265	5,585	6,625	5,330	3,162
Total ..	6,227,045	6,259,767	6,471,396	6,950,942	7,775,072

The figures include expenditure from Government and private sources of all institutions and societies affording relief, for which particulars are available.

CHAPTER XII.

PUBLIC HYGIENE.

§ 1. Public Health Legislation and Administration.

1. *General.*—(i) *Commonwealth.* The Commonwealth Department of Health, which was created on the 3rd March, 1921, and commenced its administration as from the 7th March, 1921, is controlled by the Commonwealth Minister for Health. The Department was formed by the extension and development of the Commonwealth Quarantine Service, the Director of Quarantine becoming the Commonwealth Director-General of Health and Permanent Head of the Department.

The functions of the Department are as follows :—

The administration of the Quarantine Act : The investigation of causes of disease and death and the establishment and control of laboratories for this purpose : The control of the Commonwealth Serum Laboratories and the commercial distribution of the products manufactured in those laboratories : The methods of prevention of disease : The collection of sanitary data, and the investigation of all factors affecting health in industries : The education of the public in matters of public health : The administration of any subsidy made by the Commonwealth with the object of assisting any effort made by any State Government or public authority directed towards the eradication, prevention, or control of any disease : The conducting of campaigns of prevention of disease in which more than one State is interested : The administrative control of the Australian Institute of Tropical Medicine : The administrative control of infectious disease amongst discharged members of the Australian Imperial Forces : The study of the behaviour of communicable diseases throughout the world and acting as an intelligence bureau for the collection and dissemination of information : The control of venereal disease and infectious diseases in the Mercantile Marine : The inspection of vessels, and the medical inspection of seamen under the Navigation Act : The control of the importation of food and drugs under the Commerce Act : Generally to inspire and co-ordinate public health measures : Any other functions which may be assigned to it.

As noted above, the Department controls the Australian Institute of Tropical Medicine at Townsville, and it directs the campaign in connexion with hookworm disease. These matters, together with the control exercised by the Department over malaria and bilharziasis introduced by returned soldiers and sailors, are dealt with separately in subsequent pages in this chapter (see § 5). Reference to the Commonwealth Serum Laboratories will be found in § 4, 5.

(ii) *New South Wales.* The Department of Public Health is controlled by the Minister of Public Health. The Director-General of Public Health is the chief executive officer, and is assisted by various staffs—medical, bacteriological, chemical, veterinary, dairy inspection, meat inspection, sanitary, pure food, and clerical. The work of the Department extends over the whole of the State, and embraces all matters relating to public health and the general medical work of the Government, the Director-General of Public Health holding the position of Chief Medical Officer of the Government as well as being permanent head of the Department.

The Board of Health has certain statutory duties imposed upon it by various Acts of Parliament, and the Director-General is President of the Board. These duties consist largely in supervision of the work of local authorities (Municipal and Shire Councils), so far as that work touches upon public health matters connected with the following Acts :—Public Health Act 1902, Public Health (Amendment) Acts 1915 and 1921, Dairies Supervision Act 1901, Noxious Trades Act 1902, Cattle Slaughtering and Diseased Animals and Meat Act 1902, Pure Food Act 1908, Private Hospitals Act 1908, and Venereal Diseases Act 1918. The Board further possesses certain powers connected with public health matters under the Local Government Act 1919. The Board of Health is a nominee Board, created in 1881 and incorporated in 1894.

The Director-General of Public Health acts independently of the Board of Health as regards the State hospitals and asylums and the various public hospitals throughout the State which receive subsidies from the Government.

(iii) *Victoria.* In this State the Public Health Acts 1915, 1919, and 1922 are administered by a Commission composed of the Chief Health Officer and six members appointed by the Governor-in-Council. The medical and sanitary staffs of the Commission consist of (a) the chief health officer, who is also chairman, (b) six district health officers and three assistant health officers, (c) chief sanitary engineer and assistant sanitary engineer, three building surveyors and four building inspectors, and (d) twelve health inspectors. The main function of the Commission is to enforce the execution of the Health Acts by the local municipalities, but it has been found advisable to supplement this supervisory function by an active policy of inspection of the sanitary condition of various districts, and the sampling of articles of food. The supervision of the sanitary conditions of milk production is under the Dairy Supervision Branch of the Department of Agriculture, but distribution is supervised by the Commission. Acts administered by the Department of Public Health are:—The Health Acts (in which are now included the Adulteration of Wine Act, the Pure Food Act, the Meat Supervision Act) and the Cemeteries Act, which includes the Cremation Act. The Department administers also the Midwives Act, the Goods Act, the Venereal Diseases Act, the Infectious Diseases Hospital Act, the Heatherton Sanatorium Act, the Masseurs Act, and the Nurses Registration Act.

(iv) *Queensland.* The Public Health Acts 1900 to 1922 are administered by the Commissioner of Public Health under the Home Secretary. The executive staff of the Department includes a health officer, a medical officer for the tuberculosis bureau, four part-time medical officers for venereal diseases, twelve food and sanitary inspectors, and one staff nurse. There is, in addition, a rat squad in Brisbane. Northern offices, in charge of inspectors, are located at Rockhampton, Townsville, Cairns, Mackay and Cloncurry, whilst inspectors are stationed at Toowoomba and Charleville. A laboratory of microbiology, in charge of a bacteriologist, is controlled by the Department, and performs a wide range of microbiological work for the assistance of medical practitioners and the Department.

One function of the Department is to stimulate and advise local sanitary authorities on matters pertaining to the Health Acts, and, where necessary, to rectify or compel rectification, at the cost of the local authority, of sanitary evils produced by local inefficiency or apathy. Its powers and responsibilities were widely increased by the Amending Acts of 1911, 1914, 1917, and 1922.

(v) *South Australia.* The Central Board of Health consists of five members, three of whom (including the chairman, who is permanent head of the Department) are appointed by the Governor, while one each is elected by the city and suburban local Boards and the country local Boards. The Health Act 1898 to 1925 provides that the municipal and district councils are to act as local Boards of Health for their respective districts. There are 197 of these local Boards under the general control and supervision of the Central Board. A chief inspector and one inspector under the Health and Food and Drugs Acts periodically visit the local districts, and see generally that the Boards are carrying out their duties. There is also a chief inspector of food and drugs (under the Food and Drugs Act 1908 to 1926), who, in company with an analyst visits country districts, and takes samples of milk, which are analysed on the spot. There are three nurse inspectors employed in advising and assisting local Boards in connexion with outbreaks of infectious diseases and in carrying out generally similar duties to those of male inspectors, with the exception of certain work under the Food and Drugs Act. In the outlying districts there are fifteen inspectors directly responsible to the Board. The Venereal Diseases Act 1920, which provides for the prevention and control of venereal diseases, has not yet been proclaimed.

(vi) *Western Australia.* The legislation in this State comprises the Health Act 1911, with the amending Acts of 1912 (2), 1915, 1918, and 1919, which have been partly consolidated and reprinted as "The Health Act 1911-19." Further amending Acts were passed in 1920, 1921 and 1926. The central authority is the Department of Public Health, controlled by a Commissioner, who must be a qualified medical practitioner. The local

authorities comprise :—(a) Municipal Councils, (b) Road Boards where the boundaries of a Health District are continuous with those of a Road District, and (c) Local Boards of Health, composed of persons appointed by the Governor. These local Boards are utilized only where neither Municipal Councils nor Road Boards are available. Generally speaking, the Act is administered by the local authorities, but the Commissioner has supervisory powers, also power to compel local authorities to carry out the provisions of the Act. In cases of emergency, the Commissioner may exercise all the powers of a local health authority in any part of the State.

All the usual provisions for public health legislation are contained in the Act, and, in addition, provision is made for the registration of midwifery nurses, the medical examination of school children, the control of public buildings (*i.e.*, theatres, halls, etc.), the control of food, and the provision of standards therefor. The amending Acts of 1915 and 1918 deal exclusively with venereal diseases.

(vii) *Tasmania.* The office of Director of Public Health was established under the Director of Public Health Act 1920, and the person holding the office of Chief Health Officer under the Public Health Act 1903 at the time of the passing of the first-named Act is the Director of Public Health, and is also the permanent head of the Department. The Director has very wide powers, and in the event of the appearance of dangerous infectious disease (small-pox, plague, etc.) in the State, is vested with supreme power, the entire responsibility of dealing with such an outbreak being taken over by him from the local authorities. Local executive is vested in local authorities, who possess all legal requirements for the efficient sanitary regulation of their districts. Controlling and supervisory powers over these bodies are possessed by the Department of Public Health, and many of the powers conferred upon them may be converted into positive duties. One function of the Department is to advise local authorities on matters pertaining to the Health Act, and, where necessary, to rectify sanitary evils produced by local inefficiency or apathy. The Department has three full-time inspectors, who assist and instruct the local sanitary inspectors, but full-time district health officers are not provided for. The number of local authorities under the Public Health Act has been reduced to forty-nine since the Local Government Act 1906 came into force. All parts of Tasmania are now furnished with the administrative machinery for local sanitary government.

The Public Health Acts 1917 and 1918 deal with venereal diseases. Regulations under the Public Health Act 1903, as amended, for checking or preventing the spread of any infectious disease, came into force in February, 1918.

The Places of Public Entertainment Act 1917 is administered by the Director of Public Health under the Minister. This Act provides, *inter alia*, for the licensing and regulation of places of public entertainment, for the appointment of a censor or censors of moving pictures, and for the licensing of cinematograph operators. Comprehensive regulations have been framed under the Act. Inspectors under the Public Health Act 1903, are Inspectors of Places of Public Entertainment under this Act.

§ 2. Inspection and Sale of Food and Drugs.

1. *General.*—Under the Acts referred to later, and the regulations made thereunder, the importation of articles used for food or drink, of medicines, and of other goods enumerated, is prohibited, as also is the export of certain specified articles, unless there is applied to the goods a "trade description" in accordance with the Act. Provision is made for the inspection of all prescribed goods which are imported or which are entered for export.

2. *Commonwealth Jurisdiction.*—Under Section 51 (i) of the Commonwealth Constitution Act 1900, the Commonwealth Parliament has power to make laws with respect to trade and commerce with other countries and among the States. By virtue of that power, the Federal Parliament passed the Commerce (Trade Descriptions) Act 1905, to which reference has already been made in Chapter VI.

3. State Jurisdiction.—The inspection and sale of food and drugs are also dealt with in each State, either under the Health Acts or under Pure Food Acts. This work is carried out in each State by the Executive Officer of the Health Department. There is, in addition, a number of Acts dealing with special matters, such as the adulteration of wine and the oversight of bread and meat supply. The supply and sale of milk are also subject to special regulations or to the provisions of special Acts.

The general objects of these Acts are to secure the wholesomeness, cleanliness, and freedom from contamination or adulteration of any food, drug or article; and the cleanliness of receptacles, places, and vehicles used for their manufacture, storage or carriage. The sale of any article of food or any drug which is adulterated or falsely described is prohibited, as also is the mixing or selling of food or drugs so as to be injurious to health.

Power is given to any authorized officer to enter any place for the purpose of inspecting any article to be used as a food or drug, and also to inspect articles being conveyed by road, rail, or water. The officer may take samples for analysis or examination, and may seize for destruction articles which are injurious to health or unwholesome. Special provision is generally made in the Acts with regard to the sale of preservatives and disinfectants.

In every State except Queensland, Advisory Committees have been appointed for the purpose of prescribing food standards, and for making recommendations generally with a view to carrying out the provisions of the Acts. The duty of enforcing these regulations is entrusted to the local authorities.

4. Food and Drug Standardization.—Conferences with the object of securing uniformity in these matters were held in Sydney in 1910, in Melbourne in 1913, in Sydney in 1922 and in Melbourne in 1927. In conformity with the determinations arrived at, each State issued regulations which have had the effect of ensuring uniformity throughout Australia as far as practicable.

5. Sale and Custody of Poisons.—In New South Wales, Victoria, Western Australia and Tasmania, the enactments for regulating the sale and use of poisons are administered by the Pharmacy Boards in the respective States. In South Australia, the sale of poisons is provided for by regulations under "The Food and Drugs Act 1903," administered by the Central Board of Health. In Queensland, the sale of poisons is under the control of the Health Department.

In New South Wales, Victoria, and Tasmania the Government formerly subsidized the Pharmacy Board, in order to enable it to carry out the provisions of the Poisons Act. The New South Wales Board does not now obtain a subsidy, as the fees collected are sufficient to defray expenses. The subsidy to the Victorian Board was withdrawn in March, 1921, provision having been made for the payment of a 10s. licence fee under the Poisons Act 1920.

No persons, other than legally qualified medical practitioners and registered pharmaceutical chemists, are permitted to sell poisons, without special licences from the bodies administering the legislation in the respective States. These licences are issued to persons in business distant from four to five miles from a registered chemist, on production of certificates from medical practitioners, police, or special magistrates or justices as to the applicant's character and fitness to deal in poisons. Annual licence fees, ranging from 5s. to 40s., are charged. New poisons regulations were approved in Queensland on the 26th November, 1924, amongst which are stringent restrictions on the sale of cyanide of potassium. A revised list of standard poisons was gazetted in Western Australia in December, 1922.

Special conditions attaching to the sale of poisons were alluded to on p. 1055 of Official Year Book No. 12.

Partial exemptions from the regulations are made in some States in the case of sales of poisons for agricultural, horticultural and photographic purposes, in so far that any person may sell such poisons subject to the restrictions as to the class of container and the manner in which they may be sold. The sale of what are generally known as industrial poisons—such as sulphuric acid, nitric acid, hydrochloric acid, soluble salts of oxalic acid, formalin, etc.—is governed by regulations, as also is the sale of poisons for the destruction

of rats, vermin, etc. Under the existing laws these poisons may, in most of the States, be sold by any one. The Victorian Parliament, in December, 1920, passed an amending Poisons Act, in which the word "wholesale" has for the first time been defined as meaning "sale or supply for the purposes of re-sale," providing for an annual fee of 10s. and the issuing of licences to dealers in exempted poisons. A new principle is introduced into the Victorian Poisons Act of 1920. Certain drugs are declared to be "potent drugs" and may be sold by pharmaceutical chemists only. These drugs include acetanilid, adrenalin, oil of tansy, pituitary extract, thyroid gland preparations, and any serum or vaccine for human use. Under the Victorian "Dangerous Drugs Regulations, 1922," which came into effect on the 1st January, 1923, further restrictions were imposed on the manufacture and sale of abortifacients and of habit-forming drugs such as ergot, morphine, opium, heroin, cocaine, veronal, etc. Regulations regarding dangerous drugs (cocaine, morphia, etc.) are included in the amended Queensland regulations of 26th November, 1924, referred to above. An amending Poisons Act which came into force in Victoria on 1st January, 1926, prohibits the hawking or peddling of poisons, or the distribution of poisons as samples in any street or public place. Magistrates may order the confiscation of opium smoking pipes and paraphernalia in addition to the opium itself. It is made an offence under heavy penalties for any person to obtain narcotic drugs by false representations or to have any morphine, cocaine, medicinal opium, etc. in his possession without lawful authority. A comprehensive act dealing with the sale and distribution of dangerous habit-forming drugs was passed by the New South Wales Parliament early in 1927.

§ 3. Supervision of Dairies, Milk Supply, etc.

1. **General.**—In Official Year Book No. 12 and preceding issues, allusion is made in general terms to the legislation in force in the various States to ensure the purity of the milk supply and of dairy produce generally, but limits of space preclude the repetition of this information in the present issue.

2. **Number of Dairy Premises Registered.**—The following table shows, so far as the particulars are available, the number of dairy premises registered and the number of cattle thereon. Compulsory registration is not in force throughout the whole area of the various States.

DAIRY PREMISES REGISTERED, AND CATTLE THEREON, 1926.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.
Premises registered ..	22,036	22,046	(a)22,822	1,417	66	(b)
Cattle thereon ..	914,135	303,052	570,540	9,096	966	(b)

(a) Approximate number of dairies operating.

(b) Not available.

3. **New South Wales.**—The provisions of the Dairies Supervision Act 1901 extend to the whole of the Eastern and Central Divisions and to all important dairying districts further inland. Other districts are brought under the operation of the Act by proclamation from time to time. Every dairymen, milk vendor, and dairy factory or creamery proprietor is required under penalty to apply for registration to the local authority for the district in which he resides, and also to the local authority of every other district in which he trades. Registration must be applied for prior to commencing trade, and must be renewed annually. The Chief Dairy Inspector is in charge of all inspectorial work under the Dairies Supervision Act 1901, and has assisting him fifteen qualified dairy inspectors, each in charge of a district.

4. **Victoria.**—The registration, inspection and supervision of dairies, dairy farms, dairy produce, milk stores, milk shops, milk vessels, dairy cattle and grazing grounds are provided for by the Dairy Supervision Act 1915, and the Milk Supply Act 1922, administered by the Minister of Agriculture. The supervision of butter and cheese factories is provided for by the Dairy Produce Act 1919. Under the Health Act, however, the Department of Public Health is empowered to take samples of food (including milk, cream, butter, cheese, and other dairy products) for examination or analysis, and to institute prosecutions in case of adulterated or unwholesome food. By the end of the

year 1926, 122 municipal districts, comprising almost one-half of the area of the State, had been brought under the operation of the Dairy Supervision Act. The municipal councils have the option of carrying out the administration of the Act, or of deciding that the work should devolve upon the Department of Agriculture; up to the present all the municipalities in which the Act has been proclaimed have elected for departmental administration.

The Milk Supply Act 1922 provides for the appointment of a Milk Supply Committee with power to issue regulations to govern the milk supply of the metropolis, and to disseminate information concerning the best methods of handling the product.

The Council of any metropolitan municipality, or a group of councils acting together, may establish depots at which milk may be brought, treated, and sold. The Committee may, however, issue certificates authorizing persons to sell milk, but, in an area in which there is a municipal depot, no milk may be sold unless it has been treated in a depot or, by approved methods, in a factory. Milk sold in containers must have the grade specified on the label. A laboratory has been established to undertake the bacteriological examination of the milk purveyed and generally to carry out researches in matters relating to the milk supply.

5. **Queensland.**—The control and supervision of the milk supply, of dairies, and of the manufacture, sale, and export of dairy produce are provided for by the Dairy Produce Act 1920, administered by the Department of Agriculture and Stock. This Act and the regulations made thereunder apply only to prescribed areas which comprise the whole of the coastal district from Rockhampton down to the New South Wales border, and the Darling Downs, Maranoa, Mackay, and Cairns districts. In certain proclaimed areas the sale of milk is restricted to persons licensed under the Milk Sellers' Regulations of 1924 administered by the Department of Public Health. Milk for sale is supervised by inspectors of the Health Department under the Health Acts 1900–1922. During the year ended 30th June, 1926, 1,078 samples of milk were analysed, and 369 samples were bacteriologically tested.

6. **South Australia.**—The Food and Drugs Act 1908, and the Regulations made thereunder, provide for the licensing of vendors of milk, and the registration of dairies, milk stores and milk shops. The Metropolitan County Board carries out the requirements of the metropolitan area. In the country, the majority of local authorities have not made statutory provision for the licensing of vendors of milk and the registration of dairy premises, and, in consequence, the Central Board of Health provides for such under the Act.

7. **Western Australia.**—Under the provisions of the Health Act, control of dairies throughout the State is in the hands of the Public Health authorities. The premises of dairymen and milk vendors must be registered by a local authority. The inspectors under the Act supervise the sanitary condition of the premises, the examination of herds being carried out for the Health Department by officers of the Department of Agriculture. Inspection of herds is made at regular intervals, and the tuberculin test is applied in cases of suspected disease.

8. **Tasmania.**—Local authorities are responsible for the dairies in their respective districts. By-laws for the registration and regulation of dairies have been drafted by the Public Health Department, and in the majority of cases have been adopted by the local authorities. The Food and Drugs Act 1917 provides that the municipal council of every city or municipality shall submit for analysis such samples of food or drugs as may be specified by the Chief Officer. The sampling is, in the majority of municipal districts, carried out by the Public Health Department, and particular attention is paid to milk. An Act also provides for the registration and inspection of dairies and other premises where dairy produce is prepared, and regulates the manufacture, sale, and export of such produce.

§ 4. Prevention and Control of Infectious and Contagious Diseases.

1. **General.**—The provisions of the various Acts in regard to the compulsory notification of infectious diseases and the precautions to be taken against the spread thereof may be conveniently dealt with under the headings—Quarantine; Notifiable Diseases, including Venereal Diseases; and Vaccination.

2. *Quarantine.**—(i) *General.* The Quarantine Act is administered by the Commonwealth Department of Health, and uniformity of procedure has been established in respect of all vessels, persons, and goods arriving from overseas ports or proceeding from one State to another, and in respect of all animals and plants brought from any place outside Australia. In regard to inter-state movements of animals and plants, the Act becomes operative only if the Governor-General be of opinion that Federal action is necessary for the protection of any State or States; in the meantime the administration of inter-state quarantine of animals and plants is left in the hands of the States. The Commonwealth possesses stations in each State for the purposes of human and of animal quarantine.

(ii) *Administration of Act.* The administration of the Act in respect of the general division, i.e., vessels, persons, and goods, and human diseases, is under the direct control of the Commonwealth in all States except Tasmania. A medical chief quarantine officer, with assistant quarantine officers, has been appointed in each State. This officer is charged with responsible duties, and is under the control of the Director-General of Health. In Tasmania, the chief health officer of the State acts as chief quarantine officer, and payment is made to the State for his services. The administration of the Act in the Northern Territory has been combined with that of Queensland under the chief quarantine officer for the North-eastern division. The administration of the Acts and Regulations relating to overseas animal and plant inspection and quarantine is carried out by the officers of the State Agricultural Departments acting as quarantine officers.

(iii) *Chief Provisions of Act.* The Act provides for the inspection of all vessels including air-vessels, from overseas, for the quarantine, isolation, or continued surveillance of infected or suspected vessels, persons, and goods, and for the quarantining and, if considered necessary, the destruction of imported goods, animals, and plants. The obligations of masters, owners, and medical officers of vessels are defined, and penalties for breaches of the law are prescribed. Power is given to the Governor-General to take action in regard to various matters by proclamation, and to make regulations, to give effect to the provisions of the Act. Quarantinable diseases include small-pox, plague, cholera, yellow fever, typhus fever, leprosy, and any other disease declared by the Governor-General, by proclamation, to be quarantinable. "Vessel" means "any ship, boat or other description of vessel or vehicle used in navigation by sea or air." "Disease" in relation to animals means certain specified diseases, or "any disease declared by the Governor-General by proclamation, to be a disease affecting animals." "Disease" in relation to plants means "any disease or pest declared by the Governor-General, by proclamation, to be a disease affecting plants." The term "plants" means "trees or plants, and includes cuttings and slips of trees and plants and all live parts of trees or plants and fruit."

(iv) *Proclamations.* The proclamations so far issued specify the diseases to be regarded as diseases affecting animals and plants; appoint first ports of landing for imported animals and plants, and first ports of entry for overseas vessels; declare certain places beyond Australia to be places infected or places to be regarded as infected with plague; prohibit the importation (a) of certain noxious insects, pests, diseases, germs, or agents, (b) of certain goods likely to act as fomites, and (c) of certain animals and plants from any or from certain parts of the world; fix the quarantine lines, and define mooring grounds in certain parts of Australia.

(v) *Miscellaneous.* At present, instead of all overseas vessels being examined in every State, as was formerly the case, those arriving from the east and west are now examined only at the first port of call, and pratique is given for the whole of the Commonwealth except in cases of suspicious circumstances, while vessels arriving from the northern routes are examined only at the first and last ports. Restrictions placed upon overseas vessels are being removed as the machinery of quarantine is improved. The present freedom from certain diseases which are endemic in other parts of the world would, however, appear to justify the Commonwealth in adopting precautionary measures not perhaps warranted in the already infected countries of the old world.

3. *Notifiable Diseases.*—A. *General.*—(i) *Methods of Prevention and Control.* Provision exists in the Health Acts of all the States for precautions against the spread, and

* From information furnished by the Commonwealth Director-General of Health.

for the compulsory notification of infectious diseases. When any such disease occurs, the Health Department and the local authorities must at once be notified. In some States notification need only be made to the latter. The duty of giving this notification is generally imposed, first, on the head of the house to which the patient belongs, failing whom on the nearest relative present, and, on his default, on the person in charge of or in attendance on the patient, and on his default, on the occupier of the building. Any medical practitioner visiting the patient is also bound to give notice.

As a rule the local authorities are required to report from time to time to the Central Board of Health in each State as to the health, cleanliness, and general sanitary state of their several districts, and must report the appearance of certain diseases. Regulations are prescribed for the disinfection and cleansing of premises, and for the disinfection and destruction of bedding, clothing, or other articles which have been exposed to infection. Bacteriological examinations for the detection of plague, diphtheria, tuberculosis, typhoid, and other infectious diseases within the meaning of the Health Acts are continually being carried out. Regulations are provided in most of the States for the treatment and custody of persons suffering from certain dangerous infectious diseases, such as small-pox and leprosy.

(ii) *New South Wales.* The proclamation and notification of infectious diseases are dealt with in Part II. of the Public Health Acts 1902 and 1915. Notification of infectious disease must be made to the local authority by the head of the family, etc., and by the medical practitioner. Provision is made for the disinfection or destruction of premises. Restrictions are placed upon the attendance at school of children suffering from infectious disease or residing in a house in which infectious disease exists. Special provisions have been made with regard to typhoid fever, tuberculosis, small-pox and leprosy, and legislation has been passed dealing with venereal diseases.

(iii) *Victoria.* Under the Health Act 1919 any disease may be declared to be notifiable throughout the State. The occupier of a house containing a case of infectious disease, and the medical practitioner in attendance, must report the fact to the Council. The Medical Officer of Health may order the removal of a patient to a hospital when such is available. The occupier of the house must also inform the head teacher of the school of any child suffering from notifiable disease or residing in an infected dwelling. The notification of venereal diseases is dealt with in the Venereal Diseases Act 1916.

(iv) *Queensland.* Part VII. of the Health Act 1900-1922 stipulates that all cases of infectious disease must be notified by the occupier of the house, and the medical practitioner attending the case. Restrictions are placed on the attendance at school of children suffering from a notifiable disease. Special measures must be taken against typhoid, small-pox, and venereal diseases. Leprosy is dealt with under the Leprosy Act 1892.

(v) *South Australia.* Cases of infectious diseases must be reported to the local board, under the provisions of Part VIII. of the Health Act 1898. The duty of notification rests primarily on the head of the family, and, in addition, the medical practitioner must report the case. Children suffering from or resident with a person suffering from an infectious disease must not attend school till they hold a certificate that there is no risk of infection. Venereal diseases will be dealt with under the provisions of the Venereal Diseases Act, 1920 which, however, is not yet in operation.

(vi) *Western Australia.* The Health Acts 1911 to 1922 provide for the notification and control of infectious diseases, including venereal diseases. The occupier of a house containing a case of infectious disease, and the medical practitioner, must report the case to the local authority. Children may not attend school within three months of suffering from any infectious disease unless they possess a certificate of freedom from infection. Special provisions apply to typhoid fever, tuberculosis, and venereal diseases.

(vii) *Tasmania.* The provisions regarding the notification and prevention of infectious diseases are contained in the Public Health Act 1903 and amending Acts. Notification of cases devolves upon the medical practitioner in attendance or the occupier of the house.

(viii) *Diseases Notifiable in each State.* In the following statement diseases notifiable in each State are indicated by a cross:—

DISEASES NOTIFIABLE UNDER THE HEALTH, ETC., ACTS IN EACH STATE.

Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.
Acute lobar pneumonia ..	..	..	..	(c)	+	..
Anthrax .. ..	..	+	..	+	+	+
Ankylostomiasis .. ..	..	+	+	..	..	..
Beri-beri .. ..	..	..	..	..	+	..
Bilharziasis .. ..	..	+	+	+	+	+
Bubonic plague	+	+	+	+	+	+
Cerebro-spinal fever ..	+	+	+	+	..	..
Cerebro-spinal meningitis ..	+	+	+	+	+	+
Chicken-pox .. ..	..	..	..	+	..	..
Cholera .. ..	..	+	..	+	+	+
Colonial fever .. ..	..	..	..	..	+	..
Continued fever .. ..	..	..	+	..	+	..
Dengue fever .. ..	..	..	..	..	+	..
Diphtheria	+	+	+	+	+	+
Dysentery .. ..	..	+	+(a)	..	+	..
Encephalitis lethargica ..	..	+	..	..	..	+
Enteric fever	+	+	+	+	+	+
Erysipelas .. ..	..	..	+	+	+	..
Favus .. ..	..	..	..	+	..	..
Hæmaturia .. ..	..	..	+	..	+	+
Hydatids .. ..	..	+	..	..	..	..
Infantile paralysis	+	+	..	+	..	+
Influenza .. ..	..	..	..	+(c)	+	..
Leprosy	+	+	+	+	+	+
Low fever .. ..	..	..	..	..	+	..
Malarial fever .. ..	..	+	+	+	+	+
Malta fever .. ..	..	..	..	..	..	..
Measles .. ..	..	..	..	+	..	..
Membranous croup	+	..	+	+	+	..
Pneumonic influenza .. ..	..	..	..	+(c)	+	+
Polioencephalitis .. ..	..	+	..	..	..	..
Poliomyelitis anterior acuta ..	+	+	+	+	+	+
Puerperal fever .. ..	..	+	+	+	+	+
Pulmonary tuberculosis (phthisis)	+(a)	+	+	+	+	+
Pyæmia .. ..	..	..	..	..	+	..
Relapsing fever .. ..	..	..	..	+	..	..
Scarlet fever	+	+	+	+	+	+
Scarlatina	+	+	+	+	+	+
Septicæmia .. ..	..	..	..	+	+	..
Small-pox	+	+	+	+	+	+
Trichinosis .. ..	..	..	..	+	..	..
Tuberculosis .. ..	..	+	..	+	..	..
Tuberculosis in Animals ..	..	..	..	+	..	..
Typhoid	+	+	+	+	+	+
Typhus fever .. ..	..	+	+	+	+	+
Venereal Diseases:—						
Chancroid (soft chancre) ..	+	+	+	+(d)	+	+
Gleet .. ..	+	..	..	+(d)	+	..
Gonorrhœa	+	+	+	+(d)	+	+
Gonorrhœal ophthalmia ..	+	..	..	+(d)	+	..
Infective granuloma of the pudenda	+	+	+	+(d)	+	..
Ophthalmia neonatorum ..	..	+	..	..	+	+
Syphilis	+	+	+(b)	+(d)	+	+
Venereal warts	+	..	+	+(d)	+	..
Whooping cough .. ..	..	..	..	+	..	..
Yellow fever .. ..	..	+	+	+	+	..

(a) Notifiable in certain areas only. (b) Primary and secondary stages only. (c) In South Australia influenza vera is notifiable, and any febrile toxic-septicæmic condition similar to influenza, including pneumonic influenza. (d) Act not yet in operation.

B. Venereal Diseases.—(i) *General.* The prevention and control of venereal diseases are undertaken by the States. Each State has a Venereal Diseases Act, or provisions in the Health Act govern the working of the measures taken to combat these diseases. In every State notification has been made compulsory. A list of notifiable forms of venereal complaints is given in the table on the preceding page. Steps have been taken to ensure free treatment by medical practitioners or in subsidized hospitals. Registered pharmaceutical chemists are allowed to dispense prescriptions only when signed by medical practitioners. Clinics have been established, and, in some cases, beds in public hospitals have been set aside for patients suffering from these diseases.

Penalties may be imposed on a patient who fails to continue under treatment. Clauses are inserted in the Acts which aim at preventing the marriage of any patient or the employment of an infected person in the manufacture and distribution of foodstuffs.

The Commonwealth Government has granted a subsidy of £15,000 per annum to the various States to assist in providing hospital treatment and administrative control. The supervision of this work, in so far as it relates to the expenditure of the subsidy, is undertaken by the Commonwealth Department of Health. In February, 1922, a conference was held to consider the means of securing the best results from this subsidy.

(ii) *New South Wales.* The Venereal Diseases Act, 1918 came into operation on 1st December, 1920. The Act, which is administered by a Commissioner, aims at ensuring that all cases of venereal disease will have immediate and continued treatment. Clinics have been established at subsidized hospitals. Notification is compulsory; a person suffering from the disease is required to place himself under the treatment of a medical practitioner or to attend a hospital within three days of becoming aware of the existence of the disease, and to continue treatment until a cure is effected. During the year ended 30th June, 1926, notifications numbered 5,856. Satisfactory results are being obtained from action taken in cases where patients have been reported for failure to continue treatment as required by the Act. A number of prosecutions—all of which have been successful—has been undertaken for (a) sale of drugs prohibited under the Act, (b) treatment of venereal disease by a person other than a medical practitioner, and (c) for failing to undergo treatment when required.

(iii) *Victoria.* Under the Venereal Diseases Acts 1916 and 1918 the control of venereal disease is undertaken by the Department of Public Health. The Acts provide for compulsory treatment by qualified medical practitioners of all persons suffering from the disease. All hospitals in receipt of State aid treat patients. Three evening and three day clinics have been established at hospitals in Melbourne, and in June, 1918, a special departmental clinic was instituted. Notification of the disease is compulsory, and 5,249 cases were notified in 1926. Between the 17th June, 1918, and 31st December, 1926, 18,643 cases were treated at the special departmental clinic, the attendances numbering 722,387.

(iv) *Queensland.* The Health Act, 1900–22 confers power on the Commissioner of Public Health to deal with the prevention and control of venereal disease, and affected persons must place themselves under treatment by a medical practitioner. Persons other than medical practitioners are prohibited from treating the disease. Subsidized hospitals are required to make provision for the examination and treatment of cases reported to them, and clinics have been established in Brisbane and ten other towns. Notification is compulsory, and during the year ended 30th June, 1926, 1,401 cases were reported. Visits to the Brisbane clinics numbered 7,582 by males, and 477 by females. Examination of prostitutes is conducted at Brisbane and thirteen other towns by medical officers appointed under regulation 10 of the Venereal Diseases Regulations of 1923.

(v) *South Australia.* The provisions of the Venereal Diseases Act 1920 (not yet in operation) are to be carried out by the Inspector-General of Hospitals. The Minister administering the Act may arrange with any public hospital to provide free accommodation and treatment, and may also establish hospitals and arrange for free examinations and free supply of drugs. Persons suffering from venereal disease will be compelled to consult a medical practitioner or attend a hospital and place themselves under treatment. No person other than a medical practitioner may attend or prescribe for patients.

(vi) *Western Australia.* The Health Act gives power to the Commissioner of Public Health to deal with venereal diseases, and persons suffering from these diseases must consult a medical practitioner and place themselves under treatment. No treatment may be given except by qualified medical practitioners. Free examination and treatment are given by subsidized hospitals.

(vii) *Tasmania.* The Public Health Act 1917-1918 authorizes the Director of Public Health to take steps for the control of venereal diseases, and persons affected must place themselves under the care of a medical practitioner or of a hospital. The State-aided hospitals are required to provide treatment. During 1926, 413 cases were notified by medical practitioners. In accordance with an agreement between the Commonwealth and the State authorities, the latter have made provision for the free maintenance and treatment of persons suffering from venereal diseases.

4. *Vaccination.*—(i) *Demand for Vaccine.* In New South Wales there is no statutory provision for compulsory vaccination, though in all the other States such provision has been made. Jennerian vaccine for vaccination against small-pox is prepared at the Commonwealth serum laboratories in Melbourne. A moderate demand exists for the vaccine in Victoria, but in the other States the normal requirements are small. During the years 1912, 1913, and 1914, the output of the vaccine in doses from the dépôt was respectively 65,000, 570,000, and 146,000. The number of doses issued in 1913 was, however, abnormal, and was due to the epidemic of small-pox which broke out in Sydney at the end of June, and was followed by large numbers of vaccinations in each State.

(ii) *New South Wales.* Although there is no provision for compulsory vaccination, public vaccinators have been appointed. No statistics are available as to the proportion of the population which has been vaccinated, but a report of the Principal Medical Officer of the Education Department states that out of 55,740 children medically examined during 1919, 9,487, or 17 per cent., had been vaccinated.

(iii) *Victoria.* Compulsory vaccination, subject to a "conscience" clause, is enforced throughout the State under Part VII. of the Health Act 1919. From the year 1873 up to 31st December, 1918, it is estimated that 72 per cent. of the children whose births were registered were vaccinated. Free lymph is provided. The number of children vaccinated during 1926 was 1,318, or less than 4 per cent. of the births registered.

(iv) *Queensland.* Although compulsory vaccination is provided for under Part VII. of the Health Act, 1900-1922, its operation has not been proclaimed. Vaccination thus being purely voluntary, medical practitioners do not notify vaccinations.

(v) *South Australia.* The Vaccination Act, 1882, which applies to South Australia and the Northern Territory, is administered by the vaccination officer of the State. Under this Act vaccination was compulsory, but in 1917 an Act to suspend compulsory vaccination was passed. There were only 2 vaccinations reported in 1926.

(vi) *Western Australia.* Vaccination is compulsory under the Vaccination Act, 1878, which, however, remains almost a dead letter, seeing that under the Health Act, 1911, a "conscientious objection" clause was inserted, which is availed of by the majority of parents. The number of children vaccinated is very small. All district medical officers are public vaccinators, but they receive no fees for vaccinations.

(vii) *Tasmania.* All infants are nominally required under the Vaccination Act 1898 to be vaccinated before the age of 12 months, unless either (a) a statutory declaration of conscientious objection is made, or (b) a medical certificate of unfitness is received. Information in regard to vaccinations in recent years is not available.

(viii) *Persons Vaccinated, 1922 to 1926.* Information regarding the number of vaccinations in recent years is not available for all States, and in those States for which figures are supplied the returns are incomplete. In Victoria 1,318 children were vaccinated during 1926, the annual average for the last five years being 1,915. In South Australia there were 2 vaccinations recorded in 1926, and the average for the last five years was only 1. Information is not available for the other States.

5. Commonwealth Serum Laboratories.—The establishment for the preparation of Jennerian Vaccine situated at Royal Park, near Melbourne, formerly known as the "Calf Lymph Dépôt," was in 1918 greatly enlarged by the Commonwealth. The remodelled institution is designated the "Commonwealth Serum Laboratories," and forms a division of the Commonwealth Department of Health. The list of bacteriological preparations produced by the laboratories has been extended to cover a wide range, thus forming a valuable national provision for the protection of public health.

6. Health Laboratories.—The Commonwealth Department of Health has established Health Laboratories at Rabaul in New Guinea, at Bendigo in Victoria, at Townsville, Toowoomba, and Rockhampton in Queensland, at Port Pirie in South Australia, and at Kalgoorlie in Western Australia, and arrangements are being made for the organization of similar laboratories in other parts of Australia.

The laboratory at Rabaul is carried on in conjunction with the hookworm campaign, and is working in close co-operation with the health organization of the New Guinea Administration.

The Bendigo Laboratory was opened in 1922. Besides carrying on the ordinary diagnostic and educational work of a health laboratory, it possesses an X-ray equipment, and undertakes the examination, diagnosis, and treatment of persons suffering from miner's disease and tuberculosis.

The laboratory at Townsville is carried on in conjunction with the Australian Institute of Tropical Medicine at Townsville. The laboratory at Toowoomba was opened on 18th December, 1923.

All of these laboratories are undertaking successfully the diagnostic, educative, and research work for which they were created.

By arrangement between the Commonwealth and Western Australian Governments a special medical survey of persons engaged in the mining industry in Western Australia was carried out in 1925–26 by the Commonwealth Health Laboratory at Kalgoorlie, when 4,067 mine employees were examined. A further arrangement provides for the re-examination annually of mine employees in the Kalgoorlie district for a period of three years.

7. Industrial Hygiene.—The Industrial Hygiene division of the Commonwealth Department of Health was established in December, 1921. Its objects are the collection of reliable data, the investigation of industrial conditions affecting health, and the issue of advice to employers and employees for the improvement of conditions of work and for the safeguarding of health. Publications have been issued dealing with the scope of industrial hygiene, and with health hazards in industry. Expert advice is available to employers and employees, and it is anticipated that the work of the division will be of great value in guiding the development of industry along hygienic lines, and in improving generally the condition of workers. With a view to the adoption of a concerted scheme of action and a uniform basis for standards and records throughout Australia, conferences of delegates from the State Health and Labour Departments and the Commonwealth Department of Health were held in 1922 and in 1924.

A special article entitled "Industrial Hygiene in Australia" will be found in Official Year Book No. 18, pp. 522 to 555.

8. Public Health Engineering.—A division of sanitary engineering was established in the Commonwealth Department of Health early in 1923. Investigation has been made into numerous sanitary engineering problems affecting Australia, including a number referred to the Department by various State Governments. Advice is given generally on the protection of water supplies, drainage, and other engineering questions affecting health.

§ 5. Tropical Diseases.

1. General.—The remarkable development of parasitology in recent years, and the increase in knowledge of the part played by parasites in human and animal diseases, have shown that the difficulties in the way of tropical colonization, in so far as these arise from the prevalence of diseases characteristic of tropical countries, are largely removable by preventive and remedial measures. Malaria and other tropical diseases are coming more and more under control, and the improvements in hygiene which science

has accomplished, furnish a new outlook on the question of white settlement in countries formerly regarded as unsuitable for colonization by European races. In Australia, the most important aspect of this matter is at present in relation to such diseases as filariasis, malaria, and dengue fever, which, although practically unknown in southern Australia, occur in many of the tropical and sub-tropical parts.

2. **Transmission of Disease by Mosquitoes.**—(i) *Queensland.* The existence of filariasis in Queensland was first discovered in 1876. The parasite of this disease is transmitted by *Culex quinquefasciatus* (*Culex fatigans*), the mosquito most prevalent in Queensland. The mosquito *Aedes aegypti* (*Stegomyia fasciata*), conveyor of yellow fever and of dengue fever, is another common domestic mosquito throughout Eastern Queensland during the summer. Owing to quarantine measures this mosquito has never been infected from abroad with yellow fever, but it has become infected with the virus of dengue fever, and is responsible for a large number of human cases of this disease in the northern part of Australia. Occasional limited outbreaks of malaria occur in the northern parts of the State; one at Kidston, in 1910, resulted in 24 deaths. The infection was traced to newcomers from New Guinea. Allusion to the efforts made to deal with the mosquito, under the Health Act of 1911, will be found in Official Year Book No. 12, p. 1063. By an Order in Council the local authorities are now responsible for the taking of measures for the destruction and the prevention of breeding of mosquitoes.

(ii) *Other States.* In Western Australia it is stated that malaria is not known to exist south of the 20th parallel, while filariasis has never been discovered. Mosquito-borne diseases are unknown in Victoria, South Australia, and Tasmania, except for very rare sporadic cases, and it is stated that filariasis is uncommon in New South Wales, the only cases known being imported ones. Kerosene and petroleum have been successfully used, both by municipalities and private individuals, to destroy larvae of mosquitoes at various places in these States.

(iii) *Northern Territory.* While the Territory is conspicuously free from most of the diseases which cause such devastation in other tropical countries, malaria exists, and, although cases rarely end fatally, the Administration is taking measures for the destruction of mosquito larvae wherever settlements or permanent camps are formed, and precautions are being taken to prevent the collection of stagnant water in such localities.

3. **Control of Introduced Malaria and Bilharziasis.**—(i) *General.* The control of returned soldiers and sailors suffering from malaria and bilharziasis, which was undertaken by the Commonwealth Department of Health at the request of the Departments of Defence and Repatriation, is still being carried out in conjunction with State Health Departments.

(ii) *Malaria.* Steps were taken to have all recrudescences in returned sailors, soldiers, and nurses in all parts of Australia notified direct to the Commonwealth Department of Health by the Medical Officers of the Repatriation Local Committees. Malaria is also notifiable to each State Health Department, except in New South Wales, and particulars of such notifications are transmitted to the Commonwealth Department of Health.

Treatment on intensive lines has been regularly carried out in connexion with malaria recurrences in returned sailors and soldiers in order to effect a cure as rapidly as possible. Steps were also taken to prevent the settlement of malaria-infected individuals in localities such as irrigation areas, where mosquitoes capable of carrying malaria were known to exist.

From information received, it is evident that in the great majority of cases cure has now been established, and that where recrudescences do occur they have been greatly reduced in severity and frequency. The number of foci of infection has been reduced to unimportant dimensions, and the danger of spread of malaria in the community from this source has been practically eliminated.

(iii) *Bilharziasis.* With few exceptions the men who contracted this disease on active service have been brought in from all parts of Australia for expert re-examination and treatment.

Those who have suffered from the disease, and have undergone treatment as indicated above, are still kept under periodical observation, but owing to the success of the measures already taken it is believed that no danger of the spread of infection exists. Action is being taken in the case of a small number of men who have evaded treatment.

4. **Hookworm.**—In 1911, attention was drawn to the necessity for an investigation into ankylostoma infection in Queensland, and the view was expressed that notified cases did not accurately indicate the prevalence of the disease. Researches made subsequently tended to support this view.

An investigation made in Papua in 1917 by an officer of the International Board of Health of the Rockefeller Foundation disclosed the fact that half of all natives examined were infected with hookworm disease. In co-operation with the Government of Queensland and the Australian Institute of Tropical Medicine, the survey was extended to Queensland, and a considerable number of cases of ankylostoma infection was found in certain northern coastal areas. In October, 1919, the Australian Hookworm Campaign was begun. This campaign was supported jointly by the Commonwealth, the International Health Board of the Rockefeller Foundation, the State of Queensland, and the other States in which work in this direction was undertaken. By the end of 1922, the survey of Australia and its dependencies had been completed. The total number of examinations up to 30th September, 1924, including those in Dr. Waite's survey in Papua and the earlier work in Queensland, was as follows:—

People examined for hookworm disease	..	..	394,578
Found to be infected with hookworms	..	..	62,051 (15.7%)

Endemic hookworm infection was found in intermittent areas along the eastern coast of Australia from Cape York to Macksville in New South Wales. The higher summer rainfall in these areas appears to be chiefly responsible for the localization of the infection. It is also found in the vicinity of Broome and Beagle Bay in Western Australia, in the northern part of the Northern Territory, and along the eastern coast of the Gulf of Carpentaria. In the Territory of Papua, 59.2 per cent. of the natives were found to be infected, and in the Territory of New Guinea, 74.2 per cent. There is no endemic hookworm infection in Victoria, South Australia, Tasmania, the interior of Queensland, New South Wales, except the north-eastern part, and Western Australia except the far north.

Metalliferous mines were examined in Victoria, South Australia, New South Wales, Tasmania, and Western Australia, and were found entirely free from hookworm infection. The examination of metalliferous mines in Queensland showed either no infection or a light infection which may have originated chiefly outside the mines. Coal mines in Victoria, Tasmania, and Western Australia were free from infection. Examinations were made in the coal mines of the Newcastle district, and among 1,226 miners examined in about 25 mines only five infected miners were found. In the Ipswich group of coal mines in Queensland, 31.5 per cent. of the miners were infected, and in the Howard-Torbanlea group (Queensland) 75.8 per cent. were infected. Recommendations were made with regard to the correction of the insanitary conditions responsible for these high infection rates.

Wherever operations are carried on by the hookworm campaign, emphasis is placed on the prevention of hookworm disease, in contrast to temporary relief through the cure of existing cases, and much work has been done to improve methods of night-soil disposal, and to teach the people the danger from soil pollution.

In October, 1924, the International Health Board withdrew from the work which was then continued under the direction of the Division of Tropical Hygiene of the Commonwealth Department of Health. From 1st October, 1924, to 30th September, 1926, under the new administration the field units engaged in the investigation examined 88,824 persons, of whom 6,578, or 7.4 per cent., were found to be infected with hookworm.

In the latter part of 1922, the scope of the campaign was widened to include a malaria and filaria survey in co-operation with the Division of Tropical Hygiene. Commonwealth Department of Health. This work is being carried out as opportunity arises.

A number of epidemiological and microbiological problems relating to hookworm and other intestinal parasites in tropical and sub-tropical Australia is being investigated by the Australian Institute of Tropical Medicine and the Commonwealth Health Laboratories in Queensland in co-operation with the work of the field units. It is anticipated that useful information will be obtained in regard to the control of hookworm among white people in the tropical and sub-tropical regions of Australia.

5. Institute of Tropical Medicine, Townsville.—The Australian Institute of Tropical Medicine was founded at Townsville in January, 1910. Since 7th March, 1921, the Institute has been administered by the Commonwealth Department of Health. A full account of the activities of this Institute from its foundation up to 1922 will be found in Official Year Book No. 15, pp. 1010–1012.

Since 1922 a number of investigations has been carried out, including the physiology of white populations in the tropics, sociological survey of certain tropical areas of Queensland, the destruction of mosquito larvæ and the control of mosquitoes in the larger centres of population, tropical diseases among the aborigines on Palm Island, leprosy among aborigines in the Northern Territory, and reputed foci of malaria in tropical Queensland. Courses of instruction in tropical medicine and hygiene commence in May of each year, and continue for four months, and nine publications dealing with various aspects of tropical medicine, etc., have been issued.

6. Royal Commission on National Health.—This Royal Commission, which was appointed by the Commonwealth Government in December, 1924, submitted its report on 9th December, 1925. The report deals with and contains recommendations on the following subjects:—Ill-health in the Commonwealth; medical services; co-operation of Commonwealth and State health authorities; prevention of disease; venereal diseases; uniform legislation with regard to the purity of food and drugs; maternity hygiene; child welfare; industrial hygiene; encouragement and development of research work; relationship between public health authorities and medical practitioners, and between public health authorities and other public authorities rendering medical services; and the publication of information relating to public health.

The report was considered by a Conference of Ministers of Health of the Commonwealth and States of Australia in July, 1926. The Conference accepted generally the recommendations of the Royal Commission; adopted specially the recommendation with respect to the creation of a Federal Health Council with functions as specified by the Royal Commission; and referred the recommendations of the Royal Commission to the Council as the general policy to be followed.

The Federal Health Council, consisting of the principal medical officer in the Departments of Health of the Commonwealth and States, with two additional officers from the Commonwealth Department of Health nominated by the Minister, was constituted by the Federal Government in November, 1926.

The first session of the Council was held in January, 1927, when a series of resolutions was adopted with the view of carrying into effect many of the recommendations of the Royal Commission for securing co-operation between the Health authorities of the Commonwealth and State, for promoting uniformity of legislation and administration, and for advancing public health generally within the Commonwealth.

Action is now being taken with respect to the resolutions of the Federal Health Council.

7. Travelling Study Tours under the League of Nations.—The Health Organization of the League of Nations has, during the past three years, arranged a series of study tours for medical officers of health of various countries, with resultant benefit by reason of interchange of views to those who have taken part in them. For the purposes of enabling officers to gain experience in public health methods, the Commonwealth Government was invited to nominate representatives for two such tours in 1925, one for three months' travel in Western Europe, and the other for a six weeks' visit to Japan and the neighbouring Asiatic countries.

For the tour in Japan and neighbouring Asiatic countries the Director of Tropical Hygiene in the Commonwealth Department of Health was nominated, and this officer during the latter part of 1925 visited Japan and took part in the Conference of Medical Officers held at Tokio. Several other places of interest to Australia from the public health standpoint were visited, including Korea, Manchuria, Shanghai, and Manila, and much valuable information was accumulated.

The Director of the Division of Marine Hygiene in the Commonwealth Department of Health visited Europe during the latter part of 1925, and studied public health methods and administration in various countries.

An offer from the League of Nations of two further tours to officers of the Department of Health for the purpose of studying laboratory methods and administration in Western Europe and England was accepted by the Commonwealth Government for the year 1926. The Director and Assistant Director of the Laboratories Division in the Commonwealth Department of Health who were nominated for these tours visited Europe in 1926.

8. International Sanitary Convention.—A Conference of representatives of the various signatory countries to the International Sanitary Convention of Paris of January, 1912, was held in Paris in April, 1925, to consider the draft proposals prepared by the International Office of Public Health for the revision of the Convention. The Director of the Division of Marine Hygiene represented the Commonwealth at this Convention.

9. Far Eastern Epidemiological Bureau, Singapore.—Under the auspices of the League of Nations, a Conference of the Advisory Committee of the Eastern Intelligence Bureau of the Far East was held at Singapore in January, 1926, and was attended by medical officers representing Australia, British India, British North Borneo, China, Federated Malay States, Hong Kong, French Indo-China, Japan, Netherlands Indies, Spain, and the Straits Settlements, while three medical representatives of the League of Nations, an observer on behalf of the Philippine Islands, and a visitor on behalf of the International Health Board under the Rockefeller Foundation were also present. The Director, Division of Tropical Hygiene in the Department of Health, represented the Commonwealth.

10. International Pacific Health Conference.—At the instance of the Commonwealth Government, the British Government in 1925 invited the Governments of the various countries having possessions in the Pacific to send representatives to a Conference to be held at Melbourne for the purpose of examining the problems relating to health and disease of the indigenous races of the various island groups of the Pacific, and of indicating the directions in which international action and co-operation might prevent the introduction of disease. Accordingly, in December, 1926, there assembled in Melbourne representatives of the Governments of Great Britain, France, United States of America, Japan, New Zealand, and the Commonwealth, and of the territorial administrations of the Federated Malay States and the Straits Settlements, Fiji, the Western Pacific, Samoa, Papua, and New Guinea. A delegate also attended from the Health Organization of the League of Nations. The resolutions which were adopted by the delegates formulated and recommended a definite plan for the development within the Austral-Pacific zone of an intelligence service, of quarantine co-operation, and of research.

§ 6. Medical Inspection of School Children.

1. General.—Medical inspection of school children is carried out more or less thoroughly in all the States. Medical staffs have been organized, and in some States travelling clinics have been established to deal with dental, ocular, and other defects.

2. New South Wales.—A system of medical inspection of school children was organized in 1913, and arrangements have been made, by means of triennial examinations, to examine each child at least twice during the period of school attendance (compulsory between the ages of 7 and 14 years). For this purpose, the staff attached to the Education Department consists of 19 Medical Officers, 19 Dentists (including 8 part-time Dentists), 8 Nurses, 15 Dental Assistants, and a clerical staff of 13.

Parents are notified of their children's defects, and are urged to have them treated. In the metropolitan district, children may be treated as out-patients at hospitals (general and special), or at the two School Dental Clinics. During 1923, the second School Dental Clinic was established at the out-patient department, Children's Hospital, chiefly to obtain strict oral and dental cleanliness before operations on the nose and throat.

In remote and sparsely-settled country districts, defects of vision are provided for by two School Oculists. One of these is in charge of the Travelling Hospital, which now includes on its staff two Dental Officers, one Nurse, and one Dental Assistant. During 1925, the number of children examined by the staff of the Travelling Hospital was 2,858; 2,406 were treated for all defects, 2,293 of which were dental. The remaining nine Travelling Dental Clinics treated 14,036 children, and the School Dental Clinics in Sydney, 6,759 (5,700 at the Metropolitan Clinic, and 1,059 at the Children's Hospital).

Of the 105,413 examined during 1925, 102,555 were seen during the routine medical inspection. Of these latter, 42,913 (41.8 per cent.) were notified for treatment of various defects, and of those notified, 21,390 (49.8 per cent.) were treated. This does not include the Travelling Hospital's returns, which are shown above, nor does it include the majority of those treated for dental defects by departmental officers, who carried out dental treatment for 20,795 children—14,036 rural and 6,759 city—or approximately 25 per cent. rural and 15 per cent. city of the children of the areas visited.

Eliminating dental defects, unremedied medical defects were found in 18.5 per cent. of children. In rural areas, 42.9 per cent. of those notified were treated by "outside" doctors or hospitals. In the city, 45.6 per cent. to 64.5 per cent. were treated for various types of defect. Much of this improvement is due to the following-up work of the School Nurses.

During the four triennial periods ended 1925, 921,183 children were examined, and 502,198 (54 per cent.) were found to be suffering from physical defects requiring treatment.

In the triennium ended 1925, 308,769 children were medically examined (inclusive of those dealt with by the Travelling Hospital, but excluding those examined by the travelling dental clinics). Of this total 146,433 (47 per cent.) were recorded as defective. The chief defects were:—Dental, 112,546 cases; nose and throat, 39,980 cases; vision, 16,042 cases; and hearing, 9,395 cases. The number of children treated subsequently for any defect was 80,876.

During the period 1924-5-6, 3,694 boys were examined at the Metropolitan Children's Shelter in connexion with the work of the Children's Court. Of these boys, 12.5 per cent. had defects of vision, 5 per cent. defects of hearing, and 22 per cent. defects of nose and throat.

The health supervision of High School girls in the Sydney and Newcastle Districts is allotted to a special woman Medical Officer; while another woman Medical Officer is attached to the Teachers' College. Every teacher, on entering the College, is medically examined, and any defects found must be remedied. The teaching of hygiene is aided by a course of thirty lectures which each student receives at the Teachers' College.

In 1925, certain changes were made in the general scheme. The extra-metropolitan area was divided into three and the metropolis into seven districts, and medical officers allotted accordingly. The work in the metropolis was arranged to permit of an annual, instead of a triennial, visit to every school, but about one-third only of the children will be examined at each visit, viz., entrants, pupils leaving, and cases which are still under review.

3. Victoria.—The system of medical inspection aims at examining the child three times in its school life, but in the High Schools the students are examined every two years. After the examination, the parents are notified of defects, and are advised to obtain treatment from their own doctor or dentist, and in the metropolitan area two nurses follow up these cases. Attached to the department is a dental centre which deals with about 1,670 children each month from the metropolitan schools.

During the year ended 30th June, 1926, 52,084 children were medically examined, and 18,367 received dental treatment. In addition, the nurses of the Bush Nursing Association examine the school children in their districts and report to the Medical Officers of the Education Department, who, in their turn, advise whether medical attention is necessary.

The staff of the medical branch consists of 8 medical officers, 5 dentists, 6 dental attendants, and two school nurses.

4. **Queensland.**—In matters affecting the general administration of the medical branch of the Department of Public Instruction, the Department acts on the advice of its chief medical officer, who, while acting independently in all matters affecting individual schools, is in close touch with the Department of Public Health, and observes the policy of that department in all matters connected with schools which may have direct bearing upon the health of the State. Medical inspection of school children is carried out by full-time and local part-time medical officers, but the policy of the Department is eventually to employ none but full-time departmental officers. A large number of children is examined each year, and parents are advised of physical defects calling for medical attention. A staff of twelve dentists carries out dental inspection and treatment. Particular attention is paid to diseases of the eyes and tonsils. In the western districts, where ophthalmic diseases formerly were rife, the medical officers in charge of district hospitals are employed to treat cases promptly and thereby prevent the spread of infection.

In 1926, 31,030 children were medically examined, of whom 6,845 were found to be suffering from physical defects. The departmental dentists examined 42,033 children. Extractions numbered 25,415, fillings 22,635, and other gratuitous treatments 12,033.

5. **South Australia.**—Medical inspection embraces the examination—three times in their school life—of all children attending the primary schools or entering high or technical schools. Reports are furnished to parents of defects likely to interfere with educational progress. The staff consists of one principal medical officer, five medical inspectors, three dentists, five trained nurses, and a disinfecting officer. The dentists attend remote country schools and treat children. There is also a Dental Clinic where children from the metropolitan schools receive treatment. The Medical Inspector meets the parents after the examination of the children, reports any defect, and recommends treatment. It is found that a personal talk is of greater value than a written notice. A trained psychologist is attached to the medical branch.

During the year 1926, 422 schools were visited, and children to the number of 35,819 were examined by the medical officer, and a considerable number of defects was disclosed. The school dentists gave treatment to 1,201 children in the City Clinic and 1,741 children in the outback districts of the State.

6. **Western Australia.**—Under the Public Health Act 1911–1922, the medical officers of health appointed by the local authorities became medical officers of schools and school children. In the Health Department there are two medical officers for schools, whose duty is to conduct medical examinations, and three school nurses are employed. During 1926, 15,857 children were examined. The staff comprises 2 full-time and 1 half-time medical officers.

7. **Tasmania.**—To Tasmania belongs the credit of being the first State in Australia to provide for the medical inspection of State school children. As far back as 1906, 1,200 children from the Hobart State schools were examined. At the present time 2 full-time medical officers carry out medical inspections in country and convent schools, while 2 part-time medical officers conduct examinations of school children in Hobart and Launceston. There are also 4 nurses, whose chief duty is to visit the homes to advise the parents as to the treatment of defects disclosed by the medical examination. Country schools are visited by medical officers about once every two years, while 2 dentists visit the smaller country schools.

§ 7. Supervision and Care of Infant Life.

1. **General.**—The number of infantile deaths and the rate of infantile mortality for the last five years are given in the following table, which shows that during the period 1922 to 1926 no less than 37,551 children died before reaching their first birthday. With the exception of New South Wales for the year 1924, and Queensland for the year 1926,

the rate of mortality in the metropolitan area has in every case been consistently greater than that for the remainder of the State. Further information regarding infantile mortality will be found in Chapter XXV.—Vital Statistics :—

INFANTILE DEATHS AND DEATH RATES, 1922 TO 1926.

State.	Metropolitan.					Remainder of State.				
	1922.	1923.	1924.	1925.	1926.	1922.	1923.	1924.	1925.	1926.

NUMBER OF INFANTILE DEATHS.

New South Wales	1,292	1,431	1,299	1,282	1,336	1,665	1,846	1,866	1,719	1,724
Victoria ..	1,101	1,345	1,259	1,155	1,205	835	1,011	927	892	764
Queensland ..	347	362	367	318	318	660	716	644	599	683
South Australia ..	347	388	337	287	328	223	317	258	241	181
Western Australia	247	258	232	280	232	205	184	182	183	177
Tasmania ..	120	105	94	101	77	204	220	202	187	166
Australia (b) ..	3,454	3,889	3,618	3,423	3,496	3,792	4,294	4,079	3,821	3,685

RATE OF INFANTILE MORTALITY.(a)

New South Wales	57.68	63.26	57.18	56.74	60.72	50.81	53.70	60.22	53.68	55.41
Victoria ..	58.25	71.18	66.32	59.81	62.91	48.03	59.54	55.49	53.70	47.14
Queensland ..	57.10	57.89	57.76	49.71	50.41	44.96	52.15	48.22	43.14	50.76
South Australia ..	58.23	66.70	56.45	48.95	53.03	36.73	53.96	45.89	43.08	34.16
Western Australia	58.27	61.24	53.13	65.71	53.85	52.67	50.54	46.26	49.64	44.33
Tasmania ..	71.94	66.00	61.32	67.83	53.73	49.17	54.11	52.47	50.15	43.88
Australia (b) ..	58.33	65.48	59.92	57.13	58.86	48.50	56.69	54.79	50.43	50.05

(a) Number of deaths under one year per 1,000 births registered.

(b) Exclusive of Territories.

During recent years greater attention has been paid to the fact that the health of the community depends largely on pre-natal as well as after care in the case of mothers and children. Government and private organizations are, therefore, taking steps to provide instruction and treatment for mothers before and after confinement, while the health and well-being of mother and child are looked after by the institution of baby health-centres, baby clinics, crèches, visitation by qualified midwifery nurses, supervision of milk supply, etc.

2. **Government Activities.**—In all the States Acts have been passed with the object of supervising and ameliorating the conditions of infant life and reducing the rate of mortality. Government Departments control the boarding-out to suitable persons of the wards of the State, and wherever possible the child is boarded-out to its mother or near female relative. Stringent conditions regulate the adoption, nursing and maintenance of children placed in foster-homes by private persons, while special attention is devoted to the welfare of ex-nuptial children. (See also in this connexion Chapter XI.—Public Benevolence.) Under the provisions of the Maternity Allowance Act 1912, a sum of five pounds is payable to the mother in respect of each confinement at which a living or viable child is born. Further particulars regarding Maternity Allowance are given in Chapter VIII.—Finance.

3. **Nursing Activities.**—(i) *General.* In several of the States, the Government maintains institutions which provide treatment for mothers and children, while, in addition, subsidies are granted to various associations engaged in welfare work.

(ii) *New South Wales.* Baby health centres were established by the Government in 1914. Attached to each centre is an honorary medical officer and a staff of trained nurses who instruct mothers in matters pertaining to the care of themselves and their children.

In December, 1926, there were 61 centres in operation, of which 36 were in the metropolitan area, 15 in the Newcastle district, and the remainder in important industrial and rural centres. During 1926 the attendances at the clinics numbered 210,244, and the nurses paid 87,179 visits to newly-born babies—viz., 22,433 first visits and 64,746 subsequent visits. No charge is made for attention or advice.

The Royal Society for the Welfare of Mothers and Children conducts two welfare centres in the metropolis, and has two training schools where nurses may receive post-graduate training in infant hygiene and mothercraft. The nurses attached to health centres are required to take this course, and arrangements have been made to train the nurses engaged by the Bush Nursing Association. The Day Nursery Association maintains four nurseries where working mothers may leave their children during the day.

The Bush Nursing Association aims at providing fully-qualified nurses in country districts throughout Australia. Centres may be formed in any district where the residents can enrol sufficient members to guarantee the salary of a nurse. As the greater part of the nurses' work is that of midwifery, the nurses must be registered midwives. In February, 1927, there were 35 bush-nursing centres in New South Wales.

(iii) *Victoria.* The first Baby-Health Centre was opened in 1917. At the latest available date the Victorian Baby-Health Centres' Association had 76 centres in operation, 53 in the metropolitan area, and 23 in country towns. The Association receives subsidies from the State Government and the local municipal councils. During the year ended 30th June, 1926, 23,264 individual babies were taken to the centres, while total attendances numbered 153,883, and 50,064 visits were paid by the nurses to patients in their own homes. The Society for the Health of Women and Children also maintains six centres in the industrial suburbs of the metropolis and one centre in the country. There are, in addition, crèches where children may be left while the mothers are at work.

The Bush Nursing Association had in February, 1927, 51 centres in operation in the country districts. In connexion with this association there are eight cottage hospitals in operation and others are in process of preparation.

(iv) *Queensland.* Four Baby Clinics have been established in Brisbane by the Government, and others have been formed in ten of the larger provincial centres. A training school has been organized to train nurses for welfare work. For the year 1926 attendances at the clinics numbered 74,883, in addition to which the nurses paid 14,042 visits in connexion with the after care of mothers and infants.

There are in the metropolitan area six kindergartens and four crèches where children may be left during the day. The Playgrounds' Association aims at providing playgrounds for children in the populous parts of towns and cities.

The Bush Nursing Association has nine nurses stationed in the country districts.

(v) *South Australia.* A School for Mothers is situated in Adelaide, and there are several branches in the suburbs, and at Port Pirie and Renmark. These schools receive a Government and municipal grant. During the year ended 31st July, 1926, the nurses paid 1,506 visits to expectant mothers and 29,189 to young babies. In August, 1921, baby clinics were established, to which, in 1925-26, 33,545 babies were brought for examination, advice and information being given where necessary to the mothers. There is a crèche at West Adelaide for the benefit of the children of women obliged to earn their own living.

The District Trained Nursing Society has over 30 branches, of which about half are in the metropolitan area. The nurses of this society paid 62,542 visits to homes. Nursing homes have been established by the Australian Inland Mission at Beltana and Oodnadatta in the far north of South Australia, and at three places in the Northern Territory.

(vi) *Western Australia.* The organizations which aim at improving the conditions of infant life include an ante-natal clinic established by the Government at the King Edward Maternity Hospital, a day nursery where children may be left and cared for while the mothers are away at work, and the Infant Health Association, which is subsidized by the government and local authorities, and which controls twelve centres, with a specially trained nurse in charge of each. During the six months ended 31st December, 1926, the attendances at clinics numbered 10,692, in addition to which the nurses paid 5,164 visits to homes.

The Bush Nursing Trust maintains a rest-house for expectant mothers, and the Australian Inland Mission has nursing homes at Hall's Creek and Port Hedland.

(vii) *Tasmania.* There are three baby clinics in Hobart, two in Launceston, and one in the country, controlled by Child Welfare Associations. During the year 1926, the nurses visited 9,934 homes, and attendances at the clinics for the same period numbered 17,090. The number of individual babies taken to the clinics was 2,104. A mother-craft home was opened in Hobart in August, 1925, with accommodation for 10 babies and 3 mothers. During 1926, 27 mothers and 59 babies were inmates of the home and 11 trained nurses completed a special course in infant hygiene.

The Bush Nursing Association, which is subsidized by the Health Department, the Red Cross Fund, and municipal councils, has stationed nurses in fifteen country districts.

(viii) *Summary.* The following table gives particulars of the activities of the Baby-Health Centres and the Bush Nursing Associations :—

Heading.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Total.
Baby Health Centres :—							
Metropolitan No.	38	59	4	33	10	3	147
Urban, Provincial, and Rural No.	25	24	10	5	2	3	69
Total No.	63	63	14	38	12	6	216
Attendances at Centres .. No.	210,244	158,883	74,883	33,545	(b) 10,692	17,090	505,337
Visits paid by Nurses .. No.	87,179	50,064	14,042	62,542	(b) 5,164	9,934	228,925
Bush Nursing Association, Number of Centres ..	35	51	9	(a) 30	1	15	141

(a) District Trained Nursing Society.

(b) For 6 months only.

CHAPTER XIII.—LABOUR, WAGES, AND PRICES.

A. PRICES.

§ 1. Wholesale Prices.

1. *General.*—The results of an investigation into wholesale prices in Melbourne from 1871 to the end of September, 1912, were given in some detail in Report No. 1 of the Labour and Industrial Branch, while summarized results for later years are included in subsequent Reports.

The index-numbers up to the year 1911 are based on the prices of eighty commodities, but since that year the number has been increased to ninety-two.* The methods followed for the computation of the wholesale price index-numbers are similar to those adopted in regard to retail prices. The commodities included, the units of measurement for which the prices are taken, and the mass-units indicating the relative extent to which each commodity is used or consumed, are shown in a tabular statement in Labour Report No. 13 (page 62).

2. *Index-Numbers.*—Index-numbers have been computed for each group of commodities, as well as for all groups together. The index-numbers for the several groups, and for all groups together, are shown in the following table, and in each case were computed with the prices in the year 1911 as base. They show, for each of the years specified, the expenditure necessary—if distributed in purchasing the relative quantities (indicated by the mass-units) of the several commodities concerned—to purchase what would have cost £1,000 in 1911. Thus, from the last column it will be seen that the cost of the relative quantities of the various commodities was 1,229 in 1871, and 974 in 1901, as compared with 1,000 in 1911, 1,903 in 1921, and 1,832 in 1926. In other words, prices were lower in 1911 than in either 1871, 1921, or 1926, and the purchasing power of money in 1911 was, accordingly, greater. Again, prices were lower in 1901 than in 1911, and the purchasing power of money in the former year was, therefore, greater.

INDEX-NUMBERS.—WHOLESALE PRICES, MELBOURNE, 1861 TO 1926.

Year.	I. Metals and Coal.	II. Jute, Leather, etc.	III. Agri- cultural Produce, etc.	IV. Dairy Produce.	V. Gro- ceries.	VI. Meat.	VII. Building Mate- rials.	VIII. Chem- icals.	All Com- modities together.
1861	1,438	1,881	1,583	1,008	1,963	..	1,070	2,030	1,538
1871	1,096	1,257	1,236	864	1,586	..	1,044	1,409	1,229
1881	1,178	1,115	1,012	935	1,421	..	1,091	1,587	1,121
1891	895	847	1,024	995	1,032	888	780	1,194	945
1901	1,061	774	928	1,029	1,048	1,345	841	917	974
1902	1,007	756	1,193	1,215	945	1,447	837	881	1,051
1903	923	834	1,209	1,059	936	1,443	875	921	1,049
1904	821	885	754	876	916	1,427	845	875	890
1905	772	850	894	980	942	1,209	801	859	910
1906	882	978	916	972	923	1,110	896	884	948
1907	1,037	1,017	973	1,020	948	1,294	968	961	1,021
1908	1,033	901	1,312	1,198	968	1,335	935	891	1,115
1909	1,014	907	1,000	1,119	978	1,088	911	815	993
1910	1,004	1,052	969	1,100	999	1,008	996	898	1,003
1911	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
1912	1,021	991	1,370	1,206	1,052	1,357	1,057	978	1,170
1913	1,046	1,070	1,097	1,054	1,024	1,252	1,128	995	1,088
1914	1,099	1,032	1,207	1,137	1,021	1,507	1,081	1,253	1,149
1915	1,284	1,017	2,162	1,530	1,133	2,435	1,275	1,528	1,604
1916	1,695	1,423	1,208	1,485	1,322	2,515	1,491	1,760	1,504
1917	2,129	2,008	1,157	1,423	1,343	2,403	1,884	2,171	1,662
1918	2,416	2,360	1,444	1,454	1,422	2,385	2,686	3,225	1,934
1919	2,125	2,363	1,985	1,651	1,516	2,348	2,851	2,898	2,055
1920	2,298	2,624	2,439	2,209	1,918	3,279	3,226	2,825	2,480
1921	2,173	1,362	1,767	2,000	1,976	2,158	2,733	2,303	1,903
1922	1,942	1,681	1,628	1,648	1,869	1,787	2,005	1,965	1,758
1923	1,826	2,148	1,778	1,837	1,746	2,579	2,025	1,933	1,944
1924	1,835	2,418	1,647	1,655	1,721	2,223	1,815	1,806	1,885
1925	1,852	1,967	1,797	1,636	1,723	2,212	1,711	1,790	1,844
1926	1,938	1,532	2,001	1,784	1,731	1,931	1,665	1,816	1,832

NOTE.—The figures given in this table are comparable in the vertical columns, but are not directly comparable horizontally. The index numbers are reversible.

* In the computation of the index-numbers for years prior to 1911, the aggregate expenditure on 80 commodities in 1911 is taken as base (= 1,000), while for later years the aggregate expenditure on 92 commodities is taken.

3. *Fluctuations, July, 1914, to May, 1927.*—Since the outbreak of war, prices of many commodities have increased considerably. This is shown in the following table in which the index-numbers are given for each group for the months of July, 1921, to 1926, and May, 1927, taking July, 1914, the last month before the outbreak of war, as base (= 1,000) for each group :—

INDEX-NUMBERS.—WHOLESALE PRICES, MELBOURNE, JULY, 1914, TO 1926,
AND MAY, 1927.

Particulars.	I. Metals and Coal.	II. Jute, Leather etc.	III. Agri- cultural Produce, etc.	IV. Dairy Produce.	V. Gro- ceries.	VI. Meat.	VII. Building Mate- rials.	VIII. Chemicals.	All Groups.
July, 1914 ..	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
" 1922 ..	1,764	1,555	1,532	1,564	1,810	1,185	1,681	1,991	1,569
" 1923 ..	1,658	1,876	1,691	1,668	1,698	2,229	1,780	1,923	1,799
" 1924 ..	1,666	2,119	1,525	1,431	1,677	1,281	1,666	1,743	1,626
" 1925 ..	1,663	1,744	1,643	1,404	1,667	1,492	1,605	1,716	1,618
" 1926 ..	1,741	1,456	1,860	1,514	1,686	1,248	1,557	1,798	1,615
May, 1927 ..	1,781	1,450	1,567	1,556	1,670	1,125	1,501	1,794	1,524

§ 2. Retail Prices and House Rents.

1. *Introduction.*—(i) *General.* In Labour Report No. 1, issued in December, 1912, the results of certain investigations into the subjects of Prices, Price-Indexes and Cost of Living in past years were published, and some account was given of the methods employed for the collection of the data and of the technique adopted in the computation of the results. A detailed examination of the theory upon which the calculation of the index-numbers is based was given, but being necessarily too technical for the ordinary reader, was relegated to Appendixes. In Labour Reports Nos. 2, and 5 to 15, results of further investigations were included, and in Labour Bulletins Nos. 1 to 18, and in Quarterly Summaries of Statistics, Nos. 70 to 102, information was incorporated regarding variations in retail and wholesale prices, house rent, and purchasing-power of money up to the end of 1925.

(ii) *Computation of Index-Numbers.* The method adopted for the computation of the index-numbers is what is termed the "aggregate expenditure" method. Thereunder the average price of each commodity included is ascertained, and numbers (called "mass-units") representing the *relative* extent to which each commodity was on the average used or consumed are also computed. The price in any year of each commodity multiplied by its corresponding "mass-unit" represents, therefore, the relative total expenditure on that commodity in that year *on the basis of the adopted regimen*. It follows, therefore, that by taking for any year the sum of the price of each commodity multiplied by its corresponding "mass-unit," a figure is obtained which represents the relative aggregate or total expenditure of the community in that year on all the commodities, etc., included. By computing these aggregate expenditures for a series of years and taking the expenditure in any selected year as "base," that is, making the expenditure in that year equal to 1,000 units, the relative expenditure in any other year, or what may be termed the "index-number," is readily ascertained. Numerical examples of the technique and methods adopted for the computation of index-numbers were given in Report No. 2 (pp. 44 and 45), and in Report No. 9 Appendixes I. to IV., pp. 174 to 229.

2. *Scope of Investigation.*—As noted in Report No. 1, distinction must be drawn between (a) Variations in the *purchasing-power* of money, and (b) Variations in the *standard of living*, and in Report No. 2 attention was directed to the factors which must be taken into consideration in dealing with these matters in order to arrive at a satisfactory aggregate expenditure. The various Reports deal with the list of commodities selected and the reasons for their adoption, while § 4 of this Chapter deals with the extension of the inquiry to cover all ordinary household expenditure.

3. *Variations in Index-Numbers for Retail Prices and House Rents, Capital Cities, 1901 to 1926.*—(i) *General.* In Labour Reports and Bulletins, and in recent issues of the Quarterly Summaries of Statistics, index-numbers were given for each of the four groups and for all groups combined for each capital city since 1901, the expenditure in 1911 being taken in each case as base (= 1,000). In this sub-section summarized results only are given, firstly, for food and groceries; secondly, for house rent; and thirdly, for the groups combined—the weighted average expenditure for all capital cities in 1911 being taken in each case as base (= 1,000). The index-numbers in each table are fully comparable with one another, since they show not only the variations from year to year in each capital, but also the relative cost as between the cities.

(ii) *Food and Groceries.* The index-numbers thus computed for the three groups comprising groceries and food are shown in the following table for 1907, 1911, and 1914, and for the last six years :—

**RETAIL PRICE INDEX-NUMBERS, FOOD AND GROCERIES.—CAPITAL CITIES,
1907 TO 1926.**

City.	1907.	1911.	1914.	1921.	1922.	1923.	1924.	1925.	1926.
Sydney	936	989	1,156	1,898	1,703	1,820	1,732	1,785	1,867
Melbourne	925	935	1,091	1,901	1,644	1,802	1,684	1,748	1,774
Brisbane	947	1,018	1,078	1,812	1,608	1,693	1,690	1,734	1,788
Adelaide	951	1,020	1,215	1,906	1,723	1,823	1,791	1,840	1,869
Perth	1,197	1,346	1,302	1,995	1,776	1,828	1,891	1,938	1,866
Hobart	1,010	1,058	1,212	2,025	1,794	1,863	1,849	1,810	1,868
Weighted Average (a) ..	955	1,000	1,144	1,902	1,684	1,805	1,732	1,785	1,829

(a) For all capital cities.

The figures quoted are directly comparable in every respect; thus, the same quantity of food and groceries, which cost £1,000 in the capital cities considered as a whole in 1911, would have cost £1,156 in Sydney in 1914, £1,346 in Perth in 1911, or £1,774 in Melbourne in 1926.

In 1926 increases were experienced in all the capitals with the exception of Perth, which showed a decrease of 3.7 per cent. from the previous year. Comparing the results for 1926 with those for 1911, the extent by which prices increased varied from 89.7 per cent. in Melbourne to 38.6 per cent. in Perth. Prices, however, were abnormally high in Perth in 1911.

(iii) *Housing.* In previous issues of the Official Year Book the computations of index-numbers of housing accommodation were based upon the rentals of all houses from under 4 rooms to 8 rooms and over. In the following tables that basis has been altered, to accord with a resolution adopted by the Conference of Statisticians of Australia and New Zealand to the following effect: "that for purposes of computing price levels in respect of rent, it is desirable that houses of four and five rooms only be taken into account." This alteration will account for the difference between index-numbers given in the following tables and those given for the same tables in previous issues of the Year Book.

The following table gives index-numbers computed for the weighted average house rent of 4 and 5 roomed houses in each of the capital cities from 1907 to 1926, taking the average rent for the six capitals in 1911 as the base (=1,000). The average rent has been obtained for each city separately by multiplying the average predominant rent for each class of house (i.e., wooden houses of 4 rooms and of 5 rooms and brick houses of 4 rooms and of 5 rooms) by a number ("weight") representing the relative number of houses of that class in the particular city. The sum of the products thus obtained divided by the sum of the weights, gives the weighted average for 4 and 5 roomed houses combined. The number of houses in each class for each city was obtained from the results of the 1911 census, and the index-numbers are based on the weighted average rents for 4 and 5 roomed houses combined, and do not refer to any particular class of house. The actual predominant rents for each class were given in appendixes to Labour Reports Nos. 1, 2, and 5 to 14, and an examination of these figures shows that for some classes of houses the increase has been greater, and in some less, than the general increase indicated in the following table.

INDEX-NUMBERS.—HOUSING, CAPITAL CITIES, 1907 TO 1926.

City.	1907.	1911.	1914.	1921.	1922.	1923.	1924.	1925.	1926.
Sydney	969	1,145	1,243	1,617	1,680	1,739	1,831	1,870	1,826
Melbourne	744	931	1,027	1,340	1,448	1,534	1,574	1,604	1,695
Brisbane	463	610	762	1,030	1,128	1,151	1,157	1,165	1,333
Adelaide	835	1,155	1,071	1,322	1,377	1,450	1,540	1,576	1,516
Perth	749	857	963	1,209	1,256	1,294	1,311	1,340	1,469
Hobart	661	739	847	1,441	1,359	1,503	1,592	1,649	1,628
Weighted Average (a) ..	813	1,000	1,082	1,410	1,486	1,553	1,615	1,647	1,677

(a) For all capital cities.

NOTE.—The above figures are directly comparable in every respect.

(iv) *Food, Groceries, and Housing 4 and 5 roomed Houses combined.* The weighted averages for all groups are of importance, as indicating the general results of this investigation so far as the purchasing-power of money is concerned. The following table shows the index-numbers for groceries, food, and house rent (4 and 5 roomed houses) for each capital city, the weighted average cost for the six capitals in 1911 being taken as base (=1,000):—

RETAIL PRICE INDEX-NUMBERS (a)—FOOD, GROCERIES, AND HOUSING.—
CAPITAL CITIES, 1901 TO 1926.

City.	1907.	1911.	1914.	1921.	1922.	1923.	1924.	1925.	1926.
Sydney	948	1,048	1,188	1,793	1,604	1,790	1,769	1,817	1,852
Melbourne	857	934	1,067	1,690	1,571	1,702	1,643	1,694	1,744
Brisbane	765	865	959	1,519	1,427	1,490	1,490	1,521	1,617
Adelaide	908	1,070	1,161	1,687	1,593	1,683	1,697	1,741	1,736
Perth	1,029	1,162	1,175	1,700	1,581	1,627	1,673	1,714	1,717
Hobart	879	938	1,075	1,806	1,631	1,728	1,753	1,750	1,778
Weighted Average (b) ..	900	1,000	1,121	1,717	1,610	1,710	1,688	1,733	1,772

(a) As the price index-number increases, the purchasing-power of money diminishes.

(b) For all capital cities.

NOTE.—The above figures are directly comparable in every respect.

The combination of housing with prices of food and groceries has had the effect of considerably modifying the index of prices, or, in other words, the purchasing-power of money, as compared with the similar index based on food and groceries only. In 1921 there were increases in prices of food and groceries and housing, the combined results for 1921 being an increase of 53.2 per cent. over 1914, and 71.7 per cent. over 1911. The increase in the index-number between 1921 and 1914 varied between the capital cities from 45 per cent. in Perth to 68 per cent. in Hobart, while between 1921 and 1911 it varied between 46 per cent. in Perth and 93 per cent. in Hobart. In 1923 there was an increase in the combined cost of food, groceries, and housing in all the cities, the weighted average index-number being 1,710 as compared with 1,610 in 1922. The index-number for 1924 shows a decline of 1.3 per cent. on that for 1923, that for 1925 shows an increase of 2.6 per cent. from 1924, food and groceries having increased 3 per cent., and housing increased 2 per cent., while that for 1926 discloses a rise of 2.3 per cent. over 1925, both food and groceries and housing again showing increases.

4. *Retail Price Index-Numbers in Terms of Currency.*—The tables in sub-section 3 give the relative cost in the six capital cities of food, groceries, and housing from 1907 to 1926 in the form of index-numbers. The figures have been converted into a monetary basis in the next table, and show the sums which would have to be paid in each city and in each year in order to purchase such relative quantities (indicated by the mass units) of the several commodities, and to pay such sums for housing as would in the aggregate cost £1, according to the weighted average prices and rents in the six capitals in 1911.

RETAIL PRICES.—AMOUNTS NECESSARY ON THE AVERAGE IN EACH YEAR FROM 1907 TO 1927 (2nd QUARTER) TO PURCHASE IN EACH CAPITAL CITY WHAT WOULD COST ON THE AVERAGE £1 IN 1911 IN THE AUSTRALIAN CAPITALS REGARDED AS A WHOLE.

Year.	Sydney.	Melb'ne.	Brisbane.	Adelaide.	Perth.	Hobart.	Weighted Average of 6 Capital Cities.
FOOD AND GROCERIES (46 COMMODITIES).							
1907	s. d. 18 9	s. d. 18 6	s. d. 18 11	s. d. 19 0	s. d. 23 11	s. d. 20 2	s. d. 19 1
1911	19 9	18 8	20 4	20 5	26 11	21 2	20 0
1914	23 1	21 10	21 7	24 4	26 0	24 3	22 11
1920	43 0	41 1	41 1	42 8	41 0	43 3	42 0
1921	38 0	38 0	36 3	38 1	40 0	40 6	38 0
1922	34 1	32 11	32 2	34 6	35 6	35 11	33 8
1923	36 5	36 1	33 10	36 6	36 7	37 3	36 1
1924	34 8	33 8	33 10	35 10	37 10	37 0	34 8
1925	35 8	35 0	34 8	36 10	38 9	36 2	35 8
1926	37 4	35 6	35 9	37 5	37 4	37 4	36 7
1926 { 1st Quarter	36 9	35 0	35 6	37 3	37 1	37 7	36 2
2nd " "	38 1	37 2	35 7	39 4	38 10	38 3	37 9
3rd " "	37 3	35 2	35 11	36 9	37 3	37 2	36 5
4th " "	37 3	34 7	36 1	36 2	36 2	36 5	36 1
1927 { 1st " "	36 11	34 0	34 5	36 7	36 3	36 3	35 8
2nd " "	36 2	33 10	32 10	36 5	36 7	35 9	35 1

HOUSING ACCOMMODATION (WEIGHTED AVERAGE—4 AND 5 ROOMED HOUSES).

1907	19 5	14 11	9 3	16 8	15 0	13 3	16 3
1911	22 11	18 7	12 2	23 1	17 2	14 9	20 0
1914	24 10	20 6	15 3	21 5	19 3	16 11	20 8
1920	30 10	25 5	20 4	24 10	22 11	28 5	26 11
1921	32 4	26 10	20 7	26 5	24 2	28 10	28 2
1922	33 7	28 10	22 7	27 6	25 1	27 2	28 9
1923	34 9	30 8	23 0	29 0	25 11	30 1	31 1
1924	36 7	31 6	23 2	30 10	26 3	31 10	32 4
1925	37 5	32 1	23 4	31 6	26 10	33 0	32 11
1926	36 6	33 11	26 8	30 4	29 5	32 7	33 7
1926 { 1st Quarter	36 5	33 7	26 8	30 7	29 3	32 6	33 5
2nd " "	36 7	34 0	26 8	30 7	29 5	31 11	33 7
3rd " "	36 7	34 0	26 8	30 0	29 6	32 9	33 7
4th " "	36 7	34 1	26 8	30 1	29 4	33 1	33 7
1927 { 1st " "	36 3	34 0	26 8	30 5	29 8	32 0	33 6
2nd " "	38 6	34 0	26 8	30 5	29 7	31 9	33 7

FOOD, GROCERIES, AND HOUSING (4 AND 5 ROOMS ONLY) COMBINED.

1907	18 11	16 2	15 4	18 2	20 7	17 7	18 0
1911	21 0	18 8	17 4	21 5	23 3	18 9	20 0
1914	23 9	21 4	19 2	23 3	23 6	21 6	22 5
1920	38 5	35 3	33 3	35 11	34 2	37 8	36 4
1921	35 10	33 10	30 5	33 9	34 0	36 1	34 4
1922	33 10	31 5	28 6	31 10	31 7	32 7	32 2
1923	35 10	34 0	29 10	33 8	32 6	34 7	34 2
1924	35 5	32 10	29 10	33 11	33 6	35 1	33 9
1925	36 4	33 11	30 5	34 10	34 3	35 0	34 8
1926	37 1	34 11	32 4	34 9	34 4	35 7	35 5
1926 { 1st Quarter	36 7	34 6	32 2	34 9	34 1	35 8	35 1
2nd " "	37 6	36 0	32 2	36 1	35 3	35 10	36 2
3rd " "	37 0	34 9	32 5	34 3	34 4	35 7	35 4
4th " "	37 0	34 5	32 7	33 11	33 7	35 2	35 2
1927 { 1st " "	36 8	34 0	31 6	34 3	33 9	34 8	34 10
2nd " "	36 4	33 11	30 7	34 2	33 11	34 3	34 7

5. Variations in Index-Numbers, Retail Prices and Housing, Thirty Australian Towns, 1926.—The index-numbers given in the preceding sub-sections show changes in the cost of food, groceries, and housing separately for each capital city during the years 1907 to 1926. The figures given in the next table show the relative cost of food and groceries, and of housing for the years 1924 to 1926 in the thirty towns for which particulars are now collected. The weighted aggregate expenditure for the six capitals for the year 1911 has been taken as base and made equal to 1,000, hence the columns are comparable both horizontally and vertically. The index-numbers in the last column are the same as in previous tables where the period and town are comparable.

INDEX-NUMBERS, THIRTY TOWNS, SHOWING RELATIVE EXPENDITURE ON FOOD AND GROCERIES AND ON HOUSING (4 AND 5 ROOMS) SEPARATELY, AND ON THESE ITEMS COMBINED. BASIS OF TABLE = WEIGHTED AVERAGE EXPENDITURE ON FOOD, GROCERIES, AND HOUSING (4 AND 5 ROOMS) IN THE SIX CAPITAL CITIES IN 1911 = 1,000.

Town.	1924.			1925.			1926.		
	Food and Groceries.	Housing.	Food, Groceries, and Housing.	Food and Groceries.	Housing.	Food, Groceries, and Housing.	Food and Groceries.	Housing.	Food, Groceries, and Housing.
NEW SOUTH WALES—									
Sydney	1,082	687	1,769	1,115	702	1,817	1,166	686	1,852
Newcastle	1,062	571	1,663	1,125	621	1,746	1,155	638	1,793
Broken Hill	1,221	349	1,570	1,315	376	1,691	1,322	413	1,735
Goulburn	1,104	659	1,763	1,115	634	1,749	1,156	654	1,810
Bathurst	1,028	472	1,500	1,074	516	1,590	1,119	547	1,666
Weighted Average ..	1,086	667	1,753	1,120	685	1,805	1,168	674	1,842
VICTORIA—									
Melbourne	1,052	591	1,643	1,092	602	1,694	1,108	636	1,744
Ballarat	1,064	361	1,425	1,101	388	1,489	1,131	384	1,515
Bendigo	1,080	370	1,450	1,111	409	1,520	1,125	449	1,574
Geelong	1,045	475	1,520	1,081	496	1,577	1,100	589	1,689
Warrnambool	1,076	461	1,537	1,074	459	1,533	1,096	455	1,551
Weighted Average ..	1,053	569	1,622	1,092	581	1,673	1,109	616	1,725
QUEENSLAND—									
Brisbane	1,055	435	1,490	1,083	438	1,521	1,116	501	1,617
Toowoomba	1,000	388	1,388	1,045	428	1,473	1,105	454	1,559
Rockhampton	1,049	300	1,349	1,092	386	1,478	1,170	407	1,577
Charters Towers ..	1,150	342	1,492	1,171	346	1,517	1,268	349	1,617
Warwick	1,014	413	1,427	1,042	408	1,450	1,121	439	1,560
Weighted Average ..	1,053	415	1,468	1,083	428	1,511	1,126	482	1,608
SOUTH AUSTRALIA—									
Adelaide	1,119	578	1,697	1,149	592	1,741	1,167	569	1,736
Kadina, &c.	1,097	372	1,469	1,158	326	1,484	1,203	310	1,513
Port Pirie	1,137	377	1,514	1,208	394	1,602	1,246	426	1,672
Mount Gambier ..	1,057	304	1,361	1,095	308	1,403	1,143	325	1,468
Peterborough	1,135	460	1,595	1,211	477	1,688	1,238	457	1,695
Weighted Average ..	1,117	558	1,675	1,152	568	1,720	1,171	549	1,720
WESTERN AUSTRALIA—									
Perth, &c.	1,181	492	1,673	1,210	504	1,714	1,165	552	1,717
Kalgoorlie, &c. ..	1,325	345	1,670	1,339	337	1,676	1,327	337	1,664
Northam	1,197	499	1,696	1,257	528	1,785	1,260	527	1,787
Bunbury	1,212	434	1,646	1,255	438	1,693	1,253	434	1,687
Geraldton	1,239	507	1,746	1,284	525	1,809	1,255	529	1,784
Weighted Average ..	1,198	476	1,674	1,228	485	1,713	1,188	525	1,713
TASMANIA—									
Hobart	1,155	598	1,753	1,131	619	1,750	1,167	611	1,778
Launceston	1,147	473	1,625	1,121	495	1,616	1,151	489	1,640
Burnie	1,173	489	1,662	1,137	503	1,640	1,186	482	1,668
Devonport	1,163	480	1,643	1,155	468	1,623	1,177	466	1,643
Queenstown	1,259	305	1,564	1,278	304	1,582	1,301	244	1,545
Weighted Average ..	1,157	544	1,701	1,135	561	1,696	1,168	552	1,720
Weighted Average for 30 Towns	1,085	583	1,668	1,118	597	1,715	1,147	609	1,756
Weighted Average 6 Capital Cities ..	1,082	606	1,688	1,114	619	1,733	1,142	630	1,772

§ 3. Retail Price Index-Numbers, 200 Towns.

1. General.—To supplement the information collected each month for the 30 towns specified in the preceding paragraph, a special investigation was initiated in November, 1913, into retail price index-numbers in 70 additional towns. This investigation was repeated in November, 1914, and again in November, 1915, when the number of additional towns was increased to 120. In November, 1923, the number of additional towns was further increased to 170, and it is intended to institute inquiries in November in each year, thus making information available annually for 200 towns. The results of the first investigation were published in Labour Bulletin No. 5 (Section IV., pages 26

to 33), where some description was given of the methods adopted in making the investigation and in computing the index-numbers. The results of the succeeding yearly investigations have appeared in the Labour Bulletins and Reports of this Bureau.

2. Detailed Results, 1923 to 1926.—The results of the investigation made in November, 1926, are set out in the following tables. The aggregate expenditure on food and groceries separately is shown in the form of index-numbers for each year in column A. In columns B and C the corresponding aggregate expenditure on food, groceries, and rent of 4 rooms, and food, groceries, and rent of 5 rooms are shown for each year for each individual town. The index-number 1,687 represents the weighted average expenditure in 200 towns on food, groceries, and rent of 5-roomed houses; 1,556 represents the average weighted expenditure on food, groceries, and rent of four roomed houses in November, 1926. Similarly, in column A, the index-number 1,072 represents the relative weighted average expenditure on food and groceries only for November, 1926. The figures given in the table are comparable throughout. Thus, taking the average weighted expenditure for all 200 towns on food, groceries, and rent of 5-roomed houses as equal to 1,687, the expenditure on the same items in Melbourne is 1,714, while if 4-roomed houses were substituted for 5-roomed the expenditure in Melbourne would be represented by 1,550.

A change has been made in the basis on which the index-numbers in this table are computed. Previously, the weighted average expenditure on food, groceries, and rent of 5-roomed houses for the 150 towns in each year was taken as base. In the tables on the following pages the same basis is taken as in the case of the tables referring to 30 towns and six capital cities given in the preceding section, i.e. the weighted average expenditure on food, groceries, and housing accommodation in the six capital cities in 1911 is made equal to 1,000.

INDEX-NUMBERS.—COST OF FOOD, GROCERIES, AND HOUSING IN 200 TOWNS IN 1924, 1925, AND 1926, COMPARED WITH THE WEIGHTED AVERAGE COST OF FOOD, GROCERIES, AND RENT FOR ALL HOUSES IN THE SIX CAPITAL CITIES IN 1911 AS BASE (=1,000).

State and Town.	1924. November.			1925. November.			1926. November.		
	Food and Groceries only.	Food, Groceries, and Rent of 4-Roomed Houses.	Food, Groceries, and Rent of 5-Roomed Houses.	Food and Groceries only.	Food, Groceries, and Rent of 4-Roomed Houses.	Food, Groceries, and Rent of 5-Roomed Houses.	Food and Groceries only.	Food, Groceries, and Rent of 4-Roomed Houses.	Food, Groceries, and Rent of 5-Roomed Houses.
	A	B	C	A	B	C	A	B	C
NEW SOUTH WALES—									
Sydney ..	1,022	1,559	1,690	1,072	1,623	1,759	1,096	1,649	1,769
Newcastle ..	1,006	1,447	1,599	1,090	1,603	1,733	1,071	1,576	1,724
Broken Hill ..	1,145	1,467	1,525	1,244	1,570	1,648	1,106	1,563	1,651
Goulburn ..	1,020	1,521	1,694	1,086	1,607	1,695	1,072	1,636	1,713
Bathurst ..	941	1,264	1,376	1,043	1,418	1,488	1,038	1,423	1,506
Albury ..	990	1,648	1,785	1,082	1,812	1,954	1,083	1,817	1,962
Armidale ..	986	1,371	1,469	1,095	1,464	1,674	1,052	1,421	1,631
Ballina ..	1,052	1,546	1,678	1,175	1,644	1,742	1,191	1,639	1,685
Bega ..	1,029	1,322	1,437	1,114	1,432	1,561	1,089	1,331	1,449
Berry ..	1,068	1,331	1,496	1,151	1,464	1,595	1,133	1,445	1,577
Blackheath ..	1,130	1,623	1,738	1,203	1,677	1,779	1,235	1,676	1,771
Bourke ..	1,055	1,266	1,292	1,201	1,382	1,474	1,176	1,407	1,505
Bowral ..	1,060	1,530	1,672	1,118	1,684	1,790	1,182	1,741	1,820
Casino ..	1,063	1,490	1,611	1,157	1,617	1,708	1,163	1,681	1,772
Cessnock ..	1,014	1,529	1,683	1,094	1,664	1,774	1,108	1,651	1,749
Cobar ..	1,073	1,162	1,208	1,156	1,245	1,291	1,174	1,283	1,309
Cooma ..	1,083	1,425	1,537	1,131	1,474	1,615	1,118	1,422	1,611
Coonamble ..	1,077	1,406	1,472	1,143	1,459	1,569	1,105	1,447	1,572
Cootamundra ..	976	1,447	1,549	1,100	1,669	1,807	1,100	1,594	1,791
Corrimal ..	975	1,304	1,370	1,077	1,471	1,498	1,112	1,507	1,533
Cowra ..	1,017	1,438	1,511	1,102	1,536	1,668	1,159	1,559	1,681
Cronulla ..	1,071	1,713	1,845	1,099	1,740	1,878	1,105	1,672	1,832
Cudjiegong ..	1,053	1,289	1,355	(a)	(a)	(a)	(a)	(a)	(a)
Deniliquin ..	1,009	1,336	1,429	1,078	1,412	1,529	1,072	1,391	1,549
Dubbo ..	1,065	1,537	1,641	1,141	1,630	1,741	1,119	1,645	1,733
Forbes ..	1,000	1,491	1,651	1,098	1,609	1,756	1,133	1,609	1,727

(a) Figures not available.

INDEX-NUMBERS.—COST OF FOOD, GROCERIES, AND HOUSING IN 200 TOWNS, ETC.—*continued.*

State and Town.	1924. November.			1925. November.			1926. November.		
	Food and Groceries only.	Food, Groceries, and Rent of 4-Roomed Houses.	Food, Groceries, and Rent of 5-Roomed Houses.	Food and Groceries only.	Food, Groceries, and Rent of 4-Roomed Houses.	Food, Groceries, and Rent of 5-Roomed Houses.	Food and Groceries only.	Food, Groceries, and Rent of 4-Roomed Houses.	Food, Groceries, and Rent of 5-Roomed Houses.
NEW SOUTH WALES—<i>continued.</i>	A	B	C	A	B	C	A	B	C
Gilgandra	1,016	1,268	1,321	1,146	1,398	1,556	1,176	1,505	1,584
Glen Innes	925	1,254	1,401	1,000	1,337	1,505	1,003	1,344	1,532
Grafton	1,035	1,324	1,430	1,093	1,611	1,731	1,079	1,588	1,737
Grenfell	1,038	1,493	1,630	1,120	1,571	1,696	1,092	1,533	1,678
Griffiths	1,006	1,796	1,862	1,166	1,877	2,186	1,151	1,973	2,203
Gungah	995	1,291	1,354	1,093	1,297	1,350	1,034	1,341	1,440
Gunnedah	962	1,333	1,439	1,051	1,437	1,545	1,027	1,417	1,507
Hay	1,085	1,392	1,531	1,175	1,513	1,683	1,151	1,488	1,684
Inverell	1,011	1,373	1,451	1,103	1,513	1,607	1,111	1,590	1,696
Juncie	972	1,564	1,696	1,068	1,699	1,788	1,077	1,756	1,800
Katoomba	1,120	1,619	1,737	1,147	1,663	1,779	1,136	1,719	1,840
Kempsey	1,004	1,398	1,484	1,046	1,472	1,547	1,086	1,527	1,607
Kiama	(a)	(a)	(a)	1,145	1,492	1,651	1,145	1,507	1,606
Kurri Kurri	1,068	1,424	1,496	1,148	1,576	1,658	1,156	1,545	1,605
Leeton	1,097	1,867	1,886	1,172	1,896	1,932	1,176	1,854	1,861
Lismore	1,049	1,404	1,566	1,088	1,490	1,680	1,167	1,696	1,879
Lithgow	1,023	1,422	1,502	1,087	1,489	1,581	1,116	1,535	1,628
Maitland	952	1,409	1,491	1,078	1,578	1,700	1,076	1,560	1,717
Morree	1,104	1,556	1,692	1,183	1,657	1,782	1,194	1,734	1,869
Moss Vale	1,034	1,516	1,670	1,121	1,648	1,779	1,075	1,562	1,680
Mudgee	982	1,398	1,485	1,086	1,503	1,601	1,084	1,486	1,611
Narrabri	960	1,309	1,436	1,096	1,403	1,518	1,066	1,434	1,579
Narrandera	1,069	1,516	1,694	1,164	1,592	1,727	1,189	1,682	1,800
Nowra	1,036	1,481	1,595	1,105	1,553	1,681	1,159	1,650	1,729
Orange	992	1,447	1,565	1,057	1,476	1,561	1,045	1,615	1,760
Parkes	1,020	1,480	1,595	1,110	1,586	1,693	1,096	1,570	1,732
Penrith	1,025	1,340	1,438	1,090	1,491	1,666	1,047	1,448	1,570
Port Kembla	1,057	1,380	1,450	1,120	1,442	1,537	1,109	1,484	1,548
Portland	1,042	1,423	1,535	1,122	1,583	1,623	1,122	1,510	1,635
Queanbeyan	1,057	1,551	1,704	1,136	1,682	1,815	1,135	1,747	1,879
Quirindi	1,034	1,350	1,507	1,134	1,446	1,647	1,092	1,401	1,593
Richmond	1,075	1,493	1,569	1,135	1,547	1,645	1,069	1,460	1,608
Seone	985	1,335	1,491	1,058	1,475	1,607	1,037	1,439	1,606
Singleton	988	1,353	1,442	1,080	1,445	1,534	1,098	1,460	1,592
Tamworth	947	1,380	1,465	1,047	1,519	1,610	1,012	1,427	1,586
Taree	979	1,538	1,686	1,076	1,586	1,750	1,059	1,562	1,706
Temora	1,057	1,584	1,692	1,160	1,703	1,861	1,128	1,622	1,737
Tenterfield	1,010	1,383	1,436	1,079	1,473	1,546	1,130	1,553	1,610
Tumut	1,039	1,533	1,632	1,158	1,619	1,783	1,048	1,498	1,607
Utharra	1,075	1,470	1,602	1,101	1,549	1,601	1,054	1,448	1,527
Wagga Wagga	1,016	1,740	1,838	1,063	1,776	1,989	1,065	1,707	1,822
Walcha	994	1,257	1,405	1,111	1,471	1,572	1,093	1,379	1,626
Wellington	1,018	1,308	1,421	1,109	1,404	1,486	1,101	1,373	1,512
Weston	1,066	1,356	1,395	1,155	1,519	1,583	1,134	1,476	1,562
Windsor	1,052	1,488	1,562	1,143	1,554	1,653	1,098	1,559	1,621
Wollongong	1,045	1,508	1,595	1,092	1,599	1,678	1,126	1,718	1,789
Wyalong	1,099	1,494	1,626	1,125	1,520	1,619	1,072	1,522	1,598
Yass	1,080	1,458	1,524	1,211	1,658	1,737	1,172	1,595	1,681
Young	942	1,376	1,475	1,085	1,671	1,727	1,052	1,585	1,676
Weighted Average for State	1,023	1,527	1,653	1,083	1,607	1,737	1,097	1,626	1,747
VICTORIA—									
Melbourne	963	1,455	1,600	1,053	1,556	1,691	1,024	1,550	1,714
Ballarat	987	1,268	1,384	1,066	1,266	1,506	1,047	1,321	1,489
Bendigo	988	1,293	1,373	1,070	1,403	1,524	1,053	1,392	1,549
Geelong	945	1,318	1,448	1,049	1,475	1,590	1,013	1,521	1,612
Warrnambool	987	1,370	1,497	1,040	1,424	1,545	1,004	1,377	1,517
Ararat	1,049	1,372	1,455	1,174	1,518	1,613	1,143	1,546	1,608
Bacchus Marsh	961	1,389	1,520	1,050	1,408	1,642	1,032	1,493	1,611
Bairnsdale	1,052	1,414	1,578	1,151	1,545	1,677	1,149	1,561	1,681
Beechworth	1,040	1,303	1,369	1,116	1,373	1,440	1,111	1,407	1,473
Benalla	993	1,325	1,421	1,086	1,448	1,560	1,079	1,441	1,533
Camperdown	1,001	1,404	1,527	1,098	1,515	1,647	1,081	1,520	1,621
Casterton	1,013	1,300	1,425	1,111	1,424	1,517	1,097	1,426	1,557
Castlemaine	1,056	1,389	1,505	1,111	1,427	1,550	1,081	1,340	1,485
Colac	1,042	1,574	1,667	1,070	1,591	1,728	1,046	1,588	1,709
Creswick	962	1,107	1,126	1,072	1,230	1,289	1,048	1,180	1,200
Daylesford	986	1,216	1,282	1,064	1,327	1,426	998	1,310	1,369
Dunolly	996	1,147	1,180	1,056	1,214	1,267	1,060	1,218	1,271

(a) Figures not available.

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VICTORIA—<i>continued.</i>	A	B	C	A	B	C	A	B	C
Echuca ..	1,026	1,355	1,470	1,116	1,438	1,570	1,084	1,436	1,594
Euroa ..	1,070	1,389	1,465	1,143	1,479	1,604	1,071	1,404	1,542
Hamilton ..	1,086	1,590	1,744	1,141	1,623	1,744	1,090	1,586	1,706
Healesville ..	1,016	1,430	1,542	1,075	1,469	1,568	1,070	1,498	1,563
Horsham ..	1,065	1,668	1,865	1,117	1,732	1,907	1,096	1,644	1,908
Kerang ..	1,061	1,620	1,752	1,118	1,688	1,797	1,093	1,619	1,773
Koroit ..	988	1,251	1,357	1,075	1,345	1,404	1,040	1,323	1,382
Korumburra ..	1,037	1,497	1,629	1,084	1,545	1,660	1,029	1,473	1,605
Kyneton ..	980	1,316	1,410	1,062	1,397	1,532	1,060	1,429	1,521
Lilydale ..	1,012	1,440	1,572	1,138	1,582	1,747	1,094	1,506	1,637
Maffra ..	1,019	1,622	1,732	1,023	1,615	1,747	1,042	1,700	1,798
Maldon ..	1,000	1,158	1,206	1,061	1,214	1,278	1,037	1,175	1,228
Maryborough ..	1,000	1,214	1,309	1,104	1,337	1,456	1,082	1,336	1,455
Mildura ..	1,084	1,693	1,805	1,152	1,784	1,926	1,131	1,774	1,873
Morwell ..	1,041	1,764	1,830	1,129	1,700	1,853	1,067	1,659	1,746
Nhill ..	1,124	1,550	1,699	1,174	1,700	1,832	1,110	1,636	1,733
Orbost ..	1,047	1,442	1,573	1,127	1,522	1,785	1,101	1,501	1,824
Portland ..	1,067	1,357	1,498	1,187	1,525	1,680	1,105	1,444	1,533
Port Fairy ..	1,016	1,292	1,352	1,096	1,391	1,458	1,072	1,362	1,486
St. Arnaud ..	1,040	1,435	1,514	1,193	1,632	1,752	1,141	1,602	1,759
Sale ..	987	1,432	1,582	1,074	1,537	1,677	1,045	1,515	1,677
Seymour ..	1,062	1,400	1,490	1,145	1,476	1,555	1,123	1,454	1,533
Shepparton ..	1,007	1,476	1,590	1,080	1,633	1,760	1,071	1,637	1,782
Stawell ..	1,087	1,372	1,451	1,179	1,500	1,595	1,185	1,505	1,615
Swan Hill ..	1,052	1,710	1,809	1,098	1,690	1,822	1,098	1,690	1,822
Terang ..	1,041	1,449	1,567	1,125	1,546	1,651	1,117	1,512	1,651
Traralgon ..	1,024	1,386	1,485	1,115	1,461	1,612	1,050	1,407	1,573
Wangaratta ..	1,061	1,458	1,563	1,149	1,590	1,720	1,137	1,579	1,698
Warracknabeal ..	1,020	1,536	1,645	1,131	1,657	1,745	1,139	1,639	1,742
Warragul ..	969	1,429	1,561	1,080	1,551	1,716	1,079	1,609	1,767
Wonthaggi ..	1,049	1,474	1,563	1,145	1,623	1,693	1,072	1,497	1,585
Weighted Average for State	973	1,437	1,574	1,062	1,539	1,671	1,033	1,531	1,686
QUEENSLAND—									
Brisbane ..	970	1,303	1,423	1,068	1,405	1,523	1,041	1,411	1,569
Toowoomba ..	905	1,223	1,324	1,051	1,359	1,505	1,022	1,362	1,491
Rockhampton ..	972	1,211	1,278	1,075	1,372	1,474	1,094	1,399	1,521
Charters Towers ..	1,065	1,322	1,411	1,156	1,422	1,510	1,217	1,484	1,579
Warwick ..	931	1,291	1,352	1,039	1,377	1,450	1,076	1,405	1,536
Ayr ..	1,125	1,546	1,691	1,224	1,685	1,849	1,160	1,584	1,711
Barcaldine ..	1,116	1,477	1,609	1,184	1,579	1,727	1,232	1,587	1,646
Bowen ..	1,079	1,507	1,655	1,184	1,579	1,645	1,179	1,607	1,706
Bundaberg ..	947	1,232	1,327	1,044	1,364	1,439	1,040	1,371	1,496
Cairns ..	1,139	1,596	1,710	1,238	1,786	1,913	1,205	1,797	1,907
Charleville ..	1,077	1,537	1,702	1,183	1,571	1,676	1,214	1,658	1,828
Chillagoe ..	1,063	1,326	1,392	1,277	1,513	1,540	1,281	1,550	1,610
Cloncurry ..	1,178	1,540	1,636	1,212	1,592	1,708	1,238	1,603	1,709
Cooktown ..	1,072	1,173	1,221	1,141	1,273	1,330	1,153	1,284	1,363
Cunnamulla ..	1,074	1,403	1,468	1,186	1,515	1,581	1,227	1,654	1,687
Dalby ..	981	1,310	1,375	1,051	1,412	1,495	1,063	1,431	1,524
Gayndah ..	952	1,245	1,310	1,093	1,383	1,455	1,114	1,411	1,476
Gladstone ..	1,020	1,283	1,415	1,109	1,385	1,437	1,097	1,352	1,492
Goondiwindi ..	1,033	1,362	1,471	1,139	1,554	1,643	1,113	1,519	1,607
Gympie ..	990	1,286	1,352	1,087	1,399	1,493	1,090	1,397	1,518
Hughenden ..	1,101	1,583	1,682	1,197	1,734	1,866	1,276	1,723	1,830
Innisfail ..	1,211	1,649	1,803	1,316	1,842	1,974	1,298	1,825	1,956
Ipswich ..	963	1,246	1,331	1,044	1,373	1,439	1,096	1,454	1,524
Longreach ..	1,073	1,446	1,591	1,177	1,561	1,646	1,260	1,654	1,760
Mackay ..	987	1,407	1,511	1,087	1,536	1,671	1,094	1,576	1,730
Maryborough ..	953	1,233	1,351	1,051	1,347	1,449	1,041	1,337	1,462
Mount Morgan ..	1,023	1,300	1,346	1,071	1,282	1,321	1,117	1,328	1,367
Nambour ..	994	1,410	1,498	1,085	1,458	1,541	1,103	1,520	1,623
Roma ..	1,010	1,326	1,434	1,109	1,468	1,545	1,135	1,534	1,644
Stanthorpe ..	1,075	1,431	1,503	1,153	1,548	1,614	1,155	1,484	1,537
Townsville ..	1,085	1,569	1,719	1,176	1,655	1,797	1,216	1,733	1,894
Winton ..	1,108	1,656	1,722	1,199	1,802	1,912	1,288	1,803	1,902
Weighted Average for State	987	1,320	1,430	1,085	1,430	1,540	1,080	1,448	1,586

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SOUTH AUSTRALIA—	A	B	C	A	B	C	A	B	C
Adelaide	1,020	1,516	1,645	1,067	1,567	1,688	1,056	1,541	1,641
Kadina, etc.	1,014	1,281	1,373	1,110	1,369	1,450	1,120	1,370	1,458
Port Pirie	1,060	1,399	1,479	1,154	1,500	1,596	1,137	1,515	1,615
Mount Gambier .. .	994	1,233	1,316	1,040	1,266	1,362	1,062	1,322	1,369
Peterborough	1,103	1,502	1,584	1,116	1,520	1,596	1,149	1,566	1,647
Freeling	1,083	1,379	1,445	1,105	1,473	1,539	1,073	1,487	1,586
Gawler	1,016	1,398	1,457	1,050	1,386	1,458	1,065	1,425	1,504
Kapunda	1,004	1,215	1,327	1,073	1,284	1,349	1,030	1,208	1,327
Koranga	1,053	1,448	1,514	1,101	1,298	1,386	1,074	1,272	1,360
Millicent	966	1,427	1,440	986	1,299	1,388	996	1,328	1,414
Murray Bridge .. .	1,023	1,474	1,582	1,070	1,491	1,543	1,099	1,543	1,645
Port Augusta	1,123	1,448	1,551	1,209	1,565	1,648	1,186	1,560	1,625
Quorn	1,028	1,518	1,620	1,100	1,536	1,643	1,089	1,496	1,544
Victor Harbour .. .	1,050	1,642	1,774	1,102	1,635	1,777	1,085	1,592	1,750
Renmark	1,116	1,613	1,749	1,231	1,708	1,840	1,206	1,654	1,763
Weighted Average for State	1,024	1,494	1,616	1,074	1,545	1,661	1,065	1,524	1,623
WESTERN AUSTRALIA—									
Perth and Fremantle ..	1,114	1,527	1,618	1,065	1,476	1,569	1,062	1,510	1,620
Kalgoorlie and Boulder ..	1,258	1,590	1,651	1,235	1,556	1,611	1,215	1,530	1,600
Northam	1,074	1,496	1,612	1,161	1,556	1,732	1,163	1,577	1,739
Bunbury	1,137	1,507	1,601	1,134	1,504	1,598	1,177	1,521	1,679
Geraldton	1,192	1,632	1,704	1,172	1,619	1,751	1,168	1,609	1,745
Albany	1,204	1,498	1,609	1,230	1,532	1,626	1,183	1,505	1,602
Beverley	1,132	1,366	1,423	1,119	1,384	1,472	1,137	1,435	1,519
Bridgetown	1,193	1,538	1,604	1,232	1,643	1,709	1,247	1,603	1,641
Broome	1,330	1,988	2,053	1,322	1,980	2,045	1,428	2,020	2,152
Carnarvon	1,184	1,710	1,776	1,329	1,823	1,921	1,301	1,795	1,926
Collie	1,172	1,567	1,632	1,236	1,598	1,664	1,205	1,506	1,639
Greenbushes	1,242	1,440	1,466	1,251	1,435	1,474	1,257	1,454	1,507
Katanning	1,077	1,459	1,577	1,089	1,473	1,553	1,114	1,466	1,574
Leonora and Gwalia ..	1,399	1,557	1,597	1,354	1,512	1,551	1,379	1,560	1,643
Meekatharra	1,364	1,627	1,693	1,430	1,693	1,759	1,409	1,672	1,738
Narrogin	1,154	1,628	1,812	1,160	1,643	1,792	1,156	1,639	1,788
Wagin	1,185	1,491	1,537	1,144	1,467	1,575	1,133	1,479	1,528
York	1,176	1,522	1,574	1,213	1,558	1,637	1,127	1,479	1,527
Weighted Average for State	1,138	1,536	1,624	1,103	1,499	1,590	1,098	1,522	1,627
TASMANIA—									
Hobart	1,051	1,579	1,724	1,077	1,554	1,718	1,066	1,574	1,750
Launceston	1,057	1,444	1,610	1,064	1,459	1,610	1,045	1,427	1,605
Burnie	1,042	1,485	1,621	1,110	1,575	1,689	1,079	1,529	1,595
Devonport	1,080	1,524	1,641	1,098	1,501	1,651	1,083	1,512	1,592
Queenstown	1,185	1,448	1,527	1,225	1,488	1,567	1,193	1,403	1,443
Beaconsfield	1,099	1,218	1,257	1,069	1,174	1,201	1,060	1,139	1,165
Campbelltown	1,045	1,259	1,333	1,094	1,298	1,340	1,081	1,296	1,316
Deloraine	1,014	1,363	1,396	1,023	1,352	1,418	1,014	1,389	1,428
Franklin	1,061	1,298	1,325	1,063	1,300	1,326	1,072	1,309	1,335
New Norfolk	1,032	1,361	1,460	1,057	1,393	1,449	1,045	1,367	1,436
Scottsdale	1,039	1,336	1,418	1,060	1,367	1,429	1,059	1,357	1,432
Ulverstone	1,030	1,380	1,477	1,082	1,411	1,510	1,057	1,321	1,452
Zeehan	1,154	1,364	1,430	1,256	1,454	1,519	1,252	1,450	1,515
Weighted Average for State	1,059	1,509	1,647	1,083	1,506	1,652	1,069	1,502	1,654
Weighted Average for Australia	1,012	1,472	1,597	1,077	1,549	1,675	1,072	1,556	1,687

By deducting the index-number in column A from those in column B and C, the relative aggregate expenditure on housing accommodation can be ascertained. Thus, for November, 1926, the index-number for food and groceries in Melbourne (column A) is 1024. Subtracting this from 1,550 (column B) gives a difference of 526, which is the relative cost of house rent for houses of 4 rooms, and from 1,714 (column C) gives a difference of 690, which is the relative cost of house rent for houses of 5 rooms.

Similarly the relative cost of housing accommodation can be ascertained for each of the towns included.

A table showing the retail price index-numbers (food and groceries) for each of the thirty towns for various months since July, 1914, appeared in previous issues, but considerations of space preclude its repetition in the present issue. This table is however, given in Labour Reports issued by this Bureau.

§ 4. Variations in the Cost of Food, Groceries, Rent, Clothing, and Miscellaneous Expenditure.

1. General.—The index-numbers in §3 show the variations in the cost of food, groceries and house rent. The expenditure on these items covers approximately 60 per cent. of the total expenditure of the ordinary household. The balance is expended on clothing, boots, fuel, light, and such miscellaneous items as renewals of furniture, furnishings, drapery, crockery, lodge dues, trade union dues, recreation, newspapers, etc. The Royal Commission on the Basic Wage recommended in its report that a method should be adopted of ascertaining from time to time the rise and fall in the purchasing-power of money in its relation to the total household expenditure. The Government adopted the recommendation, and the duty of carrying out the necessary investigations was entrusted to the Bureau of Census and Statistics, which adopted the methods hereunder described.

2. Methods Adopted.—The Commission was concerned principally with the ascertainment of variations in the cost of the regimen described in the Indicator Lists published in its Report. It is clear, however, that restriction of the investigations of the Bureau of Census and Statistics in the way suggested by the Commission, would have limited their usefulness. It was decided, therefore, to apply to the extended investigation the method of index-numbers already used in the investigations into variations in the cost of food, groceries, and rent. The index-numbers may be used to determine accurately from time to time the rise and fall in the purchasing-power of money in relation to the reasonable standard of comfort for the typical family as outlined by the Commission, as well as for the determination of variations in any standard fixed by previous investigators, or which may be fixed in the future.

After careful investigation it was decided to adopt for food, groceries, and house rent, the commodities, method, and weighting used by this Bureau. The commodities and quantities adopted for food and groceries conform very closely to those given in the Indicator Lists of the Commission. With regard to rent, the Commission adopted a certain type of five-roomed house as its standard for determining the amount allowed for housing. The investigations made by this Bureau are not confined to a particular type of house, but the average rentals paid for houses of four and five rooms are taken. The results can be used with safety to show the variations in the type of house described by the Commission.

The investigations of this Bureau advisedly had been confined to food, groceries, and house rent,* and it was necessary, therefore, to make investigations into the cost of clothing and miscellaneous expenditure. With regard to clothing, the Basic Wage Commission collected a large amount of information as to prices and life of articles, and this has been utilized in computing the index-numbers given in the following tables. Forms were sent out to retailers on which the prices of the articles at November, 1920, were given. These prices, so far as the capital cities are concerned (being in general the prices quoted by the firms to whom the forms were sent), are the predominant prices, i.e., the price of the grade of the articles which is most in demand. The retailers were asked to quote for November, 1921, and for May, 1922, the prices of the same articles. In order to ascertain the change in expenditure, the quantities and life as given in the Indicator Lists of the Basic Wage Commission were used for "weighting" purposes to arrive at a weekly expenditure for clothing. This weekly expenditure is then multiplied by weights in the same manner as is the weekly expenditure on rent, thus giving an aggregate expenditure comparable with the aggregate expenditure on food and groceries and on rent.

* See pages 22-25 of Labour Report No. 12.

With regard to Miscellaneous Expenditure, which covers a very wide field, inquiries were made as to variations in cost of fuel and light, household utensils, drapery, crockery, etc., and also with regard to other items included in the Indicator Lists for Miscellaneous Expenditure, and the aggregate expenditure on these items has been computed in the same manner as that for clothing.

The item Groceries (not Food) has been omitted from Miscellaneous Expenditure, as the index-numbers of this Bureau cover the items allowed for, such as soap, starch, blue, etc.

3. Period Selected as Base.—For the new index-numbers November, 1914, was adopted as base owing to the difficulty of securing information with regard to prices of clothing and miscellaneous items for earlier years, but they may be accepted as typical of immediate pre-war conditions.

4. Variations in Cost in the Capital Cities.*—The index-numbers in the following table show the variations not only in each city from period to period, but also as between the various cities at any given period. Thus, the increase in cost in the six capital cities from November, 1914, was greatest in November, 1920, when it amounted to 69.7 per cent. The increase for the year 1926, compared with November, 1914, was 47.1 per cent. Further, in 1926 the cost of the commodities and services included was greatest in Hobart (1,506) and least in Brisbane (1,383).

INDEX-NUMBERS, TOTAL HOUSEHOLD EXPENDITURE, CAPITAL CITIES.— 1914 TO 1926.

(NOTE.—Weighted average cost in November, 1914, for all articles in capital cities taken as base = 1,000),

Cities.	November.				Year.		
	1914.	1921.	1922.	1923.	1924.	1925.	1926.
Sydney	1,036	1,523	1,486	1,488	1,458	1,478	1,503
Melbourne	976	1,460	1,402	1,460	1,420	1,432	1,453
Brisbane	889	1,344	1,276	1,343	1,332	1,344	1,383
Adelaide	1,018	1,440	1,388	1,467	1,476	1,496	1,493
Perth	1,029	1,467	1,355	1,422	1,430	1,446	1,444
Hobart	999	1,556	1,450	1,517	1,529	1,496	1,506
Weighted Average ..	1,000	1,474	1,420	1,460	1,436	1,451	1,471

§ 5. Control of Trade, Prices, and House Rents.

In previous issues of the Year Book information was given as to the legislative measures enacted by Federal and State Parliaments for the control of trade, prices, and house rents.

In Queensland the Profiteering Prevention Act 1920, and the Fair Rents Act 1920, and in New South Wales the Fair Rents Act 1915, amended in 1920, are still in force. Similar legislative measures enacted by the other States and by the Federal Parliament have been repealed or allowed to expire by effluxion of time.

B. WAGES.

§ 1. Operations under Wages Board and Industrial Arbitration Acts.

1. General.—Particulars of the operations of Wages Boards and Industrial and Arbitration Courts under the Commonwealth and State Acts for the regulation of wages, hours, and conditions of labour were first compiled to the 31st December, 1913, and reviews to the end of approximately quarterly periods appear in Labour Bulletins and Quarterly Summaries to the 31st December, 1926.

* In Labour Report No. 17, index-numbers are given showing the relative cost from November, 1921, to end of 1926, in 30 of the principal towns in Australia.

2. Awards, Determinations, Industrial Agreements.—The following table gives a summary for each quarter for the years 1925 and 1926 :—

AWARDS, DETERMINATIONS, AND INDUSTRIAL AGREEMENTS, 1925 AND 1926.

State and Commonwealth.	1st Quarter.		2nd Quarter.		3rd Quarter.		4th Quarter.		Full Year.	
	Awards or Determinations made.	Agreements Filed.	Awards or Determinations made.	Agreements Filed.	Awards or Determinations made.	Agreements Filed.	Awards or Determinations made.	Agreements Filed.	Awards or Determinations made.	Agreements Filed.
1925.										
New South Wales	1	8	11	6	15	5	5	16	32	35
Victoria ..	13	..	20	..	12	..	22	..	67	..
Queensland ..	..	7	19	9	26	9	60	8	105	33
South Australia	12	1	9	..	18	1	8	3	47	5
Western Australia	..	20	..	16	2	16	2	14	4	66
Tasmania ..	2	..	1	1	..	..	2	..	5	1
Cwlth. Court ..	6	11	11	11	4	10	35	10	56	42
Cwlth. Pub. Ser. Arbitrator ..	..	..	..	..	2	..	2	..	4	..
Total ..	34	47	71	43	79	41	136	51	320	182
1926.										
New South Wales	27	21	6	17	35	6	83	7	151	51
Victoria ..	13	..	19	..	38	..	36	..	106	..
Queensland ..	25	7	20	8	11	8	34	4	90	27
South Australia	1	3	1	2	7	..	5	2	14	7
Western Australia	1	10	..	7	1	6	8	14	10	37
Tasmania ..	2	..	..	..	2	2	3	..	7	2
Cwlth. Court ..	10	10	11	8	9	6	20	6	50	30
Cwlth. Pub. Ser. Arbitrator ..	3	..	2	..	3	..	2	..	10	..
Total ..	82	51	59	42	106	28	191	33	438	154

3. Boards Authorized, Awards, etc., in Force.—(i) *Totals for Australia.* The following table gives particulars at the dates specified for all States—excepting Western Australia, in which State there is no provision for Boards—of Boards authorized, etc., and including operations under the Commonwealth and the Western Australian Arbitration Acts, of the number of awards, determinations, and industrial agreements in force :—

BOARDS AUTHORIZED, ETC., AWARDS, ETC.—AUSTRALIA, 1913, 1925, AND 1926.

Dates.	Boards Authorized.	Boards Constituted.	Boards which had made Awards or Determinations.	Awards or Determinations in Force.(a)	Industrial Agreements in Force.
31st December, 1913	505	501	387(b)	401
30th June, 1925	571	537	518	583
31st December, 1925	575	541	524	607
30th June, 1926	588	554	524	656
31st December, 1926	599	565	538	681

(a) Including awards made by Arbitration Courts and the Commonwealth Public Service Arbitrator. (b) Owing to the fact that a number of awards under the New South Wales Industrial Disputes Act (1908) were still in force, the Boards constituted for such industries under the Industrial Arbitration Act (1912) had not made any awards. (c) Excluding awards or determinations which expired in New South Wales under the Act of 1908) on 31st December, 1913.

Considerable expansion of the principle of the fixation of a legal minimum rate of wage and of working conditions took place during the period under review. At the end of 1926, the number of awards or determinations and industrial agreements* in force had increased by 687 and 280 respectively over the number in force at the 31st December, 1913.

(ii) *Summary for States.* The following table gives particulars for each State and the Commonwealth of the number of Boards authorized, etc., for the years specified:—

BOARDS AUTHORIZED, AWARDS, ETC.—SUMMARY, 1913, 1925, AND 1926.

Particulars.	At 31st. Dec.	Commonwealth.			Vic.	Q'land.	S.A.	W.A.	Tas.	Total.
		Court.	Pub. Ser. Arb.	N.S.W.						
<i>Boards Authorized, etc. (a)—</i>										
Boards authorized ..	{ 1913			(b) 216	135	75	56	..	23	505
	{ 1925			269	180	2	75	..	49	575
	{ 1926			291	182	2	75	..	49	599
Boards constituted ..	{ 1913			(b) 223	132	74	51	..	21	501
	{ 1925			269	178	2	49	..	43	541
	{ 1926			291	180	2	49	..	43	565
Boards which have made Awards or Determina- tions ..	{ 1913			123	123	74	47	..	19	386
	{ 1925			253	166	..	66	..	39	524
	{ 1926			265	168	..	66	..	39	538
<i>Awards and Determinations—</i>										
Awards and Determina- tions in force ..	{ 1913	17	..	(c) 265	127	73	54	18	21	575
	{ 1925	179	32	321	177	223	101	99	49	1,181
	{ 1926	199	34	346	179	237	109	107	51	1,262
<i>State Awards and Determina- tions—</i>										
Applying to Whole State ..	{ 1913			32	8	3	..	..	15	58
	{ 1925			32	66	66	15	4	40	223
	{ 1926			54	67	66	16	5	41	249
Applying to Metropolitan area ..	{ 1913			58	..	28	53	13	1	153
	{ 1925			91	1	52	62	56	..	262
	{ 1926			94	2	60	64	59	1	280
Applying to Metropolitan and Country areas ..	{ 1913			49	105	1	..	1	5	161
	{ 1925			136	97	45	2	8	7	295
	{ 1926			133	97	47	2	10	7	296
Applying to Country areas ..	{ 1913			126	14	41	1	4	..	186
	{ 1925			62	13	60	22	31	2	190
	{ 1926			65	13	64	27	33	2	204
<i>Commonwealth Court Awards—</i>										
Awards in force in each State ..	{ 1913			13	17	15	16	9	13	..
	{ 1925			115	131	35	99	36	66	..
	{ 1926			123	144	39	111	41	78	..
<i>C'wealth Public Service Arbitrator—</i>										
Determinations in force in each State ..	{ 1925			31	27	26	26	26	25	..
	{ 1926			32	29	27	27	27	26	..
<i>Industrial Agreements—</i>										
In force ..	{ 1913	228	..	75	..	5	11	82	..	401
	{ 1925	229	..	142	..	86	46	101	3	607
	{ 1926	252	..	167	..	95	48	115	4	681
C'wealth Agreements in force in each State ..	{ 1913			132	129	68	62	57	61	..
	{ 1925			80	93	27	26	19	24	..
	{ 1926			90	105	28	25	19	25	..

(a) The figures for New South Wales are exclusive of Demarcation Boards.

(b) Including boards which were subsequently dissolved, owing to alteration in the sectional arrangement of industries and callings.

(c) Omitting a number of awards which expired on the 31st December, 1913.

§ 2. Rates of Wage and Hours of Labour.

1. *General.*—The collection of information respecting the current rates of wage payable in different callings and in occupations in various industries was first undertaken by the Commonwealth Bureau of Census and Statistics in the early part of the year 1913. The particulars acquired were obtained primarily from awards, determinations and agreements, under Commonwealth and State Acts, and therefore show the minimum rates prescribed. They refer generally to the capital city in each State, but in industries which obviously are not carried on in the capital cities, *e.g.*, mining, agriculture, etc., the rates in the more important centres have been taken. In cases where no award, determination, or agreement

* The registration of industrial agreements is not provided for under the Victorian Act, but such agreements may be registered and filed under the provisions of the Commonwealth Conciliation and Arbitration Act.

is in force, particulars are given, where available, of the ruling union or predominant rate as furnished by employers or secretaries of trade unions. The total number of occupations for which particulars of wages are available back to 1901 is 652. Since 1913, when the scope of the inquiry was extended to 930 specified industries and 4,256 adult occupations (3,948 male and 308 female), the number of occupations included in the comparative computations has been kept constant.

The index-numbers for male adult workers were computed with the weighted average wage in 1911 as base (=1,000) in order that comparisons might more readily be made between these index-numbers and the retail prices index-numbers which are also computed to the year 1911 as base. In the case of females, however, it has not been possible to secure information for years prior to 1914, and the index-numbers are therefore computed with the weighted average rate of wage payable to adult female workers in Australia at 30th April, 1914, as base (=1,000).

An extensive tabular presentation of the minimum rates of wage for adult male and female workers in the main occupations in the capital city of each State is given in the Appendix to Labour Report, No. 17.

2. Weekly Rates of Wage, 1921 to 1926.—(i) *General*. The arithmetical average of the rates of wage given in the Appendix referred to furnishes the basis for the computation of relative weighted wages in the different States and industrial groups.

(ii) *Adult Males—States*. The following table gives the weighted average nominal weekly rates of wage payable to adult male workers at the 31st December in the years 1921 to 1926 for a full week's work in each State and Australia, together with index-numbers computed with the average for Australia for the year 1911 as base (=1,000).

WAGES.—ADULT MALES—WEIGHTED AVERAGE NOMINAL WEEKLY RATE PAYABLE FOR A FULL WEEK'S WORK, AND WAGE INDEX-NUMBERS, 31st DECEMBER, 1921 TO 1926.

NOTE.—Index-numbers based on the average wage for Australia in 1911 (51s. 3d.) as base (=1,000). The index-numbers in this table are comparable throughout.

Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Australia. (a)
No. of Occupations Included ..	874	909	627	567	489	482	3,948

RATES OF WAGE.

	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
31st December, 1921 ..	95 10	93 7	96 8	89 5	95 0	91 8	94 6
31st December, 1922 ..	91 6	91 4	93 10	87 6	93 9	88 5	91 6
31st December, 1923 ..	94 6	95 7	94 2	90 9	94 2	92 4	94 4
31st December, 1924 ..	93 6	95 5	95 9	91 10	94 8	92 6	94 3
31st December, 1925 ..	96 0	97 2	99 11	94 4	97 0	93 5	96 9
31st March, 1926 ..	96 3	97 5	100 2	95 0	96 10	93 7	97 0
30th June, 1926 ..	96 11	98 2	100 3	95 10	97 6	94 6	97 7
30th September, 1926 ..	97 7	99 9	100 4	97 0	98 5	95 2	98 6
31st December, 1926 ..	100 5	99 6	100 1	95 8	98 9	94 10	99 4

INDEX-NUMBERS.

31st December, 1921 ..	1,869	1,826	1,886	1,745	1,853	1,788	1,844
31st December, 1922 ..	1,785	1,783	1,830	1,708	1,829	1,726	1,785
31st December, 1923 ..	1,844	1,865	1,837	1,770	1,838	1,802	1,840
31st December, 1924 ..	1,824	1,862	1,868	1,791	1,847	1,805	1,839
31st December, 1925 ..	1,873	1,897	1,950	1,841	1,893	1,823	1,887
31st March, 1926 ..	1,879	1,901	1,955	1,854	1,890	1,827	1,892
30th June, 1926 ..	1,891	1,916	1,956	1,870	1,902	1,843	1,904
30th September, 1926 ..	1,905	1,947	1,958	1,892	1,921	1,856	1,922
31st December, 1926 ..	1,959	1,941	1,952	1,867	1,927	1,851	1,938

(a) Weighted average.

The results show that at the 31st December, 1926, the weighted average nominal weekly rate of wage was highest in New South Wales, followed in the order named by Queensland, Victoria, Western Australia, South Australia, and Tasmania. In all States wages increased rapidly from December, 1919, to the end of 1921. During 1922, however,

the average declined on account of adjustments made in accordance with the decrease in the cost of living. In 1923, the average wage increased in each State. During 1924, wages decreased in New South Wales and Victoria, but there was sufficient movement in the opposite direction in the remaining States to allow the weighted average for Australia as a whole to remain practically stationary. Nominal wages showed an upward trend in all States during 1925, with the sole exception of Victoria, where the weighted average nominal weekly rate at 31st March, 1925, showed a slight decrease as compared with the rate at 31st December, 1924. Subsequently, however, wages in Victoria rose steadily. During 1926, the trend of nominal wages was progressively upward in all States, with the exception of the final quarter, when all States except New South Wales and Western Australia showed decreases. The steady rise however continued in the weighted average wage for Australia, mainly due to the substantial rise in New South Wales in the final quarter. The largest percentage increase during the period under review was in South Australia with 7.0 per cent., followed by Victoria 6.3 per cent., New South Wales 4.8 per cent., Western Australia 4.0 per cent., and Queensland and Tasmania 3.5 per cent. The increase in the weighted average for Australia was 5.1 per cent.

(iii) *Adult Males—Industrial Groups.* The following table shows (a) the average weekly rate of wage in each of the fourteen industrial groups, (b) the weighted average wage for all groups combined, and (c) index-numbers based on the average wage for all groups in 1911 (5ls. 3d.), as base (=1,000):—

WAGES.—ADULT MALES—WEIGHTED AVERAGE NOMINAL WEEKLY RATE FOR A FULL WEEK'S WORK, AND WAGE INDEX-NUMBERS IN EACH INDUSTRIAL GROUP, 31st DECEMBER, 1922 TO 1926.

NOTE.—Index-numbers for each industrial group and all industrial groups, based on the average wage for all groups in 1911 (5ls. 3d.), as base (=1,000). The index-numbers in this table are comparable throughout.

Industrial Group.	Weighted Average Nominal Weekly Rate of Wage, and Index-Number at—							
	31st Dec., 1922.	31st Dec., 1923.	31st Dec., 1924.	31st Dec., 1925.	31st March, 1926.	30th June, 1926.	30th Sept., 1926.	31st Dec., 1926.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
I. Wood, Furniture, etc.	Wage ... 95.4	99.2	99.7	101.2	101.5	101.9	104.6	104.5
	Index-No. 1,860	1,935	1,943	1,973	1,980	1,986	2,038	2,037
II. Engineering, etc.	Wage ... 93.10	97.4	97.5	100.4	100.5	101.3	102.10	102.0
	Index-No. 1,832	1,900	1,901	1,957	1,959	1,975	2,007	1,991
III. Food, Drink, etc.	Wage ... 91.10	94.2	94.0	96.6	96.10	97.2	98.11	98.9
	Index-No. 1,792	1,837	1,835	1,883	1,890	1,896	1,930	1,926
IV. Clothing, Boots, etc.	Wage ... 91.1	93.11	93.0	93.2	94.10	94.10	95.9	96.6
	Index-No. 1,777	1,833	1,815	1,817	1,851	1,851	1,868	1,883
V. Books, Printing, etc.	Wage ... 102.9	104.5	108.3	109.6	110.5	110.6	111.2	111.5
	Index-No. 2,004	2,037	2,113	2,137	2,155	2,156	2,168	2,173
VI. Other Manufacturing	Wage ... 91.11	96.2	95.6	98.2	98.5	99.3	101.2	100.6
	Index-No. 1,793	1,876	1,863	1,915	1,920	1,937	1,973	1,961
VII. Building	Wage ... 100.5	103.8	105.6	108.5	109.0	109.8	110.9	110.9
	Index-No. 1,960	2,023	2,058	2,115	2,126	2,140	2,160	2,160
VIII. Mining, etc.	Wage ... 103.8	104.5	104.2	108.7	108.10	108.11	109.2	109.6
	Index-No. 2,022	2,037	2,033	2,119	2,123	2,125	2,130	2,137
IX. Railways, etc.	Wage ... 93.4	97.8	96.11	100.6	101.2	101.10	103.8	102.6
	Index-No. 1,821	1,906	1,892	1,962	1,975	1,986	2,023	2,001
X. Other Land Transport	Wage ... 88.5	92.6	89.4	93.3	93.3	93.5	94.6	95.6
	Index-No. 1,725	1,806	1,744	1,820	1,820	1,823	1,843	1,863
XI. Shipping, etc. (a)	Wage ... 99.9	102.4	97.10	104.8	104.9	105.1	105.9	103.7
	Index-No. 1,947	1,997	1,908	2,043	2,044	2,051	2,063	2,020
XII. Agricultural, etc. (b)	Wage ... 83.11	85.8	85.10	87.4	87.7	88.9	89.0	93.5
	Index-No. 1,637	1,671	1,675	1,704	1,708	1,732	1,736	1,823
XIII. Domestic, etc. (b)	Wage ... 82.4	84.6	86.0	89.1	89.1	89.9	89.10	90.10
	Index-No. 1,606	1,648	1,678	1,738	1,738	1,751	1,753	1,772
XIV. Miscellaneous	Wage ... 88.8	92.3	92.2	93.11	94.0	94.5	95.4	95.6
	Index-No. 1,730	1,800	1,798	1,833	1,834	1,842	1,860	1,863
All Industrial Groups (c)	Wage ... 91.6	94.4	94.3	96.9	97.0	97.7	98.6	99.4
	Index-No. 1,785	1,840	1,839	1,887	1,892	1,904	1,922	1,938

(a) Including the value of victualling and accommodation where supplied. (b) Including the value of board and lodging where supplied. (c) Weighted average.

The foregoing table shows that the rate of increase in the weighted average weekly wage in occupations and callings classified in the fourteen industrial groups during the period 31st December, 1922 to 1926, was greatest in Group XII. (Agricultural, etc.) 11.4 per cent., followed in the order named by Groups XIII. (Domestic, etc.), 10.3 per cent., VII. (Building), 10.2 per cent., IX. (Railways, etc.), 9.9 per cent., and I. (Wood, Furniture

etc.), 9.5 per cent. The smallest increase occurred in Group XI. (Shipping, etc.), 3.7 per cent. In seven of the groups the increase was more, and in seven groups less than the increase in the weighted average for all groups. During the year 1926, increases in average wages occurred in all industrial groups, with the exception of Group XI. (Shipping, etc.), which showed a decrease of 1.1 per cent. The increase was greatest in Group XII. (Agricultural, etc.) 7 per cent., followed by 3.6 per cent. in Group IV. (Clothing, Boots, etc.), 3.2 per cent. in Group I. (Wood, Furniture, etc.), and 2.4 per cent. in Groups VI. (Other Manufacturing) and X. (Other Land Transport). The percentage increase during the year was least in Group VIII. (Mining), 0.8 per cent. The weighted average wage for all groups combined increased by 2.7 per cent.

(iv) *Adult Females—States.* The following table shows the weighted average weekly rate of wage payable to adult female workers for a full week's work in each State and Australia at the dates specified. Index-numbers are given also for each State based on the average weekly wage at the end of each of the periods indicated, computed with the weighted average wage for all States at the 30th April, 1914, as base (=1,000).

WAGES.—ADULT FEMALES—WEIGHTED AVERAGE NOMINAL WEEKLY RATE PAYABLE FOR A FULL WEEK'S WORK, AND WAGE INDEX-NUMBERS, 31st DECEMBER, 1921 TO 1926.

NOTE.—Index-numbers based on the average wage for Australia at the 30th April, 1914 (27s. 2d.) as base (=1,000). The index-numbers in this table are comparable throughout.

Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aus- tralia.(a)
No of Occupations Included ..	85	87	37	47	24	28	308

RATES OF WAGE.

	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
31st December, 1921 ..	49 0	47 10	50 3	45 2	56 4	57 6	48 8
31st December, 1922 ..	47 8	48 0	48 2	44 0	56 4	47 7	47 11
31st December, 1923 ..	49 3	49 5	50 5	46 4	56 4	48 6	49 6
31st December, 1924 ..	49 1	49 7	50 10	46 6	56 11	50 3	49 7
31st December, 1925 ..	49 8	50 8	51 9	48 10	57 6	50 2	50 7
31st March, 1926 ..	50 2	51 5	52 7	49 7	57 6	50 9	51 2
30th June, 1926 ..	50 2	51 6	52 7	49 8	57 6	50 9	51 3
30th September, 1926 ..	50 5	51 7	52 7	50 0	57 9	50 11	51 5
31st December, 1926 ..	50 8	51 11	52 10	50 0	58 6	51 8	51 8

INDEX-NUMBERS.

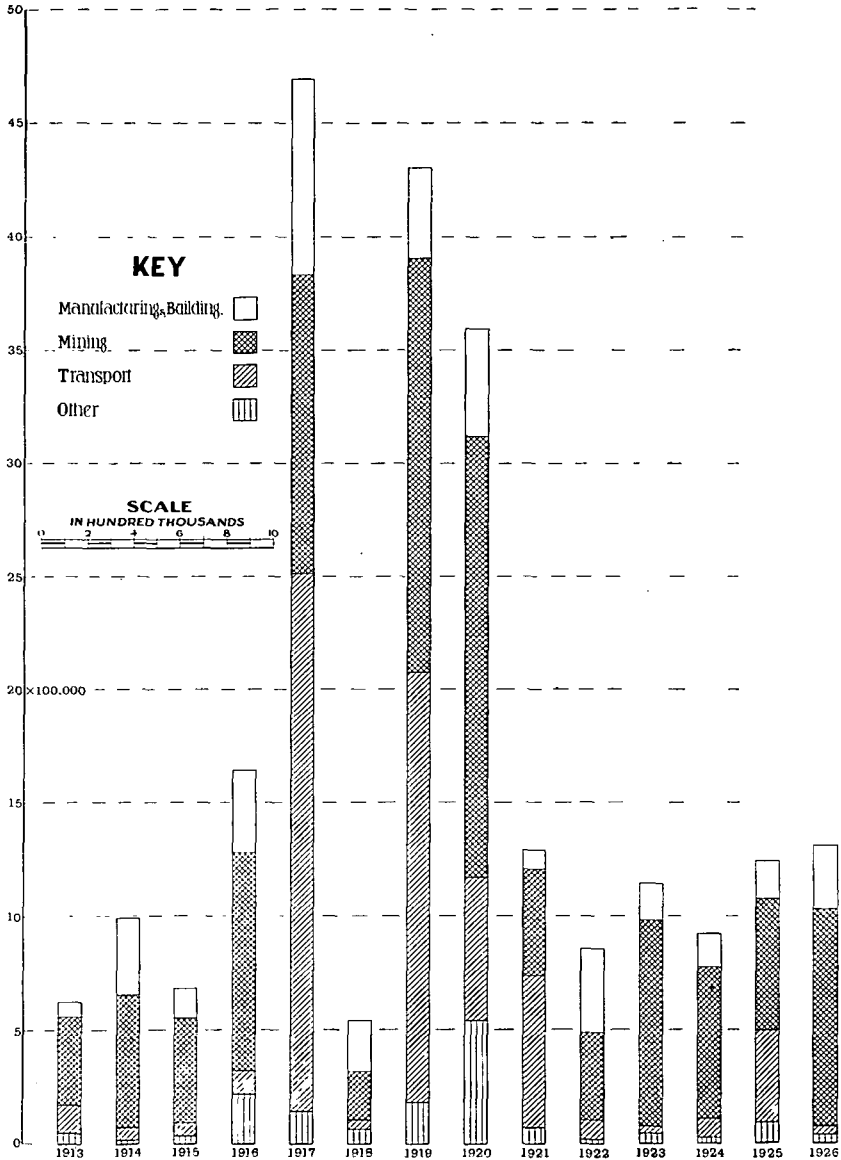
	1,803	1,761	1,849	1,661	2,074	1,749	1,790
31st December, 1921 ..	1,803	1,761	1,849	1,661	2,074	1,749	1,790
31st December, 1922 ..	1,754	1,767	1,771	1,620	2,075	1,751	1,763
31st December, 1923 ..	1,812	1,819	1,855	1,704	2,075	1,785	1,821
31st December, 1924 ..	1,807	1,824	1,872	1,710	2,094	1,850	1,826
31st December, 1925 ..	1,827	1,866	1,904	1,796	2,116	1,845	1,861
31st March, 1926 ..	1,847	1,892	1,935	1,826	2,116	1,868	1,884
30th June, 1926 ..	1,847	1,895	1,935	1,827	2,117	1,868	1,886
30th September, 1926 ..	1,856	1,900	1,936	1,839	2,127	1,873	1,892
31st December, 1926 ..	1,865	1,911	1,944	1,839	2,152	1,902	1,902

(a) Weighted average.

As in the case of male occupations, female wages increased rapidly up to December, 1921, but in 1922 reductions were recorded. The decrease over the whole of Australia was relatively much less than in the case of males. There was an increase in each State during 1923, with the exception of Western Australia, where the wages remained stationary. The upward tendency was continued during 1924 with increases in all States with the exception of New South Wales. During 1925, the Australian average rose from 49s. 7d. to 50s. 7d., each State, with the exception of Tasmania, showing increases, while during 1926 it rose to 51s. 8d., each State showing an increase over the previous year. The advance in the Australian average during the period under review was 6.3 per cent.

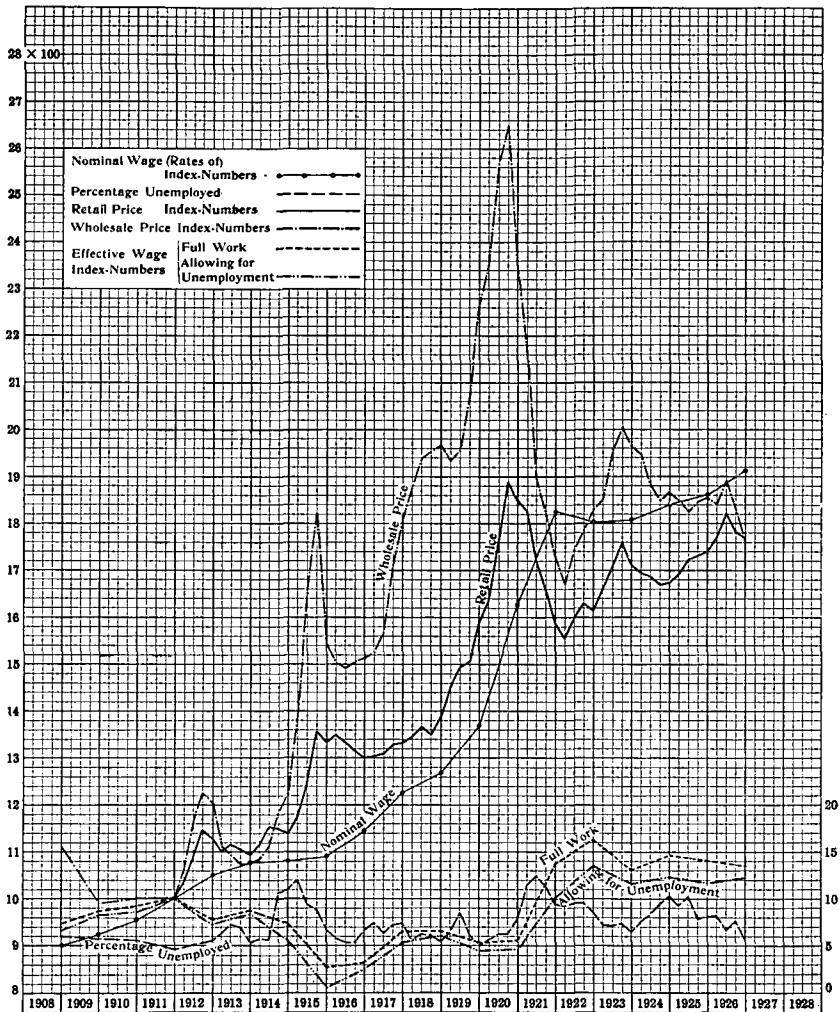
(v) *Adult Females—Industrial Groups.* The following table gives particulars of the weighted average weekly rate of wage payable to adult female workers in the industrial groups in which they are mainly employed, and in all groups combined. Taking the average wage for all groups at the 30th April, 1914, as base (=1,000), index-numbers are given computed on the average rate of wage ruling at the end of each period indicated.

Industrial Disputes - Working Days Lost in Various Industrial Groups



EXPLANATION.—The scale refers to working days lost in hundred thousands. Thus, taking the year 1917, and comparing the shaded and blank sections with the scale, it will be observed that about 870,000 working days were lost in Manufacturing and Building, over 1,300,000 in Mining, over 2,300,000 in Transport, and about 150,000 in other industries.

RETAIL AND WHOLESALE PRICES, NOMINAL AND EFFECTIVE WAGE INDEX-NUMBERS, AND PERCENTAGE OF UNEMPLOYED.—AUSTRALIA, 1908 TO 1926.



NOTE.—The figures on the right represent the scale for the percentage unemployed according to trade-union returns. The figures on the left represent the scale for the several index-numbers, the year 1911 being taken in each case as base (= 1000). Since the end of the year 1911, the Retail Price Index-numbers (weighted average cost of food, groceries, and house rent for the six capital cities), and the Wholesale Price Index number (Melbourne) are shown in each quarter, while unemployment percentages are shown quarterly since the end of the year 1912 only. The other index-numbers since 1913 refer to the average for the whole year, but for purposes of convenience are plotted on the graph as at the end, not the middle, of the year. Retail Price and Wholesale Price Index-numbers show the average level during the whole of each quarter, and they also for convenience are plotted at the end, and not the middle, of each quarter.

WAGES.—ADULT FEMALES—WEIGHTED AVERAGE NOMINAL WEEKLY RATE PAYABLE FOR A FULL WEEK'S WORK, AND WAGE INDEX-NUMBERS IN EACH INDUSTRIAL GROUP, 31st DECEMBER, 1921, TO 1926.

NOTE.—Index-numbers for each Industrial Group and all Industrial Groups, based on the average wage for all groups at 30th April, 1914 (27s. 2d.), as base (=1,000). The index-numbers in this table are comparable throughout.

Date.	Industrial Group.					
	III. Food, Drink, etc.	IV. Clothing, Boots, etc.	I., II., V. and VI., All Other Manufacturing.	XIII. Domestic, Hotels, etc. (a).	XIV. Miscellaneous.	All Groups. (b).
RATES OF WAGE.						
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
31st December, 1921 ..	43 9	48 7	48 0	48 6	50 0	48 8
31st December, 1922 ..	43 3	47 10	47 4	48 3	48 9	47 11
31st December, 1923 ..	44 1	50 1	48 10	49 5	49 6	49 6
31st December, 1924 ..	45 2	49 7	49 6	49 7	50 7	49 7
31st December, 1925 ..	45 8	50 1	51 2	51 0	52 0	50 7
31st March, 1926 ..	46 11	51 3	51 9	51 0	52 0	51 2
30th June, 1926 ..	47 0	51 3	51 10	51 1	52 0	51 3
30th September, 1926 ..	47 5	51 5	52 10	51 1	52 0	51 5
31st December, 1926 ..	47 8	51 7	52 10	52 0	52 0	51 8
INDEX-NUMBERS.						
31st December, 1921 ..	1,609	1,789	1,766	1,787	1,841	1,790
31st December, 1922 ..	1,593	1,762	1,741	1,777	1,794	1,763
31st December, 1923 ..	1,622	1,842	1,799	1,819	1,821	1,821
31st December, 1924 ..	1,661	1,826	1,821	1,824	1,862	1,826
31st December, 1925 ..	1,682	1,844	1,884	1,877	1,914	1,861
31st March, 1926 ..	1,725	1,886	1,903	1,877	1,914	1,884
30th June, 1926 ..	1,729	1,886	1,908	1,881	1,914	1,886
30th September, 1926 ..	1,746	1,892	1,943	1,881	1,914	1,892
31st December, 1926 ..	1,754	1,900	1,943	1,912	1,914	1,902

(a) Including the value of board and lodging, where supplied. (b) Weighted average.

The greatest increase in the weekly rate of wage during the period under review occurred in Groups I., II., V., and VI. (All Other Manufacturing), 10.0 per cent., followed in the order named by Group III. (Food, Drink, etc.), 9.0 per cent., XIII. (Domestic, Hotels, etc.), IV. (Clothing, Boots, etc.), 6.2 per cent., and XIV. (Miscellaneous), 4.0 per cent. The weighted average weekly rate for all groups was 6.3 per cent. higher at the end of 1926 than at the 31st December, 1921.

With the exception of Group XIV. (Miscellaneous), which has remained stationary since September, 1925, average wages in each industrial group increased during the year 1926, the largest increase being 4.3 per cent. in Group III., followed in the order named by Groups I., II., V., and VI., 3.1 per cent., IV., 3.0 per cent., and XIII., 1.9 per cent. The weighted average for all groups increased by 2.2 per cent.

3. Relative Hours of Labour and Hourly Rates of Wage, 1922 to 1926.—(i) General. The rates of wage referred to in preceding paragraphs relate to the minimum payable for a full week's work. The number of hours constituting a full week's work differs, however, in many instances between various trades and occupations in each State, and between the same trades and occupations in the several States. In order to secure what may be for some purposes a more adequate standard of comparison, it is desirable to reduce the comparison to a common basis, viz., the rate of wage per hour. Particulars are given in the following table classified according to States, for male and female occupations separately, at the end of the years 1922 to 1926. These particulars relate to (a) the weighted average nominal weekly wage, (b) the weighted average number of working hours constituting a full week's work, and (c) the weighted average hourly wage. The weighted average weekly wage relates to all industrial groups combined, and includes the value of board and lodging where supplied in land occupations, and the value of victualling in

marine occupations, whereas the number of working hours and the hourly wage relate to all industrial groups other than Groups XI. (Shipping), and XII. (Agricultural, Pastoral, etc.). Many of the occupations included in these two groups are of a casual or seasonal nature, and the hours of labour are not generally regulated either by awards or determinations of industrial tribunals or otherwise, hence the necessary data for the computation of the average number of working hours are not available.

The general effect of reducing the rates of wage to a common basis (*i.e.*, per hour) is to eliminate on comparison any apparent difference between the several States which may be due to unequal working time.

(ii) *Adult Males and Females.* Particulars for the last five years for adult males and females are given in the table hereunder:—

WEEKLY AND HOURLY WAGES AND HOURS OF LABOUR.—ADULT WORKERS, 1922 TO 1926.

Date.	Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aus.
MALE WORKERS.								
31st Dec., 1922	Weekly Wage (a) ..	s. d. 91 6	s. d. 91 4	s. d. 93 10	s. d. 87 6	s. d. 93 9	s. d. 88 5	s. d. 91 6
	Working Hours (b) ..	46.05	46.99	45.51	47.00	46.41	46.93	46.38
	Hourly Wage (b) ..	2/0½	1/11½	2/1½	1/10½	2/0½	1/10½	2/-
31st Dec., 1923	Weekly Wage (a) ..	s. d. 96 6	s. d. 98 0	s. d. 95 9	s. d. 91 8	s. d. 95 2	s. d. 93 3	s. d. 96 3
	Working Hours (b) ..	46.73	47.06	45.51	47.00	46.66	47.27	46.70
	Hourly Wage (b) ..	2/0½	2/1	2/1½	1/11½	2/0½	1/11½	2/0½
31st Dec., 1924	Weekly Wage (a) ..	s. d. 93 6	s. d. 95 5	s. d. 95 9	s. d. 91 10	s. d. 94 8	s. d. 92 6	s. d. 94 3
	Working Hours (b) ..	46.75	46.99	45.40	46.98	46.52	47.26	46.66
	Hourly Wage (b) ..	2/0½	2/1	2/1½	1/11½	2/0½	1/11½	2/0½
31st Dec., 1925	Weekly Wage (a) ..	s. d. 96 0	s. d. 97 2	s. d. 99 11	s. d. 94 4	s. d. 97 0	s. d. 93 5	s. d. 96 9
	Working Hours (b) ..	46.76	46.98	43.88	46.97	46.26	47.25	46.44
	Hourly Wage (b) ..	2/1½	2/1½	2/3½	2/0½	2/1½	2/-	2/1½
31st Dec., 1926	Weekly Wage (a) ..	s. d. 100 5	s. d. 99 6	s. d. 100 1	s. d. 95 8	s. d. 98 9	s. d. 94 10	s. d. 99 4
	Working Hours (b) ..	44.55	46.94	43.95	46.95	45.80	47.27	45.57
	Hourly Wage (b) ..	2/3½	2/2	2/4	2/0½	2/2½	2/0½	2/2½
FEMALE WORKERS.								
31st Dec., 1922	Weekly Wage ..	s. d. 47 8	s. d. 48 0	s. d. 48 2	s. d. 44 0	s. d. 56 4	s. d. 47 7	s. d. 47 11
	Working Hours ..	45.33	46.14	45.60	46.10	45.97	47.86	45.82
	Hourly Wage ..	1/0½	1/0½	1/0½	-7/11	1/2½	1/-	1/0½
31st Dec., 1923	Weekly Wage ..	s. d. 49 3	s. d. 49 5	s. d. 50 5	s. d. 46 4	s. d. 56 4	s. d. 48 6	s. d. 49 6
	Working Hours ..	45.81	46.13	45.60	46.10	45.97	47.86	45.98
	Hourly Wage ..	1/1	1/0½	1/1½	1/0	1/2½	1/0½	1/1
31st Dec., 1924	Weekly Wage ..	s. d. 49 1	s. d. 49 7	s. d. 50 10	s. d. 46 6	s. d. 56 11	s. d. 50 3	s. d. 49 7
	Working Hours ..	45.98	46.08	45.60	46.10	45.97	47.86	48.02
	Hourly Wage ..	1/0½	1/1	1/1½	1/-	1/2½	1/0½	1/1
31st Dec., 1925	Weekly Wage ..	s. d. 49 8	s. d. 50 8	s. d. 51 9	s. d. 48 10	s. d. 57 6	s. d. 50 2	s. d. 50 7
	Working Hours ..	46.17	45.83	44.00	46.10	45.57	47.86	45.78
	Hourly Wage ..	1/1	1/1½	1/2	1/0½	1/3½	1/0½	1/1½
31st Dec., 1926	Weekly Wage ..	s. d. 50 8	s. d. 51 11	s. d. 52 10	s. d. 50 0	s. d. 58 6	s. d. 51 8	s. d. 51 8
	Working Hours ..	44.02	45.60	44.01	46.10	45.57	47.86	44.94
	Hourly Wage ..	1/1½	1/1½	1/2½	1/1	1/3½	1/1	1/1½

(a) Weighted average weekly rate in all Industrial groups combined. (b) Weighted average working hours per week, and computed hourly rates of wage for all industrial groups excepting Groups XI. (Shipping, etc.), and XII. (Agricultural, Pastoral, etc.). Working hours have not been generally regulated by industrial tribunals for occupations classified in industrial groups XI. and XII.

(iii) *Index-numbers.* There was a diminution in each of the States during the year 1921 in the number of working hours constituting a full week's work for male and female occupations, but during 1922 and 1923 certain increases in hours were recorded, principally in New South Wales. The tendency in a majority of the States during the years 1924, 1925, and 1926 has been towards a slight reduction in hours of labour, particularly in Queensland and New South Wales, where a 44-hour week became operative on 1st July, 1925, and on 4th January, 1926, respectively. The effect of these changes on the hourly rate of wage as compared with the general increase in the weekly wage is readily seen from the comparative index-numbers given in the following table. In each instance (male and female occupations separately) the basis taken is the weighted average for Australia at the 30th April, 1914 (= 1,000).

WEEKLY AND HOURLY WAGE INDEX-NUMBERS.—ADULT WORKERS,
1922 TO 1926.

NOTE.—Weighted average for Australia at 30th April, 1914, as base (=1,000).

Date.	Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aus- tralia.
MALE WORKERS.								
31st Dec., 1922	{ Weekly Wage ..	1,600	1,657	1,702	1,588	1,701	1,605	1,660
	{ Hourly Wage ..	1,735	1,709	1,803	1,621	1,766	1,628	1,726
31st Dec., 1923	{ Weekly Wage ..	1,714	1,734	1,703	1,646	1,709	1,675	1,711
	{ Hourly Wage ..	1,775	1,790	1,808	1,676	1,754	1,696	1,771
31st Dec., 1924	{ Weekly Wage ..	1,696	1,731	1,737	1,665	1,717	1,679	1,710
	{ Hourly Wage ..	1,761	1,790	1,838	1,709	1,771	1,706	1,774
31st Dec., 1925	{ Weekly Wage ..	1,741	1,763	1,813	1,712	1,760	1,695	1,755
	{ Hourly Wage ..	1,808	1,823	1,988	1,761	1,827	1,723	1,829
31st Dec., 1926	{ Weekly Wage ..	1,821	1,805	1,815	1,735	1,791	1,721	1,802
	{ Hourly Wage ..	1,944	1,864	1,997	1,776	1,878	1,746	1,900

FEMALE WORKERS.

31st Dec., 1922	{ Weekly Wage ..	1,754	1,767	1,771	1,620	2,075	1,751	1,763
	{ Hourly Wage ..	1,899	1,881	1,908	1,726	2,215	1,797	1,889
31st Dec., 1923	{ Weekly Wage ..	1,812	1,819	1,855	1,704	2,075	1,785	1,821
	{ Hourly Wage ..	1,943	1,937	1,997	1,815	2,215	1,831	1,944
31st Dec., 1924	{ Weekly Wage ..	1,807	1,824	1,872	1,710	2,094	1,850	1,826
	{ Hourly Wage ..	1,929	1,943	2,017	1,821	2,236	1,898	1,949
31st Dec., 1925	{ Weekly Wage ..	1,827	1,866	1,904	1,796	2,116	1,845	1,861
	{ Hourly Wage ..	1,944	2,000	2,125	1,913	2,280	1,893	1,995
31st Dec., 1926	{ Weekly Wage ..	1,865	1,911	1,944	1,839	2,152	1,902	1,902
	{ Hourly Wage ..	2,080	2,059	2,169	1,959	2,319	1,952	2,078

4. Weighted Average Nominal Weekly Hours of Labour, Adult Males.—The following table shows the weighted average nominal hours of labour (exclusive of overtime) in a full working week for male workers in each State and Australia at the 31st December, 1922 to 1926. Index-numbers are given also for each State based on the weekly average hours at the end of each of the periods specified, computed with the weighted average hours of labour for Australia at the 30th April, 1914, as base (=1,000).

HOURS OF LABOUR.—WEEKLY INDEX-NUMBERS, ADULT MALES,
1922 TO 1926.

NOTE.—Index-numbers based on the average hours of labour for Australia at the 30th April, 1914 (48.93) as base (=1,000). The index-numbers in this table are comparable throughout. Overtime is excluded.

Date.	Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aus- tralia.
31st Dec., 1922	{ Weighted average weekly hours of labour (a) ..	46.05	46.99	45.51	47.00	46.41	46.93	46.38
	{ Index-numbers ..	941	960	930	961	948	959	948
31st Dec., 1923	{ Weighted average weekly hours of labour (a) ..	46.73	47.06	45.51	47.00	46.66	46.27	46.70
	{ Index-numbers ..	955	962	930	961	954	966	954
31st Dec., 1924	{ Weighted average weekly hours of labour (a) ..	46.75	46.99	45.40	46.98	46.52	47.26	46.66
	{ Index-numbers ..	955	960	928	960	951	966	954
31st Dec., 1925	{ Weighted average weekly hours of labour (a) ..	46.76	46.98	43.88	46.97	46.26	47.25	46.44
	{ Index-numbers ..	956	960	897	960	945	966	949
31st Dec., 1926	{ Weighted average weekly hours of labour (a) ..	44.55	46.94	43.95	46.95	45.80	47.27	45.57
	{ Index numbers ..	910	959	898	960	936	966	931

(a) Weighted average working hours per week for all industrial groups excepting Groups XI. (Shipping), and XII. (Agricultural, Pastoral, etc.), in which working hours have not been generally regulated by industrial tribunals.

There was a diminution in each State during the year 1921 in the number of working hours constituting a full week's work for male occupations, but during 1922 and 1923, in certain States, especially in New South Wales, hours of labour were increased. Each State, excepting New South Wales, shows a decrease for both 1924 and 1925, while, for 1926, four of the States show decreases, the remaining two, Queensland and Tasmania, showing minor increases on account of further industries being brought under Commonwealth Arbitration Court awards, under which the prescribed hours are greater than in the corresponding State awards. The weighted average weekly hours index-number for Australia at the 31st December, 1926, was 931, as compared with 1,000 at 30th April, 1914, a reduction of 6.9 per cent. The lowest weighted average nominal weekly hours index-number at the 31st December, 1926, was that for Queensland (898), followed in the order named by New South Wales (910), Western Australia (936), Victoria (959), South Australia (960), and Tasmania (966).

5. *Nominal and Effective Wages, 1901 to 1926.*—(i) *Nominal Weekly Wage Index-numbers—States.* The following table shows the progress in nominal weekly rates of wage for all industries in each State, the weighted average rate for Australia in 1911 being taken as the base (=1,000). These results are based generally upon rates of wage prevailing in the capital city of each State, but in certain industries, such as mining, rates are necessarily taken for places other than the capital cities.

NOMINAL WAGE INDEX-NUMBERS, ADULT MALES, 1901 TO 1926.

(WEIGHTED AVERAGE WAGE FOR AUSTRALIA IN 1911=1,000.)

States.	Number of Occupations included.		1901 to 1912.	1913 to 1924.	1901.	1911.	1914.	1918.	1919.	1920.	1921.	1922.	1923.	1924.	1925.	1926.
New South Wales ..	158	874	858	1,003	1,006	1,286	1,498	1,835	1,869	1,785	1,844	1,824	1,873	1,959		
Victoria ..	150	909	796	985	1,065	1,278	1,404	1,679	1,826	1,783	1,865	1,862	1,897	1,941		
Queensland ..	87	627	901	997	1,042	1,356	1,534	1,785	1,886	1,830	1,837	1,868	1,950	1,952		
South Australia ..	134	567	819	1,013	1,062	1,278	1,373	1,613	1,745	1,708	1,770	1,791	1,841	1,867		
Western Australia ..	69	489	1,052	1,152	1,226	1,372	1,516	1,751	1,853	1,829	1,838	1,847	1,893	1,927		
Tasmania ..	54	482	719	799	1,028	1,193	1,346	1,674	1,788	1,726	1,802	1,805	1,823	1,851		
Australia (a) ..	652	3,948	848	1,000	1,085	1,296	1,462	1,752	1,844	1,785	1,840	1,839	1,887	1,938		

(a) Weighted average.

NOTE.—The figures in the above table are comparable both horizontally and vertically.

During the period 1911 to the end of the year 1926 the average weekly rate of wage in New South Wales increased 90 per cent., in Victoria 97 per cent., in Queensland 96 per cent., in South Australia 84 per cent., in Western Australia 67 per cent., and in Tasmania 132 per cent., while the weighted average weekly rate for Australia increased 94 per cent.

(ii) *Effective Weekly Wage Index-numbers—States.* In comparing wages, two elements are of obvious importance, viz., (i) hours worked per day or week, and (ii) the cost of commodities and housing. Thus 60s. per week of 60 hours represents the same hourly rate as 48s. per week for 48 hours. Similarly, if the cost of commodities and housing increases 25 per cent., e.g., if the prices index-number rises from 1,000 to 1,250, then 60s. per week (the index-number being 1,250) is effectively equal only to 48s. (when the index-number was 1,000). Or, again, if the prices index-number falls from 1,000 to 750, then 60s. per week, when the index-number is 750, would have the same purchasing power as 80s. when the index-number was 1,000. Ignoring for the present the number of hours worked, and assuming that the real value of the average wages is to be measured by their purchasing power, the actual average wages paid may be reduced to their effective value by applying the prices index-numbers to the nominal wages index-numbers. The following table shows the effective wage index-numbers so ascertained in each State for each of the years indicated from 1901 to 1926.

In computing these effective wage index-numbers for years prior to 1914, the nominal wage index-numbers given in the preceding table have been divided by the price index-numbers in Section A §2. The resulting index-numbers show for each State and for Australia for the years specified the variations in effective wages. The nominal wage index-numbers for these earlier years are based on rates of wage current at the end of December, the only data available. For the years 1914 onward, however, the nominal wage index-numbers used are based on the average wage for the four quarters in each year, and in this respect differ from those in the preceding sub-sections. However, so far as the years 1901 and 1911 are concerned, as the movement in wages during any one year prior to 1914 was very slight, it is possible that if the wage data were available in quarters, the index-numbers used would approximate very closely to those based on averages for the year.

EFFECTIVE WEEKLY WAGE INDEX NUMBERS.—ADULT MALES, 1901 TO 1926.(a)

States.	1901.	1911.	1914.	1918.	1919.	1920.	1921.	1922.	1923.	1924.	1925.	1926.
New South Wales ..	961	973	906	890	875	911	1,079	1,113	1,040	1,069	1,048	1,035
Victoria ..	915	1,037	961	925	904	875	1,038	1,102	1,036	1,097	1,073	1,069
Queensland ..	1,172	1,090	1,038	1,042	990	1,036	1,244	1,273	1,214	1,232	1,241	1,183
South Australia ..	948	957	929	934	901	853	1,027	1,090	1,036	1,051	1,053	1,076
Western Australia ..	1,024	1,023	1,070	1,095	1,008	1,012	1,139	1,226	1,192	1,161	1,162	1,165
Tasmania ..	827	838	942	869	840	830	977	1,053	1,000	1,017	1,044	1,037
Australia (b) ..	964	1,000	948	932	907	911	1,076	1,126	1,062	1,095	1,081	1,072

(a) As to the effect in abnormal periods, see Labour Report No. 6, pp. 20-2, Section IV., par. 3.

(b) Weighted average.

In the table above the effective wage index-numbers are computed to the one base, that of Australia for 1911. Subject to the qualification already referred to, which, as has been pointed out, does not materially affect the figures, the index-numbers are comparable in all respects, and comparisons may be made as to the increase or decrease in the effective wage index-number for any State over a period of years. Thus, comparing 1926 with 1901, and also with 1911, there has been an increase in the effective wage in all States.

(iii) *Effective Wages and Standard of Comfort.* In the preceding table particulars are given as to variations in effective wages in each State, due allowance having been made for variations in retail prices of commodities, though not for unemployment.

For years prior to 1913 the data available as to unemployment are so meagre that comparative results allowing for variations both in prices of commodities and in unemployment cannot be accurately computed for the several States. In the next table, for these earlier years the percentage of unemployment in Australia and the nominal wage index-numbers relate to the end of the year. For 1914 and subsequent years the wages, index-numbers, percentages of unemployment, and retail prices index-numbers are the average for the year. Column I. shows the nominal wage index-numbers, and Column II. the relative percentages unemployed. Applying these percentages to the numbers shown in Column I., and deducting the results from each corresponding index-number to allow for relative loss of time, the figures in Column III. are obtained. These figures are then re-computed with the year 1911 as base, and are shown in Column IV. In Column V. the retail prices index-numbers are shown, and in Columns VI. and VII. the effective wage index-numbers are given, firstly, for full work, and secondly, allowing for lost time. These are obtained by dividing the figures in Columns I. and IV. respectively by the corresponding figure in Column V. The resulting index-numbers show for Australia for the years specified the variations in effective wages, or in what may be called the "standard of comfort."*

* This expression must not be confused with "standard of living." A change in the standard of living necessarily involves a change in regimen (see Labour Report No. 4), that is, a change in the nature or in the relative quantity of commodities purchased, or both. A change in the "standard of comfort" merely implies a variation in effective wages, which variation may, or may not, result in, or be accompanied by, a change in the "standard of living."

A comparison between the figures in Columns I. and VI. gives the relation between the normal rates of wage and the purchasing efficiency of these rates. The figures in Column VII. show variations in effective wages after allowing not only for variations in purchasing power of money, but for the relative extent of unemployment also.

WAGE INDEX-NUMBERS, NOMINAL AND EFFECTIVE, 1901 TO 1926.(a)

Year.	I. Nominal Wage Index- Numbers.	II. Percentage Unem- ployed.	Rate of Wage Index- Numbers, Allowing for Lost Time.		V. Retail Price Index- Numbers.	Effective Wage Index-Numbers.	
			III. Actual.	IV. Re-com- puted. (1911 = 1,000).		VI. Full Work.	VII. Allowing for Unemploy- ment.
1901	848	6.6	793	832	880	964	945
1906	866	6.7	808	848	902	960	940
1907	893	5.7	842	884	897	996	986
1908	900	6.0	846	888	951	946	934
1909	923	5.8	870	913	948	974	963
1910	955	5.6	901	945	970	985	974
1911	1,000	4.7	953	1,000	1,000	1,000	1,000
1912	1,051	5.5	993	1,042	1,101	955	946
1913	1,076	5.3	1,021	1,071	1,104	975	970
1914	1,081	8.3	991	1,040	1,140	948	912
1915	1,092	9.3	990	1,039	1,278	854	813
1916	1,144	5.8	1,078	1,131	1,324	864	854
1917	1,226	7.1	1,139	1,195	1,318	930	907
1918	1,270	5.8	1,196	1,255	1,362	932	921
1919	1,370	6.6	1,280	1,343	1,510	907	889
1920	1,627	6.5	1,521	1,596	1,785	911	894
1921	1,826	11.2	1,621	1,701	1,697	1,076	1,002
1922	1,801	9.3	1,634	1,715	1,600	1,126	1,072
1923	1,805	7.1	1,677	1,760	1,700	1,062	1,035
1924	1,840	8.9	1,676	1,759	1,681	1,095	1,046
1925	1,861	8.8	1,697	1,781	1,722	1,081	1,034
1926	1,914	7.1	1,778	1,866	1,786	1,072	1,045

(a) As to the effect in abnormal periods, see Section IV., par. 3, of Labour Report No. 6.

NOTE. For years prior to 1914, the nominal wage index-numbers and the percentage unemployed relate to the end of the year only, but from 1914 onward these figures, in addition to those for retail prices, are averages for the whole year.

Compared with 1911 the effective wage in 1901 was 3.6 per cent. less for full work, and 5.5 per cent. less after allowance for unemployment. In connexion with the index-numbers in Column VII., unemployment was less in 1911—the base year—than in any other year. During the period 1912 to 1920, while wages increased steadily, prices increased at a greater rate, with the result that the purchasing power of wages was less in each of these years than in 1911, the lowest point reached being in 1915, when the full time index-number was 14.6 per cent. less, or, allowing for unemployment, 18.7 per cent. less than for the base year. The first occasion on which the effective wage was higher than in 1911 was in 1921, when wages increased considerably while prices declined, the increase in effective wages being 7.6 per cent., but only 0.2 per cent. allowing for unemployment. Unemployment reached its "peak" during 1921. Both wages and prices fell in 1922, but the former less than the latter, resulting in a further increase in the effective wage. As wages remained practically stationary while prices rose, the effective wage for 1923 showed a decline. A rise in wages coincided with a fall in prices during 1924 and the effective wage increased, but as the average unemployment was higher than in the preceding year the increase in the effective wage was greater for full work than allowing for unemployment. Wages and prices both rose during 1925 and 1926, the latter in 1926 reaching their highest point for the period under investigation. Unemployment remained stationary in 1925, but as prices rose more rapidly than the rise in nominal wages, effective wages decreased. In 1926, unemployment decreased, and, although prices again rose more rapidly than nominal wages, the effective wage allowing for unemployment increased. Effective wages

for full time work, however, again decreased. In 1926 the effective wage allowing for unemployment was 4.5 per cent., and working full time 7.2 per cent., higher than in 1911.

6. **Basic Wage.**—A short historical account of the Basic Wage and Child Endowment in Australia will be found in Labour Report No. 17. Chapter 2 § 5.

§ 3. Changes in Rates of Wage.

1. **General.**—A change in rate of wages is defined as a change in the weekly rates of remuneration of a certain class of employees, apart from any change in the nature of the work performed and apart from any revision of rates due to increased length of service or experience. It is obvious that under this definition certain classes of changes are excluded, such, for example, as (a) changes in rates of pay due to promotion, progressive increments, or, on the other hand, to reduction in pay or grade to inefficient workers, and (b) changes in average earnings in an occupation due to a change in the proportions which more highly-paid classes of workers bear to those paid at lower rates. Bonuses to employees have not been taken into account in the tabulations. Each single change recorded relates to a change in the rates of wage effected in a specific industry or calling, and includes any and all changes to workers in that industry, irrespective of the different number of separate occupations or trades affected. Moreover, in some instances a change may relate to the employees of a single employer or to those of a number of employers, according to the instrument or method operating to bring about the change.

There is a certain amount of overstatement as regards "persons affected," since in the quarterly adjustments of wages the same persons may figure on four occasions. The difficulty of eliminating this factor has, however, been found too great to justify the labour involved. A further complication also arises from the overlapping of Commonwealth and State awards.

2. **Effect of Changes.**—(i) *General.* The following tables give particulars of changes which occurred in each State during the years specified. As regards the number of persons affected, the figures refer to the total number of persons ordinarily engaged in the various industries, and the results as to the amount of increase in wages are computed for a full week's work for all persons ordinarily engaged in the several industries and occupations affected. In cases of changes in existing minimum rates under awards or determinations of industrial tribunals, it has been assumed (in the absence of any definite information to the contrary) that the whole of the employees in each occupation received the minimum rates of wage before and after the change.

The figures given in regard to the amount of increase per week do not relate to the increase each week, but only to the increase in a single week on the assumption that the full number of persons ordinarily engaged in the particular trade or occupation affected by the change were employed during that week. It is obvious, therefore, that the aggregate effect per annum cannot be obtained without making due allowance for unemployment and for occupations in which unemployment is seasonal or intermittent. It is also clear that since unemployment and activity in all branches of industry may vary from year to year, and in many branches from season to season also, no accurate estimate of the actual effect of the changes in the total amount of wages received or paid per annum can be made until the determining factors have been investigated. These factors are (a) the amount of unemployment, and (b) the period of employment in seasonal industries.

Changes brought about by awards and agreements under the Commonwealth Conciliation and Arbitration Act, the Arbitration (Public Service) Act, and the Industrial Peace Act, 1920, are necessarily included hereunder as changes in each State to which such awards and agreements apply. The average increase per head per week is computed to the nearest penny.

(ii) *Summary—States, 1926.* During the year 1926 the number of increases in rates of wage recorded was in excess of the decreases.

CHANGES IN RATES OF WAGE.—EFFECT IN EACH STATE, 1926.

State.	INCREASES.		DECREASES.		TOTAL RESULT OF ALL CHANGES.		
	Work-people Affected.	Increase per Week.	Work-people Affected.	Decrease per Week.	Work-people Affected.	Net Increase per Week.	Average Increase per Week.
		£		£		£	s. d.
New South Wales ..	425,972	55,002	99,829	11,531	525,801	43,471	1 8
Victoria ..	324,121	39,878	105,484	11,958	429,605	27,920	1 4
Queensland ..	31,354	5,234	1,599	153	32,953	5,081	3 1
South Australia ..	72,652	8,459	30,639	3,862	103,291	4,597	0 11
Western Australia ..	32,432	4,765	5,839	601	38,271	4,164	2 2
Tasmania ..	16,305	1,321	9,073	573	25,378	748	0 7
Northern Territory ..	53	20	..	..	53	20	7 7
Federal Capital Territory ..	63	11	..	..	63	11	3 6
Common to all States (a)	48,538	3,124	17,807	1,516	66,345	1,608	0 6
Total ..	951,490	117,814	270,270	30,194	1,221,760	87,620	1 4

(a) See footnote (a) at bottom of page.

The preceding figures for changes in wages include all those which have occurred either through the operations of wage tribunals or as the result of direct negotiations between employers and employees. Many workers in all States come under the jurisdiction of awards made by the Federal Arbitration Court. The principle of quarterly adjustments adopted by that Court led to variations in all States during the year.

(iii) *Australia, 1922 to 1926.* The following table gives separate particulars of the effect of increases and decreases in rates of wage in Australia during the years 1922 to 1926 :—

CHANGES IN RATES OF WAGE.—EFFECT IN AUSTRALIA, 1922 TO 1926.

Year.	INCREASES.		DECREASES.		TOTAL RESULT OF ALL CHANGES.		
	Work-people Affected.	Increase per Week.	Work-people Affected.	Decrease per Week.	Work-people Affected.	Net Increase per Week.	Average Increase per Head per Week.
		£		£		£	s. d.
1922 ..	156,017	22,412	472,099	92,974	628,116	(a) 70,562	(a) 2 3
1923 ..	820,856	125,379	169,996	21,361	990,852	104,018	3 0
1924 ..	337,823	85,616	509,832	44,250	847,655	41,366	1 0
1925 ..	514,123	130,220	138,114	10,793	1,262,209	119,427	1 11
1926 ..	951,490	117,814	270,270	30,194	1,221,760	87,620	1 4

(a) Decrease.

CHANGES IN RATES OF WAGE.—EFFECT, 1922 TO 1926.

Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T.	F.C.T.	(a) All States.	Aust.
No. of Persons Affected										
1922	363,909	90,172	78,791	35,722	18,547	16,038	..	337	24,600	628,116
1923	519,440	276,094	30,051	63,209	32,057	25,918	71	1,002	43,010	990,852
1924	196,066	338,761	52,975	111,261	40,598	26,144	35	30	81,785	847,655
1925	514,123	343,123	184,595	113,721	40,152	18,566	26	243	47,660	1,262,209
1926	525,801	429,605	32,953	103,291	38,271	25,378	53	63	66,345	1,221,760
Total Net Amount of Increase per Week										
1922	£ 42,930	£ 66,625	£ 614,836	£ 62,687	£ 61,589	£ 61,701	£ ..	£ 658	£ 138	£ 770,562
1923	53,868	36,934	62,177	9,784	669	1,755	620	298	3,645	104,018
1924	7,860	7,312	13,993	7,835	1,879	1,335	15	1	1,136	41,366
1925	40,789	19,968	43,975	9,693	3,199	293	69	133	1,395	119,427
1926	43,471	27,920	5,081	4,597	4,164	748	20	11	1,608	87,620
Average Increase per Head per Week										
1922	s. d. 62 4	s. d. 61 6	s. d. 63 9	s. d. 61 6	s. d. 61 9	s. d. 62 1	s. d. ..	s. d. 63 4	s. d. 60 1	s. d. 62 3
1923	2 9	2 8	61 5	3 11	60 1	1 4	65 8	5 11	1 9	3 0
1924	0 10	0 5	5 3	1 5	0 11	1 0	8 7	0 8	0 8	1 0
1925	1 7	1 2	4 9	1 8	1 7	0 4	66 11	10 11	0 7	1 11
1926	1 8	1 4	3 1	0 11	2 2	0 7	7 7	3 6	0 6	1 4

(a) Changes recorded in this column are common to all States, as the particulars relating to the number of workpeople affected and the net amount of increase per week in each State were not ascertainable. (b) Decrease.

The relative positions of the States in regard to the number of workers affected in each year naturally depend largely on the magnitude of the different industries and callings in which changes took place.

(iv) *Industrial Groups—Australia. Workpeople affected by Changes.* In the following table particulars are given of the number of changes, the number of persons (males and females) affected, and the total amount of increase per week, classified according to Industrial Groups throughout Australia during the years 1922 to 1926:—

**CHANGES IN RATES OF WAGE.—INDUSTRIAL GROUPS, AUSTRALIA,
1922 TO 1926.**

Particulars.	Industrial Groups.							
	I. Wood, Furniture, Timber, etc.	II. Engineering, Metal Works, etc.	III. Food, Drink, Tobacco, etc.	IV. Clothing, Hats, Boots, etc.	V. Books, Printing, etc.	VI. Other Manufacturing.	VII. Building.	VIII. Mines, Quarries, etc.
1922								
Number of Persons affected	14,824	68,844	34,987	13,793	13,533	64,285	48,603	17,716
Amount of Increase per week	£ 22,028	£ 14,399	£ 5,805	£ 1,412	£ 1,722	£ 20,784	£ 28,049	£ 2,330
1923.								
Number of Persons affected	60,724	102,475	72,851	19,593	10,445	82,785	79,685	18,223
Amount of Increase per week	£ 6,209	£ 12,258	£ 3,594	£ 633	£ 1,021	£ 9,144	£ 13,034	£ 828
1924.								
Number of Persons affected	62,728	79,067	43,685	55,155	8,803	78,843	66,596	12,100
Amount of Increase per week	£ 62,506	£ 62,270	£ 2,713	£ 4,103	£ 4,246	£ 61,881	£ 7,806	£ 580
1925.								
Number of Persons affected	95,720	123,669	68,596	40,202	16,224	115,692	121,549	31,373
Amount of Increase per week	£ 7,905	£ 9,500	£ 7,609	£ 1,444	£ 1,128	£ 8,407	£ 10,149	£ 4,108
1926.								
Number of Persons affected	60,422	96,677	43,416	98,659	21,157	92,324	132,012	57,650
Amount of Increase per week	£ 1,669	£ 850	£ 4,180	£ 5,334	£ 2,513	£ 4,231	£ 14,848	£ 8,123

Particulars.	Industrial Groups—continued.						
	IX. Rail and Tram Services.	X. Other Land Transport.	XI. Shipping, etc.	XII. Pastoral, Agricultural, etc.	XIII. Domestic Hotels, etc.	XIV. Miscellaneous.	ALL GROUPS.
1922.							
Number of Persons affected	86,161	12,603	28,432	56,292	15,663	152,380	628,116
Amount of Increase per week	£ 215,311	£ 2,075	£ 259	£ 4,136	£ 21,288	£ 12,916	£ 270,562
1923.							
Number of Persons affected	155,830	23,510	79,466	24,720	21,724	238,821	990,852
Amount of Increase per week	£ 11,900	£ 237	£ 6,873	£ 9,647	£ 3,117	£ 26,399	£ 104,018
1924.							
Number of Persons affected	86,961	43,343	94,110	13,989	7,607	194,668	847,655
Amount of Increase per week	£ 6,544	£ 1,555	£ 25,350	£ 4,749	£ 1,834	£ 19,243	£ 41,366
1925.							
Number of Persons affected	188,752	27,249	77,285	55,495	37,472	262,931	1,262,209
Amount of Increase per week	£ 18,196	£ 3,435	£ 5,656	£ 10,577	£ 4,239	£ 27,074	£ 119,427
1926.							
Number of Persons affected	283,101	27,019	90,685	13,160	1,066	204,412	1,221,760
Amount of Increase per week	£ 20,227	£ 2,404	£ 2,416	£ 552	£ 369	£ 19,904	£ 87,620

(a) Decrease.

(v) *Male and Female Occupations.* Included in the changes in rates of wage recorded in the table on page 536 are those which in the whole or part thereof affected female occupations. Particulars in respect of these changes in so far as they relate to the numbers of male and female workers affected, etc., are set out hereunder :—

CHANGES IN RATES OF WAGE.—EFFECT IN MALE AND FEMALE
OCCUPATIONS, 1922 TO 1926.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	Fed. Cap. Ter.	All States. (a)	Australia.
NUMBER OF MALE EMPLOYEES AFFECTED.										
1922	322,813	85,005	64,473	34,085	18,248	14,473	..	337	24,600	564,034
1923	465,446	256,666	27,421	60,967	31,507	24,931	71	1,002	42,830	910,841
1924	181,779	295,591	38,271	95,743	37,185	24,100	35	30	76,994	749,728
1925	429,300	322,075	162,971	98,337	36,651	17,848	26	243	40,854	1,108,305
1926	478,633	369,093	26,430	91,190	33,401	23,539	53	63	57,767	1,080,169

NET AMOUNT OF INCREASE PER WEEK TO MALE EMPLOYEES.										
	£	£	£	£	£	£	£	£	£	£
1922	(b) 40,245	(b) 6,943	(b) 13,965	(b) 2,626	(b) 1,640	(b) 1,818	..	(b) 56	(b) 138	(b) 67,431
1923	50,954	33,902	(b) 2,290	9,270	(b) 123	1,393	(b) 20	298	3,654	97,538
1924	8,947	2,600	11,869	7,010	1,457	1,086	15	1	356	31,341
1925	37,480	18,448	41,893	8,748	2,767	293	(b) 9	133	1,213	110,966
1926	40,658	24,641	4,781	4,019	3,562	673	20	11	1,411	79,776

AVERAGE INCREASE PER HEAD PER WEEK TO MALE EMPLOYEES.										
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1922	(b) 2 6	(b) 1 8	(b) 4 4	(b) 1 6	(b) 1 10	(b) 2 6	1 6	(b) 3 4	(b) 0 1	(b) 2 5
1923	2 2	2 8	3 1	(b) 0 1	(b) 0 1	1 6	(b) 5 8	5 11	1 9	2 2
1924	0 9	0 2	6 2	1 6	0 9	0 11	8 7	0 8	0 1	0 10
1925	1 9	1 2	5 2	1 10	1 6	0 4	(b) 6 11	10 11	0 7	2 0
1926	1 8	1 4	3 7	0 11	2 2	0 7	7 7	3 6	0 6	1 6

NUMBER OF FEMALE EMPLOYEES AFFECTED.										
1922	41,096	5,167	14,318	1,637	299	1,565	..	..	..	64,082
1923	53,994	19,428	2,630	2,242	550	987	..	..	180	80,011
1924	14,287	43,170	14,704	15,518	3,413	2,044	..	..	4,791	97,927
1925	84,823	21,048	21,624	15,384	3,501	718	6,806	..	..	153,904
1926	47,168	60,512	6,523	12,101	4,870	1,839	..	..	8,578	141,591

NET AMOUNT OF INCREASE PER WEEK TO FEMALE EMPLOYEES.										
	£	£	£	£	£	£	£	£	£	£
1922	(b) 2,685	318	(b) 871	(b) 61	51	117	..	..	..	(b) 3,131
1923	2,914	3,032	113	514	54	(b) 138	..	..	(b) 9	6,480
1924	913	4,712	2,124	825	422	249	..	..	780	10,025
1925	3,300	1,520	2,082	945	432	..	182	..	..	8,461
1926	2,813	3,379	300	578	602	75	..	..	197	7,944

AVERAGE INCREASE PER HEAD PER WEEK TO FEMALE EMPLOYEES.										
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1922	(b) 1 4	1 3	(b) 1 4	(b) 0 9	3 5	1 6	..	..	..	(b) 1 0
1923	1 1	3 2	0 10	4 7	2 0	(b) 0 3	..	..	(b) 1 0	1 8
1924	1 3	2 2	2 11	1 1	2 6	2 5	..	..	3 3	2 1
1925	0 9	1 5	1 11	1 3	2 6	..	0 6	..	..	1 1
1926	0 1	1 1	0 11	0 11	2 6	0 10	..	..	0 6	1 1

(a) Changes recorded in this column are common to all States, as the particulars relating to the number of workpeople affected and the net amount of increase per week in each State were not ascertainable. (b) Decrease.

3. Methods by which Changes were Effected, and Results.—(i) *Summary, Australia, 1926.* The following table gives for Australia the number of workpeople affected, and the total net amount of increase in the weekly wage distribution brought about either without, or after, stoppage of work during the year 1926, as a result of the application of one or other of the methods set out in the tables :—

CHANGES IN RATES OF WAGE.—METHODS AND RESULTS, AUSTRALIA, 1926.

Methods by which Changes were Effected.	Without Stoppage of Work.		After Stoppage of Work.		All Changes.	
	No. of Work-people Affected.	Total Net Amount of Increase per Week.	No. of Work-people Affected.	Total Net Amount of Increase per Week.	No. of Work-people Affected.	Total Net Amount of Increase per Week.
		£		£		£
By direct negotiations	40,493	2,416	3,796	1,044	44,289	3,460
By negotiations, intervention or assistance of third party	40,112	5,077	24	7	40,136	5,084
By award of Court under Commonwealth Act	893,344	41,598	..	..	893,344	41,598
By agreement registered under Commonwealth Act	69,555	5,785	..	..	69,555	5,785
By award or determination under State Acts	140,468	27,976	..	..	140,468	27,976
By agreement registered under State Acts	15,715	2,446	285	75	16,000	2,521
By other means	17,968	1,196	..	..	17,968	1,196
TOTAL	1,217,655	86,494	4,105	1,126	1,221,760	87,620

(ii) *Summary, Australia, 1922 to 1926.* So far as possible, the effect of awards or agreements is recorded in the figures for the year in which such awards or agreements are made and filed. In certain cases, however, the awards or agreements are made retrospective as to the date on which the altered rate of wage has to be paid, and in others the particulars as to the number of workpeople affected and the effect of the change are difficult to ascertain.

CHANGES IN RATES OF WAGE.—METHODS AND RESULTS, AUSTRALIA, 1922 TO 1926.

Particulars.	By Direct Negotiations.	By Negotiations, Intervention or Assistance of Third Party.	By Award of Court under C'wealth Act.	By Agreement Registered under C'wealth Act.	By Award or Determination under State Act.	By Agreement Registered under State Act.	By other Means.	TOTAL.
1922.								
Number of Workpeople affected	7,186	54,878	125,195	43,002	376,994	20,861	..	628,116
Amount of Increase per week £	1,905	5,122	12,307	4,242	58,266	2,774	..	70,562
1923.								
Number of Workpeople affected	18,605	52,298	334,180	46,974	503,722	35,073	..	990,852
Amount of Increase per week £	2,488	1,124	46,438	6,633	42,614	4,721	..	104,018
1924.								
Number of Workpeople affected	1,939	65,653	521,469	34,401	205,615	18,578	..	847,655
Amount of Increase per week £	654	14,627	14,636	51	31,668	9,104	..	41,366
1925.								
Number of Workpeople affected	15,110	23,317	581,306	64,849	547,986	29,641	..	1,262,209
Amount of Increase per week £	1,880	1,959	29,996	4,524	80,322	746	..	119,427
1926.								
Number of Workpeople affected	44,289	40,136	893,344	69,555	140,468	16,000	17,968	1,221,760
Amount of Increase per week £	3,460	5,084	41,598	5,785	27,976	2,521	1,196	87,620

(a) Decrease.

C. EMPLOYMENT.

§ 1. Industrial Disputes.

1. *General.*—Information with regard to the collection of particulars and methods of tabulation of industrial disputes involving stoppage of work has appeared in previous issues of the Year Book, and is also given in the annual Reports of the Labour and Industrial Branch of this Bureau.

In *annual** tabulations, particulars are included of all disputes which either *commenced* or were *current* during the year under review. As regards "number of disputes," and "number of establishments involved," therefore, duplication will take place in respect of those disputes which started in and were uncompleted at the end of a preceding year; the number involved will, however, be indicated in a footnote, to permit of due allowance being made therefor in any calculations made from the tables.

2. *Industrial Disputes Involving Stoppage of Work, Classified in Industrial Groups, 1926.*—The following tables give particulars of industrial disputes which either commenced or were current during the year 1926, classified according to industrial groups. Similar information for the years 1913 to 1925 was published in Labour Reports Nos. 5 to 16.

INDUSTRIAL DISPUTES CLASSIFIED ACCORDING TO INDUSTRIAL GROUPS, 1926.

Class.	Industrial Group.	No. of Disputes.	No. of Estab. Involved.	No. of Workpeople Involved.			No. of Working Days Lost.	Estimated Loss in Wages.
				Directly.	Indirectly.	Total.		
NEW SOUTH WALES.								
								£
I.	Wood, sawmill, timber, etc. . .	2	2	54	9	63	728	767
II.	Engineering, metal works, etc. . .	11	220	8,022	125	8,147	226,975	213,755
III.	Food, drink, etc., manufacturing and distribution . .	5	5	294	280	574	1,026	685
IV.	Clothing, hats, boots, etc. . .	1	1	31	..	31	124	87
V.	Books, printing, bookbinding, etc. . .	1	2	22	9	31	1,178	1,067
VI.	Other manufacturing . .	4	4	154	..	154	714	611
VII.	Building . .	4	4	262	50	312	831	770
VIII.	Mines, quarries, etc. . .	202	345	56,743	27,074	83,817	849,463	988,436
IX.	Railway and tramway services . .	2	2	219	61	280	490	438
XI.	Shipping, wharf labour, etc. . .	10	21	943	379	1,322	24,034	18,515
XII.	Pastoral, agricultural, etc. . .	2	13	33	10	43	93	74
XIV.	Miscellaneous . .	12	12	1,504	362	1,866	5,574	4,205
	Total	(a)256	631	68,281	28,359	96,640	1,111,230	1,229,410
VICTORIA.								
II.	Engineering, metal works, etc. . .	4	4	264	..	264	2,977	2,581
III.	Food, drink, etc. . .	5	7	252	2	254	4,133	3,355
IV.	Clothing, hats, boots, etc. . .	1	1	17	16	33	66	33
VI.	Other manufacturing . .	3	3	157	..	157	756	580
VII.	Building . .	6	8	340	10	350	2,634	1,982
VIII.	Mines, quarries, etc. . .	8	10	5,094	2,136	7,230	89,107	97,049
X.	Other land transport . .	1	1	24	..	24	48	36
XI.	Shipping, wharf labour, etc. . .	3	3	109	81	190	405	253
XIII.	Domestic, hotels, etc. . .	1	1	21	..	21	63	14
XIV.	Miscellaneous . .	1	1	42	..	42	546	540
	Total	33	39	6,320	2,245	8,565	100,735	106,423

(a) Six disputes in New South Wales (involving 6 establishments and 1,285 workers); one in Queensland (1 establishment and 10 workers); one in Western Australia (1 establishment and 137 workers) commenced in 1925.

* In respect of years prior to 1922, the figures include complete particulars of industrial disputes which commenced during any calendar year; and where any such dispute extended into a subsequent year, the relative figures were also incorporated in those for the year in which the dispute commenced.

INDUSTRIAL DISPUTES CLASSIFIED ACCORDING TO INDUSTRIAL GROUPS,
1926—continued.

Class.	Industrial Group.	No. of Disputes.	No. of Estab. Involved.	No. of Workpeople Involved.			No. of Working Days Lost.	Estimated Loss in Wages.
				Directly.	Indirectly.	Total.		
QUEENSLAND.								
I.	Wood, sawmill, timber, etc. . .	1	1	6	2	8	48	\$ 38
II.	Engineering, metal works, etc. . .	3	3	298	234	532	8,398	5,919
III.	Food, drink, etc. . .	4	12	439	130	569	8,789	8,816
IV.	Clothing, hats, boots, etc. . .	2	2	210	..	210	381	250
VI.	Other manufacturing . . .	2	2	102	..	102	876	291
VII.	Building . . .	2	2	72	14	86	1,572	1,981
VIII.	Mines, quarries, etc. . .	8	8	488	8	496	6,934	8,305
XI.	Shipping, wharf labour, etc. . .	3	3	174	..	174	2,503	1,366
XIII.	Domestic, hotels, etc. . .	1	1	13	..	13	143	115
XIV.	Miscellaneous . . .	3	3	252	3	255	469	331
Total		(a)29	37	2,054	391	2,445	30,118	27,412
SOUTH AUSTRALIA.								
I.	Wood, sawmill, timber, etc. . .	4	35	827	..	827	5,948	4,619
II.	Engineering, metal works, etc. . .	2	3	117	60	177	3,813	3,707
III.	Food, drink, etc. . .	2	2	76	69	145	1,039	570
VII.	Building . . .	2	2	51	..	51	128	119
VIII.	Mines, quarries, etc. . .	2	2	231	382	613	3,311	2,141
IX.	Railway and tramway services . .	1	1	255	229	484	4,356	2,930
XI.	Shipping, wharf labour, etc. . .	2	2	48	..	48	476	362
XIV.	Miscellaneous . . .	2	13	403	..	403	3,765	2,685
Total		17	60	2,008	740	2,748	22,836	17,133
WESTERN AUSTRALIA.								
IV.	Clothing, hats, boots, etc. . .	1	1	44	..	44	572	150
VI.	Other manufacturing . . .	1	1	54	..	54	108	81
VII.	Building . . .	3	22	89	36	125	4,850	2,869
VIII.	Mines, quarries, etc. . .	1	1	134	42	176	176	211
IX.	Railway and tramway services . .	1	1	4	..	4	192	147
XI.	Shipping, wharf labour, etc. . .	2	2	198	..	198	3,183	2,540
Total		(a)9	28	523	78	601	9,081	5,998
TASMANIA.								
II.	Engineering, metal works, etc. . .	1	1	32	..	32	2,400	1,750
VIII.	Mines, quarries, etc. . .	6	8	563	212	775	1,779	1,969
XI.	Shipping, wharf labour, etc. . .	3	3	65	19	84	901	644
Total		10	12	660	231	891	5,080	4,363
NORTHERN TERRITORY.								
XI.	Shipping, wharf labour, etc. . .	1	1	93	..	93	100	75
XIV.	Miscellaneous . . .	1	1	..	112	112	896	795
Total		2	2	93	112	205	996	870
FEDERAL CAPITAL TERRITORY.								
XIV.	Miscellaneous . . .	4	4	829	110	939	30,185	24,204
Total		4	4	829	110	939	30,185	24,204
ALL STATES.								
I.	Wood, sawmill, timber, etc. . .	7	38	887	11	898	6,724	5,424
II.	Engineering, metal works, etc. . .	21	231	8,733	419	9,152	244,563	227,712
III.	Food, drink, etc., manufacturing and distribution . . .	16	26	1,061	481	1,542	14,987	13,426
IV.	Clothing, hats, boots, etc. . .	5	5	302	16	318	1,143	520
V.	Books, printing, bookbinding, etc. . .	1	2	22	9	31	1,178	1,067
VI.	Other manufacturing . . .	10	10	467	..	467	2,454	1,563
VII.	Building . . .	17	38	814	110	924	10,015	7,721
VIII.	Mines, quarries, etc. . .	227	374	63,253	29,854	93,107	950,770	1,098,111
IX.	Railway and tramway services . .	4	4	478	290	768	5,038	3,515
X.	Other land transport . . .	1	1	24	..	24	48	36
XI.	Shipping, wharf labour, etc. . .	24	35	1,630	479	2,109	31,607	23,755
XII.	Pastoral, agricultural, etc. . .	2	13	33	10	43	93	74
XIII.	Domestic, hotels, etc. . .	2	2	34	..	34	206	129
XIV.	Miscellaneous . . .	23	34	3,030	587	3,617	41,435	32,760
Total Australia (a) ..		360	813	80,768	32,266	113,034	1,310,261	1,415,813

(a) See note (a) to table on page 540.

3. Industrial Disputes, Australia, 1922 to 1926.—The following table gives particulars of the number of industrial disputes, the number of workpeople involved, and the losses in working days and wages caused by disputes which either commenced or were current during each *calendar* year 1922 to 1926, classified according to industrial groups :—

INDUSTRIAL DISPUTES.—AUSTRALIA, 1922 TO 1926.

Calendar Year.	Manu- facturing. (Groups I. to VI.)	Building. (Group VII.)	Mining. (Group VIII.)	Transport, Land and Sea. (Groups IX. to XI.)	Miscel- laneous. (Groups XII. to XIV.)	ALL GROUPS.
1922 ..	69	4	307	45	20	445
1923 ..	44	8	171	28	23	274
1924 ..	31	15	410	23	25	504
1925 ..	39	15	391	30	24	499
1926 ..	60	17	227	29	27	(a) 360
1922 to 1926 ..	243	59	1,506	155	119	2,082

NUMBER OF DISPUTES.

1922 ..	69	4	307	45	20	445
1923 ..	44	8	171	28	23	274
1924 ..	31	15	410	23	25	504
1925 ..	39	15	391	30	24	499
1926 ..	60	17	227	29	27	(a) 360
1922 to 1926 ..	243	59	1,506	155	119	2,082

NUMBER OF WORKPEOPLE INVOLVED.

1922 ..	15,215	287	96,151	2,882	1,797	116,332
1923 ..	9,884	577	58,043	2,257	5,560	76,321
1924 ..	6,899	2,753	133,876	5,631	3,287	152,446
1925 ..	8,420	1,882	135,409	25,084	5,951	176,746
1926 ..	12,408	924	93,107	2,901	3,694	113,034
1922 to 1926 ..	52,826	6,423	516,586	38,755	20,289	634,879

NUMBER OF WORKING DAYS LOST.

1922 ..	366,134	3,720	383,414	85,693	19,724	858,685
1923 ..	153,053	6,886	907,767	32,609	45,662	1,145,977
1924 ..	116,427	28,204	662,257	85,479	26,279	918,646
1925 ..	129,808	37,615	577,132	291,415	92,600	1,128,570
1926 ..	271,049	10,015	950,770	36,693	41,734	1,310,261
1922 to 1926 ..	1,036,471	86,440	3,481,340	531,889	225,999	5,362,139

ESTIMATED LOSS IN WAGES.

1922 ..	£ 242,159	£ 3,280	£ 427,363	£ 64,597	£ 14,108	£ 751,507
1923 ..	120,127	6,284	1,086,904	29,580	32,611	1,275,506
1924 ..	80,746	21,359	735,572	61,823	18,199	917,699
1925 ..	124,894	35,674	688,755	209,521	48,700	1,107,544
1926 ..	249,712	7,721	1,098,111	27,306	32,963	1,415,813
1922 to 1926 ..	817,638	74,318	4,036,705	392,827	146,581	5,468,069

(a) See footnote (a), page 540.

4. Summary of Disputes (involving Stoppage of Work), 1922 to 1926.—The following table gives particulars of the number of industrial disputes in each State in various years from 1922 to 1926, together with the number of workpeople involved, the number of working days lost, and the total estimated loss in wages.

INDUSTRIAL DISPUTES.—SUMMARY, 1922 TO 1926.

State or Territory.	Year.	No. of Disputes.	Establishments Involved in Disputes.	No. of Workpeople Involved.			No. of Working Days Lost.	Total Estimated Loss in Wages.
				Directly.	Indirectly.	Total.		
New South Wales ..	1922	342	657	88,257	14,042	102,299	586,520	£ 579,491
	1923	200	601	54,809	5,390	60,199	892,306	1,038,519
	1924	416	584	116,087	17,648	133,735	706,796	755,142
	1925	430	458	123,292	16,937	140,229	649,840	736,601
	1926	(a) 256	631	68,281	28,359	96,640	1,111,230	1,229,410
Victoria ..	1922	29	412	5,819	311	6,130	64,701	47,695
	1923	29	133	6,279	771	7,050	98,880	108,512
	1924	30	36	9,621	416	10,037	66,567	60,735
	1925	19	158	5,428	3,172	8,600	131,797	150,817
	1926	33	39	6,320	2,245	8,565	100,735	106,423
Queensland ..	1922	38	49	2,611	620	3,231	36,730	32,589
	1923	25	36	2,724	340	3,064	55,131	53,081
	1924	25	30	2,889	246	3,135	47,214	42,018
	1925	22	64	20,432	840	21,272	219,826	164,480
	1926	(a) 29	37	2,054	391	2,445	30,118	27,412
South Australia ..	1922	19	229	2,294	929	3,223	114,334	43,222
	1923	10	23	806	975	1,781	25,971	20,440
	1924	14	52	1,546	147	1,693	19,459	14,851
	1925	11	24	1,118	281	1,399	19,463	12,240
	1926	17	60	2,008	740	2,748	22,836	17,133
Western Australia ..	1922	8	91	643	163	806	43,472	38,208
	1923	6	88	1,255	2,752	4,007	72,274	53,408
	1924	13	233	2,131	1,366	3,497	66,734	42,329
	1925	10	180	3,821	814	4,135	98,941	56,358
	1926	(a) 9	28	523	78	601	9,081	5,998
Tasmania ..	1922	5	5	382	4	386	9,284	7,497
	1923	3	3	197	..	197	1,093	1,296
	1924	5	5	268	54	322	11,606	12,268
	1925	3	16	169	70	239	2,989	2,300
	1926	10	12	660	231	891	5,080	4,363
Fed. Cap. Territory	1922	2	2	217	..	217	2,604	2,035
	1923	1	1	23	..	23	322	250
	1925	3	5	823	33	856	5,735	4,709
	1926	4	4	829	110	939	30,185	24,204
Northern Territory	1922	2	2	40	..	40	1,040	770
	1923	..	..	..	..	..	..	..
	1924	1	1	27	..	27	270	356
	1925	1	1	16	..	16	39	39
	1926	2	2	93	112	205	996	870
Australia ..	1922	445	1,447	100,263	16,069	116,332	858,685	751,507
	1923	274	885	66,093	10,228	76,321	1,145,977	1,275,506
	1924	504	941	132,569	19,877	152,446	918,646	917,699
	1925	499	906	154,599	22,147	176,746	1,128,570	1,107,544
	1926	(a) 360	813	80,768	32,266	113,034	1,310,261	1,415,813

(a) See footnote (a), page 540.

Detailed information in regard to the disputes during these and previous years is given in the Labour Reports issued by this Bureau.

The figures given in the tables show that of the total number of disputes (360) which occurred in 1926 no less than 227 occurred in connexion with the mining industry, and of these 202 occurred in New South Wales. The total loss in wages through all disputes in Australia was £1,415,813. The loss through disputes in the coal-mining industry in New South Wales was £988,436, or 70 per cent. of the total loss in wages for Australia.

(i) *New South Wales.* The following are some of the principal disputes which occurred in this State:—A dispute affected engine-drivers and firemen employed in all coal mines throughout New South Wales, Victoria, Queensland, and Tasmania. The cause of the trouble was the objection of the organization mentioned to an award of the Special Coal Tribunal (Mr. C. Hibble) which had the effect of reducing the wage margins hitherto enjoyed by its members over other designations employed in the mines. The matter was quickly settled in Queensland without actual stoppage, while in Tasmania the men were only out for three days. In New South Wales and Victoria, however, the dispute lasted 34 days, and resulted in a loss in New South Wales of 442,000 working days and £530,400 in wages, and in Victoria of 60,996 working days and £73,195 in wages. The greater part of this loss was suffered indirectly, i.e., by those thrown out of work by the action of the engine-drivers, who only numbered about 1,000. The loss in Tasmania was very small—only 618 working days. Work was resumed on the old conditions, and a subsequent award by the Tribunal did not in any way modify the terms of the original award. The next dispute of importance was that of the Engineering trades which, although working under a Federal Award, claimed a 44-hour week, in common with other workers of the State, who had been granted this concession by State legislative enactment. The dispute lasted 24 days and involved a loss of 168,000 working days and £157,000 in wages. The matter was settled by compromise, the men agreeing to accept 44 hours' pay for 44 hours' work, to be worked on either five or six days, as required by the employer. Of the principal mining disputes the only others worthy of mention were—Coal Cliff Collieries (demand for minimum wage), lasted 117 days and involved a loss of 50,310 working days and £50,000 in wages. Aberdare Central Colliery (dismissal of deputies), lasted 23 days and represented a loss of 12,560 working days and £15,180 in wages. Abermain No. 1 Colliery (working of special headings), lasted 16 days and involved a loss of 11,400 working days and £13,700 in wages. Pelaw Main Colliery (institution of the "darg"), lasted fifteen days and loss of 10,800 working days and £13,000 in wages. Abermain No. 2 (dispute as to time worked), lasted fifteen days, loss of 8,520 working days and £10,200 in wages. A dispute also occurred in connexion with the seamen in coastal ports over a claim for wharf labourers' rates of pay while employed on cargo work; the trouble lasted 43 days and meant those involved in a loss of 13,300 working days and £10,000 in wages, while work was resumed on antecedent conditions.

(ii) *Victoria.* A reference to the Engine-drivers and Firemen's dispute in connexion with the Coal Mining Industry already appears under New South Wales, see (i) above. A dispute occurred in April at the Brown Coal Mine, Yallourn, the immediate cause of which was the reduction of 6d. per diem in the case of certain men, due to a misinterpretation of the award, although several other matters were brought into the dispute at the same time. The men decided to resume duty as the result of a ballot. The loss in working days amounted to 5,500 and in wages to £4,000. A second dispute occurred in November at this same mine, as the result of a demand for reduced hours on afternoon shift. The trouble was settled by compromise, the original hours being retained, but an increase in wages allowed to afternoon shiftmen. The loss in this case amounted to 16,779 working days and £14,500 in wages.

(iii) *Queensland.* Only one dispute of moment occurred in this State, that in which the employees of Borthwick's Meat Works were concerned. The dispute was in connexion with the non-employment of certain men. Work was resumed on reference of the matter to the Arbitration Court. The men lost 5,670 working days and £5,000 in wages.

(iv) *South Australia.* A dispute which occurred in connexion with the Stove-makers in Adelaide over a wage increase lasted 34 days and caused a loss of 3,638 working days and £3,600 in wages. The trouble was settled by compromise, a concession being made in regard to piece rates.

(v) *Western Australia.* The only dispute of note was one in which carpenters employed by the Public Works Department were concerned. The Union was dissatisfied with the methods adopted by a foreman, but work was resumed on antecedent conditions, after a loss of 3,496 working days.

(vi) *Tasmania.* The engineers employed at the Electrolytic Zinc Company's Works at Zeehan struck work to enforce payment of "dirt" money, which was finally conceded by the management. The dispute lasted 75 days, and represented a loss of 2,400 days and £1,750 in wages.

(vii) *Federal Capital Territory.* An extensive dispute occurred in connexion with Reticulation works at Canberra, the sewerage workers claiming an 8-hour day, inclusive of "crib" time of half an hour. The trouble extended over 44 days, and 28,600 working days and £23,000 were lost by the men. A concession was made, the Union to apply to the Industrial Tribunal for a review of the Award.

It is, of course, obvious that the mere number of disputes cannot by itself be accepted as a proper basis of comparison, nor does the number of workpeople afford a satisfactory basis. A better idea as to the significance and effect of industrial disputes may be obtained from the number of working days lost and the estimated loss in wages. A fuller discussion of this question will be found in Labour Report, No. 17, 1926, published by this Bureau.

The position which New South Wales occupies in comparison with the other States is almost entirely due to the prevalence of disputes in connexion with coal-mining, and attention has frequently been drawn to the preponderating influence exercised by these disputes on the total number of industrial disputes. In making any comparison as to the number of disputes in this industrial class in each State, it should be observed that the number of workers engaged in the mining industry is very much larger in New South Wales than in any of the other States.

Apart from these stoppages, the number of disputes in all other industries, whilst still in excess of that for each of the other States, does not compare unfavourably if the number of workpeople in each State is taken into consideration.

In regard to extensive dislocations of industry prior to the institution of systematic inquiries by this Bureau, efforts were made to obtain statistical data relating to the shearers' disputes in 1890, 1891, and 1894, and the maritime dispute in the early part of 1891, but precise information was not obtainable.

5. *Duration of Industrial Disputes, 1926.*—The following table gives particulars respecting the number of disputes, workpeople directly and indirectly involved, working days lost, and estimated amount of loss in wages respectively, consequent on the cessations of work recorded for Australia during the year 1926, classified under the adopted limits of duration :—

INDUSTRIAL DISPUTES.—DURATION, AUSTRALIA, 1926.(a)

Limits of Duration.	No. of Disputes.	No. of Workpeople Involved.			Number of Working Days Lost.	Total Estimated Loss in Wages.
		Directly.	Indirectly.	Total.		
						£
1 day and less	132	33,979	9,039	43,018	43,018	50,923
2 days and more than 1 day	61	12,011	2,297	14,308	28,636	33,094
3 days and more than 2 days	30	3,598	1,224	4,822	14,431	15,423
Over 3 days and less than 1 week (6 days)	25	6,045	1,344	7,389	31,925	31,049
1 week and less than 2 weeks	47	7,343	1,283	8,626	62,451	63,894
2 weeks and less than 4 weeks	34	4,741	1,878	6,619	106,505	106,189
4 weeks and less than 8 weeks	20	11,336	14,484	25,820	793,621	883,672
8 weeks and over	11	1,715	717	2,432	229,674	231,569
Total	a 360	80,768	32,266	113,034	1,310,261	1,415,813

(a) See footnote (a) on page 540.

Similar figures for the years 1913 to 1925 will be found in previous issues of the Year Book and in the Labour Reports.

6. Causes of Industrial Disputes, 1914 to 1926.—The following table shows the number of disputes, number of workpeople involved, and the total number of working days lost in disputes during the years 1914 and 1921 to 1926, classified according to principal cause :—

INDUSTRIAL DISPUTES.—CAUSES, AUSTRALIA, 1914 TO 1926.

Causes of Dispute.	1914.	1921.	1922.	1923.	1924.	1925.	1926.
NUMBER OF DISPUTES.							
1. Wages—							
(a) For increase ..	50	19	15	35	44	33	23
(b) Against decrease ..	3	2	18	4	7	5	5
(c) Other wage questions ..	67	161	83	37	95	99	67
2. Hours of Labour—							
(a) For reduction ..	1	12	12	10	2	4	13
(b) Other disputes re hours ..	13	16	2	2	4	6	2
3. Trades Unionism—							
(a) Against employment of non-unionists ..	13	5	6	4	6	8	5
(b) Other union questions ..	11	22	15	11	31	27	22
4. Employment of particular Classes or Persons ..	83	169	155	68	137	118	108
5. Working Conditions ..	72	162	89	57	111	106	46
6. Sympathetic ..	3	13	8	9	8	16	8
7. Other Causes ..	21	43	42	37	59	77	61
Total ..	337	624	445	274	504	499	360(a)

NUMBER OF WORKPEOPLE INVOLVED.

1. Wages—							
(a) For increase ..	7,362	2,659	843	9,816	8,312	23,443	17,046
(b) Against decrease ..	534	850	4,432	174	1,113	1,123	1,275
(c) Other wage questions ..	15,243	52,704	24,459	8,696	30,585	31,387	18,883
2. Hours of Labour—							
(a) For reduction ..	220	2,313	5,935	6,488	1,328	462	9,730
(b) Other disputes re hours ..	3,237	2,113	124	485	1,172	2,668	290
3. Trades Unionism—							
(a) Against employment of non-unionists ..	5,807	1,353	1,072	473	1,005	1,592	125
(b) Other union questions ..	1,593	6,607	4,264	2,310	12,078	10,957	3,790
4. Employment of particular Classes or Persons ..	14,863	45,408	36,194	11,269	39,839	36,075	25,165
5. Working Conditions ..	17,053	33,790	27,334	15,605	36,630	35,034	12,889
6. Sympathetic ..	675	3,251	1,119	875	436	5,328	3,499
7. Other Causes ..	4,462	12,053	10,556	20,130	19,948	28,677	20,342
Total ..	71,049	165,101	116,332	76,321	152,446	176,746	113,034

NUMBER OF WORKING DAYS LOST.

1. Wages—							
(a) For increase ..	99,451	13,731	8,694	64,493	120,317	209,356	580,183
(b) Against decrease ..	32,965	25,700	154,791	1,012	13,553	24,352	2,573
(c) Other wage questions ..	169,847	192,858	149,129	81,749	111,613	154,169	82,898
2. Hours of Labour—							
(a) For reduction ..	9,240	13,315	164,794	101,807	130,440	12,816	280,152
(b) Other disputes re hours ..	16,855	13,260	1,701	36,092	42,441	16,173	290
3. Trades Unionism—							
(a) Against employment of non-unionists ..	92,720	17,890	5,485	784	2,555	14,784	1,623
(b) Other union questions ..	6,963	117,199	18,976	17,743	40,046	105,195	15,607
4. Employment of particular Classes or Persons ..	64,367	431,130	198,256	63,094	253,779	214,738	114,917
5. Working Conditions ..	584,289	69,732	123,665	134,830	124,041	150,325	123,390
6. Sympathetic ..	2,125	6,150	9,438	6,357	926	41,046	38,381
7. Other Causes ..	11,568	55,652	23,756	638,016	78,935	185,616	70,247
Total ..	1,090,395	956,617	858,685	1,145,977	918,646	1,128,570	1,310,261

(a) See footnote (a), page 540.

The main causes of industrial disputes are "Wage" questions, "Working Conditions," and "Employment of Particular Classes or Persons." In each of the ten years 1914 to 1925, with the exception of 1922, the number of dislocations concerning wages exceeded those caused by any other question, and varied between a minimum proportion of 26 per cent. in 1922 and a maximum of 45 per cent. in 1916. The majority of the disputes classified under the heading, "Employment of Particular Classes or Persons," are stoppages of work for the purpose of protesting against the dismissal of certain employees, who, in the opinion of their fellow-workers, have been unfairly treated or victimized. This class of dispute occurs very frequently in the coal-mining industry. The number of disputes over "Trade Union" questions has represented a fairly uniform proportion of the total number of disputes during the years under review, while the figures under "Hours of Labour" show a steady decrease. "Sympathetic" disputes represent only a small proportion of the total disputes, varying over the years shown from one-quarter to three per cent.

7. Results of Industrial Disputes.—The following table shows the number of disputes, number of workpeople involved, and the number of working days lost in disputes throughout Australia during the five years 1922 to 1926, classified according to results:—

INDUSTRIAL DISPUTES CLASSIFIED ACCORDING TO RESULTS.—AUSTRALIA.
1922 TO 1926.(a)

Year.	No. of Disputes.				Number of Workpeople Involved in Disputes.				Total Number of Working Days Lost by Disputes.			
	In Favour of Workpeople.	In Favour of Employer.	Compromise.	Indefinite.	In Favour of Workpeople.	In Favour of Employer.	Compromise.	Indefinite.	In Favour of Workpeople.	In Favour of Employer.	Compromise.	Indefinite.
1922 ..	81	268	82	9	18,050	77,785	16,366	81	175,379	383,342	132,615	738
1923 ..	77	156	24	8	12,951	54,926	5,787	1,784	65,625	917,162	132,136	2,392
1924 ..	146	281	48	45	32,762	89,709	13,843	15,432	153,533	416,174	291,039	29,445
1925 ..	130	335	20	6	50,983	116,658	4,844	2,829	448,136	549,796	52,321	12,923
1926 a b	72	243	30	11	11,631	85,115	14,220	1,623	73,313	891,093	257,004	21,486

(a) See footnote (a), page 540.

(b) The following particulars of disputes which were incomplete at the 31st December, 1926, should be added to the above figures to effect a balance with those published in the preceding table:—

State.	No. of Disputes.	No. of Establishments.	Workpeople Involved.	Working Days Lost.	Wages Lost.
New South Wales	1	1	360	63,720	£ 50,976
Victoria	2	2	16	57	52
Queensland	1	1	69	3,588	4,306
Total	4	4	445	67,365	55,334

8. Methods of Settlement.—The following tables show for Australia the number of disputes, number of workpeople involved, and number of working days lost in industrial disputes during the years 1914 and 1921 to 1926, classified according to the adopted schedule of methods of settlement:—

INDUSTRIAL DISPUTES.—METHODS OF SETTLEMENT, AUSTRALIA, 1914 TO 1926.(a)

Methods of Settlement.	1914.	1921.	1922.	1923.	1924.	1925.	1926.(b)
NUMBER OF DISPUTES.							
Negotiations—							
Direct between employers and employees or their representatives	247	412	249	140	264	209	166
By intervention or assistance of distinctive third party—not under Commonwealth or State Industrial Act	11	65	52	25	20	24	16
Under State Industrial Acts—							
By intervention, assistance, or compulsory conference	7	18	7	4	11	12	8
By reference to Board or Court	17	4	7	2	7	2	10
Under Commonwealth Conciliation and Arbitration Act—							
By intervention, assistance, or compulsory conference	5	11	5	2	12	18	13
By Filling Places of Workpeople on Strike or Locked Out	16	10	11	5	5	4	8
By Closing-down Establishment Permanently	4	2	6	1	2	1	..
By Other Methods	30	102	96	86	179	226	135
Total	337	624	433	285	500	491	(c) 356

NUMBER OF WORKPEOPLE INVOLVED.

Negotiations—							
Direct between employers and employees or their representatives	48,204	93,912	62,000	30,213	70,895	75,961	44,995
By intervention or assistance of distinctive third party—not under Commonwealth or State Industrial Act	8,054	20,775	15,554	10,277	4,448	12,767	17,072
Under State Industrial Acts—							
By intervention, assistance, or compulsory conference	770	11,229	1,222	615	2,519	1,781	936
By reference to Board or Court	7,308	1,083	1,128	544	2,952	208	684
Under Commonwealth Conciliation and Arbitration Act—							
By intervention, assistance, or compulsory conference	205	12,037	446	58	4,262	3,251	4,332
By Filling Places of Workpeople on Strike or Locked Out	629	334	790	315	130	160	245
By Closing-down Establishment Permanently	86	53	171	18	170	26	..
By Other Methods	5,793	25,678	30,971	33,408	66,370	81,158	44,325
Total	71,049	165,101	112,282	75,448	151,746	175,314	112,589

NUMBER OF WORKING DAYS LOST.

Negotiations—							
Direct between employers and employees or their representatives	803,799	245,765	353,336	229,503	373,155	470,110	417,158
By intervention or assistance of distinctive third party—not under Commonwealth or State Industrial Act	128,231	156,076	187,164	582,929	103,005	320,046	549,427
Under State Industrial Acts—							
By intervention, assistance, or compulsory conference	4,256	136,735	16,016	25,531	41,900	17,650	11,281
By reference to Board or Court	120,685	22,752	13,767	8,484	142,939	4,338	8,744
Under Commonwealth Conciliation and Arbitration Act—							
By intervention, assistance, or compulsory conference	1,421	327,048	8,081	473	74,376	67,272	134,841
By Filling Places of Workpeople on Strike or Locked Out	4,402	3,542	11,759	2,517	3,040	1,168	2,865
By Closing-down Establishment Permanently	3,646	538	603	18	1,250	1,932	..
By Other Methods	23,955	64,161	101,348	267,859	150,526	180,065	118,580
Total	1,090,395	956,617	692,074	1,117,314	890,191	1,063,176	1,242,896

(a) See footnote *, page 540.

(b) See footnote (a), page 540.

(c) See footnote (b), page 547.

**INDUSTRIAL DISPUTES.—METHODS OF SETTLEMENT, AUSTRALIA,
1914 TO 1926 (a)—continued.**

Methods of Settlement.	1914.	1921.	1922.	1923.	1924.	1925.	1926.(b)
ESTIMATED LOSS IN WAGES.							
Negotiation—	£	£	£	£	£	£	£
Direct between employers and employees or their representatives	402,729	240,442	283,515	252,059	398,628	505,565	425,527
By intervention or assistance of distinctive third party—not under Commonwealth or State Industrial Act	66,225	146,929	200,835	676,288	114,830	230,771	658,498
Under State Industrial Act—							
By intervention, assistance, or compulsory conference	1,841	79,233	14,663	24,158	34,151	15,395	6,819
By reference to Board or Court	64,208	19,452	10,541	7,536	110,559	3,499	7,771
Under Commonwealth Conciliation and Arbitration Act—							
By intervention, assistance, or compulsory conference	712	198,887	5,701	350	56,766	68,880	124,511
By Filling Places of Workpeople on Strike or Locked Out	2,076	2,203	8,670	1,737	2,111	1,225	2,548
By Closing-down Establishment Permanently	1,651	355	635	13	970	2,318	..
By Other Methods	11,786	69,527	92,308	279,104	167,149	206,775	134,805
Total	551,228	757,028	616,868	1,241,245	885,164	1,034,428^(c)	1,360,479

(a) See footnote *, page 540.

(b) See footnote (a), page 540.

(c) See footnote (b), page 547.

The majority of the disputes were settled by direct negotiations between employers and employees, the proportion so settled ranging between 47 per cent. in 1924 and 76 per cent. in 1921. The proportion of dislocations settled by compulsory conferences or the intervention and assistance of officials under State or Commonwealth Arbitration Acts has varied considerably during the period under review, ranging from 2 per cent. in 1923 to 15 per cent. in 1920. The proportion in 1926 was 9 per cent. In connexion with the comparatively large number of disputes which are classified as having been settled "By other methods," many stoppages of work occur each year, principally at collieries, but the cause for such stoppages is not officially known to the employers or their representatives. Such stoppages usually last for one day, and work is resumed without negotiations for a settlement of the trouble.

§ 2. Fluctuations in Employment.

1. **General.**—The particulars given in the following tables are based upon information furnished by the secretaries of trade unions. The membership of the unions regularly reporting is approximately 400,000. Unemployment returns are not collected from unions the members of which are in permanent employment, such as railway and tramway employees, and public servants, or from unions whose members are casually employed (wharf labourers, etc.). Very few of the unions pay unemployment benefit, but the majority of the larger organizations have permanent secretaries and organizers who are closely in touch with the members and with the state of trade within their particular industries. In many cases unemployment registers are kept, and provision is made in the rules for payment of reduced subscriptions by members out of work. In view of these facts, and of the large membership of the unions from which quarterly returns are received,

percentage unemployment results based on the information supplied may be taken to show the general trend of unemployment. Seasonal fluctuations in unemployment have been provided for by collecting returns quarterly since the 1st January, 1913, the yearly figures quoted representing the average of the four quarters.

2. *Unemployment.*—(i) *States.* In addition to the qualifications referred to above, allowance must be made for the circumstance that the industries included in the returns from trade unions are not quite identical in the various States. The results, may, however, be taken as representing fairly well labour conditions generally.

UNEMPLOYMENT.—STATES, 1926.

State.	Unions Reporting.		Unemployed.	
	Number.	Members.	Number.	Percentage.
New South Wales	100	171,190	12,606	7.4
Victoria	85	130,644	8,422	6.4
Queensland	45	44,738	3,767	8.4
South Australia	55	39,588	2,039	5.2
Western Australia	59	23,302	1,666	7.1
Tasmania	30	5,935	826	13.9
Australia	374	415,397	29,326	7.1

(ii) *Summary for Australia.* The following table gives a summary for Australia for the last five years :—

UNEMPLOYMENT.—AUSTRALIA, 1922 TO 1926.

Particulars.	Unions.	Membership.	Unemployed.	
			Number.	Percentage.
1922	445	380,945	35,219	9.2
1923	436	376,557	26,672	7.1
1924	413	397,613	35,507	8.9
1925	380	391,380	34,620	8.8
1926	374	415,397	29,326	7.1
1926 1st Quarter	371	415,612	34,161	8.2
2nd „	355	369,894	24,920	6.7
3rd „	386	434,521	32,871	7.6
4th „	383	441,560	25,351	5.7

NOTE.—Similar figures for each of the four quarters of the years since 1912 will be found in the Labour Reports. The quarterly figures show the number of persons who were out of work for three days or more during a specified week in each quarter, and the annual figures the average of the four quarters : they do not include persons out of work through strikes or lock-outs.

The highest percentage of unemployed yet recorded (12.5) was reached in the second quarter of 1921.

(iii) *Industrial Groups.* The next table shows the percentages unemployed in industrial groups. Industries in which employment is either unusually stable or exceptionally casual, such as railways, shipping, agricultural, pastoral, etc., and domestic, hotels, etc., are insufficiently represented in the returns owing to the impossibility of securing the necessary information from the trade unions. Particulars are not,

therefore, shown separately for these groups, such returns as are available being included in the last group, "Other and Miscellaneous."

UNEMPLOYMENT IN INDUSTRIAL GROUPS.—AUSTRALIA, 1926.

Industrial Group.	Number Reporting.		Unemployed.	
	Unions.	Members.	Number.	Percentage.
I. Wood, Furniture, etc. ..	18	31,389	1,576	5.0
II. Engineering, Metal Works, etc. ..	59	61,071	2,975	4.9
III. Food, Drink, Tobacco, etc. ..	48	38,145	4,279	11.2
IV. Clothing, Hats, Boots, etc. ..	20	41,013	1,276	3.1
V. Books, Printing, etc. ..	12	17,973	350	1.9
VI. Other Manufacturing ..	64	34,489	4,311	12.5
VII. Building ..	44	51,906	2,831	5.5
VIII. Mining, Quarrying, etc. ..	18	23,222	1,769	7.6
X. Land Transport other than Rail-way and Tramway Services ..	8	12,632	537	4.3
IX., XI., XII., XIII., and XIV., Other and Miscellaneous ..	83	103,557	9,422	9.1
All Groups ..	374	415,397	29,326	7.1

§ 3. Apprenticeship.

In Year Book No. 16, pp. 602-3, information was given with regard to legislation relating to the question of apprenticeship. Tables were included showing the periods of apprenticeship fixed in the awards of the various industrial tribunals of the States and Commonwealth, and also the proportion of apprentices to journeymen and journeywomen. This information has been omitted from the present issue, but further investigations are being made, and additional and more comprehensive information will be incorporated in a later issue.

D. ASSOCIATIONS.

§ 1. Labour Organizations.

1. *Registration.*—(i) *Under Trade Union Acts.* The benefits obtained by registering trade unions under the Trade Union Acts in force in the various States are not considered of much value; consequently the statistics of registered trade unions of employees do not accurately represent the position of unionism. Further, the returns for past years are so defective as to be practically valueless, inasmuch as no reliable indication is afforded of the numerical and financial position of the unions. Some of the registered unions fail to supply returns; this non-supply may lead to cancellation of the registration. Others have obtained the cancellation of their certificates of registration, the apparent reason being that they proposed to register under the Commonwealth Conciliation and Arbitration Act or a State Arbitration Act. In Queensland, some of the largest labour unions withdrew from registration during 1911, mainly on account of the necessity for closer restriction of their objects as set forth in their rules, consequent on legal decisions affecting trade unions. In Victoria and in South Australia very few of the existing unions are registered under the Trade Union Acts. It will be seen, therefore, that the available information under this heading is too meagre for statistical purposes.

(ii) *Under Industrial Arbitration Acts.* Information with regard to registrations of trade unions under the various State Industrial Arbitration Acts will be found in previous issues of the Year Book. The latest information available as to registrations is as follows:—New South Wales, 143 industrial unions of employers and 153 industrial unions of employees, the membership of the latter being 293,567; Queensland, 82 industrial unions of employees with approximately 137,460 members; South Australia, 20 organizations of employees with 34,622 members; Western

Australia, 42 organizations of employers with 1,026 members, and 124 organizations of employees with 41,050 members. Registration under Commonwealth legislation began in 1906. In that and the four following years, there was but one union of employers; another was registered in 1911. The unions of employees registered were 20 in 1906, with 41,413 members. In May, 1927, there were on the register 23 organizations of employers with 14,569 persons, firms or corporations affiliated, and 144 organizations of employees with 687,152 members.

2. Particulars regarding Trade Unions. —(i) *Types*. The trade unions in Australia are very diverse in character, and range from the small independent association to the large interstate organization, which, in its turn, may be merely a branch of a British or international union. Broadly speaking, there are four distinct classes of labour organizations, viz. :—(i) the local independent, (ii) the State, (iii) the interstate, and (iv) the Australasian or International, but a number of variations occur from each of these classes. The leading characteristics of each of these types were briefly outlined in Labour Report No. 2 (pp. 7 to 9) issued by this Bureau.

(ii) *Number and Membership*. As already stated, the figures for trade unions registered under the Acts do not represent the position of unionism in Australia. In 1912, the Labour and Industrial Branch of the Commonwealth Bureau of Census and Statistics was established, and with the cordial co-operation of the officials of the labour organizations, comprehensive figures relating to the development of organized labour are now available. The following table shows the position at the end of 1926 :—

TRADE UNIONS, BRANCHES, AND MEMBERS, 1926.

State or Territory.	Number of Separate Unions.	Number of Branches.	Number of Members.
New South Wales	191	602	329,260
Victoria	157	384	230,539
Queensland	109	284	142,985
South Australia	108	90	79,908
Western Australia	121	153	52,616
Tasmania	79	51	15,783
Northern Territory	3	..	387
Total	768	1,564	851,478
Australia (a)	372 (a)	1,960 (b)	851,478

(a) Allowing for interstate duplication. (b) Number of distinct organizations and interstate groups of organizations in Australia—not the total number of organizations, which are practically independent and self-governing. (See below.)

In the preceding table the number of separate unions in each State refers to the number of unions which are represented in each State, exclusive of branches therein, and each union is counted once only. Except in the last line, the number of branches indicates the number of branches of State head offices, which may, of course, themselves be branches of an interstate or larger organization. In taking the total number of separate unions in Australia (see last line but one), it is obvious that, in the case of interstate and similar unions, there will be duplication, since each such union is counted once in each State in which it has any branches. In the figures given in the last line allowance has been made for this duplication. State branches of interstate or federated unions, as well as sub-branches within a State, are included under the heading "Branches" in the third column—last line. The scheme of organization of these interstate or federated unions varies greatly in character, and the number of separate Commonwealth unions does not, therefore, fairly represent the number of practically independent organizations in Australia. In some of these unions the State organizations are bound together under a system of unification and centralized control, while in others the State units are practically independent and self-governing, the federal bond being loose and existing only for one or two specified purposes. There are therefore 372 distinct organizations and interstate groups of organizations in Australia, having 1,960 State branches and sub-branches, and a total of 851,478 members.

(iii) *Classification in Industrial Groups.* The following table shows the number of unions and members thereof in Australia at the end of each of the last five years. The number of unions specified refers to the number of different unions represented in each State; and, while interstate or federated unions are counted once in each State in which they are represented, sub-branches within a State are not counted.

TRADE UNIONS.—INDUSTRIAL GROUPS, AUSTRALIA, 1922 TO 1926.

Industrial Groups.	1922.	1923.	1924.	1925.	1926.
NUMBER OF UNIONS.					
I. Wood, Furniture, etc.	19	18	18	18 (4)a	18 (4)a
II. Engineering, Metal Works, etc.	69	70	69	68 (21)	68 (22)
III. Food, Drink, Tobacco, etc.	68	64	65	65 (39)	65 (35)
IV. Clothing, Hats, Boots, etc.	25	24	24	22 (10)	22 (9)
V. Books, Printing, etc.	17	14	14	14 (10)	14 (9)
VI. Other Manufacturing	84	79	78	78 (36)	77 (37)
VII. Building	54	52	51	51 (31)	51 (31)
VIII. Mining, Quarrying, etc.	19	16	16	15 (12)	15 (12)
IX. Railway and Tramway Services	52	51	51	50 (33)	51 (33)
X. Other Land Transport	20	14	13	13 (8)	13 (8)
XI. Shipping, etc.	74	94	91	56 (31)	54 (26)
XII. Pastoral, Agricultural, etc.	10	8	8	(3)	(3)
XIII. Domestic, Hotels, etc.	26	26	23	22 (16)	23 (16)
XIV. Miscellaneous	276	267	270	263 (128)	289 (127)
Total	813	797	791	743 382(a)	768 (372)a

NUMBER OF MEMBERS.					
I. Wood, Furniture, etc.	23,582	24,465	23,859	32,279	35,315
II. Engineering, Metal Works, etc.	53,637	59,032	68,243	72,750	79,201
III. Food, Drink, Tobacco, etc.	54,497	58,663	55,402	58,326	67,255
IV. Clothing, Hats, Boots, etc.	44,540	45,842	46,521	44,632	47,932
V. Books, Printing, etc.	15,341	16,249	15,856	16,532	18,592
VI. Other Manufacturing	37,942	38,554	40,376	41,689	44,605
VII. Building	42,177	46,231	51,819	55,314	53,881
VIII. Mining, Quarrying, etc.	38,082	37,063	40,996	44,403	46,014
IX. Railway and Tramway Services	92,152	89,405	90,365	108,037	114,899
X. Other Land Transport	20,376	16,386	17,785	18,219	20,844
XI. Shipping, etc.	41,510	38,006	37,823	39,309	40,594
XII. Pastoral, Agricultural, etc.	43,538	36,584	46,081	48,157	54,173
XIII. Domestic, Hotels, etc.	21,130	20,713	22,861	24,251	25,760
XIV. Miscellaneous	174,434	172,550	171,168	191,824	202,413
Total	702,938	699,743	729,155	795,722	851,478

(a) Allowing for interstate duplication.

Particulars are given in "Labour Report No. 17 of the number of male and female members of unions and the percentage of such members on the total number of adult wage-earners. Other tables in the same report show the classification of unions according to the number of members and the number of central labour organizations.

(iv) *Interstate or Federated Unions.* The following table gives particulars as to the number and membership of interstate or federated unions in 1926 :—

INTERSTATE OR FEDERATED UNIONS.—AUSTRALIA, 1926.

Particulars.	Unions Operating In—					Total.
	2 States.	3 States.	4 States.	5 States.	6 States. (a)	
Number of Unions	19	15	12	22	43	111
Number of Members	26,271	53,873	86,491	204,094	341,061	711,790

(a) Certain unions in this group have, in addition to branches in each of the six States, a branch in the Northern Territory.

It appears, therefore, that 111 out of the 372 separate associations and groups of associations in Australia are organized on an inter-state basis. The membership of these 111 unions amounts to 711,790, or 84 per cent. of the total membership (851,478) of all unions.

3. Central Labour Organization.—In each of the capital cities, and in a number of industrial centres elsewhere, delegate organizations, consisting of representatives from a group of trade unions, have been established. Their revenue is raised by means of a per capita tax on the members of each affiliated union. In most of the towns where such central organizations exist, the majority of the local unions are affiliated with the central organisation, which is usually known as the Labour or the Trades Hall Council, or the Labour Federation. In Western Australia a unified system of organization extends over the industrial centres throughout the State. In this State there is a provincial branch of the Australian Labour Party, having a central council and executive, and metropolitan and branch district councils, to which the local bodies are affiliated. The central council, on which all district councils are represented, meets periodically. In the other five States, however, the organization is not so close, and, while provision usually exists in the rules of the central council at the capital city of each State for the organization of district councils or for the representation of the central council of the local councils in the smaller industrial centres of the State, the councils in each State are, as a matter of fact, independent bodies.

The table below shows the number of metropolitan and district or local labour councils, together with the number of unions and branches of unions affiliated thereto in each State at the end of the year 1926 :—

CENTRAL LABOUR ORGANIZATIONS.—NUMBER, AND UNIONS AFFILIATED, 1926.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N. Ter.	Total.
Number of Councils	2	6	4	2	9	2	1	26
Number of Unions and Branch Unions affiliated ..	91	196	85	65	206	47	3	693

The figures given in the preceding table as to number of unions do not necessarily represent separate unions, since the branches of a large union may be affiliated to the local trades councils in the several towns in which they are represented.

Between the trade union and the central organization of unions may be classed certain State or district councils organized on trade lines, and composed of delegates from separate unions, the interests of the members of which are closely connected by reason of the occupation of their members. Delegate councils of bakers, bread carters, and mill employees, or of unions connected directly or indirectly with the iron, steel, or brass trades, or with the building trades may be so classed.

4. Laws relating to Conditions of Labour.—In Official Year Book No. 16, pp. 538 to 566, a conspectus was given of Labour Laws in force in Australia at the end of the year 1922, and of Acts and Regulations relating to Factories and Shops.

Information was contained in the same issue with regard to employment under Mining Acts, followed by a brief reference to Employers' Liability and Workmen's Compensation Acts and miscellaneous legislation relating to conditions of labour enacted by the States. A conspectus of the Tribunals for the Regulation of Wages and Conditions of Labour was also included. Owing to considerations of space these references have been omitted from the present issue.

§ 2. Employers' Associations.

1. **General.**—Recent investigations show that the spirit of association is no less manifest in the case of employers than in the case of workers. Associations for trade purposes merely are not included in the present chapter, which deals with those associations only whose members are united for their own protection, and for representation in cases before Arbitration Courts, Wages Boards and other wage-fixing tribunals. Associations of employers and employees are recognized under the Commonwealth Conciliation and Arbitration Act as well as under several State Acts, and organizations of these bodies may be registered.

2. **Employers' Associations in each State.**—The following table gives particulars of the number of employers' associations in each State at the end of the years 1922 to 1926 :—

EMPLOYERS' ASSOCIATIONS—STATES, 1922 TO 1926.

Year.	N.S.W.	Victoria.	Q'land.	S.A.	W.A.	Tas.	N. Ter.	Total.
NUMBER OF ASSOCIATIONS.								
1922 ..	115	167	60	46	62	17	..	467
1923 ..	137	132	85	48	54	24	..	480
1924 ..	127	135	80	49	53	25	..	469
1925 ..	133	141	78	52	51	25	..	480
1926 ..	136	143	72	52	50	25	..	478
NUMBER OF BRANCHES.								
1922 ..	135	71	39	..	12	5	..	262
1923 ..	102	49	54	..	12	8	..	225
1924 ..	79	41	70	..	12	8	..	210
1925 ..	480	621	194	1	17	2	..	1,315
1926 ..	464	617	183	..	16	..	..	1,280
MEMBERSHIP.								
1922 ..	18,187	18,963	7,648	2,888	1,713	2,307	..	51,706
1923 ..	27,027	19,813	12,918	5,101	2,477	2,751	..	70,087
1924 ..	28,667	21,095	17,060	5,746	2,646	2,716	..	77,930
1925 ..	38,931	34,274	17,831	6,346	3,369	2,599	..	103,350
1926 ..	42,666	32,386	21,113	6,572	8,356	2,481	..	113,574

The decrease in 1924 in the number of associations is partly explained by the exclusion of certain associations which have been found to be not strictly employers' associations, while, in some cases, associations have become either inactive or defunct. On the other hand, the inclusion of additional associations accounts for the increased membership.

The large increase shown for "No. of Branches" for the year 1925 is wholly due to the inclusion of associations representing agricultural interests, while the increase in total membership is partly attributable to a more complete collection of statistics relating to these organizations.

The year 1922 was the first for which information was collected, and particulars for that year will be found in Year Book No. 17.

3. **Employers' Associations in Industrial Groups.**—The figures in the table hereunder refer to Australia at the end of the years 1925 and 1926.

EMPLOYERS' ASSOCIATIONS—INDUSTRIAL GROUPS—AUSTRALIA, 1925 AND 1926.

Class.	Number of Associations.		Number of Branches.		Membership.	
	1925.	1926.	1925.	1926.	1925.	1926.
I. Wood, Furniture, etc. . .	20	18	2	3	1,384	1,469
II. Engineering, etc. . .	14	14	11	..	3,456	3,485
III. Food, Drink, etc. . .	100	93	25	53	17,865	16,449
IV. Clothing, Hats, etc. . .	22	19	9	3	2,832	2,003
V. Books, Printing, etc. . .	34	34	3	..	3,310	3,285
VI. Other Manufacturing . .	49	51	1	5	3,234	3,013
VII. Building . .	27	26	12	14	2,983	3,068
VIII. Mining, Quarrying, etc. . .	13	13	..	..	320	304
X. Other Land Transport . .	18	18	1	1	3,009	3,459
XI. Shipping, etc. . .	16	17	2	2	256	240
XII. Pastoral, Agricultural, etc. .	30	39	1,243	1,195	46,487	57,982
XIII. Domestic, Hotels, etc. . .	17	17	..	..	1,727	1,695
XIV. Miscellaneous . .	120	119	6	4	16,487	17,122
Total . .	480	478	1,315	1,280	103,350	113,574

The female membership of these associations was 4,924 for 1925, and 3,758 for 1926.

The organization of employers is relatively strongest in the pastoral and agricultural industries and in the manufacture and distribution of articles of food and drink. In the former case there has been considerable growth in organization among small farmers, and in the latter, the number of small shops purveying foodstuffs of which the proprietors are members of grocers', butchers', and other similar associations accounts for the large membership.

4. Federations of Employers' Associations.—In addition to the associations in various industries, there are central associations in each State, to which many of these separate organizations are affiliated. Examples of this kind of association are provided in the Chamber of Manufactures, Chamber of Commerce, and Employers' Federation in each State. Further, these State associations are, in some cases, organized on a federal basis, e.g., there is an Associated Chamber of Manufactures, an Associated Chamber of Commerce, or a Central Employers' Association, to which State branches are affiliated.

The affiliation of these associations is, however, of a very loose nature when compared with that of the Federated Trade Unions. Whereas in the latter case the central body has complete control of its state branches, in the case of the Employers' Associations each state body enjoys complete independence, the central body acting in a more or less advisory capacity only.

The following table gives particulars, so far as can be ascertained, of inter-state or federated associations having branches in two or more States in 1923 to 1926 :—

INTER-STATE OR FEDERATED EMPLOYERS' ASSOCIATIONS, 1923 TO 1926.

Particulars.	Associations Operating in—					Total.
	2 States.	3 States.	4 States.	5 States.	6 States.	
No. OF ASSOCIATIONS.						
1923	4	4	4	5	12	29
1924	2	6	6	11	9	34
1925	3	5	4	10	8	30
1926	4	3	5	8	8	28
No. OF MEMBERS.						
1923	679	2,028	465	16,521	26,832	46,525
1924	427	595	829	29,612	26,523	57,986
1925	3,899	535	634	20,549	25,778	51,395
1926	534	432	1,861	24,118	25,950	52,895

Of the total membership, amounting to 113,574, of these associations 47 per cent. is organized on an inter-state basis.

CHAPTER XIV.

DEFENCE.

§ 1. Military Defence.

1. *State Systems.*—A detailed historical account of the Australian defence forces prior to Federation will be found in Official Year Book No. 2, pp. 1075–1080. See also Official Year Book No. 12, p. 999.

The strength of the military forces of the States on the 31st December, 1900 (the eve of Federation) was :—New South Wales, 9,338 ; Victoria, 6,335 ; Queensland, 4,028 ; South Australia, 2,932 ; Western Australia, 2,696 ; Tasmania, 2,024 ; total for Australia, 27,353. This total was exclusive of cadets, reservists, and rifle club members.

2. *Commonwealth System.*—(i) *General.* Under the terms of the Constitution Act 1900, the Commonwealth took over control of defence matters in March, 1901. The growth of the Commonwealth Military Forces may be considered to have taken place in three phases, viz. :—

- (a) The first phase, *i.e.*, the welding together of the military forces of the States into one homogeneous army, was entrusted by the Government in 1902 to Major-General Sir Edward Hutton, K.C.B., K.C.M.G., and a sound foundation was laid, upon which the subsequent organization and training were based.
- (b) The second phase was the introduction of Universal Training in 1911. During the year 1909 a measure providing for universal training was enacted, and the scheme came into force in 1911 after the advice and recommendations of the late Lord Kitchener had been obtained. By the Defence Acts of 1903 and 1904 all male inhabitants between the ages of 18 and 60 years were made liable to serve in Australia with the defence forces in *time of war*. The more recent Acts make training and service compulsory up to the age of 26 years in *time of peace*. By the Act of 1909 the principle of universal liability to training was made law for the first time in any English-speaking community. More detailed reference to these matters will be found in Official Year Book No. 12, p. 999 *et seq.*
- (c) The third phase, *Divisional Organization*, came into operation from the 1st May, 1921. Under this system a war organization, evolved from the Australian Imperial Force, is applied to peace conditions, with a minimum of permanent staff and forces. Numbers of units and formations have been altered to correspond with those of the A.I.F. and every effort is being made to maintain the traditions established by those units in the Great War.

(ii) *Military Population.* In connexion with the numbers available, the figures of male population are of interest. The total number at cadet age, *i.e.*, between 12 and 18, at the Census of 1921 (4th April) was about 300,000 ; at citizen soldier age, *i.e.*, between 18 and 26, 354,000 ; these latter, with 409,000 at ages between 26 and 35, give 763,000 as the total males at the best period for military service. It is estimated that 529,000 of those available between the ages of 18 and 35 were not married or widowers without children, and 233,000 were married or widowers with children. In addition, there were about 768,000 between the ages 35 and 60.

(iii) *Allotment of Units.* The organization is territorial, and the divisions based upon infantry units. There are 60 battalions, forming 15 brigades. The areas have approximately equal numbers of males of citizen soldier age, and each furnishes a battalion of infantry, and a proportion of other troops.

ALLOTMENT OF UNITS TO AREAS, 1st AUGUST, 1926.

Battalion Areas.														
State.	Brigade Areas.	Providing the undermentioned Units—												Training Areas.
		Number of Areas.	Infantry Battalions.	Light Horse Regiments.	Field Artillery Batteries.	Companies.	Engineers.		Signallers.		A.A.M.C.			
							Troops.	Sections.	Troops.	A.A.S.C. Companies.	Field Amb.	Field Hygiene Sections.	A.A.V.C. Sections.	
N.S. Wales	5	20	21	7	17	7	3	18	4	10	8	3	4	36
Victoria	5	20	21	6	17	7	3	18	4	10	7	2	4	28
Queensland	2	8	8	4	7	2	1	9	1	3	3	1	1	10
S. Aust.	1	4	4	4	4	1	1	2	1	2	2	2	1	7
W. Aust.	1	3	3	1	3	1	1	4	1	1	1	1	1	6
Tasmania	1	3	3	1	2	1	1	3	1	1	1	1	1	4
Total	15	58	60	23	50	19	8	54	10	27	22	10	10	89

(iv) *Strength of Military Forces.* (a) *Districts.* There was little alteration in the numbers serving in the Australian military forces from the institution of the Commonwealth to the year of the introduction of the compulsory training system. From 1913 to 1918, however, the annual increase was considerable. As a result of the International Conference which met at Washington on the 11th November, 1921, it was decided by the Australian Government in 1922 that the universal training law is to be continued, but its operation is to be restricted to the more populous centres and to certain quotas only. From 1st July, 1922, to 30th June, 1925, training in the Senior Cadets was limited to two quotas instead of four, and in the Citizen Forces to two quotas instead of seven. Since 1st July, 1925, Senior Cadet training has been reduced to one quota only, while Citizen Force training has been increased to three quotas. Senior Cadet training now commences on 1st July of the year in which Senior Cadets reach the age of 17 years, and on 1st July of the following year they are allotted to the Citizen Forces, in which training continues until the 30th June of the year in which the trainee attains the age of 21 years. Notwithstanding these reductions in training, the liability to register at the age of 14 years and to serve for the full period prescribed by the Defence Act remains. Junior Cadet training of boys of the age of 12 and 13 years was in abeyance during the years 1922–23 and 1923–24, but has been resumed as an activity of the Defence Department as from 1st July, 1924. The existing Divisional Organization of the Field Force is being retained in skeleton form, units being maintained at considerably below war strength.

TRAINING STRENGTH OF MILITARY FORCES, 1901, 1913, AND 1921 TO 1926.

(a) District.	1901. (b) 1/3/01.	1913. 30/6/13.	1921. 31/12/21.	1922. 31/12/22.	1923. 31/12/23.	1925. 1/2/25.	1926. 1/8/26.
Hd.-Qrs.(c) ..	..	277	458	499	58	130	158
1st (Q'ld.) ..	4,310	4,625	14,752	4,319	4,212	4,263	4,908
2nd (N.S.W.) ..	9,772	12,105	46,924	14,561	15,211	15,420	17,249
3rd (Vict.) ..	7,011	10,840	41,484	11,117	11,825	11,847	14,347
4th (S. Aus.) ..	2,956	3,228	12,495	3,452	3,828	3,772	4,235
5th (W. Aus.) ..	2,283	1,685	6,540	2,018	2,170	2,265	2,399
6th (Tas.) ..	2,554	1,777	5,307	1,190	1,299	1,252	1,338
Total ..	28,886	34,537	127,960	37,156	38,603	38,889	44,634

(a) Approximately coterminous with boundaries of States. (b) Date of taking over the military forces from States by Commonwealth. (c) Including cadets at Royal Military College of Australia, and Staff Corps Officers abroad or training with other Commonwealth Departments.

(b) *Various Arms.* The numbers of the different arms of the service on the 1st August, 1926, were as follows:—

ARMS OF THE COMMONWEALTH MILITARY FORCES, 1st AUGUST, 1926.(a)

Light Horse	3,910	Ordnance (including Armament	
Field Artillery	5,348	Artificers)	262
Garrison Artillery	2,182	Survey Section (Engineers) ..	14
Field Engineers	2,392	R.A.E. (Works Section) ..	19
Signallers	1,738	Royal Military College (Cadets)	60
Fortress Engineers	402	Provost Staff	13
Infantry	24,014	Legal Department	35
Army Service Corps	1,658	Intelligence Section G.S. ..	12
Army Medical Corps	1,484	Engineer and Railway Staff	
Army Veterinary Corps ..	204	Corps	56
Australian Instructional Corps ..	597		
Staff Corps	234	Grand Total	44,634

(a) Excluding civilian staff.

(c) *Classification of Land Forces.* The following table shows the strength of the land forces in each State, classified according to nature of service, on the 1st August, 1926:—

CLASSIFICATION OF LAND FORCES,(a) 1st AUGUST, 1926.

Branch of Service.	Army Head-quarters.	1st Military District. (Qld.)	2nd Military District. (N.S.W.)	3rd Military District. (Vic.)	4th Military District. (S. Aus.)	5th Military District. (W. Aus.)	6th Military District. (Tas.)	Total.
Permanently employed ..	(b)148	144	657	515	88	130	68	1,750
Citizen soldiers ..	10	4,764	16,592	13,832	4,147	2,269	1,270	42,884
Unattached list of officers ..	..	55	150	139	52	7	25	428
Reserve of officers ..	..	986	2,633	3,001	848	621	263	8,357
Chaplains ..	6	58	68	138	40	32	20	362
Total	164	6,007	20,100	17,625	5,175	3,059	1,651	53,781

(a) Excluding civilian staff. (b) Including cadets at Royal Military College of Australia and Staff Corps Officers stationed abroad and training with other Commonwealth Departments.

(d) *Numbers Serving under Compulsory Provisions.* (1) *General.* The following tables show the numbers registered and training under the compulsory system, distinguishing Citizen Forces and Senior Cadets.

(2) *Citizen Forces 1905, 1906, and 1907 Quotas.* Registrations under these quotas as at the 30th June, 1926, are given hereunder.

UNIVERSAL TRAINING.—CITIZEN FORCES REGISTRATIONS, QUOTAS IN TRAINING (1905, 1906 AND 1907 QUOTAS), AS AT 30th JUNE, 1926.

Military Formations and Districts.	1907 Quota.	1906 Quota.	1905 Quota.	Total.
1st Division (2nd M.D.)	4,330	4,899	4,550	13,779
2nd Division (2nd M.D.)	7,753	7,607	7,412	22,772
3rd Division (3rd M.D.)	5,624	5,555	5,603	16,782
4th Division (3rd M.D.)	3,465	3,672	3,751	10,888
4th Division (4th M.D.)	2,732	2,914	2,868	8,514
11th Mixed Brigade (1st M.D.) ..	3,854	4,034	4,163	12,051
12th Mixed Brigade (6th M.D.) ..	1,099	1,165	1,294	3,558
13th Mixed Brigade (5th M.D.) ..	2,073	1,978	2,026	6,077
Total	30,930	31,824	31,667	94,421

(3) *Registrations, 1900 to 1904 Quotas.* Figures relating to these quotas have been included in the next table :—

CITIZEN FORCES.—REGISTRATIONS, QUOTAS NOT IN TRAINING (1900 TO 1904 QUOTAS), AS AT 30th JUNE, 1926.(a)

Military Districts.	Total Registrations in Training Areas.					Total.
	Quota, 1900.	Quota, 1901.	Quota, 1902.	Quota, 1903.	Quota, 1904.	
1st	4,865	4,453	4,260	3,673	4,154	21,405
2nd	10,058	9,970	10,451	10,968	12,052	53,499
3rd	7,325	7,390	7,248	8,359	9,340	39,662
4th	3,226	2,878	2,805	2,874	3,261	15,044
5th	1,178	1,244	1,347	1,989	2,095	7,853
6th	1,381	1,222	1,181	1,204	1,300	6,288
Total	28,033	27,157	27,292	29,067	32,202	143,751

(a) Latest particulars available, as no training is required of these quotas.

(4) *Exemptions and Missing Trainees.* Particulars for the 1905, 1906, and 1907 quotas are given hereunder :—

CITIZEN FORCES.—EXEMPTIONS AND MISSING TRAINEES, QUOTAS IN TRAINING (1905, 1906, AND 1907 QUOTAS), 30th JUNE, 1926.

Military Formations and Districts.	Exemptions.				Missing Trainees.
	1907 Quota.	1906 Quota.	1905 Quota.	Total.	1907, 1906, and 1905 Quotas.
1st Division (2nd M.D.)	2,559	2,648	2,589	7,796	248
2nd Division (2nd M.D.)	4,752	4,575	4,643	13,970	598
3rd Division (3rd M.D.)	2,840	2,642	2,867	8,349	799
4th Division (3rd M.D.)	2,058	2,178	2,337	6,573	347
4th Division (4th M.D.)	1,522	1,673	1,675	4,870	84
11th Mixed Brigade (1st M.D.)	2,996	2,845	3,034	8,875	90
12th Mixed Brigade (6th M.D.)	779	825	958	2,562	20
13th Mixed Brigade (5th M.D.)	1,281	1,259	1,397	3,937	32
Total	18,787	18,645	19,500	56,932	2,218

(5) *Trainees Serving with Senior Cadets as Officers.* The number of Citizen Force trainees serving as officers of Senior Cadets is given in the next table :—

TRAINEES OF CITIZEN FORCE AGE SERVING AS OFFICERS OF SENIOR CADETS, 30th JUNE, 1926.

Military Formations and Districts.	1907 Quota.	1906 Quota.	1905 Quota.	Total.
1st Division (2nd M.D.)	1	1	..	2
2nd Division (2nd M.D.) .. .. .	..	7	1	8
3rd Division (3rd M.D.)	3	11	..	14
4th Division (3rd M.D.)	1	3	..	4
4th Division (4th M.D.)	1	2	1	4
11th Mixed Brigade (1st M.D.) .. .. .	..	8	1	9
12th Mixed Brigade (6th M.D.)	2	1	..	3
13th Mixed Brigade (5th M.D.) .. .. .	..	3	..	3
Total	8	36	3	47

(6) *Senior Cadets—Registrations, etc.* Registrations and numbers in training from the 1908 to 1911 quotas at 30th June, 1926, are shown in the next table :—

SENIOR CADETS.—REGISTRATIONS AND NUMBER ACTUALLY IN TRAINING.
30th JUNE, 1926 (1908 TO 1911 QUOTAS).

Military Formations and Districts.	Total Registrations—Senior Cadets.					Number actually Training—Senior Cadets.
	1911 Quota.	1910 Quota.	1909 Quota.	1908 Quota.	Total.	1908 Quota.
1st Division (2nd M.D.) ..	3,123	3,287	3,229	3,910	13,549	2,361
2nd Division (2nd M.D.) ..	5,674	5,944	5,703	7,302	24,623	3,835
3rd Division (3rd M.D.) ..	4,051	4,466	4,568	5,578	18,663	3,379
4th Division (3rd M.D.) ..	2,461	2,652	2,342	3,116	10,571	1,553
4th Division (4th M.D.) ..	2,179	2,255	2,092	2,893	9,419	1,552
11th Mixed Brigade (1st M.D.)	2,576	3,100	2,960	3,974	12,610	1,490
12th Mixed Brigade (6th M.D.)	834	962	589	1,050	3,435	375
13th Mixed Brigade (5th M.D.)	1,519	1,746	1,612	1,900	6,777	972
5th District Base (5th M.D.)	36	39	29	45	149	..
Total	22,453	24,451	23,124	29,768	99,796	15,517

(7) *Senior Cadets—Exemptions and Missing Trainees.* Figures regarding these at 30th June, 1926, are shown below :—

SENIOR CADETS.—EXEMPTIONS AND MISSING TRAINEES, 30th JUNE, 1926.

Military Formations and Districts.	Exemptions.					Missing Trainees.
	1911 Quota.	1910 Quota.	1909 Quota.	1908 Quota.	Total.	
1st Division (2nd M.D.) ..	25	38	556	1,504	2,123	49
2nd Division (2nd M.D.) ..	80	137	1,504	3,371	5,092	198
3rd Division (3rd M.D.) ..	11	27	759	2,041	2,838	236
4th Division (3rd M.D.) ..	26	67	482	1,481	2,056	93
4th Division (4th M.D.) ..	18	36	640	1,314	2,008	43
11th Mixed Brigade (1st M.D.)	33	86	1,301	2,449	3,869	83
12th Mixed Brigade (6th M.D.)	8	27	210	669	914	14
13th Mixed Brigade (5th M.D.)	9	17	295	925	1,246	3
5th District Base (5th M.D.)	..	..	6	18	24	..
Total	210	435	5,753	13,772	20,170	719

(8) *Citizen Forces—Medical Examinations.* The following table shows the results of examinations of the 1907 quota as at 30th June, 1926 :—

**CITIZEN FORCES.—MEDICAL EXAMINATIONS, 1908 QUOTA, HALF-YEAR
ENDED 30th JUNE, 1926.**

Military Formations and Districts.	Number of Examinations carried out.	Fit.		Permanently Unfit (A.M.R. 369).		Unfit (other than those under A.M.R. 369).	
		Number.	Per-centage.	Number.	Per-centage.	Number.	Per-centage.
1st Division (2nd M.D.)	2,695	1,969	73.1	..	..	726	26.9
2nd Division (2nd M.D.)	4,373	2,974	68.0	..	..	1,399	32.0
3rd Division (3rd M.D.)	3,998	2,773	69.4	34	.8	1,191	29.8
4th Division (3rd M.D.)	1,722	1,215	70.6	6	.3	501	29.1
4th Division (4th M.D.)	1,901	1,240	65.2	6	.3	655	34.5
11th Mixed Brigade (1st M.D.)	2,225	1,281	57.6	12	.5	932	41.9
12th Mixed Brigade (6th M.D.)	493	324	65.7	..	..	169	34.3
13th Mixed Brigade (5th M.D.)	1,023	728	71.2	3	.3	292	28.5
5th District Base (5th M.D.)	33	27	81.8	..	..	6	18.2
Total	18,463	12,531	67.9	61	.3	5,871	31.8

(v) *Administration and Instruction.* The staff provided for the administration and training of the various arms consists of 250 officers (Staff Corps), 56 quartermasters, and 544 warrant and non-commissioned officers (Australian Instructional Corps).

(vi) *Royal Military College, Duntroon.* This College was established at Duntroon in the Federal Capital Territory for the purpose of providing trained officers for the permanent forces. Admission is by open competitive examination, a definite number of vacancies being allotted to each State on a population basis. Further particulars respecting the College are given on page 915 of Official Year Book No. 15. On 1st February, 1927, the staff numbered—military, 19; civil, 11. The cadets in training at the same date numbered 75.

(vii) *Railways and Defence.* A War Railway Council, consisting of military and railway officers, was instituted in 1911. Its chief duties are to furnish advice and information regarding railway transport for military purposes, and to secure co-operation between the Defence Department and the Railway Departments in regard to concentration and mobilization of troops. To prevent delay in the transport of troops, particularly that caused by the transshipment of baggage and implements of war, the Council has recommended the adoption of a uniform railway gauge on lines linking up the States' capitals. An Engineer and Railway Staff Corps has been instituted, and numbered 74 officers on 1st August, 1926. Fuller details will be found in Official Year Book No. 6, pp. 1070-1.

(viii) *Rifle Clubs.* On the 30th June, 1926, there were 1,109 rifle clubs with a membership of 38,735, and 82 miniature rifle clubs having a membership of 2,718. Members of rifle clubs must fire an annual course of musketry, but do not undergo any systematic drill.

The administration of rifle clubs is under the control of the Secretary for Defence, and rifle clubs do not form part of the military organization. Government grants however are made for the construction and maintenance of rifle ranges, etc., and 200 rounds of ammunition are issued free annually to each efficient member.

§ 2. Naval Defence.

1. **State Systems.**—Information regarding naval defence systems prior to 1901 will be found in Official Year Book No. 12, p. 1011, but considerations of space preclude its insertion in the present volume.

2. **The Present System.**—(i) *General.* An outline of the development of Australian naval policy was given in Official Year Book No. 3, pp. 1060–61, and No. 12, p. 1012. Some account of the building of the Australian Fleet, the proposed and modified cost thereof, the compact with the Imperial Government, etc., appears in Official Year Book No. 15, pp. 921 *et seq.* Up to the 30th June, 1926, the expenditure on construction amounted to £7,840,344.

The Washington Conference of 1921 has had a marked effect on Naval Defence schemes, and all warship building and naval base construction were for a time suspended. The Fleet personnel was reduced from 4,843 in 1921 to 3,500 in 1923, and the ships in commission were reduced from 25 to 13. H.M.A.S. *Australia* was sunk in accordance with the provisions of the Washington Treaty on 12th April, 1924.

In 1925 the Commonwealth Government, however, decided to build two 10,000 tons cruisers (the maximum size at present allowed for new construction under the Washington Conference), two ocean-going submarines, and a seaplane-carrier. The order for the two cruisers was placed in Scotland, and they are expected to be in commission in 1928. The two submarines, which will be built in England, are to be delivered in 1927. The seaplane-carrier (approx. 6,000 tons) is being built at Cockatoo Island Dockyard, Sydney, by the Commonwealth Shipping Board.

To ensure closer co-operation with the Royal Navy, arrangements have been concluded with the Admiralty for the annual exchange of a cruiser, thus giving an opportunity for Australian sailors to gain experience in fleet exercises on a large scale.

The British Admiralty have, in addition, lent to the Royal Australian Navy the sloop *Silvio*, which has been refitted in England as a surveying ship, and renamed H.M.A.S. *Moresby*. This vessel will be principally employed with H.M.A.S. *Geranium* in surveying the Great Barrier Reef. The Commonwealth Government is, moreover, negotiating with the New South Wales Government for the building of a floating dock, which will be available for naval use in times of war or emergency.

(ii) *Naval College.* A naval college was established at Geelong in 1913, and was transferred in 1915 to Captain's Point, Jervis Bay, New South Wales. The course is similar to that carried out in naval colleges in England. In March, 1927, there were 52 cadet midshipmen under training. A boy who reaches the age of thirteen years during the calendar year in which the entrance examination is held is eligible to compete, provided he is the son of natural-born British subjects. From amongst those qualified the selection committee chooses the number required. The Commonwealth Government bears the whole expense of uniforms, victualling, travelling, as well as that of the educational course. Altogether 145 officers who have passed through the College are now serving with the Fleet.

(iii) *Training Establishments.* Owing to the heavy cost of maintenance the H.M.A.S. *Tingra*, which was commissioned as a training ship, was paid off on 30th June, 1927. For the time being seamen recruits from 17 to 21 years of age will receive their preliminary training at the Naval Depot, Westernport, where, in addition to the new entry school, instruction is given in Gunnery and Torpedo, Signals and Wireless Telegraphy, Engineering, etc. It is intended to establish a Naval Training School at Geelong.

(iv) *The Naval Station.* A description of the limits of the Australian Naval Station is contained in previous issues of the Official Year Book (see No. 18, pp. 608–9), but lack of space precludes its repetition in the present issue. The limits have recently been altered slightly.

(v) *Vessels.* A list of the vessels of the Royal Australian Navy is given hereunder.

SHIPS OF THE ROYAL AUSTRALIAN NAVY, JANUARY, 1927.

Vessel.	Description.	Displacement.	Power.
		Tons.	H.P.
<i>Adelaide</i>	Cruiser	5,500	25,000
<i>Albatross</i>	Seaplane Carrier	6,000	12,000
<i>Anzac</i>	Flotilla Leader	1,660	36,000
<i>Australia</i> (building) ..	Cruiser	10,000	80,000
<i>Brisbane</i>	"	5,400	25,000
<i>Canberra</i> (building) ..	"	10,000	80,000
<i>Cerberus</i>	Motor-boat	61	220
<i>Penguin</i>	Depot Ship	5,880	12,500
<i>Geranium</i>	Sloop	1,250	2,000
<i>Huon</i>	Destroyer	700	11,300
<i>Mallow</i>	Sloop	1,200	1,800
<i>Marguerite</i>	"	1,250	2,200
<i>Melbourne</i>	Cruiser	5,400	25,000
<i>Moresby</i>	Sloop	1,320	2,500
<i>Oxley</i> (building) ..	Submarine .. ..	..	..
<i>Otway</i> .. ..	" .. ..	..	..
<i>Parramatta</i>	Destroyer	700	9,000
<i>Platypus</i>	Depot Ship	3,460	3,060
<i>Stalwart</i>	Destroyer	1,075	27,000
<i>Success</i>	"	1,075	27,000
<i>Swan</i>	"	700	10,000
<i>Swordsman</i>	"	1,075	27,000
<i>Sydney</i>	Cruiser	5,400	25,000
<i>Tasmania</i>	Destroyer	1,075	27,000
<i>Tatloo</i>	"	1,075	27,000
<i>Tingira</i>	Boys' Training Ship	1,800	..
<i>Torrens</i>	Destroyer	700	10,000
<i>Warrego</i>	"	700	9,000
<i>Yarra</i>	"	700	9,000
FLEET AUXILIARIES—			
<i>Biloela</i>	Fleet Collier and Oiler	5,700	2,300
<i>Kurumba</i>	Fleet Oiler	3,970	..

(vi) *Naval Forces.* Besides the sea-going forces, there is a R.A.N. Reserve, which is composed of Citizen Naval Trainees. The personnel of the sea-going forces, which was originally largely composed of Imperial officers and men, is now more than 90 per cent. Australian. To facilitate the training of the Naval Reserve, destroyers (River Class) which are held in reserve have been stationed in various training districts throughout Australia. The strength of the naval forces is given hereunder.

STRENGTH OF NAVAL FORCES (PERMANENT AND RESERVES), 15th JANUARY, 1927.

Description of Force.	Numbers Borne.		
	In Training.	Officers.	Men.
Royal Australian Navy (Sea-going) .. ..	..	435	4,375
Royal Australian Naval Auxiliary Services .. ..	..	34	131
Cadet Midshipmen undergoing training at R.A.N. College	54	..	..
Boys undergoing training on H.M.A.S. <i>Tingira</i>	192	..	..
Royal Australian Naval Reserve (Sea-going) .. ..	..	58	..
Royal Australian Fleet Reserve .. ..	..	..	88
Royal Australian Naval Reserve .. ..	..	239	5,609
Royal Australian Naval Volunteer Reserve .. ..	..	8	47

§ 3. Air Defence.

1. **General.**—A statement in regard to the preliminary steps taken in connexion with the development of air defence will be found in Official Year Book No. 18, p. 610.

Under the Air Board Regulations issued in October, 1922, the Royal Australian Air Force is administered by a Board consisting of two Air Force members and a Finance member. To this Force is entrusted the air defence of Australia, the training of personnel for co-operation with the naval and military forces, and the refresher training of pilots engaging in civil aviation. The present establishment of the Force includes the following units:—(a) Head-Quarters, Royal Australian Air Force, with representation at the Air Ministry in London; (b) A Flying Training School; (c) A Stores Depot; (d) Two composite squadrons and one flight; and (e) an Experimental Section.

2. **Establishment.**—The present approved establishment of the Permanent Air Force is 95 officers and 765 airmen, and of the Citizen Air Force, 54 officers and 285 airmen.

3. **Aerial Routes.**—Aerodromes and Alighting Sites have been prepared between the capital cities and on certain parts of the coast for service and civil purposes. The total number prepared to date is 164.

4. **Civil Aviation.**—Details regarding the formation and activities of the Civil Aviation Department will be found in Chapter VII., Section D. Aircraft.

§ 4. Expenditure on Defence.

1. **Expenditure, 1901-2 to 1926-27.**—The following table shows Defence expenditure in 1901-2 and during each of the last five years. Details of the expenditure of the Defence Department and the cost of the war and repatriation are given in Chapter VIII.—Finance.

DEFENCE EXPENDITURE.—AUSTRALIA, 1901-2 AND 1922-23 TO 1926-27.

Year.	Naval.		Military.		Air.		Special Defence Provision.	Total Defence Expenditure. (a) (b)
	Under Ordinary Votes and Appropriations.	Total Naval. (a)	Under Ordinary Votes and Appropriations.	Total Military. (a)	Under Ordinary Votes and Appropriations.	Total Air. (a)		
	£	£	£	£	£	£	£	£
1901-2 ..	178,819	178,819	777,620	780,260	..	..	..	959,079
1922-23(b) ..	2,124,491	2,575,131	1,481,754	33,351,848	179,337	273,032	..	36,200,011
1923-24(b) ..	2,084,420	2,279,310	1,545,455	32,922,571	222,657	306,418	2,500,000	38,008,299
1924-25(b) ..	2,016,404	2,219,566	1,551,524	31,324,012	216,544	284,623	988,140	34,816,341
1925-26(b) ..	2,136,065	2,390,452	1,587,551	31,214,010	281,164	425,535	3,742,745	37,772,742
1926-27(b) (Estimated)	2,223,023	2,715,203	1,598,823	31,859,540	433,847	595,027	1,000,000	36,169,770

(a) During the war years and subsequently, war expenditure and war expenditure on works included in total. (b) Not including War Gratuity (see p. 567).

NOTE.—In the year 1900-1 the approximate Defence Expenditure by the States was—

Ordinary Services ..	..	..	£800,000
Works, Arms, Equipment, etc. ..	..	..	200,000
Total ..	..	..	£1,000,000

§ 5. Munitions Supply.

1. **General.**—A statement dealing with the powers and functions of the Munitions Supply Board is given on p. 612 of Official Year Book No. 18, but limits of space preclude its repetition in the present volume.

2. **Factories.**—(1) *General.* The Explosives Factories at Maribyrnong, Victoria, which manufacture explosives for cartridges and artillery ammunition, were established in 1911. The staff at 30th June, 1926, numbered 130.

The Acetate of Lime Factory, established at Bulimba, Brisbane, in September 1918, provides acetate of lime (a raw material used in the manufacture of acetone) and is now being held in reserve. Employees at 30th June, 1926, numbered 4.

The Clothing Factory at Melbourne, Victoria, which had a staff of 243 employees on 30th June, 1926, commenced output in July, 1912, and since that date has been able to supply the whole of the uniform clothing required for the Defence forces, and the Post-master-General's Department. It also supplies clothing required by State Departments and local public bodies.

The Small Arms Factory at Lithgow, New South Wales, which was opened on 1st June, 1912, and delivered the first instalment of Australian arms in May, 1913, had on its pay roll on 30th June, 1926, 362 employees. Rifles are being produced, and the manufacture of pistols and machine guns has been undertaken.

On 1st January, 1921, by virtue of an agreement with the Colonial Ammunition Company Limited, the Defence Department entered into possession on lease of the Company's works at Footscray, Victoria, and had at 30th June, 1926, 190 persons employed there. At the works, which are known as the Defence Small Arms Ammunition Factory, rifle and pistol ammunition are manufactured.

(ii) *Expenditure on Factories.* The expenditure up to 30th June, 1926, on land, buildings, machinery and plant, factory fittings and furniture in connexion with the factories now in operation was approximately as follows:—Small Arms Factory, £584,440; Explosives Factories, £514,286; Clothing Factory, £40,399; Acetate of Lime Factory, £158,223.

§ 6. Remount Depot.

Information in regard to the establishment of this branch of activity is contained in previous issues of the Official Year Book (see No. 18, p. 613). When war was declared in 1914 little difficulty was experienced by the Remount Service in coping with the enormous task of obtaining and training horses for the mounted units of the A.I.F. and in providing for the shipment of horses to Egypt and India as required.

§ 7. Australian Contingents.

1. **General.**—In previous issues of the Year Book an account was given of the composition, etc., of the Australian contingents despatched for service in the New Zealand and Sudan Campaigns, in South Africa, China, and the Great War of 1914–18 (see Official Year Book No. 12, pp. 1019 *et seq.*).

2. **Australian Troops (Great War).**—Particulars of the enlistments, casualties, honours and decorations won, and engagements of the Australian Imperial Force during the Great War were given in Official Year Book No. 16, pp. 628 *et seq.* Limits of space, however, preclude the repetition of this information in the present volume.

§ 8. War Gratuity.

Reference was made in preceding Year Books (see No. 15, p. 930) to the bonus payable in accordance with the War Gratuity Acts of 1920 as a war service gratuity to soldiers and sailors who served in the Great War. Owing to limitations of space this information cannot be repeated, but it may be noted that the gratuity was paid in Treasury bonds, maturing not later than 31st May, 1924, and bearing interest at 5½ per cent. In necessitous cases payment was made in cash when desired by the person entitled. The first gratuities were made available about the beginning of June, 1920. The gratuities numbered 360,000, and the total amount paid was £27,424,317.

§ 9. Special Defence Legislation.

Information regarding special defence legislation enacted by the Commonwealth Government during the War was given in Official Year Book No. 15, p. 930. It may be pointed out here that the War Precautions Act Repeal Act of 1920 repealed the Act 1914-18, but a limited number of matters dealt with under the original Act are now provided for under the War Precautions Act Repeal Act of 1920 or by regulations made thereunder.

§ 10. Repatriation.

1. **General.**—An outline of the activities leading up to the formation of the Commonwealth Department of Repatriation was given in Official Year Book No. 15, p. 931, but limits of space preclude its repetition in the present volume. Some account was given also in the Year Book referred to, and in subsequent issues, of the policy and activities of the Department generally, while detailed information was incorporated in regard to such matters as sustenance rates and pensions to soldiers and dependents. (See Official Year Book 17, pp. 598 to 601.)

The main activities of the Repatriation Commission at 31st December, 1926, were confined to the grant, review and assessment of war pensions, medical treatment, the provision and renewal of artificial limbs and surgical aids, the grant and review of living allowances, and the administration of the Soldiers' Children Education Scheme.

2. **Pensions.**—The pensions in force on the 31st December, 1926, numbered 256,882, and the amount expended thereon during the twelve months ending 31st December, 1926, was £7,413,603.

3. **Summary of Activities.**—The following is a summary of the work of the Department from 8th April, 1918, to 31st December, 1926 :—

(i) *Employment.* Number of applications, 249,005; number of positions filled, 131,152.

(ii) *Vocational Training.* Number of men completed training, 26,451; number in training, 588.

(iii) *Assistance other than Vocational Training and Employment.* Applications received, 659,187; applications approved, 574,949.

(iv) *Soldiers' Children Education Scheme.* From the inauguration of the scheme in February, 1921, up to 31st December, 1926, 8,447 applications for assistance had been received. Of these 7,341 had been approved, of which 1,781 recipients of the benefits had completed their training, 4,517 were undergoing training, 58 applications were pending, and the remainder had been refused or withdrawn.

It is estimated that the scheme will involve an outlay of £1,250,000, of which the Commonwealth has undertaken to provide £800,000, while it is hoped that the balance will be forthcoming from private and public funds and benefactions. Up to 31st December, 1926, the expenditure was £518,763.

(v) *Assistance Granted.* The total expenditure incurred during the period 8th April, 1918, to 31st December, 1926, was £15,127,735, of which £8,828,000 represented gifts, £1,626,290 loan, and £4,673,360 general expenditure. Of the total the largest amounts were absorbed by vocational training, with £5 millions, and expenses of providing employment, £2½ millions.

(vi) *Medical Treatment.* At 31st December, 1926, there were 1,367 in-patients and 4,627 out-patients receiving medical treatment. The expenditure up to this date was £3,550,818.

4. *Settlement of Soldiers on the Land.*—At the Premiers' Conference in Melbourne in 1917 it was agreed that the States should undertake the work of settling on the land returned soldiers and munition and war workers, but that the Commonwealth should finance them for this purpose.

The original arrangement provided that the Commonwealth should take the responsibility of finding up to £500 per settler as working capital for improvements, implements, seed, etc., an amount which was subsequently increased to £625 per settler, together with £375 per settler for resumptions and works incidental to land settlement approved by the Commonwealth. Particulars of the advances to the States are shown in the following table :—

ADVANCES TO STATES FOR SOLDIER SETTLEMENT, AT 30th JUNE, 1926.

State.	No. of Settlers.	Advances agreed upon.	Advanced during 1925-26.	Advanced to 30th June, 1926.	Advances outstanding 30.6.26.
	No.	£	£	£	£
New South Wales	8,405	12,254,191	..	9,826,203	9,805,984
Victoria	11,000	15,708,514	..	11,968,176	11,794,075
Queensland	3,898	3,290,789	..	2,717,697	2,700,583
South Australia	5,000	6,265,471	..	2,857,780	2,833,005
Western Australia	5,186	6,278,750	..	5,463,782	5,431,202
Tasmania	2,821	3,521,234	..	2,168,303	2,129,563
Total	36,310	47,318,949	..	35,001,941	34,694,412

Prior to the occupancy of the land, the Repatriation Department was empowered to pay sustenance for a limited period, subject to certain conditions, also for 6 months during the first 2 years of occupancy while awaiting production.

5. *Conspectus of State Laws affecting Settlement of Returned Soldiers on the Land.*—In Official Year Book No. 13, pp. 1018 *et seq.*, will be found a table giving particulars of the laws of the various States relating to returned soldiers' land settlement.

Later modifications have been made with a view to simplifying procedure and liberalizing the conditions under which holdings may be acquired.

§ 11. War Service Homes.

The operations of the War Service Homes Commission at 31st December, 1926, may be briefly set out as follows :—31,156 applications involving advances amounting to approximately £20,759,518 had been approved; 15,745 houses had been completed; 129 applicants had been assisted to complete or enlarge dwelling-houses partly owned; 691 houses were in course of construction; and 556 building applications had been approved in respect of which building operations had not been commenced.

In addition, the Commission had purchased on behalf of eligible applicants 12,140 already-existing properties, and had taken over mortgages existing on 1,943 dwelling-houses, but in a number of cases actual settlement and transfer have not taken place. Applications in respect of 48 completed houses had not, however, been definitely approved, but pending this action the majority of the houses are occupied by the applicants under a weekly tenancy agreement.

The foregoing figures include the operations of the State Bank of South Australia, which is now carrying out the provisions of the War Service Homes Act in South Australia, the Commonwealth's obligations being to make available to the Government as a loan the funds required for the purpose.

CHAPTER XV.

THE TERRITORIES OF THE COMMONWEALTH.

A. GENERAL.

1. **Classification.**—The Territories of, or under the control of, the Commonwealth are of three classes—

- (a) Territories originally parts of the States which have been surrendered by the States to the Commonwealth. These are the Northern Territory (formerly part of the State of South Australia) and the Federal Capital Territory (formerly part of the State of New South Wales).
- (b) Territories, not parts of States, which have been placed under the authority of the Commonwealth by Order in Council under section 122 of the Constitution. These are Papua and Norfolk Island.
- (c) Territories which have been placed under the administration of the Commonwealth by Mandate issued by the League of Nations. These are the Territory of New Guinea and (administered in conjunction with the British and New Zealand Governments) Nauru.

The Territories in class (a) only are parts of the Commonwealth.

2. **Forms of Executive Government.**—The Territories differ in their forms of Government. Papua is administered by a Lieutenant-Governor and a nominated Executive Council, who, except in matters of high policy and in certain matters prescribed by law, are not controlled by the Commonwealth Government. Norfolk Island and the Territory of New Guinea are each under an Administrator who is controlled by the Commonwealth Government; and in each of these Territories there is an Advisory Council. The Northern Australia Act 1926 divided the Northern Territory into two parts, one comprising the area north of the 20th parallel of south latitude, and the other the area south of that line. The Act provides for a Government Resident in each part and for a Development Commission directly under the Minister for Home and Territories. In the Federal Capital Territory some local institutions under the law of New South Wales continue, otherwise the Federal Capital Commission has definite responsibilities in regard to the government. In Nauru the Executive Government is vested in an Administrator who is subject only to the general control of the Government controlling the Administration.

3. **Legislative Power.**—The laws of the Parliament of the Commonwealth are in force in the Territories which are parts of the Commonwealth, but are not applicable to the Territories not parts of the Commonwealth, unless expressly extended thereto.

In Papua, there is a nominated Legislative Council, which has full power of legislation, subject to the assent of the Governor-General. In New Guinea, the Northern Territory, Norfolk Island and the Federal Capital Territory, there are no Legislative Councils, and Ordinances are made for these Territories by the Governor-General, subject to such Acts of the Parliament of the Commonwealth as are in force there.

In Nauru the legislative power is vested in the Administrator, subject to instructions from the Government controlling the Administration.

4. **Laws.**—In the Northern Territory, Papua and Norfolk Island, the laws existing at the dates when these territories came under the control of the Commonwealth have remained in force, subject to later legislation by or under the authority of the Commonwealth Parliament; in the Federal Capital Territory there still remain in force some of the laws of the State of New South Wales; in New Guinea, the former German law was repealed at the date of the establishment of civil government.

Three volumes containing the "Statute Law of the Territory of Papua" in force on 31st December, 1916, were published by the Government Printer, Port Moresby, in 1918 and 1919; subsequent Ordinances and the regulations under Acts and Ordinances are published in the *Government Gazette* of Papua and in annual volumes. The South Australian statutes in force in the Northern Territory will be found in the collected editions and annual volumes of the State of South Australia: Ordinances made by the Governor-General are published in the *Commonwealth of Australia Gazette*, and regulations under

Ordinances in the *Northern Territory Gazette*. The laws in force in Norfolk Island at the time of its coming under the control of the Commonwealth were collected in the *New South Wales Government Gazette* of 24th December, 1913, and printed separately as "The Consolidated Laws of Norfolk Island"; Ordinances made by the Governor-General and regulations made by the Administrator, are published in the *Commonwealth of Australia Gazette*. Ordinances made by the Governor-General for the Federal Capital Territory are published in the *Commonwealth of Australia Gazette*. Ordinances made by the Governor-General for the Territory of New Guinea are published in the *Commonwealth of Australia Gazette*, and regulations made by the Administrator in the *New Guinea Gazette*; the statute law in force in New Guinea on 31st December, 1925, has been published as Vols. I.-IV. of "Laws of the Territory of New Guinea," and subsequent Ordinances and regulations are collected in annual volumes. Ordinances made by the Administrator of Nauru are promulgated locally and are printed in the annual report to the League of Nations on the Administration of Nauru.

5. **Finances.**—Papua is autonomous in its finances, but receives an annual grant from the Commonwealth Government. The Administration of the Northern Territory is maintained by the Commonwealth Government; a grant is made towards the expenses of administration of Norfolk Island, but taxes are raised locally which meet part of the expenditure; expenditure in the Federal Capital Territory is defrayed by the Commonwealth; New Guinea has its own budget, and the local revenues have hitherto been sufficient to maintain the Administration; Nauru is self-supporting.

The sum expended by the Commonwealth Parliament in 1925-26 on the Territories outside the Commonwealth was £105,405, exclusive of £50,418 for mail services to these Territories and to other islands in the Pacific.

B. THE NORTHERN TERRITORY.

§ 1. Area and Population.

1. **Introductory.**—Upon the extension of New South Wales westward to the 129th meridian in 1827, the Northern Territory was incorporated in that colony (see Chapter I.), and in 1863 was annexed by Royal Letters Patent to the province of South Australia. With the adjacent islands, it was transferred to the Commonwealth on 1st January, 1911.

2. **Area and Boundaries.**—The total area of the Territory is 523,620 square miles, or 335,116,800 acres. Its length from north to south is about 900 miles, while its breadth from east to west is 560 miles. Its eastern boundary, dividing it from Queensland, is the 138th meridian of east longitude; and its western boundary, separating it from Western Australia, the 129th meridian. Its southern boundary is the 26th parallel of south latitude, dividing it from South Australia. The northern boundary is the coast line of those parts of the Indian Ocean known as the Timor and Arafura Seas. Near the mouth of the Wentworth River, in the Gulf of Carpentaria, the coast line is met by the eastern boundary; at Cape Domett, near Cambridge Gulf, the western boundary cuts the northern coast line. The length of coast line is about 1,040 miles, or 503 square miles of area to one mile of coast line.

3. **Population.**—(i) *Europeans.* The problem of increasing the European population of the Northern Territory is one of considerable difficulty. Its solution will, of course, depend on the economic development of the country, and past experience tends to show that the task of developing its resources will involve large expenditure. At the Census taken in 1881 there were only 670 Europeans in the Territory. The total increased slowly, reaching its maximum in 1919 with 3,767 persons. Owing mainly to the closing down of the meat works at Darwin a decline then took place, and at the Census taken in 1921 the white population had decreased to 2,459, while on 30th June, 1926, it was approximately 2,700.

(ii) *Asiatics.* With the exception of a few Japanese, Filipinos and others, the Asiatics in the Northern Territory consist mainly of Chinese. The South Australian Government introduced 200 Chinese in the early seventies to assist in the promotion of agriculture, while the discovery of gold resulted in many others coming on their own account. Their numbers increased considerably in connexion with the construction of the railway from Darwin to Pine Creek, in 1887-88, and there were at that time upwards of 4,000 Chinese in the Territory. The total gradually dwindled thereafter, and the number at the Census of 1921 was only 722. The total number of all non-European persons (excluding Aborigines), is approximately 1,100.

(iii) *Total Population.* The highest recorded population of all races, except aborigines, was 7,533 in 1888, while at the end of 1926 it was 3,898. The estimated population for the last five years is given in the following table :—

**NORTHERN TERRITORY.—POPULATION (EXCLUSIVE OF ABORIGINES),
1922 TO 1926.**

Year.	Males.	Females.	Total.
1922	2,540	1,011	3,551
1923	2,527	1,028	3,555
1924	2,538	1,059	3,597
1925	2,550	1,106	3,656
1926	2,773	1,125	3,898

The Census population (4th April, 1921) was 2,821 males, 1,046 females, total, 3,867.

(iv) *Movement of Population.* The following is a summary of movement of population in 1926 (excluding overland migration) :—

NORTHERN TERRITORY.—MOVEMENT OF POPULATION, 1926.

Inwards	731	Outwards	498	Excess of immi- gration over emigration ..	233
Births	73	Deaths	64	Excess of births over deaths ..	9
Increase	804	Decrease	562	Net Increase ..	242

The immigration and emigration of the Territory for the five years ending in 1926 are shown in the following table :—

NORTHERN TERRITORY.—MIGRATION, 1922 TO 1926.

Year.	Immigration.	Emigration.
1922	406	599
1923	438	468
1924	496	467
1925	567	511
1926	731	498

(v) *The Aborigines.* A special article contributed by Dr. W. Ramsay-Smith on the subject of the Australian aborigines, was incorporated in Year Book No. 3 (pp. 158-176). The chapter "Population," in Year Book No. 17, contained information regarding the number and distribution of aborigines and the measures taken by the States (in the case of the Northern Territory, by the Commonwealth) to protect and preserve the aborigines. In the Northern Territory large numbers of the aborigines are still outside the influence of Europeans. At the last Census, 2,050 full-blood aborigines, in the employ of whites or living in the vicinity of European settlements, were enumerated. Of these 1,184 were males and 866 females. The total number of full-blood aborigines in the Territory at 30th June, 1926, was estimated at 19,853. The greatest difficulty which confronts the Administration in dealing with the natives is due to the circumstance that they are nomads, without fixed abode, merely wandering about hunting for native food within the limits of their tribal boundaries, and making no attempt at cultivation or other settled industry. In their natural state, compared with those of other tropical countries, the natives are very healthy, but in contact with new settlers, white or Chinese, they rapidly fall victims to disease, and to degradation from drink or opium.

§ 2. Legislation and Administration.

1. *Transfer to Commonwealth.*—(i) *The Northern Territory Acceptance Act.* A short historical sketch is given in Year Book No. 6, pp. 1113-4. On 1st January, 1911, the Territory was transferred by South Australia to the Commonwealth, upon terms previously agreed upon by the respective Cabinets, and ratified by the Commonwealth. *Northern Territory Acceptance Act* (No. 20 of 1910). The terms were outlined in Official Year Book No. 15, page 940.

(ii) *The South Australian Surrender Act.* The State Act approved and ratified the agreement surrendering the Territory.

2. *Administration.*—(i) *The Northern Territory (Administration) Act, 1910.* The Act provided for the appointment of an Administrator and officials. South Australian laws were declared to continue in force as laws of the Territory, and certain Commonwealth Acts to apply. Power was given to the Governor-General to make Ordinances having the force of law.

(ii) *Northern Australia Act, 1926.* As stated previously, under this Act the Territory is divided into two parts separated by the 20th parallel of south latitude, each administered by a Government Resident, while, in addition, a Development Commission is provided. The above officers were appointed and took charge as from 1st March, 1927.

(iii) *Northern Territory Ordinances.* In Official Year Book No. 18, pp. 619-20, a summary was given of the main provisions of the Ordinances passed up to June, 1924. For similar information regarding Ordinances passed during 1925, see Official Year Book No. 19, page 87, and during 1926, page 103 of this issue.

3. *Representation in Commonwealth Parliament.*—The Northern Territory elects a member to the House of Representatives. He is not entitled to vote, but may take part in any debate in the House. (See Year Book No. 19, p. 563.)

§ 3. Physiography.

1. *Tropical Nature of the Country.*—The Territory is within the torrid zone, with the exception of a strip $2\frac{1}{2}$ degrees wide, which lies south of the Tropic of Capricorn.

2. **Contour and Physical Characteristics.**—The low flat coast line seldom reaches a height of 100 feet. Sandy beaches and mud flats, thickly fringed with mangroves, prevail. Sandstone, marl, and ironstone form the occasional cliffy headlands. The sea frontage of more than 1,000 miles is indented by bays and inlets, and intersected by numerous rivers, many of which are navigable for considerable distances from their estuaries.

The principal features of the coast line are enumerated in Year Book No. 1, p. 66; the rivers in Year Book No. 2, p. 76; the mountains in Year Book No. 3, p. 67; the lakes in Year Book No. 4, p. 77; the islands in Year Book No. 5, pp. 71, 72, and the mineral springs in Year Book No. 6, p. 65.

Inland, the country generally is destitute of conspicuous landmarks. From the coast there is a general rise southwards to the vicinity of the 17th or 18th parallel of south latitude, where the higher lands form the watershed between the rivers that flow northwards to the sea and those that form the scanty supply of the interior systems. Towards the centre of the continent the land over a wide area is of considerable elevation, and there are several mountain ranges, generally with an east and west trend.

§ 4. Climate, Fauna and Flora.

1. **The Seasons.**—There are two main climatic divisions—the wet season, November to April, and the dry season, May to October, with uniform and regular changes of weather. Nearly the whole of the rainfall occurs in the summer months. Fuller particulars will be found in Year Book No. 6, p. 1116.

2. **Fauna.**—The ordinary types of native Australian fauna inhabit the Territory. As elsewhere on the continent, the higher *Theria* are rare, but marsupials, birds, crocodiles, fresh-water tortoises, snakes (mostly non-venomous), and frogs abound. There are many varieties of freshwater fish and littoral mollusca. Butterflies and beetles are strongly represented. The white ant is a pest, anthills in the Territory sometimes attaining great dimensions. Mosquitoes and sandflies are very troublesome, particularly in the wet season. Native fauna are in some cases protected. Buffalo formerly existed in large herds, but their numbers have been greatly reduced by indiscriminate shooting in recent years. †

3. **Flora.**—The vegetation is North Australian in type, but a number of the forms belongs to the Malayan and Oceanic regions. The timber trees are not of great commercial value, but in the coastal regions tropical vegetation grows luxuriantly to the water's edge. On the wide expanses of plain country in the interior there is little vegetation. The principal orders represented in the Territory are:—*Euphorbiaceæ*, *Compositæ*, *Convolvulaceæ*, *Rubiaceæ*, *Goodenoviaceæ*, *Leguminosæ*, *Urticææ*.

Fuller particulars regarding fauna and flora are given in Year Book No. 6, pp. 1116–7.

§ 5. Production.

1. **Agriculture.**—Up to the present agriculture has made little progress in the Territory, although it has been proved that rice, tobacco, coconuts, mangoes, bananas, cotton, various fodder plants, and peanuts can be successfully grown. Expense of harvesting is, at present, an obstacle to the economic production of rice, and until labour-saving machinery is procured it cannot be produced with profit. Some 5 miles from Darwin a coconut plantation, about six acres in area, is thriving, and at a small plantation at Shoal Bay the palms planted along the sea-shore are giving excellent results. There is a large stretch of first-class coconut land on the coast, but hitherto planting has not been attempted on a commercial scale. Cotton was planted in 1924 by settlers at Stapleton, Grove Hill, Daly Rivers, Pine Creek, and the Katherine, and there were experimental

plots at Mataranka, Borroloola, and on the lower Roper River. The small number of settlers and the difficulty in obtaining labour for picking militate against progress. Native labour is very uncertain, and the time of picking comes at a period of the year when the aboriginals can get plenty of native food. In 1926 only 40 acres were under cotton compared with 123 acres in 1925. About 180 acres were planted with peanuts, and about 35 tons were harvested, compared with 70 acres and 24 tons in the previous year. The outlook for agriculture is not bright, active settlers only number fourteen, and but an aggregate area of about 300 acres is under culture.

2. Pastoral Industry.—The pastoral possibilities of certain parts of the Northern Territory were recognized at an early date, and in 1866 stock was brought into the Macdonnell Range country from South Australia. Six years later cattle were brought from Queensland to the northern parts of the Territory, and in 1879 Mr. Giles reached the Katherine River with 2,000 head of cattle and 12,000 sheep from South Australia. For various reasons sheep-raising did not succeed. The cattle industry progressed slowly, and the number of cattle on 31st December, 1925, was about 970,300. A great impetus was given to this industry in 1917 by the opening of extensive meat works at Darwin. Unfortunately the works closed down in 1920, but they were partly reopened in 1925, and up to the 1st September of that year, 9,600 head of cattle were treated; killing then ceased. The number of cattle exported by land during the year 1925–26 was 19,329, compared with 42,426 during the previous year, and that of horses about 600. The cattle industry has been retarded by the ravages of ticks and by the difficulty of travelling stock through waterless country. These difficulties are, however, gradually being overcome, the former by the introduction of the practice of “dipping,” and the latter by adding to the number of wells on the various stock-routes and the creation of stock reserves. Horses thrive well, and in 1925 numbered about 46,000. Buffaloes thrive in the coastal districts, but their number has been greatly reduced by indiscriminate shooting for the sake of the hides, of which 6,271 were exported during 1925–26.

The estimated number of live stock in the Territory at various periods is given in the table hereunder:—

NORTHERN TERRITORY.—LIVE STOCK, 1910, 1915, AND 1921 TO 1925.

Year.	Horses.	Cattle.	Sheep.	Pigs.	Goats.	Camels.
1910 ..	24,509	513,383	57,240	996	..	..
1915 ..	19,957	433,961	57,827	500	..	..
1921 ..	39,565	568,031	6,349	452	19,385	494
1923 ..	44,603	843,718	4,728	647	25,647	579
1924 ..	45,059	855,285	6,914	1,000	30,000	1,000
1925 ..	46,380	970,342	8,030	382	21,859	452

In addition there were in 1925, 1,113 donkeys and 280 mules.

3. Mining.—(i) *General.* Alluvial gold-digging in the Northern Territory commenced in 1869, and up to the end of 1880 gold to the value of £79,022 had been produced. In 1881 the gold production reached its maximum, the value for that year being £111,945. During the following years it fluctuated considerably, but as long as the alluvial deposits lasted the output was satisfactory. In the transition period from alluvial to reef mining the industry declined considerably. The production of metals other than gold has suffered from vagaries of prices, and from the disadvantages of high cost of transport and of white labour. The year 1924–25 showed a decline from the previous year in all the principal metals. In the case of gold the year's production was the second lowest on record, the value amounting to only £593. The average number of men engaged in the mining industry for the year 1925–26 was about 185, comprising 110 Europeans, about 60 Chinese, and the balance mostly aboriginals.

(ii) *Mineral Production.* The following table shows the total mineral production for the last five years :—

NORTHERN TERRITORY.—VALUE OF MINERAL PRODUCTION,
1921-22 TO 1925-26.

Year.	Gold.	Tin Ore.	Wolfram.	Silver- Lead Ore.	Copper Ore.	Mica.	Total Value all Minerals.
	£	£	£	£	£	£	£
1921-22	540	5,891	560	..	798	2,170	9,959
1922-23	743	13,887	18	..	30	1,926	16,612
1923-24	3,270	12,855	..	..	239	2,718	19,138
1924-25	1,939	15,966	..	617	15	2,835	21,715
1925-26	593	15,852	..	447	60	2,132	19,085

(iii) *Coal and Mineral Oil.*—Three applications for mineral oil and coal licences were received in 1925-26, and only six such licences, representing an area of 4,270 square miles, were in existence on 30th June, 1926. No boring for oil in the Territory is at present undertaken.

4. *Pearl, Trepan, and Other Fisheries.*—In 1884 mother-of-pearl shell was discovered in the harbour of Port Darwin. Difficulty in working, principally through heavy tides and muddy water, retarded the development of the industry for many years. During 1925-26 eight boats were operating, employing 2 Europeans, 11 Japanese divers, 15 other coloured men and 6 aboriginals. The year's output was 43 tons, valued at £7,800. The territorial waters teem with fish, but the hope of establishing a salt and dried fish trade has not materialized. In the procuring of trepan, 5 boats and 7 persons, beside aboriginals, were engaged.

§ 6. Land Tenure.

A description of the system of land tenure in force in the Territory will be found in Chapter V.—Land Tenure and Settlement.

§ 7. Commerce and Shipping.

1. *Trade.*—No record is kept of the direction of trade between the Commonwealth States and Territories. The value of the direct overseas trade for 1901 and for each of the years 1921-22 to 1925-26 is given hereunder :—

NORTHERN TERRITORY.—VALUE OF DIRECT OVERSEA TRADE,
1901 AND 1921-22 TO 1925-26.

Items.	1901.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	£	£	£	£	£	£
Imports	37,539	12,115	12,804	14,432	20,636	34,168
Exports	29,191	5,036	14,627	8,000	41,944	35,902
Total	66,730	17,151	27,431	22,432	62,580	70,070

The principal items of overseas export in 1925-26 were cattle, £29,936 ; pearl-shell, £2,500 ; hides, £1,261 ; tallow, £870 ; trepan, £847 ; and fish, £326.

2. **Shipping.**—The Territory is dependent for its shipping facilities chiefly on the services of vessels trading between Sydney and Singapore. Other vessels make occasional visits, while a sixty-days' service between Fremantle and Darwin is carried out by the "Koolinda," belonging to the West Australian State Shipping Service.

NORTHERN TERRITORY.—SHIPPING, 1921-22 TO 1925-26.

Period.	Arrivals.		Departures.	
	No. of Vessels.	Tonnage.	No. of Vessels.	Tonnage.
1921-22	32	93,421	30	84,835
1922-23	37	99,055	37	99,955
1923-24	35	96,099	34	96,004
1924-25	56	124,715	52	124,564
1925-26	48	118,478	49	118,665

The foregoing figures are exclusive of particulars of coastwise shipping. During 1925-26, 35 vessels of 1,460 tons net were entered as coastwise.

§ 8. Internal Communication.

1. **Railways.**—Under the agreement ratified by the Act, the Commonwealth is to construct the Northern Territory portion of the transcontinental railway line (connecting Adelaide and Darwin, via Port Augusta).

The Northern line from Adelaide terminates at Oodnadatta, about 100 miles south of the southern boundary of the Territory. The only line at present in the Territory is one from Darwin to Emungalan, Katherine River, a length of 198.68 miles, of 3 ft. 6 in. gauge. The section between Emungalan and Daly Waters which was authorized by the Commonwealth Government at a cost not to exceed £1,545,000, is now under construction. A railway bridge across the Katherine River has been completed. The completion of the remainder of the gap would permit of the development of the broad belts of pastoral and mineral country towards the centre of Australia. The Commonwealth also acquired on 1st January, 1911, the property in the line from Port Augusta to Oodnadatta (478 miles). The extension of this line to Alice Springs has been authorized by Parliament, and the departmental work carried out.

2. **Posts.**—Postal communication is maintained by vessels belonging to Burns, Philp and Co., which maintain a monthly service between the Territory and the Eastern States. In addition, the vessels belonging to the State Steamship Service of Western Australia give a service once every 60 days between Fremantle and Darwin. Inland, the northern part of the Territory receives its mail via Darwin, while the southern districts are served via Adelaide.

3. **Telegraphs.**—The transcontinental telegraph line, covering a length of 2,230 miles, was completed on the 22nd August, 1872, at a cost of nearly half-a-million sterling. The line runs in a northerly direction from Adelaide to Darwin, whence telegraphic communication is provided with Asia and Europe, via Banjoewangie (Java), Singapore, and Madras. Between Darwin and Banjoewangie the submarine cable is duplicated.

High-power wireless stations have been constructed by the Federal Government at Wave Hill, in the Territory, and at Camooweal, just over the eastern boundary, in Queensland.

§ 9. Finance.

1. Revenue and Expenditure, 1925-26.—In the Commonwealth finance statements separate accounts are given for Northern Territory administration. Receipts and expenditure for 1925-26 are given below :—

REVENUE AND EXPENDITURE.—NORTHERN TERRITORY, 1925-26.

REVENUE.	£	EXPENDITURE.	£
Customs and Excise ..	6,628	Administrative Staff ..	69,030
Postal, Telegraph, and Telephone	8,752	Northern Territory Railways	43,625
Darwin-Katherine River Railway	38,879	Interest and Sinking Fund, Northern Territory Loans ..	143,251
Territorial	26,393	New Works, Artesian Bores, Roads, etc.	33,629
Land and Income Tax ..	3,534	Miscellaneous	92,733
Lighthouses and Light Dues ..	987		
Miscellaneous	12,125		
Deficiency on year's transactions	284,970		
Total	382,268	Total	382,268

2. Northern Territory Debt.—The items making up the total debt of the Territory as at 30th June, 1926, are as follows :—

	£	£
Debt at date of transfer to the Commonwealth,		
1st January, 1911		3,931,086
Redeemed under Commonwealth Loan Acts ..	2,352,717	
Redeemed from Consolidated Revenue ..	460,625	2,813,467
Redeemed from Sinking Fund	125	
Balance, 30th June, 1926		1,117,619

In addition, the balance of the Port Augusta-Oodnadatta Railway Loans taken over from South Australia amounted at the same date to £1,075,877, making a total of £2,193,496. Under the provisions of the "Northern Territory Acceptance Act, 1910," a sinking fund has been established in connexion with the transferred loans.

C. THE FEDERAL CAPITAL TERRITORY.

1. Introductory.—In Year Books Nos. 4 and 5, information was given in Section XXXI., in regard to the events leading to the selection of the Federal Capital Territory and the necessary legislation and the progress of operations in connexion with the establishment of the capital city. The physiography of the Territory was dealt with *in extenso*, and topographical and contour maps accompanied the letterpress, as well as reproductions of the premiated designs for the laying out of the city. Considerations of space, however, preclude the repetition of this information. On the 12th March, 1913, the official ceremony to mark the initiation of operations in connexion with the establishment of the Seat of Government was carried out. At this ceremony the selection of "Canberra" as the name of the capital city was announced.

2. Transfer of Parliament.—On the 24th March, 1927, the Senate and House of Representatives sitting in Melbourne, resolved that the next meeting of Parliament should be at Canberra on the 9th May, 1927. On that day the Parliament House at Canberra was officially opened by His Royal Highness Albert, Duke of York, the occasion being the 26th Anniversary of the opening of the first Parliament of the Commonwealth at Melbourne by His Royal Highness George, Duke of Cornwall and York—now His Majesty the King—on the 9th May, 1901.

The first part of the opening ceremony took place at the main entrance of Parliament House, in the presence of the Governor-General, the Governors of the States, the Prime Minister, Representatives from Great Britain and the Dominions, Members of Parliament, and other guests of the Government, as well as some thousands of citizens.

The significance of the occasion was marked by the presentation of a gold key and casket to His Royal Highness the Duke of York by the Prime Minister, who also handed duplicate keys of the House to the President of the Senate and the Speaker of the House of Representatives.

After a religious service, conducted by representatives of the Churches, the Royal Party entered Parliament House and proceeded to the King's Hall, where His Royal Highness, at the invitation of the Prime Minister, on behalf of the people of Australia, unveiled a statue of His Majesty, King George the Fifth.

The Members of the Senate and House of Representatives, and guests of the Government, then adjourned to the Senate Chamber. On the entry of His Royal Highness, accompanied by Her Royal Highness the Duchess of York, the Governor-General, and the State Governors, the Clerk of the Senate read the King's commission for the establishment of the Seat of Government at Canberra. His Royal Highness then addressed the assemblage and delivered a message from His Majesty the King.

The two Houses of the Parliament subsequently reassembled for the despatch of business, and its first meeting at the new Seat of Government, Canberra, was thus constituted.

3. Administration.—In Year Book No. 18, a summary was given of the development of the administration up to the taking over of the control of the Territory by the Federal Capital Commission.

The administration of the Territory entered upon a new phase when the Federal Capital Commission took over the control of its affairs at the beginning of 1925. The Commissioners have been appointed for terms of five years, four years and three years respectively, in accordance with the provisions of the *Seat of Government (Administration) Act 1924*. This Act defines the powers and functions of the Commission, which include the control and management of lands, the carrying out of works and building construction, and, generally, the municipal government of the Territory. Subject to Parliamentary and Ministerial authority, it has been empowered to raise loans for all the purposes of its administration.

The Departmental association with the administration of the Territory has therefore become limited to the general authority of the Minister for Home and Territories, and responsibility of the Department of Works and Railways to assist when required in the designing and construction of works and buildings.

It was provided in the *Seat of Government (Acceptance) Act 1909* that all laws in force in the Territory, at the date of its acquisition by the Commonwealth, should continue in force, as far as applicable, until other provision is made.

The *Seat of Government (Administration) Act 1910*, which forms the basis for the Government of the Territory, came into force on the 1st January, 1911. It provided that certain State Acts, including those imposing taxation, were to apply no longer to the Territory, but that other State laws should, subject to any Ordinance made by the Governor-General, be the law of the Territory. This Act also provided that the inferior Courts of New South Wales should exercise, until other provision is made, the same jurisdiction as they had before.

The inferior courts of New South Wales are still being used for the administration of justice in the Territory, and many State statutes relating to the Criminal and other Law are still in force, although they have been modified in several respects in the State. A progressive view of the law is, therefore, necessary in order that the already obsolete or unsuitable State law still in force, may be replaced by modern legislation, befitting the peculiar position of the Territory under a Commission which has quasi-governmental as well as municipal functions.

4. Progress of Work.—The general progress of the work of construction up to the time when the Territory was taken over by the Commission was outlined in Year Book No. 18. The Commission has continued the policy of developing the city according to the approved plan, and prior to the opening of Parliament House on 9th May, 1927, it had devoted itself primarily to the completion of the basic engineering services, viz., roads, water supply, sewerage, drainage and electric supply, and the official and residential accommodation necessary to enable the Seat of Government to be transferred, and to enable either the whole or portion of the various Departments of the Public Service to function effectively after the transfer.

Parliament House was completed prior to the opening ceremony, but to increase the accommodation for the public the construction of additional galleries in the House of Representatives has been carried out in readiness for the next session of Parliament.

A departure from the scheme prepared by the Federal Capital Advisory Committee was approved in the case of offices for the Central Administration of Commonwealth Departments, a permanent building being decided upon instead of a group of structures of a provisional nature. As a result of an architectural competition a design has been selected for this building, and tenders are being invited for its erection. As its completion before 1930 is not practicable, the sectional staffs of the various Departments will be housed in two buildings known as Commonwealth Offices, East Block and West Block, and part of Hotel Kurrajong, which will be utilized temporarily for that purpose. An Automatic Telephone Exchange and a Central Post Office are located in part of the East Block, Commonwealth Offices, and accommodation has been reserved for the National Library in the West Block, pending the time when the erection of a Monumental Building for the Library will be justified. A Government Printing Office is in active operation.

A competition for Australian Architects within the Empire for a monumental structure as a National War Memorial Museum at the foot of Mt. Ainslie has been conducted. Two of the authors of the premiated designs in the competition have been commissioned as Architects for the building, and an amended design is being developed.

Other important building schemes include premises for the Australian School of Forestry—now completed and occupied—the Solar Physics Observatory, Mt. Stromlo, and an Assembly Hall for Public purposes—now in course of construction—and the Australian National Museum of Zoology.

The remodelling and furnishing of Yarralumla House for use as the residence of the Governor-General has been effected, and the residence for the Prime Minister has also been completed.

Visitors to Canberra have been provided for by the erection of eight hotels or large guest houses. Hotel Canberra, situated near the Governmental area, is the largest of these, with accommodation for 200 guests. Hotel Kurrajong, on the other side of the Governmental area, has a capacity for 120 guests. Hotel Acton, on the north side of the Molonglo River, will accommodate 120 guests, and Hotel Ainslie, also on the north side, has accommodation for 50 persons. The other buildings, which include Hotel Wellington and Brassey House on the south side of the river, and Beauchamp House and Gorman House on the north side of the river, each has a capacity varying between 40 and 80 persons. Most of this accommodation will be required for members of the Civil Service being transferred from Melbourne.

Satisfactory progress has been made in the cottage construction programme, and the Commission has been able to arrange for the completion of 239 houses during the years 1925–1927, and had 279 under construction.

The problem of accommodation for workmen during the period of initial construction has been met satisfactorily by the erection of portable wooden cottages (having water supply, sewerage, and electricity available) in specially selected areas, and all roughly constructed hutments and camps have as far as possible been eliminated.

The public abattoirs, constructed to meet the requirements of a population of 10,000, were in operation at the beginning of 1927.

The construction of main avenues and roads according to the approved plan has been continued. Many miles have been formed, and a considerable portion metalled or gravelled or improved with harder materials. Schemes for laying down permanent roads when required to carry heavy traffic are now in course of development. Many roads have been regraded, and the construction of kerbs and gutters and the preparation of plantations are being undertaken progressively as areas are developed.

Other engineering services have been extended to meet the requirements of construction and settlement, and steady progress has been made in the planting of belts of trees for shelter, and of various city parks. The formation of avenues and streets and other ornamental features has been carried out, as well as a large amount of afforestation work on the outskirts of the city.

A scheme for the planting of selected native trees in the Zoological Park has been adopted, and is now being carried out according to plan.

Water supply service reservoirs have been provided on Red Hill and Mount Russell, and mains through the city are being laid as required. The outfall sewer and treatment works are completed, and the district sewers have been connected to the main sewerage scheme of the city, which is now in operation. The temporary sewage treatment works, which have been in use for some years, have been dispensed with.

Electric lighting and power services have been extended to serve the residential districts and areas where various construction works are proceeding, many miles of transmission line having been erected.

The capacity of the Power House has been increased by the installation of additional generating plant, and is now 2,850 kilowatts. Electrical energy is conveyed to the various factories where the manufacture of bricks, tiles, joinery, cement products, and other requirements for domestic purposes is carried on, and is in general use for street and park lighting. Fire services have been provided, including the installation of special fire alarms for the protection of buildings and depots throughout the city.

Provision has been made for the maintenance of roads, buildings, and other services in the Territory, and many works and buildings of a minor character have been constructed.

The proposal to dam the waters of the Molonglo River near Yarralumla for the formation of part of an ornamental lake system was referred to the Parliamentary Standing Committee on Public Works, which decided that the construction of the dam should be postponed, as it was not an immediate necessity. The matter is, however, being given further attention, owing to the necessity for regulating the flow of the river which, in winter, is liable to heavy floods.

The activities undertaken by private enterprise have been considerably augmented. During the year 1926–27, 371 plans for the erection of privately-owned buildings, comprising residences, shops, offices, banks, and schools, were approved by the Commission.

Development has been commenced at the main shopping zone at the Civic Centre on the north side of the city. Large blocks of buildings are in course of construction in units of varying size, which will adhere to a uniform design and exterior architectural expression in keeping with the importance of their location. The difficulties experienced by local authorities, where there has been little or no co-ordinated design for shops and business premises, are, therefore, to a great extent obviated in advance.

5. Lands—(i) In the Federal Territory Proper. Reference has been made in Chapter V. to the general conditions of land tenure in the Territory for the Seat of Government and to the area of alienated and leased land.

As considerable portions of the Territory lands are not required in connexion with the establishment of the city, large areas have been leased under special improvement conditions in regard to the extermination of noxious weeds and the destruction of rabbits and other noxious animals. The lands are classified into three grades of agricultural and three grades of grazing land. About 181,725 acres, comprising 360 holdings, are at present held under lease for periods varying from quarterly tenure to 25 years.

The first auction sale of city leaseholds was held on 12th December, 1924, and 289 residential and 104 business sites were offered at Eastlake, Manuka Centre, Blandfordia, Red Hill, Civic Centre, and Ainslie. Of these, 146 blocks were immediately disposed of at prices averaging from £6 to £58 per foot for business sites, and from 10s. to £3 4s. per foot for residential sites. Of the remainder, 149 blocks (including all the business sites offered) were sold subsequently. A further 64 residential blocks in the original subdivisions offered were withdrawn from lease, and are being built upon by the Commission for the housing of public servants.

In view of the demand for sites, a further 18 business and 80 residential sites were offered for lease by public auction on the 29th May, 1926, and the whole of the business sites were sold at prices varying from £24 to £150 per foot. Of the residential sites offered, 21 were sold at the day of auction and a further 40 sold up to 8th April, 1927.

The lease of a site for an Amusement Hall at Manuka Centre was sold by public auction on the 10th February, 1926, at a capital value of £7,000, representing approximately £54 per foot.

A further auction sale of city leases was conducted on 9th April, 1927, when 12 business, 3 boarding house, 4 minor industrial, 1 motor service station, and 57 residential blocks were offered. With the exception of 19 residential blocks, the whole of the sites offered were sold at the following prices:—Business sites, £95 to £175 per foot; minor industrial sites, £19 to £22 per foot; boarding-house sites, £7 6s. 8d. to £9 3s. 4d. per foot; residential sites, £1 10s. to £7 per foot; the motor service station, £113 per foot. The terms of the lease require the purchasers of these sites to commence and complete the erection of approved buildings within specified periods.

To meet a demand for private hospital facilities, the Commission proposes to make available at an early date two maternity hospital sites and two larger general hospital sites, one of each on the northern and southern sides of the city area respectively.

Under the terms of the *City Area Leases Ordinance* 1924–26, each block is leased for a period of 99 years at a rental of £5 per centum per annum of the unimproved capital value as assessed by the Commission or bid at auction.

Several sites have also been leased under the *Church Lands Leases Ordinance* 1924–1927, which permits the granting of leases in perpetuity at a rental of 1 per cent. of the unimproved capital value, which is not subject to re-appraisalment; and also under the *Leases (Special Purposes) Ordinance* 1925–1927, which provides for leasing of city lands for non-commercial purposes.

Designs for the buildings are governed by regulations, and leases are not transferable until buildings have been erected on the land as prescribed, or where the Commission is satisfied that a building is being, or about to be, erected on the land.

(ii) *Land at Jervis Bay.* The Commonwealth has acquired from the State of New South Wales sovereign rights over the area comprising about 28 square miles of land and water at Jervis Bay for possible use as a port in connexion with the Federal Capital. The Royal Australian Naval College has been established in this area on a site known as Captain's Point, and portions of the remaining lands have been leased.

6. Railways.—Canberra is connected with the railway system of New South Wales by a line $4\frac{3}{4}$ miles long to Queanbeyan. This line was opened for goods traffic on the 25th May, 1914, and for passenger traffic on the 15th October, 1923, and is being worked by the New South Wales Railways Commissioners for, and on behalf of, the Commonwealth.

A public railway station has been established at Eastlake, near the Power House, and is the terminus of the existing line.

A daily passenger and goods service is in operation connecting Canberra with Goulburn. At Molonglo Settlement, where many employees of the Commission are housed, a two-carriage platform has been constructed.

A trial survey of the Canberra–Jervis Bay line has been completed, and plans prepared to enable an estimate of the cost of the line to be obtained, but no action in regard to this project is contemplated at present.

Under the provisions of the *Seat of Government Surrender Act* 1909 of New South Wales, and the *Seat of Government (Acceptance) Act* 1909 of the Commonwealth, an agreement exists between the Commonwealth and the State of New South Wales in relation to the construction of a railway from Canberra to Yass—a distance of, approximately, 43 miles, of which about 32 miles extend through New South Wales. The State is required to construct its portion of the line as soon as the Commonwealth builds a line to the boundary of the Territory.

The permanent survey of this line has been completed, and the proposal has recently been the subject of an inquiry by the Commonwealth Works Committee, whose report thereon is now under consideration.

7. Population.—The census return of population on the 31st December, 1926, was 6,789 in the Federal Capital Territory and 588 in Jervis Bay Territory, or a total of 7,377 persons. This includes residents only temporarily absent from the Territory.

8. Live Stock.—The live stock, according to the latest return, comprises:—

Horses	..	..	1,028
Cattle	..	..	6,703
Sheep	..	..	219,314

9. **Educational Facilities.**—Arrangements have been made with the New South Wales Education Department to continue for the time being the administration of education in the Territory, the expenditure involved being refunded annually by the Commission to the State. Including the school at Jervis Bay, there are thirteen schools conducted in the Federal Territory by the New South Wales Education Department.

The policy has been adopted of concentrating a number of scholars in a large central school, where better facilities and a more efficient staff may be obtained than would be possible in small isolated schools each under the control of one teacher. The main public school at Telopea Park has now accommodation for 500 scholars, and its curriculum covers the stage from the primary to school-leaving standard. The Commission conveys scholars to this school from the various centres.

A separate Infants' School has been established at Telopea Park, and additional facilities for primary education will be made available by the opening of a new school at Ainslie on the 1st September, 1927.

Schemes are being developed for the establishment of a Junior Technical School, a Trades School, and a Domestic Science School at Telopea Park, in addition to an extension to accommodate double the present number of scholars. Arrangements are also being concluded to conduct an evening continuation school.

A report by a committee of experts upon a University scheme was considered by the Commission and submitted to the Government. The Government agreed that there should be a University at Canberra, but expressed the opinion that no expenditure in connexion with it should be approved for the financial year 1926-1927. The matter is now receiving the further consideration of the Government.

A private primary and secondary school for girls was opened at Canberra in June, 1926, utilizing as a temporary building the old Rectory at Ainslie.

New buildings for this school are now under construction on the southern side of the city area for use as a day and boarding school for girls, and will be opened before the end of 1927.

The council of the Monaro Grammar School Ltd., which is a secondary school for boys, has decided to remove the school to the Federal Capital, and a lease has been granted on the southern side of the city area, which provides that commencement shall be made with the school buildings within a period of six months.

It is anticipated that other private educational institutions will be established in the near future.

10. **Social Service.**—During 1925 the Commission inaugurated a social service movement aiming at co-operation in social activities between the Commission and the citizens of Canberra. The organization, which is now in active operation, embraces eleven District Associations. Committees dealing with libraries, indoor recreation, outdoor recreation, women's and children's welfare, children's recreation, and education have been formed, and delegates to these committees and to the general Social Service Council are elected by the District Associations.

One of the aims of this movement is the provision of recreational and other facilities by voluntary labour. A hall accommodating about 600 people has been built at The Causeway, and other halls have been similarly created, the Commission supplying the materials. Children's playgrounds have also been made in six centres, and others will be established in settled suburbs of the city area. The movement is also responsible for providing tennis courts and other sports grounds.

The Mothercraft Society, affiliated to the Association, was responsible for the establishment at Canberra of a Baby Health Centre. The Commission assisted this movement, and the Mothercraft Society has suitable head-quarters and the services of a trained nurse. A club for women workers has been established in Canberra, known as "Lady Hopetoun Club," which provides residential accommodation as well as opportunities for social intercourse.

A Community Library has also been established in which more than 1,500 books are available for members.

A Parents' and Citizens' Association, which is a medium of expression of public opinion on the subject of education, has been actively working for some years, and takes a lively interest in measures for the recreation and entertainment of school children.

Under the auspices of the Association, a magazine called "The Canberra Community News" is published monthly, and affords a convenient medium for the circulation of local news and the expression of opinion on social service matters.

11. **Expenditure.**—(i) *General.* The capital expenditure on the Seat of Government during the period 1901 to 1911 and for each year thereafter up to the 30th June, 1924, was published in Year Book No. 18.

Details of the expenditure for the period 1924–25 were published in Year Book No. 19.

Expenditure for the period 1925–26 amounted to £1,476,207, including £1,467,517 on construction and £8,690 on acquisition of land.

Expenditure for the period 1926–27 amounted to £1,911,693, including £1,887,571 on construction and £24,122 on acquisition of land.

(ii) *Expenditure 1925–26 and 1926–27.* Details of expenditure for the years 1925–26 and 1926–27 are given hereunder :—

FEDERAL CAPITAL TERRITORY.—EXPENDITURE, 1925–26 AND 1926–27.

Particulars.	Amount.	
	1925–26.	1926–27.
	£	£
Buildings—		
Parliament House	269,492	169,731
Permanent Administrative Offices	984	1,506
Secretariat Buildings	57,875	93,540
Forestry School	10	20,896
Government House, Yarralumla	24,328	36,749
Printing Office (including Pneumatic Tubes)	55,682	22,331
Hotels, Boarding Houses, etc.	137,496	186,059
Prime Minister's Residence	2,976	19,933
Commission Offices	13,407	2,137
Primary Schools	782	15,470
Abattoirs	3,817	1,033
Canberra Hospital	24	22,821
Cottages	251,434	373,339
Temporary Accommodation for Workmen	17,006	36,087
Store Building .. .. .	..	8,030
Transport Garages .. .. .	..	3,567
Assembly Hall .. .. .	..	43
Solar Observatory .. .. .	..	36,981
Physical Testing Laboratory and Equipment .. .. .	..	2,420
	835,313	1,052,673
Water Supply and Sewerage—		
Water Supply	26,903	82,472
Sewerage	271,314	143,996
Stormwater Drainage .. .. .	..	41,328
Intercepting Channels	813	..
	299,030	267,796
Roads and Bridges	119,511	233,474

FEDERAL CAPITAL TERRITORY.—EXPENDITURE, 1925-26 AND 1926-27—
continued.

Particulars.	Amount.	
	1925-26.	1926-27.
	£	£
Electric Light and Power (Power House and Mains) ..	18,281	40,504
Recreation Grounds	2,505	340
City Beautification, Parks, etc.	7,716	18,856
Garden Formation (Parliamentary Area)	30,192	17,822
Molonglo River Improvements	10,398	1,196
Farmhouses--Additions and Improvements	4,991	529
Interest on Loans	43,694	121,156
Holiday Pay—9th to 10th May, 1927 .. .. .	..	6,077
Plant and Equipment (including £24,625 on Brickworks)	61,360	75,495
War Memorial Competition .. .. .	..	2,040
Forestry .. .. .	..	4,855
Commissariat Equipment .. .. .	..	18,360
Miscellaneous	34,526	22,391
	213,663	329,621
Social Service .. .. .	..	4,007
New Fencing .. .. .	..	2,249
Land Acquisition	8,690	21,873
	8,690	24,122
Total	1,476,207	1,911,693

12. Revenue.—The revenue for the Federal Capital Territory from 1st July, 1924, to 30th June, 1927, was as follows :—

For the year ended 30th June, 1925 ..	£90,476
For the year ended 30th June, 1926 ..	154,395
For the year ended 30th June, 1927 ..	388,987

D. NORFOLK ISLAND.

1. Area, Location, etc.—Norfolk Island, discovered by Captain Cook in 1774, is situated in latitude 29° 3' 45" south, longitude 167° 58' 6" east. Its total area is 8,528 acres, the island being about 5 miles long and 3 miles wide. From Sydney it is distant 930 miles, and from New Zealand 400 miles. The coast line is 20 miles, and its form that of an irregular ellipse. Except on the south-west, inaccessible cliffs rise from the water's edge. The climate is equable, the temperature ranging between 56° and 82°, with a mean of 68°. The average annual rainfall is 55 inches. It has been said that the salubrious climate, coupled with the beauty of its land and sea scapes, should combine to render Norfolk Island "the Madeira of the Pacific." At present the island is visited annually by a fair number of tourists, but with improved shipping facilities the traffic would considerably increase.

2. Settlement.—The first colonization, in 1788, was by Lieutenant King, who in H.M.S. *Sirius* established a small penal station as a branch settlement of that at Port Jackson. The settlement was abandoned in 1813, and for 13 years thereafter its chief use was as a whaling station and place of call for British warships.

From 1826 to 1855 it was again made a penal station. In 1844 it was annexed to Van Diemen's Land (Tasmania).

The descendants of the *Bounty* mutineers, having become too numerous to subsist on Pitcairn Island, were removed thence to Norfolk Island in 1856. The new community numbered 193—94 males and 99 females—and were the descendants of British sailors and Tahitian women.

3. Administration.—In 1856 the island was created a distinct and separate settlement under the jurisdiction of New South Wales. In 1896 it was made a dependency under the Governor of that Colony. In 1913, however, the Federal Parliament provided for the taking over of the island as a territory of the Commonwealth, and since the 1st July, 1914, the island has been administered by the Department of Home and Territories, Melbourne, through an Administrator and Chief Magistrate. There is an Advisory Council, consisting of twelve members, presided over by the Administrator. Six of the members are elected by the residents, and six are nominated by the Administrator. The powers and duties of the Council were laid down in Ordinance No. 2 of 1925. According to this Ordinance the Executive Council has the oversight of public roads and reserves, etc. It may transmit to the Administrator for submission to the Minister proposals for new Ordinances or for the repeal or amendment of existing ones, and it may make by-laws in connexion with local matters.

4. Population.—The population on 30th June, 1926, was 365 males and 381 females, a total of 746. In the year 1925—26, 8 births, 9 deaths, and 5 marriages were recorded.

5. Live Stock.—The latest returns of live stock show that there are on the island 2,074 cattle, 575 horses, 140 sheep, and 162 pigs. In addition, there are 5,649 head of poultry.

6. Production, Trade, etc.—The soil throughout is rich, and is specially suitable for the cultivation of citrus fruits, bananas, and (in parts) coffee. Various other sub-tropical fruits thrive well. During 1925—26, the production of oranges was 3,657 cases; bananas, 3,779 cases; passion fruit, 1,360 bushels; coffee, 3,310 lb.; and pineapples, 250 dozen. There are many thousands of lemon trees and guavas growing wild throughout the island.

Large numbers of whales pass the island throughout the season, but owing to old-fashioned methods very few are captured. With the employment of up-to-date appliances the whaling industry might be of great importance. The preserved fish industry also offers a field for commercial energy; such fish as trevalla, kingfish, snapper, and many others, are plentiful. The "all red" cable from Great Britain via Vancouver, Fanning Island, and Fiji, bifurcates at Norfolk Island, one line connecting with New Zealand, the other with Brisbane. A monthly steamship service between Norfolk Island and Sydney is carried on by Burns, Philp and Co., while the New Zealand Government steamer *Hinemoa* has established a four-monthly service with Auckland.

Imports and exports for the last five years are given hereunder :—

IMPORTS AND EXPORTS, 1921-22 TO 1925-26.

Heading.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	£	£	£	£	£
Imports.. ..	14,312	15,461	22,023	17,190	18,882
Exports.. ..	4,305	3,754	3,170	3,901	6,156
Total	18,617	19,215	25,193	21,151	25,038

7. Social Condition.—Education is free and compulsory up to the age of fifteen years. The school is under the New South Wales Department of Public Instruction, with standards corresponding to the State public schools, but the salaries and allowances of the teachers are paid by the Norfolk Island Administration. The number of scholars enrolled on the 30th June, 1926, was 137.

The Magistrates' Court has criminal jurisdiction in all crimes except capital offences, civil jurisdiction in all matters, and authority to grant probate and letters of administration.

8. **Finances.**—The receipts and expenditure for the year 1925–26 were as follows:—

NORFOLK ISLAND.—RECEIPTS AND EXPENDITURE, 1925–26.

Heading.	Receipts.	Heading.	Expenditure.
	£		£
Brought forward ..	3,766	Salaries	3,505
Commonwealth Subsidy ..	3,500	Repairs of Government Build- ings	1,062
Tariff Collections in Sydney ..	601	New Work	104
Interest on Funded Stock ..	114	Miscellaneous	870
Postal Department ..	118	Purchase of Liquor ..	304
Fees, etc.	598	Balance carried forward ..	3,217
Sale of Liquor	365		
Total	9,062	Total	9,062

Traffic in intoxicating liquor is prohibited, and the item "Sale of liquor" in the table refers to liquor dispensed under medical prescription.

E. NEW GUINEA.

1. THE ISLAND OF NEW GUINEA.

1. **Geographical Situation of New Guinea.**—New Guinea, frequently described as the largest island in the world, lies to the north of Australia, between 0° 25' and 10° 40' S. latitude, and between 130° 50' and 150° 35' E. longitude. Its estimated area exceeds 300,000 square miles, the greatest length being 1,490 miles, and the greatest breadth 430 miles.

2. **Discovery.**—The island was probably sighted by Abreus in 1511. The first visit by Europeans was apparently either that by the Portuguese Don Jorge de Meneses on his way from Goa to Ternate in 1526, or that by the Spaniard Alvaro de Saaavedra in 1528. In 1606 Torres, having parted company with De Quiros at the New Hebrides, sailed, on his way to the Philippines, through the strait which separates the island from Australia, and which now bears his name.

3. **Colonization.**—In 1793, New Guinea was annexed by two commanders in the East India Company's service. Since that date the Dutch have made extensive surveys of the western portion, and the British and Germans have occupied and colonized the eastern. In September, 1914, German New Guinea was seized and occupied by Great Britain by means of a force raised and dispatched by the Australian Government.

4. **Partition.**—The three colonizing powers agreed to the partition of New Guinea, each having suzerainty over islands adjoining its own territory. The whole of the portion west of the 141st degree of latitude, comprising about 150,000 square miles, or nearly half the island, belongs to the Dutch. The eastern half was divided in almost equal portions between Great Britain and Germany, the area possessed by each (with adjacent islands), being about 90,000 square miles. An Anglo-German boundary commission appointed for the purpose of defining the boundary between the territories of the two nations, started operations on 26th December, 1908, and completed the field-work on 27th October, 1909. The total length of boundary delimited was 66½ miles. The Dutch colony forms part of the residency of Ternate in the Moluccas, and has not been extensively developed. The German protectorate, where considerable commercial development had taken place, included the northern part of the eastern half of the mainland, known as Kaiser Wilhelm's Land, and the large islands of the Bismarck Archipelago and the two northernmost of the Solomon Group, as well as nearly 200 smaller islands. The south-eastern portion of New Guinea, nearest Australia is a dependency of the Commonwealth of Australia. The German Pacific protectorate was terminated in 1914, and is now held under a mandate by the Commonwealth of Australia.

2. PAPUA.

§ 1. General Description of Papua.

1. **Early Administration.**—Particulars of the early administration of Papua were given in Official Year Book No. 19, p. 576, but owing to limitations of space have not been included herein.

2. **Administration by Commonwealth of Australia.**—The Territory was placed under the authority of the Commonwealth on 1st September, 1906, by proclamation issued in pursuance of Letters Patent of the 18th March, 1902, and was accepted by the Commonwealth by the Papua Act 1905, which came into force by virtue of the proclamation aforesaid. The transfer was made under the authority of section 122 of the Constitution (see p. 33 hereinbefore). The Territory is now under the administration of the Commonwealth, but not included within it, and is divided into eleven magisterial districts.

3. **Area, etc.**—Papua lies wholly within the tropics. The northernmost point touches 5° S. latitude; its southernmost portion, comprising Sudest and Rossel Islands, lies between 11° S. and 12° S. latitude. It is separated from Australia by Torres Strait. The length of Papua from east to west is upwards of 800 miles; towards either end the breadth from north to south is about 200 miles, but about the centre it is considerably narrower. The Territory comprises also the islands of the Trobriand, Woodlark, D'Entrecasteaux and Louisiade groups. The length of coast-line is estimated at 3,664 miles—1,728 on the mainland, and 1,936 on the islands. The total area is about 90,540 square miles, of which 87,786 are on the mainland, and 2,754 on the islands. A reference to the physical characteristics of the Territory appears in previous issues of the Official Year Book (see No. 18, p. 633).

§ 2. Population.

The white population of Papua on 4th April, 1921, was 1,343, made up of 961 males and 382 females. Included in these figures were 79 persons, who were passengers and crew of the s.s. *Marsina*, which was at Samarai at the taking of the Census. The following table gives the white population in each of the last five years:—

WHITE POPULATION OF PAPUA, 1922 TO 1926.

YEAR ENDED 30TH JUNE.

1922.	1923.	1924.	1925.	1926.
1,104	1,086	1,276	1,371	1,452

The chief occupations of the non-indigenous population at the taking of the Census were:—Government officials and employees, 132; commercial pursuits, 150; shipping, 124; tropical agriculture, 266; missionary work, 144; mining, 159.

It is not possible to give exact data regarding the number of natives, because a large area of the interior is not yet under Government control. The official estimate is 275,000. Such censuses of the native population as have been taken during recent years point to a slight increase. The coloured population, other than Papuans, numbered on 4th April, 1921, 577, and included many mission teachers from Samoa, Fiji, and other Pacific Islands. On the same date, half-castes, with one of the parents a European, totalled 158. An Immigration Restriction Ordinance prohibits the immigration of persons who fail to pass the dictation test, or who are of bad character, or likely to become a charge upon the public. Exemptions may, however, be granted by the Lieutenant-Governor to persons of special skill required for employment as overseers or foremen.

§ 3. Native Labour, Taxation, Health, etc.

1. **Native Labour.**—(i) *General.* The rights of both employer and labourer are conserved by the Native Labour Ordinances. Service on the part of the native is voluntary, and he must be justly treated, and properly housed and fed. Employers may recruit personally, or obtain their natives through a licensed recruiter. Contracts of service must be in writing entered into before a magistrate or other qualified officer, and the natives must be returned to their homes on completion of engagement. During the period of service the recruiter or employer is responsible for the native's welfare. Refusal to work after an engagement, or desertion from service, renders the labourer liable to imprisonment. On the other hand, a magistrate may terminate an engagement where unjust or harsh treatment by the employer is proved. The term of indenture must not exceed three years, and in the case of miners and carriers the limit is eighteen months, but re-engagements may be made. The magistrate must satisfy himself that the remuneration is fair, that the native is willing to undertake the service, and that there is no probability of unfair treatment or detention. Wages must be paid in the presence of an officer. A medicine-chest stocked with necessary drugs and first-aid instruments must be kept by all employers. The table hereunder gives particulars regarding native labour during the last five years:—

PAPUA.—NATIVE LABOUR, 1922 TO 1926.

Year ended 30th June—	Natives Engaged.	Number.	Natives Paid Off.		Average Annual Wage per Native.
			Wages Paid.		
			£	s. d.	£ s. d.
1922	4,590	6,251	57,474	0 8	9 3 10
1923	5,473	4,893	47,993	6 11	9 16 2
1924	6,206	4,959	42,776	7 8	8 12 6
1925	6,817	4,661	46,019	14 5	9 17 5
1926	6,716	6,317	63,082	17 5	9 19 8

In addition 1,183 natives were employed in the Territory in 1925 who were not under a contract of service.

Hitherto the supply of native labour has been sufficient to meet the demand, while last year the labour offered exceeded requirement.

Natives in charge of vessels owned by Europeans, drivers of launches and motor lorries, carpenters and other skilled labourers receive from £3 to £10 per month.

2. **Native Taxes.**—Under the Native Taxes Ordinance, passed in 1918, a tax not exceeding £1 may be imposed on natives, excepting native constables, mission teachers, natives unfit for work, and those who have not less than four living children. The proceeds of the tax must be expended on education, or devoted to purposes directly benefiting the natives, as may be prescribed.

The taxes collected in 1925–26 amounted to £16,204 net, of which £6,482 was transferred to the Native Education Fund, and £9,722 to the Native Benefit Fund. The Native Education Fund during the year 1925–26 disbursed to primary and technical education £6,198 and to agricultural education £3,666, leaving a credit balance of £28,068. From the Benefit Fund the expenditure included:—Anthropology £811, health £6,908, village improvements £489, family bonuses £1,338—leaving a credit balance of £2,672.

3. **Care of Half-caste Children.**—An Ordinance was passed on the 11th September, 1922, to provide for the care and maintenance of neglected half-caste children. The Ordinance provides that a sum of £26 per annum shall be paid to the Commissioner for Native Affairs by the adjudged father of the child until the child, if a boy, shall reach the age of 16 years, or, if a girl, 18 years.

4. **Health.**—During the year natives to the number of 1,884 were admitted to the native hospitals in Port Moresby and Samarai. The chief complaints treated were yaws, ulcers, lung affections, and gonorrhœa. Three travelling medical officers and two European medical assistants were employed, and native medical assistants are being trained by

them. Two qualified doctors are now employed by mission societies, and these have assisted greatly in improving the health of the natives. The work done consisted chiefly of dealing with cases of yaws by means of the latest arsenical drugs, the distribution of hookworm treatment, and the control of venereal diseases. Out of an average of 9,672 native labourers employed by Europeans, 118 died, as compared with 138 during the previous year.

§ 4. Land Tenure.

1. Method of Obtaining Land.—(i) *The Land Laws.* The broad principles upon which the land laws of Papua are based are :—(a) No land can be alienated in fee-simple ; (b) the rental of the land leased is assessed on the unimproved value and is subject to reassessment at fixed periods.

A detailed account of the method of obtaining land was given in Official Year Book No. 6, pp. 1093-4.

(ii) *The Leasehold System.* With a view of attracting pioneer settlers, an ordinance was passed in 1906 under which leases were granted on very liberal terms. No rent was payable for the first ten years, the heavy expense of survey was borne by the Government, and no charge was made for the preparation and registration of the leases. Under this system, the area under lease increased in four years from 2,089 acres to 363,425 acres ; about 140 plantations were started, and nearly 1,000 acres planted during that period. Since 1st June, 1910, however, no leases exceeding 5,000 acres in extent have been granted, and rent at the rate of 3d. per acre must be paid from the commencement of all leases exceeding 1,000 acres in area.

2. Holdings.—(i) *General.* On the 30th June, 1926, the lands of the Territory were held as follows :—

PAPUA.—HOLDINGS, 1926.

Description.	Area.
	Acres.
Land held by the natives	56,929,196
Crown land	806,353
Freehold land	23,085
Leasehold land	186,966
Area of Territory ..	57,945,600

Private sales of land in the Territory have now practically ceased. The Government buys from the natives, and then leases to planters, who are forbidden to have direct dealings in land with Papuans.

(ii) *Leaseholds.* The position as regards leasehold tenures may be seen from the following table :—

PAPUA.—LEASEHOLDS, 1921-22 TO 1925-26.

Year ended 30th June ..	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
Land held under lease .. acres (as recorded)	219,181	193,494	190,124	188,348	186,966

Of the total area of 186,966 acres shown above, agricultural leases accounted for 179,606, pastoral leases for 5,386, special leases for 906, mission leases for 810, and other leases for 258 acres.

The area of land acquired by the Crown in 1925-26 was 223 acres.

The total area surveyed in the Territory is 21,693 acres of freehold, and 258,800 acres of leasehold.

§ 5. Production.

1. *General.*—The products of the Territory are obtained from its agricultural, forestal, fishing, mining, and manufacturing industries. For many years gold-mining yielded the largest returns, but the production has dwindled considerably owing to the exhaustion of the alluvial deposits. Satisfactory results are, however obtained from copper-mining on the Astrolabe field. There is also the possibility of obtaining petroleum in marketable quantities. Amongst plantation products, copra occupies the foremost place, but little planting has been done in recent years. Portions of the Territory appear well suited for cotton cultivation.

2. *Agriculture.*—(i) *Soil and Rainfall.* The physical features of Papua are favourable to agriculture. Rich soils at varying elevations, and heavy and evenly-distributed rainfall favour the cultivation of a variety of tropical products including sugar cane, coconuts, sago palm, bread fruit, dyewoods, spices, ginger, nutmegs, bananas, and other fruits. There are large areas of rich alluvial and volcanic soils along the coast, and fertile land is found at elevations up to 6,000 feet. Heavy rainfalls occur, except over a belt of country which runs back from the coast to the hills, and which has its dry season from May to November. This “dry” area is admirably suited for the production of tobacco, fibres, cotton, etc. There are 22 meteorological stations throughout the Territory, and an economic museum and agricultural library have been established.

(ii) *Plantations.* On 31st December, 1925, there were 297 plantations. Agricultural settlement has been mostly in the Central and Eastern Divisions, and the area planted was 62,981 acres, as against 61,180 in 1924. The principal plantation crops are coconuts, rubber, and sisal hemp. There is also some cultivation of bowstring hemp, kapok, coffee, tobacco, vanilla, cocoa, tapioca, cinnamon, tea, rice, and maize. The natives are compelled by an ordinance to plant coconuts for food supply. In addition to the coconuts in these plantations, many more are planted over small and widely scattered areas by the older natives in accordance with custom. The following table shows the areas under the different cultures at the end of December, 1925 :—

PAPUA.—AREA OF PLANTATIONS, 1925.

Description.						Area.
						Acres.
Coconuts	..	..	..	..	..	50,506
Rubber	..	..	..	..	..	7,728
Hemp	..	..	..	..	..	3,560
Coffee	..	..	..	..	..	24
Rice	..	..	..	..	..	20
Cotton	..	..	..	..	..	657
Other cultures (including fruit trees)	..	..	..	..	..	486
Total	..	..	..	..	..	62,981

The quantities of copra and rubber exported during the year ended 30th June, 1926, were :—Copra, 8,419 tons; rubber, 640 tons. There has been a slight increase in the acreage under coconuts, and a decline in the acreage under rubber, cotton and hemp.

(iii) *Government Plantations.* There are two Government plantations, the Orangerie Bay coconut plantation, and the Kemp Welch rubber plantation. The profits from these plantations last year were £8,780, as against £5,362 in 1924–25.

3. *Forestry.*—According to the Commonwealth Forestry Adviser the principal softwood timber is known as “ilimo,” while among satisfactory timbers of the lowlands are “nara,” “medobi,” and “melila.” There is a large number of woods, varying

from the softest to the hardest, including beautiful cabinet woods, but research is necessary to determine their usefulness. The development of a coniferous belt at the higher altitudes offers great possibilities. It is believed that teak and sandalwood are well suited for cultivation.

4. **Live Stock.**—On 31st December, 1925, the live stock in the Territory consisted of 640 horses, 5,540 head of cattle, 156 mules, 7 donkeys, 2,961 goats, and 676 pigs. A Government stud-farm has been established for the breeding of horses. The introduction of rabbits, foxes, hares, and monkeys is prohibited.

5. **Fisheries.**—Pearl-shell fishing occupies an important place in the industries of Papua. A considerable number of luggers is licensed, but the returns are mostly credited to Queensland, whose boundary approaches to within a few miles of the Papuan coast. The species of tortoise which supplies the commercial tortoise-shell is also a native of the Territory. *Bêche-de-mer* and *trochus* are found along the shores and reefs, and form valuable articles of export.

6. **Mining.**—(i) *Variety of Minerals.* Minerals have been found over a wide range of country. Those discovered so far are—gold, copper, tin, lead, zinc, cinnabar, iron, osmiridium, gypsum, manganese, sulphur, graphite, chromite, brown coal, lignite, and petroleum. The existence of petroleum has been traced at scattered intervals over a large area. Besides the area being worked for the Commonwealth by the Anglo-Persian Oil Company, there are eight mineral oil and coal licences in existence, embracing an area of approximately 7,342 square miles. The above company and the Vogel Petroleum Coy. Ltd., near Cape Vogel, have been working almost continuously. The others have done practically no work during the year under review. Several bores have been put down, one to a depth of 2,700 feet; but so far oil in payable quantity has not been struck.

Of precious stones, only the topaz and beryl have been obtained. Large beds of apparently good coal also exist.

(ii) *Gold.* In 1888 the first gold was discovered, and the search gradually spread over every division, finds being reported wherever the explorers went. The yield in 1923–24 was the lowest recorded since 1895, but it has improved considerably during the last two years.

The total quantity, in fine ounces, and the value as returned of the gold yield for the last five years are given below :—

PAPUA.—GOLD YIELD, 1921–22 TO 1925–26.

1921–22.		1922–23.		1923–24.		1924–25.		1925–26.	
Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
fine ozs.	£	fine ozs.	£	fine ozs.	£	fine ozs.	£	fine ozs.	£
12,491	58,615	5,084	22,494	1,441	6,704	4,153	17,642	6,388	27,135

Most of the rivers, with the exception of those flowing into the Gulf of Papua, have been declared open to gold-dredging, and good yields have been obtained. The total value of gold won to 30th June, 1926, was £1,707,212.

(iii) *Copper.* The New Guinea Copper Mines Ltd., on the Astrolabe field, after overcoming many initial difficulties have now entered upon the producing stage, and it is anticipated that a steady output will be maintained from the mines controlled by the Company. During the year 1925–26 the shipments to Australia amounted to about 7,000 tons of 21.2 per cent. copper matte, and 173 tons of 98.3 per cent. blister copper of a gross total value of £124,262. The total value of the copper exported to the 30th June, 1926, was £330,398.

(iv) *Osmiridium*. The existence of osmiridium had been known for some years, but for some time no serious attempt was made to collect it, the alluvial gold miner often picking out the larger slugs of the metal from his gold parcel and throwing them away. The production in 1925–26 amounted to 50 ozs., valued at £1,500.

(v) *Other Minerals*. Some good samples of galena (sulphide of lead) have been obtained, while cinnabar (sulphide of mercury), graphite (or plumbago), zinc-blende, native sulphur, and other minerals are known to exist. In 1924 a deposit of lignite was discovered on Smoky Creek, a tributary of the Era River.

A mineral laboratory and museum have been fitted up, and are available to prospectors and others interested.

7. *Water Power*.—Most of the rivers in Papua carry a large volume of water from a great height over a relatively short distance, thereby offering opportunities for the installation of hydro-electric power plants. It is estimated that there are at least 10,000,000 h.p. available for this purpose.

§ 6. Finance, Trade, Postal and Shipping.

1. *Finance*.—The revenue for 1925–26 exceeded that of the previous year by £31,597, the chief increase being in sale of produce from Government plantations, and Customs and Excise. The principal sources of revenue were as follows:—Commonwealth Grant, £50,000; Customs and Excise, £62,717; Government Plantations, £15,965; Fees of Office, £7,385; Land Revenue, £4,967; Post Office, £3,579; Port and Wharfage Dues, £2,640; Miscellaneous, £13,779.

The expenditure was £13,372 more than that of the previous year. The loan from the Commonwealth was reduced by £7,529; £8,442 was spent on Government Plantations; the balance of £4,233 represents increases in the Government Secretary's, Public Works, and Medical Departments.

Returns of revenue and expenditure for the last five years, exclusive of Commonwealth grants, are given hereunder:—

PAPUA.—LOCAL REVENUE AND EXPENDITURE, 1921–22 TO 1925–26.

Item.	1921–22.	1922–23.	1923–24.	1924–25.	1925–26.
	£	£	£	£	£
Revenue	68,138	63,124	77,750	82,909	116,367
Expenditure	124,912	123,691	131,640	143,831	157,203

2. *Trade*.—The value of imports and exports for the last five years is shown in the table below:—

PAPUA.—VALUE OF IMPORTS AND EXPORTS, 1921–22 TO 1925–26.

Particulars.	1921–22.	1922–23.	1923–24.	1924–25.	1925–26.
	£	£	£	£	£
Imports	305,705	315,423	354,965	459,080	470,774
Exports	220,236	179,452	239,408	367,629	649,373
Total Trade ..	525,941	494,875	594,373	826,709	1,120,147

The removal in 1925 of the Navigation Act, and the adoption of the Commonwealth system of bounties and preferential duties towards certain products of Australia's Pacific Island territories may be expected further to stimulate trade.

As in all new countries, the imports consist chiefly of articles necessary for the primal needs of the community, such as agricultural products and groceries, drapery, machinery, tobacco, oils, paints, beverages, wood, wicker and cane, drugs, etc. The chief items of export during the last five years are as follows :—

PAPUA.—PRINCIPAL EXPORTS, 1921-22 TO 1925-26.

Article.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	£	£	£	£	£
Osmiridium	959	2,790	3,553	3,630	1,500
Gold	68,726	22,494	6,702	14,980	32,450
Copra	87,377	112,481	136,659	172,905	204,097
Rubber	5,826	5,907	33,334	68,507	194,849
Hemp	4,630	..	1,125	13,141	7,695
Copper Ore	13,514	14	120	41,674	155,305
Pearl Shell and Trochus Shell	4,043	1,868	6,120	8,773	14,453
Pearls	5,250	9,797	16,600	19,300	13,249
Bêche-de-Mer	15,045	13,453	10,441	10,351	10,205
Bark	752	..	..	..	..
Cotton .. .. .	..	..	550	3,761	4,866

3. *Shipping*.—The following table shows the number, tonnage, and nationality of oversea vessels entered and cleared at ports during the years 1921-22 to 1925-26. The whole of the tonnage was British.

PAPUA.—OVERSEA SHIPPING, 1921-22 TO 1925-26.

Year.	Vessels.	Tonnage.
1921-22	127	74,206
1922-23	143	77,676
1923-24	99	68,170
1924-25	120	78,613
1925-26	115	129,553

Throughout, the figures are exclusive of ships of war and Government vessels.

§ 7. Progress of Papua.

1. *Statistical Summary*.—As already stated (§ 2, *supra*) the Territory was placed under the Commonwealth control on 1st September, 1906. The following table indicates the progress that has been made since that date :—

PAPUA.—STATISTICAL SUMMARY, 1907 TO 1926.

Items.	Year ended 30th June—	
	1907.	1926.
White population	690	1,452
Native labourers employed	2,000	9,672
Number of white civil servants	65	132
Armed constabulary	185	272
Village constables	401	1,024
Territorial revenue	£21,813	£116,367
Territorial expenditure	£45,335	£157,203
Value of imports	£87,776	£470,774
Value of exports	£63,756	£649,373
Area under lease	acres 70,512	186,966
Area of plantations	acres 1,467	62,981
Meteorological stations established	3	22
Gold yield	fine ounces 12,439	6,388
Live stock in Territory—		
Horses	173	640
Cattle	648	5,540
Mules	40	156

3. THE TERRITORY OF NEW GUINEA

§ 1. General Description.*

1. *Area and Geographical Position.*—The present Territory of New Guinea comprises that portion of the German New Guinea Protectorate which lay south of the equator (excepting only the island of Nauru, see F hereinafter), and which was known in German times as the “Old Protectorate.” The principal islands (with their German names if these differ from those now in use) and their approximate areas are as follows :—

AREA OF TERRITORY OF NEW GUINEA.†

Particulars.						Approximate Area.
						Square miles.
North-East New Guinea (Kaiser Wilhelm's Land)	..	..	..	..	..	70,000
Bismarck Archipelago—						
New Britain (Neu Pommern)	..	..	..	..	..	13,000
New Ireland (Neu Mecklenburg)	..	..	..	..	..	3,000
Lavongai (New Hanover or Neu Hannover)	..	..	..	..	..	600
Admiralty Islands and North-Western Islands	..	..	..	..	..	1,000
Solomon Islands—						
Bougainville	..	..	..	..	..	3,200
Buka	..	..	..	..	..	200
Total	..	..	..	..	..	91,000

2. *North-East New Guinea.*—(i) *General.* North-East New Guinea (Kaiser Wilhelm's Land) is the north-eastern part of the island of New Guinea. Much of the interior, which is rugged and mountainous, with heights reaching to over 13,000 feet, is still unexplored. The mountain ranges approach the coast, leaving comparatively little flat land near sea level, but this narrow strip is very fertile. All trade and communications are by sea along the coast, and the interior is left almost wholly to the native population.

(ii) *Coast-line.* The coast-line, which is over 900 miles long, is in parts fringed with coral reefs, and there are many small, lofty islands along its course. Except for Huon Gulf in the little developed east of the country, there are no deep inlets. Langemak Bay has commodious anchorage in deep water, and Finsch Harbour has landlocked anchorage for small vessels. Astrolabe Bay has two or three sheltered harbours, including Melanua, Madang (Friedrich Wilhelm Harbour) and Sek, which are the best on the coast. There are many other anchorages suitable, in certain winds, for schooners and small steamers.

(iii) *Rivers.* There are many rivers, of which the most important are the Sepik (Kaiserin Augusta) and the Ramu (Ottilien). The Sepik rises near the junction of the boundaries of Dutch New Guinea and Papua, and flowing easterly reaches the coast in latitude 4° S. It is navigable for 60 nautical miles by large ocean steamers, and for 300 nautical miles by steamers drawing from 10 to 13 feet. In 1914, a vessel of 50 tons ascended the river for 450 miles; it was then in flood and 7 fathoms deep at this distance, while at low water the depth was said to be 4 fathoms.

The Ramu rises in about 6° S. latitude and, flowing northwards, enters the sea near the mouth of the Sepik. It has been navigated, though with great difficulty, by flat-bottomed steamers for nearly 200 miles from its mouth.

3. *Bismarck Archipelago and Solomon Islands.*—(i) *General.* The islands of the Bismarck Archipelago and the Solomons are generally mountainous, with level ground near the coasts alone. The only low-lying islands are some in the Duke of York and Admiralty Group. The islands of Bougainville and Buka (Solomons) are equally rugged; Bougainville contains mountains reaching 10,000 feet. The soil is usually fertile, except on the low coral islands, where fresh water is scarce.

* A map of the Territory was published in Official Year Book No. 16, p. 665.

† In regard to geographical position, see Year Book No. 16, p. 660.

(ii) *Coast Line.* The coasts of the large islands often rise steeply from the water, with bold headlands; but as a rule there is a beach, frequently overgrown with mangroves. Sunken rocks and coral reefs fringe many of the coasts, especially of the low islands. There are many good harbours, the chief being Blanche Bay, in New Britain, containing the good anchorages of Matupi Harbour and Simpson Harbour; Kavieng Harbour in New Ireland; Mioko in the Duke of York Islands; Peter Harbour in the Vitu Islands; Nares Harbour in Manus Island; and Queen Carola Harbour in Buka Island.

(iii) *Rivers.* Most of the streams in these islands are too shallow and too rapid for navigation.

§ 2. Climate and Health.

1. *General.*—The Territory has a moist tropical climate, with small differences between daily and seasonal extremes of temperature. There is no cool season, rain falls in all months, and the humidity is high. The Territory is outside the area of typhoons, but strong winds are not uncommon, and damage is occasionally done to plantations.

2. *Temperature.*—The mean annual temperature on the coast is about 26° to 27.5° C. (79° to 81° F.)—a moderate temperature for the latitude—and the difference between the means of the coldest and warmest months is not more than 2° F.

3. *Rainfall.*—There is no really dry season. At Rabaul the period of the north-west monsoon, November to April, is wetter than that of the south-east trade from May to September or October; but in some other places, especially the south coast of New Britain and in the vicinity of Finsch Harbour, the south-east trade brings the principal rains. The position of the coast with regard to the direction of the prevailing winds is the decisive factor in the rainfall. The annual rainfall amounts, at nearly all the stations at which observations have been made, to over 80 inches. Additional information under this heading is given in Official Year Book No. 18, page 642.

4. *Humidity.*—The humidity is very high. Observations taken at Rabaul during the years 1916 to 1921 showed an average humidity of 75 per cent., and the variation in the monthly means was only from 69 per cent. (October) to 80 per cent. (April). At Madang, during the same period, the yearly average was 80 per cent., the lowest monthly mean 77 per cent. (August), the highest 83 per cent. (April). During the same period at Kieta (Bougainville) the mean was 78 per cent., the minimum 74 per cent. (August and October), and the maximum 80 per cent. (June).

5. *Influence on Health.*—The climate in North-East New Guinea and at many places in the Bismarck Archipelago and the Solomon Islands is enervating for Europeans. At some places, however, and notably at Rabaul, the heat and humidity are tempered by the constant breezes, and it is possible for Europeans, with careful attention to diet and exercise, and precautions against diseases, to maintain good health. When the measures taken against malaria and other diseases have produced their full effect, and use has been made of places in the mountains suitable for sanatoria, it is hoped that a satisfactory average of health will be maintained.

§ 3. Government.

1. *The Military Occupation.*—On the 17th September, 1914, the Acting Governor of German New Guinea signed terms of capitulation with the officer commanding a Naval and Military Expedition sent from Australia, and thereafter the Territory was under military administration until the establishment of Civil Government in May, 1921.

2. *Mandate.*—The Mandate in accordance with which the Territory of New Guinea is administered by the Commonwealth was issued by the League of Nations in December, 1920. The terms of the Mandate appear in Official Year Book No. 16, p. 662-3.

3. *New Guinea Act.*—In anticipation of the issuing of the Mandate, the Commonwealth Parliament had already, in September, 1920, passed the New Guinea Act 1920, by which the Governor-General was authorized to accept the Mandate when issued. The Territory was, by the Act, declared to be a Territory under the authority of the Commonwealth, by the name of the Territory of New Guinea.

The Act provided for an Administrator, while power to legislate for the Territory was to be exercised by the Governor-General, and provision was also made for the observance of safeguards in the interests of the natives as set out in the Mandate.

4. **Establishment of Civil Government.**—Official Year Book No. 19, p. 586, contains an account of the establishment of Civil Government of the Territory. Owing to considerations of space however the information is not repeated here.

5. **Expropriation.**—The Treaty of Peace provided that German nationals resident in her former colonies might be repatriated; and that the property rights and interests of German nationals in former colonies might be retained and liquidated by the Allies, the proceeds being credited to Germany in part payment of the reparation payable by her under the Treaty. In pursuance of these powers, in September, 1920, the property of the principal German companies in the Territory, and in March, 1921, that of a large number of German planters, was vested in the Public Trustee; and the management of their businesses and plantations was entrusted (pending the sale or other disposal of the properties) to the Expropriation Board. (See Year Book No. 17, p. 631). In 1926 and 1927 these plantations were transferred to private owners.

6. **Departments and Districts.**—The Administration is organized in eight Departments—Government Secretary; Treasury; Native Affairs; Public Health; Public Works; Customs and Shipping; Lands, Mines, Surveys, and Forestry; and Agriculture.

For administrative purposes, the Territory is divided into eleven Districts, named after the principal stations in them, as follows:—In New Britain—Rabaul, Talasea, and Gasmata; on the Mainland—Morobe, Madang, Aitape, and Sepik; in New Ireland and Lavongai (New Hanover)—Kavieng and Namatanai; in Admiralty Islands and adjoining islands—Manus; in Solomon Islands—Kieta. It is proposed at an early date to amalgamate the districts of Rabaul, Gasmata, and Talasea into one district, to be called the New Britain district, and similarly, to amalgamate the district of Kavieng and Namatanai into a district, to be named the New Ireland district. Each district is under a District Officer, assisted by a small staff.

7. **Statute Law.**—The Acts of the Commonwealth Parliament do not (unless expressly so stated) extend to the Territory, but the *Laws Repeal and Adopting Ordinance* 1921 provided that certain Acts and Ordinances should be applied thereto. (See Year Book, No. 17, p. 631.)

8. **Reports to the League of Nations.**—Six Reports have been rendered to the League of Nations in compliance with Article 6 of the Mandate, the latest being for the year ended 30th June, 1926.

§ 4. Population.

1. **White Population.**—The increase in the white population at various intervals since 1885 is shown in the appended tabulation. On 4th April, 1921, it was 1,288, of whom about 250 were missionaries, and 262 were persons engaged in administration; 715 were British subjects, and nearly all the remainder were nationals of former enemy countries. On 30th June, 1926, the number of Europeans was about 1,550.

TERRITORY OF NEW GUINEA.—WHITE POPULATION, 1885 TO 1926.

Year.					Number.
1885	..	..	..	..	64
1895	..	..	..	..	203
1910	..	..	..	..	687
1914	..	..	..	..	1,027
1921	..	..	..	..	1,288
1926	..	..	..	..	1,550

2. **Asiatic Population.**—Malays seem to have been the first Asiatics brought by the Germans to German New Guinea; 37 of them are recorded on the mainland in 1885. About 1889 the New Guinea Company began to bring Chinese, Malays, and Javanese in growing numbers from Singapore and Java to work on its plantations; by 1892 there were about 1,800 on the mainland. By 1898 the number had decreased to 300 or 400, while at present it is less than 250.

About ten years later, Chinese were brought from China to the Protectorate; in 1911 there were 555, in 1914, 1,377, in 1921, 1,424, and in June, 1926, about 1,300.

In 1895 there were 2 Japanese in the Protectorate, in 1911 there were 25, in 1914, 103, in 1921, 87, and in June, 1926, about 55 residents. The total Asiatic population was 1,681 in 1914, and 1,778 in 1921. There were also, in 1921, 28 Polynesians and 69 half-castes.

The number of Asiatics has slightly decreased. In 1925-26 the births of Chinese exceeded the deaths by 28, but departures exceeded arrivals by 52, so that the population decreased by 24. The number of Japanese remained stationary.

The Chinese provide the skilled artisans of the Territory, and many of them are small traders. Most of the Japanese residents are employed in the plantations, shipyards, and stores.

3. **Native Population.**—As a large portion of the Territory is not under Government influence it is not possible to obtain reliable figures in regard to the number of the natives.

The following table shows the number enumerated in 1925-26.

TERRITORY OF NEW GUINEA.—NATIVE POPULATION, 1925-26 (EXCLUSIVE OF INDENTURED LABOURERS).

Places.	Children.			Adults.			Total.		
	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.
New Britain ..	14,010	11,401	25,411	21,803	21,022	42,825	35,813	32,423	68,236
New Ireland ..	6,702	5,201	11,903	13,097	13,772	26,869	19,799	18,973	38,772
Admiralty Group ..	2,474	2,276	4,750	4,235	4,774	9,009	6,709	7,050	13,759
Solomon Islands ..	6,829	5,371	12,200	11,410	12,345	23,755	18,239	17,716	35,955
N.G. Mainland ..	29,622	22,850	52,472	42,682	40,892	83,574	72,304	63,742	136,046
Total ..	59,637	47,099	106,736	93,227	92,805	186,032	152,864	139,904	292,768

The total native population in the Territory is estimated roughly at about 420,000. Whether the number is increasing or decreasing cannot yet be ascertained with certainty. The number of natives indentured as labourers, mostly for plantation work, on 30th June, 1926, was 23,569.

§ 5. The Natives.

1. **General.**—A brief description of the native inhabitants of the Territory was included in Year Book No. 16, page 670. It may be noted here that the natives are divided into two main groups—Melanesian and Papuan—the former, with odd exceptions constituting the population of the Bismarck Archipelago, the Solomon Islands, and the coastal districts of the New Guinea mainland; while the latter inhabit the interior of the mainland. Odd tribes of Negroites are known to exist in the mountains of New Guinea. In the Admiralty Islanders there is a strain of Papuan, and, possibly, of Polynesian blood, while the Western Islanders and the inhabitants of the small islands east and south-east of New Ireland are Micronesians.

2. **Land Tenure.**—Native customs in regard to the ownership and use of land may be briefly outlined as follows:—The ownership and use of the land are generally individual, although, in some rare cases, particularly in North Bougainville, the communal system exists. In districts where a great many coconut-bearing palms are growing on native lands it is often found that the land is the property of a chief or of one of the old men of the tribe, and that the coconut palms growing thereon are divided into small groves, and are the property of several members of the tribe. Customs with regard to the use of unoccupied forest lands differ. Right of inheritance to land is almost invariably through the maternal branch. (See Year Book No. 17, p. 634.)

3. **Research Work.**—During the German occupation of the Territory a certain amount of research work was carried out, partly by scientific expeditions, and partly by missionaries and by a local resident. An anthropologist has been appointed by the Commonwealth Government to consolidate the work already done, and to extend it to parts of the Territory which have not yet been covered. The results of his work appear in special reports.

4. **Education.**—The education of the natives was provided for in the "Education Ordinance of 1922," under which the Administrator was authorized to establish schools, grant money therefor, prescribe instruction, and arrange for the training of teachers and other matters. Simultaneously a Native Education Trust Fund was inaugurated, over which the Administrator was given control, and for the benefit of which he was empowered, within certain limits, to levy taxes on the natives and on employers of native labour. The expenditure on native education in 1925–26 was £8,968. This included £1,400 spent in the erection of new buildings. Though the natives are liable to pay education tax none has been collected since 1922–23, whereas a sum of £10,914 was obtained in 1925–26 from a tax levied on employers of native labour.

A Government educational establishment has been founded at Malaguna, near Rabaul, and it is proposed to make it the educational centre for the natives in the Mandated Territory. The buildings which have been erected and are gradually being extended include staff-quarters, class-rooms, work-shops, dormitories, etc. The teaching staff in 1926 consisted of a head-teacher and three assistant teachers. The educational system embraces kindergarten work, elementary education, and technical training. The number of pupils in the Elementary School on 30th June, 1926, was 113, and in the Technical School 44. English has been made the school language. (See Year Book No. 17, p. 635.)

A considerable amount of educational work is carried out by the missions, the schools maintained being of three classes—(a) elementary schools in villages; (b) intermediate boarding-schools at head-quarters; and (c) high schools. The village schools are under native teachers; the most promising pupils pass to the intermediate schools, where they are taught by European teachers assisted by native tutors. At the high schools, teachers are trained for the village schools and tutors for the intermediate schools. Technical training is provided in the vicinity of Rabaul and in parts of the New Guinea mainland, the natives being trained in printing, bookbinding, tanning, bootmaking, carpentry and cabinet work, and the making of ropes, bricks, baskets and mats. At the end of June, 1926, the various missions maintained 1,125 schools, employing 206 European teachers, 7 Asiatic and 1,024 native teachers. The pupils numbered 32,208.

The granting of assistance to the schools is authorized by the Education Ordinance, but no grants have hitherto been made.

5. **Health of Natives.**—In a report dealing with the health of the natives in New Britain submitted before the war, it was stated that "the natives in the districts examined are not degenerate; but they are sick." The same qualification undoubtedly applies to the native population throughout the Territory.

The diseases taking the greatest toll of native life—directly, or through lowering vitality—are:—Malaria, respiratory diseases, dysentery, frambœsia, yaws, tropical ulcer, hookworm, filariasis, and beriberi. Further reference to this subject will be found in Official Year Book No. 18, p. 647.

The Health Department in Rabaul possesses:—(i) a staff of medical officers and orderlies, including travelling doctors; (ii) Native Hospitals at Government stations and sub-stations (its staff also supervises hospitals on plantations); (iii) a laboratory in Rabaul; (iv) training system for natives as medical tul-tuls; (v) scheme of distribution of medical necessities; (vi) a leper-station near Madang; and (vii) undertakes the general oversight of sanitary conditions. During the year a temporary staff has been employed combating venereal disease.

6. **Missions.**—There are a number of mission societies working in the Territory. The Society of the Sacred Heart of Jesus works in the Bismarck Archipelago, the Society of the Holy Ghost along the coast of North-East New Guinea from Sek to the Dutch border, the Marists in Buka and Bougainville. These are Roman Catholic Missions. The Protestant Missions are the Australian Methodist Mission in New Britain and New Ireland, the New Zealand Methodist Mission in Bougainville, the Liebenzell Mission in the Admiralty Group, and the Lutheran Mission (supported and staffed by the Lutheran

Churches in Australia and America), which work along the coast of North-East New Guinea from Sek to the Papuan border. All these societies combine teaching and planting with their missionary work. The missionaries working in the Mandated Territory in 1925 numbered 351, these included American, 21; Austrian, 6; Belgian, 1; British, 50; Dutch, 27; French, 24; German, 208; Italian, 2; Luxemburgese, 5; Polish, 6; Free City of Danzig, 1. Some of the societies have small printing plants by which reading matter in one or other of the native languages is produced.

§ 6. Land Policy.

1. **Acquisition of Land.**—A short account of the modes of acquiring land appears in Official Year Book No. 19, p. 590, but considerations of space preclude its repetition herein.

2. **Land Policy of the Present Administration.**—The Land Ordinance 1922–24 provides for sale as well as leasing of land belonging to the Crown. The divergence from the policy usually adopted by the British in the Pacific (including Papua), which provides for leasehold only, was made with a view to disposing by sale of the freehold properties taken over from Germans, and which until recently were controlled by the Expropriation Board. Reference to the leasehold system in force will be found in Official Year Book 18, page 648.

During the year 1925–26 leases covering a total area of about 20,000 acres were granted.

3. **Registration of Titles.**—Under German law there was a system of registration of titles in a "Ground Book," but registration did not confer an indefeasible title. The German system has been replaced by one modelled on the Torrens plan, embodied in an Ordinance entitled the "Lands Registration Ordinance," 1924.

§ 7. Production.

1. **General.**—The Territory possesses great natural resources, but their development has barely commenced, and progress in this direction will depend largely on the possibility of securing an adequate supply of suitable labour.

2. **Agriculture.**—(i) *General.* No estimate has yet been made of the area of land suitable for agriculture; but it is certain that the area already alienated, if planted to its full capacity, would be far greater than the present native population could cultivate.

The natives have been described as a people of peasant proprietors, and everywhere they practise a crude form of agriculture. Their gardens afforded but a small amount of produce for oversea trade, and the exports of the Protectorate grew only as European plantations were made. The average of the latter increased slowly, for the Protectorate is almost everywhere covered with forest, and the clearing and planting of the land, even if labour can be had, necessarily occupy considerable time. At the present stage, roads fit to carry wheeled transport are of paramount importance.

Under the supervision of the Director of Agriculture, soil analyses have been undertaken in different parts of the Territory, and experimental stations have been founded in Rabaul, Bita Paka, and in the Markham Valley. A laboratory and a herbarium have been established, and the appointment of an entomologist to deal with plant pests has been provided for. During the year under review a staff was appointed, and work begun in the Markham Valley in connexion with the application of the policy of native agricultural development. The crops selected for native cultivation are cotton, maize, and ground-nuts.

(a) *Tobacco.* This crop has been cultivated with success at Astrolabe Bay in North-East New Guinea, and in the Bismarck Archipelago. Tobacco of high quality, rivalling the best Sumatra leaf, is said to have been produced. Later, the growing of tobacco on European plantations was abandoned, partly, it is said, for want of intelligent labour, although it continued to be grown by the natives for their own use.

(b) *Cotton.* In 1924–25 the Government obtained 1,615 lb. of cotton seed, and experiments are being carried on at the experimental stations as well as by private planters, including a few natives. During the year 1925, 30 acres were planted with cotton.

(c) *Sisal Hemp*. There was a steady although small export of sisal hemp in German times. The quantity exported in 1913 was 10 tons, but none seems to have been exported since 1914.

(d) *Cocoa*. Cocoa has been successfully grown, principally at Vitu (French Islands); in 1913, 137 tons were exported. The yield in 1925-26 was 89 tons.

(e) *Coffee*. Coffee is grown, but to little extent, the production last year being only 884 lb.

(f) *Rubber*. On the mainland a small area has been planted with *Ficus elastica*, but in consequence of the low price of the inferior rubber produced from this source the trees are not being tapped.

(g) *Copra*. Indigenous in most of the islands, the coconut palm yielded copra to the traders from the beginning of European trade, and the plantations, commenced in 1883, have steadily extended in area and production. The quantity exported in 1925-26 was 45,806 tons, an increase of 6,655 over the figures for the previous year. The area under coconuts increased from 76,845 acres in 1914 to 174,030 acres on 30th June, 1926, of which 114,227 were in bearing.

(h) *Other Crops*. The climate and soil of the Territory are suitable for the cultivation of rice, Manila hemp, cinchona, nutmeg, vanilla and maize, but hitherto their cultivation has either not advanced beyond the experimental stage or has been attempted on a small scale only. Sugar-cane of many varieties flourishes, and the natives cultivate extensive areas for their own use; other indigenous food-producing plants include the sago palm and the cassava.

(i) *Plants Yielding Power Alcohol*. It seems probable that alcohol for power purposes will be obtainable economically from the Territory. The sago palm and nipa palm yield as much as 60 gallons a ton, and in places are very abundant.

(ii) *Area of Plantations*. The area of plantations and the crops grown thereon are shown in the table hereunder for the year ended 30th June, 1926. The figures are exclusive of native plantations.

TERRITORY OF NEW GUINEA.—PLANTATIONS, 30th JUNE, 1926.

Particulars.	Government Plantations.	Privately owned Plantations.	Controlled by Expropriation Board.	Total.
Area of Holdings acres	6,691	120,118	294,558	421,367
Area Cleared "	2,493	68,491	119,624	190,608
Area Cleared and Planted "	2,413	62,970	116,735	182,118
Coconuts—				
Area Planted acres	2,410	58,139	113,481	174,030
Area Bearing "	1,064	37,394	75,769	114,227
Rubber—				
Area Planted acres	..	279(a)	2,478(a)	2,757(a)
Area Bearing (a) .. .. "	..	..	..	..
Cocoa—				
Area Planted acres	..	119	(b)	(b)
Area Bearing .. .. "	..	..	(b)	(b)
Coffee—				
Area Planted acres	..	6	..	6
Area Bearing "	..	6	..	6
Cotton—				
Area Planted acres	..	30	..	30
Area Bearing .. .. "	..	..	..	..
Maize—				
Area Planted acres	..	180	..	180
Area Bearing "	..	133	..	133
Native Food—				
Area Planted acres	89	2,118	216	2,423(c)
Area Bearing(b) "	65	1,071	..	1,136(c)

NOTE.—(a) Rubber not tapped. (b) Not available. (c) Native food of all kinds is mostly grown between young coconut palms not yet in bearing, therefore the total area cleared and planted does not agree with the detailed areas under various crops.

The area of plantations at various periods from 1885 to 1926 is shown hereunder. As in the case of the previous table, the figures are exclusive of native plantations:—

TERRITORY OF NEW GUINEA.—PLANTATIONS, 1885 TO 1926.

Year.					Total Area.	Area in Coconuts (including Area not in Bearing).
					Acres.	Acres.
1885	..	..	..	..	148	(a)
1895	..	..	..	..	2,152	(a)
1911	..	..	..	..	58,837	51,510
1914	..	..	..	..	84,941	76,845
1924	..	..	..	..	179,163	172,373
1926	..	..	..	..	182,118	174,036

(a) Not recorded.

3. **Live Stock.**—There is little natural pasture in the Territory, but the coconut plantations are now of a sufficient area to maintain numerous live stock, the stock being depastured on the indigenous grasses growing between the rows of trees. In 1926 there were 821 horses, 10,163 cattle, 3,020 sheep, 5,204 goats, and 5,982 pigs (exclusive of the large number of pigs kept by the natives). (See also Official Year Book No. 16, page 677.)

4. **Timber.**—An investigation of the timber resources of the Territory has been made by the Commonwealth Forestry Adviser, and a report in connexion therewith was published in 1926. The timber required for house and ship-building and for other purposes is mostly obtained locally. In North-East New Guinea the Neuendettelsauer Mission and the Holy Ghost Mission both possess up-to-date saw-milling plants, while most of the timber required in the Archipelago is supplied by the Sacred Heart Mission's saw-mill, and by a privately-owned mill, both at the eastern end of New Britain.

The Timber Ordinance 1922 provides for the issue of permits and licences to cut timber. Timber growing on native lands cannot be acquired by private purchasers directly from the natives, but must be obtained through the Administration. A royalty is to be paid on all timber exported.

5. **Fisheries.**—The wealth of the waters of the Territory has so far been little exploited. Fish is caught at many places along the coast to supply the small local demand of the natives and of the few resident Europeans. Pearl-shell is exported in fair quantities, while trepang, shark fins, trochus-shell, and tortoise-shell also figure amongst the exports. The value of marine products exported in 1925–26 was £56,093, compared with £17,279 the previous year.

6. **Mining.***—There has been little mining in the Territory, and knowledge of the mineral resources is as yet but scanty. Gold has, however, been discovered on the Waria, the Ramu, the Francisco, and the Markham Rivers, etc. Rich gold was discovered in the Morobe District in 1926; the field is not very extensive and is situated 60 miles inland. Communication has been established with the coast by a regular aeroplane service. Osmiridium is reported to have been found on the upper tributaries of the Ramu, and platinum on the Kabenau River. Copper has been discovered in the form of chalcopyrite and malachite in the Baining District. Iron occurs as magnetite and hæmatite in the Baining District, apparently in large quantities. Sulphur occurs in several localities in the volcanic regions of the Territory. Phosphates suitable for use in the making of manures are found in the Purdy Islands. Brown coal has been found on the mainland in the vicinity of Astrolabe Bay, and in the southern portion of New Ireland.

* Fuller details in regard to minerals in the Territory will be found in E. R. Stanley's Report on Salient Geological Features and Natural Resources of the Territory (printed as Appendix B. to the Report for 1921–22).

The number of miner's rights issued during 1925-26 was 104. The quantity of gold exported from the Territory during the year was 10,067 ounces.

By the Mining Ordinance of 1923, private companies incorporated or registered in the Territory, two-thirds of whose shares are held by British subjects, became eligible to engage in prospecting and mining for mineral oil and coal. On the 30th June, 1926, the number of licences to prospect for mineral oil and coal was 13.

§ 8. Trade.

1. **Total Trade.**—The value of the imports, exports, and total trade at various periods since 1887, and during each of the last five years, is given in the table hereunder :—

TERRITORY OF NEW GUINEA.—TRADE, 1887 TO 1926.

Year.	Imports.	Exports.	Total.
	£	£	£
1887	17,133	19,580	36,713
1897	36,713	31,352	68,065
1907	166,585	97,563	264,148
1921-22	468,711	499,197	967,908
1922-23	516,855	630,892	1,147,747
1923-24	485,634	718,535	1,204,169
1924-25	537,940	858,990	1,396,930
1925-26	568,339	1,105,158	1,673,497

The import values are exclusive of money and Government stores. In 1925-26 the imports were distributed as follows :—From Australia, £484,090; America, £24,682; China, £9,555; Dutch New Guinea, £46; India, £45,942; Japan, £2,848; Straits Settlements, £1,176.

2. **Principal Items of Import.**—The principal items of import during each of the last five years are given in the following table :—

TERRITORY OF NEW GUINEA.—IMPORTS, VALUE OF ITEMS, 1921-22 TO 1925-26.

Commodity.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	£	£	£	£	£
Foodstuffs	113,238	181,492	137,638	187,660	179,354
Beverages (non-alcoholic) ..	1,360	2,235	6,428	6,896	5,973
Alcoholic Liquors	29,703	30,414	28,587	24,459	21,012
Tobacco	41,392	50,746	39,564	43,430	36,375
Live Animals	4,276	1,351	1,114	3,319	1,943
Copra Sacks	23,152	15,701	18,428	25,960	42,200
Apparel, Textiles	37,842	82,113	74,092	65,385	78,397
Oils, Paints	26,506	21,923	22,066	28,957	24,745
Hardware and Machinery ..	27,949	37,999	52,347	39,946	68,895
Motor Cars and Accessories	11,953	14,579	8,604	13,094	10,361
Firearms, Ammunition, and Explosives	1,704	4,049	3,696	3,181	2,948
Timber and Building Materials	7,200	12,308	20,367	18,582	29,862
Paper and Stationery	4,459	5,918	7,082	7,575	8,552
Chemicals and Drugs	10,290	18,919	11,529	17,237	16,018
Miscellaneous	17,687	33,002	50,710	50,263	38,756
Coal and Coke	(b)	4,106	3,382	1,996	2,948
Government Stores	110,000	(a)	(a)	(a)	(a)
Total	468,711	516,855	485,634	537,940	568,339

(a) Not recorded.

(b) Not separately recorded, included in Government Stores.

3. Principal Items of Export.—Values of the principal items of export for the last five years are shown hereunder :—

TERRITORY OF NEW GUINEA.—EXPORTS, VALUE OF ITEMS, 1921-22 TO 1925-26.

Commodity.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	£	£	£	£	£
Copra	474,110	619,715	686,519	815,938	1,016,930
Cocoa	9,465	3,734	3,602	6,949	6,510
Stone and Ivory Nuts .. .. .	..	336	192	312	456
Birds of Paradise	2,027	..	..	..	..
Trepang	13,595	964	908	1,975	8,246
Shell		5,535	9,574	15,009	47,434
Tortoise Shell		222	877	295	413
Gold .. .. .		..	16,542	18,512	25,169
Miscellaneous .. .. .	..	386	321	..	..
Total	499,197	630,892	718,535	858,990	1,105,158

4. Exports of Copra, and Cocoa.—The next table shows the quantities, where available, of the exports of these items during the last five years :—

TERRITORY OF NEW GUINEA.—EXPORTS OF COPRA, AND COCOA, 1921-22 TO 1925-26.

Commodity.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	Tons.	Tons.	Tons.	Tons.	Tons.
Copra	25,894	32,648	34,974	39,151	45,806
Cocoa	152	83	70	135	113

Of the 45,806 tons of copra exported in 1925-26, 30,018 tons went to countries other than Australia.

5. Banks.—There are two banks operating in the Territory, the Commonwealth Bank of Australia, and the Bank of New South Wales.

§ 9. Shipping and Communication.

1. General.—A subsidized mail service between the Territory and Australia is maintained by Burns, Philp and Co. Ltd. There is a regular service between the East and Australia with Rabaul as a port of call, while during the year under review regular services were established between Rabaul and Truk (Caroline Islands) and between America and the Territory.

2. **Oversea Tonnage in 1925-26.**—The number and net tonnage of oversea vessels which entered and cleared the Territory during the year 1925-26 are shown hereunder :—

TERRITORY OF NEW GUINEA.—SHIPPING, 1925-26.

Nationality.	Entered.		Cleared.		Total.	
	No.	Net Tonnage.	No.	Net Tonnage.	No.	Net Tonnage.
American	1	3,572	1	3,572	2	7,144
British	72	66,698	68	68,160	140	134,858
French	1	1,375	1	1,375	2	2,750
German	1	65	1	65	2	130
Japanese	5	3,591	5	3,591	10	7,182
Norwegian	5	16,309	5	16,309	10	32,618
Total	85	91,610	81	93,072	166	184,682

Country from which Entered or for which Cleared.	Entered.		Cleared.		Total.	
	No.	Net Tonnage.	No.	Net Tonnage.	No.	Net Tonnage.
Australia	30	60,007	25	46,413	55	106,420
Caroline Islands	4	1,068	4	1,068	8	2,136
China	4	8,224	2	5,262	6	13,486
Dutch New Guinea	1	65	1	65	2	130
European Ports .. .. .	..	..	6	19,465	6	19,465
Japan	1	3,496	3	8,340	4	11,836
New Caledonia	1	1,375	..	..	1	1,375
Papua	4	3,528	1	26	5	3,554
Philippine Islands	1	3,580	..	..	1	3,580
Rangoon (Burma)	2	3,844	..	..	2	3,844
Solomon Islands	35	946	35	923	70	1,869
U.S.A.	2	5,477	4	11,510	6	16,987
Total	85	91,610	81	93,072	166	184,628

3. **Local Shipping.**—A service between Rabaul and the various outports not visited by the mail steamers is maintained by small steamers and motor craft.

4. **Land Communication.**—Means of communication on land are scanty. There are no railways. Roads lead from Rabaul to places within 30 or 40 miles, and there is a road 170 miles long in New Ireland. Elsewhere there are few roads outside plantations and the stations of the District Officers. The large rivers of the mainland are as yet but little used.

There is a high power wireless station at Bita Paka near Rabaul, and low power stations at Kavieng, Kieta, Manus, Madang, Aitape, and Morobe. Since 1st July, 1921, all these have been placed under the control of Amalgamated Wireless (Australasia) Limited.

§ 10. Revenue and Expenditure.

1. Revenue.—Details of the revenue collected from various sources during each of the last five years are given hereunder :—

TERRITORY OF NEW GUINEA.—REVENUE, 1921-22 TO 1925-26.

Heading.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	£	£	£	£	£
Trade and Customs—					
Imports	49,031	77,259	73,781	73,051	87,520
Exports	38,422	35,965	43,656	47,277	50,858
Total	87,453	113,224	117,437	120,328	138,378
Taxes and Fees—					
Licences	5,588	5,816	5,846	6,517	6,199
Business Tax	20,989	10,317	18,322	18,874	22,511
Law Department	1,942	2,205	1,488	1,628	1,660
Lands Department	6,858	3,132	6,717	15,537	12,920
Stamp Duties	1,000	507	500	1,262	566
Native Affairs—					
Head Tax	20,546	21,550	21,451	22,035	19,663
Indenture Fees	1,689	(b)12,191	(b)8,605	3,814	4,447
Fees and Fines					
Income Tax	209	644	677	897	755
Total	58,821	56,362	63,606	70,564	68,721
Miscellaneous—					
Trade and Customs	6,470	2,918	3,959	4,234	6,082
Post Office	6,348	2,328	4,040	5,574	6,237
Wireless Service	5,839	..	..	..	..
Receipts from Administration					
Shipping Services	36,599	26,951	15,532	2,607	845
Plantations	8,824	2,985	5,705	6,027	5,742
Hospital Receipts	2,884	7,148	10,785	7,236	7,151
Miscellaneous	(a)44,268	(a)29,815	(a)27,680	26,205	25,862
Total	111,232	72,145	67,701	51,883	51,919
GRAND TOTAL	257,506	241,731	248,744	242,775	259,018

(a) Including sale of stores.

(b) Including hire of labour.

2. Expenditure.—The expenditure for the financial year 1925-26 was distributed as follows :—

TERRITORY OF NEW GUINEA.—EXPENDITURE, 1925-26.

Secretary and Central Administration	£17,705	Trade and Customs	£15,478
Justice	3,544	Agriculture	7,126
Treasury	38,444	Public Health	47,078
Audit	2,750	District Services	66,046
Lands and Survey	11,423	Miscellaneous	1,797
Native Affairs, Police, and Prisons	11,240	Total	242,991
Public Works	20,360		

F. NAURU.

1. **General.**—Nauru is an oval-shaped atoll about 12 miles in circumference having an area of 5,400 acres, of which approximately four-fifths is phosphate-bearing. It is situated in long. 166° E., and is 26 miles south of the Equator. Portion of the island between the sandy beach and the coral cliffs is fertile, and it is there that the native Nauruans have established themselves. With the exception of a small fringe round an inland lagoon, the plateau which contains the phosphate deposits possesses few food plants and is uninhabited, but portion of the area has been planted with fruit trees. The system of land tenure is governed by old custom, and, with the exception of small allotments held by the Government and Missions, the whole of the island is owned by individual natives. The climate is hot, but not unpleasant, the average shade temperature ranging between 72 and 95° F., and the average humidity between 70 and 80. The average rainfall is 120 inches, but droughts occasionally occur, and in 1916 and 1917 only 40 inches were received for the two years.

2. **History.**—The island was annexed by Germany in 1888, and prior to 1914 was part of the protectorate of German New Guinea.

In November, 1914, Nauru was occupied by a detachment from the Australian Expedition at Rabaul; and it was included in the cession of colonies made by Germany in 1919 to the Allied and Associated Powers, whose representatives agreed that a mandate over it should be given to His Majesty the King. On 2nd July, 1919, the British, Commonwealth, and New Zealand Governments agreed that the administration of the island (which, since 1915, had been in charge of an official appointed by the British Colonial Office) should be vested in an Administrator; the first Administrator was appointed for a term of five years by the Australian Government; his term of service having expired in February, 1926, it was extended for another five years. The Agreement between the three Governments was approved by the Commonwealth Parliament in the Nauru Island Agreement Act 1919, and is printed in the Schedule to that Act. The first Administrator appointed by the Commonwealth Government assumed duty in June, 1921.

The Mandate for Nauru, issued by the Council of the League of Nations in December, 1920, is in terms similar to that for the Territory of New Guinea.

3. **Administration.**—The Administrator has all the powers of government—administrative, legislative, and judicial—in the island. An Advisory Council has been created which consists of two Europeans chosen by the Administrator, and two native chiefs elected by the natives. All expenses of administration are met from local revenue. Native industries such as canoe-building, fishing, mat-making, etc., are encouraged by the provision of prizes at annual competitions. A branch of the Commonwealth Savings Bank has been established, and the deposits by natives in 1926 amounted to £7,000, as compared with £4,154 in 1924. There is a co-operative store managed by the natives themselves, the books, however, being audited by Government officers. Natives are not allowed to carry firearms, and the use by them of intoxicating liquors and deleterious drugs is prohibited.

4. **Population.**—Figures for population from 1922 to 1926 are given hereunder:—

NAURU.—POPULATION, 1922 TO 1926.

Population.	31st December, 1922.	31st December, 1923.	31st December, 1924.	31st December, 1925.	1st April, 1926.
Europeans	128	110	125	124	117
Chinese	582	603	785	827	822
Nauruans(a)	1,156	1,179	1,219	1,239	1,251
Other South Sea Islanders ..	290	117	11	10	27

(a) The natives of Nauru are Micronesians.

The birth rate among the Nauruans in 1926 was 41.6 per 1,000, the death rate 32.8 per 1,000, and the rate of infantile mortality 288.5 per 1,000.

5. **Health.**—There is no malaria, but cases occur of other diseases known in the Pacific. Venereal disease is rare, but in 1926 there were 167 cases of leprosy in segregation, while others were under treatment. An area has been set apart for the segregation of lepers, and the latest methods of treatment are applied to cope with the disease. Two hospitals are maintained on the island, one by the Administration for Nauruans, and one by the European Phosphate Commission for its employees. In common with other natives, the Nauruans are very susceptible to tuberculosis and influenza, and in 1921 an influenza epidemic caused the deaths of 230 islanders. Dysentery, both amoebic and bacillary, is endemic. The usual steps are being taken by the authorities to improve the water supply and to provide efficient sanitation generally. A baby clinic has been established to give help and advice to Nauruan mothers in regard to infant nurture.

6. **Education.**—On the 1st October, 1923, the Administration took over the education of the Nauruans and other native children, and native schools were established in four districts and at the leper station. Previously education had been looked after by the Missions subsidized by the Government. A school for European children is presided over by a teacher on loan from the Education Department of Victoria, who also supervises educational matters generally. The number of European children in 1926 was under 11. The curriculum is similar to that of corresponding schools in Australia, and the teaching is, as far as possible, wholly in English. Education is compulsory between the ages of six and sixteen. After the termination of ordinary school attendance, twelve months are devoted to technical training. Officers from the Missions visit the schools to give religious and moral training. A museum for the preservation of Nauruan antiquities is in process of formation.

7. **Religion.**—The London Missionary Society (Protestant) and the Sacred Heart of Jesus Mission (Roman Catholic) operate in Nauru, and in 1926 the adherents to the former numbered 820, and to the latter 368.

8. **Phosphate Deposits.**—(i) *General.* Since 1906 the deposits have been worked by the Pacific Phosphate Company, which also worked the deposits on Ocean Island (about 165 miles east of Nauru and part of the Gilbert and Ellice Islands Colony administered by the Colonial Office). The quantity on the two islands has been estimated at not less than 100,000,000 tons, and the rock phosphate, as shipped, averages 85 per cent. to 88 per cent. of tribasic phosphate of lime. About 4,000,000 tons have already been removed.

The interests of the Pacific Phosphate Company in the two islands (though not in other islands in the Pacific in which it has workings) were bought by the British, Commonwealth, and New Zealand Governments in 1919 for £3,500,000, the purchase money being contributed in the proportions of 42, 42, and 16 per cent. respectively. The Agreement of 2nd July, 1919, provides for the working of the deposits by the British Phosphate Commission of three members, one appointed by each Government; and the three countries are to receive the output in the same proportions of 42, 42, and 16 per cent.

(ii) *Output.* The output from the two islands in 1913, the last year before the war, was 350,000 tons. During the first five years of the Commission's management it was as follows:—

NAURU AND OCEAN ISLAND.—OUTPUT OF PHOSPHATES, 1921 TO 1925.

Year.	Total.	To Australia.	To New Zealand.	To United Kingdom.	To other Countries.
	Tons.	Per cent.	Per cent.	Per cent.	Per cent.
1920-21	364,251	72.96	4.69	4.59	17.76
1921-22	361,205	47.20	10.64	4.45	37.71
1922-23	311,650	65.43	16.54	..	18.03
1923-24	450,924	70.67	13.46	..	15.87
1924-25	473,647	71.11	21.01	..	7.88

From Nauru alone, during the calendar year 1926, the export was 274,935 tons, of which 193,785 tons went to Australia, and 81,150 tons to New Zealand.

(iii) *Accounts of Commission.* A statement for the five years ended June, 1925, is given hereunder.

NAURU AND OCEAN ISLAND.—SALES OF PHOSPHATES, 1920-21 TO 1924-25.

Receipts from Sales of Phosphate, Etc.	1920-21.	1921-22.	1922-23.	1923-24.	1924-25.
	£	£	£	£	£
Receipts from sales, etc. ..	691,643	823,045	542,348	695,940	705,293
F.o.b. cost, including interest on capital, Sinking fund, etc. ..	688,958	732,407	538,099	651,102	635,675

The f.o.b. cost of phosphate was 37s. 10d. in 1920-21, 40s. 7d. in 1921-22, 34s. 6d. in 1922-23, 28s. 10d. in 1923-24, and 26s. 10d. in 1924-25.

The amount due by the Commission to the partner Governments for purchase money and other capital sums was £3,666,457 on 30th June, 1921, and at 30th June, 1925, this had been reduced to £3,462,933. The contribution to the sinking fund paid by the Commission provides for interest at 6 per cent. and extinction of the capital sum in 50 years from 1st July, 1920.

(iv) *Employees.* Apart from a limited number of Europeans and a few Pacific Islanders the employees are Chinese, engaged under a three years' contract. A few Nauruans are from time to time employed, but they are not partial to sustained labour of any kind.

9. Trade.—Information regarding imports and exports for years 1922 to 1926 is appended herewith :—

NAURU.—IMPORTS AND EXPORTS, 1922 TO 1926.

Heading.	1922.	1923.	1924.	1925.	1926.
	£	£	£	£	£
Imports.. ..	78,320	53,685	100,254	63,576	104,117
Exports—	tons.	tons.	tons.	tons.	tons.
Phosphate	182,170	212,300	280,990	224,260	274,935
Copra	93	121	383	170	117

10. Revenue and Expenditure.—The revenue and expenditure of the Administration during the years 1922 to 1926 were as follows :—

NAURU.—REVENUE AND EXPENDITURE, 1922 TO 1926.

Heading.	1922.	1923.	1924.	1925.	1926.
	£	£	£	£	£
Revenue	11,182	11,837	18,200	15,175	16,424
Expenditure	11,424	10,266	13,580	15,257	13,963

Of the revenue in 1926, £5,816 was royalty on phosphate, £4,350 consisted of Customs receipts, £1,601 of capitation taxes, and £705 of harbour dues. The total credit balance on the 31st December, 1926, amounted to £23,966.

CHAPTER XVI.

PASTORAL PRODUCTION.

§ 1. Initiation and Growth of Pastoral Industry.

1. **Early Statistics.**—In earlier issues of the Year Book will be found a brief reference to the pastoral industry in Australia prior to the year 1860. (See Year Book No. 6, page 330).

2. **Subsequent Statistics.**—While the statistical records of live stock in Australia prior to the year 1860 are somewhat defective, from that year onwards fairly complete particulars are available for most of the States. At the present time, statistics of live stock are collected annually in all the States principally through the agency of the police, but in the years 1885 to 1888 inclusive, and 1893 to 1895 inclusive, these particulars were not collected in South Australia, and similar gaps occur in the Victorian records for the periods 1895 to 1899 inclusive, and 1901 to 1903. In order to obtain totals for Australia for these years the missing numbers have been supplied by interpolation. The results so obtained probably differ but slightly from the actual numbers for the respective years.

3. **Increase in Live Stock.**—Particulars concerning the numbers of each of the principal kinds of live stock in Australia at decennial intervals from 1860 to 1920, and from 1921 onwards in single years, are given in the following table, and are shown continuously in the graphs hereinafter.

During the sixty-five years covered by the table the live stock of Australia increased considerably, horses 421 per cent., cattle 236 per cent., sheep 414 per cent., and pigs 221 per cent. The average annual increases which these aggregates represent are as follows:—Horses, 2.67 per cent.; cattle, 1.98 per cent.; sheep, 2.55 per cent.; and pigs, 1.81 per cent.

LIVE STOCK.—AUSTRALIA, 1860 TO 1925.

Year.	Horses.	Cattle.	Sheep.(a)	Pigs.
1860	431,525	3,957,915	20,135,286	351,096
1870	716,772	4,276,326	41,593,612	543,388
1880	1,068,774	7,527,142	62,184,252	815,776
1890	1,521,598	10,299,816	97,881,221	891,138
1900	1,609,654	8,640,225	70,602,995	950,349
1910	2,165,866	11,744,714	98,066,046	1,025,850
1920	2,415,510	13,499,737	81,795,727	764,406
1921	2,438,182	14,441,309	86,119,068	960,385
1922	2,390,460	14,336,673	82,700,514	985,930
1923	2,327,440	13,357,508	84,011,048	897,874
1924	2,292,050	13,309,473	93,154,953	980,009
1925	2,250,361	13,279,785	103,563,218	1,128,374

(a) See note to Table in § 4. 2 hereinafter.

4. **Fluctuations.**—The increases referred to, however, have not been continuous, marked fluctuations having taken place during the period mainly on account of the droughts which have from time to time left their impress on the pastoral history of Australia. These were in evidence in 1868, 1877, 1883–4, 1892, 1893, 1895, and subsequent years, 1901–2, 1912, 1914–15, 1918, 1919, 1922–23, and again in 1925–26, in which latter years Central and Northern Queensland experienced one of the driest periods on record, and a heavy mortality of stock.

As an offset to these visitations, good seasons invariably supervene on the dry periods, and the large natural increases occurring under these conditions greatly facilitate the process of restocking, thus bearing convincing testimony to the extraordinary recuperative powers of the country.

The years in which the numbers of live stock attained their maxima are as follows:—Horses, 1918, 2,527,149; cattle, 1921, 14,441,309; sheep, 1891, 106,421,068; and pigs, 1917, 1,169,365.

5. **Live Stock in Relation to Population.**—The number of each kind of live stock per head of the population of Australia has varied during the past sixty-five years in the manner shown in the succeeding table :—

LIVE STOCK PER HEAD OF POPULATION.—AUSTRALIA, 1860 TO 1925.

Year.	Horses.	Cattle.	Sheep.	Pigs.	Year.	Horses.	Cattle.	Sheep.	Pigs.
1860	0.38	3.45	17.58	0.31	1920	0.44	2.49	15.11	0.14
1870	0.43	2.60	25.24	0.33	1921	0.44	2.61	15.63	0.17
1880	0.48	3.37	27.87	0.37	1922	0.42	2.54	14.68	0.17
1890	0.48	3.17	31.06	0.28	1923	0.40	2.31	14.61	0.16
1900	0.43	2.29	18.75	0.25	1924	0.39	2.27	15.86	0.17
1910	0.49	2.65	22.16	0.23	1925	0.38	2.22	17.28	0.19

Considered in relation to population the most noticeable variations have been the largely reduced numbers of sheep and pigs in recent years. The number of cattle has also declined, and a decrease in the numbers of horses is in evidence since 1918.

6. **Live Stock in Relation to Area.**—The numbers of live stock per square mile in the several States and Territories of Australia are given in the following table :—

LIVE STOCK PER SQUARE MILE, 1925.

States and Territories.	Horses.	Cattle.	Sheep.	Pigs.
New South Wales (a)	2.10	9.47	173.50	1.24
Victoria	5.27	17.22	156.35	3.86
Queensland	0.95	9.60	30.82	0.30
South Australia	0.64	0.98	17.92	0.24
Western Australia	0.17	0.86	7.03	0.08
Tasmania	1.44	8.10	61.76	1.56
Northern Territory	0.09	1.85	0.02	0.00
Federal Capital Territory (a)	1.59	5.65	183.25	0.36
Total	0.76	4.46	34.82	0.38

(a) 30th June, 1926.

7. **Minor Classes of Live Stock.**—The numbers of minor classes of live stock returned for 1925 were as follows :—Goats, 218,686; camels, 9,904; mules and donkeys, 12,986; and ostriches, 529. Of these, goats were most numerous in Queensland; camels, mules and donkeys in Western Australia; and ostriches in South Australia. In the raising of goats, attention has in recent years been devoted to the angora goat and its product (mohair), and about 12,000 angora goats are included in the total of 218,686 goats shown above. Of these, 3,129 were in New South Wales, 608 in Tasmania, 1,152 in Western Australia, 1,548 in South Australia, and 3,923 in Queensland, while the quantity of mohair produced in the latter State in 1925 was set down at 1,604 lbs., and the number of skins placed on the market was returned as 520.

8. **Net Exports of Principal Pastoral Products.**—The quantities by which the exports of the principal pastoral products of Australia exceeded the imports for the years 1921–22 to 1925–26 are as follows :—

NET EXPORTS OF PASTORAL PRODUCTS.—AUSTRALIA, 1921-22 TO 1925-26.

Products.	Unit of Quantity.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
QUANTITIES.						
Animals (living)—						
Cattle	No.	9,110	13,818	— 71	9,674	9,898
Horses	"	1,798	3,545	1,478	4,604	5,255
Sheep	"	36,111	37,959	30,302	4,143	20,331
Bones	cwt.	21,718	23,276	26,158	23,748	27,329
Glue-pieces and Sinews	"	4,987	6,927	— 1,993	— 11,055	— 8,757
Glycerine	lb.	19,348	343,292	— 230,485	— 489,113	— 603,485
Hair	"	— 126,037	(a)	(a)	(a)	(a)
Hoofs	cwt.	10,615	11,174	10,380	8,340	20,510
Horns	"	(a)	(a)	(a)	(a)	(a)
Meats—						
Frozen Beef	lb.	124,158,191	152,925,321	105,145,255	283,584,278	214,058,586
Frozen Mutton and Lamb	"	91,712,280	167,578,967	39,768,347	50,224,659	85,679,850
Frozen Rabbits and Hares	pair	4,857,404	4,264,054	3,489,496	3,415,334	4,043,511
Frozen, Other	lb.	6,676,605	13,062,037	6,687,005	9,141,545	8,935,466
Potted, and Extract of	"	(a)	(a)	(a)	(a)	(a)
Preserved in Tins, etc.	lb.	9,133,860	10,563,164	4,268,814	8,687,019	10,209,971
Other (excluding Bacon and Ham)	"	344,167	459,564	234,058	314,867	24,119
Sausage Casings	cwt.	(a)	24,623	13,213	26,860	
Skins—						
Hides	No.	80,415	47,900	665,466	900,274	699,080
Sheep	"	6,780,522	10,237,162	6,891,162	6,016,231	8,007,249
Rabbit and Hare	cwt.	74,224	122,748	77,862	116,522	134,024
Other (including Undressed Furs)	"	(a)	(a)	(a)	(a)	(a)
Tallow	cwt.	893,772	1,016,831	394,313	855,596	824,974
Wool—						
Greasy	lb.	710,591,430	597,429,649	478,210,488	489,669,907	767,812,768
Scoured	"	102,346,835	106,319,965	41,735,194	39,221,259	49,972,194
Tops	"	6,200,505	6,374,922	4,988,258	4,090,958	5,219,085

NOTE.—The minus sign — signifies net imports. (a) Quantity not available.

The values of the net exports for the same five years are furnished in the next table, and amount to no less a total than £351,899,754 for the period, or an average of £70,379,951 per annum, of which wool represents 81.47 per cent. Meat, skins, and tallow rank next in order of importance.

NET EXPORTS OF PASTORAL PRODUCTS.—AUSTRALIA, 1921-22 TO 1925-26.

Products.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
VALUES.					
Animals (living)—	£	£	£	£	£
Cattle	53,274	64,731	— 31,430	43,623	32,632
Horses	— 1,148	27,978	— 36,741	28,062	— 8,655
Sheep	36,921	42,017	40,887	29,793	27,958
Bones	19,610	26,137	32,301	23,031	22,407
Glue-pieces and Sinews	7,883	13,725	21,688	10,363	3,071
Glycerine	1,516	8,536	— 5,965	— 10,896	— 15,586
Hair	6,786	— 62,880	— 70,283	— 73,556	— 63,681
Hoofs	7,120	8,137	7,723	6,011	10,459
Horns	34,418	35,388	32,888	47,216	36,102
Meats—					
Frozen Beef	1,867,681	1,794,104	1,301,304	4,138,729	3,263,859
Frozen Mutton and Lamb	2,139,537	4,320,977	1,169,667	1,520,655	2,430,430
Frozen Rabbits and Hares	407,143	321,329	320,442	310,683	399,039
Frozen, Other	128,451	189,170	95,127	165,002	166,538
Potted, and Extract of	— 49,636	— 40,170	— 78,343	— 49,953	— 30,580
Preserved in Tins, etc.	324,275	266,273	94,094	247,405	328,888
Other (excluding Bacon and Ham)	10,852	10,577	5,798	4,058	3,083
Sausage Casings	128,127	285,504	154,068	208,673	259,299
Skins—					
Hides	122,471	249,208	338,263	890,639	713,589
Sheep	1,305,223	2,973,146	3,057,789	3,773,328	3,413,809
Rabbit and Hare	784,346	1,961,777	1,348,508	2,482,933	2,874,582
Other (including Undressed Furs)	288,633	785,467	798,166	328,325	569,744
Tallow	1,440,683	1,612,676	745,209	1,703,308	1,584,465
Wool—					
Greasy	38,970,130	45,769,295	48,294,399	55,297,455	56,429,712
Scoured	7,795,146	9,898,651	6,293,197	6,524,471	5,537,671
Tops	1,207,048	1,412,683	1,161,920	1,119,849	1,035,107
Total Values	57,036,440	71,974,486	65,095,676	78,769,210	79,023,942

NOTE.—The minus sign — signifies net imports.

§ 2. Horses.

1. **Suitability of Australia for Horse-breeding.**—From the earliest times the suitability of the climate and pastures of Australia for the production of serviceable breeds of horses has been fully recognized. By the importation of high-class sires, and the careful selection of breeding mares, these natural advantages are utilized to the fullest extent, all classes of horses being bred. As a consequence of this combination of advantages, the Australian horse, whether of the heavy draught, medium weight, or light saddle and carriage variety, compares more than favourably with the product of other lands. The Australian horse has been found suitable for the army in India, and large numbers are obtained annually for remount purposes. During the war, Australian horses were found to be well adapted for all purposes, especially in Palestine.

2. **Distribution throughout Australia.**—As regards numbers, the State of New South Wales, the earliest settled of the group, established a lead, which it retained till the year 1914, when it gave place to Queensland, where rapid progress had been in evidence during the previous decade. New South Wales regained the lead during the next three seasons, but Queensland again replaced the latter State in 1918, and maintained its position until 1925, when New South Wales recorded 12,000 horses more than the Northern State. Particulars of the several States for the past five years are as follows:—

HORSES.—NUMBER, 1921 TO 1925.

Year.	N.S.W. (a)	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	F.C.T. (a)	Total.
1921	668,501	496,124	746,281	267,639	180,334	38,439	39,565	1,299	2,438,182
1922	658,686	494,947	713,015	264,150	181,159	37,313	39,845	1,345	2,390,460
1923	656,939	486,075	660,387	258,489	181,944	37,570	44,603	1,433	2,327,440
1924	646,110	473,236	659,023	255,022	175,116	37,091	45,059	1,393	2,292,050
1925	649,534	463,051	637,436	244,111	170,563	37,785	46,380	1,501	2,250,361

(a) 30th June year following.

The number of horses attained its maximum in Australia during 1918, when 2,527,149 were recorded. Since that date, however, a gradual decline has taken place in all divisions of the Commonwealth, except Northern Territory, the decrease for Australia during the period amounting to 276,788.

Particulars regarding the number of horses in Australia from 1860 onwards, may be ascertained from the graph herein.

3. **Proportions in the Several States and Territories.**—The percentages of the number of horses in the several States and Territories on the total for Australia for the past five years are as follows:—

HORSES.—PERCENTAGE IN EACH STATE, 1921 TO 1925.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	F.C.T.	Total.
	%	%	%	%	%	%	%	%	%
1921 ..	27.42	20.35	30.61	10.98	7.40	1.57	1.62	0.05	100.00
1922 ..	27.55	20.70	29.83	11.05	7.58	1.56	1.67	0.06	100.00
1923 ..	28.23	20.88	28.37	11.11	7.82	1.61	1.92	0.06	100.00
1924 ..	28.19	20.65	28.75	11.13	7.64	1.62	1.96	0.06	100.00
1925 ..	28.86	20.58	28.32	10.85	7.58	1.68	2.06	0.07	100.00

The relative changes in distribution are insignificant, the only alteration during the last four years being a decrease of $2\frac{1}{2}$ per cent. in Queensland, occasioned by increases in New South Wales, Victoria, Western Australia, Tasmania, and the Northern Territory.

4. **Relation to Population.**—In proportion to population, horses are much more numerous in the Northern Territory than in any other of the principal divisions of Australia. Queensland is next in order, while Tasmania has the smallest number of

horses per head. The number per head of population has declined in all the statistical divisions, with the exception of Northern Territory, since 1921. Particulars for the past five years as follows :—

HORSES.—NUMBER PER HEAD OF POPULATION, 1921 TO 1925.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N. Ter.	Fed. Cap. Ter.	All States.
1921 ..	0.31	0.32	0.97	0.53	0.54	0.18	10.59	0.45	0.44
1922 ..	0.30	0.31	0.90	0.51	0.53	0.17	11.22	0.41	0.42
1923 ..	0.30	0.30	0.81	0.49	0.51	0.17	12.55	0.39	0.40
1924 ..	0.29	0.29	0.79	0.47	0.48	0.17	12.60	0.46	0.39
1925 ..	0.28	0.27	0.74	0.44	0.46	0.17	12.69	0.38	0.38

5. **Comparison with other Countries.**—The number of horses in some of the leading horse-breeding countries of the world, according to the latest available returns, is as follows :—

HORSES.—NUMBER IN PRINCIPAL COUNTRIES.

Country.	Date.	Number of Horses (,000 omitted.)	Country.	Date.	Number of Horses (,000 omitted.)
Soviet Republics ..	1925	24,530	Union of South Africa	1925	815
U.S. of America ..	1926	15,279	Cuba ..	1924	785
Argentine Republic ..	1921	9,432	Dutch East Indies	1924	744
Brazil ..	1920	5,254	Czecho-Slovakia ..	1925	740
China ..	1916	4,401	Sweden ..	1920	728
Germany ..	1926	3,869	Spain ..	1924	643
Canada ..	1926	3,559	Uruguay ..	1919	555
Poland ..	1921	3,290	Denmark ..	1926	548
France ..	1925	2,880	Turkey ..	1924	505
Australia ..	1925	2,250	Lithuania ..	1925	497
India (British and Native) ..	1924	2,156	Paraguay ..	1919	490
Rumania ..	1925	1,875	Mexico ..	1925	438
Japan ..	1924	1,624	Finland ..	1924	403
United Kingdom ..	1925	1,447	Bulgaria ..	1920	398
Jugo-Slavia ..	1925	1,106	Irish Free State ..	1926	379
Italy ..	1919	990	Netherlands ..	1921	364
Colombia ..	1924	964	Latvia ..	1925	352
Hungary ..	1926	885	New Zealand ..	1925	327
			Chile ..	1925	324

6. **World's Totals.**—Several countries do not issue annual statistics of live stock, the information available consisting of censuses or estimates made at varying intervals. It is not possible, therefore, to give world aggregates for the different classes of stock year by year, nor to make a satisfactory comparison between the totals for consecutive years. In order, however, to give some idea of the latest position as regards live stock and the changes that have taken place as compared with pre-war years, the following information has been taken from the report issued by the International Institute of Agriculture. The list of countries included is fairly complete, but China, which possesses large numbers of horses, is omitted, as also are certain parts of Asiatic Russia, together with a few other countries. While for some countries the figures are the result of careful enumeration, in the case of others they are merely approximations. The

totals, therefore, can be regarded as a general indication only of the position at the dates shown. The figures for horses are as follows:—

HORSES.—WORLD'S TOTALS, 1913 AND 1925.

Continents, &c.	Number at the date nearest—		Increase (+) or Decrease (–) in 1925.	
	1913.	1925.	Actual Figures.	Percentages.
	,000	,000	,000	%
Europe	44,206	40,910	–3,296	–7.5
North and Central America	27,631	26,904	–727	–2.6
South America	18,132	17,494	–638	–3.5
Asia	12,197	11,596	–601	–4.9
Africa	1,661	1,985	+324	+19.5
Oceania	2,971	2,652	–319	–10.7
Total	106,793	101,541	–5,257	–4.9

Compared with the pre-war totals reductions have taken place in all the continents, with the exception of Africa, where the number of horses is relatively insignificant. The greatest decrease occurred in Europe, where there are 3,296,000 horses less than in 1913.

7. *Oversea Trade in Horses.*—(i) *Exports.* Australia's export trade in horses is not nearly as large as formerly, and is somewhat fluctuating. During the past five years it has varied in number between 5,610 in 1925–26 and 1,785 in 1923–24, and in value between £160,714 in 1924–25 and £59,799 in 1923–24. The total number of horses exported during the five years amounted to 18,284, valued at £524,879, or equal to an annual average of 3,657 for £104,976. The average export price for the period was £28 14s. 2d. Nearly 77 per cent of the horses exported went to India, where they are largely used for remount purposes.

(ii) *Imports.* The number of horses imported into Australia is comparatively small, consisting mainly of valuable animals introduced for breeding purposes, principally from the United Kingdom and New Zealand. The average value per head of the horses imported during the last five years was £321 6s. 3d., as compared with £28 14s. 2d. per head for the exports for the same period. The average number imported per annum was, however, only 321, and the average annual value, £103,077. The following table gives the imports, exports, and net exports of horses during each of the years from 1921–22 to 1925–26:—

HORSES.—IMPORTS AND EXPORTS, AUSTRALIA, 1921–22 TO 1925–26.

Year.	Imports.		Exports.		Net Exports.	
	No.	Value.	No.	Value.	No.	Value.
		£		£		£
1921–22	277	69,382	2,075	68,234	1,798	– 1,148
1922–23	309	81,685	3,854	109,663	3,545	27,978
1923–24	307	96,540	1,785	59,799	1,478	– 36,741
1924–25	356	132,652	4,960	160,714	4,604	28,062
1925–26	355	135,124	5,610	126,469	5,255	– 8,655

NOTE.—The minus sign – signifies net imports.

§ 3. Cattle.

1. **Purposes for which Raised.**—In all the States, cattle-raising is carried out on a more or less extensive scale, the main objects in certain districts being the production of stock suitable for slaughtering purposes, and in others the raising of profitable dairy herds. The great impetus which the development of the export trade in Australian butter gave to the dairying industry led to a considerable increase in numbers and improvement in quality of the dairy herds in Victoria, New South Wales, and Southern Queensland in particular, the portion of Australia in the temperate zone being the best adapted to this industry. On the other hand, by far the finest specimens of beef-producing cattle are those raised in the tropical districts, i.e., in the northern parts of Queensland, in the Northern Territory, and in the Kimberley districts in the north of Western Australia.

2. **Distribution throughout Australia.**—Until 1880 New South Wales occupied the leading position as a cattle-raising State, but in that year Queensland took first place, which it has since maintained. The graph herewith shows a rapid increase in the number of cattle in Australia up to the year 1894, when 12,311,617 head were depastured. From 1895 onwards, however, the effects of droughts and the ravages of tick fever reduced the number to 7,062,742 in 1902. Following the disastrous drought which terminated in the latter year, the herds were gradually built up, and despite recurring droughts, they continued to increase in recent years until the maximum number of 14,441,309 cattle was attained in 1921. The decline in the frozen beef trade and the drought of 1922–23, which particularly affected the beef cattle areas of New South Wales and Queensland, were mainly responsible for the heavy decreases recorded in both these States during the past four years. Preliminary figures available for Queensland reveal the fact that as the result of the disastrous drought of 1925–26 the herds of that State have been further depleted by more than one million cattle.

The numbers of cattle in the several States and Territories during each of the last five years are as follows:—

CATTLE.—NUMBER, 1921 TO 1925.

Year.	N.S.W. (a)	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	Fed. Cap. Ter. (a)	Total.
1921	3,538,240	1,750,369	7,047,370	(a) 419,197	893,108	216,704	568,031	8,290	14,441,309
1922	3,244,905	1,785,060	6,955,463	(a) 425,811	939,596	218,197	760,766	6,275	14,336,673
1923	2,932,437	1,591,367	6,396,514	(a) 413,272	953,764	220,351	843,718	6,085	13,357,508
1924	2,871,196	1,605,554	6,454,653	400,423	891,564	225,740	855,285	5,058	13,309,473
1925	2,931,818	1,513,787	6,436,645	373,597	835,911	212,373	970,342	5,312	13,279,785

(a) 30th June year following.

3. **Proportion in each State.**—Percentages showing the relative importance of the various cattle-breeding States during the years 1921 to 1925 are given hereunder:—

CATTLE.—PERCENTAGE IN EACH STATE, 1921 TO 1925.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	Fed. Cap. Ter.	Total.
	%	%	%	%	%	%	%	%	%
1921	24.50	12.12	48.80	2.90	6.19	1.50	3.93	0.06	100.00
1922	22.63	12.46	48.52	2.97	6.55	1.52	5.31	0.04	100.00
1923	21.95	11.91	47.89	3.09	7.14	1.65	6.32	0.05	100.00
1924	21.57	12.06	48.50	3.01	6.70	1.69	6.43	0.04	100.00
1925	22.08	11.40	48.47	2.81	6.29	1.60	7.31	0.04	100.00

Queensland contains within its borders nearly one half of the cattle-herds of Australia. Despite decreases during recent years the percentage of cattle in Queensland on the total for Australia amounted to 48.47 in 1925. The largest relative gain since 1920 occurred in the Northern Territory, where the number has considerably increased during the past four seasons.

4. *Relation to Population.*—The number of cattle per head of population varies considerably in the several States, as may be seen from the following table :—

CATTLE.—NUMBER PER HEAD OF POPULATION, 1921 TO 1925.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	Fed. Cap. Ter.	All States.
1921 ..	1.65	1.12	9.15	0.83	2.66	0.99	152.00	2.84	2.61
1922 ..	1.48	1.12	8.82	0.82	2.73	1.00	214.24	1.93	2.54
1923 ..	1.32	0.98	7.89	0.78	2.70	1.01	237.33	1.65	2.31
1924 ..	1.27	0.97	7.73	0.74	2.45	1.03	237.75	1.69	2.27
1925 ..	1.28	0.90	7.47	0.68	2.24	0.98	265.41	1.35	2.22

5. *Comparison with other Countries.*—In the following comparison of the herds of Australia with those of some of the principal cattle-raising countries of the world, the latest available figures have been inserted in each case :—

CATTLE.—NUMBER IN VARIOUS COUNTRIES.

Country.	Date.	No. of Cattle (,000 omitted).	Country.	Date.	No. of Cattle (,000 omitted).
India (British) ..	1925	119,492	Turkey	1924	4,622
Soviet Republics ..	1926	63,000	Cuba	1924	4,600
U.S. of America ..	1926	57,521	French Equatorial and		
Argentine Republic ..	1922	37,065	West Africa ..	1924	4,539
Brazil	1920	34,271	Tanganyika Territory	1925	4,472
Germany	1926	17,195	Dutch East Indies ..	1925	4,343
China	1921	15,973	Irish Free State ..	1926	3,947
France	1925	14,373	Siam	1925	3,872
Australia	1925	13,280	Jugo-Slavia	1925	3,768
Union of South Africa	1925	9,738	New Zealand	1925	3,504
Canada	1926	9,160	Spain	1924	3,436
Uruguay	1924	8,432	Kenya	1925	3,417
United Kingdom ..	1926	8,115	Japan	1924	3,157
Poland	1921	8,063	Mexico	1925	2,925
Madagascar	1923	7,367	Nigeria	1925	2,864
Italy	1919	6,239	Denmark	1926	2,840
Colombia	1924	6,500	Sweden	1920	2,737
Paraguay	1919	5,500	Rhodesia	1925	2,483
Rumania	1925	4,798	Venezuela	1922	2,278
Czecho-Slovakia ..	1925	4,691	Austria	1924	2,162

6. *World's Totals.*—The information in the appended table has been taken from the returns published by the International Institute of Agriculture at Rome. The figures given therein are subject to the limitations previously noted in respect to horses (See § 2. No. 6 ante.)

CATTLE.—WORLD'S TOTALS, 1913 AND 1925.

Continents, etc.	Number at the date nearest—		Increase (+) or Decrease (–) in 1925.	
	1913.	1925.	Actual Figures.	Percentages.
	,000	,000	,000	%
Europe	129,695	139,519	+9,824	+7.6
North and Central America ..	79,105	89,950	+10,845	+13.7
South America	85,978	98,259	+12,281	+14.3
Asia	168,858	172,295	+3,437	+2.0
Africa	32,826	46,240	+13,414	+40.9
Oceania	13,850	17,158	+3,308	+23.9
Total	510,312	563,421	+53,109	+10.4

Compared with the returns for 1913, increases were recorded in 1925 in all continents. The chief percentage increases were in Africa and Australia, but considerable gains in numbers were also reported for South America, North and Central America, and Europe.

7. **Imports and Exports of Cattle.**—Although the various products of the cattle-raising industry bulk largely in the export trade of Australia, the export of live cattle has never been considerable. The number of cattle imported is also small, consisting, as in the case of horses, mainly of valuable animals for the purpose of breeding. Details are as follows :—

CATTLE.—IMPORTS AND EXPORTS, AUSTRALIA, 1921-22 TO 1925-26.

Year.	Imports.		Exports.		Net Exports.	
	No.	Value.	No.	Value.	No.	Value.
		£		£		£
1921-22 ..	108	10,769	9,218	64,043	9,110	53,274
1922-23 ..	147	18,856	13,965	83,587	13,818	64,731
1923-24 ..	2,683	46,684	2,612	15,254	—71	—31,430
1924-25 ..	70	2,318	9,744	45,946	9,674	43,628
1925-26 ..	173	15,743	10,071	48,375	9,898	32,632

NOTE.—The minus sign — signifies net imports.

The importation of fat cattle from New Zealand for the Melbourne market was the cause of the relatively large import in 1923-24. Omitting these unusual shipments the average value of the cattle imported during the last five years was £99 3s. 8d. per head, while the average value of the cattle exported during the same period was £5 12s. 9d. As previously stated, the imported cattle were required principally for stud purposes.

8. **Cattle Slaughtered.**—The number of cattle slaughtered during each of the years 1921 to 1925 is given hereunder :—

CATTLE (INCLUDING CALVES) SLAUGHTERED, 1921 TO 1925.

Year.	N.S.W. (a)	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas. (a)	N. Ter.	Fed. Cap. Ter. (a)	Total.
1921	631,699	331,707	499,992	495,323	54,640	33,566	2,445	90	1,649,462
1922	738,908	424,199	504,394	4127,294	79,823	31,026	1,587	142	1,907,373
1923	752,376	461,958	566,452	4140,979	90,833	33,729	2,500	113	2,048,940
1924	818,683	499,840	893,169	155,050	95,648	36,154	6,630	143	2,505,317
1925	825,628	523,960	778,060	157,210	110,286	36,824	2,000	456	2,434,424

(a) For year ended 30th June of year following.

9. **Production and Consumption of Beef.**—The production of beef in Australia during the three years ended 1925-26 was estimated at 1,180,272,537 lbs. per annum. The requirements of the local market absorbed 972,963,833 lbs., or nearly 82½ per cent. leaving a balance of slightly more than 17½ per cent., which was exported as frozen and canned beef. The annual consumption of beef per head of population in Australia averaged 166 lbs. compared with 71 lbs. in the United States of America, 72 lbs. in Canada, and 64 lbs. in the United Kingdom for the same period.

10. **Export of Beef Preserved by Cold Process.**—The establishment of the frozen meat export trade about the year 1882 provided an outlet for the surplus stock of

Australia, and since that date the trade in frozen beef has grown to large proportions. the quantities exported during the five years 1921-22 to 1925-26 being as follows :—

BEEF PRESERVED BY COLD PROCESS.—EXPORTS, AUSTRALIA, 1921-22 TO 1925-26.

Country to which Exported.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.	Total for 5 years.
QUANTITY.						
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
United Kingdom ..	108,671,867	112,316,545	62,286,753	175,276,049	124,287,414	582,838,628
Italy ..	..	67,315	8,511,922	48,938,055	11,764,463	69,281,755
Belgium ..	..	2,452,475	7,723,342	25,679,801	31,760,595	67,620,713
Germany ..	..	17,321,705	5,437,988	6,777,898	15,600,259	45,137,850
Philippine Islands ..	8,093,851	4,780,134	8,442,695	8,117,712	9,201,185	38,635,577
Egypt ..	1,904,187	5,228,357	3,242,520	6,406,583	4,019,222	21,700,869
Malaya (British) ..	2,392,991	2,215,561	1,903,621	2,012,101	2,062,674	10,591,948
Malta ..	..	1,223,563	2,007,894	3,006,897	3,987,758	10,226,112
France ..	783,824	1,802,192	625,223	2,909,841	3,262,353	9,383,433
Hawaiian Islands ..	554,698	2,089,605	230,274	996,735	2,042,684	6,813,996
Hong Kong ..	610,785	511,417	1,444,881	382,390	1,370,380	4,319,853
Gibraltar ..	..	353,354	1,254,888	929,137	1,432,295	3,969,674
Japan ..	213,295	398,301	884,679	981,672	450,557	2,928,504
Ceylon ..	322,010	456,739	319,546	309,781	428,357	1,836,433
Other Countries ..	619,845	1,733,404	837,714	816,535	619,785	4,707,283
Total ..	124,167,353	152,950,667	105,163,940	283,620,687	214,089,981	879,992,628
VALUE.						
	£	£	£	£	£	£
United Kingdom ..	1,616,075	1,285,049	734,814	2,552,775	1,915,739	8,104,452
Italy ..	..	842	115,819	725,510	170,829	1,013,000
Belgium ..	..	27,314	96,270	366,488	487,448	977,520
Germany ..	..	202,119	65,054	105,496	225,063	597,732
Philippine Islands ..	133,696	60,843	105,971	103,781	124,010	523,301
Egypt ..	24,431	67,684	45,858	93,805	80,722	312,500
Malaya (British) ..	44,687	34,552	23,980	32,496	33,927	174,642
Malta ..	..	14,265	30,658	46,872	62,753	154,548
France ..	9,798	21,720	7,101	44,539	45,871	129,029
Hawaiian Islands ..	7,280	28,412	3,955	16,386	46,325	102,358
Hong Kong ..	11,117	6,771	19,537	5,567	23,365	66,357
Gibraltar ..	..	4,214	14,853	15,458	24,997	59,522
Japan ..	3,892	5,340	12,603	10,806	4,772	37,413
Ceylon ..	6,111	8,455	6,405	5,868	8,324	35,163
Other Countries ..	10,840	27,155	14,001	14,240	10,775	77,011
Total ..	1,867,927	1,794,735	1,301,879	4,140,087	3,264,920	12,369,548

Despite the weakness of overseas markets conditions in Australia were favourable for export beef during 1925-26, and 214,089,981 lbs. were sent overseas. Had it not been for local and overseas trade interruptions it is believed this figure could have been considerably improved upon. The largest purchaser of Australian beef is the United Kingdom, which during the five years ended 1925-26 took £8,104,452 worth, or more than 65 per cent. of the total shipments. A satisfactory feature of the trade was the increased quantities taken by European countries other than the United Kingdom, the value of the exports thereto in 1925-26 amounting to £1,016,961 or 31 per cent. of the total exportation.

11. Beef Subsidy.—Particulars of the efforts of the Commonwealth Government to assist the beef industry by the passage of the Meat Export Bounties Act and the operations of that measure are contained in previous issues of the Year Book.

§ 4. Sheep.

1. Initiation of the Pastoral Industry.—Fortunately for Australia, the suitability of its climate and general conditions for the production of a high class of wool was, at an early date in the history of its settlement, surmised and tested by Captain Macarthur, one of the pioneer sheep-breeders of New South Wales. To the energy of this enterprising pastoralist is due in large measure the rapid and extremely satisfactory development of Australia as a producer of fine wool, and, while it would appear that the introduction of the merino sheep into Australia was not due to Macarthur, a great deal of the credit for having successfully established the pastoral industry in Australia must certainly be his.

2. *Distribution throughout Australia.*—With the exception of a short period in the early sixties, when the flocks of Victoria outnumbered those of the mother State, New South Wales has maintained the lead in sheep-raising which naturally attached to it as the portion of Australia in which settlement was first effected. The number of sheep in New South Wales generally represents about half the total for Australia, but this ratio was slightly exceeded in the returns for the past two years.

Fluctuations in the number of sheep recorded for each year in Australia from 1860 onwards may be seen from the graph accompanying this chapter. Five marked periods of decline greatly reduced the numbers at successive intervals, but these losses were quickly regained, and, despite a decrease of $3\frac{1}{2}$ millions during the drought of 1922, the number reported early in 1926 was 103,563,218, the greatest number since the maximum year, 1891, when 106,421,068 sheep were depastured. To approximate the record number so closely when the requirements of the mutton and lamb trade entail the annual slaughter of some ten to twelve million sheep and lambs is a striking commentary on the soundness of the sheep and wool industry, and on the excellent seasons experienced in Australia during recent years.

Although the flocks of Queensland have been seriously depleted by the recent drought in that State, the preliminary figures available for early in 1927 estimate the Commonwealth sheep total at 103,000,000.

The number of sheep in the several States and Territories for each year from 1921 to 1925 was as follows:—

SHEEP.—NUMBER, 1921 TO 1925.

Year.	New South Wales. (a)	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Nor. Ter.	Fed. Cap. Ter. (a)	Total.
1921	40,902,432	12,325,818	18,402,399	6,257,052	6,508,177	1,551,273	6,349	167,568	86,119,068
1922	38,605,391	11,765,520	17,641,071	6,305,133	6,664,135	1,558,494	6,161	154,609	82,700,514
1923	41,293,843	11,059,761	16,756,101	6,596,875	6,595,867	1,557,716	4,728	146,157	84,011,048
1924	46,934,210	12,649,898	19,028,252	6,359,240	6,396,564	1,614,085	6,914	165,790	93,154,953
1925	53,687,749	13,740,500	20,663,323	6,810,495	6,861,795	1,619,075	8,030	172,251	103,563,218

(a) 30th June, year following.

The figures for New South Wales shown above have been revised by the Government Statistician in view of the discrepancies previously noted in landholders' returns.

3. *Proportion in the Several States and Territories.*—Particulars concerning the relative positions of the several States and Territories with respect to the total flocks of Australia during the years 1921 to 1925 are given hereunder:—

SHEEP.—PERCENTAGE IN EACH STATE, 1921 TO 1925.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N. Ter.	Fed. Cap. Ter.	Total.
	%	%	%	%	%	%	%	%	%
1921	47.50	14.31	21.37	7.27	7.55	1.80	0.01	0.19	100.00
1922	46.68	14.23	21.33	7.62	8.06	1.88	0.01	0.19	100.00
1923	49.15	13.16	19.95	7.85	7.85	1.86	0.01	0.17	100.00
1924	50.38	13.58	20.42	6.83	6.87	1.73	0.01	0.18	100.00
1925	51.84	13.27	19.95	6.58	6.62	1.56	0.01	0.17	100.00

Apart from the effect of drought the percentage of sheep depastured in the different States shows little change. The most noteworthy alteration was a gain of 4.34 per cent. in New South Wales mainly at the expense of Queensland and Victoria.

4. **Relation to Population.**—The relation of the flocks of the several States and Territories to the population at the end of each year from 1921 to 1925 is as follows:—

SHEEP.—NUMBER PER HEAD OF POPULATION, 1921 TO 1925.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N. Ter.	Fed. Cap. Ter.	Total.
1921 ..	19.22	7.95	23.90	12.39	19.41	7.10	1.70	81.19	15.63
1922 ..	17.77	7.40	22.38	12.20	19.39	7.12	1.74	60.46	14.68
1923 ..	18.69	6.80	20.66	12.47	18.64	7.11	1.33	55.74	14.61
1924 ..	20.82	7.64	22.79	11.81	17.57	7.34	1.92	55.30	16.86
1925 ..	23.36	8.16	23.99	12.35	18.44	7.46	2.20	43.76	17.28

5. **Comparison with other Countries.**—As regards the size of its flocks, and the quantity and quality of wool produced, Australia has long occupied the leading position amongst the sheep-raising countries of the world. The following comparison taken mainly from the Year Book of the International Institute of Agriculture gives the latest figures relative to the number of sheep in the principal wool-producing countries:—

SHEEP.—NUMBER IN VARIOUS COUNTRIES.

Country.	Date.	No. of Sheep (,000 omitted).	Country.	Date.	No. of Sheep (,000 omitted).
Australia	1925	103,563	Brazil	1920	7,933
Soviet Republics ..	1925	81,858	Jugo-Slavia	1925	7,907
U.S. of America ..	1926	41,909	French Equatorial and		
Argentine Republic ..	1922	36,209	West Africa	1924	6,562
Union of South Africa	1925	35,570	Algeria	1925	6,171
India (British and Native)	1924	34,602	Greece	1923	5,643
New Zealand	1925	24,548	Iraq	1924	4,433
United Kingdom ..	1925	23,577	Tanganyika Territory(a)	1925	4,333
China	1916	22,232	Chile	1925	4,094
Spain	1924	18,460	Germany	1926	4,084
Uruguay	1924	14,443	Portugal	1925	3,684
Rumania	1925	12,950	Irish Free State ..	1926	3,003
Italy	1919	11,754	Canada	1926	2,877
Turkey	1925	11,444	Kenya	1925	2,679
Peru	1922	11,335	Poland	1921	2,193
France	1925	10,537	Basutoiland	1925	2,051
French Morocco ..	1925	9,278	Soudan (Anglo-Egyptian)		
Bulgaria	1920	8,923	.. ..	1925	1,639

(a) Including goats.

6. **World's Totals.**—The number of sheep in the various great divisions of the world has been estimated by the International Institute of Agriculture, and a comparison has been made with pre-war estimates. In the table below the results are shown, the totals being subject to the limitations noted for other classes of live stock. (See § 2, 6 *ante*).

SHEEP.—WORLD'S TOTALS, 1913 AND 1925.

Continents, etc.	Number at the date nearest—		Increase (+) or Decrease (—) in 1925.	
	1913.	1925.	Actual Figures.	Percentages.
	,000	,000	,000	%
Europe	162,070	188,615	+26,545	+16.4
North and Central America ..	56,996	39,909	—17,087	—30.0
South America	99,349	78,118	—21,231	—21.4
Asia	59,702	62,174	+2,472	+4.1
Africa	74,123	76,073	+1,950	+2.6
Oceania	109,330	128,141	+18,811	+17.21
Total	561,570	573,030	+11,460	+2.0

Despite large reductions in the United States, Argentine, Brazil, and Uruguay the total number of sheep recorded in 1925 exceeded that depastured in the various countries during 1913. The increase was mainly due to important additions to the flocks of Europe and Australia.

7. Oversea Imports and Exports of Sheep.—As in the case of cattle, the oversea exports of live sheep from Australia are of comparatively small importance. During the past five years the principal consignments of ordinary sheep have been made to Malaya (British) from the State of Western Australia. The purchases by South African and Japanese buyers at the Australian Stud Sheep Sales during recent years have opened up a regular export trade with these two countries in stud sheep, the bulk of which has been secured from the leading flocks of New South Wales, Victoria and South Australia. The following are particulars of the imports and exports for the years 1921-22 to 1925-26 :—

SHEEP.—IMPORTS AND EXPORTS, AUSTRALIA, 1921-22 TO 1925-26.

Year.	Imports.		Exports.		Net Exports.	
	No.	Value.	No.	Value.	No.	Value.
		£		£		£
1921-22 ..	345	4,836	36,456	41,757	36,111	36,921
1922-23 ..	235	3,378	38,194	45,395	37,959	42,017
1923-24 ..	1,021	8,487	31,323	49,374	30,302	40,887
1924-25 ..	2,183	10,902	6,326	40,695	4,143	29,793
1925-26 ..	2,375	13,873	22,706	41,831	20,331	27,958

8. Sheep Slaughtered.—The number of sheep slaughtered in the several States during each of the years from 1921 to 1925 was as follows :—

SHEEP (INCLUDING LAMBS) SLAUGHTERED, 1921 TO 1925.

Year.	N.S.W. (a)	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas. (a)	Nor. Ter.	Fed. Cap. Ter.(a)	Total.
1921 ..	5,226,516	4,005,587	769,360	1,208,347	871,831	362,871	30	3,333	12,447,875
1922 ..	5,662,953	5,863,195	762,540	1,290,669	900,128	344,989	..	3,323	14,827,797
1923 ..	3,614,457	4,078,273	618,127	956,140	809,379	316,438	..	2,898	10,395,712
1924 ..	3,396,957	3,591,219	446,247	933,426	588,577	276,117	..	2,989	9,235,532
1925 ..	4,244,497	4,194,572	635,335	1,028,533	613,935	286,691	..	7,908	11,011,471

(a) Year ended 30th June year following.

9. Production and Consumption of Mutton and Lamb.—The annual production of mutton and lamb during the three years ended 1925-26 averaged 410,326,466 lbs., of which 349,623,169 lbs., or 85.21 per cent., was consumed locally, leaving a balance of 14.79 per cent. for exportation. The consumption of mutton and lamb in Australia during the same period averaged 60 lbs. per head per annum, a figure considerably in excess of the per capita consumption during the past three years in the following countries :—United Kingdom, 27 lbs.; Canada, 8 lbs.; and United States of America, 5 lbs.

10. Exports of Mutton and Lamb Preserved by Cold Process.—The export trade in mutton and lamb preserved by cold process grew rapidly until in 1913, the year immediately before the war, the value of the shipments amounted to nearly £3,000,000. The exports fell away considerably during the war years, but a record shipment of 246,971,346 lbs., valued at £5,482,564, was made in 1919-20, and another large consignment was dispatched in 1922-23. Climatic conditions favoured a considerable output in the next three seasons, but shipments were not large, owing chiefly to the sound position of wool.

As in the case of frozen beef, the principal customer in this trade is the United Kingdom, which absorbed more than 95 per cent. of the total quantity exported from Australia during the last five years, while the balance was shipped mainly to Malaya (British), Egypt, Hong Kong, Ceylon, Canada, and Philippine Islands.

MUTTON AND LAMB PRESERVED BY COLD PROCESS.—EXPORTS, AUSTRALIA, 1921-22 TO 1925-26.

Country to which Exported.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.	Total for 5 years.
QUANTITY.						
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
United Kingdom ..	88,631,613	162,653,301	35,906,594	46,025,699	80,584,284	413,891,491
Malaya (British) ..	1,089,985	1,106,778	846,641	1,072,104	994,153	5,109,661
Egypt ..	178,380	984,473	463,332	739,176	617,605	2,983,166
Hong Kong ..	391,166	432,250	491,660	446,076	601,292	2,362,444
Ceylon ..	396,880	340,484	415,729	443,937	411,241	2,008,271
Canada ..	329,030	203,315	251,046	216,121	543,043	1,544,555
Philippine Islands ..	289,294	208,910	184,482	167,118	154,014	1,003,818
Malta ..	..	..	..	..	707,093	707,093
Hawaiian Islands ..	..	..	..	..	416,307	416,307
Union of South Africa ..	72,920	179,226	156,102	..	..	408,248
France ..	..	..	..	..	342,908	342,908
Other Countries ..	335,731	1,503,824	999,763	1,161,231	307,830	4,308,379
Total ..	91,714,999	167,612,561	39,805,349	50,271,462	85,681,970	435,086,341

VALUE.						
	£	£	£	£	£	£
United Kingdom ..	2,073,276	4,205,189	1,067,571	1,397,291	2,298,400	11,041,727
Malaya (British) ..	24,750	28,531	25,067	34,548	27,964	140,860
Egypt ..	3,514	18,825	11,021	20,781	15,226	69,367
Hong Kong ..	8,690	12,104	14,969	14,144	16,269	66,176
Ceylon ..	7,781	8,872	12,296	14,018	10,751	53,718
Canada ..	7,422	3,944	6,216	6,503	15,210	39,295
Philippine Islands ..	6,347	5,740	5,486	5,556	4,526	27,655
Malta ..	..	..	..	..	15,158	15,158
Hawaiian Islands ..	..	..	..	..	13,620	13,620
Union of South Africa ..	1,029	3,710	4,167	..	..	8,906
France ..	..	..	..	..	6,430	6,430
Other Countries ..	6,806	35,002	24,057	29,241	6,911	102,017
Total ..	2,139,615	4,321,917	1,170,850	1,522,082	2,430,465	11,584,929

§ 5. Wool.

1. **Importance of Wool Production.**—Wool is the chief factor in the pastoral wealth of Australia, the value of the output for the season ended 30th June, 1926, being about £61,404,000. The bulk of the production is exported, but with the greater activity of Australian woollen mills the quantity used locally is increasing, nevertheless the amount so used represents about 5 per cent. only of the total production.

2. **Greasy and Scoured Wool.**—For the purpose of comparing the clips as a whole for a series of years, it is convenient to have the total production expressed in terms of greasy wool.

The quantity of Australian wool scoured and washed before export during recent years has been on the average about 18 per cent. of the total quantity shipped. The loss of weight in scouring varies largely with season, locality, breed, and condition. It seems preferable to express "scoured and washed" wool in terms of "greasy" rather than vice versa, since the absolute error arising from uncertainty as to average loss of weight is thereby minimized.

In the tables dealing with production, "scoured and washed" wool has been converted into the estimated equivalent amount of "greasy" on the assumption that two pounds of "greasy" wool are on the average required to produce one pound of "scoured and washed."

3. **Production.**—(i) *Total.* The estimated production of wool in the several States, formerly based on the Customs returns, being no longer available from that source, an effort has been made to arrive at approximate figures from data collected by the State Statisticians from growers, fellmongers, etc. An examination of the figures so obtained revealed a serious discrepancy when compared with oversea exports plus local consumption, the cause of which was mainly due to understatement of their production by pastoralists. As the result of exhaustive inquiries in New South Wales and South Australia the Statisticians of those States have been able satisfactorily to revise their original figures. Pending similar action the statistics of the other States have been provisionally amended from existing data available. The following table gives the revised estimates obtained for the five seasons ended 30th June, 1922 to 1926:—

WOOL.—TOTAL PRODUCTION, 1921-22 TO 1925-26.

State.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	lbs.	lbs.	lbs.	lbs.	lbs.
New South Wales(a) ..	333,856,000	336,899,000	303,032,000	369,118,000	402,490,000
Victoria ..	128,512,777	127,467,950	107,513,361	133,484,871	139,076,017
Queensland ..	142,579,733	144,971,150	131,913,075	152,131,544	158,744,544
South Australia ..	57,764,173	58,698,738	57,881,936	62,438,953	69,007,266
Western Australia ..	47,301,039	45,139,138	49,055,393	44,307,052	48,547,780
Tasmania ..	11,634,624	12,218,550	11,712,273	12,483,452	12,564,000
Northern Territory(b)	30,000	20,000	20,000	20,000	30,000
Total ..	721,678,346	725,414,526	661,128,038	773,983,872	830,459,607

(a) Including Federal Capital Territory.

(b) Approximate figures.

(ii) *Estimate for 1926-27.* Although the returns are not yet complete the total wool production of the Commonwealth during 1926-27 is officially estimated at 900,000,000 lbs., the record quantity produced to date, and 70,000,000 lbs. greater than the previous record obtained in 1925-26.

4. **Care Needed in Comparing Clips.**—In comparing successive clips, allowance must be made for the circumstance that, owing to climatic or other conditions, the time of shearing may be so far delayed that one clip may include almost thirteen months' growth of wool, while the succeeding one may include little more than eleven months' growth.

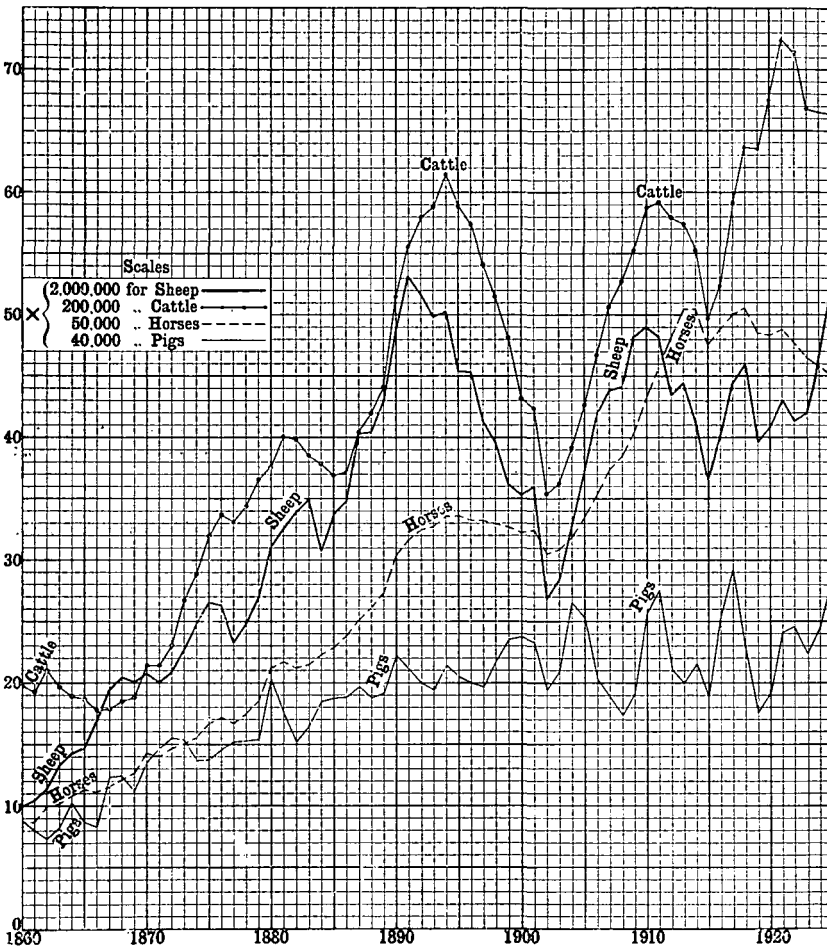
5. **World's Wool Production.**—The following table compiled by the Textile Division of the United States Department of Commerce shows the importance of Australia as a wool-producing country. Out of a total production of 3,123,490,000 lbs. in 1926, Australia's contribution amounted to 830,460,000 lbs., or more than 26½ per cent. of the world's supply.

WOOL(a).—WORLD'S PRODUCTION, 1909 TO 1926.

Countries.	Average Annual Pre-War Production.(b)	Production.	
		1925.	1926.(c)
North America—	lbs.	lbs.	lbs.
United States	314,110,000	292,362,000	310,901,000
Canada	11,210,000	15,553,000	17,180,000
Mexico	7,000,000	4,529,000	5,250,000
Total	332,320,000	312,444,000	333,331,000
Central America and West Indies	1,000,000	750,000	750,000
South America—			
Argentina Republic ..	358,688,000	312,400,000	314,840,000
Brazil	35,000,000	21,801,000	22,597,000
Chile	17,430,000	33,000,000	31,000,000
Peru	9,940,000	8,816,000	9,257,000
Uruguay	156,968,000	117,000,000	125,000,000
All other	9,324,000	9,500,000	9,500,000
Total	587,350,000	502,517,000	512,194,000
Europe—			
Austria	15,360,000	1,800,000	1,700,000
Belgium	1,060,000	840,000	775,000
Bulgaria	23,700,000	29,769,000	25,450,000
Czecho-Slovakia .. ..	..	3,420,000	3,370,000
Denmark	3,508,000	1,213,000	1,102,000
Estonia .. ..	..	2,189,000	2,396,000
Finland .. ..	..	5,000,000	5,000,000
France	80,688,000	44,974,000	47,619,000
Germany	52,000,000	50,160,000	41,710,000
Greece	14,000,000	18,000,000	14,500,000
Hungary	17,637,000	16,500,000	16,500,000
Iceland	1,980,000	1,530,000	1,433,000
Italy	55,000,000	57,000,000	55,800,000
Jugo-Slavia	25,446,000	28,000,000	28,727,000
Netherlands	3,556,000	5,842,000	6,173,003
Norway	8,160,000	5,762,000	5,976,000
Poland	7,100,000	4,480,000	4,500,000
Portugal	10,000,000	6,000,000	6,000,000
Rumania	13,228,000	54,940,000	57,000,000
Russia	320,000,000	(d) 195,000,000	(d) 195,000,000
Spain	72,000,000	88,469,000	105,792,000
Sweden	2,875,000	2,200,000	2,200,000
Switzerland	1,049,000	660,000	660,000
Turkey	28,000,000	..	..
United Kingdom	134,000,000	96,132,000	99,600,000
Irish Free State .. ..	..	13,668,000	14,900,000
All other .. ..	..	7,847,000	8,722,000
Total	890,347,000	741,395,000	752,605,000

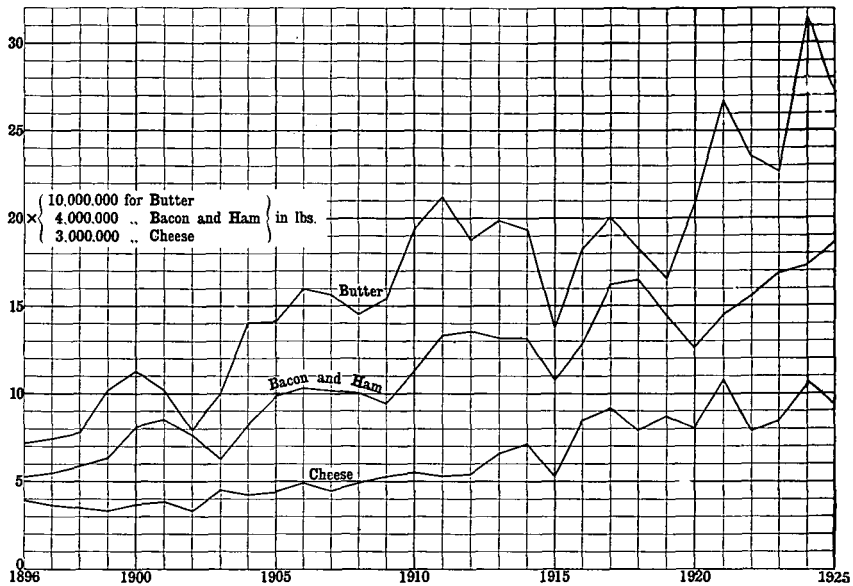
(a) Computed on "greasy" basis. (b) Average for years 1909 to 1913 inclusive. (c) Where 1926 figures were not obtainable, an earlier figure or an unofficial estimate has been inserted. (d) Including Asiatic Russia.

NUMBER OF HORSES, CATTLE, SHEEP, AND PIGS—AUSTRALIA, 1860 TO 1925.



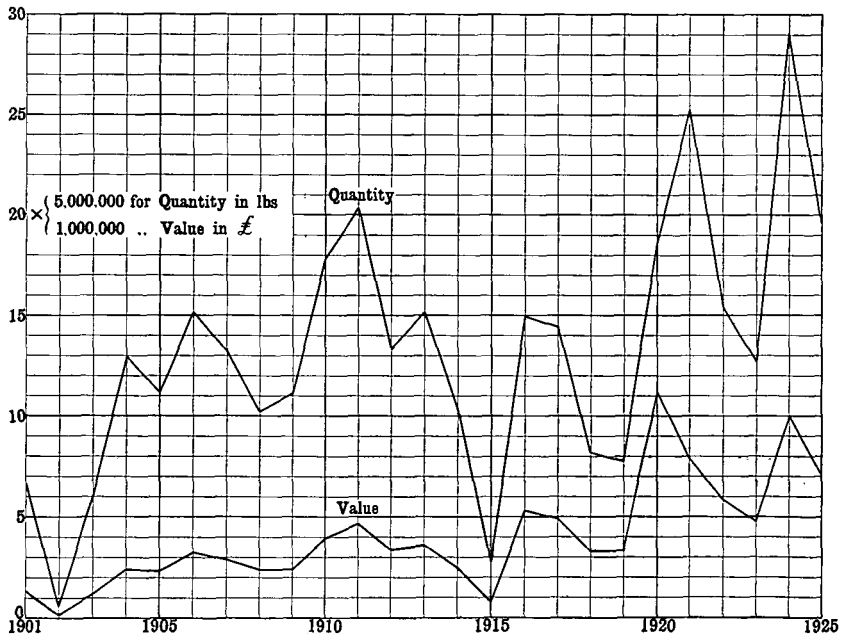
EXPLANATION.—The base of each small square represents an interval of one year, and the vertical side 2,000,000 in the case of sheep, 200,000 for cattle, 50,000 for horses, 40,000 for pigs.

PRODUCTION OF BUTTER AND CHEESE, AND BACON AND HAM—AUSTRALIA
1896 TO 1925.



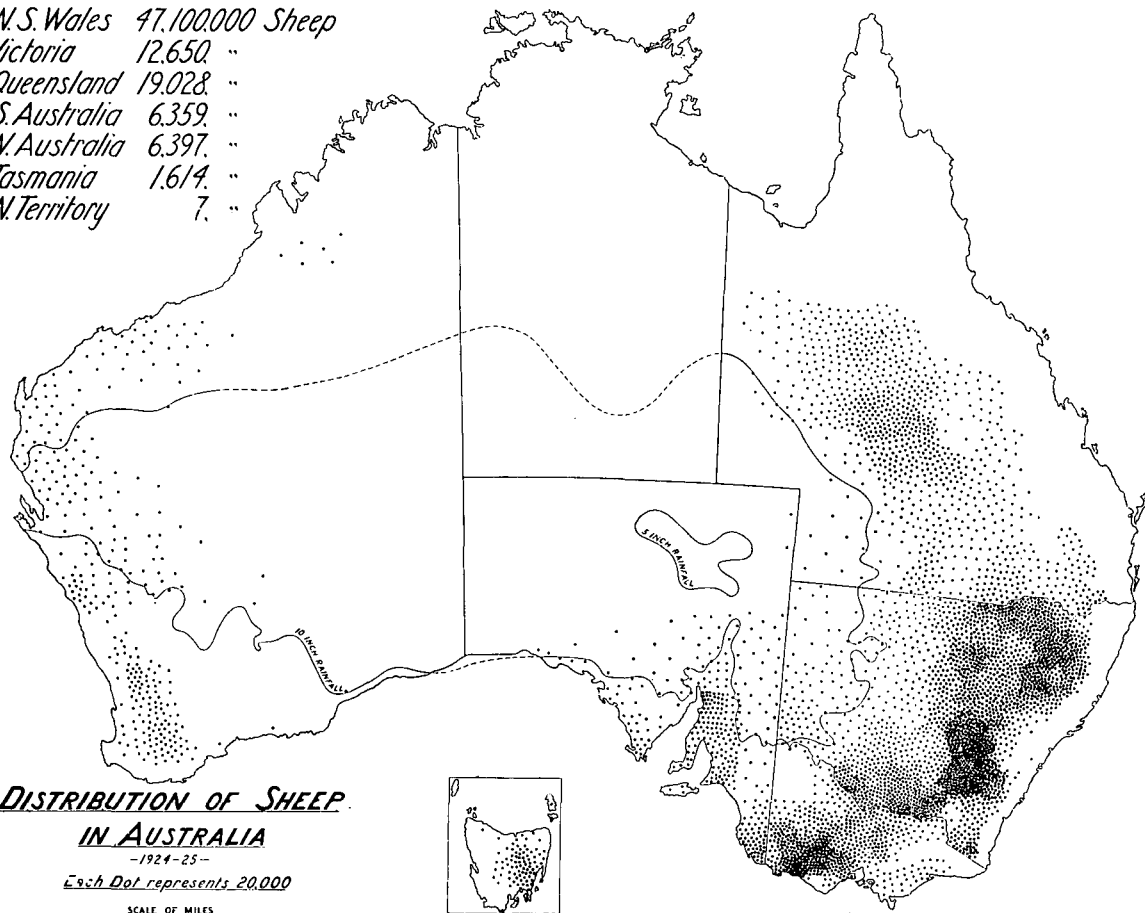
EXPLANATION.—The base of each small rectangle represents an interval of one year, and the vertical height of each denotes in the case of butter 10,000,000 lbs.; in the case of bacon and ham 4,000,000 lbs.; and in the case of cheese 3,000,000 lbs.

QUANTITY AND VALUE OF NET EXPORTS OF BUTTER FROM AUSTRALIA, 1901 TO 1925.



EXPLANATION.—The base of each small rectangle represents an interval of one year, and the vertical height of each denotes in the case of quantity 5,000,000 lbs. in weight, or £1,000,000 in value.

N.S. Wales 47,100,000 Sheep
Victoria 12,650 "
Queensland 19,028 "
S. Australia 6,359 "
W. Australia 6,397 "
Tasmania 1,614 "
N. Territory 7 "



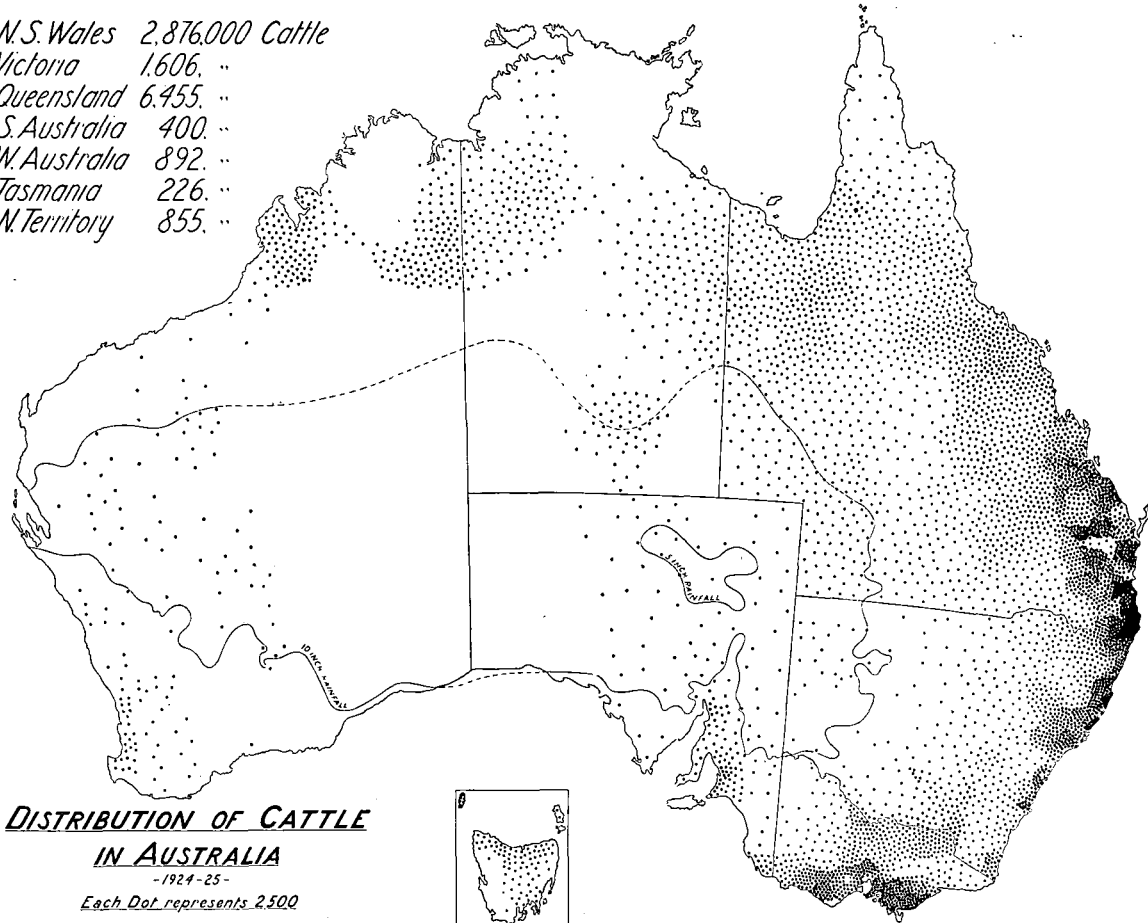
DISTRIBUTION OF SHEEP
IN AUSTRALIA

-1924-25-

Each Dot represents 20,000

SCALE OF MILES

N.S. Wales 2,876,000 Cattle
Victoria 1,606,000 "
Queensland 6,455,000 "
S. Australia 400,000 "
W. Australia 892,000 "
Tasmania 226,000 "
N. Territory 855,000 "



WOOL(a).—WORLD'S PRODUCTION, 1909 TO 1926—continued.

Countries.	Average Annual Pre-War Production.(b)	Production.	
		1925.	1926.(c)
	lbs.	lbs.	lbs.
Asia—			
British India	60,000,000	60,000,000	55,000,000
China	50,000,000	75,000,000	75,000,000
Persia	12,146,000	13,000,000	18,000,000
Russia in Asia	60,000,000	(d)	(d)
Turkey in Asia	90,000,000	12,500,000	13,000,000
All other	1,000,000	24,000,000	22,000,000
Total	273,146,000	184,500,000	183,000,000
Africa—			
Algeria	35,221,000	46,137,000	38,649,000
British South Africa	165,888,000	185,000,000	180,000,000
Tunis	3,735,000	5,000,000	5,700,000
Morocco	14,850,000	33,000,000	39,000,000
All other	30,000,000	25,200,000	25,000,000
Total	249,694,000	294,337,000	288,349,000
Oceania—			
Australia.. ..	741,377,000	773,984,000	830,460,000
New Zealand	198,474,000	199,731,000	207,801,000
Total	939,851,000	973,715,000	1,038,261,000
Total all other Countries	13,000,000	15,000,000	15,000,000
GRAND TOTAL	3,286,708,000	3,024,658,000	3,123,490,000

(a) Computed on "greasy" basis. (b) Average for years 1909 to 1913 inclusive. (c) Where 1926 figures were not obtainable, an earlier figure or an unofficial estimate has been inserted. (d) Included with European Russia.

6. Wool Locally Used.—The quantity of wool used in the woollen and tweed mills of the various States during the past five years was approximately as follows :—

WOOL.—GREASY, USED IN LOCAL WOOLLEN AND TWEED MILLS,
1921-22 TO 1925-26.

State.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	lbs.	lbs.	lbs.	lbs.	lbs.
New South Wales	6,648,224	4,882,740	4,895,206	4,345,956	6,016,754
Victoria	13,293,011	15,926,225	13,068,648	14,420,497	17,642,326
Queensland	1,822,494	1,358,888	1,317,521	1,102,110	1,902,247
South Australia	608,098	621,265	586,800	536,870	
Western Australia					3,321,213
Tasmania	1,043,706	1,502,060	963,369	1,931,814	
Total	23,415,533	24,291,178	20,831,544	22,337,247	28,942,540

The total consumption of wool in Australia cannot be given, as particulars in respect of wool-combing and knitting establishments are not collected in all the States. An estimate, based upon the available particulars and the purchases made by manufacturers at local wool sales, places the figure in the vicinity of 45,000,000 lbs.

7. **Exports of Wool.**—(i) *Greasy—Quantities.* Of the total exports of wool expressed in terms of "greasy" shipped overseas prior to the war, about 40 per cent. were sent to the United Kingdom, whereas during the past five years the percentage dispatched to the same destination had increased slightly to 43 per cent. The other leading consignees during the latter period were France, Japan, Belgium, United States of America, Germany, and Italy, the principal continental countries taking 41 per cent., and America and Japan 15 per cent. of the total shipments. The following table shows for the years 1921–22 to 1925–26 the quantities of "greasy" wool exported, and the principal countries of destination:—

WOOL IN THE GREASE.—EXPORTS, AUSTRALIA, 1921–22 TO 1925–26.

Country to which Exported.	1921–22.	1922–23.	1923–24.	1924–25.	1925–26.	Total for 5 years.
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
United Kingdom ..	337,775,993	259,230,707	163,169,820	175,937,327	256,078,293	1,192,192,140
France ..	136,751,611	137,742,458	121,268,001	114,678,170	224,052,949	734,491,189
Japan ..	50,775,592	50,043,561	45,455,153	53,015,265	50,595,292	258,884,863
Belgium ..	55,690,271	34,180,045	48,011,894	36,682,734	64,602,486	239,187,430
United States of America ..	45,778,371	50,284,655	31,900,668	38,501,358	61,317,978	227,742,030
Germany ..	39,830,067	32,040,661	31,422,309	39,595,031	65,802,691	209,590,759
Italy ..	39,629,628	28,646,259	25,143,698	28,752,441	34,173,784	156,345,808
Netherlands ..	636,378	3,017,462	14,091,947	2,977,389	1,472,172	22,195,348
Canada ..	1,619,372	1,184,321	697,794	483,127	461,719	4,446,333
India ..	613,701	296,164	1,598,944	770,543	193,292	3,472,644
Other Countries ..	1,619,731	807,697	1,196,811	875,712	1,353,614	5,853,566
Total ..	710,720,713	598,323,990	483,966,039	492,267,097	769,104,270	3,054,382,109

(ii) *Scoured and Washed—Quantities.* Similar particulars concerning the exports of "scoured and washed" wool were as follows:—

WOOL, SCOURED AND WASHED(a).—EXPORTS, AUSTRALIA, 1921–22 TO 1925–26.

Country to which Exported.	1921–22.	1922–23.	1923–24.	1924–25.	1925–26.	Total for 5 years.
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
United Kingdom ..	65,815,973	75,505,841	24,664,470	27,181,326	32,481,422	225,649,532
France ..	13,271,181	13,533,782	8,451,562	5,609,547	9,452,561	50,318,633
Belgium ..	16,153,469	3,938,725	3,749,960	3,179,143	3,295,002	30,316,899
Japan ..	5,051,529	6,435,286	5,010,121	3,462,119	6,484,570	26,443,625
Germany ..	3,209,868	6,006,516	2,469,208	1,979,909	1,780,997	15,446,408
United States of America ..	1,880,728	4,588,736	449,143	713,661	1,087,828	8,720,096
Italy ..	1,500,550	1,005,988	490,020	413,378	303,316	3,718,752
Canada ..	1,133,766	823,238	582,530	441,424	506,008	3,487,016
Netherlands ..		577,066	957,687	18,995	28,470	1,582,218
India ..	48,831	13,513	233,934	212,006	8,395	516,679
Other Countries ..	493,456	345,876	297,967	448,554	601,259	2,187,112
Total ..	108,559,351	112,774,567	47,356,652	43,661,062	56,036,028	368,387,660

(a) Including "tops."

The figures for "scoured and washed wool" include tops, amounting in 1921–22 to 6,200,505 lbs., valued at £1,207,048, in 1922–23, 6,374,922 lbs., valued at £1,412,683, in 1923–24, 4,988,258 lbs., valued at £1,161,920, in 1924–25, 4,090,958 lbs., valued at £1,119,849, and in 1925–26, 5,953,442 lbs., valued at £1,162,877. The total exports of wool tops during the last five years amounted to 27,608,085 lbs., valued at £6,064,377, of which 22,431,864 lbs., or more than 81 per cent., were shipped to Japan.

(iii) *Total Value of Exports.* The total value of the wool exported from Australia to the principal countries during the five years under review was :—

WOOL EXPORTS.—TOTAL VALUE, AUSTRALIA, 1921-22 TO 1925-26.

Country to which Exported.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.	Total for 5 years.
	£	£	£	£	£	£
United Kingdom ..	23,013,128	25,901,608	20,136,750	21,386,464	23,195,387	116,633,337
France ..	6,842,265	10,408,195	12,278,938	12,484,097	15,821,883	57,835,378
Japan ..	4,438,672	6,095,016	6,212,881	7,479,586	5,869,969	30,096,724
United States of America	4,347,360	5,618,652	4,323,239	5,926,430	6,076,012	26,291,698
Germany ..	2,404,833	3,448,031	3,576,436	4,929,589	5,034,599	19,393,488
Belgium ..	3,784,065	2,514,717	4,951,127	3,844,335	4,221,646	19,315,890
Italy ..	2,667,081	2,498,733	2,634,990	3,327,166	2,523,541	13,651,511
Netherlands ..	44,388	347,698	1,625,493	367,651	117,408	2,502,638
Canada ..	245,421	184,365	154,323	182,395	121,359	867,863
India ..	50,243	11,487	123,550	108,522	14,897	308,699
Other Countries ..	139,787	109,662	179,431	246,910	213,175	888,966
Total ..	47,977,243	57,138,764	56,197,158	63,263,145	63,209,876	287,786,186

8. *Average Export Value.*—The average values per lb. of Australian greasy wool according to the export returns for the past five years have been as follows :—

AUSTRALIAN GREASY WOOL.—EXPORT VALUE PER LB., 1921-22 TO 1925-26.

Year	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	d.	d.	d.	d.	d.
Average value per lb. ..	13.16	18.38	24.14	27.10	17.63

9. *Exports and Local Sales of Wool, States, 1925-26.*—Wool selling in Australia has been developed to such a stage that the bulk of the wool grown is now disposed of locally prior to export. Buyers from the United Kingdom, France, Belgium, Germany, and other European countries, also from America, Japan, China, and India, attend the sales conducted in Sydney, Albury, Melbourne, Geelong, Brisbane, Adelaide, Perth, Hobart, and Launceston.

The following table shows the number of bales of wool exported overseas from each State during the season ended 30th June, 1926, and the number sold for shipment, for use in local woollen mills, for scouring, etc. As considerable quantities of wool grown in some States are sold in or shipped from others, the figures consequently do not show actual local production, but total overseas shipments and sales.

WOOL.—EXPORTS AND LOCAL SALES, SEASON 1925-26.

State.	Overseas Exports.		Local Sales.(a)	
	Bales.	%	Bales.	%
New South Wales ..	1,096,340	41.12	1,078,216	40.61
Victoria ..	653,595	24.51	(b)690,284	26.00
Queensland ..	504,461	18.92	477,337	17.98
South Australia ..	231,984	8.70	250,216	9.42
Western Australia ..	151,445	5.68	124,396	4.68
Tasmania ..	28,648	1.07	34,885	1.31
Total ..	2,666,473	100.00	2,655,334	100.00

(a) Including wool sold to local woollen mills, scourers, etc. (b) Including wool sold at Albury.

10. Exports and Local Sales of Wool, Australia, 1895 to 1926.—The number of bales of wool exported from Australia, and the number sold at local sales prior to shipment, or taken for local use from 1895 onwards are shown in the following table:—

WOOL.—EXPORTS AND LOCAL SALES, AUSTRALIA, 1895 TO 1926.

Year ended 30th June.				Oversea Exports.	Local Sales.(a)	Ratio of Wool sold locally to Exports.
				Bales.	Bales.	%
1895	..	..	..	1,595,652	817,333	51.22
1900	..	..	..	1,221,163	807,031	66.09
1905	..	..	..	1,218,969	926,940	76.04
1910	..	..	..	1,921,705	1,624,561	84.54
1911	..	..	..	1,975,378	1,642,555	83.15
1912	..	..	..	2,020,547	1,700,494	84.16
1913	..	..	..	1,718,488	1,518,650	88.37
1914	..	..	..	1,966,576	1,703,744	86.64
1922	..	..	..	2,579,484	2,226,758	86.33
1923	..	..	..	2,315,255	1,932,315	83.46
1924	..	..	..	1,708,938	1,698,141	99.37
1925	..	..	..	1,695,361	1,587,750	93.65
1926	..	..	..	2,666,473	2,655,334	99.58

(a) Including wool absorbed by local woollen mills and wool-scouring establishments.

The steady development of the Australian wool market is clearly shown in this table. In the nineteen years ended 1914, the quantity sold locally more than doubled, and the ratio of wool sold locally to that exported increased from 51 per cent. in 1895 to over 86½ per cent. in the season ended 30th June, 1914. Particulars for the years 1915 to 1921 are not comparable owing to the abnormal conditions arising from the war, but the figures for the two selling seasons ended 30th June, 1923, indicated a return to normal, especially when allowance is made for shipment of "Bawra" wool already appraised in previous seasons. During the past three seasons the excellent selling conditions in Australia are reflected in the unusually high percentages of wool sold before shipment. The ratio of sales to shipments is, of course, somewhat vitiated by the overlapping of the respective seasons, and the inclusion in the sales of wool for local consumption.

11. Quantities of Various Descriptions of Wool Sold in Each State.—The quantities and ratios of the various descriptions of wool marketed in each State are given in the following table:—

WOOL.—LOCAL SALES, DESCRIPTIONS, 1925-26.

Description of Wool.	N.S.W.	Victoria. (a)	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
	Bales.	Bales.	Bales.	Bales.	Bales.	Bales.	Bales.
Greasy	1,027,732	686,323	448,631	247,346	122,006	34,885	2,566,923
Scoured	50,484	3,961	28,706	2,870	2,390	..	88,411
Total	1,078,216	690,284	477,337	250,216	124,396	34,885	2,655,334
Fleece, etc.	1,010,073	642,134	445,979	233,163	116,796	33,597	2,481,742
Lambs'	68,143	48,150	31,358	17,053	7,600	1,288	173,592
Total	1,078,216	690,284	477,337	250,216	124,396	34,885	2,655,334
Merino	933,735	402,088	474,948	240,004	119,466	8,514	2,178,755
Crossbred and all strong breeds..	144,481	288,196	2,389	10,212	4,930	26,371	476,579
Total	1,078,216	690,284	477,337	250,216	124,396	34,885	2,655,334

(a) Including wool sold at Albury.

WOOL.—LOCAL SALES, DESCRIPTIONS, 1925-26—*continued.*

Description of Wool.	N.S.W.	Victoria. (a)	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
	%	%	%	%	%	%	%
Greasy ..	95.32	99.43	93.99	98.85	98.08	100.00	96.67
Scoured ..	4.68	0.57	6.01	1.15	1.92	..	3.33
Total ..	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Fleece, etc. ..	93.68	93.02	93.43	93.18	93.89	96.31	93.46
Lambs' ..	6.32	6.98	6.57	6.82	6.11	3.69	6.54
Total ..	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Merino ..	86.60	58.25	99.50	95.92	96.04	24.41	82.05
Crossbred and all strong breeds..	13.40	41.75	0.50	4.08	3.96	75.59	17.95
Total ..	100.00	100.00	100.00	100.00	100.00	100.00	100.00

(a) Including wool sold at Albury.

A very large proportion of the wool clip is marketed in the greasy state. Buyers still show a decided preference for wool in the grease, and the proportion of such wool sold during the 1925-26 season amounted to over 96 per cent. Of fleece and lambs' wool, the former represented 93.46, and the latter 6.54 per cent. The class of wool produced is largely merino, which is almost exclusively grown in the northern, western, and central parts of the continent, a considerable portion of the merino wool dealt with in Victoria coming from Riverina and other parts of New South Wales. The development of the frozen mutton and lamb export trade and the resultant raising of a type of sheep suitable for both mutton and wool led to a considerable increase in the production of crossbred wool throughout Australia. The percentage of such wool sold on the total sales amounted to 18.6 per cent. in 1912, whereas, eight years later, in 1919-20, it had increased to 33.9 per cent. The accumulation of large stocks of coarse wools after the war and the consequent slump in prices induced many flock-masters to return to merino, and the percentage thereof sold in the local market increased from 66.11 in 1919-20 to 82.05 in 1925-26, while crossbred declined from 33.89 to 17.95 per cent. during the same period. The requirements of the frozen mutton and lamb trade, and the advance of closer settlement with its preference for crossbred sheep-raising in conjunction with wheat-growing or mixed farming, will compel the maintenance of the crossbred flocks; still, the prevailing demand for fine wool at remunerative rates must influence the Australian flockmasters to concentrate in the future on the production of merino wool and its close counterparts comeback and fine crossbred.

12. Percentages of Various Descriptions of Wool Sold in each State.—The following table gives the percentage of each description of wool sold in the several States on the total sold in Australia during the season 1925-26:—

WOOL.—LOCAL SALES, PERCENTAGES OF DESCRIPTIONS, 1925-26.

Description of Wool.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
	%	%	%	%	%	%	%
Greasy ..	40.04	26.74	17.48	9.63	4.75	1.36	100.00
Scoured ..	57.10	4.48	32.47	3.25	2.70	..	100.00
Fleece, etc. ..	40.70	25.87	17.97	9.40	4.71	1.35	100.00
Lambs' ..	39.26	27.74	18.06	9.82	4.38	0.74	100.00
Merino ..	42.86	18.45	21.80	11.02	5.48	0.39	100.00
Crossbred and all strong breeds..	30.32	60.47	0.50	2.14	1.04	5.53	100.00

The bulk of the crossbred wool in Australia is grown in Victoria and the southern parts of New South Wales; Tasmania, where crossbred sheep largely predominate, coming next in order, followed by small consignments from South Australia and Western Australia. In Victoria and New South Wales a noticeable feature of the past few seasons has been a general fining-up of the medium and coarse crossbreds by the use of merino and Corriedale rams. Australian pastures and climate are naturally more adapted for the growth of a larger proportion of fine crossbred wool than the River Plate, South Africa, and other wool-growing countries, and it is probable that this process of refinement will tend towards the abandonment of coarse wool-growing in Australia.

13. The Wool Market.—(i) *The 1925-26 Season.* The 1925-26 wool-selling season was distinguished by the complete restoration of confidence after a period of demoralization, and the remarkable stability of values maintained throughout the year. Dual records for the wool industry were established, for both in production and sales figures for the past twelve months have never before been equalled in pastoral history. With 500,000 bales of carry-over wool from the previous season, roughly 2,700,000 bales were available for Australian auctions, and not only was this huge quantity disposed of, but it would be difficult to point to a previous selling season where there was less price fluctuation. Prices for wool did not provide the producer with the phenomenal returns of the 1924-25 season, but they were very satisfactory, and with the larger volume of wool sold the gross receipts exceeded those of the previous year. The sale of the staple in such unprecedented volume was probably due to the moderate range of wool values, but due credit must also be given to the French section for the consistent and courageous buying policy adopted by them throughout the selling season.

The 1925-26 clip was a fair average one, of good length, fine in quality and soft handling, free or nearly free, and light in condition, and generally reflected the dry conditions under which it was grown.

During the year the sales figures showed a remarkable increase due to the carry-over of half a million bales and the increased production of the current clip. The total sales reached the record figure of 2,655,334 bales, as compared with 1,587,750 bales in 1924-25, an increase of no less than 1,067,584 bales. Despite a sharp decline in the average value per bale, the value of the wool sold rose from £55,545,838 in 1924-25 to £57,718,015 in 1925-26, an increase of £2,172,177.

The top prices of the season in Australian markets were considerably below the records made in 1924-25. Indeed, with a few exceptions, they were below those of the previous three seasons. In the case of greasy merino fleece the season's record was 42½d., as compared with 53½d. in 1924-25, 46½d. in 1923-24, and 40½d. in 1922-23. The highest prices were, however, considerably above the level of the appraisement scheme, when 31½d. was the record figure for greasy merino fleece. The past season's record was secured for a line of Langi/Kal Kal sold in Geelong, the centre where most of the record figures have been reached during recent years for superfine lines grown in the Western District of Victoria. The Geelong market secured no less than seven records, while Brisbane obtained all four scoured firsts, Melbourne two, and Tasmania one. The highest prices for the past ten seasons for wools sold at auction, or fixed by appraisement at selling centres in Australia, are as follows :—

**RECORD PRICES OBTAINED FOR WOOL IN AUSTRALIAN MARKETS,
1916-17 TO 1925-26.**

Description.	Price.	Brand.	Bales.	Selling Centre.	Season.
	<i>d.</i>				
Greasy Merino :					
Fleece ..	53½	Plains	4	Geelong ..	1924-25
Broken ..	45½	R/Carngham ..	34	Geelong ..	1924-25
Pieces ..	43½	Ware (conj.) ..	11	Geelong ..	1924-25
Bellies ..	40½	Langi/Kal Kal ..	12	Geelong ..	1924-25
Locks ..	22½	T/Binda	1	Sydney ..	1923-24
		Wattle Grove/M ..	6	Geelong ..	1923-24
		V (reversed) over W/Pen-	5	Brisbane ..	1923-24
		lan Downs (in ½ circle)			
Lambs' ..	48½	Ware (conj.) ..	1	Geelong ..	1924-25
Greasy comeback :					
Fleece ..	50½	WTA/Boorook ..	8	Geelong ..	1924-25
Lambs' ..	41½	North Station ..	8	Geelong ..	1924-25
Greasy crossbred :					
Fleece ..	43½	Mondilibi	4	Geelong ..	1924-25
		GR	25	Geelong ..	1924-25
		Barton	6	Tasmania ..	1924-25
Lambs' ..	37	JM/Tabletop ..	3	Melbourne ..	1924-25
Scoured merino :					
Fleece ..	70½	AS in centre of double	63	Brisbane ..	1924-25
		triangle, B/Tarbrax			
Pieces ..	63	Inisfail Downs/BB ..	18	Brisbane ..	1924-25
Lambs' ..	59½	Garomna	4	Brisbane ..	1924-25
Scoured crossbred :					
Fleece ..	52	Tomslake	9	Sydney ..	1923-24

Although 53½*d.* represents the highest price received for Australian greasy wool at recent Australian sales, the record price, according to "Dalgety's Annual Wool Review," for such wool in modern times was 109*d.* secured in London for the Geelong wool "NC" in February, 1920, while a line of scoured wool sold at London in March, 1920, realized 136*d.* per lb. In the early days John Macarthur sold wool at 126*d.* per lb., and in 1827 the "Sydney Gazette" contained an authentic record of Macarthur having secured 196*d.* per lb. for a single bale of the historic "J M'A" brand, sold at Garraway's Coffee House, Cornhill, London. Macarthur therefore not only played an important part in the founding of Australia's staple industry, but established a record that is still unbeaten.

(ii) *Wool Realization Scheme.* The British Australian Wool Realization Association Ltd. ("Bawra") was formed on the 27th January, 1921, for the purpose of selling in conjunction with the existing clip 50 per cent. of the Australian carry-over wool acquired by the Association on account of the Australian growers; also to dispose of, as agents, all carry-over wools owned by the British Government and consisting of New Zealand, Falkland Islands, South African and 50 per cent. of Australian wool as promptly and to the best advantage as market conditions would permit, while at the same time contributing to stabilize the wool market which had become demoralized on the return to free wool sales. Towards the end of the year 1921, 80,550 bales of South African wool owned by the British Government were handed over to the Association for disposal under the Agency Agreement.

The marketing of B.A.W.R.A. wools was successfully carried out at various centres in England and on the Continent, and the concluding auction sale took place at Liverpool on 2nd May, 1924, when the last bale of wool carried over from the Imperial Wool Purchase Scheme was disposed of. The whole of the wool controlled by B.A.W.R.A. amounting to 2,691,756 bales was sold in three and a half years, and passed into consumption together with the current clips of the wool-growing countries.

14. **United Kingdom Importation of Wool.**—The appended statement of the quantity and value of wool imported into the United Kingdom during the year 1925 from the principal wool-producing countries shows the important position which Australia occupies in the supply of wool to the mother country :—

WOOL(a).—IMPORTS, UNITED KINGDOM, 1925.

Country from which imported.	Quantity.	Value.	Country from which imported.	Quantity.	Value.
	lbs.	£		lbs.	£
Australia ..	242,873,800	26,154,145	Peru ..	3,444,500	202,696
New Zealand ..	198,832,900	17,190,089	Falkland Islands	3,159,600	308,590
Union of South Africa ..	146,060,100	13,502,240	United States of America ..	1,947,500	172,996
India ..	61,548,100	3,599,993	Other British Possessions ..	10,976,700	578,775
Argentine Republic ..	40,504,100	3,438,927	Other Countries	17,535,600	1,005,089
Chile ..	34,180,500	3,479,421			
France ..	15,761,500	1,321,048			
Irish Free State	9,475,600	554,630			
Uruguay ..	4,125,500	466,668			
Belgium ..	3,966,500	326,577			
			Total ..	794,392,500	72,301,884

(a) Greasy, Scoured, and Tops.

Of the importations of wool into the United Kingdom, Australian wool represented 31 per cent. of quantity and 36 per cent. of value, and New Zealand 25 per cent. of quantity and 24 per cent. of value. It is interesting to note that 672,926,800 lbs., valued at £61,888,462, were received from British Possessions, being 85 per cent. of the total weight and 86 per cent. of the total value imported.

§ 6. Trade in Hides and Skins.

1. **Extent of Trade.**—In addition to the hides and skins treated in the tanneries of the several States, a very considerable export trade is carried on, the value of cattle and horse hides and sheep and other skins exported from Australia during the five years 1921–22 to 1925–26 amounting to £32,555,356, or an average of £6,511,071 per annum.

2. **Sheepskins with Wool.**—By far the largest item included in the amount mentioned in the preceding sub-section arises from the value of sheepskins with wool—the exports of which during the five years aggregated £14,737,364. France with 46 per cent. of the total consignments was the largest purchaser, while United Kingdom ranked next in order of importance with 36.5 per cent., and the remaining 17.5 per cent. was shipped principally to the United States of America and Belgium. The exports of sheepskins with wool during each of the years from 1921–22 to 1925–26 were as follows :—

SHEEPSKINS WITH WOOL.—EXPORTS, AUSTRALIA, 1921–22 TO 1925–26.

Particulars.	1921–22.	1922–23.	1923–24.	1924–25.	1925–26.	Total for 5 years.
Sheepskins (with wool) .. No.	7,270,660	9,610,335	7,063,988	6,245,268	5,585,054	38,775,305
Value £	1,346,582	2,948,489	3,111,128	3,821,837	3,509,328	14,737,364

3. **Sheepskins without Wool.**—In the case of sheepskins without wool the principal countries of consignment are the United States of America and the United Kingdom. These two countries were responsible for nearly 89 per cent. of the exports during the past five years, the purchases of the United States of America alone amounting to 59 per cent. of the total shipments. Particulars concerning exports are as follows :—

SHEEPSKINS WITHOUT WOOL.—EXPORTS, AUSTRALIA, 1921-22 TO 1925-26.

Particulars.		1921-22.	1922-23.	1923-24.	1924-25.	1925-26.	Total for 5 years.
Sheepskins (with- out wool) .. No.		116,553	1,150,739	599,866	64,425	89,860	2,021,443
Value £		6,880	78,630	50,655	7,139	13,858	157,162

4. **Hides.**—(i) *Exports.* The export trade in Australian cattle hides, which fell away during the war years, has again become important. Considerable quantities were shipped overseas during each of the last five years mainly to the United Kingdom, Italy, and Germany, which countries took respectively 34, 19, and 15 per cent. of the total exports during the period. United States of America and Belgium with shipments amounting to 444,753 and 207,641 respectively were the next largest purchasers.

Particulars concerning the export of cattle hides during the past five years are as follows :—

CATTLE HIDES.—EXPORTS, AUSTRALIA, 1921-22 TO 1925-26.

Particulars.		1921-22.	1922-23.	1923-24.	1924-25.	1925-26.	Total for 5 years.
Cattle Hides .. No.		446,199	651,888	924,092	1,167,938	916,956	4,107,073
Value £		530,355	773,691	817,719	1,322,088	1,105,540	4,549,393

The calfskins exported during the years 1921-22 to 1925-26 numbered 833,922, valued at £242,470, shipped mainly to the United States of America, the value of the skins taken by that country averaging 65 per cent. of the total exports during the past five years. The annual export of horse hides is very small, and averaged only 1,754 hides, valued at £1,235.

(ii) *Imports.* The import trade in cattle hides and calfskins is expanding, the number annually imported on the average during the past five years amounting to 507,608. New Zealand supplies the great bulk of these importations, and shipments of limited quantities are also obtained from the Pacific Islands, France, and Italy. The number and value of cattle hides, including calfskins, imported into Australia during the five years 1921-22 to 1925-26 are as follows :—

CATTLE HIDES.—IMPORTS, AUSTRALIA, 1921-22 TO 1925-26.

Particulars.		1921-22.	1922-23.	1923-24.	1924-25.	1925-26.	Total for 5 years.
Cattle Hides .. No.		451,373	675,471	480,265	456,589	474,342	2,538,040
Value £		433,014	541,079	533,539	494,501	462,066	2,464,199

The number of horse hides imported into Australia is unimportant. Imports during the last five years numbered 18,588, valued at £19,671.

5. **Other Skins.**—The oversea exports of skins other than those mentioned in the preceding sub-sections are of considerable importance. During the past five years the value of these shipments amounted to £12,862,790, or an annual average of £2,572,558. Rabbit and hare skins contributed most largely to this total, followed by opossum and kangaroo skins. The individual exports from 1921–22 to 1925–26 were as follows :—

OTHER SKINS.—EXPORTS, AUSTRALIA, 1921–22 TO 1925–26.

Particulars.	1921–22.	1922–23.	1923–24.	1924–25.	1925–26.	Total for 5 years.
	£	£	£	£	£	£
Rabbit and Hare	787,816	1,962,664	1,349,978	2,492,438	2,880,360	9,473,256
Opossum ..	224,089	498,184	410,660	127,774	362,406	1,623,113
Kangaroo ..	170,669	273,977	290,809	182,009	154,476	1,071,940
Fox ..	28,841	77,300	137,733	62,988	112,986	419,848
Wallaby ..	9,873	37,790	57,306	55,653	74,464	235,086
Other ..	7,396	3,833	4,086	10,912	13,320	39,547
Total ..	1,228,684	2,853,748	2,250,572	2,931,774	3,598,012	12,862,790

The destination of these skins was practically confined to the United States of America and the United Kingdom, the former country taking the bulk of the rabbit, hare, and kangaroo skins, while the fox, opossum, and wallaby skins were mainly despatched to the United Kingdom. The shipments of the various skins to these two countries during the past five years were as follows :—

OTHER SKINS.—EXPORTS TO UNITED STATES AND UNITED KINGDOM, 1921–22 TO 1925–26.

Particulars.	United States of America.	United Kingdom.
	£	£
Rabbit and Hare	6,314,852	2,750,667
Opossum	605,831	920,645
Kangaroo	926,729	139,098
Fox	98,372	301,427
Wallaby	24,775	206,581
Other	7,631	22,047
Total	7,978,190	4,340,465

CHAPTER XVII.

AGRICULTURAL PRODUCTION.

NOTE.—Except where otherwise stated, the “agricultural” years hereafter mentioned are taken as ending on 30th June.

§ 1. Introductory.

1. **Early Attempts at Agriculture.**—The instructions issued to Captain Phillip on the 25th April, 1787, directed him, amongst other things, to proceed as soon as possible to the cultivation of the soil “under such regulations as may appear to be necessary and best calculated for securing supplies of grain and provisions.” When the settlers landed at Botany Bay, however, it was found that the glowing accounts published in England by members of Captain Cook’s expedition of the fertility of the soil in that locality were considerably overdrawn. Even when Phillip and his company moved round to Port Jackson on the 26th January, 1788, matters were for a time in no better case. The ground in the immediate neighbourhood of the settlement was not suitable for the cultivation of cereal crops, and when the time came to cultivate the soil it was found that there were very few who possessed the slightest acquaintance with the art of husbandry.

2. **The First Sowing.**—In his dispatch of the 15th May, 1788, Captain Phillip states that it was proposed to sow 8 acres with wheat and barley, although, owing to the depredations of field mice and ants, he was doubtful of the success of the crops.

3. **Discovery of Suitable Agricultural Land.**—A branch settlement was formed at Rosehill, on the Parramatta River, towards the close of 1788, and here grain crops were successfully raised. In his despatch of 12th February, 1790, Phillip refers to the harvest at Rosehill, at the end of December 1789, as consisting of 200 bushels of wheat and 60 of barley, in addition to small quantities of oats, Indian corn, and flax. By the year 1791 there were 213 acres under crop in this locality. In 1792 a new settlement was formed at Toongabbie, about 3 miles westward of Parramatta, where Phillip states “there are several thousand acres of exceeding good ground.” The Hawkesbury Valley, which probably contains some of the richest land in the world, was first settled in 1794. For a long time agricultural operations in Australia were restricted to the narrow belt of country between the tableland and the east coast of New South Wales, as it was not until the year 1813 that a passage was discovered across the Blue Mountains to the fertile plains of the west.

§ 2. Progress of Agriculture.

1. **Early Records.**—In an “Account of Live Stock and Ground under Crop in New South Wales, 19th August, 1797,” Governor Hunter gives the acreage under crop as follows:—Wheat, 3,361 acres; maize, 1,527 acres; barley, 26 acres; potatoes, 11 acres; and vines, 8 acres.

At a muster taken in 1808 the following was the return of crops:—Wheat, 6,874 acres; maize, 3,389 acres; barley, 544 acres; oats, 92 acres; peas and beans, 100 acres; potatoes, 301 acres; turnips, 13 acres; orchards, 546 acres; and flax and hemp, 37 acres.

By the year 1850 the area under crop had increased to 491,000 acres, of which 198,000 acres were cultivated in what is now the State of New South Wales, and 169,000 acres in Tasmania. At the end of 1850 the area under cultivation in Victoria, which was then the Port Phillip District of New South Wales, was 52,190 acres.

The gold discoveries of 1851 and subsequent years had at first a very disturbing effect on agricultural progress, the area under crop declining from 491,000 acres in 1850 to 458,000 acres in 1854; the area under cultivation in New South Wales decreased by nearly 66,000 acres, while in Tasmania a falling off of over 41,000 acres was experienced. The demand for agricultural products occasioned by the large influx of population was, however, soon reflected in the increased area cultivated, for at the end of 1858 the land under crop in Australia totalled over a million acres. The largest increase took place in Victoria, which returned an area of 299,000 acres. For the same year South Australia had 264,000 acres in cultivation, Tasmania 229,000 acres, and New South Wales 223,000 acres.

2. Progress of Cultivation.—(i) *General.* The following table shows the area under crop in each of the States and Territories of Australia at decennial intervals since 1860, and during each of the last five seasons :—

AREA UNDER CROP, 1860 TO 1925-26.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Nor. Ter.	Fed. Cap. Ter.	Australia.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1860-1	246,143	387,223	3,353	350,284	24,705	152,860	..	..	1,173,628
1870-1	385,151	692,840	52,210	801,571	54,527	157,410	..	..	2,143,709
1880-1	606,277	1,548,809	113,978	2,087,237	63,902	140,788	..	..	4,560,991
1890-1	852,704	2,031,955	224,993	2,093,515	69,678	157,376	..	..	5,430,221
1900-1	2,446,767	3,114,132	457,337	2,369,680	201,338	224,352	..	..	8,813,666
1910-11	3,386,017	3,952,070	667,113	2,746,334	855,024	286,920	360	..	11,893,838
1920-21	4,465,143	4,489,503	779,497	3,231,083	1,804,987	297,383	296	1,966	15,069,858
1921-22	4,445,828	4,530,312	804,507	3,378,764	1,901,680	293,708	283	1,942	15,357,024
1922-23	4,694,287	4,862,548	863,755	3,575,452	2,274,998	298,611	427	2,172	16,572,250
1923-24	4,809,591	4,682,144	871,968	3,562,551	2,323,070	279,122	440	2,300	16,531,186
1924-25	4,912,124	4,761,394	1,069,837	3,557,405	2,710,856	263,872	342	2,361	17,278,191
1925-26	4,541,360	4,433,492	1,033,765	3,583,867	2,932,110	266,412	391	2,181	16,793,578

The progress of agriculture was uninterrupted from 1860 onwards, reaching its maximum in 1915-16, when 18,528,234 acres were cultivated. Following that year, the decline in wheat-growing and the effects of the drought of 1918-19 reduced the acreage to 13,296,407 acres in 1919-20, a decrease of 5,231,827 acres in the space of four years. The obstacles to the disposal of the wheat crop having been removed, the area began to expand in 1920-21, and despite adverse weather at seeding time, the area planted in 1925-26 amounted to nearly 17,000,000 acres. Preliminary figures for 1926-27 reveal an increase of about 1,000,000 acres on the 1925-26 areas. Wheat continues to be the most extensively-grown crop in Australia, the area thereunder for both grain and hay during 1925-26 amounting to nearly 68 per cent. of the total acreage under cultivation. The extension of the wheat area since 1919-20, despite intermittent adverse climatic and market conditions, is a happy augury for the continuance of agricultural development in Australia. The maximum area cultivated in 1915-16, viz., 18,528,234 acres, was the result of a special war effort, and the results obtained far exceeded those for any previous year.

(ii) *Relation to Population.* The total area under cultivation per head of population reached its lowest point in recent years during 1919-20, but since that year the

total has increased at a much faster rate than the population. Details for the past five seasons are as follows :—

AREA UNDER CROP PER 1,000 OF POPULATION, 1921-22 TO 1925-26.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	Fed. Cap. Ter.	Australia.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1921-22 ..	2,089	2,921	1,045	6,723	5,674	1,345	76	941	2,787
1922-23 ..	2,160	3,058	1,096	6,968	6,621	1,364	120	849	2,942
1923-24 ..	2,177	2,881	1,075	6,789	6,566	1,274	124	877	2,875
1924-25 ..	2,179	2,873	1,281	6,606	7,444	1,211	95	788	2,942
1925-26 ..	1,976	2,633	1,200	6,497	7,878	1,228	107	553	2,803

(iii) *Relation to Total Area.* The next table furnishes a comparison of the area under crop in the several States and Territories and Australia with the respective total areas. For Australia as a whole, the area under crop in 1925-26 represented only about 1 acre in every 113. In Victoria the proportion was about 1 acre in every 13, in New South Wales 1 in 44, in Tasmania 1 in 63, in South Australia 1 in 68, in Western Australia 1 in 213, in Queensland 1 in 415, and in the Federal Territory 1 in 276.

PERCENTAGE OF AREA UNDER CROP ON TOTAL AREA, 1921-22 TO 1925-26.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	Fed. Cap. Ter.	Australia.
	%	%	%	%	%	%	%	%	%
1921-22 ..	2.245	8.054	0.187	1.389	0.304	1.751	..	0.323	0.807
1922-23 ..	2.370	8.645	0.201	1.470	0.364	1.780	..	0.361	0.871
1923-24 ..	2.429	8.324	0.203	1.465	0.372	1.664	..	0.382	0.868
1924-25 ..	2.480	8.465	0.249	1.462	0.434	1.573	..	0.392	0.908
1925-26 ..	2.293	7.882	0.241	1.473	0.469	1.587	..	0.362	0.882

In the Northern Territory the proportion which the area under crop bears to the total area is, at present, practically negligible.

3. *Artificially-sown Grasses.*—In all the States there are considerable areas under artificially-sown grasses mainly sown on uncultivated land after burning off the existing vegetation, and not included in "area under crops." Statistics regarding the areas under such grasses are as shown hereunder :—

AREA UNDER SOWN GRASSES, 1921-22 TO 1925-26.

Season.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Nor. Ter.	Fed. Cap. Ter.	Australia.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1921-22	2,005,444	1,032,104	459,914	20,890	18,441	781,000	550	71	4,318,414
1922-23	1,925,432	957,454	475,226	22,278	25,377	857,581	510	18	4,263,876
1923-24	1,930,894	1,024,591	498,552	30,800	33,022	799,443	500	18	4,322,820
1924-25	1,993,694	944,330	538,165	64,212	60,257	866,331	500	24	4,467,522
1925-26	2,017,831	933,271	532,052	60,453	89,170	821,807	500	18	4,455,102

The increase in the area of the grass lands of Australia during recent years is due in large measure to the development of the dairying industry referred to in the next chapter.

§ 3. Relative Importance of Crops.

1. *Distribution of Crops.*—The following table gives the areas in the several States under each of the principal crops for the season 1925-26 :—

DISTRIBUTION OF CROPS, 1925-26.

Crop.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	Fed. Cap. Ter.	Australia.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Wheat ..	2,924,745	2,513,494	165,999	2,465,648	2,112,032	19,091	..	267	10,201,276
Oats ..	100,652	437,696	1,293	158,062	278,344	36,741	..	445	1,013,233
Maize ..	120,955	21,913	154,252	2	8	..	10	..	297,140
Barley—									
Malting ..	3,765	72,244	5,496	224,558	8,744	4,634	..	..	319,441
Other ..	2,849	31,151	1,505	14,779	4,562	589	..	..	55,435
Beans and Peas ..	83	15,055	23	11,225	3,598	21,442	..	..	51,426
Rye ..	1,617	978	26	314	476	273	..	..	3,684
Other Cereals ..	1,556	..	3	..	173	..	..	..	1,732
Hay ..	749,192	1,013,613	66,828	517,220	391,142	92,595	..	1,413	2,832,003
Green Forage ..	479,434	107,873	247,482	102,732	100,558	17,101	..	30	1,055,210
Grass and other									
Seeds ..	..	1,385	4,017	473	53	641	..	..	6,569
Orchards and									
other Fruit									
Gardens ..	74,532	82,665	33,520	32,276	18,355	33,891	..	6	275,245
Vines—									
Productive ..	11,739	36,091	1,166	45,533	4,355	..	..	..	98,884
Unproductive ..	2,726	4,621	490	5,061	915	..	..	..	13,813
Market Gardens	8,973	16,609	1,017	1,517	2,725	587	..	12	31,440
Sugar Cane—									
Productive ..	8,688	..	189,675	..	..	..	..	..	198,363
Unproductive ..	10,675	..	79,834	..	..	..	..	..	90,509
Potatoes ..	22,723	63,369	10,478	2,895	4,262	33,190	..	8	136,923
Onions ..	172	5,379	456	351	96	6	..	..	6,460
Other Root Crops	1,033	3,550	2,288	360	231	3,997	20	..	11,479
Tobacco ..	1,473	1,179	96	11	..	..	..	..	2,759
Broom Millet ..	1,662	669	237	..	..	..	..	..	2,568
Pumpkins and									
Melons ..	3,106	1,719	8,232	210	724	..	..	..	13,991
Hops ..	..	312	..	2	..	1,418	..	..	1,732
Cotton—									
Productive ..	2	..	40,062	..	68	..	30	..	40,162
Unproductive ..	..	..	13,301	..	..	..	10	..	13,311
All other Crops	9,008	1,927	5,989	638	689	216	321	..	18,788
Total Area ..	4,541,360	4,433,492	1,033,765	3,583,867	2,932,110	266,412	391	2,181	16,793,578

2. *Relative Areas of Crops in States and Territories.*—Taking the principal crops, i.e., those in the case of which the cultivation in Australia amounts to more than 100,000 acres, the proportion of each in the various States and Territories to the total area under crop for the season 1925-26 is shown in the next table. In four of the States, viz., New South Wales, Victoria, South Australia, and Western Australia, wheat-growing for grain is by far the most extensive form of cultivation, while in the same States the hay crop is second in importance. In Victoria and Western Australia, the oat crop occupies third position, while green forage ranks third in New South Wales, and barley in South Australia. In Queensland, the principal crops in the order of importance are sugar cane, green forage, wheat and maize, while in Tasmania, hay, oats, orchards and fruit gardens and potatoes occupy the leading positions.

As pointed out previously, wheat is the main crop in Australia, the area thereunder for grain and hay representing in 1925-26 nearly 68 per cent. of the total area under cultivation.

RELATIVE AREAS UNDER CROP, 1925-26.

Crop.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	Fed. Cap. Ter.	Australia.
	%	%	%	%	%	%	%	%	%
Wheat ..	64.40	56.69	16.06	68.80	72.03	7.17	..	12.24	60.75
Hay ..	16.50	22.87	6.46	14.43	13.34	34.76	..	64.79	16.86
Oats ..	2.22	9.87	0.13	4.41	9.49	13.79	..	20.40	6.03
Green Forage ..	10.56	2.43	23.94	2.87	3.43	6.42	..	1.38	6.28
Maize ..	2.66	0.49	14.92	0.00	0.00	..	2.55	..	1.77
Barley ..	0.15	2.33	0.68	6.68	0.45	1.96	..	..	2.23
Orchards and Fruit Gardens ..	1.64	1.86	3.24	0.90	0.63	12.72	..	0.28	1.64
Sugar-cane ..	0.43	0.00	26.07	..	0.00	0.00	..	..	1.72
Potatoes ..	0.50	1.43	1.01	0.08	0.15	12.46	..	0.37	0.82
Vineyards ..	0.32	0.92	0.16	1.41	0.18	..	..	..	0.67
All other ..	0.62	1.11	7.33	0.42	0.30	10.72	97.45	0.54	1.23
Total ..	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

3. Area of Chief Crops, Australia, 1921-22 to 1925-26.—The acreage under each of the principal crops in Australia during the last five seasons is shown below :—

AREA OF CHIEF CROPS.—AUSTRALIA, 1921-22 TO 1925-26.

Crop.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	Acres.	Acres.	Acres.	Acres.	Acres.
Wheat ..	9,719,042	9,763,861	9,540,434	10,824,966	10,201,276
Hay ..	2,994,519	3,338,456	3,406,226	3,026,405	2,832,003
Oats ..	733,406	1,014,376	1,076,930	1,165,127	1,013,233
Green Forage ..	452,508	893,871	961,311	564,924	1,055,210
Maize ..	305,186	313,202	316,307	398,949	297,140
Orchards and Fruit Gardens ..	281,149	275,687	273,845	276,904	275,245
Barley ..	298,910	342,196	258,775	260,248	374,876
Sugar-cane ..	197,293	216,886	237,280	273,512	288,872
Potatoes ..	149,144	135,735	134,352	138,776	136,925
Vineyards ..	92,414	105,476	112,965	114,394	111,697
All other Crops ..	133,453	172,504	212,761	233,986	207,101
Total ..	15,357,024	16,572,250	16,531,186	17,278,191	16,793,578

During the period under review, the areas of most of the crops, while reflecting seasonal and economic influences, have expanded, the most notable advance taking place in wheat. Of the other crops, green forage, oats, barley and sugar-cane have made the most consistent progress since 1921-22.

§ 4. Wheat.

1. Progress of Wheat-Growing.—(i) *Area and Production.* Wheat is the principal crop raised in Australia, and the development of wheat-growing during the past 30 years constitutes the most interesting feature of Australian agriculture. Since 1895, when the area under wheat amounted to 3½ million acres, an average of 220,000 acres has been added annually, until in 1925–26 more than 10 million acres were cut for grain. The area and yield of wheat for grain are given below for each State for the five years ended 1925–26, and are shown from the year 1860 onwards in the graphs hereinafter. An estimate is also appended for the 1926–27 crop :—

WHEAT.—AREA AND PRODUCTION, 1921–22 TO 1926–27.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Fed. Cap. Ter.	Australia.
AREA.								
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1921–22 ..	3,194,408	2,611,198	164,670	2,384,012	1,336,228	27,985	541	9,719,042
1922–23 ..	2,942,339	2,644,314	145,492	2,453,086	1,552,868	25,244	518	9,763,861
1923–24 ..	2,945,040	2,454,117	51,149	2,418,415	1,656,915	14,503	295	9,540,434
1924–25 ..	3,549,367	2,705,323	189,145	2,499,852	1,867,614	12,954	711	10,824,966
1925–26 ..	2,924,745	2,513,494	165,999	2,465,648	2,112,032	19,091	267	10,201,276
1926–27(a) ..	3,336,450	2,915,315	100,000	2,760,505	2,574,014	20,700	..	11,706,984
YIELD.								
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bush.	Bushels.
1921–22 ..	42,759,389	43,867,596	3,025,786	24,946,525	13,904,721	577,178	7,611	129,088,806
1922–23 ..	28,660,824	35,897,220	1,877,836	28,784,767	13,857,432	569,587	7,176	109,454,842
1923–24 ..	33,171,300	37,795,704	243,713	34,551,955	18,920,271	305,623	4,700	124,993,271
1924–25 ..	59,752,435	47,364,495	2,779,829	30,528,625	23,887,397	231,389	14,565	164,558,734
1925–26 ..	33,800,619	29,255,534	1,973,477	28,603,101	20,471,177	395,603	4,881	114,504,392
1926–27(a) ..	47,288,600	46,886,020	645,000	35,535,566	30,041,783	455,400	..	160,852,369

(a) Preliminary figures.

The area devoted to the production of wheat for grain reached its maximum in 1915–16, when 12,484,512 acres were sown, largely as the result of a special war effort. After that year, however, there was a serious decline, brought about by war conditions and unfavourable seasons, and the area in 1919–20 fell to 6,419,160 acres, or only half that of 1915–16. The promise of remunerative Government guarantees, coupled with the prospects of high prices, was responsible for a marked advance in 1920–21, and the area was further extended during the next five years, the total gain for Australia since 1919–20 amounting to nearly 4 million acres.

Although final figures for 1926–27 for all the States are not yet available, the data to hand indicate the total area under wheat for grain in Australia at about 11,706,984 acres, an increase of 1½ million acres on the previous year's figure. The season was very favourable and the excellent yield of 160,852,369 bushels was harvested, the yield per acre being 13½ bushels.

The harvest of 179,065,703 bushels reaped in 1915–16 represents the maximum production of wheat in Australia. Yields exceeding 100,000,000 bushels have been recorded on eleven occasions, all of which have occurred since 1913–14. The annual production of wheat during the seasons 1916–17 to 1925–26 averaged 117,724,092 bushels, and the extent to which this average may be exceeded depends in a great measure on seasonal conditions. During each of the last seven seasons the yield has exceeded 100 million bushels, the average for the period being 136,000,000 bushels. This is the first occasion on which such a succession of good harvests has occurred, and emphasizes clearly the value of bare-fallowing and the application of manures. It is the considered opinion of agricultural experts that the improved cultural methods practised by modern wheat-growers preclude the possibility of failure of this crop.

(ii) *Average Yields.* In the next table will be found the average yield of wheat per acre in each of the last five seasons, and for the decennium 1916-26 :—

WHEAT.—YIELD PER ACRE, 1921-22 TO 1925-26.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Fed. Cap. Ter.	Australia.
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1921-22 ..	13.39	16.80	18.37	10.46	10.41	20.62	14.07	13.28
1922-23 ..	9.74	13.50	12.91	11.73	8.92	22.56	13.85	11.21
1923-24 ..	11.26	15.40	4.76	14.29	11.42	21.07	15.93	13.10
1924-25 ..	16.83	17.51	14.70	12.21	12.79	17.86	20.49	15.20
1925-26 ..	11.56	11.64	11.89	11.60	9.69	20.72	18.28	11.22
Average 10 seasons, 1916-26	11.79	14.40	13.30	12.44	10.05	18.13	16.36	12.41

As the above figures show, there were considerable variations in the average yields, chiefly due to the vagaries of the seasons. Considerable improvement has been shown in the average yields for the past three decades, the figures being 7.96, 10.81, and 12.41 bushels per acre respectively. The increased yields of the later years are principally due to the better cultural methods employed in wheat farming. The excellence of the 1920-21 and 1924-25 seasons is reflected in the splendid averages obtained in those years, the average of the former year, viz., 16.08 bushels having been exceeded only once by the 16.35 bushels reaped as far back as 1866, when less than 1,000,000 acres were sown in relatively fertile areas.

(iii) *Relation to Population.* During the seasons embraced in the following table, the Australian production of wheat per head of population has varied between 19 bushels in 1925-26 and 28 bushels in 1924-25. The State in which wheat growing occupies the most important position relatively to population is Western Australia, which in 1925-26 had a yield averaging 55 bushels per head. Queensland and Tasmania are the States in which the average production of wheat per head is least, the quantity raised being generally below that required for local consumption. Particulars for the past five seasons are as follows :—

WHEAT.—YIELD PER 1,000 OF POPULATION, 1921-22 TO 1925-26.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Fed. Cap. Ter.	Australia.
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1921-22 ..	20,101	28,284	3,930	49,635	41,485	2,643	3,688	23,427
1922-23 ..	13,190	22,448	2,382	56,089	40,329	2,602	2,806	19,430
1923-24 ..	15,013	23,253	300	65,845	53,475	1,395	1,793	21,739
1924-25 ..	26,504	28,583	3,329	56,691	65,602	1,062	4,858	28,107
1925-26 ..	14,706	17,372	2,292	51,852	55,003	1,823	1,240	19,019

The normal annual consumption of wheat in Australia, exclusive of the requirements for seed, poultry and other live stock, is 309 lb. (5.16 bushels) per head of population.

2. *Australian and Foreign Wheat Yields.*—(i) *Average Yield.* The next table gives the average return per acre in the principal wheat-growing countries of the world, ranging from a maximum in Denmark of 40½ bushels per acre to a minimum in the Union of South Africa of 8½ bushels per acre. Australia, with approximately 13½, occupies a relatively subordinate position, but in comparison with the yields obtained in those countries where wheat is extensively grown the results obtained in Australia are very satisfactory. Germany, with 25.07 bushels; France, 19.82 bushels; Canada, 16.92 bushels; Italy, 16.22 bushels; and United States, 14.47 bushels, exceed the Australian average, but the latter is in excess of the yields obtained in the Soviet Republics, India, Argentine, Spain, and Rumania.

WHEAT.—YIELD PER ACRE, VARIOUS COUNTRIES, 1922-1925.

Country.	Average Yield in Bushels per acre.		Country.	Average Yield in Bushels per acre.	
	Average, 1922-1924.	1925.		Average, 1922-1924.	1925.
Denmark ..	40.61	49.28	Lithuania ..	15.79	19.10
Netherlands ..	37.32	42.24	Korea ..	(a) 14.75	11.85
Belgium ..	34.01	39.69	Bulgaria ..	14.62	19.57
United Kingdom ..	32.40	34.10	United States of America ..	14.47	12.77
Switzerland ..	29.05	23.40	Jugo-Slavia ..	13.64	17.95
New Zealand ..	27.92	28.76	Australia ..	13.24	11.22
Sweden ..	26.29	38.02	Spain ..	12.97	15.16
Japan ..	25.10	25.70	Rumania ..	12.52	12.84
Germany ..	25.07	30.82	Argentine Republic	12.31	9.96
Egypt ..	24.94	26.27	Cyprus ..	12.24	11.34
Norway ..	24.03	22.41	India ..	12.18	10.22
Czecho-Slovakia ..	22.73	25.77	Greece ..	(c) 11.56	(b) 12.48
France ..	19.82	23.85	Uruguay ..	11.18	9.52
Chile ..	18.41	18.36	Peru ..	10.72	(b) 12.77
Austria ..	17.51	22.04	Portugal ..	9.84	(b) 9.14
Canada ..	16.92	18.72	French Morocco ..	9.09	9.11
Hungary ..	16.83	23.28	Soviet Republics	(b) 8.29	12.40
Brazil ..	16.71	(b) 16.11	Union of South Africa ..	8.28	7.87
Italy ..	16.22	20.64			
Poland ..	16.11	21.43			

(a) Average for years 1923-1924.

(b) Year 1924.

(c) Average for years 1921-1923.

(ii) *Total Production.* The latest available official statistics of the production of wheat in various countries are given in the following table:—

WHEAT.—YIELD IN VARIOUS COUNTRIES, 1922-1925.

Country.	Yield in Bushels ('000 omitted).		Country.	Yield in Bushels ('000 omitted).	
	Average, 1922-1924.	1925.		Average, 1922-1924.	1925.
United States of America ..	838,222	666,496	French Morocco ..	20,535	23,883
Soviet Republics ..	(b) 381,738	661,137	Belgium ..	12,332	14,485
Canada ..	378,667	411,383	Greece ..	(a) 10,857	11,173
India ..	366,484	324,875	Mexico ..	10,767	9,440
France ..	266,691	330,847	Portugal ..	10,459	11,478
Argentine Republic	209,075	191,143	Uruguay ..	9,171	9,596
Italy ..	185,542	240,848	Sweden ..	9,116	13,791
Spain ..	134,787	162,593	Korea ..	(c) 8,650	10,509
Australia ..	133,002	114,504	Austria ..	8,267	10,672
Germany ..	89,194	118,214	Denmark ..	7,980	9,748
Rumania ..	87,815	104,742	Syria ..	(b) 6,651	7,492
United Kingdom ..	59,163	52,918	Union of South Africa ..	6,619	8,333
Hungary ..	54,783	71,675	Tunis ..	6,259	11,760
Jugo-Slavia ..	53,696	78,647	New Zealand ..	5,919	4,600
Poland ..	41,562	57,916	Netherlands ..	5,327	5,577
Egypt ..	37,163	36,248	Brazil ..	3,727	(b) 3,902
Czecho-Slovakia ..	34,329	39,310	Lithuania ..	3,186	5,285
Bulgaria ..	34,082	49,644	Switzerland ..	3,023	3,516
Japan ..	29,970	29,541	Peru ..	2,886	(b) 2,876
Chile ..	25,401	27,587	Cyprus ..	2,342	2,079
Algeria ..	23,595	32,671			

(a) Average for years 1921-1923.

(b) Year 1924.

(c) Average for years 1923-1924.

NOTE.—The harvests reported above for 1925 relate to the year 1925 for the Northern, and 1925-26 for the Southern Hemisphere.

The complete compilation of the world's production of wheat is not possible owing to the failure of certain countries to report their harvests. The Institute of Agriculture, Rome, has, however, compiled figures obtained from all the producing countries reporting, with the following results :—

WHEAT.—WORLD'S PRODUCTION (a), 1909-13 TO 1925.

Years.	Area.	Yield.	Yield per acre.
	Acres.	Bushels.	Bushels.
Average, 1909-1913	266,421,000	3,703,765,000	13.90
1921	254,686,000	3,312,930,000	13.01
1922	241,990,000	3,403,157,000	14.06
1923	256,900,000	3,828,694,000	14.90
1924	260,883,000	3,424,513,000	13.13
1925	268,356,000	3,891,158,000	14.50
Average, 1921-1925	256,563,000	3,572,090,000	13.92

(a) From countries reporting.

It is stated in the Report of the Institute that if all countries for which progress data are lacking were taken into account, the world's total production of wheat may be approximately estimated at 4,500 million bushels.

The total area harvested in 1925 again shows an increase on the figures for the previous year. Europe, and the Soviet Union in particular, are responsible for this increase, which has manifested itself all over the world with the exception of Oceania. Nevertheless, in comparison with the pre-war period, areas sown to wheat are still 5 per cent. lower in European Countries and 29 per cent. lower in the Soviet Union, though considerably more in other continents, especially in North America, Argentina and Australia. The 1925 area was the largest since the war, and the first to exceed the average for the five years 1909-1913.

The increase in sowing was accompanied by favourable weather conditions in Europe, the Soviet Union, North Africa and Canada, and exceptionally heavy yields were obtained in these countries. In the United States, India, Argentina and Australia the yields were not so satisfactory, but the total world output was the greatest since the war, and exceeded the 1909-1913 average by 187,000,000 bushels.

The Australian contribution to the world's production shown above during the past five years amounted to nearly 4 per cent.

3. Prices of Wheat.—(i) *British Wheat.* Since the United Kingdom is the largest importer of Australian wheat, the price of wheat in the British markets is a matter of prime importance to the local producer. The table below gives the average prices per Imperial quarter realized for British grown wheat :—

BRITISH WHEAT.—PRICES PER QUARTER, 1861 TO 1926.

Year.	Average for Year.	Highest Weekly Average.	Lowest Weekly Average.	Year.	Average for Year.	Highest Weekly Average.	Lowest Weekly Average.
	s. d.	s. d.	s. d.		s. d.	s. d.	s. d.
1861	55 4	61 6	50 0	1919	72 11	73 4	72 5
1871	56 8	60 0	52 6	1920	80 10	90 11	72 6
1881	45 4	55 2	40 9	1921	71 6	89 10	44 0
1891	37 0	41 8	32 3	1922	47 10	56 3	37 5
1901	26 9	27 8	25 8	1923	42 2	49 3	37 6
1911	31 8	33 4	30 0	1924	49 3	56 1	41 5
1917	75 9	83 10	70 3	1925	52 2	59 3	43 11
1918	72 10	74 5	71 2	1926	53 3	62 2	47 6

(ii) *Australian Export Values.* In the next table will be found a statement of the export values of Australian wheat during each of the last six years :—

AUSTRALIAN WHEAT.—EXPORT VALUES, 1921-22 TO 1926-27.

Heading.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.	1926-27.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Price per bushel	5 9	5 5	4 8	6 8	6 4	5 7

The export values here shown are the values for the successive years in the principal markets of Australia.

4. Imports and Exports of Wheat and Flour.—(i) *Quantities.* The table hereunder shows the imports, exports, and net exports of wheat and flour from 1921–22 to 1925–26. For the sake of convenience, flour has been expressed at its equivalent in wheat, 1 ton of flour being taken as equal to 48 bushels of grain. In ordinary seasons the Australian imports of wheat and flour are negligible. During the past five years the exports ranged between 50,446,320 bushels in 1922–23 and 125,044,344 bushels in 1924–25, the net exports for the period averaging 91,081,124 bushels.

WHEAT AND FLOUR.—IMPORTS AND EXPORTS, AUSTRALIA, 1921–22 TO 1925–26.

Year.	Imports.			Exports.			Net Exports.
	Wheat.	Flour.	Total.	Wheat.	Flour.	Total.	
	Bushels.	Eq. Bushels. ^a	Bushels.	Bushels.	Eq. Bushels. ^a	Bushels.	Bushels.
1921–22	247	1,728	1,975	99,947,223	17,267,232	117,214,455	117,212,480
1922–23	15,288	2,112	17,400	31,510,272	18,936,048	50,446,320	50,428,920
1923–24	203	1,920	2,123	59,910,480	24,537,168	84,447,648	84,445,525
1924–25	42	2,784	2,826	103,538,088	21,506,256	125,044,344	125,041,518
1925–26	13	72	85	54,227,728	24,049,536	78,277,264	78,277,179

(^a) Equivalent in bushels of wheat.

(ii) *Destination of Exported Breadstuffs.* In the next two tables will be found a list of the principal countries to which Australia exported wheat and flour during each year of the period 1921–22 to 1925–26. The countries are as shown in the Australian Customs returns, but wheat ships are frequently instructed to call for orders at various ports, and the countries to which these ports belong cannot, therefore, always be considered as the ultimate destination of the whole of the wheat said to be exported to them.

WHEAT.—EXPORTS, AUSTRALIA, 1921–22 TO 1925–26.

Country to which Exported.	1921–22.	1922–23.	1923–24.	1924–25.	1925–26.	Total for Five Years.
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
United Kingdom	40,914,035	10,762,600	23,017,707	39,356,580	22,319,823	136,370,745
Italy ..	18,447,762	11,647,165	6,483,732	15,560,605	4,642,202	56,781,466
Japan ..	7,497,943	3,711,211	13,067,907	7,018,627	10,861,863	42,157,551
France ..	3,341,835	1,284,924	3,562,313	14,580,859	53,865	22,823,796
India ..	15,035,429	..	..	..	1,326,860	16,362,289
Union of South Africa ..	1,331,417	2,545,162	3,721,697	3,674,773	3,117,007	14,390,056
Belgium ..	1,312,480	178,930	622,283	4,440,158	1,349,347	7,903,198
Egypt ..	3,286,433	38,783	1,339,707	1,887,777	668,288	7,220,988
Germany ..	2,996,292	397	110,770	3,061,950	941,252	7,110,661
Netherlands ..	1,192,977	..	142,753	3,297,382	2,211,050	6,844,162
New Zealand ..	73,539	..	1,247,362	2,682,908	2,533,847	6,537,656
Peru ..	697,205	167,110	..	528,367	1,635,802	3,028,484
Sweden ..	..	412,547	1,304,445	1,040,585	129,397	2,886,974
Norway ..	960,855	117,012	106,415	326,037	225,877	1,736,196
China ..	..	..	..	..	985,865	985,865
Canary Islands(^a)	236,807	..	..	470,527	..	707,334
Other Countries	2,622,214	644,493	5,183,389	5,610,953	1,225,383	15,286,432
Total ..	99,947,223	31,510,334	59,910,480	103,538,088	54,227,728	349,133,853

(^a) For orders.

The exports of flour during the same period and the principal countries of destination were as follows :—

FLOUR.—EXPORTS, AUSTRALIA, 1921-22 TO 1925-26.

Country to which Exported.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.	Total for Five Years.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Egypt	108,550	127,072	182,938	172,416	194,909	785,885
United Kingdom	103,634	83,804	92,425	103,817	70,537	454,217
Netherlands East Indies	41,826	50,899	49,262	44,875	66,868	253,730
Malaya (British)	20,471	32,619	33,683	29,408	48,910	165,091
Union of South Africa	24,947	39,250	37,685	25,475	22,780	150,137
Philippine Islands	10,749	10,292	13,012	10,016	11,389	55,458
Ceylon	6,282	7,681	10,142	10,416	18,130	52,651
Hong Kong	10,003	6,318	11,739	13,247	9,703	51,010
Mauritius	5,639	8,757	8,569	6,496	3,990	33,451
Japan	6,555	1,664	15,430	156	732	24,537
Malta .. ..	..	6,133	5,631	1,967	4,817	18,548
New Caledonia	3,532	3,517	3,765	3,522	3,911	18,247
Portuguese East Africa	3,542	3,475	2,963	2,621	5,441	18,042
China	4,391	260	12,905	219	132	17,907
New Zealand	95	84	294	4,258	12,363	17,094
Fiji	2,484	2,602	3,024	2,989	4,039	15,138
French Indo-China	789	1,826	1,884	1,295	3,421	9,215
India	657	1,063	130	470	1,584	3,904
Papua	322	378	780	912	946	3,338
Italy .. ..	..	112	2,025	156	..	2,293
Other Countries	5,266	6,695	22,905	13,316	16,430	64,612
Total	359,734	394,501	511,191	448,047	501,032	2,214,505

For the five years under review the export of wheat to the United Kingdom amounted to 136,370,745 bushels, or 39.06 per cent. of the total export for the period, while the export of flour to the same destination aggregated 454,217 tons, or 20.51 per cent. of the total export. The country to which the largest consignments of flour were made during the last quinquennium was Egypt, followed by the United Kingdom, Netherlands East Indies, Malaya (British), and the Union of South Africa.

(iii) *Exports of Wheat and Flour.* From the foregoing returns it will be seen that the quantity of wheat exported in the form of flour during the past five years represents, on the average, about 23 per cent. of the total equivalent in wheat exported as wheat or flour from Australia.

A point of some interest in connexion with the export of wheat, and one which bears also on the proportion of wheat and flour exports just referred to, is that concerning the quantity of phosphoric acid which this export has the effect of removing from Australia, and the necessity which exists for the return to the soil of this substance in some form.

According to an estimate furnished by the chemist to the New South Wales Department of Agriculture (F. B. Guthrie, Esq., F.C.S., &c.), the proportions of milled product from a bushel (60 lb.) of wheat are, approximately, 42 lbs. of flour, 9 lbs. of bran, and 9 lbs. of pollard, while the percentage of phosphoric acid contained in these products is as follows :—

Flour	0.32 per cent., or 0.13 lb. per bushel.
Bran	3.00 „ 0.27 „
Pollard	0.90 „ 0.08 „

The total amount of phosphoric acid contained in a bushel of wheat, is, therefore, 0.48 lb., of which 0.13 lb. is in the flour and 0.35 lb. in the offal.

During the last ten years the net exports from Australia of wheat and its milled products have amounted to 631,203,215 bushels of wheat, 4,109,585 tons of flour, and 9,201,560 bushels of bran, pollard, and sharps. On the basis of the figures quoted above this export would contain no less than 332,960,000 lbs. of phosphoric acid, the value of which as a fertilizer would amount to approximately four million pounds sterling.

5. Local Consumption of Wheat.—The estimated consumption of wheat for food and for seed purposes in Australia during the past ten years is given in the following tables :—

WHEAT.—HUMAN CONSUMPTION, AUSTRALIA, 1916-17 TO 1925-26.

Year.	Flour Milled.	Net Exports of Flour.		Net Quantity Available for Home Consumption.		Net Quantity Available per Head of Population.	
		Flour.	Flour in Biscuits Exported.	Flour.	Equivalent in Terms of Wheat.	Flour.	Equivalent in Terms of Wheat.
	Tons.	Tons.	Tons.	Tons.	Bushels.	Tons.	Bushels.
1916-17 ..	869,975	290,572	2,885	576,518	27,672,860	.1171	5.623
1917-18 ..	985,761	374,062	9,810	601,889	28,890,670	.1205	5.784
1918-19 ..	1,046,268	483,340	6,437	556,491	26,711,570	.1098	5.270
1919-20 ..	1,050,228	517,708	4,590	527,930	25,340,640	.1000	4.801
1920-21 ..	801,511	229,648	3,375	568,488	27,287,420	.1052	5.050
1921-22 ..	911,452	359,698	2,284	549,470	26,374,560	.0999	4.798
1922-23 ..	985,479	394,457	1,831	589,191	28,281,170	.1049	5.034
1923-24 ..	1,092,856	511,151	1,727	579,978	27,838,940	.1011	4.853
1924-25 ..	1,068,698	447,939	1,814	618,895	29,706,960	.1054	5.058
1925-26 ..	1,185,968	500,960	2,473	682,535	32,761,680	.1139	5.467
Aggregate 10 years	9,998,196	4,109,585	37,226	5,851,385	280,866,470	.1075	5.158

WHEAT USED FOR SEED.—AUSTRALIA, 1916 TO 1925.

Year.	Area for Grain and Hay.	Wheat for Seed Purposes.		
		Quantity.	Per Acre.	Per Head of Population.
	Acres.	Bushels.	Bushels.	Bushels.
1916	12,894,917	11,523,000	.894	2.343
1917	10,910,669	9,713,000	.890	1.949
1918	9,428,398	9,054,000	.960	1.782
1919	8,250,572	7,774,000	.942	1.466
1920	10,271,055	9,471,000	.922	1.750
1921	10,878,401	10,077,000	.926	1.847
1922	11,253,078	10,456,000	.929	1.878
1923	11,016,608	10,328,000	.937	1.816
1924	11,859,102	10,917,000	.925	1.890
1925	11,405,943	10,627,000	.932	1.774
Aggregate for 10 years ..	108,168,743	99,990,000	.924	1.836

In addition to the above, the quantity of grain fed to poultry and other live stock as well as that used as seed for green forage crops must be taken into consideration. These quantities vary from year to year according to the price of wheat and the nature of the season, and sufficient data are not available on which to base an annual estimate, but, taken over a period, the amount so consumed has been estimated to range from one half to one bushel per head of population per annum. The flour available for human consumption necessarily fluctuates from year to year coincident with stocks. In some years the flour available per head of population, after deducting net exports from the quantity milled, shows a substantial increase over the average for the previous year, this, however, being counterbalanced by a decline in the following year. The average quantity of

flour consumed per annum for the ten years under consideration was 0.1075 tons per head of population, which, expressed in equivalent terms in wheat, represents 5.158 bushels. The estimates of quantity of grain used for seed purposes are based on data supplied by the Agricultural departments of the several States giving average quantities of seed used per acre for wheat sown either for grain or hay. The average annual quantity thus used during the ten years was 1.836 bushels per head of population, and 0.924 bushels or 55 lbs. per acre sown. For all purposes the consumption of wheat in Australia during the past five years averaged 42,953,000 bushels, or 7.47 bushels per head of the population.

6. **Value of the Wheat Crop.**—The estimated value of the wheat crop in each State and in Australia during the season 1925-26 is shown below :—

WHEAT.—VALUE OF CROP (a), 1925-26.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Fed. Cap. Ter.	Australia.
	£	£	£	£	£	£	£	£
Aggregate value...	10,985,200	8,776,660	534,483	8,878,879	6,418,567	128,570	1,590	35,723,949
Value per acre ..	£3/15/1	£3/9/10	£3/4/5	£3/12/0	£3/0/9	£6/14/8	£5/18/1	£3/10/0

(a) Exclusive of the value of straw.

7. **Voluntary Wheat Pools.**—Reference to the operations of the Voluntary Wheat Pools in the various States during 1926-27 will be found in the Appendix at the end of this volume.

§ 5. Oats.

1. **Progress of Cultivation.**—(i) *Area and Yield.* Oats came next in importance to wheat amongst the grain crops cultivated last season, but while wheat grown for grain accounted for 60.75 per cent., oats represented only 6.03 per cent. of the area under crop in Australia. The progress in cultivation of oats for the last five years is shown in the table hereunder, and more fully in the graphs herein :—

OATS.—AREA AND YIELD, 1921-22 TO 1925-26.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Fed. Cap. Ter.	Australia.
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AREA.

	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1921-22	69,619	318,631	2,274	125,148	162,866	54,642	176	733,406
1922-23	73,635	492,356	1,216	173,716	214,269	58,813	371	1,014,376
1923-24	86,402	520,654	216	176,299	241,608	51,460	291	1,076,930
1924-25	122,994	517,229	4,010	155,214	318,982	46,175	523	1,165,127
1925-26	100,652	437,696	1,293	158,062	278,344	36,741	445	1,013,233

YIELD.

	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1921-22	1,168,406	6,082,258	34,409	1,297,646	2,019,603	1,543,617	1,494	12,147,433
1922-23	1,243,198	8,093,459	19,499	1,681,783	2,261,863	1,674,751	7,602	14,982,155
1923-24	1,564,970	9,366,205	2,427	2,157,938	2,846,670	1,359,785	5,330	17,303,325
1924-25	2,500,951	9,572,003	63,912	1,939,415	4,241,074	1,065,933	10,449	19,393,737
1925-26	1,607,520	4,998,165	14,546	1,808,443	2,939,380	835,473	8,130	12,211,657

The oat crop exhibited little variation during the past decennium, ranging on the average around 14,000,000 bushels. The demand for the grain for oatmeal is limited to about 2,000,000 bushels annually. It is mainly used as feed grain, and its value, particularly in good seasons, is not sufficient to warrant the increase in cultivation which may be expected when oats is more generally marketed through live stock and better prices thereby realized than those now offering on the local market.

The principal oat-growing State is Victoria, which produces more than half the total quantity of oats grown in all States. For Australia as a whole the record yield of oats was obtained during 1924-25, when 19,393,737 bushels were harvested.

(ii) *Average Yield.* The average yield per acre of oats varies considerably in the different States, being highest in Tasmania and lowest in South Australia. Particulars as to average yield in each of the last five seasons, and for the decennium 1916-26 are given in the succeeding table :—

OATS.—AVERAGE YIELD PER ACRE, 1921-22 TO 1925-26.

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Fed. Cap. Ter.	Australia.
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1921-22	16.78	19.09	15.13	10.37	12.40	28.25	8.49	16.56
1922-23	16.88	16.44	16.04	9.68	10.56	28.48	20.49	14.77
1923-24	18.11	17.99	11.24	12.24	11.78	26.42	18.32	16.07
1924-25	20.33	18.51	15.94	12.50	13.30	23.08	19.98	16.65
1925-26	15.97	11.42	11.25	11.44	10.56	22.74	18.27	12.05
Average for 10 seasons 1916-26	16.75	17.25	16.66	11.16	11.69	24.72	18.29	15.37

The smallest average yield per acre ever recorded for Australia was that experienced in the abnormally dry season 1914-15, viz., 5.60 bushels, while the largest in the past ten years was that of the season 1920-21, amounting to 19.77 bushels per acre.

(iii) *Relation to Population.* The State in which oat production occupies the most important position in relation to population is Tasmania, the yield for that State representing about 6 bushels per head during the last five years, as compared with 2.64 bushels per head for Australia as a whole. Particulars for the seasons 1921-22 to 1925-26 are furnished in the succeeding table :—

OATS.—YIELD PER 1,000 OF POPULATION, 1921-22 TO 1925-26.

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Fed. Cap. Ter.	Australia.
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1921-22	549	3,922	45	2,582	6,026	7,067	724	2,205
1922-23	572	5,090	25	3,277	6,583	7,650	2,973	2,660
1923-24	708	5,762	3	4,112	8,046	6,207	2,033	3,009
1924-25	1,109	5,776	76	3,601	11,647	4,893	3,485	3,302
1925-26	699	2,968	17	3,278	7,898	3,850	2,066	2,038

2. *Comparison with Other Countries.*—(i) *Total Production.* A comparison of the Australian production of oats with that of the leading oat-producing countries of the world is furnished in the following table :—

OATS.—PRODUCTION IN VARIOUS COUNTRIES, 1922-1925.

Country.	Yield in Bushels (000 omitted).		Country.	Yield in Bushels (000 omitted).	
	Average, 1922-1924.	1925.		Average, 1922-1924.	1925.
United States of America ..	1,081,929	1,209,515	Hungary ..	17,451	20,425
Canada ..	414,007	436,373	Australia ..	17,226	12,212
Soviet Republics ..	(b)407,266	561,391	Jugo-Slavia ..	15,953	19,017
Germany ..	289,843	307,796	Netherlands ..	15,673	16,251
France ..	248,201	261,568	Latvia ..	14,201	16,747
Poland ..	155,058	182,518	Japan ..	9,156	(b)7,946
United Kingdom ..	131,357	132,655	Algeria ..	9,055	12,615
Czecho-Slovakia ..	65,986	71,891	Norway ..	8,539	9,639
Sweden ..	60,672	67,517	Estonia ..	7,380	6,978
Rumania ..	54,502	40,789	Portugal ..	6,994	4,547
Argentine Republic ..	50,637	64,347	Bulgaria ..	6,863	8,182
Denmark ..	49,258	52,670	Union of South Africa ..	(a)5,447	(d)5,277
Belgium ..	33,879	34,001	New Zealand ..	4,615	3,607
Irish Free State ..	29,931	37,980	Greece ..	(c)4,264	4,550
Italy ..	27,624	37,980	Korea ..	3,326	2,873
Spain ..	27,152	34,756	Chile ..	2,576	4,148
Finland ..	22,240	32,329	Switzerland ..	2,192	2,155
Lithuania ..	18,748	15,687	Uruguay ..	1,864	2,238
Austria ..	17,873	21,409	Tunis ..	1,369	2,205

(a) Average years 1921-1923.

(b) Year 1924.

(c) Average years 1922-1923.

(d) Year 1923.

(ii) *Yield per Acre.* The average yield per acre of oats is very low in Australia compared with other countries where its cultivation is more extensive. Arranging the countries contained in the foregoing table according to the magnitude of average yield for the years specified, the results are as follows :—

OATS.—YIELD PER ACRE, VARIOUS COUNTRIES, 1922-1925.

Country.	Yield in Bushels per acre.		Country.	Yield in Bushels per acre.	
	Average, 1922-1924.	1925.		Average, 1922-1924.	1925.
Belgium ..	50.18	52.01	Austria ..	23.64	28.16
Denmark ..	43.71	47.90	Lithuania ..	23.55	18.40
Switzerland ..	43.27	44.05	Italy ..	23.38	31.60
Netherlands ..	40.91	44.43	Hungary ..	22.23	28.48
United Kingdom ..	38.59	42.58	Finland ..	21.55	30.15
Irish Free State ..	38.11	56.57	Argentine Republic ..	18.96	20.15
Germany ..	34.94	36.08	Latvia ..	18.88	20.56
New Zealand ..	33.64	34.61	Bulgaria ..	18.80	23.13
Sweden ..	33.01	37.49	Estonia ..	18.65	18.79
Chile ..	32.82	45.05	Jugo-Slavia ..	17.20	22.21
Norway ..	32.55	40.07	Spain ..	17.17	19.32
Japan ..	32.40	(b)28.96	Rumania ..	16.90	13.93
Czecho-Slovakia ..	32.00	34.76	Australia ..	15.87	12.05
France ..	29.11	30.42	Uruguay ..	15.52	15.61
Canada ..	28.61	29.74	Algeria ..	15.05	19.37
Greece ..	(a)26.57	(c)26.57	Soviet Republics ..	(b)14.07	19.44
United States of America ..	26.11	26.78	Portugal ..	13.73	(b)7.74
Poland ..	25.17	28.66	Korea ..	12.19	10.74

(a) Average years 1922-1923.

(b) Year 1924.

(c) Year 1923.

3. *World's Production.*—The production of oats in the world for the year 1925, as reported by the International Institute of Agriculture, amounted to 3,726 millions of bushels. The yield was considerably larger than that of the previous year, viz., 3,357 millions of bushels, owing to the increased acreage sown and the favourableness of the season. In the pre-war years 1909 to 1913 the production averaged 3,588 millions of bushels from an average area of 141,700,000 acres. Subsequently the area declined in Europe, but a considerable increase was recorded in North America, with the result that in 1925 nearly 141,000,000 acres were sown to oats.

4. **Price of Oats.**—The average wholesale prices of oats in the markets of the several capitals for the year 1925-26 are given in the following table:—

OATS.—AVERAGE WHOLESALE PRICES, 1925-1926.

Particulars.	Sydney.	Melbourne.	Brisbane.	Adelaide.	Perth.	Hobart.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Average price per bushel ..	5 6	3 8	..	2 9	2 8	4 2

5. **Imports and Exports.**—The production of oats in Australia has not yet reached sufficient proportions to admit of a regular export trade; in fact in certain years the imports have exceeded the exports, notably in 1903, 1906, 1908, 1910, in each of the four years prior to 1916-17, in 1922-23 and in 1925-26. The quantities and values of oats imported into and exported from Australia during the years 1921-22 to 1925-26 are given hereunder:—

OATS.—IMPORTS AND EXPORTS, AUSTRALIA, 1921-22 TO 1925-26.

Year.	Imports.		Exports.		Net Exports.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Bushels.	£	Bushels.	£	Bushels.	£
1921-22 ..	14,880	2,569	325,792	49,980	310,912	47,411
1922-23 ..	557,523	90,255	35,895	7,506	-521,628	-82,749
1923-24 ..	108,260	18,624	190,453	41,647	82,193	23,023
1924-25 ..	1,723	482	219,278	42,255	217,555	41,773
1925-26 ..	266,103	49,927	76,978	15,844	-189,125	-34,083

NOTE.—(—) signifies net import.

The principal country from which imports of oats have been obtained is New Zealand, while the principal countries to which oats were exported during the period under review were New Zealand, Java, and the United Kingdom.

6. **Oatmeal, etc.**—The production of oatmeal in Australia during 1925-26 amounted to 309,877 cwts., practically the whole of which is consumed locally. Oversea trade in this and similar products is small, the importations of oatmeal, wheatmeal and rolled oats during 1925-26 amounting to 194,105 lbs., while the exports totalled 661,832 lbs.

7. **Value of Oat Crop.**—The estimated value of the oat crop of the several States of Australia for the season 1925-26 is as follows:—

OATS.—VALUE OF CROP, (a) 1925-26.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Fed. Cap. Ter.	Australia.
	£	£	£	£	£	£	£	£
Aggregate value..	462,160	989,220	2,727	293,872	394,979	188,450	2,340	2,333,748
Value per acre ..	£4/11/10	£2/5/2	£2/2/2	£1/17/2	£1/8/5	£5/2/7	£5/5/2	£2/6/1

(a) Exclusive of the value of straw.

§ 6. Maize.

1. **States Growing Maize.**—Maize is grown for grain chiefly in New South Wales and Queensland, the area so cropped in these States during the season 1925-26 being 275,207 acres, or nearly 93 per cent. of the total for Australia. Of the balance, Victoria contributed 21,913 acres, South Australia 2 acres, Western Australia 8 acres, and the Northern Territory 10 acres. The climate of Tasmania is unsuitable for the growing of maize for grain. In all the States, the crop is grown to a greater or less extent for green forage, particularly in connexion with the dairying industry.

2. Progress of Maize-growing.—(i) *Area and Yield.* Notwithstanding its valuable properties and its pre-eminence as the world's most extensively grown cereal, the cultivation of maize has decreased in Australia by more than 20,000 acres during the past decennium. Increases in area were recorded in both Queensland and Victoria, but the decline of more than 30,000 acres in New South Wales was responsible for the reduction in the total for Australia. The maximum area sown to maize was 414,914 acres, as far back as 1910-11, this acreage being considerably in excess of the average planted during the last ten years which amounted to 315,948 acres. The area and yield of maize for grain in each State are given in the following table for the last five years. The fluctuations from year to year are shown more fully on the graph herein.

MAIZE.—AREA AND YIELD, 1921-22 TO 1925-26.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Nor. Ter.	Fed. Cap. Ter.	Australia.
AREA.								
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1921-22	146,687	23,227	135,034	186	43	9	..	305,186
1922-23	138,169	25,846	149,048	116	23	..	..	313,202
1923-24	166,933	29,104	120,092	94	43	..	41	316,307
1924-25	146,564	23,126	229,160	7	71	21	..	398,949
1925-26	120,955	21,913	154,252	2	8	10	..	297,140
YIELD.								
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1921-22	3,976,300	951,960	2,907,754	3,792	540	92	..	7,840,438
1922-23	3,287,500	879,915	3,217,848	2,716	335	..	..	7,388,314
1923-24	4,621,950	1,464,731	2,024,902	1,266	834	..	1,050	8,114,733
1924-25	4,208,200	891,987	7,330,821	276	333	420	..	12,432,037
1925-26	3,278,350	768,761	3,384,172	51	227	..	..	7,431,561

The maximum production of maize in Australia was recorded in 1910-11, when the harvest exceeded 13,000,000 bushels. No approach to this figure was made in recent years, until a superabundant crop in Queensland during 1924 brought the total to nearly 12,500,000 bushels, but the average for the past decade was only 8,000,000 bushels. Moreover the falling-off in the demand coupled with the low market price for the grain adversely affected the industry, particularly in Queensland, and the harvest during 1925-26 was only 7,500,000 bushels.

A maize reaper-thresher, invented and manufactured in Australia, and an imported maize picker and husker were used in the maize fields of Queensland during the past season, and proved most suitable for the work for which they were designed. The perfecting of a machine for harvesting and threshing maize is a matter of very great importance in the development of the industry.

(ii) *Average Yield.* The following table gives particulars of the average yield per acre of the maize crops of the States for the seasons 1921-22 to 1925-26, and also for the decennium 1916-26:—

MAIZE.—AVERAGE YIELD PER ACRE, 1921-22 TO 1925-26.

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	N. Ter.	Fed. Cap. Ter.	Australia.
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1921-22 ..	27·11	40·99	21·53	20·39	12·56	10·22	..	25·69
1922-23 ..	23·79	34·04	21·59	23·41	14·57	..	..	23·59
1923-24 ..	27·69	50·33	16·86	13·47	19·40	..	25·61	25·65
1924-25 ..	28·71	38·57	31·99	39·43	4·70	20·00	..	31·16
1925-26 ..	27·10	35·08	21·94	25·50	28·38	..	..	25·01
Average for 10 seasons 1916-26	26·51	41·86	22·61	16·10	12·01	11·90	22·82	25·80

With the exception of Canada, the average yield of maize per acre in Victoria is the largest in the world. This is due, in large measure, to the fact that the area under maize in that State is comparatively small and is situated in districts peculiarly suited to its growth. The average yield in New South Wales exceeds that obtained in Queensland.

(iii) *Relation to population.* During the past five seasons the Australian production of maize has averaged $1\frac{1}{2}$ bushels per head of population, while the average for Queensland, the State in which the production per head is highest, amounted to $4\frac{1}{2}$ bushels. Details for the several States during the past five seasons are as follow :—

MAIZE.—YIELD PER 1,000 OF POPULATION, 1921-22 TO 1925-26.

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	N. Ter.	Fed. Cap. Ter.	Australia.
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1921-22 ..	1,869	614	3,776	8	2	25	..	1,423
1922-23 ..	1,513	553	4,082	5	1	..	..	1,312
1923-24 ..	2,092	901	2,496	2	2	..	400	1,411
1924-25 ..	1,866	538	8,781	1	1	117	..	2,117
1925-26 ..	1,426	457	3,930	..	1	..	..	1,240

3. *Australian and Foreign Maize Production.*—(i) *Total Yield.* The United States of America is the most important maize-producing country of the world. Nearly 100,000,000 acres are annually planted in that country, and about 3,000,000,000 bushels reaped, representing nearly 75 per cent. of the world's production. Of the huge quantities raised, about 85 per cent. is fed to live stock on farms, 10 per cent. is used for human food, and only a very small fraction, viz., $1\frac{1}{2}$ per cent., is exported. The yields of the various countries are as follows :—

MAIZE.—PRODUCTION IN VARIOUS COUNTRIES, 1922-1925.

Country.	Yield in Bushels (000 omitted).		Country.	Yield in Bushels (000 omitted).	
	Average, 1922-1924.	1925.		Average 1922-1924.	1925.
United States of America ..	2,793,850	2,905,029	Portugal ..	(b)11,086	11,729
Argentine Republic ..	203,503	279,002	Czecho-Slovakia ..	10,248	12,043
Brazil ..	173,661	(c)161,733	Australia ..	9,312	7,432
Rumania ..	142,160	165,155	Salvador ..	(a)7,836	(d)10,629
Jugo-Slavia ..	107,773	149,232	French Equatorial and West Africa ..	7,750	9,291
Soviet Republics ..	(c)94,299	176,460	Greece ..	(b)7,659	(c)7,106
Mexico ..	91,976	73,326	Belgian Congo ..	7,414	(c)7,480
Italy ..	90,560	109,979	Madagascar ..	(b)6,525	4,331
India ..	(b)86,480	(c)67,560	Japan ..	6,297	(c)6,488
Egypt ..	67,049	(c)67,573	Guatemala ..	5,933	4,630
Dutch East Indies ..	58,930	63,469	Uruguay ..	(f)5,550	(d)4,600
Hungary ..	51,955	87,970	French Indo-China ..	(e)5,413	5,598
Union of South Africa ..	(b)48,355	41,071	Rhodesia ..	4,869	5,536
Spain ..	25,520	28,210	French Morocco ..	4,031	3,740
Bulgaria ..	23,203	28,158	Poland ..	3,589	3,467
Turkey ..	..	20,606	Austria ..	3,549	3,745
Philippine Islands ..	16,896	17,371	Korea ..	2,694	2,852
France ..	14,459	20,003	Kenya ..	2,672	(c)3,190
Canada ..	13,128	10,564	Paraguay ..	1,675	2,280

(a) Average, years 1920-1922. (b) Average, years 1921-1923. (c) Year 1924. (d) Year 1923.
(e) Average, years 1923-1925. (f) Average, years 1922-1923.

(ii) *Yield per Acre.* The average yield per acre of maize in Australia during 1925-26 was 25.01 bushels, which may be regarded as satisfactory when compared with those of other maize-producing countries, the yields per acre for which are shown in the following table :—

MAIZE.—YIELD PER ACRE IN VARIOUS COUNTRIES, 1922-1925.

Country.	Average Yield per acre in Bushels.		Country.	Average Yield per acre in Bushels.	
	Average, 1922-1924.	1925.		Average, 1922-1924.	1925.
Canada	42.30	44.25	Rhodesia	18.08	22.14
Belgian Congo ..	35.03	(c)34.40	Greece	(e)17.88	(c)21.86
Egypt	34.81	(c)35.99	France	17.48	23.42
United States of America ..	27.23	23.58	Paraguay	16.90	19.97
Australia	27.16	25.01	French Indo-China	(c)16.85	17.43
Kenya	25.61	(c)24.60	Bulgaria	16.81	18.39
Czecho-Slovakia ..	25.08	31.15	Salvador	(f)16.67	(c)16.67
Argentine Republic	23.96	26.28	Rumania	16.48	17.00
Italy	23.82	28.64	Portugal	(e)14.94	(d)13.60
Hungary	23.63	33.13	Guatemala	13.70	12.05
Brazil	23.48	(c)26.18	Philippine Islands	12.50	13.47
Jugo-Slavia	22.72	28.58	Mexico	11.97	10.53
Spain	21.95	24.10	Korea	11.75	11.83
Madagascar	(a)21.83	21.90	India	(e)11.61	(c) 8.61
Japan	21.02	(c)18.90	Union of South Africa	(e)11.24	(d)10.63
Austria	21.01	25.18	Uruguay	(b)10.85	(d) 9.99
Turkey .. ..	.. ..	(c)20.58	Dutch East Indies	7.94	16.07
Poland	19.18	18.04	Basutoland	7.72	5.30
Soviet Republics ..	(c)18.68	23.00	French Morocco ..	7.47	7.26
French Equatorial and West Africa	18.13	19.09			

(a) Average years 1923-1925. (b) Years 1922-1923. (c) Year 1924. (d) Year 1923.
(e) Average, years 1921-1923. (f) Years 1920-1922.

4. *World's Production.*—The maize harvest in 1925 was one of the most abundant on record. In the United States of America, where the production normally provides about 75 per cent. of the world's output and in Argentina, the next largest producer, weather conditions were very favourable and large yields were reaped. The total world production in 1925 was greater than the exceptionally large harvest in 1923 and 12 per cent. greater than the average for the pre-war period, 1909 to 1913. The total yields from 1909 to 1925 were as follows :—

Average 1909 to 1913,	3,752,000,000 bushels
1923,	4,149,000,000 ..
1924,	3,480,000,000 ..
1925,	4,205,000,000 ..

5. *Price of Maize.*—The average wholesale price of maize in the Sydney market for each of the last five years is given in the following table :—

MAIZE.—AVERAGE PRICE, SYDNEY, 1921-22 TO 1925-26.

Particulars.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	s. d.	s. d.	s. d.	s. d.	s. d.
Average price per bushel ..	5 2	6 1	5 1	3 11	5 8

6. **Oversea Imports and Exports.**—The decline in the production of maize in Australia of late years has necessitated an average annual import of more than 1,000,000 bushels during the past decade, the bulk of the supplies being furnished by South Africa. Details of imports and exports for the years 1921–22 to 1925–26 are as follows:—

MAIZE.—IMPORTS AND EXPORTS, AUSTRALIA, 1921–22 TO 1925–26.

Year.	Imports.		Exports.		Net Imports.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Bushels.	£	Bushels.	£	Bushels.	£
1921–22	45,066	9,791	36,320	9,023	8,746	768
1922–23	1,198,673	264,758	8,427	2,736	1,190,246	262,022
1923–24	2,572,809	515,468	37,918	9,524	2,534,891	505,944
1924–25	480	242	2,554,052	511,921	– 2,553,572	– 511,679
1925–26	1,562,454	323,486	54,720	14,734	1,507,734	308,752

NOTE.—(–) denotes net exports.

7. **Prepared Maize.**—A small quantity of corn-flour is imported annually into Australia, the principal countries of supply being the United Kingdom and the United States of America. During the year 1925–26 the imports amounted to 501,920 lb., and represented a value of £6,957. The exports from Australia are small, and amounted to only 15,482 lb., valued at £383 in 1925–26.

8. **Value of Maize Crop.**—The value of the Australian maize crop for the season 1925–26 has been estimated at £1,878,267, made up as follows:—

MAIZE.—VALUE OF CROP, 1925–26.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	N.T.	Australia.
	£	£	£	£	£	£	£
Aggregate value	983,500	217,816	676,834	19	98	..	1,878,267
Value per acre	£8/2/7	£9/18/10	£4/7/9	£9/10/0	£12/5/0	..	£6/6/5

§ 7. Barley.

1. **Progress of Cultivation.**—(i) *Area and Yield.* The area under barley in Australia has fluctuated very considerably, but results for the last ten years reveal a marked advance. The average annual area sown for the decennium 1916 to 1926 amounted to 282,705 acres, which was nearly double the average of the previous ten-yearly period, i.e., 147,270 acres. Victoria was originally the principal barley growing State, but the rapid expansion of the cultivation of this crop in South Australia during recent years brought the latter State into the lead in 1913–14, and, during 1925–26, the area under barley in South Australia accounted for nearly 64 per cent. of the Australian acreage. Victoria was next in importance with 27½ per cent., leaving a small margin of about

8½ per cent. distributed among the other States. The figures here given relate to the areas harvested for grain; small areas only are cropped for hay, while more considerable quantities are cut for green forage. These, however, are not included in this sub-section. The area and yield of barley for grain in the several States are shown in the following table for the last five years, while the progress since 1860 is illustrated in the graphs herein :—

BARLEY.—AREA AND YIELD, 1921-22 TO 1925-26.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
AREA.							
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1921-22 ..	5,031	100,127	7,730	170,887	7,894	7,241	298,910
1922-23 ..	3,899	102,773	5,292	215,283	9,243	5,706	342,196
1923-24 ..	4,350	56,564	665	184,286	8,673	4,230	258,775
1924-25 ..	6,638	63,764	8,798	166,432	11,606	3,010	260,248
1925-26 ..	6,614	103,395	7,001	239,337	13,306	5,223	374,876
YIELD.							
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1921-22 ..	83,950	2,336,246	133,885	3,278,787	85,857	166,960	6,085,685
1922-23 ..	55,520	2,442,041	93,693	3,697,849	107,804	152,028	6,548,935
1923-24 ..	71,700	1,455,435	3,803	3,251,885	97,779	94,634	4,975,451
1924-25 ..	118,300	1,444,823	171,124	3,103,718	177,537	50,729	5,066,231
1925-26 ..	105,150	1,774,963	92,441	4,134,824	158,300	90,619	6,356,297

(a) Including Federal Capital Territory, 7 acres, 210 bushels.

The States in which the annual production of barley averaged over 1,000,000 bushels for the past decade were South Australia and Victoria, the yields being respectively 2,966,486 and 1,927,699 bushels, the higher return per acre in the latter State tending to diminish the advantage held by South Australia in regard to acreage.

(ii) *Malting and other Barley.* (a) *Year 1925-26.* In recent years the statistics of all the States have distinguished between "malting" and "other" barley. Particulars for the season 1925-26 are as follows :—

BARLEY, MALTING AND OTHER.—AREA AND YIELD, 1925-26.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Malting barley ..	3,765	72,244	5,496	224,558	8,744	4,634	319,441
Other barley ..	2,849	31,151	1,505	14,779	4,562	589	55,435
Total ..	6,614	103,395	7,001	239,337	13,306	5,223	374,876
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
Malting barley ..	54,440	1,189,081	74,575	3,895,631	108,460	79,302	5,401,489
Other barley ..	50,710	585,882	17,866	239,193	49,840	11,317	954,808
Total ..	105,150	1,774,963	92,441	4,134,824	158,300	90,619	6,356,297

The cultivation of malting barley is a special industry to meet the demands of the brewing trade. Its expansion, however, appears to be restricted, although of late years the exports have increased. Taking Australia as a whole, more than 85 per cent. of the area under barley in 1925-26 was sown with the malting variety. The proportion varies largely in the several States.

(b) *Progress of Cultivation.* The following table sets out the acreage and yield of malting and other barley in Australia as a whole during the past five seasons :—

BARLEY, MALTING AND OTHER.—AREA AND YIELD, AUSTRALIA, 1921-22 TO 1925-26.

Season.	Acres.			Bushels.			Average Yields per Acre.		
	Malting.	Other.	Total.	Malting.	Other.	Total.	Malting.	Other.	Total.
1921-22 ..	218,662	80,248	298,910	4,430,599	1,655,086	6,085,685	20.26	20.62	20.36
1922-23 ..	270,159	63,037	342,196	5,283,144	1,265,791	6,548,935	18.93	20.08	19.14
1923-24 ..	217,613	41,162	258,775	4,196,008	779,443	4,975,451	19.28	18.04	19.23
1924-25 ..	211,761	48,487	260,248	4,163,896	902,335	5,066,231	19.66	18.61	19.47
1925-26 ..	319,441	55,435	374,876	5,401,489	954,808	6,356,297	16.91	17.22	16.96
Average 10 seasons 1916-26	215,911	66,794	282,705	4,060,345	1,271,352	5,331,697	18.81	19.03	18.86

During the past ten seasons the area and production of malting barley have represented more than three times the corresponding figures for other barley. The average yield per acre differs very little in respect of the two classes, the results for the past ten-yearly period being slightly in favour of the Cape variety.

(iii) *Average Yield.* The average yield of barley per acre varies considerably in the different States, being as a rule highest in Victoria and Tasmania, and lowest in Western Australia. Details for each State during the past five seasons, and for the decennium 1916-26, are given in the following table :—

BARLEY.—YIELD PER ACRE, 1921-22 TO 1925-26.

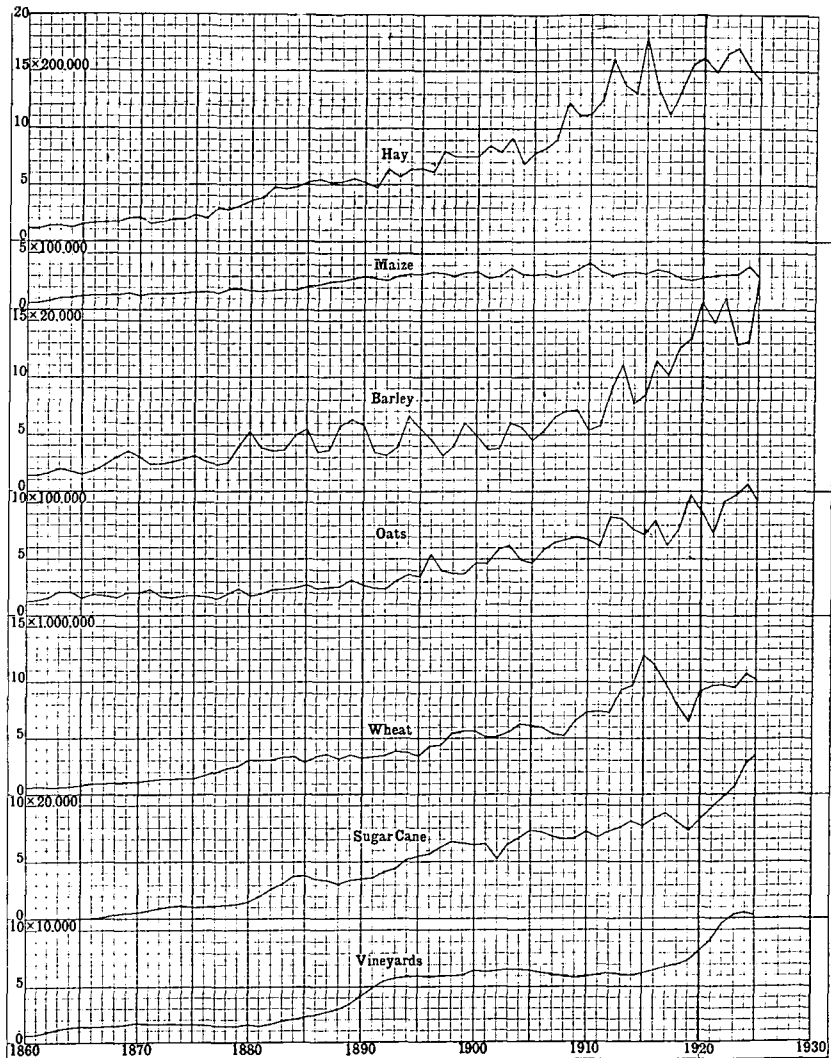
Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1921-22 ..	16.69	23.33	17.32	19.19	10.88	23.06	20.36
1922-23 ..	14.24	23.76	17.70	17.18	11.66	26.64	19.14
1923-24 ..	16.48	25.73	5.73	17.65	11.27	22.37	19.23
1924-25 ..	17.82	22.66	19.45	18.65	15.30	16.85	19.47
1925-26 ..	15.90	17.17	13.20	17.28	11.89	17.35	16.96
Average for 10 seasons 1916-26	14.88	21.81	17.76	17.81	11.68	21.29	18.86

(iv) *Relation to Population.* During the last five seasons the quantity of barley produced in Australia has averaged 1 bushel per head of population. For the season 1925-26 the production ranged from $7\frac{1}{2}$ bushels per head in South Australia to $2\frac{1}{2}$ lbs. per head in New South Wales. Details for the years 1921-22 to 1925-26 are as follows :—

BARLEY.—PRODUCTION PER 1,000 OF POPULATION, 1921-22 TO 1925-26.

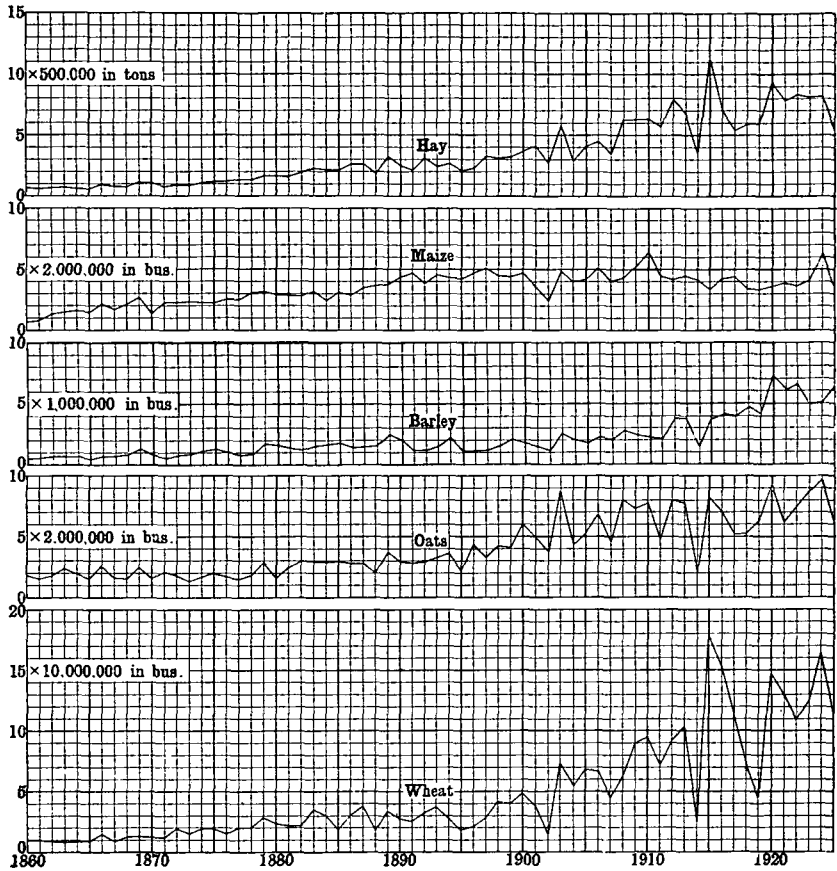
Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1921-22 ..	39	1,506	174	6,524	256	764	1,104
1922-23 ..	26	1,536	119	7,206	314	694	1,163
1923-24 ..	32	895	5	6,197	276	432	865
1924-25 ..	52	872	205	5,764	488	233	863
1925-26 ..	46	1,054	107	7,496	425	418	1,061

AREA UNDER PRINCIPAL CROPS--AUSTRALIA, 1860 TO 1925-26.



EXPLANATION.—The base of each small square represents an interval of one year, while the vertical height represents a number of acres, varying with the nature of the crop in accordance with the scale given on the left of the graph. The height of each curve above its base line denotes for the crop to which it relates, the total area under cultivation in Australia during the successive seasons.

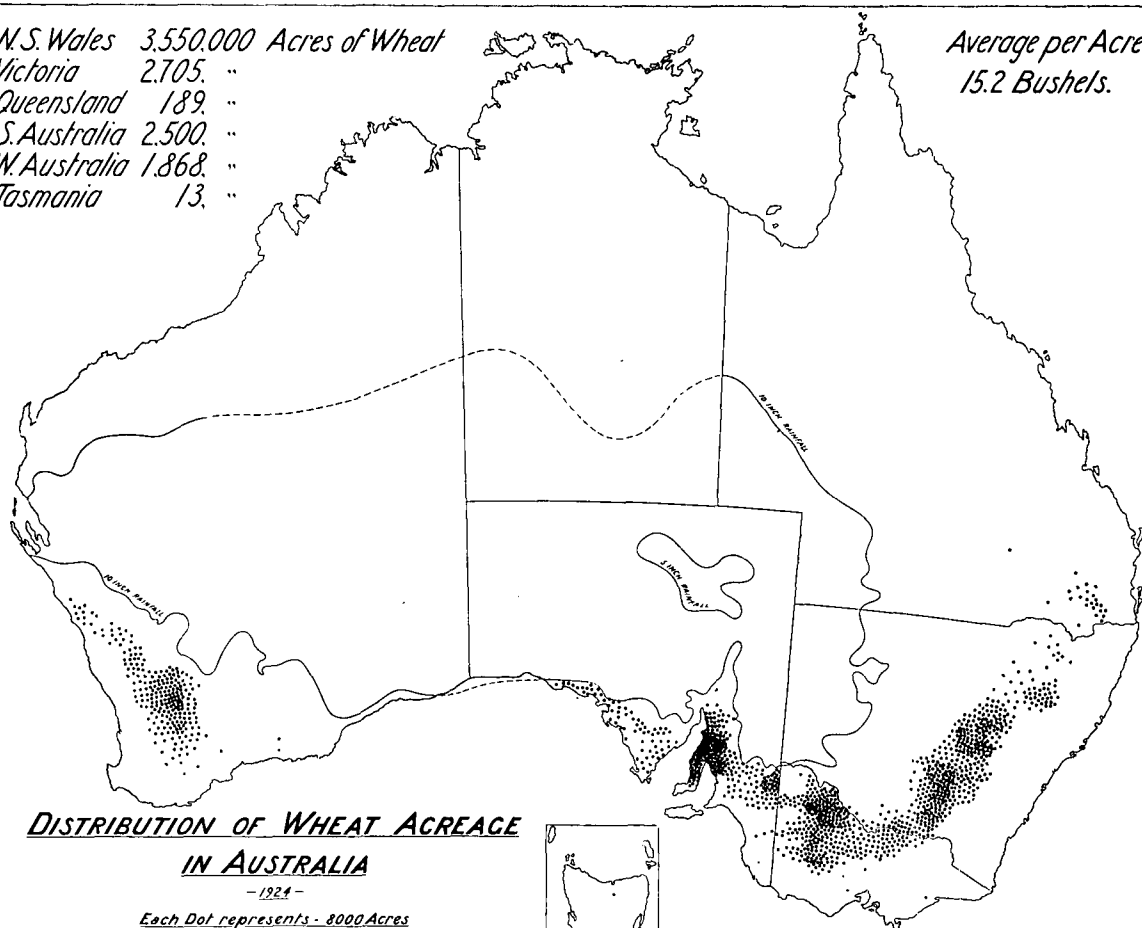
PRODUCTION OF PRINCIPAL CROPS—AUSTRALIA 1855 TO 1925 '26.



EXPLANATION.—A separate base line is provided for each of the crops dealt with. In each instance the base of a small square represents an interval of one year, the vertical height of such square representing in the case of wheat, 10,000,000 bushels; oats, 2,000,000 bushels; barley, 1,000,000 bushels; maize, 2,000,000 bushels; and hay, 500,000 tons. The height of each curve above its base line denotes the aggregate yield in Australia of the particular crop during the successive seasons.

N.S. Wales 3,550,000 Acres of Wheat
 Victoria 2,705,000 "
 Queensland 189,000 "
 S. Australia 2,500,000 "
 W. Australia 1,868,000 "
 Tasmania 13,000 "

Average per Acre
 15.2 Bushels.



DISTRIBUTION OF WHEAT ACREAGE
IN AUSTRALIA

- 1924 -

Each Dot represents - 8000 Acres

SCALE OF MILES
 0 100 200



2. Comparison with Other Countries.—(i) *Total Yield.* In comparison with the barley production of other countries, that of Australia appears extremely small. Particulars for some of the leading countries during recent years are as follows, the Australian figure being added for the purpose of comparison :—

BARLEY.—PRODUCTION IN VARIOUS COUNTRIES, 1922-25.

Country.	Yield in Bushels (000 omitted).		Country..	Yield in Bushels (000 omitted).	
	Average, 1922-1924.	1925.		Average, 1922-1924.	1925.
United States of America ..	183,091	208,793	Jugo-Slavia ..	12,182	17,419
Soviet Republics ..	167,785	263,730	Egypt ..	10,896	10,698
India ..	137,118	118,451	Bulgaria ..	9,904	14,066
Germany ..	93,604	114,600	Lithuania ..	8,960	10,802
Spain ..	87,391	94,969	Italy ..	8,780	12,346
Canada ..	76,053	108,159	Argentine Republic ..	8,539	16,372
Japan ..	75,390	87,810	Greece ..	(a) 6,817	9,134
Poland ..	61,147	73,956	Austria ..	6,612	8,848
Rumania ..	59,730	44,945	Latvia ..	6,473	7,842
Turkey ..	..	55,448	Irish Free State ..	5,982	5,925
United Kingdom ..	49,049	51,755	Australia ..	5,530	6,356
Czecho-Slovakia ..	46,694	54,918	Estonia ..	5,218	5,078
France ..	42,875	45,273	Tunis ..	5,071	6,614
French Morocco ..	37,081	46,297	Syria ..	4,920	5,082
Korea ..	32,219	38,747	Finland ..	4,611	6,208
Denmark ..	31,063	35,112	Chile ..	4,331	5,082
Algeria ..	27,337	35,816	Norway ..	3,986	4,972
Hungary ..	20,115	24,413	Belgium ..	3,630	3,998
Sweden ..	12,453	14,115	Netherlands ..	3,010	3,414

(a) Average, years 1922-1923.

(ii) *Yield per Acre.* The following table shows the average yield of barley per acre in various countries of the world, the return ranging from 49.15 bushels in Netherlands to 8.89 bushels in Syria :—

BARLEY.—AVERAGE YIELD PER ACRE IN VARIOUS COUNTRIES, 1922-1925.

Country.	Yield in Bushels per acre.		Country.	Yield in Bushels per acre.	
	Average, 1922-1924.	1925.		Average, 1922-1924.	1925.
Netherlands ..	49.15	46.52	Australia ..	19.26	16.96
Belgium ..	44.82	50.68	India ..	18.75	13.63
Denmark ..	44.35	47.16	Bulgaria ..	18.53	25.85
Irish Free State ..	37.18	40.69	Hungary ..	18.27	23.96
Chile ..	36.01	40.29	Austria ..	18.07	25.43
New Zealand ..	33.16	(b) 31.75	Greece ..	(a) 17.05	(c) 17.05
United Kingdom ..	32.67	35.14	Finland ..	16.76	22.86
Norway ..	30.43	35.80	Estonia ..	16.47	17.90
Sweden ..	29.93	34.31	Latvia ..	15.36	17.89
Germany ..	29.14	32.30	Korea ..	15.04	17.90
Egypt ..	28.49	29.20	Italy ..	14.48	21.43
Japan ..	28.17	35.59	Jugo-Slavia ..	13.38	19.72
Czecho-Slovakia ..	27.79	32.04	Argentine Republic ..	13.36	18.19
Canada ..	25.95	26.54	Rumania ..	13.29	10.67
France ..	24.92	26.22	French Morocco ..	13.13	13.74
United States of America ..	24.54	25.33	Union of South Africa ..	(a) 10.90	(c) 10.87
Spain ..	21.91	21.52	Algeria ..	9.25	10.80
Poland ..	20.85	24.44	Soviet Republics ..	(b) 9.89	17.89
Lithuania ..	20.16	21.32	Syria ..	(b) 8.89	8.92
Turkey ..	..	21.32			

(a) Average, years 1922-1923.

(b) Year 1924.

(c) Year 1923.

3. **World's Production.**—The area under barley in 1925 was slightly in excess of that of the previous year. There was an increase of 8 per cent. over the pre-war period for all countries for which figures are available, with the exception of the Soviet Republics, where in this important barley-growing centre the area is still 45 per cent. below the average for the years 1909 to 1913. Weather conditions were generally favourable in the principal producing areas, and the total yield exceeded the production of 1924 by 291 million bushels, and very nearly approached the pre-war average, although harvested from a smaller area. The production of barley in millions of bushels from 1909 onwards was as follows :—

	Year.				Production.
Average, 1909–1913	1,640 millions of bushels.
1923	1,464 „
1924	1,305 „
1925	1,596 „

4. **Price of Barley.**—The average price of barley in the Melbourne market during each of the past five years is given in the following table :—

BARLEY.—AVERAGE MELBOURNE PRICE PER BUSHEL, 1921 TO 1925.

Particulars.	1921.	1922.	1923.	1924.	1925.
	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
Malting barley	4 5	4 1½	4 0½	5 8	4 11
Cape barley	3 5	3 0	3 1½	4 7½	..

5. **Imports and Exports.**—The Australian export trade in barley has increased in recent years, the average annual shipments during the last five years amounting to 1,640,000 bushels, as compared with an average of 1,000,000 bushels for the previous quinquennium. The grain was consigned mainly to the United Kingdom and Belgium, South Australia being the principal exporting State. Particulars of the Australian overseas imports and exports for the years 1921–22 to 1925–26 are contained in the following table :—

BARLEY.—IMPORTS AND EXPORTS, AUSTRALIA, 1921–22 TO 1925–26.

Year.	Imports.		Exports.		Net Exports.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Bushels.	£	Bushels.	£	Bushels.	£
1921–22	7,052	1,891	1,935,330	396,883	1,928,778	394,992
1922–23	34	18	2,213,184	432,326	2,213,150	432,308
1923–24	4	3	1,828,788	318,912	1,828,784	318,909
1924–25	67,242	16,926	1,490,416	420,432	1,423,174	403,506
1925–26	32	14	729,528	142,948	729,496	142,934

In some years there is an export of Australian pearl and Scotch barley, the total for 1925–26 reaching 172,868 lb., valued at £1,155. The trade for the year was mainly with New Zealand and South Africa.

6. **Imports and Exports of Malt.**—In pre-war times the imports of malt into Australia were fairly extensive, the supply being obtained principally from the United Kingdom. Since the outbreak of the war in 1914, however, imports have practically ceased,

and in 1917-18 and 1920-21 fairly large quantities were exported to South Africa and Japan. Details of imports and exports for the years 1921-22 to 1925-26 are given hereunder :—

MALT.—IMPORTS AND EXPORTS, AUSTRALIA, 1921-22 TO 1925-26.

Year.	Imports.		Exports.		Net Exports.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Bushels.	£	Bushels.	£	Bushels.	£
1921-22	40	43	7,553	3,238	7,513	3,195
1922-23	28	63	4,618	2,006	4,590	1,943
1923-24	28	13	3,573	1,550	3,545	1,537
1924-25	43	29	3,228	1,698	3,185	1,669
1925-26	325	182	1,830	971	1,505	789

7. Value of Barley Crop. The estimated values of the barley crop of Australia for the seasons 1921-22 to 1925-26 were £1,139,736, £1,220,703, £879,811, £1,363,656 and £1,305,328. The extent to which the several States have contributed to the total in 1925-26 is shown in the following table :—

BARLEY.—VALUE OF CROP (a), 1925-26.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Total value ..	£27,430	£387,233	£19,109	£816,001	£31,245	£24,310	£1,305,328
Value per acre	£4/2/10	£3/14/11	£2/14/7	£3/8/2	£2/7/0	£4/13/0	£3/9/7

(a) Exclusive of the value of straw.

§ 8. Rice.

The success attending the efforts of rice growers on the Murrumbidgee Irrigation Area has proved that rice can be grown profitably on the settlement. Experimental rice cultivation has been carried on at the Yanco Experimental Farm for some years, but it was not until 1924-25 that an attempt was made to grow the cereal on a commercial basis. In that year 153 acres were cropped for a yield of 16,240 bushels. Consignments of "paddy" rice were forwarded to Sydney and Melbourne for the necessary treatment before marketing, and the results showed that the quality was much superior to the imported article. Owing to a late winter the preparation of the land was delayed in 1925-26, and adverse harvesting weather was encountered later in the season. Despite these drawbacks 1,556 acres were reaped for 61,098 bushels, or an average yield of 39.27 bushels per acre. The estimate of the area sown in 1926-27 is 5,100 acres, from which approximately 213,333 bushels of rice will be obtained. It is anticipated that 13,000 acres will be devoted to this crop in 1927-28. The annual importation of rice into Australia is about 25,000 tons, and reckoning on a 60-bushel crop per acre as an average, 22,000 acres would be necessary to fulfil this demand, and would mean something like £250,000 to the area. The total area of land suitable for rice-growing on the Irrigation Settlement is approximately 79,000 acres, of which about 40,000 acres could be cropped. Allowing for half under fallow, it would leave 20,000 acres under crop each year, and as the Settlement is only partially developed the acreage could be increased as more land is thrown open for irrigation. There appears to be little danger from over production, as once the local demands are met there is a ready market in the East, as well as in England and Germany. United States of America first grew rice commercially in 1912, and having met her own requirements is now exporting to European Countries and to Japan. The Commonwealth Government has protected the new industry by the imposition of a Customs duty of 3s. 4d. per cental on uncleaned rice and 6s. per cental on other than uncleaned.

§ 9. Other Grain and Pulse Crops.

In addition to the grain crops already specified, the only other grain and pulse crops extensively grown in Australia are beans, peas, and rye. The total area under the two former crops for the season 1925-26 was 51,426 acres, giving a yield of 609,659 bushels, or an average of 11.85 bushels per acre, being considerably less than the average yield for the decennium ended 1925-26, which was 16.28 bushels per acre. The States in which the greatest area is devoted to beans and peas are Tasmania, Victoria and South Australia. The total area under rye in Australia during the season 1925-26 was 3,684 acres, yielding 47,557 bushels, and giving an average of 12.91 bushels per acre. This was higher than the average for the past ten seasons, which was 11.38 bushels per acre. Nearly 44 per cent. of the rye grown during the season was produced in New South Wales, and 27 per cent. in Victoria.

§ 10. Potatoes.

1. *Progress of Cultivation.*—(i) *Area and Yield.* The principal potato-growing State is Victoria, which possesses peculiar advantages for the growth of this tuber. The rainfall is generally satisfactory, while the atmosphere is sufficiently dry to be unfavourable to the spread of Irish blight, consequently potatoes are grown in nearly every district except in the wheat belt. Tasmania comes next in order of importance, followed by New South Wales.

The area and production of potatoes in each State during the last five years are given hereunder:—

POTATOES.—AREA AND YIELD, 1921-22 TO 1925-26.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Fed. Cap. Ter.	Australia.
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AREA.

	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1921-22 ..	29,491	63,895	9,553	5,795	3,612	36,795	3	149,144
1922-23 ..	22,556	61,741	7,649	5,749	3,621	34,407	12	135,735
1923-24 ..	21,850	59,306	6,127	5,239	4,761	37,040	29	134,352
1924-25 ..	23,384	61,295	9,493	3,292	5,122	36,171	19	138,776
1925-26 ..	22,723	63,369	10,478	2,895	4,262	33,190	8	136,925

YIELD.

	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1921-22 ..	57,825	173,660	16,794	18,573	13,605	107,624	10	388,091
1922-23 ..	35,694	148,354	10,517	17,356	15,198	101,201	32	328,352
1923-24 ..	60,949	238,520	8,878	21,327	17,830	99,936	130	447,570
1924-25 ..	57,179	139,043	20,314	12,226	19,891	83,377	95	332,125
1925-26 ..	43,081	160,729	15,386	10,764	16,052	67,341	56	313,409

The cultivation of potatoes in Australia has declined by 5,704 acres during the past decennium, due mainly to a decrease in New South Wales of 11,384 acres. In Victoria and Tasmania—the chief potato-growing areas—increases of 4,346 and 3,074 acres respectively were recorded. The average yield during the last ten years was 344,162 tons, compared with 389,695 tons during the previous decade. The record production of 507,153 tons was obtained in 1906-7.

(ii) *Average Yield.* The suitability of the soil, climate, and general conditions for potato growing is evidenced by the satisfactory yields per acre which are generally obtained in Australia despite the little attention paid to this crop, the average yield during the past ten seasons being 2.56 tons per acre. The lowest average yield is that obtained in Queensland with an average of 1.83 tons for the same period.

Particulars for each State for the seasons 1921-22 to 1925-26, and for the past decennium, are given hereunder :—

POTATOES.—YIELD PER ACRE, 1921-22 TO 1925-26.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Fed. Cap. Ter.	Aus-tralia.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1921-22 ..	1.96	2.72	1.76	3.21	3.77	2.92	3.33	2.60
1922-23 ..	1.58	2.40	1.37	3.02	4.20	2.94	2.67	2.42
1923-24 ..	2.79	4.02	1.45	4.07	3.74	2.70	4.48	3.33
1924-25 ..	2.45	2.27	2.14	3.71	3.88	2.31	5.00	2.39
1925-26 ..	1.90	2.54	1.47	3.72	3.77	2.03	7.00	2.29
Averages for 10 seasons 1916-26	2.11	2.73	1.83	3.53	3.43	2.49	3.81	2.56

Concurrent with the decrease in acreage a falling off has occurred in the average yield per acre during the past decennium. This decline was in evidence throughout the principal States, and for Australia as a whole averaged nearly 4½ cwt. per acre. In Tasmania, where the decrease was greatest, the average yield diminished by 16 cwt. during the past decade. The comparatively low yield per acre is due to the neglect of rotation, and the insufficient use of manures. Rotation and manuring are carefully studied in many European countries, with the result that the production per acre is double that obtained in Australia.

(iii) *Relation to Population.* The average annual production of potatoes per head of the population of Australia for the past five seasons was approximately 141 lb. In Tasmania, where this crop is of far greater importance in relation to population than is the case in any other State, the production per head in 1906-7 was nearly a ton, while for the past five seasons it has averaged about 8½ cwt. Details for the seasons 1921-22 to 1925-26 are as follows :—

POTATOES.—PRODUCTION PER 1,000 OF POPULATION, 1921-22 TO 1925-26.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Fed. Cap. Ter.	Australia.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1921-22 ..	27	112	22	37	41	493	5	70
1922-23 ..	16	93	13	34	44	462	13	58
1923-24 ..	28	147	11	41	50	456	50	78
1924-25 ..	25	84	24	23	55	383	32	57
1925-26 ..	19	95	18	20	43	310	14	52

2. Imports and Exports.—Under normal conditions there is a moderate export trade in potatoes carried on by Australia principally with New Zealand, the Pacific Islands and the Philippine Islands. On the other hand, when the recurrence of droughts causes

a shortage in any of the States, importations are usually made from New Zealand. The quantities and values of the Australian oversea imports and exports of potatoes during the past five years are shown in the following table :—

POTATOES.—IMPORTS AND EXPORTS, AUSTRALIA, 1921-22 TO 1925-26.

Year.	Imports.		Exports.		Net Exports.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Tons.	£	Tons.	£	Tons.	£
1921-22	59	499	2,540	21,611	2,481	21,112
1922-23	72	957	2,061	23,599	1,989	22,642
1923-24	38	639	3,951	29,974	3,913	29,335
1924-25	71	877	5,832	30,283	5,761	29,406
1925-26	8,168	77,056	1,017	16,674	— 7,151	— 60,382

Note—The minus sign (—) signifies net imports.

3. Value of Potato Crop.—The estimated value of the potato crop of each State for the season 1925-26 is given in the following table, together with value per acre :—

POTATOES.—VALUE OF CROP, 1925-26.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Fed. Cap. Ter.	Australia.
	£	£	£	£	£	£	£	£
Total value ..	580,520	1,687,655	220,597	114,162	245,679	790,000	750	3,639,363
Value per acre	£25/10/11	£26/12/8	£21/1/1	£39/8/8	£57/12/11	£24/2/8	£93/15/0	£26/11/7

§ 11. Other Root and Tuber Crops.

1. Nature and Extent.—Root crops, other than potatoes, are not extensively grown in Australia, the total area devoted to them for the season 1925-26 being only 17,939 acres. The principal of these crops are onions, mangolds, sugar beet, turnips, and "sweet potatoes." Of these, onions, sugar beet and mangolds are most largely grown in Victoria, turnips in Tasmania, and sweet potatoes in Queensland. The total area under onions in Australia during the season 1925-26 was 6,460 acres, giving a yield of 27,082 tons, and averaging 4.19 tons per acre. The area devoted in 1925-26 to root crops other than potatoes and onions, viz., 11,479 acres, yielded 78,332 tons, and gave an average of 6.82 tons per acre. The areas and yields here given are exclusive of the production of "market gardens," reference to which is made further on.

2. Imports and Exports.—The only root crop, other than potatoes, in which any considerable oversea trade is carried on by Australia is that of onions. During the past five years 3,561 tons, valued at £48,638, were imported, principally from Japan, the United States of America, New Zealand, and Canada, while during the same period, the exports totalled 27,566 tons, valued at £256,585, and were shipped mainly to New Zealand, the Pacific Islands, the Philippine Islands, and the United States of America.

§ 12. Hay.

1. Nature and Extent.—(i) *Area and Yield.* As already stated, the chief crop in Australia is wheat grown for grain. Next in importance is hay, which for the season 1925-26 averaged nearly 17 per cent. of the total area cropped. In most European countries the hay consists almost entirely of meadow and other grasses, but in Australia a very large proportion is composed of wheat and oats. Large quantities of lucerne hay are made also, particularly in New South Wales and Queensland. The area under hay of all kinds in the several States during the last five years is given hereunder. The progress from 1860 onwards may be traced from the graph accompanying this chapter.

HAY.—AREA AND YIELD, 1921-22 TO 1925-26.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	N. Ter.	Fed. Cap. Ter.	Aus- tralia.
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AREA.

	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1921-22	749,738	1,159,135	98,155	559,285	335,561	91,443	12	1,190	2,994,519
1922-23	888,250	1,261,408	78,050	577,810	431,633	100,088	10	1,207	3,338,456
1923-24	1,022,118	1,277,606	46,909	631,267	329,534	97,183	10	1,599	3,406,226
1924-25	762,242	1,120,312	95,007	562,253	397,591	87,945	10	1,045	3,026,405
1925-26	749,192	1,013,613	66,828	517,220	391,142	92,595	..	1,413	2,832,003

YIELD.

	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1921-22	1,027,833	1,548,453	138,675	680,201	368,720	136,991	25	1,291	3,902,189
1922-23	1,059,529	1,665,089	101,069	697,189	457,371	167,282	10	1,450	4,148,989
1923-24	1,170,737	1,541,287	43,407	781,768	368,122	144,298	5	2,310	4,051,934
1924-25	1,151,238	1,492,588	136,804	716,749	448,525	121,110	30	1,375	4,068,419
1925-26	864,006	929,068	99,742	612,671	355,269	114,920	..	2,269	2,977,945

In all the States marked fluctuations occur yearly in the area under hay. These fluctuations are due to various causes, the principal being the variations in the relative prices of grain and hay, and the favourableness or otherwise of the season for a grain crop. Thus, crops originally sown for grain are frequently cut for hay owing to the improved price of that commodity, or owing to the fact that the outlook for grain is not satisfactory. On the other hand, improved grain prices or the prospect of a heavy yield will frequently cause crops originally intended for hay to be left for grain. The area under hay in Australia during the season 1915-16, *i.e.*, 3,597,771 acres, was the highest on record, whilst the average during the past decennium amounted to 2,953,413 acres.

(ii) *Average Yield.* The States in which the highest average yields per acre have been obtained during the last decennium are Tasmania, Queensland and Victoria, in the two former of which States also the smallest areas are devoted to this crop. For the same period the lowest yield for Australia as a whole was that of 19 cwt. per acre in 1919-20; while the highest was that of 29 cwt. in 1920-21, followed closely by 27 cwt.

obtained in 1924-25. The average for the decennium was 24½ cwt. Particulars for the several States for the seasons 1921-22 to 1925-26, and the average for the last ten years, are given hereunder:—

HAY.—YIELD PER ACRE, 1921-22 TO 1925-26.

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N. Ter.	Fed. Cap. Ter.	Aus- tralia.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1921-22	1.37	1.34	1.41	1.22	1.10	1.50	2.08	1.08	1.30
1922-23	1.19	1.32	1.29	1.21	1.06	1.67	1.00	1.20	1.24
1923-24	1.15	1.21	0.93	1.24	1.12	1.48	0.50	1.44	1.19
1924-25	1.51	1.33	1.44	1.27	1.13	1.38	3.00	1.32	1.34
1925-26	1.15	0.92	1.49	1.18	0.91	1.24	..	1.60	1.05
Average for 10 seasons 1916-1926 ..	1.20	1.25	1.35	1.21	1.05	1.41	2.93	1.51	1.22

(iii) *Relation to Population.* During the past five seasons the Australian hay production per head of population has varied between 10 cwt. in 1925-26 and 14½ cwt. in 1922-23; averaging about 13½ cwt. per head for the period. Hay production per head of population is highest in South Australia. Details for the seasons 1921-22 to 1925-26 are given hereunder:—

HAY.—YIELD PER 1,000 OF POPULATION, 1921-22 TO 1925-26.

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N. Ter.	Fed. Cap. Ter.	Aus- tralia.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1921-22	483	998	180	1,353	1,100	627	7	625	708
1922-23	488	1,047	128	1,359	1,331	764	3	567	737
1923-24	530	948	54	1,490	1,040	659	1	881	705
1924-25	511	901	163	1,331	1,231	556	8	459	693
1925-26	376	552	116	1,111	955	530	..	576	497

(iv) *Varieties Grown.* Particulars concerning the kinds of crop cut for hay are furnished in the returns prepared by five of the States. In the case of Tasmania the bulk consists of oaten hay; full particulars, however, are not available for that State.

Details for the past five seasons are given in the following table:—

HAY.—VARIETIES GROWN, 1921-22 TO 1925-26.

Varieties.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
NEW SOUTH WALES—					
	Acres.	Acres.	Acres.	Acres.	Acres.
Wheaten	467,068	597,959	695,369	388,422	449,653
Oaten	203,074	216,136	241,161	274,408	209,047
Barley	899	1,265	1,584	1,150	781
Lucerne	77,527	72,337	83,256	97,994	89,368
Other	1,170	553	748	268	343
Total	749,738	888,250	1,022,118	762,242	749,192

HAY.—VARIETIES GROWN, 1921-22 TO 1925-26—*continued*.

Varieties.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	Acres.	Acres.	Acres.	Acres.	Acres.
VICTORIA—					
Wheaten	130,181	213,219	163,826	87,312	230,364
Oaten	1,001,256	1,021,216	1,084,136	1,000,382	759,209
Lucerne, etc. ..	27,698	26,973	29,644	32,618	24,040
Total ..	1,159,135	1,261,408	1,277,606	1,120,312	1,013,613
QUEENSLAND—					
Wheaten	13,837	8,834	8,714	9,457	10,514
Oaten	12,480	4,542	1,344	8,304	2,214
Lucerne	67,183	60,042	33,505	61,089	50,526
Other.. ..	4,655	4,632	3,346	16,157	3,574
Total ..	98,155	78,050	46,909	95,007	66,828
SOUTH AUSTRALIA—					
Wheaten	325,769	359,834	381,962	304,183	273,300
Oaten	225,878	208,769	234,899	246,825	234,923
Lucerne	4,145	4,973	7,270	8,344	6,218
Other.. ..	3,493	4,234	7,136	2,901	2,779
Total ..	559,285	577,810	631,267	562,253	517,220
WESTERN AUSTRALIA—					
Wheaten	222,209	307,142	223,770	242,216	238,110
Oaten	111,386	123,232	103,723	153,315	150,534
Lucerne	125	142	175	339	368
Other.. ..	1,841	1,117	1,866	1,721	2,130
Total ..	335,561	431,633	329,534	397,591	391,142

Wheaten hay is the principal hay crop in New South Wales, South Australia, and Western Australia, oaten hay in Victoria and Tasmania, and lucerne in Queensland.

2. *Comparison with Other Countries.*—As already noted, the hay crops of most European countries consist of grasses of various kinds, amongst which clover, lucerne, sainfoin and rye grass occupy prominent places. The statistics of hay production in these countries are not prepared on a uniform basis, consequently any attempt to furnish extensive comparisons would be misleading. It may be noted, however, that in Great Britain the production of hay from clover, sainfoin, etc., for the year 1926 amounted to 3,071,000 tons from 1,991,469 acres, while from permanent grasses a yield of 5,050,000 tons of hay was obtained from 4,524,612 acres, giving a total of 8,121,000 tons from 6,516,081 acres, or about 25 cwt. per acre.

3. *Imports and Exports.*—Under normal conditions hay, whether whole or in the form of chaff, is somewhat bulky for oversea trade, and consequently does not in such circumstances figure largely amongst the imports and exports of Australia. During 1925-26, 222 tons were imported, while the exports amounted to 9,601 tons, valued at £57,105, the principal purchases being made by New Zealand, India, the Philippine Islands, Malaya (British), Ceylon, and Netherlands East Indies.

4. **Value of Hay Crop.**—The following table shows the value and the value per acre of the hay crop of the several States for the season 1925-26 :—

HAY.—VALUE OF CROP, 1925-26.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	Fed. Cap. Ter.	Australia.
Total Value ..	£ 7,281,630	£ 4,645,340	£ 652,630	£ 2,174,982	£ 1,527,305	£ 775,710	£ ..	£ 19,910	£ 17,077,507
Value per acre	£9/14/5	£4/11/8	£9/15/4	£4/4/1	£3/18/1	£8/7/7	£ ..	£14/1/10	£6/0/7

§ 13. Green Forage.

1. **Nature and Extent.**—(i) *Area.* In all the States a considerable area is devoted to the production of green forage, mainly in connexion with the dairying industry. The total area so cropped is considerably swollen in adverse seasons by the inclusion of wheat or other cereal crops deemed unsuitable for the production of either grain or hay. Under normal conditions the principal crops cut for green forage are maize, sorghum, oats, barley, rye, rape, and lucerne, while small quantities of sugar-cane also are so used. Particulars concerning the area under green forage in the several States during each of the last five years are given in the following table :—

GREEN FORAGE.—AREA, 1921-22 TO 1925-26.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	Fed. Cap. Ter.	Australia.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1921-22	128,965	89,410	147,135	50,121	27,396	9,481	..	..	452,508
1922-23	499,679	102,451	188,636	61,000	32,997	9,073	..	35	893,871
1923-24	429,765	107,371	306,693	55,282	51,754	10,389	50	7	961,311
1924-25	166,030	99,531	134,109	73,023	78,586	13,602	..	43	564,924
1925-26	479,434	107,873	247,482	102,732	100,558	17,101	..	30	1,055,210

(ii) *Relation to Population.* Particulars of the area under green forage per 1,000 of the population for the seasons 1921-22 to 1925-26 are given hereunder :—

GREEN FORAGE.—AREA PER 1,000 OF POPULATION, 1921-22 TO 1925-26.

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	Fed. Cap. Ter.	Australia.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1921-22 ..	61	58	191	100	82	43	..	..	82
1922-23 ..	230	64	239	119	96	41	..	14	159
1923-24 ..	195	66	378	105	146	47	14	3	167
1924-25 ..	74	60	161	136	216	62	..	14	96
1925-26 ..	209	64	287	186	270	79	..	8	176

2. **Value of Green Forage Crops.**—The value of these crops is variously estimated in the several States, and the Australian total for the season 1925-26 may be taken approximately as £3,380,785 or about £3 4s. 1d. per acre.

§ 14. Sugar-cane and Sugar-beet.

1. **Sugar-cane.**—(i) *Area.* Sugar-cane for sugar-making purposes is grown only in Queensland and New South Wales, and much more extensively in the former than in the latter. Thus, of a total area of 288,872 acres under sugar-cane in Australia for the season 1925-26, there were 269,509 acres, or about 93½ per cent., in Queensland. Sugar-cane growing appears to have been started in Australia in or about 1862, as the

earliest statistical record of sugar-cane as a crop is that which credits Queensland with an area of 20 acres for the season 1862-3. In the following season the New South Wales returns show an area of 2 acres under this crop. The area under cane in New South Wales reached its maximum in 1895-6 with a total of 32,927 acres. Thenceforward with slight variations it gradually fell to 10,490 acres in 1918-19, but from that year onwards considerable improvement has taken place, nearly 8,000 acres being added to the cane-fields during the past five years. In Queensland, although fluctuations in area are manifest, the general trend has been upwards, the acreage under cane for the season 1925-26 being the highest on record. The area under sugar-cane in Australia from 1921-22 is given in the following table, and particulars for earlier years may be seen from the accompanying graphs :—

SUGAR-CANE.—AREA, 1921-22 TO 1925-26.

Season.	New South Wales.		Queensland.		Australia.		
	Productive.	Unproductive.	Productive.	Unproductive.	Productive.	Unproductive.	Total.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1921-22 ..	5,400	7,380	122,956	61,557	128,356	68,937	197,293
1922-23 ..	5,879	8,704	140,850	61,453	146,729	70,157	216,886
1923-24 ..	6,733	10,582	138,742	81,223	145,475	91,805	237,280
1924-25 ..	7,761	12,232	167,649	85,870	175,410	98,102	273,512
1925-26 ..	8,688	10,675	189,675	79,834	198,363	90,509	288,872

(ii) *Productive and Unproductive Cane.* The areas given in the preceding table represent sugar-cane grown for purposes other than green forage. The whole area was not necessarily cut for crushing during any one season, there being always a considerable amount of young and "stand over" cane, as well as a small quantity required for plants. The season in which the highest acreage is recorded may not show the greatest area of productive cane cut for crushing, as was evidenced in 1923-24, when, although the total acreage was greater, the area cut was less than in the previous year.

(iii) *Yield of Cane and Sugar.* Queensland statistics of the production of sugar-cane are not available for dates prior to the season 1897-8. In that season the total for Australia was 1,073,883 tons, as against the maximum production of 3,965,587 tons in 1925-26. The average production of cane during the decennium ended 1925-26 was 2,349,975 tons. The three highest yields of sugar were in 1925-26, 1924-25 and 1917-18, the quantities being 517,970 tons, 427,327 tons, and 327,589 tons respectively. The decennial average was 291,605 tons of sugar. Particulars relative to the total yields of cane and sugar for the past five years are as follows :—

SUGAR-CANE.—YIELD OF CANE AND SUGAR, 1921-22 TO 1925-26.

Season.	New South Wales.		Queensland.		Australia.	
	Cane.	Sugar.	Cane.	Sugar.	Cane.	Sugar.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1921-22 ..	149,474	17,806	2,287,416	282,198	2,436,890	300,004
1922-23 ..	147,992	18,580	2,167,990	287,785	2,315,982	306,365
1923-24 ..	132,084	16,829	2,045,808	269,175	2,177,892	286,004
1924-25 ..	228,978	26,682	3,171,341	400,645	3,400,319	427,327
1925-26 ..	297,335	32,385	3,668,252	485,585	3,965,587	517,970

The cane cut in 1925-26 amounted to 3,965,587 tons. The season was extremely favourable, and the sugar content of the cane high, with the result that the output of raw sugar totalled 517,970 tons, the record production to date, and more than 90,000 tons greater than the previous highest obtained in 1924-25. The assistance given by the Commonwealth and State Governments during recent years has greatly benefited the sugar industry. In 1920-21 the area cultivated in Queensland was 162,619 acres and

the number of cane farmers was 3,930, whereas in the record year, 1925-26, 269,509 acres were under cultivation and the number of growers of 5 acres and over had risen to 6,730, or an increase of 2,800 in the five years.

Final figures for the 1926-27 season are not yet available, but the quantity of cane cut has been estimated at 3,252,000 tons. Owing to the dry season experienced the sugar content was high and 413,296 tons of sugar were crushed.

A preliminary estimate of the production of sugar in 1927-28 places the amount at 450,000 tons.

(iv) *Average Yield of Cane and Sugar.* The average yield per acre of productive cane is much higher in New South Wales than in Queensland, the average during the last decade being 26.62 tons for the former and 17.80 for the latter State. For some years prior to 1910-11, the yield in New South Wales remained practically constant at about 21 tons per acre. Since that year, the average yield per acre has shown an upward tendency, reaching 30 tons or over during 1913-14, 1914-15, 1917-18, and 1925-26. The climatic conditions affecting the long coastal area where this industry is situated in Queensland are largely responsible for the great variations in the yields of sugar for that State, the figures ranging during the past decennium from 12.20 tons per acre in 1915-16 to 24.88 tons in 1917-18.

The greatest production of sugar per acre crushed during the past decennium occurred in 1917-18, when 2.87 tons were obtained, the respective crushings for New South Wales and Queensland averaging 3.56 and 2.83 tons. The average yield per acre for the past ten years was 3.10 tons in New South Wales, and 2.26 tons in Queensland.

(v) *Quality of Cane.* The quantity of cane required to produce a ton of sugar varies with the variety sown, the district where grown, and also with the season, and for the decennium ended 1925-26 averaged 8.06 tons, the average production of sugar being 12.41 per cent. of the weight of cane crushed. As the result of the systematic study of cane culture in Queensland, the sugar contents of the cane have been considerably increased in recent years. During the ten years ended 1908 it required on the average 9.20 tons of cane to produce 1 ton of sugar, whereas the average figure for the past seven years has been reduced to 7.75 tons.

SUGAR-CANE AND SUGAR.—YIELD PER ACRE, 1921-22 TO 1925-26.

Season.	New South Wales.			Queensland.			Australia.		
	Cane per acre Crushed.	Sugar per acre Crushed.	Cane to each ton of Sugar.	Cane per acre Crushed.	Sugar per acre Crushed.	Cane to each ton of Sugar.	Cane per acre Crushed.	Sugar per acre Crushed.	Cane to each ton of Sugar.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1921-22	27.68	3.30	8.40	18.60	2.30	8.11	18.99	2.34	8.12
1922-23	25.17	3.16	7.97	15.39	2.04	7.53	15.78	2.09	7.56
1923-24	19.62	2.50	7.85	14.75	1.94	7.60	14.97	1.97	7.60
1924-25	29.50	3.44	8.58	18.92	2.39	7.92	19.38	2.44	7.96
1925-26	34.22	3.73	9.18	19.34	2.56	7.55	19.99	2.61	7.66
Average 10 seasons									
1916-26	26.62	3.10	8.59	17.80	2.22	8.02	18.21	2.26	8.06

The Bureau of Sugar Experiment Stations established in Queensland is rendering splendid service to the sugar industry in that State, by advocating and demonstrating better methods of cultivation, the use of green manures, lime, and fertilizers, together with the introduction and distribution of improved varieties of sugar cane.

The Falkiner cane-harvester was further tried out in North Queensland during 1926-27, and although the machine is promising, it requires further alterations and adjustments to enable it to operate successfully in heavy crops of green cane. When these have been effected better results will be achieved. Improvements in cultivating machinery, moreover, are continually being made, and the use of tractors is universal in the sugar districts of North Queensland.

(vi) *Relation to Population.* The yield of sugar in Australia during the five years 1921-22 to 1925-26 was more than sufficient to supply local requirements, the average production during the period amounting to 143 lbs. per head of population, while the

consumption was estimated to average 117 lbs. per head. Details for the period 1921-22 to 1925-26 are as follows :—

SUGAR.—PRODUCTION PER HEAD OF POPULATION, 1921-22 TO 1925-26.

State.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	lbs.	lbs.	lbs.	lbs.	lbs.
New South Wales ..	19	19	17	27	32
Queensland ..	821	818	743	1,098	1,263
Australia ..	122	122	111	166	194

2. *Sugar-beet.*—(i) *Area and Yield.* The following table shows the acreage under sugar-beet, and the production in Victoria during the past five seasons :—

SUGAR-BEET:—AREA AND PRODUCTION IN VICTORIA, 1921-22 TO 1925-26.

Particulars.		1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
Area harvested ..	acres	1,600	2,045	1,937	1,897	1,880
Production ..	tons	16,577	20,444	29,512	24,468	21,194
Average per acre	„	10.36	10.00	15.24	12.90	11.27
Sugar produced ..	„	1,872	2,784	3,499	3,017	2,315

The 1925-26 season was below average as regards sugar production. Growers were paid 40s. a ton for their beets, and a net profit of £3,529 was realized by the sugar-beet factory as the result of the year's operations.

(ii) *Encouragement of Beet-growing.* During recent years an effort has been made to revive the sugar-beet industry in Victoria. The State Government has advanced its irrigation scheme on the Macalister River to provide water for part of the district for the present season and eventually to serve the whole area. A fine grade of white sugar is manufactured at Maffra, and considerable quantities of beet pulp and molasses are distributed for stock feed.

3. *Sugar Bounties.*—The provision of bounties or similar aids to the sugar growers of Australia early occupied the attention of the Commonwealth Parliament, the object in view being that of assisting the industry, and at the same time diminishing the employment of coloured labour in connexion therewith. An account of the various Acts in connexion with sugar bounties and sugar excise tariffs will be found on pages 394 to 396 of Year Book No. 6. In 1912 the Sugar Excise Repeal Act and the Sugar Bounty Abolition Act were passed by the Federal Parliament, conditionally on the Queensland Parliament approving of legislation prohibiting the employment of coloured labour in connexion with the industry. The State Sugar Cultivation Act, the Sugar Growers Act, and the Sugar Growers' Employees Act of 1913, having been approved of, the 1912 Federal Acts, which repeal all previous enactments in regard to excise on sugar and bounty on cane, came into force by proclamation in July, 1913.

4. *Sugar Purchase by Commonwealth Government.*—The steps taken by the Commonwealth Government in connexion with this matter were alluded to in previous issues of the Year Book. (See No. 18, p. 720.)

By agreement between the Commonwealth and Queensland Governments in 1925, it was arranged that the embargo on the importation of foreign sugar should be extended for three years from 1st September, 1925. The price payable for the raw sugar needed for home consumption was fixed at £27 per ton, less £1 per ton to defray administrative and general expenses of the Sugar Board, and to provide special concessions to certain consumers of sugar, while for that portion reserved for export the price was fixed at a much lower figure, the latter of course being subject to realization adjustments. Final calculations by the Sugar Board showed that 56 per cent. of the total production in 1925-26 was consumed in Australia, while the net value per ton of exported sugar was £11 5s. 9d., making the average price for the whole crop £19 10s. 7d. per ton.

Owing to the reduced production in the 1926-27 season 81½ per cent. was delivered for home consumption, and the net value of the surplus exported was £14 18s. 10d. per ton, making an average return of £24 10s. 10d. per ton.

5. **Imports and Exports of Sugar.**—Owing to the increased production of sugar in Australia during the past four years the imports have dwindled to insignificant proportions. Supplies to make up for local deficiencies are usually drawn from Java and Fiji. Particulars concerning the imports and exports of cane sugar for the past five years are as follows :—

CANE SUGAR.—IMPORTS AND EXPORTS, AUSTRALIA, 1921-22 TO 1925-26.

Year.	Oversea Imports.		Oversea Exports.		Net Exports.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Tons.	£	Tons.	£	Tons.	£
1921-22	6,888	174,850	1,918	60,145	—4,970	—114,705
1922-23	4,551	87,317	5,127	159,897	576	72,580
1923-24	525	12,200	15,591	443,183	15,066	430,983
1924-25	3,046	65,579	82,747	2,162,309	79,701	2,096,730
1925-26	345	9,425	208,805	5,313,135	208,460	5,303,710

Note.—The minus sign (—) signifies net imports.

6. **Sugar By-products.**—Large quantities of molasses are produced as a by-product in the sugar mills, but, at present, much of it is allowed to run to waste. Details for a series of years of the quantity produced and the proportions used for distilling, fuel, manure and other purposes will be found in Chapter XXII.—“Manufacturing.”

Keen interest has recently been aroused in the utilization of the by-products of sugar manufacture. A distillation plant has been erected at the Plane Creek Central Sugar Mill, Mackay, where molasses and cassava (a starch-bearing plant) are being converted into power alcohol. Varieties of cassava with a high starch content have been specially introduced from Java by the Queensland Government. One ton of molasses will produce approximately 65 gallons of power alcohol, and a similar quantity of cassava roots will yield 39 gallons.

Steps are also being taken to launch an industry to undertake the manufacture of a building material known as “megass board” from megass or bagasse, i.e., the residuum of crushed fibre left over from the sugar cane after the removal of the sugar content. The Australian megass board is claimed to possess superior qualities to the “celotex” made from bagasse in America.

7. **Sugar Prices.**—The prices of sugar per ton of raw and refined sugar and the retail price in Australia from 1915 to date are given hereunder :—

AUSTRALIAN SUGAR PRICES, 1915 TO 1925.

Date.	Raw Sugar.		Refined Sugar.	
	Price to Grower and Miller per Ton.		Wholesale Price per Ton.	Retail Price per lb.
	£	s. d.	£ s. d.	d.
19.7.15 to 15.1.16	18	0 0	25 10 0	3
16.1.16 to 30.6.17	18	0 0	29 5 0	3½
1.7.17 to 24.3.20	21	0 0	29 5 0	3½
25.3.20 to 30.6.20	21	0 0	49 0 0	6
1.7.20 to 31.10.22	30	6 8	49 0 0	6
1.11.22 to 30.6.23	30	6 8	42 0 0	5
1.7.23 to 21.10.23	27	0 0	42 0 0	5
22.10.23 to 31.8.25	26	0 0	37 11 4	4½
1.9.25 to 31.8.28	(a)26	10 0	37 6 8	4½

(a) The price of raw sugar for the years 1925 to 1928 is estimated at £26 10s. per ton, but, as the result of the values received for the surpluses exported, the actual price obtained in 1925-26 was £19 10s. 7d., and in 1926-27, £24 10s. 10d.

§ 15. Vineyards.

1. *Progress of Cultivation.*—(i) *Area of Vineyards.* The date of introduction of the vine into Australia has been variously set down by different investigators, the years 1815 and 1828 being principally favoured. It would seem, however, that plants were brought out with the first fleet in 1788, consequently the Australian vine is as old as Australian settlement. As already mentioned, a report by Governor Hunter gives the area under vines in 1797 as 8 acres. From New South Wales the cultivation spread to Victoria and South Australia, and these States have now far outstripped the mother State in the area under this crop. In Queensland and Western Australia also, vine-growing has been carried on for many years, but little progress has been made. In Tasmania the climate is not favourable to the growth of grapes. The purposes for which grapes are grown in Australia are three in number, viz. :—(a) for wine-making, (b) for table use, and (c) for drying. The total area under vines in the several States during each of the last five years is given in the following table, while particulars from 1860 onwards may be gathered from the graph accompanying this chapter :—

VINEYARDS.—AREA, 1921–22 TO 1925–26.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1921–22..	12,583	33,175	1,281	41,424	3,951	There are no vineyards in Tasmania.	92,414
1922–23..	13,734	38,892	1,242	46,750	4,858		105,476
1923–24..	14,559	42,599	1,269	49,303	5,235		112,965
1924–25..	14,737	42,467	1,579	50,280	5,331		114,394
1925–26..	14,465	40,712	1,656	50,594	5,270		112,697

The area under vines in Australia amounted to 65,673 acres in 1904–5. From that year onwards a gradual decline set in, and at the end of 1914–15 the acreage had decreased to 60,985. Since that date, however, as the result of satisfactory annual increases, the 1904–5 figure was soon exceeded, and the total for 1924–25 was the highest on record.

The wine-growing industry in Australia, especially in Victoria and New South Wales, received a severe check by various outbreaks of phylloxera. With a view to the eradication of this disease extensive uprooting of vineyards in the infested areas was undertaken, while further planting within such areas, except with phylloxera-resistant stocks, was prohibited.

(ii) *Wine Production.* The production of wine has not increased as rapidly as the suitability of soil and climate would appear to warrant. The cause is probably twofold, being due in the first place to the fact that Australians are not a wine-drinking people, and consequently do not provide a local market for the product, and in the second, to the fact that the new and comparatively unknown wines of Australia find it difficult to establish a footing in the markets of the old world, owing to the competition of well-known brands. Active steps are being taken in various ways to bring the Australian wines under notice, and the Commonwealth bounty of 4s. per gallon on the export of fortified wine of specified strength has greatly benefited the industry during the past three years.

Particulars of the quantity of wine produced in the several States during the past five seasons are given in the table hereunder :—

WINE.—PRODUCTION, 1921-22 TO 1925-26.

Season.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia.
	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	No production of wine in Tasmania.	Gallons.
1921-22 ..	627,105	1,335,066	57,793	6,370,310	152,299		8,542,573
1922-23 ..	771,206	1,717,490	53,171	8,653,579	232,347		11,427,793
1923-24 ..	1,459,778	2,177,127	37,242	10,756,538	233,196		14,663,881
1924-25 ..	1,171,264	1,368,765	33,119	10,502,381	223,761		13,299,290
1925-26 ..	1,240,893	1,637,274	39,375	13,074,874	238,726		16,231,142

(iii) *Relation to Population.* In relation to population the areas of the vineyards of the several States show an upward tendency during the last five years, the Australian total increasing from 17 to 19 acres per 1,000 of the population during the period. Details for the seasons 1921-22 to 1925-26 are given in the succeeding table :—

VINEYARDS.—AREA PER 1,000 OF POPULATION, 1921-22 TO 1925-26.

Season.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1921-22 ..	6	21	2	82	12	..	17
1922-23 ..	6	24	2	91	14	..	19
1923-24 ..	7	26	2	94	15	..	20
1924-25 ..	7	26	2	93	15	..	19
1925-26 ..	6	24	2	92	14	..	19

2. *Imports and Exports of Wine.*—(i) *Imports.* The principal countries of origin of wine imported into Australia are France, Spain, Portugal, and Italy, the bulk of the sparkling wines coming from France. Particulars relative to the importations of wine into Australia during the past five years are given hereunder :—

WINE.—IMPORTS, AUSTRALIA, 1921-22 TO 1925-26.

Year.	Quantity.			Value.		
	Sparkling.	Other.	Total.	Sparkling.	Other.	Total.
	Gallons.	Gallons.	Gallons.	£	£	£
1921-22 ..	7,398	37,814	45,212	20,781	35,830	56,611
1922-23 ..	15,368	43,199	58,567	41,305	32,692	73,997
1923-24 ..	21,770	54,988	76,758	56,069	38,434	94,503
1924-25 ..	28,324	52,999	81,323	72,042	33,743	105,785
1925-26 ..	25,896	61,611	87,407	65,763	37,432	103,195

(ii) *Exports.* The principal countries to which wine is exported from Australia are the United Kingdom and New Zealand, a small but fairly regular export trade being also carried on with India, Ceylon, and the Pacific Islands. Details concerning the exports of wine from Australia during the past five years are given in the following table :—

WINE.—EXPORTS, AUSTRALIA, 1921-22 TO 1925-26.

Year.	Quantity.			Value.		
	Sparkling.	Other.	Total.	Sparkling.	Other.	Total.
	Gallons.	Gallons.	Gallons.	£	£	£
1921-22 ..	2,177	602,853	605,030	5,451	155,487	160,938
1922-23 ..	2,607	703,710	706,317	5,626	159,368	164,994
1923-24 ..	3,601	987,703	991,304	7,189	210,132	217,312
1924-25 ..	4,003	877,466	881,469	8,304	180,387	188,691
1925-26 ..	3,564	1,719,045	1,722,609	7,156	364,766	371,922

3. *Other Viticultural Products.*—(i) *Table Grapes.* In addition to grapes for wine-making purposes, large quantities are grown in all the States for table use, while, particularly in Victoria and South Australia, the drying of raisins and currants is extensively carried on. The quantities of table grapes grown in the several States during the past five seasons are as follows :—

TABLE GRAPES.—PRODUCTION, 1921-22 TO 1925-26.

Season.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1921-22 ..	2,914	3,075	602	1,027	1,894	..	9,512
1922-23 ..	3,513	3,304	570	1,314	2,344	..	11,045
1923-24 ..	3,983	2,726	1,038	1,056	2,662	..	11,465
1924-25 ..	3,590	2,672	961	1,156	2,069	..	10,448
1925-26 ..	3,837	3,616	996	1,063	2,284	..	11,796

(ii) *Raisins and Currants.* Statistics of the quantities of raisins and currants dried during each of the past five seasons are given in the following table :—

RAISINS AND CURRANTS.—QUANTITIES DRIED, 1921-22 TO 1925-26.

Season.	N.S. Wales.		Victoria.		South Aust.		Western Aust.		Australia.	
	Raisins.	Currants.	Raisins.	Currants.	Raisins.	Currants.	Raisins.	Currants.	Raisins.	Currants.
	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.
1921-22 ..	6,696	4,189	190,451	75,042	66,083	76,534	6,790	6,371	270,020	162,136
1922-23 ..	11,253	5,768	285,520	98,081	69,261	96,807	6,748	9,250	372,782	200,906
1923-24 ..	16,967	6,658	438,827	150,867	125,006	131,000	9,606	15,789	590,406	304,294
1924-25 ..	19,180	5,953	366,999	104,948	139,385	109,446	7,940	12,689	533,504	233,036
1925-26 ..	23,168	6,132	351,506	123,733	111,261	103,910	9,631	10,919	495,566	244,694
Average 10 seasons 1916-26	10,004	4,027	234,444	85,973	71,651	82,531	5,614	7,189	321,713	179,720

4. Imports and Exports of Raisins and Currants.—The following table gives the oversea imports and exports of raisins and currants during each of the past five years :—

RAISINS AND CURRANTS.—IMPORTS AND EXPORTS, AUSTRALIA,
1921-22 TO 1925-26.

Year.	Oversea Imports.		Oversea Exports.		Net Exports.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
RAISINS.						
	lbs.	£	lbs.	£	lbs.	£
1921-22 ..	219,499	12,021	13,206,052	550,838	12,986,553	538,817
1922-23 ..	81,018	5,292	19,240,729	721,641	19,159,711	716,349
1923-24 ..	433,907	8,137	26,399,830	803,365	25,965,923	795,228
1924-25 ..	193,372	8,682	56,046,855	1,392,566	55,853,483	1,383,884
1925-26 ..	103,094	5,224	35,556,767	1,026,339	35,453,673	1,021,115
CURRANTS.						
1921-22 ..	3,577	102	10,941,175	344,238	10,937,598	344,136
1922-23 ..	3,236	90	14,502,772	404,184	14,499,536	404,094
1923-24 ..	4,267	178	16,458,561	420,380	16,454,294	420,202
1924-25 ..	7,852	231	21,558,804	509,179	21,550,952	508,948
1925-26 ..	15,147	494	18,844,854	402,283	18,829,707	401,789

The quantities of raisins and currants imported into Australia were generally greater than the exports for all years prior to 1912, when the increased production in Australia left a surplus available for export. During the last five years the value of the exports exceeded that of the imports by £6,534,562, the average annual excess for the quinquennium being £1,306,912.

§ 16. Orchards and Fruit Gardens.

1. Progress of Cultivation.—(i) *Area.* Fruit-growing made rapid progress in Australia until in 1921-22 the maximum area of 281,149 acres was planted. Owing to unsatisfactory marketing of the surplus production, the area has declined since that date by some 6,000 acres, the decrease being most noticeable in Victoria and Tasmania. The total area under orchards and fruit gardens in the several States is given in the following table :—

ORCHARDS AND FRUIT GARDENS.—AREA, 1921-22 TO 1925-26.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Fed. Cap. Ter.	Australia.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1921-22 ..	75,746	89,491	28,035	32,295	19,012	36,565	5	281,149
1922-23 ..	73,134	86,014	29,431	33,003	19,405	34,689	11	275,687
1923-24 ..	72,372	85,570	29,568	33,472	18,776	34,076	11	273,845
1924-25 ..	73,972	85,358	31,738	33,319	18,520	33,992	5	276,904
1925-26 ..	74,532	82,665	33,520	32,276	18,355	33,891	6	275,245

(ii) *Varieties and Yield.* The varieties grown differ in various parts of the States, ranging from such fruits as the pineapple, paw-paw, mango, and guava of the tropics to the strawberry, the raspberry, and the currant of the colder parts of the temperate zone. The principal varieties grown in Victoria are the apple, peach, pear, orange, plum, and apricot. In New South Wales, citrus fruits (oranges, lemons, etc.) occupy the leading position, although apples, peaches, plums, pears, cherries and bananas are extensively grown. In Queensland, the banana, the apple, the pineapple, the orange, the peach, the plum, and the coconut are the varieties most largely cultivated. In South Australia, in addition to the apple, orange, apricot, plum, peach, and pear, the almond and the olive are extensively grown. In Western Australia, the apple, orange, pear, plum, peach, apricot and fig are the chief varieties. In Tasmania, the apple occupies nearly four-fifths of the fruit growing area, but small fruits, such as the currant, raspberry, and gooseberry are extensively grown, while the balance of the area is taken up with the pear, apricot, plum, and cherry. The following table gives the acreage under the principal kinds of fruit, and the quantity and value of fruit produced. The acreages are exclusive of young trees not yet bearing. Although statistics of area are not collected annually in Victoria, the acreage under each class of fruit is estimated from data based on the triennial collection of the number of trees, subject to annual variations in the total area under orchards and fruit gardens :—

ORCHARDS AND FRUIT GARDENS.—VARIETIES AND YIELD, 1925-26.

Fruit.		N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Fed. Cap. Ter.	Australia.
Apples	.. acres	13,925	32,886	4,360	10,528	9,751	26,927	6	98,883
	bushels	758,742	2,063,214	130,369	882,064	524,391	4,132,000	1,000	8,491,780
	£	297,420	722,125	70,888	218,831	336,484	825,000	400	2,471,148
Apricots	.. acres	2,241	5,120	107	3,612	717	1,679	..	13,476
	bushels	176,834	247,600	2,771	245,243	46,751	102,139	..	821,338
	£	72,900	92,850	1,362	87,596	20,941	20,430	..	296,079
Bananas	.. acres	1,729	..	14,766	..	20	..	..	16,515
	bushels	102,250	..	1,937,088	..	448	..	..	2,039,786
	£	65,610	..	753,312	..	672	..	..	819,594
Cherries	.. acres	3,263	1,545	6	796	..	85	..	5,695
	bushels	134,476	69,639	126	44,386	..	2,171	5	250,803
	£	163,054	50,488	126	26,632	..	870	6	241,176
Lemons	.. acres	2,913	2,092	210	504	572	..	..	6,291
	bushels	319,355	128,889	21,568	45,201	51,575	..	..	566,588
	£	94,850	48,333	4,853	10,170	19,341	..	..	177,547
Nectarines and Peaches	.. acres	8,797	12,184	2,013	3,007	1,079	70	..	27,150
	bshls.	751,435	1,236,871	103,685	159,967	64,513	3,902	40	2,320,413
	£	308,176	432,714	61,634	52,765	37,148	875	24	893,336
Nuts	.. acres	602	560	..	1,778	..	..	..	2,940
	lbs.	156,532	150,319	..	882,112	..	..	..	1,188,963
	£	6,357	6,899	..	37,836	..	..	..	51,092
Oranges	.. acres	28,131	6,301	3,756	5,012	3,234	..	..	46,484
	bushels	2,152,087	310,890	281,862	367,432	213,719	..	..	3,325,970
	£	915,840	139,900	116,263	137,787	112,626	..	..	1,422,421
Pineapples	.. acres	53	..	3,995	..	..	..	..	4,048
	dozen	9,901	..	902,636	..	..	..	..	912,537
	£	4,580	..	300,879	..	..	..	..	305,459
Pears	.. acres	4,560	11,414	260	2,355	1,191	2,024	..	21,804
	bushels	278,539	840,113	11,313	166,315	90,261	135,000	..	1,521,541
	£	105,020	252,034	9,428	46,445	37,797	34,600	..	485,324
Plums	.. acres	6,980	5,334	1,273	3,188	911	663	..	18,349
	bushels	344,419	253,742	45,304	128,526	50,995	47,015	..	870,691
	£	140,800	60,263	36,315	33,528	24,860	5,950	..	301,716
Small fruits	.. acres	34	1,148	119	338	53	2,378	..	4,070
	cwt.	1,660	18,455	1,810	6,499	921	87,539	..	116,884
	£	5,040	51,438	23,590	15,665	4,049	127,365	..	227,147
Other fruits	.. acres	1,254	4,081	2,655	1,158	827	65	..	10,040
	£	77,772	153,095	79,744	15,947	23,647	905	..	351,110
Total acres		74,532	82,665	33,520	32,276	18,355	33,891	6	275,245
		£ 2,257,419	2,010,139	1,458,399	683,202	617,565	1,015,995	430	8,043,149

(iii) *Relation to Population.* The acreage of the orchards and fruit gardens of Australia in relation to population declined during the past five years. The Australian

figure for 1925-26 amounted to .046 acres per head, whilst the range amongst the States varied from .032 in New South Wales to .156 acres in Tasmania. Details for orchards and fruit gardens for the years 1921-22 to 1925-26 are as follows :—

**ORCHARDS AND FRUIT GARDENS.—AREA PER 1,000 OF POPULATION,
1921-22 TO 1925-26.**

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N. Ter.	Fed. Cap. Ter.	Aus- tralia.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1921-22 ..	36	58	36	64	57	167	..	2	51
1922-23 ..	34	54	37	64	56	158	..	4	49
1923-24 ..	33	53	37	64	53	156	..	4	48
1924-25 ..	33	52	38	62	51	156	..	2	47
1925-26 ..	32	49	39	59	49	156	..	2	46

2. Imports and Exports of Fruit.—(i) *General.* A considerable export trade in both fresh and dried fruits is carried on by Australia with overseas countries. The import trade in fresh fruits declined heavily during the past five years, owing to the imposition of a Customs duty of 1d. per lb. on imported bananas, which had hitherto been the chief item of fresh fruit imported into Australia, while the imports of dried fruits at present consist mainly of dates from Mesopotamia. The export trade in both fruits, however, has greatly expanded during the past quinquennium, the value of the shipments during 1925-26 amounting to £3,017,067. Apples constitute the bulk of the fresh fruit exported, although the exports of citrus fruits and pears are expanding, and experiments are being conducted in regard to the despatch of other fruits. Shipments of raisins and currants have developed into large proportions since 1914-15, and are mainly responsible for the increase in the dried fruits exports. Other fruits in the dried state, notably apricots and peaches, are also receiving attention from overseas.

(ii) *Fresh Fruits.* Information with regard to the Australian overseas trade in fresh fruits is given hereunder :—

FRESH FRUITS.—IMPORTS AND EXPORTS, AUSTRALIA, 1921-22 TO 1925-26

Year.	Oversea Imports.		Oversea Exports.		Net Exports.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	lbs.	£	lbs.	£	lbs.	£
1921-22 ..	2,385,800	29,907	97,343,800	973,726	94,958,000	943,819
1922-23 ..	2,390,600	28,103	108,391,900	1,040,310	106,001,300	1,012,207
1923-24 ..	3,473,300	47,343	78,927,000	870,260	75,453,700	822,917
1924-25 ..	3,228,200	32,009	101,348,900	1,089,544	98,120,700	1,057,535
1925-26 ..	3,228,900	35,154	149,673,100	1,553,651	146,444,200	1,518,497

The value of the exports of apples in 1925-26 amounted to £1,275,485, and of citrus fruits to £157,191.

(iii) *Dried Fruits.* Particulars of oversea imports and exports of dried fruits for the last five years are as follows :—

DRIED FRUITS (a).—IMPORTS AND EXPORTS, AUSTRALIA, 1921–22 TO 1925–26.

Year.	Oversea Imports.		Oversea Exports.		Net Exports.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	lbs.	£	lbs.	£	lbs.	£
1921–22..	6,036,379	132,392	25,955,733	969,457	19,919,354	837,065
1922–23..	10,957,699	189,397	36,047,962	1,232,124	25,090,263	1,042,727
1923–24..	11,091,289	167,366	43,581,329	1,243,272	32,490,040	1,075,906
1924–25..	9,429,764	136,185	78,952,737	1,939,829	69,522,973	1,803,644
1925–26..	11,787,309	141,922	55,428,846	1,463,417	43,641,537	1,321,495

(a) Including raisins and currants referred to under Vineyards, § 15, 4.

(iv) *Jams and Jellies.* Jams and jellies were exported in large quantities during the war years, and in 1918–19 the record shipment of 79,277,560 lbs., valued at £1,847,970, was despatched from Australia. Since that year, however, the trade has been lost, the value of the exports in 1925–26 amounting to only £82,447. Particulars relative to imports and exports during each of the last five years are as follows :—

JAMS AND JELLIES.—IMPORTS AND EXPORTS, AUSTRALIA, 1921–22 TO 1925–26.

Year.	Oversea Imports.		Oversea Exports.		Net Exports.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	lbs.	£	lbs.	£	lbs.	£
1921–22..	184,993	8,437	5,640,579	164,046	5,455,586	155,609
1922–23..	151,572	8,253	2,605,554	79,396	2,453,982	71,143
1923–24..	138,219	7,597	2,680,047	85,062	2,541,828	77,465
1924–25..	226,253	10,810	2,470,431	74,464	2,244,178	63,654
1925–26..	190,302	8,813	2,665,243	82,447	2,474,941	73,634

(v) *Preserved Fruit.* Details concerning the quantities and values of preserved fruit imported into Australia cannot readily be obtained, owing to the fact that in the Customs returns particulars concerning fruit and vegetables are in certain cases combined. The total value of fruit and vegetables preserved or partly preserved in liquid, or pulped, imported into Australia during 1925–26 was £176,915. Particulars in respect of exports are available, and the following shipments were sent overseas in 1925–26 :—Apricots, 3,628,746 lbs., £72,086; peaches, 10,040,779 lbs., £202,148; pears, 2,545,926 lbs., £63,050; pineapples, 33,107 lbs., £755; and other, 663,131 lbs., £16,264.

§ 17. Minor Crops.

1. *General.*—In addition to the crops previously dealt with, there are many others which, owing either to their nature, or to the fact that their cultivation has advanced but little beyond the experimental stage, do not occupy so prominent a position. Some of the more important of these are included under the headings—Market Gardens,

Pumpkins and Melons, Nurseries, Grass Seed, Tobacco, and Millet. Cotton-growing has recently received considerable attention in the tropical portions of Australia, and the prospects of establishing this industry on a large scale are very favourable. The total area in Australia during the season 1925-26, devoted to crops not dealt with in previous sections, was 131,326 acres, the major portion of which consisted of cotton and market gardens.

2. **Market Gardens.**—Under this head are included all areas on which mixed vegetables are grown. Where considerable areas are devoted to the production of one vegetable, such for instance as the potato, the onion, the melon, the tomato, etc., the figures are usually not included with market gardens, but are shown either under some specific head, or under some general head as "Other Root Crops," or "All Other Crops." The area under market gardens during each of the last five seasons is given hereunder:—

MARKET GARDENS.—AREA, 1921-22 TO 1925-26.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N. Ter.	Fed. Cap. Ter.	Aus- tralia.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1921-22 ..	8,217	14,304	1,965	1,486	2,274	681	..	27	28,954
1922-23 ..	7,743	14,108	1,838	1,438	2,698	540	..	18	28,383
1923-24 ..	8,526	16,212	1,719	1,448	2,259	478	..	17	30,659
1924-25 ..	8,824	14,620	1,619	1,577	2,913	576	..	13	30,142
1925-26 ..	8,973	16,609	1,017	1,517	2,725	587	..	12	31,440

3. **Grass Seed.**—The total area under this crop during 1925-26, exclusive of New South Wales, for which State complete figures as to area are not available, was 3,278 acres, of which 1,385 acres were in Victoria, 641 acres in Tasmania, 726 acres in Queensland, and 473 acres in South Australia. The total yield for 1925-26, including New South Wales, was 25,303 bushels, valued at £51,459. In addition to the areas planted above, 3,291 acres were sown to canary seed in Queensland during 1925-26, and furnished a yield of 9,257 bushels, valued at £9,390.

4. **Tobacco.**—Tobacco-growing has undergone marked fluctuations, although at one time it promised to occupy an important place amongst the agricultural industries of Australia. Thus, as early as the season 1888-89, the area under this crop amounted to as much as 6,641 acres, of which 4,833 were in New South Wales, 1,685 in Victoria, and 123 in Queensland. This promise of importance was, however, not fulfilled, and after numerous fluctuations, in the course of which the Victorian area rose in 1895 to over 2,000 acres, and that in Queensland to over 1,000 acres, the total area for the season 1920-21 had declined to 1,345 acres. Since that date the area has again fluctuated, but with an upward tendency, and in 1925-26 2,759 acres were planted, of which 1,473 were in New South Wales, 1,179 in Victoria, 96 in Queensland and 11 in South Australia. Greater attention is now being paid to the proper treatment of the leaf, and flue-curing is becoming more general. In all the States in which its cultivation had been tried, the soil and climate appear to be very suitable for the growth of the plant, and the enormous importations of tobacco in its various forms into Australia furnish an indication of the extensive local market which exists for an article grown and prepared to meet the requirements of consumers. The value of the net importations of tobacco into Australia during the year 1925-26 amounted to £2,414,729, comprising unmanufactured tobacco £2,249,640, cigars £110,083, cigarettes £275,688, and snuff £920, while manufactured tobacco revealed a balance in favour of exports amounting to £221,602. Important proposals for the development of the tobacco-growing industry in Australia have recently been formulated. The British-Australasian Tobacco Co. and the Commonwealth Government have entered into an agreement whereby the sum of £90,000 is to be spent to carry out exhaustive

tests to determine the capabilities of Australia to produce enough tobacco for her own requirements. The terms of the agreement are that over a first period of three years the company shall contribute a sum of £20,000 for investigation and field-testing, and that the Commonwealth and State Governments shall provide £10,000. If at the expiration of this period the work has progressed satisfactorily enough to warrant further expenditure, the company will contribute an additional £30,000, and the Governments £30,000 for expenditure over a further period. A sum of £90,000 will thus be made available as necessary, and of this sum the company is finding £50,000. The company has also consented to buy for the next three seasons, 1927, 1928 and 1929, tobacco crops, properly graded, of lemon-coloured tobacco at 2s. 6d. a pound, bright mahogany at 2s. a pound, and dark mahogany at 1s. 6d. a pound, and has offered a bonus of 6d. per lb. for the purpose of stimulating the production of the first two varieties. An executive committee has been formed, and a federal expert is being sought to supervise the investigations, while an economic survey is proceeding to ascertain the present position of the industry in Australia.

5. Pumpkins and Melons.—The total area under this crop in Australia during 1925–26 was 13,991 acres, of which 3,106 acres were in New South Wales, 1,719 acres in Victoria, 8,232 acres in Queensland, 724 acres in Western Australia, and 210 acres in South Australia. The production in all the States amounted to 43,382 tons.

6. Hops.—Hop-growing in Australia is practically confined to Tasmania and some of the cooler districts of Victoria, the total area for the season 1925–26 being 1,732 acres, of which 1,418 acres were in Tasmania, 312 acres in Victoria, and 2 acres in South Australia. The Tasmanian area, though still small, has increased considerably during the past twenty years, the total for the season 1901–2 being only 599 acres. In Victoria the area, which in 1901–2 was 307 acres, dwindled to 71 acres in 1918–19, but during the past seven years small annual gains have increased the area to 312 acres in 1925–26. The cultivation of hops was much more extensive in Victoria some 40 years ago than at present, the area in 1883–84 being no less than 1,758 acres. During the year 1925–26 the imports of hops exceeded the exports by 311,322 lbs., the excess value being £24,827.

7. Flax.—For over twenty years flax has been grown intermittently in the Gippsland district of Victoria, and attempts have been made to introduce its cultivation into Tasmania and New South Wales, but without success. About the end of the year 1917 the shortage of flax fibre in the world had become acute, and endeavours were made by the Commonwealth Government to encourage the cultivation of flax. The acreage in Victoria increased from 419 acres in 1917–18 to 1,611 acres in 1919–20, but the area had declined in 1925–26 to 154 acres. Flax products to the value of more than £1,500,000 are annually imported into Australia, and, as it has been demonstrated that flax can be grown to perfection here, a good prospect exists for the ultimate establishment of a local industry.

8. Millet.—Millet figures in the statistical records of three of the States. The total area devoted thereto in 1925–26 was 2,568 acres, of which 1,662 acres were in New South Wales, 669 in Victoria, and 237 in Queensland. The particulars here given relate to millet grown for grain and fibre, the quantity for green forage being dealt with in the section relating thereto.

9. Nurseries.—In all the States fairly large areas are occupied as nurseries for raising plants, trees, etc. Statistics of the area under flowers, fruit trees, etc., are available for New South Wales, Victoria, South Australia, and Western Australia. During 1925–26 the areas in those States were 517, 721, 139, and 77 acres respectively.

10. Cotton.—The cultivation of cotton was begun in Queensland in 1860, and ten years later the area cropped had increased from fourteen to upwards of fourteen thousand acres. The re-appearance of American cotton in the European market on the conclusion of the Civil War gave a severe setback to the new industry, and the area declined continuously till 1888 when only 37 acres were planted. The industry was resuscitated soon after, and manufacturing was undertaken on two separate occasions at Ipswich, but operations were not at any time very extensive, and low prices over a term of years checked development. Added interest was shown in the crop in 1903, and in 1913 the Queensland Government made an advance of 1½d. per lb. on seed cotton, and ginned it on owner's account, the final return being equal to about 1½d. per lb.

Rising prices for the staple enabled the Government to offer the substantial guarantee of 5½d. per lb. for seed cotton of good quality for the three years ended 31st July, 1923, and as the result considerable activity was displayed in the industry, and the area picked rose from 166 acres in 1920 to 50,186 in 1924.

The area under cultivation and the yield in Queensland since the year 1919 are shown hereunder :—

COTTON.—AREA AND YIELD, QUEENSLAND, 1919 TO 1927.

Year.						Area.(a)	Yield of Unginned Cotton.
						Acres.	lbs.
1919	..	..	..	..	..	72	27,470
1920	..	..	..	..	..	166	57,065
1921	..	..	..	..	..	1,944	940,126
1922	..	..	..	..	..	8,716	3,956,635
1923	..	..	..	..	..	40,821	12,543,770
1924	..	..	..	..	..	50,186	16,416,170
1925	..	..	..	..	..	40,062	19,537,274
1926	..	..	..	..	..	28,000	9,055,120
1927 (b)	..	..	..	..	..	(c)	6,000,000
(a) Area harvested.						(b) Estimated.	
						(c) Not available.	

The decline in production during the past two years is attributable to particularly adverse seasons, and to uncertainty regarding oversea prices. The establishment of the cotton manufacturing industry in Australia and the bounty on both seed cotton and cotton yarn have however materially improved the outlook of cotton-growing in Australia. Manufacturers are given a bounty on condition that they use 50 per cent. of Australian cotton, and they purchased the whole of the crop from the growers in 1927. The crop generally speaking was of high quality, the bulk having been classified in long staple grades.

A pool for seed cotton was constituted on the 11th March, 1926, which applies to all seed cotton produced in Queensland after the 1st January, 1927, for a period of five years. The board to administer the pool consists of seven representatives of the growers, and one member appointed by the Minister, and is empowered to make arrangements for the ginning and marketing of cotton and seed and by-products in Australia and oversea. It is also empowered to co-operate with the Department of Agriculture and Stock with respect to the distribution of seed for planting.

11. Coffee.—Queensland is the only State in which coffee-growing has been extensively tried, but the results have not been satisfactory. The area under crop reached its highest point in the season 1901-2 with 547 acres. In subsequent seasons the area fluctuated somewhat, but on the whole with a downward tendency, and in 1925-26 only 12 acres were recorded, with a yield of 5,192 lbs.

12. Other Crops.—Amongst miscellaneous small crops grown in the several States may be mentioned tomatoes, rhubarb, artichokes, arrowroot, chicory, and flowers.

§ 18. Bounties.

1. **General.**—The Bounties Acts and Amendments passed by the Federal Parliament with the object of encouraging the manufacture and production of certain articles in Australia, include among the items on which bonuses were payable since 1922–23 the following agricultural products :—Cotton, wine and canned fruits. In the table hereunder are shown the amounts which have been paid in respect of all bounties in operation during the years 1922–23 to 1926–27 :—

BOUNTIES.—AMOUNTS PAID, 1922–23 TO 1926–27.

Articles on which Bounty was Paid.	Rate of Bounty Payable.	Date of Expiry of Bounty.	Amount Paid.				
			1 1922–23.	1923–24.	1924–25.	1925–26.	1926–27.
			£	£	£	£	£
Iron and Steel Bounty Act— Black Steel Sheets not exceeding 1-16th of an inch in thickness, made from Australian Iron Ore and Steel manufactured in Australia, or from such Imported Sheet Bar Steel as is authorized by this Act	When freight is £2 10s. per ton or under—£1 10s. per ton.	30th Sept., 1923 ..	541	..	..	..	..
	When freight exceeds £2 10s. per ton—£1 10s. per ton, less the amount by which the freight exceeds £2 10s. per ton.						
Galvanized Sheets made from Australian Iron Ore and Steel manufactured in Australia, or from such Imported Sheet Bar Steel as is authorized by this Act	When freight is £2 10s. per ton or under—£2 per ton.	30th Sept., 1923 ..	5,133	..	..	..	..
	When freight exceeds £2 10s. per ton—£2 per ton, less the amount by which the freight exceeds £2 10s. per ton.						
Shale Oil Bounties Act— Crude Shale Oil, as prescribed, produced in Australia from Mined Kerosene Shale ..	3½d. per gal., up to 3,500,000 gals.	31st Aug., 1929 ..	18,400	..	335	..	705
	2d. per gal., 3,500,000 to 5,000,000 gals.						
	1½d. per gal., 5,000,000 to 8,000,000 gals.						
	1½d. each additional gal.						
Iron and Steel Products Bounty Act— Fencing Wire } Manufactured from Materials Galvanized } produced and manufactured in Australia Sheets .. } Wire Netting } Traction Engines }	£2 12s. per ton	..	11,985	53,487	71,948	97,387	98,389
	£2 12s. „ ..	..	..	39,758	44,545	49,221	67,915
	£3 8s. „ ..	..	25,195	64,768	90,340	95,127	90,299
	According to capacity, £40—£90 per tractor ..	..	..	1,420	500	270	250
Sulphur Bounty Act— Sulphur from Australian Pyrites and other Sulphide Ores or Concentrates ..	£2 5s. per ton ..	..	..	9,382	47,140	38,549	34,339
Meat Export Bounties Act— Standard and Canned Beef slaughtered and exported within prescribed dates ..	Standard beef, ½d. per lb. ..	..	117,246	136,000	1,039	..	..
	Canned beef, ½d. per lb. ..						
	Live cattle, 10s. per head ..						
Export of Live Cattle for slaughter during prescribed period ..	..	..	4,521	3,632	3,991	919	..

BOUNTIES.—AMOUNTS PAID, 1922-23 TO 1926-27—*continued.*

Articles on which Bounty was Paid.	Rate of Bounty Payable.	Date of Expiry of Bounty.	Amount Paid.				
			1922-23.	1923-24.	1924-25.	1925-26.	1926-27.
			£	£	£	£	£
Wine Export Bounty Act(a)— Fortified Wine, containing not less than 34 per centum of proof spirit, exported from the Commonwealth from 1st September, 1924, to 31st August, 1927	4s. per gallon .. .. .	.. .. .	.. .. .	.. .. .	28,417	217 109	442,410
Canned Fruit Bounty Act— Apricots, Peaches, Pears, and Pineapples canned within prescribed dates	9d. to 1s. per dozen tins each containing 30 ozs. net .. .. .	.. .. .	} .. .. .	63,477	64,752	10,963	.. .. .
Such canned fruit exported from the Commonwealth during prescribed period	1s. to 1s. 9d. per dozen tins, each containing 30 ozs. net .. .. .	.. .. .				
Cotton Bounty Act— Seed Cotton grown in Australia and delivered and graded as prescribed	1½d. per lb. higher grades ¾d. per lb. lower grades	15th Aug., 1931 .. .. .	.. .. .	.. .. .	.. .. .	.. .. .	7,038
Cotton Yarn manufactured in Australia	¾d. to 12d. per lb. according to count .. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	30,002
Total .. .. .	.. .. .	.. .. .	183,021	372,824	353,007	509,545	771,347

(a) This bounty has been extended for a further period of three years, but the rate has been reduced to 1s. 9d. per gallon.

§ 19. Fertilizers.

1. **General.**—In the early days of settlement in Australia, scientific cultivation was practically neglected. Farmers were neither under the necessity nor were they aware of the value of supplying the proper constituents to the soil for each class of crop. The widely divergent character of the soils, their degeneration by repeated cropping, the limitations of climatic conditions, and the difficulties of following any desired order of rotation of crops, all rendered it essential to give attention to artificial manuring. The introduction of the modern seed-drill acting also as a fertilizer-distributor has greatly facilitated the use of artificial manures, and much land formerly regarded as useless for cultivation has now been made productive. There is reason to believe that this feature will be even more strikingly characteristic in the future.

2. **Fertilizers Acts.**—In order to protect the interests of users of artificial manures, legislation has been passed in each of the States, regulating the sale and preventing the adulteration of fertilizers. A list of these Acts and their main features will be found in Year Book No. 12 (page 378).

3. **Imports.**—The local production of artificial manures has greatly increased in recent years, and the home requirements of prepared fertilizers can now be supplied by Australian manufacturers. Imports of fertilizers are also expanding, but the bulk of the inward shipments consists of rock phosphates, which form the raw material for the home manufactured superphosphate, a fertilizer which has proved eminently suitable for the growing of cereals in Australian soils. During 1925-26, the value of rock phosphates imported represented nearly 81 per cent. of the total importation of fertilizers. Nauru and Gilbert and Ellice Islands Colony in equal proportions supplied practically the whole of the shipments. Sodium nitrate is wholly obtained from Chile.

The imports of artificial manures during the last five years are given in the following table. Although considerable quantities of manufactured superphosphates were annually imported up till 1914-15, the importations of this fertilizer have now practically ceased :—

FERTILIZERS.—IMPORTS, AUSTRALIA, 1921-22 TO 1925-26.

Fertilizer.		1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
Bonedust cwt.		910	..	542	..	..
" £		556	..	164	..	..
Guanano cwt.		704,039	857,411	821,938	892,478	1,829
" £		72,892	97,526	90,415	98,515	1,061
Superphosphates .. cwt.		1,034	1,007	1,270	1,200	1,035
" £		1,145	660	806	785	517
Rock Phosphates .. cwt.		3,255,808	3,390,089	4,697,574	5,751,583	6,463,733
" £		553,109	516,059	678,446	739,588	799,273
Soda Nitrate cwt.		50,214	143,274	74,990	182,846	187,284
" £		38,409	96,083	45,358	104,729	105,384
Other cwt.		42,063	175,778	138,897	186,209	172,993
" £		33,561	80,720	74,403	79,616	80,900
Total cwt.		4,054,068	4,567,559	5,735,211	7,015,316	6,826,874
" £		699,672	791,048	889,592	1,023,233	987,135

4. Exports.—The subjoined table shows the exports of artificial manures for the years 1921-22 to 1925-26. Practically the whole of these fertilizers are manufactured locally, and are shipped mainly to New Zealand, Japan, Java, and the Pacific Islands :—

FERTILIZERS.—EXPORTS, AUSTRALIA, 1921-22 TO 1925-26.

Fertilizer.		1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
Bonedust cwt.		33,311	54,385	49,966	13,942	10,012
" £		18,517	24,400	22,327	6,079	3,664
Superphosphates .. cwt.		26,727	73	22	57	149
" £		6,284	35	7	18	49
Rock phosphates .. cwt.		12,900	..	20	..	62
" £		1,960	..	10	..	24
Soda nitrate cwt.		5,790	600	405	2,529	1,445
" £		5,717	715	315	1,851	1,241
Ammonia sulphate .. cwt.		155,414	68,799	93,157	111,594	141,866
" £		105,472	58,571	69,491	73,665	88,745
Other cwt.		24,525	34,323	31,431	45,098	124,263
" £		11,956	15,816	11,824	13,916	47,011
Total cwt.		258,667	158,180	175,001	173,220	277,797
" £		149,906	99,537	103,974	95,529	140,734

5. **Statistics of Use of Fertilizers.**—Statistics regarding the use of manures are collected in all the States, and the particulars for 1925-26 are as follows:—

FERTILIZERS USED IN EACH STATE, 1925-26.

State or Territory.	Total Area of Crops.	Area Manured.		Manure Used.	
		Aggregate.	Percentage on Total Area of Crops.	Natural (Stable Yard, etc.).	Artificial.
	Acres.	Acres.	%	Loads.	Tons.
New South Wales ..	4,541,360	2,642,735	58.19	268,930	85,466
Victoria ..	4,433,492	4,244,191	95.73	144,537	195,542
Queensland ..	1,033,765	68,192	6.60	59,096	18,401
South Australia ..	3,583,867	3,205,199	89.43	70,865	130,217
Western Australia ..	2,932,110	2,015,647	68.76	65,695	128,092
Tasmania ..	266,412	210,655	79.07	15,976	19,046
Northern Territory ..	391	25	6.39	..	10
Fed. Cap. Territory ..	2,181	467	21.41	..	12
Total ..	16,793,578	13,387,111	78.98	625,099	576,786

(a) Includes area under sown grasses and manure used.—(b) Previous year's figure.

Similar particulars in respect of Australia as a whole during the past five years are as shown below:—

FERTILIZERS USED IN AUSTRALIA, 1921-22 TO 1925-26.

Year.	Total Area of Crops.	Area Manured.		Manure Used.	
		Aggregate.	Percentage on Total Area of Crops.	Natural (Stable Yard, etc.).	Artificial.
	Acres.	Acres.	%	Loads.	Tons.
1921-22 ..	15,357,024	10,999,259	71.62	582,725	408,742
1922-23 ..	16,543,555	12,131,831	73.33	616,804	463,673
1923-24 ..	16,531,186	12,084,583	73.10	590,900	438,601
1924-25 ..	17,278,191	13,031,329	75.14	534,702	529,027
1925-26 ..	16,793,578	13,387,111	78.98	625,099	576,786

The percentage of the area manured on the total area cultivated has advanced from 71.62 to 78.98 during the past five years, while the use of artificial manures has increased by more than 168,000 tons during the same period.

6. **Local Production of Fertilizers.**—Statistics relative to the local production of fertilizers are incomplete, and detailed returns for fertilizer factories other than bone mills are not available. The number of firms engaged in the manufacture of artificial manures in Australia at latest available date was 104, made up as follows:—New South Wales, 20; Victoria, 30; Queensland, 24; South Australia, 11; Western Australia, 11; and Tasmania, 8. The production of superphosphates in Australia during 1925-26 amounted to 724,928 tons, the largest producing States being Victoria, 244,927 tons, and Western Australia, 240,283 tons.

§ 20. Ensilage.

1. **Government Assistance in Production.**—The Government of Victoria, recognizing that defective methods of making ensilage were often adopted, has for some years been making special efforts to educate the farming community by lectures, the issue of bulletins, etc. The Government also undertakes the erection of different types of silos on very liberal terms, repayment extending over a series of years. Experts erect the silos and give practical lessons in regard to cutting and packing the silage. The New South Wales Government also gives advice in the "Agricultural Gazette," and issues special bulletins dealing with the subject, while silos have been erected at the various experimental farms.

2. **Quantity Made.**—Particulars concerning the number of holdings on which ensilage was made, and the quantity made during the seasons 1921-22 to 1925-26, are given in the following table :—

ENSILAGE MADE, 1921-22 TO 1925-26.

State or Territory.	1921-22.		1922-23.		1923-24.		1924-25.		1925-26.	
	Holdings.	Ensilage Made.	Holdings.	Ensilage Made.	Holdings.	Ensilage Made.	Holdings.	Ensilage Made.	Holdings.	Ensilage Made.
	(a) No.	(a) Tons.	(a) No.	(a) Tons.	(a) No.	(a) Tons.	(a) No.	(a) Tons.	(a) No.	(a) Tons.
New South Wales	166	24,174	116	12,101	152	19,292	269	35,145	241	30,457
Victoria	107	5,873	103	5,674	61	3,649	106	6,667	113	6,092
Queensland	96	6,575	65	5,300	71	4,833	104	8,195	67	4,654
South Australia	26	1,849	26	2,595	24	2,838	20	2,067	28	2,857
Western Australia	7	381	12	331	20	1,596	29	2,287	43	3,325
Tasmania	10	544	12	437	9	372	10	301	3	170
Northern Territory	..	..	..	..	..	..	1	5	1	5
Total	412	39,396	334	26,528	337	32,580	539	54,667	496	47,560

(a) No. of holdings on which ensilage was made.

Following the drought of 1902-3 greater attention was paid to the making of ensilage, and during the four seasons ended 1909-10 there was an increase both in the number of holdings on which ensilage was made and in the quantity produced. The following five seasons, however, showed a falling-off, but the reduction was due to the fact that stocks had not been drawn upon to any great extent during the previous seasons. The accumulated stocks proved of great value during the 1914 drought, though far below what would have been the case if more attention had been paid to production during the previous years when there was a surplus of green forage. The quantities made since that date have fluctuated considerably, with the output in 1924-25, viz., 54,667 tons, the highest for the period.

§ 21. Agricultural Colleges and Experimental Farms.

1. **General.**—In most of the States agricultural colleges and experimental farms have been established with a view to the promotion of more scientific methods in agriculture, stock-breeding and dairying. In the colleges, and on some of the farms, provision is made for the accommodation of pupils to whom both practical and theoretical instruction is given by experts in various branches of agriculture. Analyses of soils and fertilizers are made, manures are tested, and elementary veterinary science, etc., are taught, while general experimental work is carried on with cereal and other crops, not merely for the purpose of showing that it is practicable to produce certain crops in a given place, but also to show how it is possible to make farming pay in the locality. Opportunities are afforded for practice in general agricultural work, and instruction is given in the conservation of fodder; in cheese and butter making; in the management, breeding, and preparation for the market of live stock; in the eradication of pests and weeds; and in carpentering, blacksmithing, and other trades.

Travelling expert lecturers visit the various agricultural and dairying centres, and there is a wide distribution of periodical agricultural gazettes and bulletins.

2. **Particulars of Agricultural Colleges and Experimental Farms.**—In previous issues of this volume detailed information was given regarding agricultural colleges, experimental farms, and agricultural education generally. See Year Book No. 11, pp. 393-5.

3 **Particulars respecting Agricultural and Stock Departments.**—A synopsis of the activities and operations of the Agricultural and Stock Departments of the several States as on 30th June, 1920, will be found in Year Book No. 14, pages 1180 to 1191. The main features of organization are set out under their respective headings as regards staff, expenditure, work undertaken in agricultural colleges, technical schools, experimental farms, and orchards and vineyards. The subject of lectures and other forms of agricultural instruction by experts is dealt with, as well as such matters as the distribution of plants, and the special steps taken to disseminate information amongst agriculturists, and to facilitate the marketing of products.

CHAPTER XVIII.

FARMYARD, DAIRY, AND BEE PRODUCTS.

§ 1. Introductory.

1. **General.**—The introduction of cattle into Australia, and the early history of the dairying industry are referred to in some detail in earlier issues of this work (see Official Year Book No. 6, p. 430). It may here be noted that the original stock has been crossed with specially imported stud cattle, while further judicious crossing of strains has resulted in an increased and improved milk supply. In Australia, dairy cattle thrive in the open throughout the year, local climatic conditions demanding no protection other than tree plantations for shelter, and rugging in the coldest weather. Indigenous and imported grasses furnish food during the greater part of the year, and winter fodder, when necessary, is given to the cattle in the fields. With the adoption of scientific methods in the treatment of animals and pasturages and in the processes of manufacture, coupled with effective State supervision, the dairying industry has shown rapid expansion.

2. **Official Supervision of Industry.**—Dairy experts, under the supervision of the various State Agricultural Departments, give instruction in approved methods of production, and inspect animals, buildings, and marketable produce. A high standard of cleanliness, both of personnel and *matériel*, prevails. Financial assistance of a temporary nature is also given, advances made being generally repaid with promptitude.

The export trade is regulated by the terms of the Commonwealth Commerce Act 1905 and regulations thereunder. The provisions of this Act are set out in detail in Official Year Book No. 6, pp. 431–2. It will be sufficient to note here that the true trade description, &c., must be marked on all produce intended for export, while official inspection ensures the maintenance of purity and quality. Upon request of the exporter the goods are certificated by the inspector.

3. **Mixed Farming.**—Dairying is not now, as formerly, wholly confined to farmers, since many graziers in a large way of business have lately given it their attention. In non-coastal regions it is generally carried on in conjunction with agriculture and sheep-raising, sufficient fodder being grown to carry the cattle through the winter months. Local wants are thus met, and in many places remote from the metropolis well-equipped factories have been established.

4. **Factory System.**—Cream separation and butter-making are often carried on together under the co-operative system. The creation of large central butter factories, supplied by numerous separating establishments or “creameries,” has resulted in a considerable reduction in the cost of manufacture, since improved appliances such as refrigerators may be profitably worked at the larger establishments. The product is also of a more uniform quality. The number of farmers who adhere to hand processes is rapidly diminishing. Formerly the average quantity of milk used per pound of hand-made butter was about 3 gallons, but separator butter requires only $2\frac{1}{2}$ gallons.

5. **Butter and Cheese Factories.**—The factories in Australia for the manufacture of butter, cheese, and condensed milk numbered 585 in 1925–26. These were distributed in the various States as follows:—New South Wales, 173; Victoria, 183; Queensland, 127; South Australia, 60; Western Australia, 7; and Tasmania, 35.

§ 2. Dairy Cattle and Dairy Products.

1. **Dairy Herds.**—The dairy herds of Australia were severely depleted during the drought of 1914–15, when the number was reduced to 1,684,393. Following that year substantial increases have taken place, and the number recorded in 1925 represents a gain of 700,000 in the past decade. In New South Wales, Victoria, South Australia, and Tasmania the proportion of dairy cattle to all cattle is high. In Queensland, the Northern Territory, and Western Australia there is a greatly preponderating number of other cattle, dairying not being firmly established in the tropical regions of the Continent. In Southern Queensland, however, the industry has developed remarkably during the past decennium, and the progress attained in that area has been largely responsible for the Australian increases since 1914.

CATTLE AND DAIRY CATTLE.—NUMBER, 1921 TO 1925.

State.		1921.	1922.	1923.	1924.	1925.
New South Wales	{ All Cattle ..	3,538,240	3,244,905	2,932,437	2,871,196	2,931,818
	{ Dairy Cows ..	815,579	796,957	784,824	834,557	840,930
Victoria	{ All Cattle ..	1,750,369	1,785,660	1,591,367	1,605,554	1,513,787
	{ Dairy Cows ..	719,473	794,898	738,149	760,207	727,940
Queensland	{ All Cattle ..	7,047,370	6,955,493	6,396,514	6,454,653	6,436,645
	{ Dairy Cows ..	554,208	563,683	512,529	584,886	551,426
South Australia	{ All Cattle ..	419,197	425,811	413,272	400,423	373,597
	{ Dairy Cows ..	131,054	135,450	136,438	133,619	127,670
Western Australia	{ All Cattle ..	893,103	939,596	953,784	891,564	835,911
	{ Dairy Cows ..	53,823	58,387	61,832	60,882	63,008
Tasmania	{ All Cattle ..	216,704	218,197	220,351	225,740	212,373
	{ Dairy Cows ..	68,595	60,991	70,497	70,073	70,382
Northern Territory	{ All Cattle ..	568,031	760,766	843,718	855,285	970,342
	{ Dairy Cows ..	70	(a)	(a)	(a)	(a)
Federal Capital Territory	{ All Cattle ..	8,290	6,275	6,085	5,058	5,312
	{ Dairy Cows ..	414	443	375	413	646
Australia	{ All Cattle ..	14,441,309	14,336,673	13,357,508	13,309,473	13,279,785
	{ Dairy Cows ..	2,343,221	2,410,809	2,304,644	2,444,637	2,382,002

(a) Not available.

2. **Milk.**—The annual quantity of milk produced per dairy cow varies greatly with breed, locality and season, reaching as high as 1,000 gallons, but averaging for the whole of Australia for all dairy cows and for all seasons prior to 1916 considerably under 300 gallons per annum. Of late years an improvement in the grade of dairy cattle has taken place, and the 300 gallon mark has been exceeded on three occasions during the past quinquennium, the yield of 363 gallons in 1924 constituting a record. The best yields over a series of years appear to be in Victoria, South Australia and New South Wales, while Queensland and Tasmania in normal years are above Western Australia. In the following table the annual average yields per cow for the last five years are based on the number of dairy cows which were in milk during any part of the year. The average given is considerably below that for cows which were yielding during the greater part of the year. The highest averages were, of course, obtained in those States which have most extensively adopted scientific methods of dairying, such as systematic breeding, culling of herds, milk testing, etc.

MILK PRODUCTION, 1921 TO 1925-26.

Heading.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Fed. Cap. Ter.	Australia. (b)
1921—								
Dairy Cows (a) .. No.	786,557	669,739	501,421	124,295	50,773	66,138	437	2,199,360
Production 1,000 gals.	285,166	245,181	151,081	41,398	11,329	21,000	105	755,260
Aver. per cow .. gals.	363	366	301	333	223	318	240	343
1922—								
Dairy Cows (a) .. No.	806,268	757,186	558,945	133,252	56,108	69,293	428	2,381,480
Production 1,000 gals.	226,864	249,322	134,032	42,054	11,932	21,000	106	685,310
Aver. per cow .. gals.	281	329	240	316	213	303	248	288
1923—								
Dairy Cows (a) .. No.	790,890	766,524	538,106	135,944	60,110	70,244	409	2,362,227
Production 1,000 gals.	225,395	260,953	104,204	47,621	13,048	21,200	111	672,532
Aver. per cow .. gals.	285	340	194	350	217	302	271	285
1924—								
Dairy Cows (a) .. No.	809,691	749,178	548,707	135,029	61,357	70,285	394	2,374,641
Production 1,000 gals.	316,810	294,765	170,074	45,426	13,363	21,840	116	862,394
Aver. per cow .. gals.	391	393	310	336	218	311	294	363
1925-26—(c)								
Dairy Cows (a) .. No.	837,744	744,074	568,156	130,644	61,945	70,227	530	2,413,320
Production 1,000 gals.	289,861	255,120	153,386	41,386	14,823	18,684	199	773,459
Aver. per cow .. gals.	346	343	270	317	239	266	375	320
(a) Mean for the year.		(b) Exclusive of Northern Territory.			(c) Year ended 30th June, 1926.			

3. **Butter and Cheese.**—Although the quantity of dairy production is largely affected by the nature of the seasons, an important advance in the output of butter has taken place in the past decade. During that period the average annual production increased from 186,000,000 lb. for the quinquennium 1911-1915, to 263,000,000 lb. for the latest five years under review. The marked development of dairying in Queensland, where the butter production has nearly doubled since 1913, was responsible for the largest share of the increased butter output in Australia, while Victoria and New South Wales also made important contributions to the general progress. The maximum output of butter in Australia was recorded in 1924, when, as the result of a specially favourable season, 313,952,291 lb. were manufactured.

The manufacture of cheese has steadily increased throughout Australia during recent years, the production in 1921 of 32,653,003 lb. being the highest yet recorded, followed very closely by the 31,442,292 lb. returned for 1924. The output of cheese has grown from 18 to 28 million lb. during the past ten years, or by nearly 60 per cent.

The development in dairy production since 1896, and in the exports of butter from 1901 onwards are shown in the graphs on page 626. Particulars for the past five years are as follows:—

BUTTER AND CHEESE PRODUCTION, 1921 TO 1925-26.

State.	1921.	1922.	1923.	1924.	1925-26.
BUTTER.					
	lb.	lb.	lb.	lb.	lb.
New South Wales ..	100,652,620	173,705,349	172,666,613	117,195,871	106,953,339
Victoria ..	82,981,570	84,355,940	86,888,725	100,849,382	81,747,291
Queensland ..	60,923,194	53,785,599	40,659,634	170,406,492	63,001,073
South Australia ..	14,565,599	14,646,632	17,244,389	16,066,694	13,882,850
Western Australia ..	2,658,153	2,766,533	3,005,491	2,962,630	2,591,818
Tasmania ..	5,270,243	5,716,708	6,183,521	6,455,746	5,122,992
Federal Capital Territory ..	19,961	18,248	17,480	15,476	14,322
Australia ..	267,071,340	234,995,009	226,665,853	313,952,291	273,313,685
CHEESE.					
	lb.	lb.	lb.	lb.	lb.
New South Wales ..	7,367,057	15,198,905	15,912,656	17,705,596	6,462,535
Victoria ..	5,675,909	8,754,960	7,216,936	6,193,135	5,279,009
Queensland ..	15,200,527	10,560,316	7,221,355	12,643,863	12,580,942
South Australia ..	3,392,400	3,261,565	3,679,552	3,743,628	3,636,278
Western Australia ..	1,073	212	4,365	4,055	3,818
Tasmania ..	1,016,037	934,601	1,345,661	1,152,015	836,738
Australia ..	32,653,003	23,710,559	25,380,625	31,442,292	28,799,320

(a) For year ended 30th June of year following.

4. **Concentrated Milk.**—"Condensed" or "concentrated" milk represents milk the bulk of which is reduced by evaporation. The industry is of comparatively recent growth, the quantity of milk treated in 1901 being negligible, but production increased annually until in 1911 the output nearly doubled that of the previous year. Thenceforward rapid progress was made, the greatest development taking place in Victoria, where the industry is most largely established. There is still an import of milk, but the exports in each year far outweigh the quantity imported. No condensed or concentrated milk is made in South Australia, Western Australia, or Tasmania. In New South Wales, Victoria, and Queensland the returns for the last five years were as follows :—

CONDENSED, CONCENTRATED, OR POWDERED MILK MADE, 1921 TO 1925-26.

Year.	N.S.W.	Victoria.	Queensland.	Australia.
	lb.	lb.	lb.	lb.
1921	6,860,466	48,354,210	15,168,652	70,383,328
1922	3,544,565	38,314,260	9,601,914	51,460,739
1923	7,158,537	49,099,632	8,131,648	64,389,817
1924-25	5,804,191	45,693,120	10,511,919	62,009,230
1925-26	5,745,454	43,646,852	8,831,623	58,223,929

(a) For year ended 30th June of year following.

5. **Oversea Trade in Butter, Cheese, and Milk.**—The following tables give the imports, exports, and net exports of butter, cheese, and milk. In each of the five years dealt with the exports of butter, cheese, and condensed milk exceeded the imports.

**BUTTER, CHEESE, AND MILK, IMPORTS AND EXPORTS.—AUSTRALIA,
1921-22 TO 1925-26.**

Products.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
IMPORTS.					
Butter lb.	732,336	2,955,934	2,368,102	19,717	2,991,243
" £	58,982	237,149	191,828	1,340	246,703
Cheese lb.	85,601	499,125	1,422,148	356,717	1,487,023
" £	7,518	27,345	71,379	37,448	111,827
Milk—concentrated and preserved(a) lb.	130,592	417,054	373,866	367,073	348,178
" £	14,658	28,371	26,652	32,359	20,398

EXPORTS.

Butter lb.	127,570,797	79,571,151	65,984,020	145,281,326	97,899,824
" £	7,928,558	6,133,864	4,919,664	10,006,081	7,006,830
Cheese lb.	12,671,029	5,454,466	3,831,269	10,397,392	6,884,347
" £	438,372	231,007	142,820	365,764	271,973
Milk—concentrated and preserved(a) lb.	36,705,320	21,234,027	17,765,480	29,172,996	25,908,328
" £	2,132,580	1,328,762	1,080,088	1,694,634	1,476,422

NET EXPORTS.(b)

Butter lb.	126,847,461	76,615,217	63,615,918	145,261,609	94,908,581
" £	7,928,576	5,896,715	4,727,836	10,004,741	6,760,127
Cheese lb.	12,585,428	4,955,341	2,409,121	10,040,675	5,397,324
" £	430,854	204,562	71,441	328,316	160,146
Milk—concentrated and preserved(a) lb.	36,574,728	20,816,973	17,391,614	28,805,923	25,560,150
" £	2,117,922	1,300,391	1,053,436	1,682,275	1,456,024

(a) See definition above.

(b) Excess of exports over imports.

6. **Local Consumption of Butter and Cheese.**—The total production of butter and cheese, with the subtraction or addition of the net export or import for the corresponding period gives approximately the quantity available for consumption in Australia. The figures for the past five years are as follows :—

BUTTER AND CHEESE.—LOCAL CONSUMPTION, 1921 TO 1925-26.

Products.	1921.	1922.	1923.	1924.	1925-26.
	lb.	lb.	lb.	lb.	lb.
Butter .. Total ..	139,491,543	158,379,792	163,049,935	168,690,682	178,405,104
.. .. Per head of population ..	25.32	28.12	28.36	28.72	29.77
Cheese .. Total ..	19,981,974	18,755,218	22,971,404	21,401,617	23,401,996
.. .. Per head of population ..	3.63	3.33	4.00	3.64	3.91

The quantity available for consumption in 1925-26 averaged $29\frac{1}{2}$ lb. of butter and 3.9 lb. of cheese, or a total of $33\frac{1}{2}$ lb. per head of population, an amount probably unsurpassed anywhere. The consumption of butter and cheese in the United Kingdom in normal times is given as about $22\frac{1}{2}$ lb. per head per annum.

§ 3. Pigs and Pig Products.

1. **Pigs.**—The number of pigs in Australia from 1921 to 1925 is shown below :—

PIGS.—NUMBER, 1921 TO 1925.

State.	1921.	1922.	1923.	1924.	1925.
New South Wales (a) ..	383,326	340,579	322,762	339,378	382,331
Victoria ..	230,770	294,962	259,795	288,509	339,601
Queensland ..	145,083	160,617	132,243	156,163	199,598
South Australia ..	(a) 87,667	(a) 75,520	(a) 73,414	80,988	90,794
Western Australia ..	63,001	67,561	61,478	66,375	74,316
Tasmania ..	49,743	46,056	47,101	47,305	41,009
Northern Territory ..	452	361	647	1,000	382
Federal Cap. Territory (a)	343	274	434	291	343
 Australia ..	 960,385	 985,930	 897,874	 980,009	 1,128,374

(a) As on 30th June of year following.

For many years the number of pigs in Australia has fluctuated considerably. There was a heavy falling off in 1915, followed by substantial increases during the next two years, the number in 1917, viz., 1,169,365, being the highest recorded in Australia. From 1917 onwards the numbers declined for a time, but during the past five years they have remained fairly constant at about one million. The number of pigs per head of population, and the number per square mile, will be found in the tables of live stock, page 610.

2. **Bacon and Ham.**—(i) *Production.* The production of bacon and ham is increasing fairly rapidly, the averages for the past three quinquennia being 51,000,000, 58,000,000, and 67,000,000 lb. respectively. No increase in the volume of exports has taken place, the extra production being needed to supply the local demand, which is expanding with the population and the increasing consumption per head.

BACON AND HAM.—PRODUCTION, 1921 TO 1925-26.

State.	1921.	1922.	1923.	1924.	1925-26.
	lb.	lb.	lb.	lb.	lb.
New South Wales ..	a20,413,330	a19,234,681	a19,044,294	a21,068,976	22,949,531
Victoria ..	a17,396,798	a19,269,125	a22,540,973	a21,993,869	21,213,925
Queensland ..	12,386,417	15,130,545	16,219,969	a15,640,561	18,326,728
South Australia ..	a5,089,424	a5,002,199	a5,095,970	a5,374,457	5,600,760
Western Australia (b) ..	1,962,621	2,050,220	2,420,585	2,797,151	2,960,139
Tasmania ..	1,356,329	1,778,015	a2,271,141	a2,428,966	2,314,756
Federal Cap. Territory	a9,540	a11,185	a7,815	a7,820	8,840
Total ..	58,614,459	62,475,970	67,600,747	69,311,800	73,374,679

(a) For year ended 30th June of year following.

(b) A portion only from pigs slaughtered in the State; balance imported and subsequently cured.

(ii) *Local Consumption.* From about 1904 onwards the production of bacon and ham has been sufficient to meet the local demand, and provide a small surplus for export. The total home consumption and the average per head of population for the last five years are given hereunder :—

BACON AND HAM.—LOCAL CONSUMPTION, 1921 TO 1925-26.

Particulars.	1921.	1922.	1923.	1924.	1925-26.
	lb.	lb.	lb.	lb.	lb.
Total ..	55,926,806	60,753,826	66,372,107	67,969,350	72,205,137
Per head of population ..	10.15	10.78	11.54	11.57	12.05

3. *Oversea Trade in Pig Products.*—The oversea trade in pigs and pig products for the last five years is shown in the following table :—

PIG PRODUCTS.—AUSTRALIAN TRADE, 1921-22 TO 1925-26.

Particulars.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
PIGS.					
Imports ..	No. 31	31	13	10	6
" ..	£ 194	596	376	150	250
Exports ..	No. 119	67	38	65	320
" ..	£ 990	510	288	676	1,951
Net Exports ..	No. 88	36	25	55	314
" ..	£ 796	-86	-88	526	1,701
BACON AND HAM.					
Imports ..	lb. 25,292	149,270	320,030	322,106	509,101
" ..	£ 1,610	8,414	19,005	18,492	33,773
Exports ..	lb. 2,712,945	1,871,414	1,548,670	1,664,556	1,678,643
" ..	£ 223,067	158,414	132,581	124,891	139,864
Net Exports ..	lb. 2,687,653	1,722,144	1,228,640	1,342,450	1,169,542
" ..	£ 221,457	160,000	113,576	106,399	106,091

NOTE.—The minus sign (—) signifies net imports.

PIG PRODUCTS.—AUSTRALIAN TRADE, 1921-22 TO 1925-26—*continued*.

Particulars.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
LARD.					
Imports lb.	115,659	505,827	574,733	112,084	244,517
" £	3,625	12,905	17,181	4,080	8,787
Exports lb.	2,909,658	1,358,291	651,530	1,523,530	1,953,796
" £	88,753	38,491	24,027	42,744	56,630
Net Exports .. lb.	2,793,999	852,464	76,797	1,411,446	1,709,279
" £	85,128	25,586	6,846	38,664	47,843
FROZEN PORK.					
Imports lb.	..	370,094	1,679,278	962,639	466,425
" £	..	14,486	63,908	35,695	20,066
Exports lb.	152,584	144,796	53,142	61,393	90,106
" £	7,414	6,282	2,099	2,749	3,647
Net Exports .. lb.	152,584	-225,298	-1,626,136	-901,246	-376,319
" £	7,414	-8,204	-61,809	-32,946	-16,419

NOTE.—The minus sign (—) signifies net imports.

The output of pig products in Australia is usually sufficient to meet local requirements, and provide a small surplus for export. During the last five years the value of the average annual net export amounted to £157,295, the bulk of the shipments consisting of bacon, ham and lard.

§ 4. Total Dairy Production.

The total dairy production of Australia in 1925-26 is shown below :—

TOTAL DAIRY PRODUCTION.—AUSTRALIA, 1925-26.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Fed. Cap. Ter.	Total.
MILK.								
Used for—	gallons.	gallons.	gallons.	gallons.	gallons.	gallons.	gallons.	gallons.
Butter ..	225,221,292	187,261,350	127,951,808	29,660,424	5,013,840	11,756,000	45,592	587,810,306
Cheese ..	6,563,459	5,322,930	11,074,073	3,652,225	4,300	834,000	..	27,450,987
Condensing and concentrating ..	2,787,604	15,346,890	2,313,848	..	..	..	..	20,448,342
Other purposes ..	55,288,398	47,188,890	12,046,629	8,073,216	8,904,586	6,094,000	153,655	137,749,374
Total ..	289,860,753	255,120,060	153,386,358	41,385,865	14,822,726	18,684,000	199,247	773,459,009
BUTTER.								
In Factories ..	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
On Dairy and other Farms ..	101,698,205	77,012,622	60,491,765	10,146,858	1,248,497	3,528,412	..	254,126,359
	5,255,134	4,734,669	2,509,308	3,735,992	1,343,321	1,594,580	14,322	19,187,326
Total ..	106,953,339	81,747,291	63,001,073	13,882,850	2,591,818	5,122,992	14,322	273,313,685

TOTAL DAIRY PRODUCTION.—AUSTRALIA, 1925-26—*continued.*

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Fed. Cap. Ter.	Total.
CHEESE.								
In Factories	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
On Dairy and other Farms ..	6,321,111	4,889,116	12,565,572	3,636,181	..	656,519	..	28,068,499
	141,424	389,893	15,370	97	3,818	180,219	..	730,821
Total ..	6,462,535	5,279,009	12,580,942	3,636,278	3,818	836,738	..	28,799,320

CONDENSED, CONCENTRATED, OR POWDERED MILK.

In Factories	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
	5,745,454	43,646,852	8,831,623	..	..	..	..	58,223,929

BACON AND HAM.

In Factories	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
On Dairy and other Farms ..	21,548,888	19,739,326	18,013,086	5,018,825	2,799,715	1,641,940	..	68,761,786
	1,400,643	1,474,599	313,642	581,935	160,424	672,810	8,840	4,612,893
Total ..	22,949,531	21,213,925	18,326,728	5,600,760	2,960,139	2,314,756	8,840	73,374,679

(a) A portion only from pigs slaughtered in the State, the balance being imported and subsequently cured.

Particulars in regard to the production of other milk products are not available for all the States, but the following articles were made in Victoria during 1925-26 :—Casein, 1,503,369 lb. ; milk sugar, 152,783 lb.

§ 5. Poultry Farming.

1. *General.*—Poultry stocks are largely maintained by farmers, and production therefrom furnishes a considerable addition to the annual agricultural or dairying returns. During recent years, however, poultry-keeping has assumed an independent position among rural industries, while it is also carried on in conjunction with pig-farming. Special poultry farms have been instituted for scientific breeding, poultry experts give lectures and instruction, and egg-laying competitions are conducted. Poultry for consumption is extensively reared, and the egg-producing qualities of the birds have been greatly improved by careful breeding. Co-operative egg-collecting circles have been formed in some districts; eggs are also delivered with the milk and cream to the local butter factories, and thence forwarded to market.

2. *Poultry Products.*—There is some difficulty in obtaining complete figures for the yield of poultry products. The following values relate to poultry and eggs :—

POULTRY AND EGGS.—VALUE OF PRODUCTION, 1921-22 TO 1925-26.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania. (a)	Australia.
	£	£	£	£	£	£	£
1921-22 ..	2,650,000	4,406,750	429,983	1,027,634	208,429	300,000	9,022,796
1922-23 ..	2,894,000	4,315,810	417,052	1,066,137	240,423	300,000	9,233,422
1923-24 ..	2,443,160	4,587,560	364,681	1,088,105	252,527	300,000	9,036,033
1924-25 ..	2,727,000	4,326,295	530,782	1,148,322	286,350	300,000	9,318,749
1925-26 ..	2,329,000	4,515,400	621,876	1,094,205	305,888	300,000	9,166,369

(a) Estimated.

3. **Oversea Trade in Poultry Products.**—The Australian oversea trade in poultry products is confined to eggs, which are mainly consigned from New South Wales to the United Kingdom. Other States are beginning to participate in this business which is increasing, the value of the shipments despatched in 1926-27 amounting to nearly one quarter of a million sterling. The exports of frozen poultry expanded during the three years ended 1922-23, but since that year the shipments have not been maintained. The oversea trade during the past five years was as follows :—

POULTRY PRODUCTS, TRADE.—AUSTRALIA, 1921-22 TO 1925-26.

Particulars.			1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
LIVE POULTRY.							
Imports	..	No.	663	791	881	459	384
"	..	£	1,170	1,534	3,981	1,084	1,475
Exports	..	No.	2,626	2,872	2,234	2,057	3,418
"	..	£	3,272	2,682	1,707	1,527	2,311
Net Exports	..	No.	1,963	2,081	1,353	1,598	3,034
"	..	£	2,102	1,148	-2,274	443	836
FROZEN POULTRY.							
Imports	..	lb.	2,712	4,784	5,438	11,591	12,367
"	..	£	178	228	269	752	741
Exports	..	pair	50,367	34,399	10,882	10,898	22,381
"	..	£	50,205	42,951	11,270	14,141	25,242
Net Exports	..	(a)	(a)	(a)	(a)	(a)	(a)
"	..	£	50,027	42,723	11,001	13,389	24,501
EGGS.							
Imports	..	doz.	33,558	26,750	28,123	30,051	29,652
"	..	£	1,994	1,591	1,707	1,796	2,003
Exports	..	doz.	808,849	1,236,033	655,620	692,015	1,531,744
"	..	£	75,857	102,946	52,743	53,538	116,681
Net Exports	..	doz.	775,291	1,209,283	627,497	661,964	1,502,092
"	..	£	73,863	101,355	51,036	51,742	114,678
EGG-CONTENTS.							
Imports	..	lb.	26,590	33,672	34,418	32,105	21,495
"	..	£	4,091	5,250	7,845	7,190	4,313
Exports	..	lb.	(a)	(a)	(a)	(a)	(a)
"	..	£	12,116	38	212	144	95
Net Exports	..	lb.	(a)	(a)	(a)	(a)	(a)
"	..	£	8,025	-5,212	-7,633	-7,046	-4,218

NOTE.—The minus — signifies net imports. (a) Quantity not available.

§ 6. Bee Farming.

1. **General.**—As in the case with poultry-farming, bee-farming is frequently carried on in connexion with agriculture or dairying. The returns of honey from productive hives during 1925-26 gave an average of 55 lb. per hive, while the average quantity of wax was 0.77 lb. per hive.

2. Production of Honey and Beeswax.—The number of hives and the production of honey and beeswax during the year 1925-26 are given in the following table :—

BEE-HIVES, HONEY, AND BEESWAX, 1925-26.

State.	Bee Hives.			Honey Produced.		Beeswax Produced.	
	Pro- ductive.	Unpro- ductive.	Total.	Quantity.	Value.	Quantity.	Value.
	No.	No.	No.	lb.	£	lb.	£
New South Wales ..	36,887	4,527	41,414	2,234,495	34,280	38,171	2,802
Victoria ..	44,405	7,941	52,346	2,114,807	44,058	28,812	2,160
Queensland ..	14,626	4,190	18,816	801,587	14,245	11,888	751
South Australia ..	15,582	14,332	29,914	1,360,916	15,594	11,772	650
Western Australia ..	8,636	2,967	11,603	311,492	5,410	3,737	273
Tasmania ..	5,295	2,722	8,017	116,392	2,910	1,566	50
Fed. Cap. Territory ..	14	..	14	600	10	100	8
Australia ..	125,445	36,679	162,124	6,940,289	116,507	96,046	6,694

The table hereunder gives the production of honey and beeswax for the latest available five years :—

HONEY AND BEESWAX PRODUCTION, 1921-22 TO 1925-26.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Fed. Cap. Ter.	Australia.
HONEY.								
	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
1921-22	2,986,574	2,712,675	598,357	791,324	196,440	82,920	2,500	7,370,790
1922-23	1,235,905	2,285,000	580,057	1,863,026	330,869	71,030	3,175	6,369,062
1923-24	590,800	2,110,713	505,346	721,640	395,047	133,330	180	4,457,056
1924-25	3,088,550	4,054,975	691,136	2,764,389	378,889	95,476	1,600	11,075,015
1925-26	2,234,495	2,114,807	801,587	1,360,916	311,492	116,392	600	6,940,289
BEESWAX.								
	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
1921-22	28,255	32,737	8,231	9,108	3,980	1,976	130	84,417
1922-23	28,244	27,182	8,895	19,111	5,391	1,473	198	90,494
1923-24	12,701	25,371	7,405	11,216	5,637	1,596	2	63,928
1924-25	40,043	47,117	9,883	27,837	6,844	1,666	65	133,455
1925-26	38,171	28,812	11,888	11,772	3,737	1,566	100	96,046

The quantity of honey and beeswax produced naturally varies from year to year according to the condition of the seasons. During the last five years New South Wales has produced 10,136,324 lb. of honey and 147,414 lb. of beeswax, while the Victorian figures amounted to 13,278,170 lb. and 161,219 lb. respectively for honey and beeswax. These two States together accounted for 62.67 per cent. of the total production of honey, and 69.74 per cent. of the beeswax. Next in order of importance were South Australia, Queensland, and Western Australia.

3. **Oversea Trade in Bee Products.**—In normal years the local production of honey exceeds Australian requirements, and a small quantity is available for export. During the past five years the value of the exports amounted to only £16,789, or an annual average of £3,358, owing to the decrease in production. Australian honey exhibited at the Franco-British Exhibition in London in 1908 obtained the highest award. The more general use of frame hives has affected the production of wax, and as a result the quantity imported has exceeded that exported during each of the past five years.

BEE PRODUCTS.—IMPORTS, EXPORTS, ETC., AUSTRALIA, 1921-22 TO 1925-26.

Particulars.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
HONEY.					
Imports .. lb.	13,572	811	772	1,008	4,684
" .. £	399	24	22	33	211
Exports .. lb.	94,471	57,638	41,584	137,116	113,401
" .. £	4,448	2,718	2,060	3,807	3,756
Net Exports .. lb.	80,899	56,827	40,812	136,108	108,717
" .. £	4,049	2,694	2,038	3,774	3,545
BEESWAX.					
Imports .. lb.	223,441	238,363	76,478	109,816	22,937
" .. £	12,786	13,817	4,759	8,288	2,195
Exports .. lb.	2,259	671	2,046	1,956	1,577
" .. £	154	61	149	187	131
Net Exports .. lb.	-221,182	-237,697	-74,432	-107,860	-21,360
" .. £	-12,632	-13,756	-4,610	-8,101	-2,064

NOTE.—The minus sign (—) signifies net imports.

§ 7. Value of Farmyard, Dairy, and Bee Products.

The value of the farmyard, dairy and bee products raised in Australia in 1925-26 was as follows:—

FARMYARD, DAIRY, AND BEE PRODUCTS.—VALUE, 1925-26.

Products.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	Fed. Cap. Ter.	Australia.
	£	£	£	£	£	£	£	£	£
Milk, consumed as such ..	3,225,157	2,752,685	702,720	470,938	519,434	355,483	..	8,963	8,035,380
Butter ..	8,050,500	6,181,050	4,921,950	1,124,990	207,130	374,190	..	1,080	20,860,890
Cheese ..	299,470	227,750	589,730	152,340	160	33,120	..	..	1,302,570
Condensed and concentrated milk ..	244,606	1,437,660	250,873	..	..	25	..	..	1,933,164
Bacon and ham ..	1,181,600	1,364,770	871,280	338,530	164,930	124,140	..	460	4,045,710
Pork ..	372,360	417,022	163,432	129,194	134,066	106,991	785	412	1,324,262
Lard ..	20,710	50,370	33,900	8,790	8,270	4,420	..	..	126,460
Livestock ..	42,953	127,730	32,576	19,612	19,852	..	..	52	242,775
Poultry and eggs ..	2,329,000	4,515,400	621,876	1,094,205	305,888	300,000	..	(a)	9,166,369
Honey and wax ..	37,082	46,218	14,996	16,244	5,683	2,960	..	18	123,201
Total ..	15,803,438	17,120,655	8,203,333	3,354,843	1,365,413	1,301,329	785	10985	47,160,781

(a) Included with New South Wales. (b) Includes other Milk Products made. (c) Includes casein £36,717, and milk sugar £9,632.

§ 8. Exports of Australian Farmyard, Dairy, and Bee Products.

The quantities and values of Australian farmyard, dairy, and bee products exported during each of the last five years are shown below :—

AUSTRALIAN FARMYARD, DAIRY AND BEE PRODUCTS.—EXPORTS, 1921-22 TO 1925-26.

Particulars.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
QUANTITY.					
Beeswax lb.	830	581	1,902	782	1,577
Butter "	127,347,428	78,975,387	65,440,852	145,281,326	97,899,824
Cheese "	12,670,782	5,454,415	3,787,714	10,353,950	6,872,761
Egg albumen and yolk doz.	(a)	(a)	(a)	(a)	(a)
Eggs "	807,359	1,236,033	655,215	691,740	1,531,744
Feathers, undressed "	(a)	(a)	(a)	(a)	(a)
Honey lb.	94,471	57,638	41,584	137,116	113,401
Lard "	2,908,595	1,357,372	645,930	1,523,530	1,953,796
Meats—					
Bacon and Ham "	2,712,911	1,871,414	1,548,670	1,664,556	1,678,643
Frozen Poultry pair	50,367	34,399	10,882	10,898	22,381
Frozen Pork lb.	152,584	137,946	53,142	61,393	88,058
Milk, concentrated and preserved No.	36,678,109	21,135,137	17,762,106	29,165,694	23,626,795
Pigs, living "	119	67	38	65	320
Poultry, living "	2,624	2,858	2,174	2,057	3,418

VALUE.

	£	£	£	£	£
Beeswax "	77	51	137	69	131
Butter "	7,968,078	6,082,414	4,874,921	10,006,081	7,006,830
Cheese "	438,350	231,898	140,715	363,757	270,712
Egg albumen and yolk "	12,061	32	210		95
Eggs "	75,764	102,946	52,715	53,518	116,681
Feathers, undressed "	956	1,247	303	1,112	1,089
Honey "	4,448	2,718	2,060	3,807	3,756
Lard "	88,694	38,447	23,809	42,744	56,630
Meats—					
Bacon and Ham "	223,065	158,414	132,581	124,891	139,864
Frozen Poultry "	50,205	42,951	11,270	14,141	25,242
Frozen pork "	7,414	6,003	2,099	2,749	3,579
Milk, concentrated and preserved "	2,131,279	1,325,883	1,079,943	1,694,230	1,261,417
Pigs, living "	990	510	288	676	1,951
Poultry, living "	3,268	2,640	1,649	1,527	2,311
Total "	11,004,049	7,996,214	6,322,700	12,309,302	8,890,288

(a) Quantity not available.

§ 9. British Imports of Dairy Products.

1. Quantities and Values.—The following table gives the quantities and values of the principal dairy products imported into the United Kingdom during the years 1921 to 1925 :—

DAIRY PRODUCTS.—IMPORTS, UNITED KINGDOM, 1921 TO 1925.

Products.	1921.	1922.	1923.	1924.	1925.
Butter cwt.	3,523,976	4,268,561	5,095,511	5,287,244	5,853,245
" "	42,339,947	37,315,536	44,234,534	49,647,492	53,204,417
Cheese cwt.	2,817,465	2,659,345	2,838,546	2,887,413	3,008,702
" "	17,446,521	12,437,818	15,260,707	13,552,406	15,696,800
Milk, concentrated and preserved cwt.	2,350,610	2,059,050	2,366,532	2,333,701	2,413,350
" "	11,303,566	6,588,155	6,716,648	6,183,530	5,756,372
Bacon and ham cwt.	6,804,875	7,365,394	9,540,241	9,509,399	9,002,912
Pork (a) cwt.	51,745,149	44,115,900	46,536,807	45,050,619	50,774,719
" "	372,055	292,358	475,963	238,208	262,998
" "	1,863,027	1,102,304	1,898,233	952,057	1,133,648

(a) Frozen chilled, and salted.

2. *Butter.*—(i) *Imports.* Australia has for many years supplied a large proportion of the butter imported into the United Kingdom. The quantity shipped in 1925 amounted to 1,161,238 cwt., or nearly 20 per cent. of the total importation. The Australian contribution was valued at £9,484,977, and was exceeded only by that shipped from Denmark and New Zealand.

BUTTER IMPORTS.—UNITED KINGDOM, 1925.

Country from which Imported.	Quantity.	Value.	Country from which Imported.	Quantity.	Value.
	Cwt.	£		Cwt.	£
Denmark ..	1,658,052	17,110,534	Estonia ..	21,287	189,999
New Zealand ..	1,255,439	10,788,865	United States of America ..	11,843	110,372
Australia ..	1,161,238	9,484,977	Union of South Africa ..	5,860	51,659
Argentine Republic ..	484,503	4,030,324	Norway ..	3,824	38,883
Irish Free State ..	403,111	3,696,144	British Possessions, n.e.i. ..	1,102	7,279
Soviet Republics ..	292,226	2,448,095	Foreign Countries, n.e.i. ..	7,817	59,721
Finland ..	169,696	1,611,065			
Canada ..	162,523	1,518,167			
Sweden ..	81,436	813,823			
Netherlands ..	76,034	719,203			
France ..	30,996	291,432			
Latvia ..	26,258	233,875	Total ..	5,853,245	53,204,417

(ii) *London Prices.* The average price of the best quality Australian butter in London during the past ten years is shown in the following table :—

AUSTRALIAN BUTTER.—LONDON PRICES, 1915 TO 1926.

Year.	Average Top Price per cwt.	Year.	Average Top Price per Cwt.
	s. d.		s. d.
1915	144 6	1921	234 0
1916	169 6	1922	183 0
1917	(a) 206 0	1923	184 6
1918	(b) 252 0	1924	189 6
1919	(b) 252 0	1925	184 0
1920	(b) 299 9	1926	169 6

(a) Proclaimed price.

(b) Flat rate for all imported butter.

Under contract the British Government purchased the surplus output of Australian butter during the period from 1st July, 1918, to 31st July, 1920. The price paid was 175s. per cwt. for butter scoring 90 points, a shilling per cwt. being added or deducted as the grading score exceeded or fell below that standard. On the 1st August, 1920, the contract was extended for a further period, the price of butter having been increased to 240s. per cwt., subsequently raised to 272s., and the grading price being likewise increased to 1s. 6d. per cwt. This contract terminated on the 31st March, 1921, butter thenceforward being sold in open market.

3. *Cheese.*—The value of cheese imported into the United Kingdom in 1925 was £15,696,800, of which £6,726,780 was received from New Zealand, and £6,719,559 from Canada. Small experimental shipments from Australia were made in 1908 and following years, fair prices being realized. The value of the imports from Australia has increased from £24,568 in 1913 to £393,436 in 1925.

4. *Bacon and Ham.*—Of a total import of bacon and ham valued in 1925 at £50,774,719, the United Kingdom received imports to the value of £22,167,587 from Denmark, £14,792,851 from the United States, and £7,932,014 from Canada. The import from Australia was small, experimental shipments only having been made during recent years.

5. *Pork.*—The value of the United Kingdom imports of pork (frozen and salted only) was £1,133,648 in 1925. There was no importation from Australia, the bulk of the supplies being forwarded from the United States, New Zealand, Canada, China, Argentine Republic and Denmark.

6. *Other Products.*—There was practically no shipment to the United Kingdom from Australia of beeswax, poultry, game, lard, or honey, but frozen rabbits to the value of £462,788, and eggs to the value of £142,075 were received from Australia in 1925.

CHAPTER XIX.

FORESTRY.*

§ 1. Forestry.

1. **General.**—Economic forestry aims at the preservation and development of existing forest areas by safeguarding against fire and other destructive agencies, by expert supervision of the removal of timber, by judicious thinning, and by reforestation of denuded areas with suitable new growths of local or exotic origin. It provides also for the continuance of an indispensable form of national wealth by the afforestation of available bare lands adapted to the growth of various timbers. Though large areas of virgin forests still remain in Australia, the inroads made by timber-getters, by agriculturists, and by pastoralists—who have destroyed large areas by “ring-barking”—are considerable, and it is not unlikely that climatological changes are caused thereby. It is stated that beneficial consequences follow on the planting of trees on denuded lands, or along eroding coasts, and that a forest-covering beneficially regulates the effects of rainfall.

Successful planting of exotics in various parts of Australia has demonstrated that the climate is suitable for the cultivation of a large number of the most valuable and beautiful of the world's timber trees.

2. **Extent of Forests.**—(i) *Australia.* The wooded area of Australia contains a large number of xerophilous trees and woody shrubs which thrive in regions receiving less than 10 inches of rain per annum. Country devoid of tree growth is rare, the conditions being due to lack of suitable soil rather than lack of rainfall. Sand dunes, rock exposures, and clay pans are the most common treeless areas. A treeless region such as the 300 miles long Nullarbor plain is quite exceptional. There the lack of tree growth is due to the failure of the limestone formation to retain moisture. While, however, the major portion of Australia carries trees, and may be said to be well wooded (the term “desert” applying to relatively small areas only), dense forest is confined to a very narrow fringe. The savannah forests of the interior yield minor products such as sandalwood and tanbarks, but do not produce timber. These open, park-like formations carry only scattered trees of low habit. The bulk of the commercial forest products comes from the thickly-timbered areas comprised in the 30-inch and over rainfall belt south of the Tropics, and the 70-inch and over rainfall belt in the Tropics. The total area is comparatively small, and is confined to the following districts:—(a) The coastal belt in the extreme south-west of Western Australia, from a little north of Perth to Albany; (b) the Otway country, in the south of Victoria, and the whole of the south-eastern portion of that State; (c) the mountain forests of Victoria and New South Wales. A forest fringe extends along the coast of New South Wales and Queensland, the rainfall rising from 30 inches in the south and temperate portion to 140 inches in the Tropics. The greater portion of Tasmania receives sufficient rainfall to carry high forest, but a very small area only in South Australia, and practically none in the Northern Territory, are endowed with the necessary rainfall. Edaphic forests occur here and there, and the most important belt is probably that which is to be found on each side of the Murray River in New South Wales and Victoria. Red Gum (*E. rostrata*) is the riverine species. Practically the whole of Papua and New Guinea carry or have carried dense forests, the exceptions being certain small dry belts where the rainfall is less than 70 inches. Norfolk Island was, at one time, covered with a thick jungle.

Special articles relating to Australian Eucalyptus timbers and the chemical products of Eucalypts will be found in Official Year Book No. 10, pp. 85–98.

* A specially contributed article dealing with Forestry in Australia appeared as part of this chapter in Official Year Book No. 19 (*vide* pp. 701 to 712 therein).

Scientific surveys of the forests of the various States have not yet been completed, and there are, in consequence, conflicting reports regarding the total forest area of Australia. Expert foresters, however, estimate the forest area possible for permanent reservation at approximately 24,500,000 acres, distributed throughout the States as follows:—

ESTIMATED FOREST AREA—AUSTRALIA, 1925-26.

State.					Total Forest Area.	Percentage on Total Area.
					Acres.	%
New South Wales	..	..	..	..	8,000,000	4.04
Victoria	..	..	..	..	5,500,000	9.78
Queensland	..	..	..	..	6,000,000	1.40
South Australia	..	..	..	..	500,000	0.21
Western Australia	..	..	..	..	3,000,000	0.48
Tasmania	..	..	..	..	1,500,000	8.94
Total	..	..	..	..	24,500,000	1.29

(ii) *Comparison with other Countries.* The absolute and relative forest areas of Australia and other countries are shown below:—

FOREST LANDS.—RELATIVE AREAS, VARIOUS COUNTRIES.

Country.	Total Wooded Area.	Percentage on Total Area.	Country.	Total Wooded Area.	Percentage on Total Area.
	Sq. Miles.	%		Sq. Miles.	%
Soviet Republics	2,662,000	37.81	Norway	27,434	21.95
Canada	965,234	26.78	Rumania	26,436	21.62
United States	724,150	24.35	Italy	21,309	17.81
India (British)	228,850	20.91	Spain	18,965	9.74
Sweden	90,889	57.35	Czecho-Slovakia	17,996	33.17
Japan	74,019	50.13	New Zealand	17,969	17.30
Finland	71,770	55.80	Austria	12,220	37.75
Germany	50,608	26.29	Latvia	7,027	27.70
France	39,873	18.74	Greece	5,844	11.71
Australia	38,281	1.29	United Kingdom	5,180	3.90
Poland	32,781	21.99			

3. *Requisite Proportion of Forest Area.*—It is generally held that when the proportion of forest in any country falls below 0.86 acres per head of the population, that country will be obliged to import timber. Australia possesses 4.09 acres of forest per head of population, and the excess of imports of timber over exports amounts to 28,000,000 cubic feet. There are two reasons for this excess. In the first place the area of 24,500,000 acres given as the wooded area comprises all forest lands, reproductive or otherwise. The bulk of this area consists of cut-over forests swept by fire at frequent intervals, and the area of really productive forests is not available. Secondly, Australia does not possess a surplus of softwoods, and must, therefore—with the exception of a small quantity produced in Queensland and northern New South Wales—import the bulk of its requirements from overseas. The figure 24,500,000 acres represents the total area that in the estimation of foresters should be reserved for forestry, and taking the factor of 0.86, then, when all the forest area of Australia has been brought under sylvicultural treatment, and is yielding its maximum of hard and soft woods, and none is being imported, the timber supply of Australia would support a population of 28½ millions.

§ 2. Activities of the Commonwealth Government.

Forestry was not included amongst the matters transferred by the States to the control of the Commonwealth, and federal supervision, therefore, is restricted to the forests in the Commonwealth Territories. These territories cover a large area, and, with the exception of the Northern Territory, are capable of sound forestry development. It is only during the last few years, however, that any attempt has been made to take stock of the forestry position. Reports have been issued in regard to Papua, New Guinea, the Federal Capital Territory, and Jervis Bay, and a general policy has been drawn up for the management of the forests of these Territories. So far as co-operation with the States is concerned, there has been progress in a small way in connexion with the investigation of minor forest products. The Commonwealth Institute of Science and Industry, for example, has carried out valuable research work into the pulping qualities of Australian hardwoods and into the tanning qualities of barks and other material. It is proposed to enlarge the work of investigation into minor products, and, through the Forestry Bureau of the Commonwealth Government, to co-operate with the States in major forest work. An Australian Forestry School has been founded, and the Federal Capital Commission has appointed a qualified forester to manage the forests at Canberra and Jervis Bay, while it is anticipated that in both New Guinea and Papua the forests will shortly be placed under technical management.

§ 3. State Forestry Departments.

1. **Functions.**—Each State has organized a separate Department or Commission specially charged with the control and management of the State forests and timber reserves. Extensive survey work is carried on with a view to the classification of forest lands and the proclamation of State forests. The forests are improved by systematic cutting and scientific treatment, by judicious thinning and ringbarking, by the making of roads and the establishment of fire-breaks, and by the removal and destruction of debris, and stunted, diseased or suppressed growth. Provision is made for effective patrols in forest districts to check the ravages caused by fire, often due, it is believed, to carelessness. The training of forest officers, the conduct of research work, and the collection of forestry statistics are also undertaken.

2. **Forest Reservations.**—At the Interstate Conference on Forestry, held at Hobart in 1920, the forestry authorities of the various States agreed upon the necessity of reserving an area of 24,500,000 acres of indigenous forest lands to meet the future requirements of Australia. This area was distributed among the States as set out in § 1. 2 *ante*.

Having been endorsed by the Premiers' Conference held later in the same year, this area was adopted as the Australian forest ration towards which the authorities are now aiming for permanent reservation. The progress made in the various States to the end of June, 1926, is set out in the following table :—

AREA OF FOREST RESERVATIONS, 30th JUNE, 1926.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Dedicated State forests ..	5,230,601	3,581,371	1,779,349	201,857	916,553	176,137	11,885,868
Timber and fuel reserves ..	1,653,817	749,081	3,356,187	..	774,364	1,641,125	8,174,574
Total ..	6,884,418	4,330,452	5,135,536	201,857	1,690,917	1,817,262	20,060,442

(a) Includes Timber and Fuel Reserves.

The only notable increase in reservation during 1925-26 took place in Western Australia, where 782,257 acres were added to the permanent estate. Much progress has been made by the Lands Department of this State in arranging for the dedication of prime timber country as State Forest, and assurances have been given that this work will continue steadily until the whole of the prime timber belt has been dealt with.

The area of State forests reserved in perpetuity amounted in June, 1926, to 11,885,868 acres, or 48.5 per cent. of the quota adopted for Australia, while the timber reserves, which are liable to cancellation, embraced an area of 8,174,574 acres, making a total area of 20,060,442 acres under the control of the Forestry Departments. Of this area a considerable proportion consists of inaccessible mountainous country and cut-over lands, while the Australian quota recommended refers to merchantable forest only. The foresters of Australia are, therefore, faced with a difficult task in improving and preserving the existing forests, and in securing the reservation of further suitable forest country to ensure a permanent supply of accessible timber.

3. **Sylvicultural Nurseries and Plantations.**—Recognition of the necessity for systematic sylviculture has led to the creation in all of the States of a number of sylvicultural nurseries and plantations. The locality of these establishments, together with a brief statement of the nature of their activities, is given in previous issues of the Year Book. (Reference may be made to Official Year Book No. 6, pp. 451-3.) Details regarding forest plantations and employment are given hereunder :—

SYLVICULTURAL PLANTATIONS AND FORESTRY EMPLOYMENT, 1925-26.

Particulars.	New South Wales.	Victoria.	Q'land.	South Australia.	Western Australia.	Tasmania.	Total.
Total area of Effective Plantations—							
Softwoods .. Acres	11,214	10,995	1,225	16,084	1,954	300	41,772
Hardwoods .. Acres	..	2,183	282	5,761	..	..	8,226
Number of persons employed in Forestry Departments—							
Office Staff .. No.	30	34	62	9	36	3	174
Field Staff .. No.	669	126	187	165	(a)343	7	1,497

(a) Including 262 casual hands.

4. **Revenue and Expenditure.**—The revenue and expenditure of the State Forestry Departments from 1921-22 to 1925-26 are given below :—

FORESTRY DEPARTMENTS.—REVENUE AND EXPENDITURE, 1921-22 TO 1925-26.

State.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
REVENUE.					
	£	£	£	£	£
New South Wales	217,841	168,698	186,393	209,732	224,207
Victoria	155,160	163,076	166,556	162,792	161,608
Queensland	220,950	267,816	227,830	246,641	224,728
South Australia	11,234	8,362	11,110	22,905	19,418
Western Australia	88,529	87,658	127,253	182,764	227,061
Tasmania	18,891	19,346	21,150	20,757	20,715
Total	712,605	714,956	740,292	845,591	877,737
EXPENDITURE.					
	£	£	£	£	£
New South Wales	186,588	137,108	137,705	153,722	178,490
Victoria	130,076	138,714	160,373	199,575	274,732
Queensland	201,865	158,618	66,670	60,542	72,236
South Australia	36,467	40,822	40,487	43,459	53,977
Western Australia	47,885	38,827	48,333	86,739	101,321
Tasmania	7,069	8,293	8,277	11,435	13,007
Total	609,950	522,382	461,845	555,472	693,763

5. **Instruction in Scientific Forestry.**—Forestry schools have been established in New South Wales, Victoria, and Western Australia, in which general scientific instruction is imparted, special attention being paid to forestry. In the classes, theoretical forestry, botany, geology, physics, land surveying, etc., are taught; while in outside work trainees receive practical instruction in the preparation of seed-beds, seed-sowing, propagation, planting out, pruning, the general care and improvement of plantations and natural forests, and the employment of timber to the best advantage. Courses of lectures are also given at various centres, and, at some of the higher technical schools, members of the forest staffs are afforded opportunities of qualifying in special subjects. It was early realized, however, that a higher national school was necessary for the training of fully qualified foresters and this matter has engaged the attention of the forestry authorities in the various States since 1916. A site for the school was chosen, the curriculum was drawn up, and complete unanimity was arrived at regarding the higher training to be given at the institution, but matters were allowed to remain in abeyance. Early in 1925, however, the Commonwealth Government assumed the responsibility of establishing the institution, and the States agreed to nominate a certain number of students annually. Applicants for entry must have completed a two years' science course at one of the universities. The school, comprising eighteen students, was housed for the first year at Adelaide University, but early in 1927 it was transferred to Canberra, the Federal Capital City. It is anticipated that the Central College will supply the States with foresters qualified to undertake all necessary forestry work, and that it will constitute a nucleus of forest knowledge designed to develop on sound lines the silviculture of Australia.

6. **Forest Congresses.**—Interstate Conferences on Forestry were held in 1911 and 1912, chiefly with a view of securing uniformity of management. An International Forest Congress was held at Paris in June, 1913, when a Professor of South Kensington Imperial College represented the Commonwealth Government. The papers and reports dealt chiefly with the threatened shortage of timber, and the measures necessary to avert the danger. An Imperial Forestry Conference was held in London in the summer of 1920, at which also Australia was represented. Important Interstate Forestry Conferences were held in Adelaide in May, 1916; at Perth in November, 1917; at Hobart in April, 1920; at Brisbane in April, 1922, and at Sydney in September, 1924. Australia was also represented at a World's Forestry Congress held at Rome during May, 1926.

§ 4. Production.

1. **Timber.**—Estimates of the quantity and value of local timber sawn and hewn in the sawmills of the various States are given hereunder:—

SAWMILL OUTPUT OF NATIVE TIMBER, 1921-22 TO 1925-26.

State.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	1,000 sup. feet.	1,000 sup. feet.	1,000 sup. feet.	1,000 sup. feet.	1,000 sup. feet.
New South Wales ..	143,593	147,108	167,493	162,423	169,991
Victoria ..	112,008	118,336	134,639	114,705	109,534
Queensland ..	(a)112,987	(a)126,088	(a)141,672	143,623	131,662
South Australia ..	3,398	1,187	1,350	3,981	3,362
Western Australia ..	(a)163,991	(a)149,158	(a)161,749	(a)189,019	(b)271,662
Tasmania ..	(a)54,518	(a)45,564	(a)63,120	50,799	53,588
Total ..	590,495	587,441	670,023	664,550	739,799

(a) Year ended 31st December.

(b) Figures for eighteen months ended 30th June, 1926.

In addition to the timber shown above for Western Australia, the following quantities were hewn by contractors for the Railway Department, Mines, etc., or were sawn in establishments other than forest sawmills during the past five years:—1921-22, 19,672,258 sup. feet; 1922-23, 29,901,378 sup. feet; 1923-24, 30,797,419 sup. feet; 1924-25, 18,118,199 sup. feet; and 1925-26, 57,272,898 sup. feet.

2. **Other Forest Products.**—(i) *Eucalyptus Oil.* Oil may be distilled from the foliage of all varieties of eucalyptus, and several of them furnish a product widely known for its commercial and medicinal uses. Complete information regarding Australian production and consumption of eucalyptus oil is not available, but large quantities are manufactured, particularly in Victoria. Oversea exports amounted in 1922-23 to £33,990, in 1923-24 to £66,339, in 1924-25 to £75,763, and in 1925-26 to £73,023, the bulk of the product being shipped from Victoria to the United Kingdom, the United States and Germany. Large quantities of the crude oil are used locally in flotation processes at the mines.

(ii) *Tan Barks.* The forests of Australia contain a wealth of tanning materials, all the eucalypts being capable of furnishing a percentage of tannin. The principal source of supply in Australia is obtained from the golden, and the black or green wattle, and in pre-war days the production was more than sufficient for local requirements and an export trade was built up. The supply is, however, diminishing, and since 1921-22 Australia has imported on the average about 2,750 tons each year from Natal, where the plantations were originally started from Australian seed. In addition to the wattle bark, a valuable tan bark is obtained from the mallet (*E. occidentalis*) of Western Australia. This bark is not extensively used in Australian tanneries, but is exported to Europe and other countries, where it is used for producing a tannin extract. A survey of the tanning materials of Australia was recently completed by the Council for Scientific and Industrial Research, and the results have shown that with one possible exception no new high-grade tanning materials were discovered that could be exploited commercially for tanning purposes in the natural form, i.e., as tanning bark. Several new materials, however, were found to have a high tannin content, but in the majority of cases abundant supplies would not be economically available for transport to consuming centres unless the varieties of trees concerned were systematically cultivated. Prospects for utilizing a large variety of materials are more favourable in connexion with the manufacture of blended tannin extracts at or near the centre of harvesting. A tannin content of about 30 per cent. was recorded for the first time for the bark of a gum-tree (*Eucalyptus alba*) from the Kimberleys in the north-west of Western Australia. The tannin of this bark possesses excellent tanning qualities, and ample supplies are believed to be available, but the cost of collection would be high. Other Western Australian materials which possess a high tannin content, and of which abundant supplies are available in the southern portion of the State are the bark of karri (*E. diversicolor*), the wood of tuart (*E. gomphocephala*), and red-gum or marri kino (*E. calophylla*). All these materials could be utilized if blended either with other known tanning materials occurring in the same area, or with soluble (sulphited) marri kino. Abundant supplies of mangrove barks are available both in tropical Australia and Papua. Their tannins might be worked up to form extract, either alone or blended with other lighter-coloured extractives. Blends of ridge-gum and mangrove bark are considered suitable for the manufacture of a high-grade extract. In the eastern States cypress pine bark is considered a promising raw material for the preparation of tannin extract. Blends with wattle have been tried. Silver wattle (*Acacia decurrens*, var. *dealbata*) might also be profitably worked up for tannin extract (alone or blended). None of the leaves and twigs examined was considered a promising material either for utilization in the original form or for the preparation of tannin extract, as in most cases the tannic content was low and the proportion of non-tannin too high. The production of tan bark in Australia is estimated at about 27,000 tons per annum.

3. **Value of Production.**—Though the valuation of the quantity of firewood consumed in Australia presents serious difficulty, an estimate of the total value of forest production is compiled annually with the following results for the past five years :—

VALUE OF FOREST PRODUCTION.—AUSTRALIA, 1921-22 TO 1925-26.

Production.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	£	£	£	£	£
Total ..	8,998,000	9,344,000	10,292,000	10,577,000	10,964,000

§ 5. Commercial Uses of Principal Australian Timbers.

1. **General.**—The uses of the more important Australian timbers are many and various, and are indicated in previous issues of this work. (See Official Year Book No. 6, pp. 454–6; and Official Year Book No. 10, Section III., § 7 and 8.)

The following is a list of the Australian timbers best known on the local markets :—

(a) SOLEROPHYLLOUS FOREST OF THE SOUTH, WEST, AND EAST—MAIN GENUS EUCALYPTUS.

Eucalyptus :—Blue Gum (*E. globulus*), Messmate or Stringy Bark (*E. obliqua*), Mountain Ash or Swamp Gum (*E. regnans*), Red Mountain Ash, Wollybutt, Gum topped Stringybark (*E. gigantea* and *E. delegatensis*), Jarrah (*E. marginata*), Karri (*E. diversicolor*), Murray River Red Gum (*E. rostrata*), Brown Stringybark (*E. capitellata*), Red Ironbark (*E. sideroxylon*), Grey Ironbark (*E. paniculata*), Narrow-leaved Ironbark (*E. crebra*), Tallow Wood (*E. microcorys*), Spotted Gum (*E. maculata*). Conifers :—Cypress Pine (*Callitris & Frenela verrucosa*), Huon Pine (*Dacrydium Franklinii*)* King William Pine (*Arthrotaxis selaginoides*)* Celery-top Pine (*Phyllocladus rhomboidalis*)* Other :—Blackwood (*Acacia melanoxylon*), Myrtle (*Fagus Cunninghamii*), Sassafras (*Atherosperma moschata*), — (*Banksia sp.*), Oaks (*Casuarina sp.*).

(b) TROPICAL AND SUB-TROPICAL RAIN-FORESTS—BROAD LEAVED TREES.

Cedar (*Cedrela Toona* var. *australis*), Silkwood or Cedar (*Flindersia Mazlini*), Crows Ash (*Flindersia australis*), Hickory (*Flindersia Ifflaiana*), White Beech (*Gmelina Leichardtii*), Black Bean (*Castanospermum australis*), Walnut (*Cryptocarya sp.*), Turpentine (*Syncarpia laurifolia*).

(c) CONIFERS OF THE EAST AND NORTH-EAST.

Hoop Pine (*Araucaria Cunninghamii*), Bunya Pine (*Araucaria Bidwilli*), Queensland Kauri Pine (*Agathis Palmerstoni*), Brown Pine (*Podocarpus elata*).

(d) INTRODUCED SPECIES IN PLANTATION.

Excluding ornamental trees, the introduction of trees for forestry purposes is confined to conifers. South Australia took the first steps in this direction. The following species have been tried there and in other States :—

Monterey Pine (*P. radiata* (syn. *insignis*)), Cluster Pine (*P. pinaster* (syn. *maritima*)), Jerusalem Pine (*P. halepensis*), Canary Pine (*P. canariensis*), Yellow or Pondosa Pine (*P. ponderosa*), Black Corsican Pine (*P. nigra* (syn. *laricio*)), Longleaf Pine (*P. palustris*), Lobolly Pine (*P. taeda*), Bishop's Pine (*P. muricata*), Slash Pine (*P. caribaea*), Cedar (*Cedrus deodara*), Cedar (*Cedrus libani* and *atlantica*), Douglas Fir or Oregon (*Pseudotsuga Douglasii*), Larch (*Larix europea*), Redwood (*Sequoia gigantea* and *S. sempervirens*).

2. **Lack of Uniformity in Nomenclature.**—Unfortunately the vernacular names applied to the gums, ironbarks, etc., in the various States, and even in different parts of the same State, do not always refer to identical timbers. The resulting confusion has not only been productive of loss, but it has, to some extent, prejudicially affected the timber trade. This subject is referred to at some length in the special article "Australian Eucalyptus Timbers," in Section III., § 7 and 8, in Official Year Book No. 10. At the Forestry Conferences alluded to above, the matter came up for special consideration, and steps were taken to establish a uniform nomenclature.

§ 6. Oversea Trade.

1. **Imports.**—(i) *Dressed Timber.* The quantity and value of timber imports into Australia during the four years 1922–23 to 1925–26 inclusive are shown according to countries of origin in the following tables :—

* Confined to Tasmania.

DRESSED TIMBER.—IMPORTS, AUSTRALIA, 1922-23 TO 1925-26.

Country of Origin.	Quantity.				Value.			
	1922-23.	1923-24.	1924-25.	1925-26.	1922-23.	1923-24.	1924-25.	1925-26.
	sup. ft.	sup. ft.	sup. ft.	sup. ft.	£	£	£	£
United Kingdom ..	625	3,443	1,083	5,343	33	659	112	342
Canada ..	4,119,889	5,112,662	3,122,711	6,367,054	44,113	59,456	33,733	60,942
Other British Countries:	2,995	17,998	109,050	46,477	124	568	1,363	1,079
Norway ..	49,971,566	38,071,271	41,824,922	41,419,031	724,507	528,346	605,784	506,705
Sweden ..	30,299,618	46,363,406	25,814,691	43,282,827	421,307	633,704	306,715	485,867
United States ..	7,196,660	8,040,984	15,789,591	15,303,997	63,998	94,492	173,095	161,674
Other Foreign Countries:	497,096	48,032	39,147	1,460,169	6,468	1,168	2,004	22,419
Total ..	92,088,449	97,057,796	86,701,195	107,884,898	1,260,550	1,318,393	1,122,806	1,239,028

The figures in the table above are exclusive of items such as architraves, veneers, etc., quantities for which are either not shown, or are expressed in dissimilar units in the Customs entries. The total value of the items so excluded amounted to £185,299 in 1925-26, including plywood, veneered or otherwise, £139,772.

The bulk of the imports of dressed timber comes from Norway, Sweden, and the United States. Practically the whole of this timber consists of softwoods—deal and pine—used for lining, weatherboards, flooring, shelving, doors, box-making, etc.

(ii) *Undressed Timber.* Australian imports of undressed timber for the latest available four years are given hereunder:—

UNDRESSED TIMBER, INCLUDING LOGS (b).—IMPORTS, AUSTRALIA, 1922-23 TO 1925-26.

Country of Origin.	Quantity.				Value.			
	1922-23.	1923-24.	1924-25.	1925-26.	1922-23.	1923-24.	1924-25.	1925-26.
	sup. ft.	sup. ft.	sup. ft.	sup. ft.	£	£	£	£
United Kingdom	28,736	25,226	49,168	132,230	1,216	1,482	1,183	3,362
Canada ..	43,548,208	52,076,045	22,454,122	21,433,364	314,978	475,450	166,934	168,515
India ..	62,909	97,869	322,963	396,877	769	2,693	6,559	12,860
Malaya (British)	237,433	257,560	176,539	220,411	2,057	1,944	1,509	2,168
New Zealand ..	42,822,742	42,843,088	44,170,689	49,626,921	533,962	510,165	594,478	671,165
Other British Countries	1,699,662	971,622	890,033	1,567,528	14,471	9,803	9,112	15,354
Japan ..	6,116,548	5,082,326	8,103,367	6,895,043	130,550	113,196	200,187	136,835
Java ..	a 884,416	a 577,930	928,474	1,252,120	a 8,097	a 8,058	10,230	9,649
Norway ..	406,720	1,724,176	3,528,405	787,576	5,761	27,207	37,086	7,916
Sweden ..	3,220,682	6,914,823	5,864,057	6,465,812	44,012	96,407	61,583	60,643
United States ..	169,636,426	226,360,751	219,487,525	288,943,456	1,665,312	2,762,302	1,921,325	2,517,746
Other Foreign Countries ..	3,871,076	6,147,964	9,963,442	14,298,104	69,751	67,349	131,229	188,898
Total ..	272,535,558	343,979,380	315,938,784	392,019,451	2,790,936	4,076,056	3,141,415	3,795,111

(a) Including other Dutch East Indian possessions.

super. feet.

(b) Exclusive of timber not measured in

By far the larger proportion of the undressed timber imports consists of softwoods such as yellow pine, redwood, and oregon from the United States of America and Canada; kauri, rimu, and white pine from New Zealand; pine from Japan, and red deals from Norway and Sweden. Amongst the hardwoods imported, the principal are oak from the United States of America and Japan, and teak from India.

2. *Exports.*—The quantity and value of undressed timber exported from 1921-22 to 1925-26 are given below, the countries of destination being also shown:—

**UNDRESSED TIMBER, INCLUDING LOGS (a).—EXPORTS, AUSTRALIA,
1921-22 TO 1925-26.**

Country to which Exported.	Quantity.					Value.				
	1921-22	1922-23	1923-24	1924-25	1925-26	1921-22	1922-23	1923-24	1924-25	1925-26
	1,000 sup. ft.	1,000 sup. ft.	1,000 sup. ft.	1,000 sup. ft.	1,000 sup. ft.	£	£	£	£	£
United Kingdom ..	8,824	5,731	14,154	17,539	10,718	116,017	75,556	143,443	192,744	107,951
Canada ..	136	41	198	201	302	3,030	866	2,915	4,272	6,537
Ceylon ..	6,203	1,898	3,222	4,822	8,385	61,759	19,392	30,773	44,798	100,536
Egypt ..	402	(b)	(b)	(b)	(b)	4,698	(b)	(b)	(b)	(b)
Hong Kong ..	462	334	..	..	131	6,580	3,883	..	..	1,618
India ..	9,161	2,672	12,588	1,230	7,920	91,358	28,468	125,865	11,274	79,890
Malaya (British) ..	2	176	..	..	4	24	5,045	..	..	25
Mauritius ..	3,706	2,367	2,835	2,448	67	50,591	24,546	29,849	24,152	1,040
New Zealand ..	23,874	24,845	36,349	46,318	31,750	358,960	324,052	510,035	680,802	424,214
Pacific Islands—										
Fiji ..	845	664	1,130	781	1,077	12,604	10,307	17,407	13,286	17,230
Territory of New Guinea ..	95	157	213	239	509	2,401	2,883	4,572	4,483	8,038
Other Islands ..	586	474	535	715	937	12,597	8,339	10,558	16,520	17,471
Papua ..	99	217	316	405	357	2,391	3,814	5,347	7,197	7,244
South African Union ..	37,261	42,370	24,681	51,902	47,130	395,026	472,564	273,713	558,511	527,138
Belgium ..	1,768	595	716	2,182	157	18,790	5,949	7,157	21,819	1,473
China ..	1,939	3,149	3,695	4	1,703	19,796	27,418	36,951	197	17,032
Egypt ..	..	(c)1,981	5,341	66	518	(c)19,963	55,666	664	..	5,156
Japan ..	128	173	116	..	50	2,478	2,169	2,100	..	742
Pacific Islands—										
New Caledonia ..	51	32	57	76	40	1,234	538	1,034	1,450	990
Other Islands ..	62	63	87	124	83	1,426	1,329	1,658	2,079	1,717
U.S. of America ..	489	439	399	469	846	12,550	11,196	9,318	12,169	20,131
Other Foreign Countries ..	303	122	276	433	501	4,417	1,865	3,587	5,855	6,377
Total ..	96,394	88,500	106,908	130,004	113,185	1,178,725	1,050,142	1,271,948	1,602,272	1,352,550

(a) Exclusive of timber not measured in super feet. (b) Now recorded as a Foreign Country.
(c) Previously recorded as a British Country.

As the table shows, the bulk of the exports of undressed timber was consigned to South Africa, New Zealand, and the United Kingdom, and consisted largely of the Western Australian hardwoods, jarrah, and karri, which have earned an excellent reputation for such purposes as railway sleepers, harbour works, wood paving, etc.

3. Classification of Imports and Exports.—(i) *General.* The quantities of timber classified according to varieties imported and exported during the year 1925-26 are given in the next table:—

**TIMBER, VARIETIES IMPORTED AND EXPORTED.—QUANTITIES, AUSTRALIA,
1925-26.**

Description.	Unit of Quantity.	Imports.	Exports.	Excess of Imports over Exports.
Dressed ..	sup. ft.	107,884,898	799,343	107,085,555
Undressed, including logs ..	..	392,019,451	113,184,837	278,834,614
Architraves, mouldings, etc. ..	lin. ft.	37,629	69,941	— 32,312
Plywood, veneered or otherwise ..	sup. ft.	8,796,795	(b)	(b)
Palings ..	No.	..	334,849	— 334,849
Pickets ..	..	58,840	1,000	57,840
Shingles ..	..	3,590,370	472	3,589,898
Staves—				
Dressed, etc. ..	..	490,686	1,485	489,201
Undressed ..	..	2,346,868	5,027	2,341,841
Laths—				
For blinds ..	..	(a)	(a)	(a)
Other ..	..	31,850,145	5,000	31,845,145
Doors ..	..	30,290	..	30,290
Wood pulp ..	ton	15,514	(b)	15,514
Veneers ..	..	(a)	(b)	(b)
Spokes, rims, felloes, etc. ..	..	(a)	(a)	(a)
Other ..	..	(a)	(a)	(a)

(a) Quantity not available. (b) Exports not recorded separately.
NOTE.—The minus sign — denotes an excess of exports.

Similar particulars relative to the values of imports and exports during the year 1925-26 are shown hereunder :—

TIMBER, VARIETIES IMPORTED AND EXPORTED.—VALUES, AUSTRALIA, 1925-26.

Description.	Imports.	Exports.	Excess of Imports over Exports.
	£	£	£
Dressed	1,239,028	19,786	1,219,242
Undressed, including logs	3,795,111	1,352,550	2,442,561
Architraves, mouldings, etc.	328	447	— 119
Plywood, veneered or otherwise	139,772	(a)	(a) 139,772
Palings .. .. .	..	3,750	— 3,750
Pickets	556	21	535
Shingles	6,338	3	6,335
Staves—			
Dressed, etc.	27,672	58	27,614
Undressed	34,612	152	34,460
Laths—			
For blinds	25	132	— 107
Other	44,644	20	44,624
Doors	22,298	..	22,298
Wood pulp	227,122	(a)	(a) 227,122
Veneers	11,912	(a)	(a) 11,912
Spokes, rims, felloes, etc.	4,209	4,940	— 731
Other	2,901	..	2,901
Total	5,556,528	1,381,859	4,174,669

NOTE.—The minus sign — denotes an excess of exports. (a) Exports not recorded separately.

(ii) *Sandalwood.* A considerable amount of sandalwood is annually exported principally from Western Australia to China, where it is highly prized, and largely used for artistic and ceremonial purposes. Particulars for the past five years are as follows :—

SANDALWOOD.—EXPORTS, AUSTRALIA, 1921-22 TO 1925-26.

Country to which Exported.	Quantity.					Value.				
	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	ton.	ton.	ton.	ton.	ton.	£	£	£	£	£
United Kingdom ..	4	..	..	..	1	267	2	..	..	7
Hong Kong ..	3,334	4,057	8,894	3,811	5,063	57,714	66,460	222,300	113,551	155,139
India ..	333	469	239	406	341	6,144	8,131	6,192	11,574	12,384
Malaya (British) ..	228	352	1,404	725	567	3,935	5,322	45,118	27,321	18,340
Other British Countries ..	2	2	..	..	1	36	30	..	..	53
China ..	575	2,419	3,754	1,722	2,255	7,611	30,876	83,415	53,031	66,639
Other Foreign Countries ..	6	..	..	..	7	123	3	..	..	245
Total ..	4,482	7,899	14,291	6,664	8,235	75,830	110,824	357,025	205,477	252,807

(iii) *Tan Bark.* Tan bark figures both as an export and import in the Australian trade returns, as the following tables show. The first table refers to exports :—

TAN BARK.—EXPORTS, AUSTRALIA, 1921-22 TO 1925-26.

Country to which Exported.	Quantity.					Value.				
	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	cwt.	cwt.	cwt.	cwt.	cwt.	£	£	£	£	£
United Kingdom..	1	12	..	48	104	1	3	..	48	58
New Zealand ..	17,047	12,718	5,278	4,061	1,008	11,927	8,299	3,263	2,372	701
Other British Possessions ..	..	309	..	332	..	..	194	..	170	..
Germany ..	..	..	9,005	36,081	303	..	..	4,983	19,587	159
Other Foreign Countries ..	822	4,490	3,318	2,272	5,033	534	2,220	2,172	1,155	2,900
Total ..	17,870	17,529	17,601	42,794	6,448	12,462	10,716	10,418	23,332	3,818

The exports of tan bark from Australia during the past three years consisted largely of mallet bark from Western Australia. The shipments of this bark are not so large as in pre-war days, owing to the cutting out of supplies. This bark is mainly despatched to Germany, where it is converted into a tannin extract.

A comparison of the imports and exports of tan bark during the last five years is given in the next table :—

TAN BARK.—IMPORTS AND EXPORTS, AUSTRALIA, 1921-22 TO 1925-26.

Particulars.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
	cwt.	cwt.	cwt.	cwt.	cwt.
QUANTITIES—					
Imports	34,328	93,769	73,941	28,628	44,372
Exports	17,870	17,529	17,601	42,794	6,448
Excess of exports over imports	— 16,458	— 76,240	— 56,340	14,166	— 37,924
VALUES—					
Imports	£ 15,954	£ 37,349	£ 28,672	£ 11,821	£ 21,498
Exports	12,462	10,716	10,418	23,332	3,818
Excess of exports over imports	— 3,492	— 26,633	— 18,254	11,511	— 17,680

NOTE.—The minus sign — denotes excess of imports.

The imports consist almost exclusively of wattle bark from the plantations in South Africa. One variety of Australian wattle is found to flourish in the sandy belts near the coast, but it is the *Acacia decurrens*, var. *mollis*, which is chiefly relied upon for the production of wattle bark in the South African plantations. Seed has been tried from New South Wales, Tasmania, and Victoria, but it is stated that most of the seed is obtained from the best wattle bark areas in eastern Tasmania and western Victoria.

Two reasons are given to account for the success of the industry in South Africa. (a) It is found that the treeless, grassy highlands of Natal are specially suitable for wattle culture, and the trees can therefore be grown in rows and economically attended to, while the necessary bark sheds and other appurtenances can be placed in the most advantageous positions. (b) There is an abundance of cheap and efficient native labour available for employment on the plantations.

Considerable quantities of tanning substances other than bark are annually imported into the Commonwealth. The total value of the importations in 1925-26 was £79,535, and was composed as follows :—Wattle bark extract, £1,278; quebracho extract, £20,740; other extract, £23,307; and valonia, myrobalans, cutch, etc., £34,210.

CHAPTER XX.

FISHERIES.*

§ 1. General.

1. *Fish Stocks.*—Australia possesses an abundant and varied fish fauna, which embraces both tropical and temperate varieties and includes destructive as well as valuable species. In rivers and lakes both indigenous and imported varieties thrive. The latter have been introduced and acclimatized for industrial and sporting purposes by Governments and angling societies. Exploitation of the fishing areas—for some classes of fish for the whole year, for others during the breeding season only, or until a certain size is attained—is, where necessary, forbidden; proclaimed localities are closed against net-fishing, and a minimum size of mesh for nets is fixed. The sea-fishermen in some districts have made regulations in their own interests for the purpose of controlling the market supply.

2. *Progress of Industry.*—(i) *Transport and Marketing.* Despite the abundance of edible fish, the progress of the fishery industry in Australia has been slow, and transport and marketing of the proved supplies have not been satisfactorily dealt with.

In New South Wales, as shown in § 5 herein and § 6 of this Chapter in Official Year Book No. 17, the matter of exploiting trawlable fish was undertaken by the State Government, which also took steps to improve the conditions under which ordinary coastal fishing is carried on. In Queensland, State trawling was undertaken in 1919, and good trawling areas have been located and charted between Cape Moreton and Caloundra.

(ii) *Economic Investigations.* Although valuable work has been done by the State Governments in the way of experiment and culture, a uniform policy of development for Australia is desirable, and recommendations have been made that the Fisheries Departments of the various States should co-operate with the Federal Government with a view to increasing the productiveness of Australian waters, and bringing about uniformity in fisheries laws. All live fish imported into Australia are examined on shipboard in order to prevent the importation of undesirable fish. With the object of ascertaining the movements of oceanic fishes, and of estuarine fishes which make periodical oceanic migrations, reports are furnished regarding the various kinds of fishes, etc., and their movements along the coast. Details regarding the activities of the States in fish-culture were given in Official Year Book No. 6, pp. 471-2. By arrangement with the Commonwealth Fisheries Department some years ago members of the staff of the Australian Museum, Sydney, accompanied the F.I.S. *Endeavour* on various cruises. Specimens were collected, mounted for scientific purposes, and distributed to other Australian Museums, a considerable number being put aside for the Commonwealth Fishery Museum. As pointed out in § 4, however, this vessel was lost with all hands in 1914, and has not since been replaced.

3. *Consumption of Fish.*—It has been said that the Australians are not an "ichthyophagous" race, seeing that the annual consumption of fish per head of population in Great Britain is set down at 42 lbs., while in Australia it has been estimated at only 13 lbs. The heavy imports of dried and preserved fish indicate, however, that there is scope for the development of the industry, which now seems to be ill-managed, the price to the consumer being high, while the fisherman's gain is uncertain, and the system of distribution lacks method.

* A specially contributed article dealing with the Marine and Fresh Water Fisheries of Australia appeared as § 6 of this Chapter in Official Year Book No. 17 (*vide pp. 752 to 767 therein*).

4. **Oyster Fisheries.**—Natural oyster beds exist on the foreshores in the shallow waters of inlets and estuaries in several parts of Australia. By husbanding the natural crop, and by judicious transplanting, the output has been very materially augmented. The areas are leased by the Government to private persons, lengths of foreshore being taken up under oyster leases. In New South Wales and Queensland the industry has thriven, and small yields are obtained in South Australia, Victoria, and Tasmania.

5. **Pearl-Shell, Pearls, Bêche-de-Mer, etc.**—(i) *General.* Pearl-shelling is carried on in the tropical waters of Queensland, the Northern Territory, and Western Australia. The pearl-oyster inhabits the northern and western coastal waters from Cape York to Shark Bay, a length of shore of over 2,000 miles. The shells are marketed in considerable quantities, and pearls also are obtained in Queensland, Western Australia and the Northern Territory. The fishing is generally conducted with the aid of diving apparatus in water varying from 4 to 20 fathoms in depth. In Queensland and the Northern Territory the bêche-de-mer industry is carried on, and tortoise-shell is obtained on the coasts. Experiments have been made in cultivating the pearl-oyster on suitable banks. In October, 1911, a pearl weighing 178 grains, and valued at £3,000, was obtained at Broome. Further details regarding pearl-shelling are given in Official Year Book No. 6, p. 463. Trochus-shell to the value of £47,892 and £76,280 was exported from Australia during 1924–25 and 1925–26.

(ii) *Royal Commission on Pearl-shelling Industry.* In accordance with the "White Australia" policy it was originally determined that the employment of Asiatic labour in the pearl-shelling industry should be restricted, and ultimately cease, and it was proposed that after 31st December, 1913, permits to bring in Asiatics for the pearling-fleet should no longer be issued. In view, however, of the disorganization of the industry occasioned by the war, the time was extended to the 30th June, 1918, after which date permits to introduce Asiatic labour were to be granted only in cases where the diver and tender of a boat were Europeans. The Royal Commission appointed in March, 1912, presented its final report in 1916. The Commissioners stated that, though it might be practicable, they did not consider it advisable or profitable to attempt to transfer the industry from Asiatics to Europeans. They further stated that, while the labour now employed is almost entirely Asiatic, they did not consider that the "White Australia" policy would be weakened or imperilled by allowing the industry to continue as at present conducted.

§ 2. The Fishery Industry.

1. **Boats and Men Engaged, and Take.**—(i) *General Fisheries.* The returns have been compiled from particulars supplied by the State Departments, and while the data do not generally lend themselves to presentation on a uniform basis, the principal facts have been incorporated in the tables hereunder:—

GENERAL FISHERIES, 1925.

State or Territory.	No. of Boats Engaged.	Value of Boats and Equip-ment.	No. of Men Em-ployed.	Total Take of—		Value of Take.	
				Fish.	Spiny Lobster (Crayfish).	Fish.	Spiny Lobster (Crayfish).
	No.	£	No.	cwt.	doz.	£	£
New South Wales ..	1,703	112,283	3,021	181,609	8,477	508,506	c 74,399
Victoria (e) ..	891	110,545	1,321	61,292	16,629	171,618	14,966
Queensland ..	647	46,669	1,258	55,300	..	129,636	d 7,932
South Australia ..	755	49,075	1,270	(a)	(a)	b150,000	(a)
Western Australia ..	256	36,248	532	34,712	9,896	90,000	4,948
Tasmania ..	145	21,370	374	doz. 71,424	3,256	8,946	1,093
Northern Territory	2	(a)	10	220	..	326	..
Total ..	4,399	376,190	7,786	..	38,258	1,059,032	103,338

(a) Not available. (b) Estimate. (c) Including £63,591, the value of 8,955 cwt. prawns and 6,058 dozen crabs. (d) Crabs. (e) Year ended 30th June, 1928.

Returns for the past five years are given in the table below :—

GENERAL FISHERIES.—AUSTRALIA, 1921 TO 1925.

Particulars.		1921.	1922.	1923.	1924.	1925.
No. of boats engaged ..	..	3,684	3,873	3,776	4,346	4,399
No. of men employed ..	..	7,846	7,771	7,422	7,885	7,786
Fish obtained—						
Quantity ..	cwt.	a377,614	a350,350	a319,148	a345,012	a341,133
Value ..	£	a708,670	a793,263	a845,354	a882,042	a909,032
Lobsters obtained—Value	£	a43,329	a54,796	a59,862	a75,893	a103,338

(a) Exclusive of South Australia.

(ii) *Edible Oyster Fisheries.* The returns from oyster fisheries are given in the next table.

EDIBLE OYSTER FISHERIES, 1925.

State or Territory.	Number of Boats Engaged.	Value of Boats and Equip-ment.	Number of Men Em-ployed.	Number of Leases.	Oysters Taken.	
					Quantity.	Value.
	No.	£	No.	No.	cwt.	£
New South Wales ..	655	27,857	579	4,686	49,701	92,774
Victoria (b) ..	5	1,175	8	8	103	388
Queensland ..	81	8,880	122	522	28,186	39,999
South Australia (c) ..	..	..	..	..	..	..
Western Australia ..	..	..	..	..	..	..
Tasmania ..	4	600	19	(a)	100,000 (doz.)	d 2,401
Total ..	745	38,512	728	5,216	..	135,562

(a) Not available.

(b) Year ended 30th June, 1926.

(c) Included with General Fisheries.

(d) Including £601, value of scallops.

Returns for Australia for the last five years are given in the appended table :—

EDIBLE OYSTER FISHERIES.—(c) AUSTRALIA, 1921 TO 1925.

Particulars.		1921.	1922.(a)	1923.(a)	1924.(a)	1925.(a)
No. of boats engaged	..	(b) 591	624	694	725	741
No. of men employed	..	(b) 602	667	768	805	709
Oysters obtained—						
Quantity	.. cwt.	63,804	68,516	76,857	67,302	77,990
Value..	.. £	96,808	110,305	122,874	113,623	133,161

(a) Exclusive of Tasmania.

(b) Exclusive of Victoria.

(c) Exclusive of South Australia.

(iii) *Pearls, Pearl-shell and Trepang.*—Figures regarding the production, trade, etc., for these items, so far as they are ascertainable, are given hereunder. As regards pearls, for obvious reasons no correct estimate can be obtained of the value of those found. Pearl-shell (*Margaritifera*) is widely distributed in North Australian waters over an area facing some thousands of miles of coastline, though not intensively over the whole distance. The north-west beds are the most prolific, but those around and to the north of Cape York are also of importance. There is need for further investigation into the occurrence of this valuable shell, as well as of trochus, green snail, window-pane shell (*Placuna*), the various types of trepang or bêche-de-mer (*Holothuria*), both in tropical Australian waters and in those of Papua and the mandated area of New Guinea. Particulars as returned for the year 1925 are as follows :—

PEARL, PEARL-SHELL, AND BÊCHE-DE-MER FISHERIES, (a), 1925.

State or Territory.	Number of Boats Engaged.	Value of Boats and Equipment.	Number of Men Employed.	Quantity of Pearl-shell obtained.	Value of Pearl-shell obtained.	Value of Pearls obtained.	Value of Bêche-de-mer obtained.	Value of Tortoise-shell obtained.
	No.	£	No.	Tons.	£	£	£	£
Queensland ..	155	85,000	1,601	1,150	144,284	4,305	12,688	770
Western Australia ..	246	131,896	1,746	1,409	210,201	60,290	..	..
Northern Territory	15	(b)	(b)	43	7,800	500	847	50
Australia ..	416	216,896	3,347	2,602	362,285	65,095	13,535	820

(a) No pearl-shelling industry in New South Wales, Victoria, South Australia, and Tasmania.

(b) Not available.

The figures for tortoise-shell and trochus-shell as returned are defective, as the necessary information is not collected in full detail. In the following summary of production during the past five years, export figures of Australian origin are inserted for both of these items :—

PEARL, PEARL-SHELL, AND BÊCHE-DE-MER FISHERIES.—AUSTRALIA, 1921 TO 1925.

Particulars.	1921.	1922.	1923.	1924.	1925.
No. of boats engaged ..	334	356	388	387	416
No. of men employed ..	2,403	2,639	3,005	3,043	3,347
Pearl-shell obtained—					
Quantity .. tons	1,422	2,271	2,292	2,784	2,602
Value .. £	189,276	303,452	288,689	444,234	362,285
Pearls obtained (a)—					
Value .. £	36,163	38,163	60,717	59,670	65,095
Bêche-de-mer obtained—					
Quantity .. tons	(b)	(b)	(b)	(b)	(b)
Value .. £	52,201	65,679	33,370	25,757	13,535
Tortoise-shell exported—					
Value .. £	1,243	2,012	2,574	2,025	4,730
Trochus-shell exported—					
Value .. £	26,285	25,095	23,142	47,892	76,280

(a) Incomplete ; as returned.

(b) Not returned.

2. Fish Preserving.—To encourage the industry, the Federal Parliament provided a bounty of $\frac{1}{4}$ d. per lb. for fish preserved as prescribed during the ten years 1907–8 to 1916–17. The payment, which amounted to only £3,005 during the period, or at the rate of £300 per annum, failed to develop the industry, and the bounty was not renewed on its expiration in 1916–17.

3. State Revenue from Fisheries.—The revenue from fisheries in each State during the year 1925 is given hereunder :—

FISHERIES.—REVENUE, 1925.

State or Territory.	Licences.	Leases.	Fines and Forfeitures.	Other Sources.	Total.
	£	£	£	£	£
New South Wales ..	1,404	11,782	272	969	14,427
Victoria (a) ..	660	44	177	15	896
Queensland ..	2,803	2,680	295	13	5,791
South Australia ..	1,125	..	..	..	1,125
Western Australia ..	3,989	1,311	22	324	5,646
Tasmania ..	2,551	110	15	..	2,676
Northern Territory ..	25	..	..	..	25
Total ..	12,557	15,927	781	1,321	30,586

(a) Year ended 30th June, 1926.

Similar particulars for Australia for the last five years are given in the following table:—

FISHERIES.—REVENUE, AUSTRALIA, 1921 TO 1925.

Particulars.	1921.	1922.	1923.	1924.	1925.
	£	£	£	£	£
Licences	9,164	9,092	10,013	9,551	12,557
Leases	13,106	14,181	13,419	15,944	15,927
Fines and Forfeitures ..	472	663	1,029	1,018	781
Other Sources	586	1,076	3,170	905	1,321
Total	23,328	25,012	27,631	27,418	30,586

§ 3. Oversea Trade in Fishery Products.

1. **Imports of Fish.**—The development of the local fishing industry leaves much to be desired, as is evident from the large imports. For the last five years the imports were as follows:—

FISH.—IMPORTS, AUSTRALIA, 1921-22 TO 1925-26.

Classification.		1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
Fresh (oysters) ..	cwt.	2,297	2,927	415	1,646	2,899
	£	3,675	4,091	301	1,222	2,228
Fresh, or preserved	cwt.	25,130	38,508	50,718	64,409	69,855
by cold process	£	107,999	127,172	165,948	197,690	205,163
Potted	cwt.	(a)	(a)	(a)	(a)	(a)
	£	72,788	69,422	101,085	110,347	130,969
Preserved in tins	cwt.	163,034	175,322	233,318	226,263	228,226
	£	885,781	867,708	1,158,048	1,120,428	1,164,223
Smoked, dried, and	cwt.	13,170	13,633	15,592	13,815	11,362
n.e.i.	£	59,038	56,190	63,167	51,831	45,079
Total	cwt. (b)	203,631	230,390	300,043	306,133	312,342
	£	1,129,281	1,124,583	1,488,549	1,481,518	1,547,662

(a) Not available.

(b) Exclusive of potted fish.

Tinned fish constitutes by far the largest proportion of the imports, most of it consisting of salmon from Canada, the United States of America, Norway, and the United Kingdom. The potted fish comes chiefly from the United Kingdom, while the South African Union supplied the largest proportion of the fresh fish in 1925-26, the bulk of the remainder coming from the United Kingdom and New Zealand. The small import of oysters is supplied by New Zealand.

2. **Exports of Fish.**—The exports of local fish produce for the five years 1921-22 to 1925-26 are given hereunder:—

FISH (AUSTRALIAN PRODUCE).—EXPORTS, 1921-22 TO 1925-26.

Classification.		1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
Fish, fresh, smoked, or	cwt.	9,865	9,692	5,681	3,449	1,498
preserved by cold	£	89,095	66,104	33,259	23,710	7,606
process						
Preserved, in tins,	cwt.	78	162	476	386	261
dried, salted, etc.	£	306	433	1,185	1,401	491
Total	cwt.	9,943	9,854	6,157	3,835	1,759
	£	89,401	66,537	34,444	25,111	8,097

The quantity of fresh fish exported from Australia is trifling, and the amount of £7,606 shown in the table above consists chiefly of cured bêche-de-mer exported to Hong Kong from Queensland.

3. Exports of Pearl and Other Shell.—The exports of pearl, tortoise, and trochus-shell, of Australian origin, are given hereunder for the five years 1921-22 to 1925-26 :—

**PEARL, TORTOISE, AND TROCHUS-SHELL.—EXPORTS, AUSTRALIA,
1921-22 TO 1925-26.**

Article.		1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
Pearl-shell	cwt.	38,900	41,027	48,017	44,112	48,631
	£	317,623	320,602	377,313	413,095	391,695
Tortoise-shell	lb.	1,938	2,812	3,308	2,432	4,993
	£	1,243	2,012	2,574	2,025	4,730
Trochus-shell	cwt.	14,320	13,186	12,072	16,552	19,787
	£	26,285	25,095	23,142	47,892	76,280

The bulk of the pearl-shell exported during 1925-26 was consigned to the United States of America and the United Kingdom, the respective values of the shipments amounting to £232,026 and £150,537, while trochus-shell to the value of £69,131 was dispatched to Japan.

§ 4. The Commonwealth Department of Fisheries.

In 1907 the Commonwealth Government decided to demonstrate what might be attained commercially by the application of modern methods in fishery. A Federal Investigation Ship, the *Endeavour*, was constructed specially for the work, and a Director of Fisheries was appointed. Experimental cruises were undertaken, which showed that Australia possesses an asset of considerable value in her sea fisheries. The *Endeavour* was unfortunately lost at sea with all on board at the end of 1914 and has not been replaced. A description of the trawling grounds discovered, data regarding oceanography to the east of Australia, and a list of the publications of the Department are given in pp. 333 to 335 of Year Book No. 14.

§ 5. Trawling in Australian Waters.

The State Trawling Industry was established in New South Wales in 1915, and fishing operations were conducted with seven steel steam trawlers. The catches were landed at Sydney and Newcastle, and the fish distributed through retail shops, of which there were fourteen in the metropolitan area, one in Newcastle, and five in country towns. During the year ended 30th June, 1922, the State trawlers landed 2,413 tons of fish, valued at £101,337. Early in the year 1923 the Government discontinued trawling operations, as the venture was not a commercial success, and the assets have since been disposed of. The operations of the Government trawlers, however, revealed some of the richest trawling areas in the world, and these grounds are being successfully exploited by private enterprise.

CHAPTER XXI.

MINERAL INDUSTRY.

§ 1. The Mineral Wealth of Australia.

1. **Place of Mining in Australian Development.**—The value of production from the mineral industry is now considerably less than that returned by the agricultural or the pastoral industry, nevertheless it was the discovery of gold in payable quantities that first attracted population to Australia, and thus laid the foundation of its nationhood. Prior to 1851, the year when Hargraves' memorable discovery was made, coal and copper had both been mined to some extent, and the existence of deposits of other minerals, including gold, had been proved. But it was the news of the sensational finds of the precious metal in 1851 and the year immediately following that brought about a constant stream of immigration, and caused an increase in population from 405,000 at the end of 1850 to upwards of 1,146,000 at the end of 1860.

2. **Extent of Mineral Wealth.**—The extent of the total mineral wealth of Australia cannot yet be regarded as completely ascertained, as large areas of country still await systematic prospecting. The presence of considerable deposits of valuable minerals has long been known. Thus, coal was discovered in 1797, and a shipload was exported to Bengal in 1799, silver was discovered as early as 1839, and was worked as early as 1864; copper mining dates back to 1844; lead to about 1848; iron to about 1850; while the discovery of gold in payable quantities dates back to 1851. Cobalt, nickel, manganese, chromium, tungsten, molybdenum, mercury, antimony, bismuth, zinc, cadmium, radio-active ores, etc., have all been found, some in fairly large quantities. During recent years osmiridium has figured largely in the Tasmanian returns.

Among the more valuable non-metalliferous substances other than coal may be mentioned coke, kerosene shale, graphite, alunite, asbestos, diatomaceous earth, phosphate, clays, ochres, etc.; in building stones—sandstones, syenites, granites, basalts, augite-andesite, porphyries, serpentines, slates, limestones, and marbles; in precious stones—diamonds, emeralds, rubies, sapphires, amethysts, precious opal, turquoise, topazes, garnets, chrysolites, cairngorm, agates, etc.

3. **Quantity and Value of Production during 1925.**—The quantities (where available) and the values of the principal minerals produced in each State, and in Australia as a whole during the year 1925, are given in the tables immediately following. It must be clearly understood that the figures quoted in these tables refer to the quantities and values of the various minerals in the form in which they were reported to the States Mines Departments, and represent amounts which the Mines Departments consider may fairly be taken as accruing to the mineral industry as such. They are not to be regarded as representative of Australia's potentiality as a producer of *metals*, this matter being dealt with separately in § 18 hereinafter. It may be explained, therefore, that the item pig-iron in New South Wales refers only to metal produced from locally-raised ore and so reported to the Mines Department. New South Wales is, of course, in normal times, a large producer of iron and steel from ironstone mined in South Australia. As the table shows, the latter State receives credit for this ironstone in its mineral returns, but the iron and steel produced therefrom cannot be assigned to the mineral industry of New South Wales. Similarly lead, silver-lead, and zinc are credited in the form reported to the State of origin—chiefly New South Wales—although the actual metal extraction is carried out to a large extent elsewhere.

MINERAL PRODUCTION.—QUANTITIES, 1925.

Minerals.	Unit.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T. (d)	Australia.
Alunite ..	ton	531	..	..	..	..	..	..	531
Antimony ..	..	20	120	..	..	..	..	..	149
Arsenic ..	..	3,346	..	1,115	100	(c)	..	..	4,561
Asbestos ..	..	..	..	..	..	51	..	..	51
Barytes ..	..	200	..	..	2,008	..	3	..	2,211
Bismuth ..	cwt.	220	..	10	..	..	..	..	230
Brown Coal ..	ton	..	876,468	..	..	..	..	..	876,468
Chromite ..	..	963	..	..	..	..	..	..	963
Coal ..	..	11,396,199	534,246	1,177,173	..	437,461	81,008	..	13,626,777
Cobalt ..	..	..	..	90	..	..	..	..	90
Copper (ingot, matte, etc.) ..	..	478	..	3,909	570	..	6,539	..	11,496
Copper ore ..	..	..	..	..	..	1,201	..	4	1,205
Diatomaceous earth ..	..	701	..	..	..	..	..	..	701
Gold ..	fine oz.	10,422	47,206	46,406	832	441,252	3,524	456	559,188
Gypsum ..	ton	206	14,518	..	72,276	3,060	..	..	90,150
Iron (pig) (b) ..	..	95,530	..	..	..	..	..	..	95,530
Iron oxide ..	..	4,376	..	..	..	..	..	..	4,376
Ironstone ..	..	..	..	345	586,652	..	..	..	586,997
Kaolin ..	..	3,793	1,594	..	490	..	..	..	5,877
Lead ..	..	..	..	5,235	..	..	5,528	..	10,761
Lead and silver ore, concentrates, etc.	..	277,566	..	..	37	4,664	..	191	282,458
Limestone flux ..	..	135,115	..	82,571	114,870	..	124,670	..	457,226
Magnesite ..	..	14,012	91	267	351	..	..	..	14,721
Manganese ore ..	..	1,164	..	..	..	..	..	..	1,164
Molybdenite ..	cwt.	120	690	60	..	..	..	..	870
Osmiridium ..	oz.	..	..	..	..	..	3,366	..	3,366
Phosphate ..	ton	200	..	..	742	..	..	..	942
Pigments ..	..	276	307	..	87	..	..	..	670
Platinum ..	oz.	573	(a)	..	78,251	..	..	..	573
Salt ..	..	..	..	..	..	..	..	..	78,251
Sapphires ..	..	1,490	..	22,237	..	..	..	..	23,727
Shale (oil) ..	ton	..	..	..	..	820	..	..	820
Silver ..	fine oz.	46,544	2,082	385,480	1,458	81,226	730,194	..	1,246,993
Tin and tin ore ..	..	957	69	1,012	..	108	1,130	110	3,386
Wolfram ..	..	7	..	5	..	..	174	..	186
Zinc ores and con- centrates ..	..	226,525	..	171	..	..	3,113	..	229,809

(a) Not available for publication.

(b) See letterpress preceding this table.

(c) Quantity not

stated: Contained in gold ore.

(d) Year ended 30th June.

The values of the minerals raised in each State during 1925 are given in the following table:—

MINERAL PRODUCTION.—VALUE, 1925.

Minerals.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T. (e)	Australia.
	£	£	£	£	£	£	£	£
Alunite ..	2,124	..	..	..	..	..	..	2,124
Antimony ..	395	5,380	..	..	..	..	..	5,775
Arsenic ..	8,333	..	11,150	600	1,045	..	..	21,128
Asbestos ..	..	..	..	..	1,641	..	..	1,641
Barytes ..	400	..	79	6,024	..	16	..	6,440
Bismuth ..	2,950	..	..	..	..	..	..	3,029
Brown Coal ..	..	166,404	..	..	..	..	..	166,404
Chromite ..	2,670	..	..	..	..	..	..	2,670
Coal ..	9,302,515	596,117	1,037,956	..	363,203	70,424	..	11,370,215
Cobalt ..	..	..	18,014	..	..	..	..	18,014
Copper (ingot and matte) ..	30,215	..	254,074	35,878	..	436,661	..	756,828
Copper ore ..	..	..	..	..	18,200	..	15	18,215
Diamonds ..	240	..	..	..	..	..	..	240
Diatomaceous earth ..	1,084	..	..	..	..	..	..	1,084
Gold ..	82,498	200,958	197,118	3,535	1,874,320	15,041	1,939	2,375,409
Gypsum ..	724	11,291	..	63,242	4,118	..	..	79,375
Iron (pig) (b) ..	525,415	..	..	..	..	..	..	525,415
Iron oxide ..	2,436	..	..	..	..	..	..	2,436
Ironstone ..	..	..	345	674,649	..	..	..	674,994
Kaolin ..	3,793	2,262	..	559	..	..	..	6,614
Lead ..	..	..	187,681	..	..	197,452	..	385,133
Lead and silver lead ore, concen- trates, etc.	5,314,977	..	..	1,455	103,300	..	617	5,420,349

For notes see next page.

MINERAL PRODUCTION—VALUE, 1925—*continued.*

Minerals.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N. T. (c)	Australia.
	£	£	£	£	£	£	£	£
Limestone flux ..	33,779	..	38,091	43,076	..	124,670	..	239,616
Magnesite ..	12,832	273	267	878	..	..	..	14,250
Manganese ore ..	3,635	..	..	..	..	..	..	3,635
Molybdenite ..	1,648	5,545	271	..	..	..	..	7,464
Opal ..	10,030	..	1,000	9,070	..	..	..	20,100
Osmiridium ..	..	..	..	..	..	103,570	..	103,570
Phosphate ..	337	..	..	1,142	..	..	..	1,479
Pigments ..	166	650	..	887	..	..	..	1,703
Platinum ..	11,061	..	..	..	..	..	..	11,061
Salt ..	..	(a)	..	176,065	..	..	..	176,065
Sapphires ..	7,772	..	34,573	..	..	..	..	42,345
Shale (oil) ..	..	..	..	..	..	559	..	559
Silver ..	5,999	291	53,003	200	11,661	105,509	..	176,663
Tin and tin ore ..	250,944	11,592	161,500	..	15,392	297,515	15,966	752,909
Wolfram ..	311	..	184	..	..	14,658	..	15,153
Zinc concentrates ..	1,022,018	..	2,350	..	..	110,691	..	1,135,057
Unenumerated ..	(d) 16,286	..	14,800	11,136	1,010	1,178	(c) 3,178	47,588
Total ..	16,657,585	1,000,763	2,012,456	1,028,396	2,393,890	1,477,944	21,715	24,592,749

(a) Not available for publication. (b) See letterpress, page 724. (c) Includes mica £2,835, and amblygonite £343. (d) Includes dolomite £3,600, silica £6,000, and fireclay £6,000. (e) Year ended 30th June.

It may be pointed out in connexion with the figures given in the above table that the totals are exclusive of returns relating to certain commodities, such as stone for building and industrial uses, sand, gravel, brick and pottery clays, lime, cement, and slates, which might rightly be included under the generic term "mineral." Valuations of the production of some of these may be obtained from the reports of the various Mines Departments, but in regard to others it is impossible to obtain adequate information. In certain instances, moreover, the published information is of little value. By restricting the comparison to items in connexion with which properly comparable information can be obtained for each State, it is believed that a satisfactory estimate of the progress of the mineral industry can be more readily obtained. The items excluded from the total for New South Wales in 1925 consist of—lime, £96,178; building stone, £147,172; Portland cement, £1,320,698; coke, £942,448; road materials, £251,956; shell grit, £470; mineral water, £282; sulphur and sulphuric acids, £93,724; and brick and pottery clays, £300,510. From the Queensland returns, marble, £221 has been deducted, while carbide, £60,047, and cement £162,870 have been excluded from the Tasmanian figures.

4. Value of Production, 1921 to 1925.—The value of the mineral production in each State during the five years 1921 to 1925 is given in the table hereunder:—

MINERAL PRODUCTION.—VALUE, 1921 TO 1925.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N. T.	Australia.
	£	£	£	£	£	£	£	£
1921 ..	12,052,509	1,218,783	1,405,899	904,659	3,463,764	822,767	19,003	19,977,384
1922 ..	12,951,164	1,244,966	1,859,084	331,866	3,041,112	878,009	9,959	20,316,160
1923 ..	14,176,683	1,031,223	2,215,498	890,378	2,747,101	1,154,397	16,612	22,231,897
1924 ..	16,299,835	964,917	2,305,069	953,592	2,776,796	1,325,867	19,138	24,045,914
1925 ..	16,657,585	1,000,763	2,012,456	1,028,396	2,393,890	1,477,944	21,715	24,592,749

For New South Wales the value of production in 1925 was the highest ever recorded, and was over £357,000 in excess of that for 1924 which showed the highest value previously. The principal increase in 1925 was in silver-lead, the production from which was valued

at over a million sterling above that in 1924. Small increases were recorded also in gold and iron. On the other hand, the return from coal declined by £287,000, and from zinc by £275,000. The decrease in the Victorian returns for 1924 resulted chiefly from the decline in the yields from gold and tin, and the improvement in 1925 was due to the increased production of brown coal, the value of the output rising from £41,000 in 1924 to £166,000 in 1925.

In Queensland the comparatively small returns in 1921 and 1922 were occasioned by the low prices realized for the principal industrial metals. Increases in the yields from copper, lead, silver, cobalt, and tin mainly accounted for the rise in value of production for 1923. In 1924 the chief increases were in gold, tin, and coal, but in 1925, although there were increases in lead and coal, these were more than counterbalanced by the falling-off in gold, copper, and tin. The low returns in South Australia for 1921 were due to the small production of copper, and this was followed by a still smaller yield in 1922, when the value dwindled to £74,000, the least return since 1844. A further factor in the reduction of the total for 1922 was the temporary cessation of operations at the ironstone deposits at Iron Knob, the value of the ore raised being £58,000, as compared with £587,000 in 1921. The improvement in the returns for this State during the last three years was mainly due to the increased production of iron ore, the value of which rose to over £667,000 in 1925. The yield from salt advanced from £127,000 in 1921 to £176,000 in 1925. In Western Australia the returns for 1925 show a decrease of about £383,000 on the total for 1924, the fall being due almost entirely to the decline in the gold yield. The increased production for 1925 in Tasmania was largely due to the returns from osmiridium, the yield from which was valued at £104,600, as compared with £10,600 in 1924. There were increases also in the returns from lead, tin, wolfram, and zinc. The mining industry in the Northern Territory is apparently emerging from the stagnation which characterized it a few years ago, although wolfram, which formed one of the principal products in previous years, is still unprofitable to mine.

5. Total Production to end of 1925.—In the next table will be found the estimated value of the total mineral production in each State up to the end of 1925. The figures given in the table are also exclusive of the same items referred to in connexion with the preceding table. Thus the total for New South Wales falls short by £24,394,000 of that published by the State Department of Mines, the principal items excluded being coke, £10,074,000; cement, £10,614,000; lime, £1,175,000; and marble, £51,000.

MINERAL PRODUCTION.—VALUE TO END OF 1925.

Minerals.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor.Ter.(a)	Australia.
	£	£	£	£	£	£	£	Million. £
Gold ..	63,622,259	302,868,414	85,587,230	1,625,008	156,659,698	8,890,784	2,281,669	622
Silver and lead ..	104,502,415	264,019	3,981,872	380,386	2,130,081	7,979,955	63,132	119
Copper ..	15,517,826	216,656	25,693,524	33,077,200	1,804,998	17,769,513	232,792	94
Iron ..	6,161,280	15,641	472,270	4,733,540	36,721	52,110	..	11
Tin ..	13,351,664	943,634	10,452,602	..	1,537,468	16,140,887	568,788	43
Wolfram ..	272,187	11,885	1,061,624	301	1,441	196,910	216,859	2
Zinc ..	18,615,153	..	6,633	15,993	5,437	237,496	..	19
Coal ..	150,953,908	8,433,962	14,242,187	..	4,558,336	1,344,511	..	179
Other ..	7,456,133	808,328	2,768,717	3,195,217	137,950	1,160,046	38,494	15
Total	380,452,834	313,562,539	144,266,668	43,027,645	166,872,128	53,772,212	3,401,734	1,104

(a) To 30th June, 1925.

The "other" minerals in New South Wales include alunite, £206,475; antimony, £344,983; bismuth, £232,504; chrome, £119,756; diamonds, £144,452; limestone flux, £1,074,733; molybdenite, £211,759; opal, £1,549,924; scheelite, £192,375; and oil shale,

£2,690,710. In the Victorian returns antimony ore was responsible for £612,035. The value for coal in this State includes £463,692 for brown coal. Included in "other" in the Queensland production were opal, £182,495; gems, £604,248; bismuth, £118,297; molybdenite, £598,796; and limestone flux, £778,371. The chief items in South Australian "other" minerals were salt, £1,925,878; limestone flux, £373,621; gypsum, £404,272; and phosphate, £129,118. In the Tasmanian returns limestone flux was responsible for £393,238, osmiridium for £412,467, scheelite for £112,468, and iron pyrites for £93,916.

6. Decline in the Metalliferous Industry.—On the 1st December, 1921, a Select Committee was appointed by the Legislative Assembly of New South Wales to inquire into and report upon the serious decline in the metalliferous industry. The result of the Committee's investigations was published in a Report issued in 1922, wherein the chief contributing causes of the decline in New South Wales and in Australia generally were summarized as follows:—(1) High cost of production. (2) Deterioration in ore values in existing mines. (3) Inadequate machinery. (4) High freights. (5) High treatment charges. (6) Imperfect labour conditions in mines. (7) Lack of new payable discoveries. (8) Lack of efficiently-supported prospecting.

§ 2. Gold.

1. Discovery in Various States.—The discovery of gold in payable quantities was an epoch-making event in Australian history, for, as one writer aptly phrases it, this event "precipitated Australia into nationhood." A more or less detailed account of the finding of gold in the various States appears under this section in Official Year Books Nos. 1 to 4, but considerations of space preclude its repetition in the present issue.

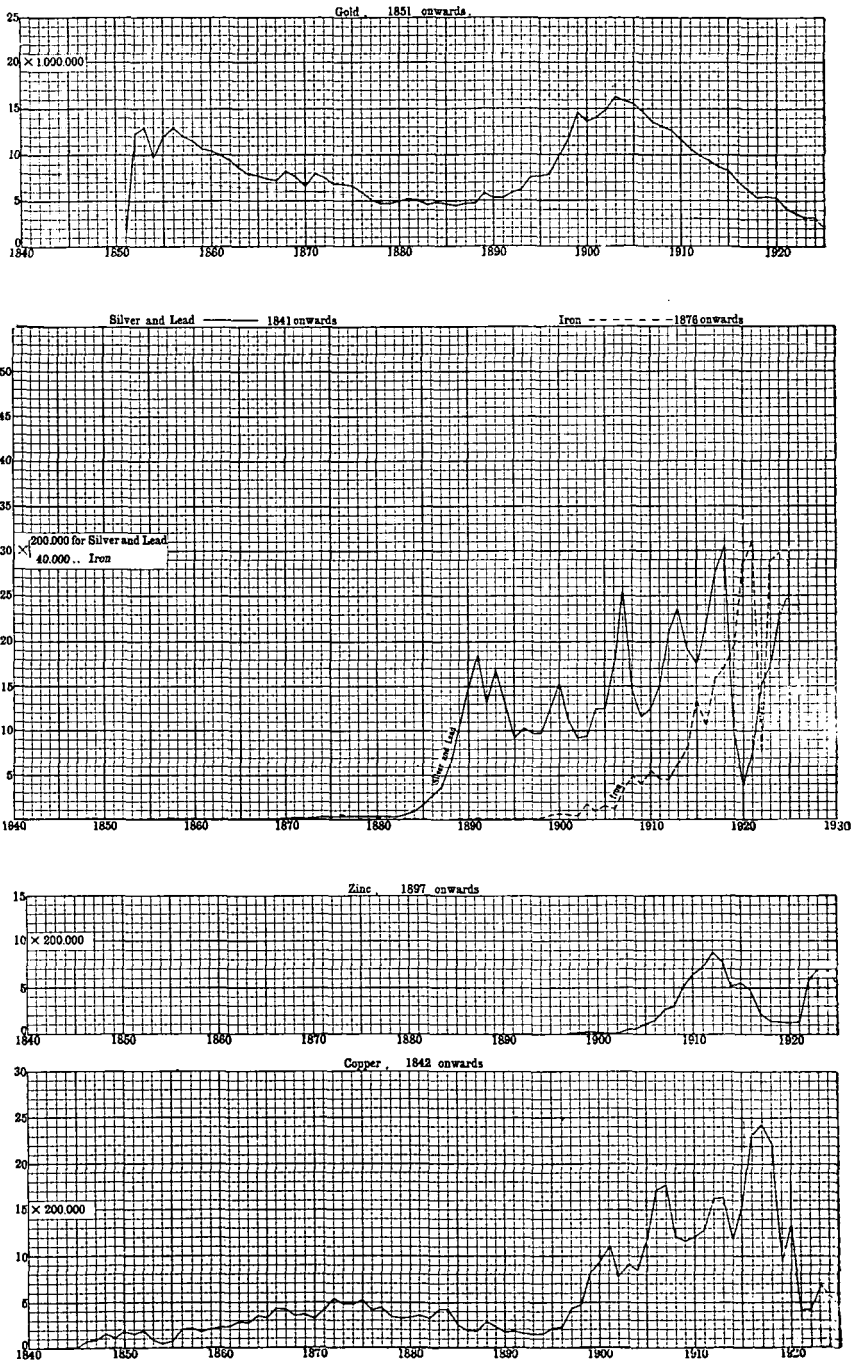
2. Production at Various Periods.—In the following table will be found the value of the gold raised in the several States and in Australia as a whole during each of the six decennial periods from 1851 to 1920, and in single years from 1921 to 1925, from the dates when payable discoveries were first reported. Owing to defective information in the earlier years the figures fall considerably short of the actual totals, for during the first stages of mining development, large quantities of gold were taken out of Australia by successful diggers, who preferred to keep the amount of their wealth secret.

GOLD.—VALUE OF PRODUCTION, 1851 TO 1925.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	Australia.
	£	£	£	£	£	£	£	£
1851-60..	11,530,583	93,337,052	14,565	..	..	788,564	..	105,670,764
1861-70..	13,676,103	65,106,264	2,076,494	..	..	12,174	..	80,871,035
1871-80..	8,576,654	40,625,188	10,733,048	579,068	..	700,048	79,022	61,293,028
1881-90..	4,306,541	28,413,792	13,843,081	246,668	178,473	1,514,921	713,345	40,216,821
1891-1900	10,332,120	29,904,152	23,939,350	219,931	22,308,524	2,338,336	906,988	89,999,410
1901-10..	9,569,492	30,136,686	23,412,395	310,080	75,540,415	2,566,170	473,871	142,009,109
1911-20..	4,988,377	13,354,217	9,876,677	238,808	46,808,351	873,302	100,652	76,240,384
1921 ..	271,302	554,087	214,060	13,933	2,935,693	28,311	1,299	4,018,685
1922 ..	118,359	501,515	378,154	4,693	2,525,811	16,101	540	3,545,173
1923 ..	83,325	422,105	392,563	4,199	2,232,179	16,300	743	3,151,414
1924 ..	86,905	312,398	459,716	4,093	2,255,932	21,516	3,270	3,143,830
1925 ..	82,498	200,958	197,118	3,585	1,874,320	15,041	1,939	2,375,409
Total ..	63,622,259	302,868,414	85,587,230	1,625,008	156,659,693	8,890,784	2,281,669	621,535,062

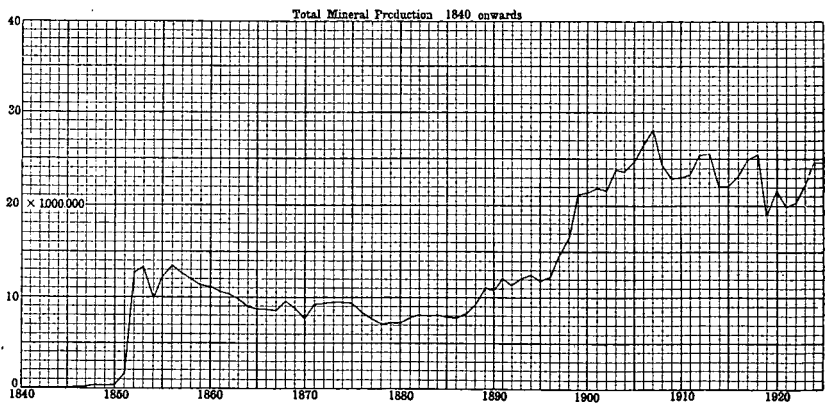
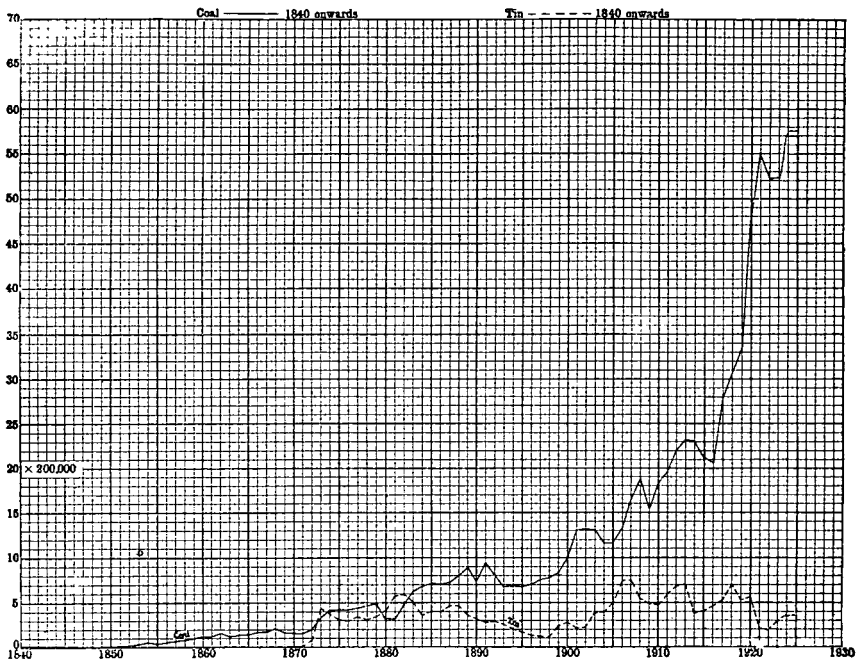
The value of the gold yield in 1925 was the lowest recorded since the discovery of the precious metal in 1851.

VALUES OF THE PRINCIPAL MINERALS PRODUCED—AUSTRALIA, 1840 TO 1925.



EXPLANATION.—The values shown are those of the total Australian production of certain of the most important minerals in successive years from 1840 to 1925.

The base of each small square represents an interval of one year, and the vertical height represents in the case of gold £1,000,000; in the case of silver and lead, zinc and copper £200,000; and in the case of iron, £40,000.

VALUES OF PRINCIPAL MINERALS PRODUCED—AUSTRALIA, 1840 TO 1925—*continued*.

EXPLANATION.—The values shown are those of the total Australian production of certain of the most important minerals in successive years from 1840 to 1925.

The base of each small square represents an interval of one year, and the vertical height represents in the case of coal and tin £200,000, and in the case of total mineral production £1,000,000.

The amount of gold raised in Australia in any one year attained its maximum in 1903, in which year Western Australia also reached its highest point. For the other States the years in which the greatest yields were obtained were as follows:—New South Wales, 1852; Victoria, 1856; Queensland, 1900; South Australia, 1904; and Tasmania, 1899.

The following table shows the quantity in fine ounces of gold raised in each State and in Australia during each of the last five years, the value of one ounce fine being taken at £5 6s. 0½d. in 1921, at £4 13s. 10½d. in 1922, at £4 8s. 5½d. in 1923, at £4 13s. 0½d. in 1924, and £4 4s. 11½d. in 1925:—

GOLD.—QUANTITY PRODUCED, 1921 TO 1925.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Nor. Ter.	Australia.
	Fine ozs.	Fine ozs.	Fine ozs.	Fine ozs.	Fine ozs.	Fine ozs.	Fine ozs.	Fine ozs.
1921 ..	51,173	104,512	40,376	2,628	553,731	5,340	(a) 245	758,095
1922 ..	25,222	106,872	80,584	1,000	538,246	3,431	(a) 115	755,470
1923 ..	18,833	95,403	88,726	949	504,511	3,684	(a) 168	712,274
1924 ..	18,685	67,167	98,841	880	485,035	4,626	(a) 703	675,937
1925 ..	19,422	47,296	46,406	832	441,252	3,524	(a) 456	559,188

(a) Year ended 30th June.

Unfortunately the general decline which has characterized Australia's gold output for a number of years has not been checked by new finds of importance, and unless more economic methods of exploiting existing low-grade deposits can be evolved the depression is likely to continue.

3. **Changes in Relative Positions of States as Gold Producers.**—A glance at the figures in the table showing the value of gold raised will sufficiently explain the enormous increase in the population of Victoria during the period 1851 to 1861, when an average of over 40,000 persons reached the State each year. With the exception of the year 1889, when its output was surpassed by that of Queensland, Victoria maintained its position as the chief gold-producer for a period of forty-seven years, or up to 1898, when its production was outstripped by that of Western Australia, the latter State from this year onward contributing practically half, and so far as recent years are concerned more than half the entire yield of Australia. New South Wales occupied the second place on the list until 1874, when Queensland returns exceeded those of the parent State, and, with the exception of the year 1921, maintained this pre-eminence to the end of 1924. South Australia has occupied the position of lowest contributor to the total gold yield since the year 1871. Taking the average of the last ten years, the relative position of each State in regard to the gold production of Australia was as follows:—

GOLD.—RELATIVE POSITION OF STATES AS PRODUCERS, 1916 TO 1925.

State.	Annual Average of Gold Production. 1916 to 1925.	Percentage on Total.	State.	Annual Average of Gold Production. 1916 to 1925.	Percentage on Total.
	Ozs.			Ozs.	
Total ..	986,741	100·0	New South Wales	52,544	5·3
Western Australia ..	678,291	68·7	Tasmania ..	7,535	0·8
Victoria ..	132,681	13·5	South Australia ..	3,230	0·3
Queensland ..	111,923	11·4	Northern Territory	537	..

4. **Methods of Gold Mining adopted in Each State.**—(i) *New South Wales.* Approximately half the production in 1925 was obtained by two dredges operating in the Adelong and Gundagai divisions. The yields from alluvial other than by dredging amounted to

983 ozs., of which 216 ozs. were won in the Tumut and Adelong district, 180 ozs. at Tambaroora and Turon, 173 ozs. at Peel and Uralla, 159 ozs. in the Southern area, and 138 ozs. at Bathurst. From stone treated the production was 7,969 ozs. over 5,000 ozs. of the total coming from the Lachlan district. The Bathurst district contributed 950 ozs., and smaller quantities were returned from the Southern, Turon and Tumut and Adelong areas. From the Cobar district, which for many years was the principal producer, the yield in 1925 was only 140 ozs., as compared with over 3,000 ozs. in 1922.

(ii) *Victoria.* Reef mining predominates in Victoria, although gold is also obtained from alluvial workings, both surface and deep leads. Owing to the exhaustion of much of the payable auriferous area the yield has been on the down grade for many years, and the return for 1925 was the lowest experienced since 1851. A considerable amount of attention is given to dredging and hydraulic sluicing, particularly in the Beechworth, Maryborough, Castlemaine, Ararat, Stawell, Gippsland, and Ballarat districts. The yields from alluvial and quartz respectively as returned (in crude ounces) from the chief mining districts of the State during 1925 were as follows:—Ararat and Stawell, 3,703 and 60; Ballarat, 910 and 1,068; Beechworth, 6,631 and 10,844; Bendigo, 337 and 17,347; Castlemaine, 1,529 and 7,194; Gippsland, 145 and 121; Maryborough, 193 and 14. The yield from the cyanide plants amounted to 971 ozs.

The largest output from quartz mining in the Bendigo district was furnished by the Hercules and Energetic, 7,344 ozs., £28,958, followed by the New Red, White, and Blue, 4,076 ozs., £16,304; Carlisle, 2,179 ozs., £8,676; and Bendigo Amalgamated, 338 ozs., £1,311. In the Beechworth district the Rose, Thistle, and Shamrock at Harrierville returned 4,370 ozs., £18,115; and the Morning Star, at Woods Point, 2,580 ozs., £8,733. In the Daylesford area of the Castlemaine district the Ajax returned 3,741 ozs., £15,124; Ajax North, 1,832 ozs., £7,328. In the Gippsland district the Loch Fyne Co. at Jericho produced 1,381 ozs., valued at £5,121; and the Rankin Syndicate at Omeo 562 ozs., valued at £2,092. From the once famous Ballarat area the yield in 1925 was less than £600.

From alluvial the principal yield was obtained by Cock's Pioneer Gold and Tin Mines, with 5,081 ozs., valued at £20,327. This Company, which operates in the Beechworth district, also produced about £12,000 worth of tin during the year. The New Langi Logan at Ararat returned 2,817 ozs., valued at £11,182; and the Langi Logan in the same area 683 ozs., valued at £2,718.

(iii) *Queensland.* Operations in Queensland are chiefly confined to reefing, and to the production of gold in connexion with the smelting of copper and other ores, the yield from alluvial in 1925 being only 1,085 ozs., of which 670 ozs. were obtained at Batavia River and 268 ozs. at Charters Towers, while the quantity produced from stone treated was 8,295 ozs.; from copper and other ores 34,660 ozs.; and from old tailings 2,366 ozs.; making a total production of 46,406 ozs. The yields from the principal fields were—Mount Morgan, 33,981 ozs.; Charters Towers, 539 ozs.; Gympie, 3,100 ozs.; Etheridge, 1,075 ozs.; Ravenswood, 3,200 ozs.; and Mount Coolon, 3,021 ozs. Nearly three-fourths of the entire production came from Mount Morgan, but the yield from this area showed a great reduction on the total for 1925, when 76,552 ozs. were returned. The decrease in 1925 was due to several causes, i.e., the creep in the workings, the railway strike in August, and the fire which broke out in the mine in September. The once famous Charters Towers field is apparently approaching exhaustion.

(iv) *South Australia.* Gold is found in widely-scattered localities in South Australia, but the production has at no period been large. During the last five years the yield has declined from 2,628 ozs. in 1921 to 832 ozs. in 1925. Of the total yield in the latter year, about 700 ozs. were produced at Tarcoola.

(v) *Western Australia.* A grouping of the auriferous deposits of Western Australia under various headings was given in previous issues (see Official Year Book 19, p. 725), but considerations of space preclude its retention in the present issue.

The yields from the principal fields in order of importance were as follows:—East Coolgardie, 305,769 ozs.; Mt. Margaret, 41,850 ozs.; Murchison, 29,439 ozs.; Yilgarn, 13,298 ozs.; Coolgardie, 10,308 ozs.; Broad Arrow, 8,242 ozs.; North-East Coolgardie, 5,898 ozs.; East Murchison, 5,399 ozs.; North Coolgardie, 4,550 ozs.; Yalgoo, 2,828 ozs.; Dundas, 2,601 ozs.; Pilbara, 2,502 ozs.; and Peak Hill, 1,636 ozs. Of the total yield of 434,533 ozs. reported to the Mines Department, 431,874 ozs. were obtained from ore treated, 1,986 ozs. from dollied and specimens, while the return from alluvial was about 673 ozs. The total referred to differs somewhat from that quoted in the first table in this chapter, which represents gold exported and minted. It may be noted here that the total amount of dividends paid by Western Australian mining companies to the end of the year 1925 was £28,560,000.

Western Australia reached its zenith as a gold-producer in 1903, when the output was valued at £8,771,000, but since then there has been a more or less steady decline until in 1925 the total had dropped to £1,874,000. Three causes may be adduced to account for this falling-off—(1) Exhaustion of known rich deposits. (2) Unwise development, i.e., “picking the eyes” of good mines. (3) Increase cost of stores, equipment, and labour, rendering it unprofitable to treat low-grade ores.

(vi) *Tasmania*. The yield in Tasmania is chiefly obtained from reefing, and the returns from the principal districts in 1925 were as follows:—North-West and West Coasts, 2,264 ozs.; Mathinna, 554 ozs.; Lisle Golconda, 111 ozs.; Mt. Claude, 142 ozs.; Beaconsfield, 309 ozs.; North-Eastern Division, 144 ozs. During 1925 the blister copper produced by the Mt. Lyell Mining and Railway Co. Ltd. contained approximately 2,249 ozs. of gold.

(vii) *Northern Territory*. The production for 1925 amounted to only 456 ozs. fine. It is stated that the potentialities of the older fields have by no means been exhausted, although a revival of the industry depends on the expenditure of large sums of money, either by the Government or by mining speculators, on developmental work. The bulk of the production came from Fletcher's Gully. During the year a find of rich gold was reported from Granite Hill, about 70 miles south-west of Tanami, but the locality is practically inaccessible in dry seasons.

5. **Remarkable Masses of Gold.**—Allusion has already been made in preceding Year Books to the discovery of “nuggets” and other remarkable masses of gold, but it is not proposed to repeat this information in the present issue. (See Year Book No. 4, page 500.)

6. **Modes of Occurrence of Gold in Australia.**—This subject has been alluded to at some length in earlier issues of the Year Book, but considerations of space will not permit of repetition in the present issue.

7. **Place of Australia in the World's Gold Production.**—In the table given below will be found the estimated value of the world's gold production, and the share of Australia therein during the five years 1921 to 1925. The figures given in the table have been compiled chiefly from returns obtained directly by the Commonwealth Bureau of Census and Statistics from the gold-producing countries of the world.

GOLD.—WORLD'S PRODUCTION, 1921 TO 1925.

Year.			World's Production of Gold.	Gold Produced in Australia.	Percentage of Australia on Total.
			£	£	%
1921	..	..	83,772,000	4,019,000	4.8
1922	..	..	71,653,000	3,545,000	4.9
1923	..	..	78,367,000	3,153,000	4.0
1924	..	..	87,640,000	3,142,000	3.6
1925	..	..	80,739,000	2,375,000	2.9

The value of the gold yield in the ten chief producing countries during each of the five years 1921 to 1925 is given in the table hereunder. Particulars of the quantity and value of the gold production for all countries for the ten years 1916-25 will be found in the Bulletin of Australian Production issued by this Bureau.

GOLD.—PRODUCTION, CHIEF COUNTRIES, 1921 TO 1925.

Country.	1921.	1922.	1923.	1924.	1925.
	£	£	£	£	£
Union of South Africa	43,096,000	32,895,000	40,480,000	44,534,000	40,768,000
United States	12,519,000	10,743,000	10,736,000	11,378,000	9,854,000
Canada	4,911,000	5,929,000	5,457,000	7,095,000	7,373,000
Australia	4,018,000	3,545,000	3,153,000	3,142,000	2,375,000
Mexico	3,626,000	3,512,000	3,437,000	3,686,000	3,351,000
Rhodesia	3,104,000	3,063,000	2,865,000	2,920,000	2,470,000
India	2,073,000	1,832,000	1,697,000	1,843,000	1,673,000
Colombia	1,539,000	1,201,000	1,220,000	450,000	411,000
Japan	1,408,000	1,239,000	1,154,000	1,177,000	1,189,000
Gold Coast	1,078,000	998,000	883,000	958,000	844,000
Russia	357,000	942,000	1,381,000	4,456,000	4,507,000

It has been deemed advisable to apportion values in accordance with Australian currency, i.e., at £5 6s. 0½d. for 1921, £4 13s. 10½d. for 1922, £4 8s. 5½d. for 1923, £4 13s. 0½d. for 1924, and £4 4s. 11½d. for 1925.

The next table shows the average yearly value in order of importance of the yield in the chief gold-producing countries for the decennium 1916-1925.

GOLD.—AVERAGE ANNUAL PRODUCTION, CHIEF COUNTRIES, 1916 TO 1925.

Country.	Value.	Country.	Value.
	£		£
Union of South Africa	40,377,000	Russia	2,692,000
United States	13,297,000	India	2,062,000
Canada	4,904,000	Japan	1,262,000
Australia	4,566,000	Gold Coast	1,195,000
Mexico	3,392,000	Colombia	1,097,000
Rhodesia	3,074,000		

The comparison has been restricted to countries where the average for the period is in excess of a million sterling.

8. Employment in Gold Mining.—The number of persons engaged in gold mining in each State in 1901 and during each of the last five years is shown in the following table:—

GOLD MINING.—PERSONS EMPLOYED, 1901, AND 1921 TO 1925.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	Total.
	No.	No.	No.	No.	No.	No.	No.	No.
1901	12,064	27,387	9,438	1,000	19,771	1,112	200	70,972
1921	1,516	3,050	722	100	6,019	67	10	11,484
1922	1,197	3,310	767	40	5,787	106	12	11,219
1923	1,141	2,982	603	32	5,555	119	30	10,462
1924	1,014	2,651	452	30	5,296	128	18	9,589
1925	831	2,353	347	34	5,009	103	32	8,709

The heavy decline noticeable since 1901 is of course due to the exhaustion of accessible payable deposits and the failure to locate any considerable fresh sources of supply.

9. The Precious Metals Prospecting Act of 1926.—Under the provisions of this Act a sum of £40,000 was allocated by the Commonwealth Government to assist persons or companies engaged in prospecting for precious metals.

§ 3. Platinum and Platinoid Metals.

1. **Platinum.**—(i) *New South Wales.* The deposits at present worked in the State are situated at Platina in the Fifield division, near Parkes, and the production in 1925 amounted to 573 ozs., valued at £11,061, as compared with 646 ozs., valued at £12,422 in the preceding year, while the total production recorded to the end of 1925 amounted to 17,823 ozs., valued at £102,716. The local price for the metal at the end of the year was £19 10s. an ounce, and if a permanent water supply were assured the industry could afford a livelihood for a much larger number than the 80 men engaged in it during 1925.

(ii) *Victoria.* In Gippsland the metal has been found in association with copper, and 127 ozs. were produced in 1913, but there was no production in recent years.

(iii) *Queensland.* Platinum associated with osmiridium has been found in the beach sands between Southport and Currumbin, in creeks on the Russell goldfield near Innisfail, and in alluvial deposits on the Gympie gold-field, but no production has been recorded.

2. **Osmium, Iridium, etc.**—(i) *New South Wales.* Small quantities of osmium, iridium, and rhodium are found in various localities. Platinum, associated with iridium and osmium, has been found in the washings from the Aberfoil River, about 15 miles from Oban; on the beach sands of the northern coast; in the gem sand at Bingara, Mudgee, Bathurst, and other places. In some cases, as for example in the beach sands of Ballina, the osmiridium and other platinoid metals amount to as much as 40 per cent. of the platinum, or about 28 per cent. of the whole metallic content.

(ii) *Victoria.* In Victoria, iridosmine has been found near Foster, and at Waratah Range, South Gippsland.

(iii) *Tasmania.* For many years osmiridium has been known to exist in the bed of the Savage River, on the West Coast, and in rivulets and creeks in the serpentine country. The first recorded production was in 1910, when 120 ozs., valued at £530, or £4 8s 4d. per oz., were raised. In 1914 the yield had increased to 1,019 ozs., valued at £10,076, or nearly £9 18s. per oz. From 1915 to 1917 the amount raised fell off considerably, owing to difficulty in disposing of the metal, but in 1918 there was an increase to 1,607 ozs., valued at £44,833; while in 1920 the 2,009 ozs. produced returned £77,114, or over £38 7s. 8d. per oz. In October of that year as much as £42 per oz. was obtained. For 1921 the production was 1,751 ozs., valued at £42,935, or about £24 10s. per oz. The output in 1925 was 3,366 ozs., valued at £103,570, or over £30 15s. per oz. Towards the middle of that year the discovery of rich alluvial wash on the Adams River in the south-west of the State led to a "rush," and within a few months over 1,000 men were on the field. As in the case with other fields in Tasmania the osmiridium is shed from serpentine derived from bronzitite rocks, and the claims worked in 1925 were alluvial.

§ 4. Silver and Lead.

1. **Occurrence in Each State.**—Particulars regarding the occurrence of silver in each State will be found in preceding Year Books, Nos. 1 to 5, but considerations of space preclude the repetition of this matter in the present volume.

2. **Development of Silver Mining.**—The value of the production of silver, silver-lead and ore, and lead from each State during the five years ending 1925 is given hereunder:—

SILVER AND LEAD.—PRODUCTION, 1921 TO 1925.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	Australia.
	£	£	£	£	£	£	£	£
1921 ..	1,327,364	862	54,188	240	67,521	89,817	..	1,539,992
1922 ..	2,574,108	1,080	109,350	377	87,692	241,694	..	3,014,301
1923 ..	2,956,862	963	216,645	60	60,061	218,881	..	3,453,472
1924 ..	4,310,360	645	167,469	373	96,504	252,718	..	4,828,069
1925 ..	5,320,976	291	240,684	1,655	114,961	302,961	(a) 617	5,982,145

(a) Year ended 30th June.

The resumption of normal production in 1921 by the mines on the Broken Hill field in New South Wales was largely hindered by the low price of lead, and the destruction by fire of the smelting works at Port Pirie. Production in 1924 was greatly stimulated by the favourable price of the metals, and with the exception of the Central mine, where work was restricted to fire-fighting, the chief mines on the Broken Hill lode were in full

operation. Renewed activity resulted from the high prices of lead and zinc in 1925, when the Central mine rejoined the list of producers, the fire areas having been isolated by water curtains on the various levels as required.

It must be understood that the totals for New South Wales in the above table represent the *net* value of the product (excluding zinc) of the silver-lead mines of the State. In explanation of the values thus given, it may be noted that the metallic contents of the larger portion of the output from the silver-lead mines in the State are extracted outside New South Wales, and the Mines Department considers, therefore, that the State should not take full credit for the finished product. The real importance of the State as a producer of silver, lead, and zinc is thus to some extent lost sight of. The next table, however, which indicates the quantity of these metals locally produced, and the average contents by assay of concentrates exported during the last five years, will show, as regards New South Wales, the estimated total production and the value accruing to Australia from the three metals :—

SILVER-LEAD MINES.—NEW SOUTH WALES, TOTAL PRODUCTION, 1921 TO 1925.

Year.	Metal Produced within Australia.				Contents of Concentrates Exported.			
	Silver.	Lead.	Zinc.	Value.	Silver.	Lead.	Zinc.	Value.
	ozs. fine.	tons.	tons.	£	ozs. fine.	tons.	tons.	£
1921 ..	3,624,413	47,426	1,425	1,723,864	617,477	6,539	19,272	261,238
1922 ..	6,648,825	97,867	23,724	4,113,427	3,264,102	19,328	132,186	1,272,074
1923 ..	7,233,236	124,570	41,153	5,707,739	4,834,718	40,906	149,319	1,813,287
1924 ..	6,292,978	120,380	43,579	6,472,812	2,963,693	21,513	114,374	1,292,220
1925 ..	7,437,967	139,839	39,991	7,539,130	1,782,193	30,752	75,435	1,371,183

The figures given above are quoted on the authority of the Mines Department of New South Wales. During the later years considerable quantities of cadmium were also produced.

3. Sources of Production.—Broken Hill, in New South Wales, is the chief centre of silver production in Australia.

(i) *New South Wales.* (a) *Broken Hill.* A description of the silver-bearing area in this district is given in earlier issues of the Year Book. During 1913 the output of ore raised amounted to 1,744,000 tons, the highest recorded in the history of the field. For the four years 1915 to 1918 the production averaged over 1,200,000 tons, but, owing to the cessation of operations through industrial troubles and the fall in the price of metals there was a decline in 1919 to 415,400 tons, and in 1920, when operations were carried on for a few weeks only, to 38,661 tons. Thenceforward there was a continuous increase, and in 1925 the tonnage raised amounted to 1,265,977, of which 1,246,566 tons consisted of sulphides, and 19,411 tons of carbonate and siliceous ores.

Although the returns are not complete in all cases, the following table relating to the companies controlling the principal mines at Broken Hill will give some idea of the richness of the field :—

SILVER.—BROKEN HILL RETURNS TO END OF 1925.

Mine.	Value of Output to end of 1925.	Dividends and Bonuses Paid to end of 1925.
	£	£
Broken Hill Proprietary Co. Ltd.	51,412,657	12,714,550
Broken Hill Proprietary Block 14 Co. Ltd. ..	4,279,281	638,160
British Australian Broken Hill Co. Ltd. ..	5,858,998	821,280
Broken Hill Proprietary Block 10 Co. Ltd. ..	4,946,989	1,432,500
Sulphide Corporation Ltd. (Central and Junction Mines)	23,595,464	2,979,375
Broken Hill South Ltd.	16,382,426	3,735,000
North Broken Hill Ltd.	11,277,669	3,373,940
Broken Hill Junction Lead Mining Co.	1,185,058	87,500
Junction North Broken Hill Mine	3,114,414	160,814
The Zinc Corporation Ltd.	5,317,140	1,956,301
Barrier South Ltd.	151,517	50,000
Totals	127,521,613	27,949,420

The returns relating to dividends and bonuses paid are exclusive of £1,744,000 representing the nominal value of shares in Block 14, British, and Block 10 companies, allotted to shareholders of Broken Hill Proprietary Company. If the output of the companies engaged in treating the tailings, etc., be taken into consideration, the totals for output and dividends shown in the table would be increased to about 135 millions and 31 millions respectively. The authorized capital of the various companies amounted to £6,823,000.

(b) *Picton Division.* The mines in the Yerranderie area produced 1,211 tons of ore in 1925, yielding 111,532 ozs. of silver, besides 217 ozs. of gold, and 317 tons of lead, the total production being valued at £27,603. Of the yield from this area in 1925, 526 tons valued at £12,433 were raised by the Silver Peaks Mines. Small quantities of ore were also raised by the Colon Peaks, Wollondilly, and Wonga mines in this area.

(c) *Yass Division.* During 1925 the Kangiara mine produced 146 tons of ore yielding 2,575 ozs. of silver, 37 tons of lead, and 11 ozs. of gold.

(d) *Cobar Division.* In this division 285 tons of ore were raised in 1925, yielding 5,300 ozs. of silver, valued at £660, and 133 ozs. of gold, valued at £532.

(e) *Other Areas.* Small quantities of silver, lead, gold, and copper were produced during the year from the Burrowa, Condobolin, and Hillgrove divisions.

(ii) *Victoria.* The silver produced in 1925 amounted to 2,082 ozs., valued at £291, and was obtained in the refining of gold at the Melbourne Mint.

(iii) *Queensland.* The yields from the chief silver and lead producing centres in 1925 were as follows:—Chillagoe, silver £25,831, lead £112,533; Herberton, silver £11,012, lead £21,994; Brisbane, silver £6,336, lead £16,275; Etheridge, silver £3,479, lead £16,078; Cloncurry, silver £3,328, lead £11,830. Some of the mining leases in the Chillagoe area are owned by the State. The Mount Isa silver-lead field in the Cloncurry district was discovered in 1923, and the lodes so far opened are distributed over a length of 5 miles by a width of one mile along the west bank of the West Leichhardt River. Large accumulations of high grade carbonate of lead are in sight on this field, which, according to experts, is the largest find in importance since the discovery of Broken Hill. During the year 1925 good progress was made with developmental work.

(iv) *South Australia.* Silver ore has been discovered at Miltalie and Poonana, in the Franklin Harbour district, also at Mount Malvern and Olivaster, near Rapid Bay, and in the vicinity of Blinman and Farina, at Baratta, and elsewhere. The production of silver in 1925 was valued at £200, and of silver-lead ore at £1,455.

(v) *Western Australia.* The quantity of silver obtained as a by-product and exported in 1925 was 81,226 ozs., valued at £11,661. In addition, 4,664 tons of lead and silver-lead ore and concentrates valued at £103,300 were exported. The production of lead ore from the Northampton mineral field amounted in 1925 to 37,866 tons.

(vi) *Tasmania.* The silver produced in 1925 amounted to 730,194 ozs., valued at £105,509, and the lead to 5,526 tons, valued at £197,452. Of the silver the chief producers in the Zeehan group mines were the Nike with 7,980 ozs.; North Zeehan, 6,236 ozs.; and Swansea, 4,701 ozs. In the Dundas group, North Mt. Farrell produced 233,390 ozs.; Hercules-Rosebery, 165,356 ozs.; Magnet, 137,434 ozs.; Mt. Lyell, 133,181 ozs.; and Round Hill, 23,980 ozs. The principal producers of lead were the North Mt. Farrell 2,117 tons, Magnet 864 tons, and Round Hill 360 tons amongst the Dundas Mines, while the Swansea with 180 tons, and the Nike with 78 tons, furnished the chief yields in the Zeehan group.

(vii) *Northern Territory.* Silver-lead ores are found near Pine Creek, and at Mount Shoebridge near Brock's Creek railway station. There are a number of fair-sized galena lodes in the Pine Creek and McArthur River districts, but, owing to costs of transport and realization little attention is devoted to them. No mining for this class of mineral took place in 1925, the production recorded having been obtained from the dumps of the Evelyn silver-lead and zinc mines which were closed down in the year 1890.

4. **World's Production.**—The world's production of silver during the last five years for which particulars are available is estimated to have been as follows:—

SILVER.—WORLD'S PRODUCTION, 1921–1925.

Total.	1921.	1922.	1923.	1924.	1925.
World's production in 1,000 fine ozs.	171,284	213,541	243,265	239,107	242,767

The share of Australia in the world's silver production in 1919 was estimated at 7,800,000 ozs., or about $4\frac{1}{2}$ per cent. on the total production, but in 1921, owing to the cessation of operations at the Broken Hill field, the total local extraction fell to 4,573,000 ozs., and the estimated silver contents of the ores, bullion, and concentrates exported to 732,000 ozs., the total being a little over 3 per cent. on the world's production. For 1925 local extraction was set down as 8,573,000, and exports as 2,310,000 ozs., the total being equivalent to about 4·5 per cent. on production for the world. The figures for the world's production are given on the authority of *The Mineral Industry*.

Arranged in order of importance the estimated yields in 1925 from the chief silver producing countries were as follows:—

SILVER.—PRODUCTION, CHIEF COUNTRIES, 1925.

Country.	Production.	Country.	Production.
	Fine ozs. (‘000 omitted.)		Fine ozs. (‘000 omitted.)
Mexico	92,448	Japan	3,500
United States	66,155	Central America	3,000
South America	30,000	East Indies	2,200
Canada	20,004	Union of South Africa	1,160
Australia	10,883	Rhodesia	400
Europe	9,500	China	200
British India	5,100		

5. **Prices.**—As the production of silver is dependent to a very large extent on the price realized, a statement of the average price per standard ounce in the London market during the last five years is given below:—

SILVER.—PRICES, 1921 TO 1925.

Price.	1921.	1922.	1923.	1924.	1925.
Pence per standard oz.	36.89	34.41	31.93	33.97	32.09

The average price in cents per fine ounce in New York rose from 66·78 in 1924 to 69·07 in 1925. In explanation of the apparent decrease in the London price, *The Mineral Industry* points out that the average price for sterling rose from 441·40 cents in 1924 to 482·43 in 1925, and an adjustment of London prices in pence to their equivalent in dollars would show that the value of silver really increased in London as it did in New York.

6. **Employment in Silver Mining.**—The number of persons employed in silver mining during each of the last five years is given below :—

SILVER MINING.—PERSONS EMPLOYED, 1921 TO 1925.

Year.	N.S.W. (a)	Q'land.	W. Aust.	Tasmania.	Nor. Ter.	Australia.
	No.	No.	No.	No.	No.	No.
1921	3,150	229	(b) 41	352	..	3,772
1922	4,712	321	(b) 152	495	..	(c) 5,686
1923	5,155	133	(b) 96	510	..	5,894
1924	5,468	759	(b) 141	479	15	(d) 6,874
1925	5,770	590	(b) 204	579	4	(e) 7,166

(a) Silver, lead, and zinc.

(b) Principally lead ore.

(c) Including 6 in South Australia.

(d) Including 12 in South Australia.

(e) Including 19 in South Australia.

The bulk of the employment up to 1924, when Queensland assumed importance, was in New South Wales and Tasmania, the quantity of silver raised in the other States being unimportant.

§ 5. Copper.

1. **Production.**—The production of copper in the various States has been influenced considerably by the ruling prices, which have undergone extraordinary fluctuations. The quantity and value of the local production as reported and credited to the mineral industry for the years 1921 to 1925 are shown in the following table :—

COPPER.—PRODUCTION, 1921 TO 1925.

State.	1921.	1922.	1923.	1924.	1925.
QUANTITY.					
	Tons.	Tons.	Tons.	Tons.	Tons.
New South Wales { Ingot and Matte	499	575	1,182	1,129	478
{ Ore .. ..	..	50	79	..	..
Queensland { Ingot and Matte	2,428	5,104	6,243	5,630	3,909
{ Ore .. ..	..	..	..	..	..
South Aus- { Ingot and Matte	1,532	1,185	3,523	405	570
tralia { Ore .. ..	..	..	..	..	..
Western { Ingot and Matte	206	660	1,057	..	..
Australia { Ore	1,040	352	3,394	2,795	1,201
Tasmania { Ingot and Matte	6,181	5,616	6,065	6,698	6,539
{ Ore .. ..	..	..	..	..	..
Northern { Ingot and Matte	..	..	..	..	..
Territory { Ore .. ..	..	(a) 58	..	(a) 32	(a) 4
VALUE.					
	£	£	£	£	£
New South Wales	41,267	36,233	82,375	71,658	30,215
Queensland	168,556	321,535	430,746	380,025	254,074
South Australia	106,370	73,646	232,172	26,046	35,878
Western Australia	24,601	20,379	65,100	40,676	18,200
Tasmania	463,163	391,535	435,413	457,386	436,661
Northern Territory .. ..	..	(a) 798	(a) 30	(a) 239	(a) 15
Australia	803,957	844,126	1,245,836	976,030	775,043

(a) Year ended 30th June.

The total value of the production in 1920 was £2,658,000, and the heavy fall during 1921 was due to the low price of the metal preventing the profitable working of many of the copper mines throughout Australia, while the continuation of low prices had a depressing effect on production in the following years.

2. Sources of Production.—(i) *New South Wales*. Production in this State in 1925 was valued at £30,215, as compared with £71,658 in the preceding year. As was the case in 1924, a fair proportion of the output was due to the extraction of the small copper content in the Broken Hill silver-lead and zinc ore, about 129 tons of copper, valued at £8,154 being obtained from this source. The depression in this branch of the mining industry during the last few years is likely to continue, unless copper appreciates in value, and less costly methods of production are evolved. Practically the only mines in operation were the Mt. Royal group at Tottenham, the Budgery mine at Hermidale, and the Copper Hill mine at Molong.

(ii) *Queensland*. The yield in this State amounted in 1925 to 3,909 tons valued at £254,074, and shows a serious decline as compared with 1920 when nearly 16,000 tons valued at £1,552,000 were raised. The falling-off in the yield in recent years was, of course, due to the low prices realized for copper. Returns from the chief producing areas in 1925 were as follows:—Mount Morgan, 2,634 tons, valued at £171,242; Herberton, 91 tons, £5,947; Cloncurry, 982 tons, £63,830; Chillagoe, 185 tons, £12,015. These yields naturally compare very unfavourably with those of 1920. The Cloncurry district—reckoned the richest and most extensive cupriferous area in Australia—which under normal circumstances produces more than half the copper output of the State, returned a yield of 982 tons, as against 7,640 tons in 1920.

(iii) *South Australia*. Taking the entire period over which production extended, the yield of copper in South Australia easily outstrips that of any other State. In recent years, however, Queensland, Tasmania, and New South Wales have come to the front as copper producers, as the table on the preceding page shows. Deposits of copper ore are found over a large portion of South Australia. A short account of the discovery, etc., of some of the principal mining areas, such as Kapunda, Burra Burra, Wallaroo, and Moonta, was given in earlier issues of the Official Year Book. During 1922 the output amounted to 1,185 tons, valued at £73,646, the lowest recorded since 1844. The decline was due to the closing down during the greater part of the year of the Wallaroo and Moonta mines. In 1923 the production amounted to 3,523 tons, valued at £232,172, but there was a decline to 570 tons, valued at £35,878 in 1925. The liquidation of the Wallaroo and Moonta Co. was proceeded with during the year, and a large quantity of plant was disposed of. A reverberatory furnace was in use treating material obtained in cleaning up, and a company was engaged in dealing with old tailings and slimes at the Moonta mines. At the Yelta lode high grade dressed ore was produced and sold for treatment abroad.

(iv) *Western Australia*. The value of the copper ore exported from this State in 1925 was £18,200. The Northampton field was the sole producer, no ore being reported from the West Pilbara or Phillips River fields.

(v) *Tasmania*. The quantity of copper produced in Tasmania during 1925 was 6,539 tons, valued at £436,661, the whole of the production being due to the Mount Lyell Mining and Railway Co. Ltd. This Company treated 46,771 tons of ore and concentrates and produced 6,599 tons of blister copper, containing copper, 6,539 tons; silver, 133,191 ozs.; and gold, 2,249 ozs.; the whole being valued at £465,392. The employees in 1925 numbered 1,016, of whom 532 were in the mining branch, 396 were engaged in the reduction works, and 88 in the railway department. Current for power and lighting is obtained from the Lake Margaret hydro-electric plant which also supplies the municipal requirements of Queenstown and Gormanston. During the year 1925 power was supplied by the Company's sub-station for use at Zeehan. Recognizing the fluctuating character of the returns from copper mining, and keeping in view the possibility of future exhaustion of the deposits, the directors wisely endeavoured to give permanence to the enterprise by investing portion of the profits in industrial undertakings, such as the manufacture of superphosphates and other chemical products. Success was early achieved, and this branch of the Company's business yields highly satisfactory returns. To the end of 1925 this Company had paid upwards of £4,297,000 in dividends.

(vi) *Northern Territory*. Copper has been found at various places, but lack of capital and difficulty of transport prevent the development of the deposits. In 1925, the production was returned at 4 tons of ore, valued at £15, obtained near Kilgour gorge in the Borroloola district. Developmental work was carried on at a deposit situated about 18 miles easterly from the Barrow Creek Telegraph Station.

3. Prices.—The great variation in price that the metal has undergone is shown in the following table, which gives the average price in London and New York during each of the last five years. The figures are given on the authority of the *The Mineral Industry*.

COPPER.—PRICES, 1921 TO 1925.

Year.				Average London Price per Ton Standard Copper.	Average New York Price in Cents per lb. Electrolytic Copper.
				£	Cents.
1921	..	..	..	69.36	12.50
1922	..	..	..	62.12	13.38
1923	..	..	..	65.84	14.42
1924	..	..	..	63.15	13.02
1925	..	..	..	61.92	14.04

As evidence of the tremendous monthly variation in the price of copper it may be noted that in December, 1916, the average London price of standard copper was £145 6s. 4d. per ton, while in April, 1922, it was quoted at £58 16s. In 1925 the price varied between £66 1s. 4d. in January, and £59 10s. 10d. in December.

4. World's Production of Copper.—The world's production of copper during the five years 1921 to 1925, is estimated to have been as follows. The figures for foreign countries have been taken from the latest issue of *The Mineral Industry*, and differ slightly from those quoted in the previous issue :—

COPPER.—WORLD'S PRODUCTION, 1921 TO 1925.

Year	..	..	..	1921.	1922.	1923.	1924.	1925.
World's production—tons	..	..	..	547,700	853,100	1,225,800	1,344,900	1,393,400

The yields from the chief copper-producing countries in 1925 were as follows :—

COPPER.—PRODUCTION, CHIEF COUNTRIES, 1925.

Country.			Production.	Country.			Production.
			Tons.				Tons.
United States	..	..	747,600	Australia	..	..	11,800
Chile	..	..	187,100	Cuba	..	..	11,700
Africa	..	..	105,500	Norway	..	..	10,800
Japan	..	..	64,600	Serbia	..	..	7,200
Spain and Portugal	..	..	57,100	Bolivia	..	..	6,700
Mexico	..	..	52,800	Russia	..	..	6,500
Canada	..	..	50,200	Austria	..	..	3,300
Peru	..	..	36,800	Sweden	..	..	2,600
Germany	..	..	22,600				

The Australian production in 1925 amounted to under 1 per cent. of the total.

Over half the world's copper output is produced by the United States, while the three big producers in South America under American control bring the total up to 70 per cent.

5. **Employment in Copper Mining.**—The number of persons employed in copper mining during each of the last five years was as follows:—

COPPER MINING.—PERSONS EMPLOYED, 1921 TO 1925.

Year.	N.S.W.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	Australia.
	No.	No.	No.	No.	No.	No.	No.
1921	109	675	1,000	36	1,361	6	3,187
1922	66	882	70	10	948	6	1,982
1923	85	1,176	420	80	1,066	3	2,830
1924	52	1,017	34	110	532	12	1,757
1925	47	878	55	34	743	6	1,763

§ 6. Tin.

1. **Production.**—The development of tin mining is, of course, largely dependent on the price realized for the metal, and, as in the case of copper, the production has been subject to somewhat violent fluctuations. The tables below show the quantity and value of the production as reported to the Mines Departments in each of the States during the five years, 1921 to 1925:—

TIN.—PRODUCTION, 1921 TO 1925.

State.	1921.	1922.	1923.	1924.	1925.
QUANTITY.					
	Tons.	Tons.	Tons.	Tons.	Tons.
New South Wales .. { Ingots	816	734	896	1,041	957
.. { Ore ..	1,595	410	..	..	..
Victoria { Ingots	..	..	..	..	..
.. { Ore	80	115	78	38	69
Queensland { Ingots (a)	(a)	(a)	(a)	(a)	(a)
.. { Ore	1,050	1,098	903	1,196	1,012
Western Australia .. { Ingots	..	..	..	..	..
.. { Ore ..	67	110	131	87	108
Tasmania { Ingots	790	679	1,160	1,108	1,130
.. { Ore ..	..	..	..	..	..
Northern Territory .. Ore ..	(b) 83	(b) 79	(b) 136	(b) 97	(b) 110
VALUE.					
	£	£	£	£	£
New South Wales	163,451	154,698	180,789	259,485	250,944
Victoria	11,961	12,071	10,371	6,056	11,592
Queensland	98,471	99,758	114,945	175,509	161,500
Western Australia	6,485	10,930	15,095	12,008	15,392
Tasmania	130,257	112,407	236,955	275,014	297,515
Northern Territory	(b) 7,793	(b) 5,891	(b) 13,887	(b) 12,855	(b) 15,966
Total	418,418	395,755	572,042	740,927	752,909

(a) Included with ore.

(b) Year ending 30th June.

As the table shows, there was a heavy decline in the production of tin in 1922, the values being the lowest recorded for the quinquennium. The falling off was due to low prices and high production costs, and in some instances to exhaustion of ore supplies. Dredging operations in certain districts were hampered by insufficiency of water. As shown later on, prices rose from £159 9s. per ton in 1922 to £261 1s. 6d. in 1925, and this increase is reflected in the increased value of production during the last three years.

2. **Sources of Production.**—(i) *New South Wales.* Tin-mining operations were stimulated by the increased price of the metal in 1925, and this, coupled with the good water supply, brought about renewed activity in the New England and Ardlethan districts, where the principal tin fields are situated. A large proportion of the output in New South Wales is obtained by dredging, the quantity so won in 1925 being 763 tons, valued at £136,131. Forty-one pump-dredges and one bucket-dredge were in operation during the year. In the Tingha division of the Peel and Uralla district the yield amounted to 443 tons, valued at £77,542. The Emmaville division in the New England district showed a yield of 357 tons, valued at £62,590. In the Wilson's Downfall division, 64 tons, valued at £11,594, were raised. From the Torrington division, 134 tons, valued at £21,984, were returned. The Ardlethan field, in the Lachlan division, produced 340 tons of concentrates, valued at £51,611, while Torrington returned 97 tons, valued at £15,520, and Inverell 27 tons, valued at £4,232.

(ii) *Victoria.* The production in 1925 was obtained by dredging, the Cock's Pioneer Gold and Tin Co. in the Beechworth district contributing the whole of the output which amounted to 69 tons.

(iii) *Queensland.* The chief producing districts in Queensland during 1925 were Herberton, 641 tons, valued at £100,234; Kangaroo Hills, 146 tons, £24,732; Stanthorpe, 101 tons, £16,489; Cooktown, 65 tons, £11,100; Chillagoe, 54 tons, £8,012. Despite the satisfactory prices realized in 1925, the total production valued at £161,500 was lower than that of 1924, which was returned at £176,600 and much below that of 1920, when the yield was valued at £252,000.

(iv) *Western Australia.* The export of tin ore from the State during 1925 amounted to 103 tons, valued at £15,392. The production from the Greenbushes field amounted to 55 tons, valued at £8,764, and from the Pilbara field 24 tons, valued at £3,609. Deposits of tin occur in widely-separated localities in the Kimberley division, the Thomas River in the Gascoyne Valley, and at Poona on the Murchison gold-field.

(v) *Tasmania.* During 1925 the quantity of metallic tin won amounted to 1,130 tons, valued at £297,515. The yield from the North-Eastern division amounted to 497 tons, of which 233 tons were contributed by the mines in the Pioneer and Gladstone districts, while 260 tons came from the Ringarooma, Derby, and Branxholm area. The yield in the Eastern division amounted to 241 tons; the Avoca Mines furnishing 111 tons; the St. Helen's Mines 63 tons; and the Weldborough, Lottah, and Blue Tier, 62 tons. From the North-Western division the output was 359 tons, the bulk of it being raised by the Mt. Bischoff, with 275 tons, and Mt. Bischoff Extended, with 80 tons. The production in the Western division was returned at a little over 24 tons. During the year 1926 a discovery of rich alluvial and lode tin was reported from King Island in Bass Strait.

(vi) *Northern Territory.* The yield of tin ore and concentrates in 1925 amounted to 110 tons, valued at £15,966, of which 49 tons were raised at Marranboy, and 32 tons at Mt. Wells, while small quantities were also produced at Hayes Creek, Hidden Valley, Collia, Muldiva, and elsewhere. Two batteries for the treatment of tin ore have been erected by the Government, one at Marranboy, costing £20,163, and one at Hayes Creek, at an expense of £3,294.

3. **World's Production.**—According to *The Mineral Industry* the world's production of tin during each of the last five years was as follows. The figures for 1923 and 1924 have been amended since last issue.

TIN.—WORLD'S PRODUCTION, 1921 TO 1925.

1921.	1922.	1923.	1924.	1925.
Tons. 109,709	Tons. 129,329	Tons. 124,747	Tons. 140,847	Tons. 143,157

The yields from the chief producing countries in 1925 were as follows:—

TIN.—PRODUCTION, CHIEF COUNTRIES, 1925.

Country.	Production.	Country.	Production.
	Tons.		Tons.
Federated Malay States ..	45,900	Nigeria	6,200
Bolivia	32,100	Australia	(a) 3,200
Banka	20,800	Great Britain	2,500
Billiton	9,800	Unfederated Malay States	2,100
China	8,000	Congo	2,000
Siam	6,800	South Africa	1,100

(a) As quoted by Australian Mines and Metals Association.

Based on the results for the last three years, Australia's share of the world's tin production would appear to be about 2.3 per cent.

4. Prices.—The average price of the metal in the London market for the years 1921 to 1925 was as follows:—

TIN.—PRICES, 1921 TO 1925.

Year.	Average Price per Ton.	Year.	Average Price per Ton.
	£ s. d.		£ s. d.
1921.. ..	165 5 4	1924	248 14 10
1922.. ..	159 9 0	1925	261 1 6
1923.. ..	202 5 0		

During the period covered by the table prices underwent remarkable fluctuations. Thus, in 1921 there was a fall of over £130 per ton on the price for the preceding year. A brief account of the variations during the next four years was given in Official Year Book No. 19, p. 739. At the end of January, 1925, the average had risen to £265 13s. 8d., but prices fell thereafter to £237 2s. 8d. in April. Thenceforward there was a marked upward tendency, the price for the closing month of the year reaching £285 1s. 1d. The highest price for the year 1925 was reached on 30th November with £290, and the lowest on 16th April with £229.

5. Employment in Tin Mining.—The number of persons employed in tin mining during the last five years is shown below:—

TIN MINING.—PERSONS EMPLOYED, 1921 TO 1925.

Year.	N.S.W.	Victoria.	Q'land.	W. Aust.	Tas.	Nor. Ter.	Australia.
	No.	No.	No.	No.	No.	No.	No.
1921	1,321	31	864	59	699	100	3,074
1922	1,090	13	659	31	620	120	2,533
1923	1,047	7	703	35	842	170	2,804
1924	1,004	2	698	40	781	115	2,640
1925	1,012	(a)	653	55	1,035	118	(b)2,875

(a) The tin produced in Victoria was raised by a dredging company operating primarily for gold.

(b) Including 2 in South Australia.

§ 7. Zinc.

1. Production.—(i) *New South Wales.* (a) *Values Assigned.* The production of zinciferous concentrates is chiefly confined to the Broken Hill district of New South Wales, where zincblende forms one of the chief constituents in the enormous deposits of sulphide ores. During the earlier years of mining activity on this field a considerable amount of zinc was left unrecovered in tailings, but from 1909 onwards improved methods of treatment resulted in the profitable extraction of the zinc contents of the accumulations at the various mines.

As the metallic contents of the bulk of the concentrates, etc., raised in the Broken Hill District are extracted outside New South Wales, the mineral industry of that State is not credited by the Mines Department with the value of the finished product. The figures given hereunder, therefore, refer to the quantity and value of the zinc concentrates actually exported during the years specified.

ZINC.—CONCENTRATES, ETC., EXPORTED FROM NEW SOUTH WALES, 1889 TO 1925.

Year.	Quantity of Zinc Concentrates, etc., Exported.	Value.	Year.	Quantity of Zinc Concentrates, etc., Exported.	Value.
	Tons.	£		Tons.	£
1889	97	988	1922	363,681	1,157,458
1891	219	2,622	1923	426,049	1,411,652
1899	49,879	49,207	1924	353,650	1,296,571
1921	79,694	283,455	1925	226,525	1,022,016

(b) *Local and Foreign Extraction.* A statement of the quantity of zinc extracted in Australia and the estimated zinc contents of concentrates exported overseas during the five years 1921 to 1925 will be found in § 18 hereinafter.

(ii) *Queensland.* At the Silver Spur mine at Texas, in the Stanthorpe division of Queensland, part of the ore is high in zinc and lead, but low in silver. Profitable extraction of the zinc and lead depends, however, on cheap transport. It is proposed to convey the high grade zinc ore by motor tractor to the railway at Inglewood. Zinc sulphide is produced by the Mount Garnet Mine in the Herberton district, and during 1916 several hundred tons of good quality ore were raised, but until a suitable treatment plant has been erected, it is stated that production cannot be economically undertaken. The total production of zinc in 1925 was returned at 171 tons, valued at £2,350, produced in the Stanthorpe area.

(iii) *South Australia.* Zinc is known to exist in various localities in South Australia, but there has been no production during recent years.

(iv) *Tasmania.* Investigations in regard to the Read-Roseberry zinc-lead deposits in Tasmania have proved the existence of 1,680,000 tons of ore, which, added to an estimated quantity of 915,000 tons of "probable" ore, make a total supply of 2,595,000 tons. During the year 1925 the production from local ores was taken as 3,113 tons, valued at £110,691.

The Electrolytic Zinc Co. at Risdon worked on raw materials obtained partly from the West Coast district of Tasmania, but chiefly from Broken Hill in New South Wales. Production in 1925 consisted of 45,698 tons of slab zinc valued at £1,657,486, and 179 tons of cadmium, valued at £40,071. About 1,000 men were employed at these works. At Zeehan, where 178 men were employed, lead concentrate and zinc calcine were produced from Tasmanian ore. Lead concentrates amounted to 3,042 tons having a content of 1,170 tons of lead and 112,804 ozs. of silver, while 8,024 tons of zinc calcines were forwarded to Risdon for treatment.

2. *Prices.*—During the four years 1911 to 1914, the London price of zinc averaged £23 15s. per ton, ranging from £21 in 1914 to £26 3s. 4d. in 1912. Owing to the heavy demand and other circumstances arising out of the war, the prices in 1915 and 1916 reached the very high average of £67 11s. 1d. and £72 1s. 5d. per ton respectively. For 1921 the average recorded was £25 16s. 11d., for 1922, £30, for 1923, £33 1s. 2d., for 1924, £33 14s. 7d., and for 1925, £36 12s. 6d. per ton.

§ 8. Iron.

1. *General.*—The fact that iron-ore is widely distributed in Australia has long been known, and extensive deposits have been discovered from time to time at various places throughout the States, but the utilization of these deposits for the production of iron and steel is, at present, confined to New South Wales.

2. **Production.**—(i) *New South Wales.* (a) *Extent of Deposits.* Iron ores of various composition are found widely distributed throughout the State, but some of the deposits are at present of no commercial importance on account of their small and scattered extent, or by reason of their distance from means of transport. Excluding deposits too far from existing railways, or too small to warrant exploitation, as well as aluminous ores, the quantity of iron ore available by quarrying has been set down as 15 million tons. There is, in addition, a large tonnage available by the more costly method of mining. Altogether it appears probable that the total quantity available for smelting is about 53 million tons. The chief sources of supply during recent years were the deposits at Cadia, in the Orange division, and Tallawang, in the Gulgong division.

(b) *Lithgow Iron Works.* Reference to the events leading up to the establishment of ironworks at Lithgow will be found in earlier issues of the Year Book (see No. 3, p. 508). During 1925 the following materials were received at the blast furnaces: Iron ore, 165,689 tons; limestone, 63,015 tons; slag, 3,817 tons; manganese ore, 1,094 tons; and coke, 144,161 tons. The iron ore was raised from quarries owned by the Company at Tallawang and Cadia, and the pig iron produced therefrom amounted to 95,530 tons, valued at £525,415.

The following table shows the quantity and value of pig iron produced in New South Wales during the last five years from locally-raised ores only:—

PIG IRON.—PRODUCTION FROM LOCAL ORES, NEW SOUTH WALES, 1921 TO 1925.

Particulars.		1921.	1922.	1923.	1924.	1925.
Quantity ..	Tons	90,053	54,856	94,350	74,075	95,530
Value ..	£	639,376	248,909	707,625	518,525	525,415

The figures quoted above refer to production from *local* ores only, and as such credited to the New South Wales mineral industry. They do not, of course, represent the total production of pig iron in New South Wales, since, as shown in the succeeding paragraph, a considerable quantity of ore raised in South Australia, and credited therefore to the mineral returns of that State, is treated in New South Wales.

(c) *Newcastle Iron Works.* The Broken Hill Proprietary Company established works for the manufacture of iron and steel on a large scale at Newcastle, and operations were started early in 1915. The Company is utilizing the immense deposit of iron ore at the Iron Knob quarries in South Australia, which are connected with the seaboard at Whyalla, a distance of about 34 miles, by the Company's tramway. The ore quarried for the year ended 30th November, 1926, amounted to 566,765 tons. Extensive limestone works and loading bin at Devonport, Tasmania, as well as quarries in New South Wales for dolomite, magnesite, etc., are also owned by the Company.

The output of pig iron for the year ended 30th November, 1926, amounted to 332,587 tons, and of steel ingots to 321,809 tons. Further details in regard to the activities of these works in 1921 were given on page 347 of Official Year Book No. 15. The steel works possess three blast furnaces of a normal daily producing capacity of 1,300 tons, and a fourth furnace of 100 tons for the production of foundry iron. There are nine 65-ton basic open-hearth furnaces capable of producing 10 to 12,000 tons of ingot steel weekly. The works are supplied with a 35-inch blooming mill for the production of blooms, plates, etc., a 28-inch rolling mill for the manufacture of heavy rails, structural steel, billets, etc., an 18-inch mill for making light rails, structural shapes, fishplates, and heavy sections of merchant bar and billets, a 12-inch mill and an 8-inch mill, each for merchant bars, etc., a continuous rod mill for the production of wire rods, and a fishplate mill. A steel foundry, containing one acid open-hearth furnace, and a cupola furnace for iron castings, with a direct metal foundry which takes the hot metal from the blast furnaces, supply all necessary castings.

The company also possesses 224 by-product coke ovens, and connected with this department are the tar, sulphate of ammonia, and benzol plants.

(d) *Iron Oxide, etc.* A quantity of iron oxide is purchased by the various gasworks for use in purifying gas, and it is also to some extent employed as a pigment, the output in New South Wales being drawn chiefly from the deposits in the Port Macquarie, Moss Vale and Goulburn Divisions. During 1925 the iron oxide raised amounted to 4,376 tons, valued at £2,436. Since the closing down of the Sulphide Corporation's Works at Cockle Creek in 1922 there has been no production of ironstone for fluxing purposes.

(ii) *Victoria.* Iron ore has been located at various places in Victoria, particularly at Nowa Nowa in the Gippsland district, and at Dookie. A blast furnace was erected in 1881 near Lal Lal, on the Moorabool River, and some very fair quality iron was produced, which was used for truck wheels and stamper shoes at the Ballarat mines. The fall in the price of the metal, however, led to the closing of the works. In his report for 1905 the Secretary for Mines stated that without special assistance to the industry there does not seem to be any prospect of the deposits being profitably worked.

(iii) *Queensland.* Queensland possesses some extensive deposits of iron ore, which are mined chiefly for fluxing purposes in connexion with the reduction of gold and copper ores. During the year 1921, 4,061 tons of ironstone flux, valued at £5,976, were raised, the bulk of which came from Iron Island in the Rockhampton district. The production in subsequent years was small, only 345 tons having been raised in 1925 from deposits in the Chillagoe area. It is stated that Queensland possesses within its own border an abundance of the ore, fuel, and fluxes required for the carrying on of a large ironworks.

(iv) *South Australia.* South Australia possesses some rich deposits of iron ore capable of being mined for an indefinite period. The best known deposit is the Iron Knob, a veritable hill of iron ore of high percentage, situated about 40 miles W.S.W. from Port Augusta. A recent survey places the probable reserves of ore in the Iron Knob and Iron Monarch deposits at 133 million tons, with an average content of 63.64 per cent. iron. The Broken Hill company utilizes ore from this quarry at its ironworks at Newcastle, New South Wales, and the amount raised for the year 1926 was 566,765 tons, valued at £562,043. It is estimated that the deposits in the Middleback Range contain 32 million tons of slightly higher grade ore than that at the Iron Knob.

(v) *Western Australia.* This State has some very rich deposits of iron ore, but, owing to their geographical position, the most extensive fields at the present time are practically unexploited, the production in the State being confined chiefly to that needed for fluxing purposes. The ores are found over a stretch of country from Kimberley to Cape Leeuwin. Amongst the most important of the high-grade deposits are those at Yampi Sound in the Kimberley division, which are estimated to contain 97 million tons of very rich ore; Wilgie Mia, where the ore in sight is estimated at 27 million tons; Gabanintha, near Nannine, with over a million tons above surface level; Mount Gibson, in the south-west corner of the Yalgoo gold-field, where there are about 10 million tons of ore adapted for steel manufacture, by the acid process; Talling Range in the westernmost angle of the Yalgoo gold-field where the deposits amount to several millions of tons; and Koolyanobbing, near Southern Cross, where there is a very large deposit of high-grade micaceous hematite. There was no record of production during the last few years.

(vi) *Tasmania.*—In Official Year Book No. 19, p. 742, some account was given of the position and magnitude of the deposits of iron ore in Tasmania, and it was pointed out that the quantity of ore available was estimated at 100 million tons. During the year 1908 about 3,600 tons of ore were raised, but there was no subsequent record of production. Exploitation of the deposits is at present dependent on the demand from the mainland.

(vii) *Northern Territory.* Large bodies of rich ironstone have been discovered in various parts of the Territory, particularly between the Adelaide River and Rum Jungle. Owing to the lack of local coal, however, the deposits possess no immediate value.

3. Iron and Steel Bounties.—The local production of iron and steel has been encouraged by various legislative enactments (see Official Year Book No. 15, p. 348). Under "The Iron and Steel Products Bounty Act 1922," bounties are payable on fencing wire, galvanized sheets, wire-netting, and traction engines made in Australia. It is essential that these articles be made from materials produced and manufactured in Australia, unless imported material is authorized after inquiry and report by the Tariff Board. The

total payments in any one financial year must not exceed £250,000. Rates of bounty are—for fencing wire and galvanized sheets, £2 12s. per ton; for wire-netting, £3 8s. per ton; and for traction engines from £40 to £90 each, according to brake horse-power. The amounts paid in each case during the year ended 30th June, 1926, were £97,387, £49,221, £95,127, and £270.

4. *World's Production of Iron and Steel.*—The Australian production of iron and steel at present forms a very small proportion of the world's output. According to *The Mineral Industry*, the world's production of each commodity in the years specified for the principal countries was as follows:—

PIG IRON AND STEEL.—WORLD'S PRODUCTION, 1913, AND 1923 TO 1925.

Country.	Pig Iron.				Steel.			
	1913.	1923.	1924.	1925.	1913.	1923.	1924.	1925.
	Thousands of Tons.				Thousands of Tons.			
United States ..	30,966	40,361	31,436	36,701	31,301	44,944	37,932	45,394
Germany ..	16,499	4,859	7,690	10,047	17,348	6,206	9,681	12,176
France (a) ..	5,126	5,347	7,502	8,323	4,620	5,029	6,792	7,290
United Kingdom ..	10,260	7,439	7,319	6,236	7,663	8,482	8,221	6,137
Belgium ..	2,446	2,116	2,763	2,507	2,428	2,234	2,816	2,379
Luxemburg ..	2,508	1,385	2,124	2,308	1,308	1,180	1,852	2,053
Czecho-Slovakia ..	..	804	1,033	..	..	1,162	1,328	..
India ..	204	614	881	..	..	215	335	..
Russia ..	4,486	294	654	1,284	4,760	579	978	1,835
Canada ..	1,015	909	593	570	1,043	884	651	753
Sweden ..	732	277	508	423	582	267	495	456
Australia ..	47	330	416	444	..	53	200	354
Total—All Countries ..	77,536	65,988	64,112	72,400	74,787	73,615	73,687	83,500

(a) Lorraine is included with France in the last three years.

§ 9. Other Metallic Minerals.

1. *Antimony.*—The production of antimony ore in New South Wales amounted in 1925 to 29 tons, valued at £395, the output being obtained in the Hillgrove and Kempsey divisions. In addition 100 tons of Broken Hill concentrates exported overseas were estimated to contain 20 tons of antimony. Deposits of the mineral are also found in the Glen Innes and Drake divisions, and near Grasford in the East Maitland division. The total quantity of antimony (metal and ore) raised in New South Wales up to the end of 1925 was 19,061 tons, valued at £344,983. The production of antimony concentrates in Victoria during 1925 amounted to 120 tons, valued at £5,380. The whole of the production came from ore raised by a company operating at Costerfield. In Queensland extensive deposits are found at Neerdie in the Wide Bay district, at Wolfram Camp, on the Hodgkinson field, on the Palmer River in the Ravenswood district, and at various places in the Herberton district. Ore has also been obtained in the Dividing Range near Herberton and adjacent to some of the central tributaries of Emu Creek. Owing to the low price of the metal there has been no production during the last few years. In Western Australia lodes of stibnite carrying gold have been found in the Roeburne district. During 1917, 12 tons of antimony, valued at £258 were exported, but there was no subsequent production until 1920, when 3 tons, valued at £45, were exported. There was no record of production in later years.

2. **Arsenic.**—In New South Wales the production of arsenical ore and concentrates in 1925 amounted to 3,346 tons, valued at £8,333, of which 559 tons of ore yielding 97 tons of concentrates were raised by the Valla Gold Mines in the Bellingen division; 2,657 tons of ore yielding 296 tons of arsenic at the Ottery Mine in the Emmaville division; 430 tons of ore in the Hillgrove division; and small quantities of ore in the Armidale, Torrington, and Port Macquarie divisions. During 1917 the high price ruling for arsenic, and the urgency for the need of supplies in connexion with the destruction of prickly pear, led to the reservation by the Queensland Mines Department of an extensive area of arsenic-bearing deposits at Jibbinbar, in the Stanthorpe district. Production in 1925 from the Stanthorpe district amounted to 1,115 tons, valued at £11,150, but none was raised at the State mine during the year. The product is used not only for the destruction of prickly pear, but for the manufacture of arsenical dip solutions and other purposes. In South Australia arsenic-bearing minerals are found at some of the old mines, but, owing to slackness in the demand, only 100 tons of ore were raised in 1925. The arsenical ore (contained in gold ore) exported from Western Australia in 1925 was valued at £1,045.

3. **Bismuth.**—Ores of this metal are found in association with tungsten and molybdenum, and sometimes tin, in New South Wales, but owing to lack of a market the production of ore and concentrates in 1925 was only 11 tons valued at £2,950, the greater portion of the yield being obtained in the Glen Innes division in conjunction with mining for molybdenite. The total production to the end of 1925 was 805 tons, valued at £232,504. In Queensland wolfram and bismuth have been found in various districts, but, owing to the low prices obtainable, production in 1925 was small, amounting to 10 cwt. valued at £79, raised in the Chillagoe district. In South Australia deposits are found at Balhannah, at Mount Macdonald, and at Murninnie on the shores of Spencer's Gulf. A small quantity of bismuth was exported from Western Australia in 1919, but none was recorded subsequently. In Tasmania a small quantity, valued at £21, was raised in 1921 by the S. & M. mine at Middlesex, but there was no production in the last four years.

4. **Cadmium.**—The cadmium contained in the zinc ores mined at Broken Hill is recovered at Risdon, Tasmania, as a by-product in the electrolytic treatment of calcined zinc concentrates. During the four years, 1922 to 1925, amounts of 36 tons, valued at £13,189; 123 tons, valued at £34,776; 150 tons, valued at £33,478; and 156 tons, valued at £35,067 respectively were so obtained, but, as pointed out previously, credit is not taken for the value of the finished product in the New South Wales returns as the metal is not recovered in the State. Tasmania in 1925 credited its mineral returns with 5 tons of cadmium, valued at £1,178, obtained from zinc calcines produced from local ore.

5. **Chromium.**—The output of chromite in New South Wales during 1925 was estimated at 963 tons, valued at £2,670, of which 933 tons were raised in the Barraba division, and 30 tons at Attunga in the Tamworth division. Chrome iron ore is found in Queensland in the Rockhampton district, and about 160 tons were raised in 1920 by the Mount Morgan Company at Glen Geddes, but there was no production during the last five years. Chromite has been discovered at Coobina on the overland route between Peak Hill and Nullagine in Western Australia, but, on account of the difficulties of transport and the low price of the mineral, there is no immediate likelihood of production.

6. **Cobalt.**—This metal was found at Carcoar in New South Wales in 1889, and subsequently at Bungonia, Port Macquarie, and various other places. There was no export of cobalt since 1911, and the total produced since 1860 amounted in value to only a little over £10,000. In Queensland a rich deposit was opened up in 1920 at Mount Cobalt in the Cloncurry area, and the production in 1925 amounted to 90 tons, valued at £18,014. Although the product is a valuable one, greater development is hindered by the uncertainty of the demand.

7. **Lead.**—Lead mining *per se* is not practised to any extent in Australia, the supply of the metal being chiefly obtained in conjunction with silver and zinc. In New South Wales the Mines Department took credit in 1922 for 8,113 tons, valued at £194,712, and the production to the end of 1922 was taken as 327,000 tons, valued at £6,442,000. Owing to the closing down of the treatment works at Cockle Creek in 1922 no production was recorded, the whole of the lead concentrates being subsequently forwarded for treatment outside the State, principally at Port Pirie in South Australia. As stated previously, the metallic contents of the major portion of the silver-lead ores are extracted outside New South Wales, and the figures quoted above refer only to lead values

assigned as the produce of the State. In Victoria, oxides, sulphides, and carbonates of lead are found in the reefs on most of the gold-fields. The deposits are not, however, of sufficient extent to repay the cost of working. In Queensland the deposits are worked chiefly for the silver, copper or gold contents of the ore, the lead produced in 1925 amounting to 5,235 tons, valued at £187,681. Of this total the Chillagoe area produced 3,139 tons, valued at £112,533; the Herberton area, 613 tons, valued at £21,994; Etheridge, 448 tons, £16,078; Brisbane, 454 tons, valued at £16,275; Cloncurry 330 tons, valued at £11,830; and the Burketown area 179 tons, valued at £6,417. Lead has been found at many places in South Australia, although, with few exceptions, the lodes are not of great size. The works at Port Pirie in South Australia, controlled by the Associated Company, which includes the chief Broken Hill Mining Companies, constitute the largest and most complete lead smeltery in the British Empire. About 1,400 men are employed, and the fuel used amounts to 150,000 tons yearly. During 1925, lead and silver-lead ore exported from Western Australia amounted to 4,664 tons, valued at £103,300. The bulk of the product consists of lead ore raised on the Northampton field. Tasmanian lead production in 1925 was returned as 5,526 tons, valued at £197,452, of which the mines in the Dundas group contributed 5,079 tons, while 447 tons came from the mines in the Zeehan area.

8. **Manganese.**—During 1925 the output of manganese ore in New South Wales amounted to 1,164 tons, valued at £3,635, of which 1,029 tons were raised in the Grenfell division, and 105 tons in the Deepwater division. In Victoria the production in 1922 amounted to 150 tons, valued at £930, raised in the Heathcote division, but none was raised during the last three years. In Queensland there are extensive deposits of low-grade manganese ores in various places. High-grade ore is not available in quantity, but the deposits of medium grade at Kandanga should in future become a valuable asset in the steel industry. Production in 1923 amounted to 74 tons, valued at £332, but none was raised in the last two years. Extensive deposits of the ore were mined at Booloonda in South Australia some years ago, and it is found also at Pernatty, Hawker, and Gordon. The production in 1924 was valued at £1,128, but there was no output recorded in 1925. The Pernatty ore is of high grade, and being free from deleterious substances is specially suited for use in making high-grade steel. In Western Australia, ores of the metal are found widely scattered, the black oxide being especially plentiful in the Kimberley district. Extensive deposits exist in a locality 18 miles north-west from Peak Hill. In the northern part of the Cue district the deposits cannot at present be profitably worked owing to absence of cheap transport facilities. The export of manganese in 1924 consisted of 20 tons, valued at £160, but there was no return in 1925.

9. **Molybdenum.**—The production of molybdenite in New South Wales during the year 1925 amounted to 6 tons, valued at £1,648, chiefly obtained from mines at Kingsgate in the Glen Innes division. Small quantities of ore were also raised in the Grafton and Emmaville divisions. The total production of molybdenite since its discovery is stated at 827 tons, valued at £211,759. In Victoria 34 tons of concentrates valued at £5,545 were produced in 1925 at Everton. The production in Queensland for 1925 was 3 tons, valued at £271, partly raised on the Chillagoe field, and partly at Mount Perry. The Wombah mine near Mount Perry is regarded by geologists as one of the most promising sources of molybdenite in Australia. A small quantity was at one time produced from the mines in the Moonta district in South Australia, and the occurrence of the metal is reported from various other localities, but no production was recorded during the last five years. Molybdenite occurs in small quantities at various localities in Western Australia, the production recorded in 1922 being valued at £500, but none was recorded in later years. In the Northern Territory, molybdenite is found at Yenberrie, where it is stated that the ore increases in richness as the workings become deeper.

10. **Radium.**—Deposits of radio active ores occur in lode form in South Australia, and are believed to be richer and more extensive than any others so far located. There is an extensive deposit at Radium Hill, Olary, about 12 miles from Cutana railway siding, and another at Mount Painter in the Northern Flinders Ranges. Ores from both localities have yielded radium. Pure radium bromide was produced at a treatment plant in Sydney, and up to the end of 1914, when operations were suspended, 466 milligrammes were extracted. The Radium and Rare Earths Treatment Co. has been formed to exploit the radio-active ores at Olary, and a syndicate has taken up the workings at Mount Painter. A sample of 11 milligrammes of radium bromide was

extracted from 2½ tons of crude ore in 1925 by experts attached to the first named company. Extensive plant and buildings have been erected, and it is hoped that production on a large scale will shortly be possible. The value of ore raised in 1925 was set down at £172.

11. **Tungsten.**—Wolfram and scheelite, the principal ores of tungsten, are both mined to some extent in New South Wales, but the low prices obtainable caused a cessation of mining activity in this direction in the last four years. A large proportion of the total production from tungsten ores is obtained from the wolfram worked at Torrington, but the production in 1925 amounted to 7 tons only. The deposits at Hillgrove were the principal source of scheelite, but there was no production during the last five years. In Victoria the production of wolfram was returned in 1920 as 7½ tons, valued at £355, yields being obtained at Mount Murphy and the Tambo River, but there was no subsequent production. In Queensland, tungsten ores are found in several districts but, owing to low prices production in 1925 was insignificant, small yields being obtained in the Chillagoe and Herberton areas. (See also "Bismuth.") A deposit of wolfram was discovered near Yankalilla, in South Australia, as far back as 1893, but no production has been recorded since the year 1917. The mineral is also found at Callawonga Creek. There was no production of tungsten minerals in 1925 in Western Australia. Tungsten ores are commonly met with in the gold reefs, and both wolfram and scheelite have been recorded as occurring in several widely-separated localities. In the Northern Territory wolfram is found at Hatches Creek, Wauchope Creek, Wolfram Creek, Hidden Valley, and Yenberrie. Numerous samples of high grade ore have been obtained at the Frew River in Central Australia. The production in 1923 was, however, trifling, and none was recorded in 1924. Wolfram is mined at various points in Tasmania, the production for 1925 being 174 tons, valued at £14,658, of which 170 tons were raised at Storey's Creek. Scheelite has been discovered on King Island in Bass Strait, but there was no production in 1925.

12. **Other Metals.**—In addition to the metals enumerated above there is a large number of others occurring in greater or less degree, while fresh discoveries are being constantly reported.

§ 10. Coal.

1. **Production in each State.**—An account of the discovery of coal in each State will be found in preceding issues of the Year Book. (See No. 3, pp. 515-6.) The quantity and value of the production in each State, and in Australia, during the five years 1921 to 1925, are given in the table hereunder:—

COAL.—PRODUCTION, 1921 TO 1925.

Year.	N.S.W.	(a) Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
QUANTITY.							
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1921 ..	10,793,387	514,859	954,763	..	468,817	66,476	12,798,302
1922 ..	10,183,133	559,284	958,519	..	438,443	69,238	12,208,617
1923 ..	10,478,513	476,823	1,060,662	..	420,714	80,718	12,517,430
1924 ..	11,618,216	518,315	1,123,117	..	421,864	75,988	13,757,500
1925 ..	11,396,199	534,246	1,177,173	..	437,461	81,698	13,626,777
VALUE.							
	£	£	£	£	£	£	£
1921 ..	9,078,388	603,323	831,483	..	407,117	63,446	10,983,757
1922 ..	8,507,946	664,251	840,472	..	381,555	61,016	10,455,240
1923 ..	8,607,892	525,270	925,227	..	368,949	70,797	10,498,135
1924 ..	9,589,547	569,555	985,542	..	363,255	66,555	11,574,454
1925 ..	9,302,515	596,117	1,037,956	..	363,203	70,424	11,370,215

(a) Exclusive of brown coal.

The figures for Victoria quoted above are exclusive of brown coal, the quantity and value of which during the last six years were as follows :—

BROWN COAL.—PRODUCTION, VICTORIA, 1920 TO 1925.

Year.	Quantity.	Value.	Year.	Quantity.	Value.
	Tons.	£		Tons.	£
1920	162,682	64,180	1923	116,888	38,019
1921	79,224	31,074	1924	127,490	41,116
1922	90,402	31,179	1925	876,468	166,404

2. *Distribution and Production of Coal in each State.*—(i) *New South Wales.*—Estimates of the quantity of coal available in any large area of country are of course, more or less hazardous. Some years ago the Government Geologist estimated that within a depth of 4,000 feet from the surface the coal seams in New South Wales of a thickness exceeding $2\frac{1}{2}$ feet were capable of producing over 78 million tons, allowing for a loss in working of one-fifth. In 1890, Professor David gave a total of between 130 million and 150 million tons, excluding seams under 3 feet in thickness. After a careful review of the position in 1901, the late E. F. Pittman suggested 115 million tons as an approximate figure.

In the following estimate by R. H. Cambage, of actual reserves, no account has been taken of coal below 4,000 feet, and the coal has been classified in three grades—Grade A, including coals of first quality, suitable for steam-raising, gas-making and household purposes; Grade B, including coals with lower calorific value and higher ash content than those in Grade A, but suitable for use as mined; Grade C, including coals from inferior seams generally with high ash content, but suitable for use after washing or flotation. The approximate tonnages in the various grades were—A, 6,800 millions; B, 5,100 millions; C, 8,100 millions, making a total of 20,000 million tons.

The total includes the amount already won, and, estimating a loss of one-fifth in winning, the actual commercial reserves may be considered to be about 16,000 million tons.

The coal from the various districts differs considerably in quality—that from the Newcastle district being especially suitable for gas-making and household purposes, while the product of the Southern (Illawarra) and Western (Lithgow) is an excellent steaming coal. At the present time the Greta coal seams are being extensively worked between West Maitland and Cessnock, and this stretch of country, covering a distance of 15 miles, is now the most important coal-mining district in Australasia. The Permo-Carboniferous measures have in various places been disturbed by intrusions of volcanic rocks, which in some instances have completely cindered the seams in close proximity to the intrusive masses, while in other instances the coal has been turned into a natural coke, portion of which some years ago realized good prices as fuel.

The table hereunder gives the yields in each of the three districts during the five years 1921 to 1925 :—

COAL.—PRODUCTION IN DISTRICTS, NEW SOUTH WALES, 1921 TO 1925.

District.	1921.	1922.	1923.	1924.	1925.
	Tons.	Tons.	Tons.	Tons.	Tons.
Northern	7,493,002	7,156,921	6,861,759	8,077,689	7,637,953
Southern	2,062,958	1,878,594	2,170,699	1,973,855	2,052,963
Western	1,237,427	1,147,618	1,446,055	1,566,672	1,705,283
Total	10,793,387	10,183,133	10,478,513	11,618,216	11,396,199

The output in 1925 was about 222,000 tons less than that for 1924, which was the highest recorded. It is stated, however, that a fresh record would have been created in 1925 but for the shipping hold-up during the latter portion of the year. The falling-off in 1922 as compared with the previous year was due to the closing down of the steel works at Newcastle, while the decline in production shown by the Northern district in 1923 was brought about mainly by stoppage of work on the Maitland coal-field from April to the beginning of August.

(ii) *Victoria. (a) Black Coal.* The deposits of black coal in Victoria occur in the Jurassic system, the workable seams, of a thickness ranging from two feet three inches to six feet, being all in the Southern Gippsland district. An estimate, by R. H. Cambage, of the tonnage of extractable black coal places the total at 25 million tons, of which 20 millions are in the Wonthaggi area, 2 millions at Korumburra, Jumbunna, and Outtrim, and the balance in other small areas.

The output of black coal in Victoria during the last five years was as follows :—

BLACK COAL.—PRODUCTION, VICTORIA, 1921 TO 1925.

Year.			State Coal Mine.	Other Coal Mines.	Total Production.	Value.
			Tons.	Tons.	Tons.	£
1921	..	..	451,255	63,604	514,859	603,323
1922	..	..	511,174	48,110	559,284	664,251
1923	..	..	418,394	58,429	476,823	523,270
1924	..	..	452,032	66,283	518,315	569,555
1925	..	..	468,146	66,100	534,246	596,117

Amongst the other coal mines the chief producers in 1925 were the Sunbeam Colliery at Korumburra, with 18,232 tons; the Jumbunna Coal Pty. Ltd. at Jumbunna, with 15,609 tons; and the Austral Colliery, Dudley Syndicate, and Cardiff Colliery at Korumburra, with 10,237, 10,166, and 5,350 tons respectively.

(b) *Brown Coal.*—(1) *General.* Deposits of brown coal and lignite of immense extent occur in gravels, sands, and clays of the Cainozoic period throughout Gippsland, Mornington Peninsula, Werribee Plains, Gellibrand, and Barwon and Moorabool basins. In the Latrobe Valley, the beds reach a thickness of over 800 feet. As estimated by boring, the total tonnage of brown coal available, according to a report by the Government Geologist, amounts to 10,378 million tons, of which 5,000 million tons are situated in the Morwell district, a similar quantity in the Traralgon district, 250 million tons at Welshpool-Gelliondale, while the Altona, Lal Lal, and Wensleydale areas are capable of supplying 100 millions, 25 millions, and 3 millions respectively. When dried, the material makes good fuel, but, owing to its excessive combustibility and friability requires to be consumed in specially constructed grates. Its steaming value is equal to about half that of the Wonthaggi coal. Some large factories already have adopted brown coal for firing boilers, and there is also a fair demand for the product by householders. In 1917 an Advisory Committee appointed to report on the brown coal deposits of Victoria recommended the establishment of an open-cut mine at Morwell in connexion with a comprehensive scheme of electrical power generation and transmission, as well as for the supply of brown coal for other requirements. The recommendations of this Committee were incorporated in the "Electricity Commissioners Act" of 1918. The Commission is actively engaged in the work of opening up the Morwell deposits, and the product is being utilized for the generation of electricity, which is transferred to Melbourne and to other towns in Victoria within economic distance. The first generator at the Yallourn power station was brought into operation on the 15th June, 1924, and the works are now assisting in meeting the increasing demands for electric energy in the metropolitan and country areas of Victoria, and in certain areas in the south of New South Wales. The energy sold during the year 1925–26 amounted to about 162 million kw.-hours. A township has been established at Yallourn, with provision for an ultimate population of 3,000. On the 30th June, 1926, there were 2,473 employees engaged on the various works of the

Commission as follows:—At Yallourn, 1,158; Transmission Lines, 218; Metropolitan Works, 497; Water Power Investigation, 10; District Undertakings, 111; Brown Coal Mine (old open cut), 430; Rubicon Hydro-Electric Scheme, 49. Overhead lines erected to the 30th June, 1926, amounted to 979 route miles, and length of cable to 3,445 miles. At the same date about 133 miles of underground cable had been laid.

The brown coal produced in Victoria was raised chiefly at the State Open Cut at Yallourn, where the output in 1925 amounted to 701,761 tons, while 168,201 tons were raised at the old open cut at Morwell. During the year 2,258 tons were also raised by the Otway Coal Co., at Bambra, and 4,248 tons by the Victorian Central Coal and Iron Co. at Lal Lal.

(2) *Production of Briquettes.* The briquetting plant started operations in November, 1924, and the monthly average output in 1925-26 was 7,214 tons. It should be noted, however, that the Yallourn plant is what is known as a "half factory", and economic production will necessitate an extension thereof. The present capacity of the plant is about 100,000 tons a year, and the Commission is desirous of increasing this to 330,000 tons. According to the Report of the Geological Survey of the United States the world's production of briquettes in 1924 was 42 million tons, of which over 33 million tons were produced in Germany, 3 million tons in France, 2 million tons in Belgium, 1 million tons in the United Kingdom, while Spain, Netherlands, and the United States each produced about $\frac{1}{2}$ million tons.

(iii) *Queensland.* According to B. Dunstan, F.G.S., the coal measures of Queensland cover an estimated area of 73,000 square miles, of which 20,000 square miles are made up of recognized coal-fields, i.e., 2,000 square miles of Trias-Jura age, 2,000 Cretaceous, and 16,000 of Permian age. Estimated coal reserves include all seams not less than 1 foot thick situated at depths not greater than 1,000 feet below the surface. The actual and probable reserves are estimated at 412 million and 1,634 million tons respectively. Of the actual reserves, about 122 millions were set down as semi-anthracite, 279 millions as bituminous, 3 millions as semi-bituminous, and 8 millions as gas coal.

The distribution of production during the last three years was as follows:—

COAL PRODUCTION.—QUEENSLAND, 1923 TO 1925.

Districts.	1923.	1924.	1925.
	Tons.	Tons.	Tons.
Ipswich	607,983	596,720	614,053
Darling Downs	94,760	93,252	108,275
Wide Bay and Maryborough	74,215	105,181	119,704
Rockhampton (Central)	108,890	123,781	101,076
Clermont	50,553	55,799	62,204
Bowen	91,643	103,987	128,497
Mount Mulligan (Chillagoe)	32,618	44,397	43,364
Total	1,060,662	1,123,117	1,177,173

The output in 1925 was the highest recorded. There were 33 collieries operating in the Ipswich district, 5 in the Darling Downs, 6 in the Maryborough area, 10 in the Central district, 1 at Mount Mulligan in the Chillagoe district, and 2 in the Bowen district. State coal mines are in operation at Collinsville in the Bowen field, at Mount Mulligan in the Chillagoe field, at Baralaba in the Dawson Valley area, and at Hartley and Bowman in the Rockhampton area.

(iv) *South Australia.* Thin seams of black coal similar to the Jurassic coal of Victoria have been proved by a bore at Robe, but the depth at which the seams were located, i.e., between 2,830 feet and 3,950 feet, renders exploitation thereof unlikely. Reference to the situation and probable content of the widely distributed brown coal deposits in this State was made in Official Year Book No. 19, p. 750. In 1925, an expert commissioned by the Government to report on these deposits stated, amongst other things, that the brown coals at present known contain fairly large percentages of moisture, and have a high sulphur and ash content. Owing to their situation, deep-mining methods would be

necessary to win the coal, at an estimated cost of 10s. per ton. An extensive system of "scout" boring was recommended, with a view to discovering deposits suitable for mining by open-cut methods.

(v) *Western Australia.* The coal seams in Western Australia belong to the Carboniferous, Mesozoic, and Post-tertiary ages. Most of the coal contains a large proportion of moisture, and belongs partly to the hydrous bituminous and partly to the lignite class. The only coal-field at present worked is at Collie, in the Permo-Carboniferous beds. The area occupied by the coal measures is approximately 50 square miles, and the beds attain a thickness of over 2,000 feet, the coal seams totalling 137 feet.

Estimates place the amount of available coal on the field to a depth not exceeding 2,000 feet at 3,500 million tons.

The production from the five collieries situated at Collie amounted in 1925 to 437,461 tons, of which 266,000 tons were supplied to the railways. If the demand for coal warranted it, the output from any of the collieries could be considerably increased.

(vi) *Tasmania.* The total quantity of coal available for payable extraction has been estimated at approximately 135 million tons, or on the basis laid down by the International Geological Congress, 125 million tons actual reserve, and 123 millions probable reserve.

Of the output in 1925, amounting to 81,698 tons, the Cornwall and Mt. Nicholas Collieries in the North-Eastern division raised 38,151 and 28,965 tons respectively. About 12,600 tons were produced from the Cardiff-Jubilee Colliery, 800 tons from York Plains, 760 tons from Illamatha, 250 tons from Catamaran, and smaller quantities from Fingal, Mersey Valley, and others.

(vii) *Australia.* A summary of the information available in regard to estimated actual and possible reserves of coal for Australia as a whole is given in the appended table.

AUSTRALIA.—TONNAGES OF ACTUAL AND PROBABLE COAL RESERVES.

State.					Actual Reserves.	Probable Additional Reserves.
					Million tons.	Million tons.
New South Wales	..	..	..	..	20,000	100,000
Victoria	..	..	..	..	10,400	Apparently not large
					(Brown) 25	
					(Black) 412	
Queensland	..	..	..	..	50	13,000
South Australia	..	..	..	..	(Brown) 3,500	Fairly large, no estimate
Western Australia	..	..	..	..	(a) 125	..
Tasmania	..	..	..	..	(b)	123
Northern Territory	..	..	..	..		(b)
Total	..	..	..	..	34,512	..

(a) Combined reserves and probable reserves.

(b) No estimate.

3. *Production in Various Countries.*—The total known coal production of the world in 1925 amounted to about 1,350 million tons, towards which Australia contributed nearly 14½ million tons, or about 1 per cent. The following tables show the production of the chief British and foreign countries during each of the last three years where the returns are available. Anthracite, bituminous, and sub-bituminous coals have been included under the heading black coal.

COAL PRODUCTION.—BRITISH EMPIRE, 1923 TO 1925.

Year.	Great Britain.	British India.	Canada.	Australia.	New Zealand.	Union of S. Africa.
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BLACK COAL.

	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1923 ..	276,000,600	19,656,900	11,971,900	12,517,400	935,700	11,074,700
1924 ..	267,118,200	21,176,600	8,994,600	13,757,500	1,085,000	11,633,400
1925 ..	243,176,200	19,969,000	8,489,800	13,626,800	1,004,700	13,582,500

BROWN COAL, LIGNITE.

1923 ..	..	..	3,198,300	116,900	1,034,100	..
1924 ..	..	..	3,182,400	127,500	998,200	..
1925 ..	..	..	3,232,900	876,500	1,070,300	..

COAL PRODUCTION.—FOREIGN COUNTRIES, 1923 TO 1925.

Year.	Germany.	Belgium.	France.	Czecho-Slovakia.	Poland.	Netherlands.	Russia.	Japan.	United States.
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BLACK COAL.

	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1923	61,314,600	22,553,900	46,118,300	11,437,900	35,517,900	5,195,700	10,437,000	23,483,600	587,406,800
1924	116,860,000	22,986,500	57,110,500	14,935,000	31,706,800	5,787,000	14,839,000	29,626,900	510,369,200
1925	130,490,700	22,761,400	59,072,600	12,549,500	28,613,100	6,738,500	15,826,000	29,000,000	522,128,900

BROWN COAL, LIGNITE.

1923	116,876,000	..	863,000	15,942,100	168,300	53,300	..	149,000	(a)
1924	122,634,100	..	928,900	20,130,900	86,600	188,100	..	173,900	(a)
1925	137,479,000	..	991,100	18,487,100	61,000	204,300	..	(a)	(a)

(a) Included with black coal.

4. Exports.—The exports of coal from Australia are chiefly confined to New South Wales.

The total quantity of coal of Australian production (exclusive of bunker coal) exported to other countries in 1925-6 was 794,340 tons, valued at £882,000, of which 792,144 tons were exported from New South Wales.

In the following table will be found the quantity and value of the exports from New South Wales, during the last five years. The figures are given on the authority of the Mines Department of that State, and include both bunker coal and coal exported from New South Wales to other States.

COAL.—EXPORTS, NEW SOUTH WALES, 1921 TO 1925.

Year	1921.	1922.	1923.	1924.	1925.
Quantity, 1,000 tons ..	5,525	5,239	4,900	5,414	4,771
Value, £1,000 ..	5,794	5,929	5,481	6,037	5,243

Of the 4,771,000 tons of coal exported from New South Wales in 1925, over 87 per cent., or 4,174,000 tons, were shipped at Newcastle; 308,000 tons (including bunker coal, 150,000 tons) at Port Kembla and Bellambi; and 289,000 tons, mostly bunker coal, at Sydney.

The principal countries to which coal was forwarded from Newcastle during the last three years were as follows:—

EXPORTS OF COAL FROM NEWCASTLE, NEW SOUTH WALES, 1923 to 1925.

Country of Destination.	1923.	1924.	1925.
	Tons.	Tons.	Tons.
Victoria	1,384,000	1,691,000	1,502,000
New Zealand	689,700	715,900	616,000
South Australia	621,400	903,600	934,600
Tasmania	121,400	153,400	125,200
Western Australia	67,300	81,900	115,000
Queensland	71,900	78,100	101,300
United Kingdom	266,800	196,900	166,700
Java	117,300	81,300	98,800
Chile	110,900	109,600	4,600
United States	94,900	56,900	47,000
Philippine Islands	84,200	175,400	112,000
India	68,800	54,700	34,900
Straits Settlements	65,600	110,700	37,100
Sandwich Islands	42,300	15,900	11,700
Fiji	33,100	31,200	48,300
Noumea	32,600	17,600	33,800
Peru	29,500	28,700	36,400
Japan	23,300	25,100	13,300
Ocean Island	18,500	19,000	20,900
Nauru	17,000	24,600	21,400
Canada	12,900	9,400	21,200
Germany	11,300	18,200	15,900
Total—All Countries	4,043,000	4,688,000	4,174,000

During the year 1925 the exports from Port Kembla and Bellambi to other States amounted to 145,000 tons, while 13,000 tons were sent to New Caledonia, and 700 tons to New Guinea. The coal shipped from Sydney went principally to New Guinea and South Sea islands. For the twelve months ended 30th June, 1925, about 15,000 tons of coal were dispatched to interstate ports from the jetty at Catherine Hill Bay, near Newcastle.

The distribution of the total output from New South Wales collieries during the last five years was as follows, the particulars given of quantity exported including coal shipped as bunker coal:—

COAL.—DISTRIBUTION OF OUTPUT, NEW SOUTH WALES, 1921 TO 1925.

Year.	Exports to Australian Ports.	Exports to Foreign Ports.	Local Consumption.	Total.
	Tons.	Tons.	Tons.	Tons.
1921	2,752,810	2,771,949	5,268,628	10,793,387
1922	2,841,253	2,398,144	4,943,736	10,183,133
1923	2,518,579	2,381,549	5,578,385	10,478,513
1924	3,096,881	2,317,063	6,204,272	11,618,216
1925	3,001,823	1,769,215	6,625,161	11,396,199

For the period of five years shown in the table above, 26·1 per cent. of the total output was exported to other States, 21·4 per cent. was sent overseas, and 52·5 per cent. was consumed locally.

The figures quoted are given on the authority of the New South Wales Mines Department.

5. *Consumption in Australia.*—An estimate of the consumption of coal in Australia may be arrived at by adding the imports to the home production, and deducting the exports (including bunker coal taken by oversea vessels). The following table shows the consumption computed in the manner specified, for the last five years :—

COAL.—CONSUMPTION, AUSTRALIA, 1921 TO 1925.

Year.	Quantity of Coal Consumed.		
	Home Produce.	Produce of Other Countries.	Total.
	Tons.	Tons.	Tons.
1921	9,776,978	9,457	9,786,435
1922	9,531,274	46,620	9,577,894
1923	10,022,228	32,660	10,054,888
1924	11,395,631	9,234	11,404,865
1925	12,536,179	9,137	12,545,316

The bunker coal taken away in 1925 was estimated at 1,068,000 tons.

6. *Prices.*—(i) *New South Wales.* The price of New South Wales coal depends on the district from which it is obtained, the northern district coal always realizing a much higher rate than the southern or western product. The average price on the mine in each district and for the State as a whole during the last five years was as follows :—

COAL.—PRICES, NEW SOUTH WALES, 1921 TO 1925.

Year.	Northern District.	Southern District.	Western District.	Average for State.
	Per ton. <i>s. d.</i>	Per ton. <i>s. d.</i>	Per ton. <i>s. d.</i>	Per ton. <i>s. d.</i>
1921	17 7	16 6	12 10	16 10
1922	17 6	16 3	12 8	16 9
1923	17 7	16 1	11 5	16 5
1924	17 8	16 2	11 2	16 7
1925	17 7	15 11	11 1	16 4

(ii) *Victoria.* In Victoria the average price of coal in 1921 was 23s. 5d.; in 1922, 23s. 9d.; in 1923, 22s.; in 1924, 21s.; and in 1925, 22s. 4d. per ton. These averages are exclusive of brown coal, the production of which in 1925 was valued at 3s. 10d. per ton.

(iii) *Queensland.* Prices in the principal coal-producing districts during the last five years were as follows :—

COAL.—PRICES, QUEENSLAND, 1921 TO 1925.

District.	Value at Pit's Mouth.				
	1921.	1922.	1923.	1924.	1925.
	Per ton. <i>s. d.</i>	Per ton. <i>s. d.</i>	Per ton. <i>s. d.</i>	Per ton. <i>s. d.</i>	Per ton. <i>s. d.</i>
Ipswich	16 6	16 8	16 11	16 8	16 7
Darling Downs	18 10	18 11	19 1	18 10	18 8
Wide Bay and Maryborough	27 3	27 2	25 0	24 3	24 3
Rockhampton	15 6	16 5	15 5	15 0	16 1
Clermont	14 4	13 10	12 10	11 0	12 0
Bowen (State Coal Mine)	16 3	16 1	16 0	16 5	16 0
Mount Mulligan (Chillagoe)	19 10	20 0	22 6	29 6	31 3
Average for State	17 5	17 6	17 5	17 8	17 8

The readjustment of prices and wages in the industry was responsible for the increases in the averages during the last four years.

(iv) *Western Australia.* The average price of the Collie (Western Australia) coal during the last five years was as follows:—In 1921, 17s. 4d.; in 1922, 17s. 5d.; in 1923, 17s. 6d.; in 1924, 17s. 3d.; and in 1925, 16s. 7d. per ton.

(v) *Tasmania.* The average price per ton of coal at the pit's mouth in Tasmania for the five years 1921 to 1925 was:—In 1921, 19s. 1d.; in 1922, 17s. 7d.; in 1923, 17s. 6d.; in 1924, 17s. 6d.; and in 1925, 17s. 3d. per ton.

7. *Prices in the United Kingdom.*—During the five years 1921 to 1925 the average selling value of coal at the pit's mouth in the United Kingdom was:—In 1921, 26s. 2d.; in 1922, 17s. 7d.; in 1923, 18s. 10d.; in 1924, 18s. 10d.; and in 1925, 16s. 4d. per ton.

8. *Employment and Accidents in Coal Mining.*—The number of persons employed in coal mining in each of the States during the year 1925 is shown below. The table also gives the number of persons killed and injured, with the proportion per 1,000 employed, while further columns are added showing the quantity of coal raised for each person killed and injured, this being a factor which must be reckoned with in any consideration of the degree of risk attending mining operations. A further table gives the rate of fatalities during the last five years.

According to the report of the Chief Inspector of Mines for Great Britain, the average death-rate per 1,000 miners from accidents in coal mines during the quinquennium 1921–25 was 0.93, the rates varying between 1.06 in 1923, and 0.66 in 1921, while, as shown in the table following, the rate for Australia for the same period was 1.56. In the United States during the decennium 1913–22 the death rate per 1,000 employees averaged 4.3 for bituminous coal miners, and 4.4 for anthracite miners. Rates for other coal-producing countries for the same period were—Canada, 4.4; South Africa, 2.4; Germany, 2.8; Spain, 1.9; Belgium, 1.2; France, 1.0. In comparing these rates, allowance must be made for the circumstance that the methods of calculation are not identical in all countries, while, as shown below in the case of Queensland, the average may be swollen by the occurrence of an extraordinary disaster in a single year.

COAL MINING.—EMPLOYMENT AND ACCIDENTS, 1925.

State.	Persons Employed in Coal Mining.	No. of Persons.		Proportion per 1,000 Employed.		Tons of Coal raised for each Person.	
		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
New South Wales ..	24,049	27	115	1.12	4.18	422,100	99,100
Victoria ..	2,593	5	20	1.93	7.71	282,100	70,500
Queensland ..	2,826	3	62	1.06	21.94	392,400	19,000
Western Australia ..	677	..	78	..	115.21	..	5,600
Tasmania ..	250	..	2	..	8.00	..	40,800
Total ..	30,395	35	277	1.15	9.11	414,400	52,400

The figures for New South Wales include 20 shale miners. Owing to lack of uniformity in the definition of "injury," the figures relating to persons injured possess little value.

The next table shows the average number of miners employed, number of fatalities, and rate per 1,000 during the quinquennium 1921–25:—

COAL MINING.—FATALITIES, 1921 TO 1925.

State.	Average No. of Coal Miners.	Average No. of Fatal Accidents.	Rate per 1,000 Employed.
New South Wales ..	22,594	23.2	1.02
Victoria ..	2,194	2.8	1.28
Queensland ..	2,679	17.6	6.57
South Australia ..	4	..	..
Western Australia ..	735	0.6	0.82
Tasmania ..	259	0.2	0.77
Total ..	28,465	44.4	1.56

Figures for coal miners in South Australia appear for the first time in 1922, the miners being engaged chiefly on work in connexion with the brown coal deposits.

The abnormally heavy rate in Queensland is due to the inclusion of the 75 deaths in 1921 caused by the disastrous explosion of coal-dust at Mount Mulligan. For the quinquennium 1916-20 the Queensland rate was 1.79, and for the whole of Australia 1.14.

§ 11. Coke.

1. **Production.**—Notwithstanding the large deposits of excellent coal in Australia, there was, prior to the war, a fairly considerable amount of coke imported from abroad. During recent years, however, a high standard of excellence has been attained in the local product, and the necessity for import has to a large extent disappeared. During the year 1925-6 the coke imported amounted to 52,000 tons, chiefly obtained from the United Kingdom, the bulk of the product being taken by South Australia. The table hereunder gives the production in New South Wales during the last five years :—

COKE.—PRODUCTION, NEW SOUTH WALES, 1921 TO 1925.

Year	..	..	..	1921.	1922.	1923.	1924.	1925.
Quantity	..	tons		592,097	240,229	580,374	564,372	609,418
Value, total	..	£		1,029,694	382,926	941,323	932,926	942,448
Value, per ton	..	..		34s. 9d.	31s. 10d.	32s. 5d.	33s. 1d.	30s. 11d.

The figures quoted refer to metallurgical coke, the product of coke ovens, and are exclusive of coke produced in the ordinary way at gas works.

During recent years the industry has made considerable progress, and with the development of local iron and steel works, as well as metal refineries and smelting establishments, its future prospects ought to be assured. The heavy decline in quantity and value of coke made in 1922 was due to the lessened demand consequent on the closing down of the steel works at Newcastle, while the improvement manifested in 1923 was resultant on the recommencement of operations.

A small quantity of coke is made in Queensland, the quantity returned in 1925 being 5,384 tons, valued at £9,025, but the bulk of that used in ore reduction is imported, mainly from New South Wales. The following table shows the amount manufactured locally during the last five years :—

COKE.—PRODUCTION, QUEENSLAND, 1921 TO 1925.

Year	..	..	..	1921.	1922.	1923.	1924.	1925.
Quantity	..	tons		7,557	6,748	5,244	7,116	5,384

Information regarding the exact quantity of coke imported from New South Wales and elsewhere is not available.

In order to avoid duplication with coal values the returns for coke have not been included in the general tables of mineral production in the early part of this chapter.

§ 12. Oil Shale and Mineral Oil.

1. **Production.**—(i) *New South Wales.* The production of kerosene shale amounted during 1924 to 642 tons, valued at £962, as compared with 32,489 tons valued at £77,380 in 1921, but none was mined in 1925. It is estimated that the total quantity of shale in the State amounts to 40 million tons, but its profitable exploitation depends on economic methods of production. Up to date there has been no production of petroleum, but boring operations were carried out at Bargo, and several areas have been taken up for the purpose of boring in the Singleton division. The prospects of striking flow oil in the Belford dome and the associated structures known as the Loder and Sedgefield domes in the Hunter River district appeared encouraging, and the Federal Government offered to subsidize on a £1 for £1 basis up to £22,500 approved boring operations in this area by the State or a private company. The Government Geologist of New South Wales has, however, expressed the opinion that "there is nothing in the nature of evidence to justify a belief in the existence of commercial supplies of oil or gas in the domes under consideration." A company with an authorized capital of £1,000,000 proposes to commence drilling on the area as soon as the special plant which is being obtained from America has been erected.

(ii) *Victoria.* Up to the present no extensive deposit of oil shale has been located in Victoria. Bores in search of oil have been put down from time to time, but so far without result, and the State geological authorities take an unfavourable view of the prospects of obtaining it.

(iii) *Queensland.* During the year 1925 the Lander Oil Co.'s No. 2 bore at Orallo was carried to a depth of 2,840 feet, when boring ceased. The obstruction in No. 1 bore was removed in July, but a second block occurred in August, and later on difficulty was met with in checking the inrush of water. The company has spent £85,000 in boring, and the machinery on the field is valued at £20,000.

The Commonwealth Government has allocated to the State a sum of £5,000 for detailed geological survey work. (See also Official Year Book No. 18, p. 801, and No. 19, p. 756).

(iv) *South Australia.* Bitumen is occasionally washed up on the southern coasts of the continent from Port Davey in Tasmania to Cape Leeuwin in Western Australia. Specimens found on Kangaroo Island at one time led to the belief that they were the product of a terrestrial petroliferous area. Similar occurrences of this mineral have been reported from the coasts of California, South Africa, and New Zealand. In 1920 the finding of accumulations of oily matter on the shores at Encounter Bay and Kangaroo Island was reported, but investigations by the Mines Department into the geological conditions of the surrounding country do not encourage the hope that the matter is of local origin. A considerable amount of money has been spent by private companies and individuals in the search for oil, but the results so far have been negative. The South Australian Government offers a bonus of £5,000 to the person or company first producing 100,000 gals. of crude petroleum from a bore or well in the State.

(v) *Western Australia.* In this State the chief interest in the search for oil centres in the Kimberley division. At Mount Wynne, in West Kimberley, the gas which bubbles freely in a hot spring has been found to contain hydrocarbons. Indications of free petroleum have been obtained in bores on Price's Creek, about 100 miles south-east of Mount Wynne, and traces of mineral oil have been detected in a seepage. In East Kimberley a black bitumen, residual from an asphaltic oil, has been found in weathered basalt in two localities 5 miles apart, thus indicating the former circulation of petroleum in the area. Boring operations were in progress during 1925 at "Freney's" in the Northern area, and indications were sufficiently encouraging to warrant continuance.

(vi) *Tasmania.* The deposits of oil shale in Tasmania in the Latrobe-Railton-Kimberley, Oonah, Beudah, Quamby Bluff, and Nook areas have an estimated capacity of upwards of 40 million tons. In addition the recently discovered deposits at Cheshunt are known to be large, but their full extent has not been determined. The Commonwealth Council for Scientific and Industrial Research is dealing with the problem of the commercial development of the mineral. During the last ten years exploitation of the vast areas available has been comparatively very small. For 1924 the output was 1,576 tons, valued at £1,526, and for 1925, 820 tons, valued at £559. Over three-fourths of the output in 1925 was raised by the Tasmanian Cement Co.

(vii) *Northern Territory.* Considerable activity has been displayed during recent years by speculators in acquiring areas under coal and oil prospecting licences along the north-western boundary of the Territory, and northerly along the western coast to the Daly River, but so far no developments have been recorded, although what are regarded locally as good indications of oil have been discovered. Many of the licences have been forfeited, and, so far, no success has attended the boring operations at Elcho Island.

(viii) *Papua.* In 1911 indications of petroleum were reported near the Vailala River, and, acting on the reports of geologists, an oil expert was despatched by the Commonwealth Government to sink trial bores on the site. Early in 1913 a small quantity of oil was obtained from a shallow bore. Later on, extensive geological surveys were made of the country between Yule Island and the Purari Delta, and oil was encountered in several trial bores. In 1919 the Anglo-Persian Oil Co., under agreement with the British and Commonwealth Governments, and latterly with the Commonwealth Government only, has been engaged in work on the field. At the end of June, 1926, three bores had been put down to depths of 890 feet, 1,800 feet, and 2,707 feet respectively. The New Guinea Oil Co. and the Vogel (New Guinea) Petroleum Co. have also been working almost continuously. A geological survey and examination has been made of the Papuan Gulf Coast north-west from Yule Island to the Kapuri River district, and a re-examination of areas in the Vailala River area.

(ix) *New Guinea.* At Matapau, about 54 miles from Aitape on the north coast of what was formerly German New Guinea, oil has been struck in a shallow bore, and hopes are entertained that the product will be encountered in large volume at a greater depth. At 30th June, 1926, there were in force 13 licences to prospect for mineral oil and coal.

2. *Expert's Report.*—A report by Dr. Wade presented to the Senate in October, 1924, by the Minister for Home and Territories was generally unfavourable to the prospects of finding commercial supplies of petroleum in the northern portions of Western Australia and the Northern Territory. The report points out that the marginal areas on the Fitzroy apparently offered the best possibilities, and special mention was made of the Price's Creek region, although the structure there was not satisfactory in regard to present geological knowledge. It was recommended that the district should be tested with boring plant capable of penetrating to a depth of between 3,000 and 4,000 feet. Allusion was also made to the possibility of locating oil in the Belford dome area in New South Wales.

3. *Exports.*—During the last five years the exports of kerosene shale have been trifling, only 11 tons being shipped from New South Wales in 1923–24, and 1 ton in 1924–25, while 1 ton was exported from Victoria in 1925–26.

4. *Mineral Oil Bounties.*—The offer by the Commonwealth Government of a reward up to £50,000 for the discovery of oil in Australia was withdrawn in 1925, and under the Petroleum Prospecting Act of 1926 a sum of £60,000 was allocated for providing aid to persons or companies engaged in the search for oil and to assist in geological survey work. Of the total amount, it was proposed to allocate £22,500 in aid of operations on the Fitzroy River and Price's Creek in Western Australia, £22,500 to the Belford dome area in New South Wales, £5,000 for geological survey work in the Longreach, Blackall, and Ruthven areas in Queensland, while the balance of £10,000 was reserved by the Commonwealth Government to assist boring operations in other localities where geological evidence justifies expenditure. The whole of the money has now been expended, and legislation is foreshadowed providing for a further sum of £100,000.

§ 13. Other Non-metallic Minerals.

1. *Alunite.*—The production of this mineral in New South Wales amounted during 1925 to 531 tons, valued at £2,124, raised in the Bullahdelah division. The mineral is sent to England for treatment, and, to the end of 1925, the exports were 58,000 tons, valued at £206,000.

In South Australia a deposit of the mineral was located in 1913 at Carrickalinga Head, on the coast north of Normanville, and within a short distance of Adelaide. Fresh discoveries were later reported on the western shores of St. Vincent's Gulf. Systematic prospecting has proved the existence of a deposit of at least 41,000 tons near Stansbury, on the eastern coast of Yorke Peninsula. The mineral returns show a production of 95 tons in 1922, but none was recorded subsequently.

The exploitation of the alunite deposits in the North-East Coolgardie field in Western Australia has been retarded pending the result of field experiments to determine the suitability or otherwise of the product as a fertilizer in its unroasted state. Deposits of the mineral are also found in the Kalgoorlie area.

2. **Asbestos.**—This substance has been found in various parts of Australia, but up to the present has not been produced in any considerable quantity. In New South Wales there was no production in 1925, the mines at Wood's Reef in the Barraba division having been abandoned towards the end of 1923. In Queensland seams of asbestos have been found over a belt of country extending from Cawarral to Canoona, as well as in other districts. Samples of the fibre proved suitable for the manufacture of fibro-cement sheeting and tiles, but so far the deposits have not been commercially exploited. Deposits of asbestos have been located at various places in South Australia. Production in 1924 amounted to 80 cwt., valued at £80, but none was raised in 1925. Chrysotile asbestos of high grade is found in various localities in Western Australia, particularly in the Serpentine rocks between Nullagine and Roeburne, over a distance of 200 miles. The production in 1925 amounted to 51 tons, valued at £1,641, obtained in the Pilbara field. In 1918, 2,854 tons of asbestos, valued at £5,008, were produced in Tasmania. A small quantity was raised in 1919, but there was no production during the last six years.

3. **Barytes.**—In New South Wales large quantities of this mineral are available at Kempfield in the Trunkey division, but the production in 1925 amounted to only 200 tons, valued at £400. The production in South Australia during 1925 was given as 2,008 tons, valued at £6,024. In this State there are extensive deposits of the mineral at Noarlunga and Pernatty Lagoon. The mineral is also worked near Williamstown, while new sources of supply have been located near Eudunda. High grade natural white barytes is obtained from some of the workings, but a large amount of lower grade ore is discarded or wasted owing to lack of facilities for cleaning and bleaching. Barytes in fair-sized veins occurs at many places in Western Australia, especially at Cranbrook in the south-west division. The export in 1921 was, however, small, being valued at under £20, and none was recorded in later years. About 1,000 tons of barytes, valued at £4,000, were produced in Tasmania in 1920, the greater portion being won from deposits near Queenstown and Mt. Jukes, and the balance from Beulah and elsewhere, but there was no further production recorded until 1925, when a little over 3 tons, valued at £16, was raised.

4. **Clays and Pigments.**—Valuable deposits of clays and pigments of various sorts are found throughout Australia. There is a considerable local production of earthenware, bricks, and tiles, but the finer clays have not as yet been extensively used. In New South Wales the production of pigments amounted in 1925 to 276 tons, valued at £166, raised chiefly at Burrabadine in the Dubbo division. About 4,000 tons of white clay, valued at £4,000, were raised from various areas during the year. The output of fireclay amounted to 18,000 tons, valued at £6,100, obtained chiefly in the Cobar, Wollongong, and Sydney divisions. In Victoria 1,594 tons of kaolin, valued at £2,262, were produced in 1925 from deposits at Stawell, Mt. Egerton, Bendigo, and Pyalong, and 307 tons of pigment clays, valued at £650, were raised from leases at Ballarat and Berringa. In Queensland, 2,886 tons of fireclay, valued at £700, were mined during 1925 in the Mount Morgan district. Deposits of fine white clay have been located near Wondai and Kingaroy. In South Australia ochre is obtained at the Copper King pigment mine near Beltana, and is also raised near Oodnadatta. Production in 1925 amounted to 87 tons, valued at £887. Red oxide of suitable quality as well as ochres of various hues have been found in different and widely-separated localities in Western Australia. A paint and distemper factory has been established in Perth, and this, coupled with the demand from the Eastern States, will further stimulate the search for the necessary materials. Investigation has proved the existence of a deposit of a fine white-ware clay

about 4 miles from the railway at Wagin. Porcelain and other clays of good quality have been found in Tasmania at Beaconsfield, Sorell, Hagley, etc. Oil and water paints have been made from coloured ochres from Sorell, and deposits of ochre have been located near Mowbray and Beaconsfield. In 1924 the output was 20 tons, valued at £50, but there was no record of production in 1925.

5. **Felspar.**—During 1925, the production of this mineral in New South Wales was 32 tons, valued at £32, raised at Brewongle. A fairly extensive deposit of felspar has been located at Black Ridge near Williamstown in South Australia, and the mineral has also been found near Myponga. Production in 1925 amounted to 9 tons, valued at £38. About 60 tons of felspar, valued at £485, were exported during 1922 from Western Australia, but none was recorded in later years. A large deposit of the mineral has been located near Jacob's Siding, and it also occurs in the Coolgardie area.

6. **Fluorspar.**—At Carboona in the Tumbarumba division in New South Wales this mineral is mined with silver and lead, the production in 1924 amounting to 470 tons, but none was raised in 1925. In Victoria 196 tons, valued at £625, were raised in 1921 by a company operating at Walwa, but none was recorded in later years. A high grade fluorspar occurs at the Perseverance mine on the Chillagoe railway in Queensland. Production in 1925 amounted to 4,227 tons, valued at £13,371.

7. **Fuller's Earth.**—About 30 tons of this material, valued at £50, were produced in 1925 from deposits in the Mudgee division, New South Wales, but there was no output from the deposits at Boggabri in the Narrabri division. A large deposit of excellent quality has been located near Jennacubbine in Western Australia.

8. **Graphite.**—This mineral is widely distributed throughout Australia, but there was no record of production in 1925. (See Official Year Book 19, p. 760.)

9. **Gypsum.**—The output of gypsum in New South Wales during 1925 was 296 tons, valued at £724, of which 276 tons were raised in the Bourke division, and 20 tons in the Hillston division. In Victoria during 1925 there was a production of 14,518 tons, valued at £11,291, of which 1,709 tons were raised from leases at Boort; 129 tons at Cowangie; 5,030 tons at Waitechie; 4,742 tons at Bolton; 2,137 tons at Lake Boga; and 771 tons at Chillingollah. South Australia possesses a valuable deposit at Lake MacDonnell, near the coast and south of the railway terminus at Penong, the quantity available being large and of high quality. The production in 1925 amounted to 72,276 tons, valued at £63,242, the largest yet recorded. A considerable quantity is used in the manufacture of plaster and cement, as well as for agricultural purposes. Gypsum is widely distributed in Western Australia in tertiary and late tertiary deposits associated chiefly with the salt lakes of the arid regions of the interior south of the tropics. Many of these lacustrine deposits are capable of yielding large tonnages. The production in 1925 amounted to 3,060 tons, valued at £4,118.

10. **Magnesite.**—Deposits of this mineral have been discovered at several localities in New South Wales. During 1925 the output was 14,012 tons, valued at £12,832, of which about 12,000 tons were raised at Attunga in the Tamworth division, and 2,000 tons in the Ffield division. In addition, small quantities were raised from deposits in the Cobar and Gulgong divisions. The mineral is found at Heathcote in Victoria, where 91 tons, valued at £273, were produced in 1925. There are deposits in the neighbourhood of Rockhampton and Bowen in Queensland, and in 1925 an output of 267 tons was recorded from the Rockhampton area. The deposits at present being worked in South Australia are situated at Paratoo, Robertstown, and Copley. Several other deposits have been located on Eyre Peninsula, near Port Pirie, and near Oladdie. Production in 1925 amounted to 351 tons, valued at £878. A large area of magnesite-bearing country has been located in Western Australia at Bulong, about 20 miles east of Kalgoorlie, and deposits have also been found at Coolgardie and other places. The mineral is of a high degree of purity, but there has been no production of importance since 1915.

11. **Mica.**—Mica is found at various places in Australia, and in 1925 a small quantity was raised at Wanda Vale in the Broken Hill division in New South Wales, and a little prospecting was carried out in the Narrabri division. Muscovite in fairly large quantities is found at Mica Creek, near Mount Isa in Queensland. The production in 1925 amounted to 10 cwt., valued at £700, and the report thereon was so satisfactory that it is proposed to exploit the deposits on a large scale. A company was recently formed in London to exploit a deposit at Yinnietharra, about 240 miles from Carnarvon in Western Australia. The production of mica in the Northern Territory during 1925 was returned at 7,440 lb., valued at £2,835, obtained chiefly from the Hart's Range area.

12. **Phosphate Rock.**—During 1925, 200 tons of phosphate, valued at £337, were obtained in New South Wales, of which 130 tons were won in the Molong division, 35 in the Inverell division, and 32 in the Kempsey division. In Victoria 532 tons, valued at £532, were raised at Mansfield, but none was recorded in 1925. The production in Queensland amounted in 1922 to 65 tons valued at £279, raised by the Holbourne Island Phosphate Company in the Bowen district. Difficulty in finding a market for the product was responsible for the small output, and none was raised in the last three years. South Australia possesses deposits scattered over a belt of country 200 miles in length, from Myponga in the south to the district round Carrieton, in the north. Production in 1925 amounted to 742 tons, valued at £1,142. It is stated that the industry is meeting with severe competition in the high grade phosphate imported from Nauru. In Western Australia the known phosphate deposits occur principally on the coastal islands, and in portion of the coastal plain between Dongarra and Perth. Some years ago guano digging on the islands was a large and profitable industry.

13. **Salt.**—Salt is obtained from salt lakes in the Western and North-Western districts of Victoria, and from salterns in the neighbourhood of Geelong. Figures regarding production are, however, not available for publication. Large quantities are obtained from the shallow salt lakes of South Australia, chiefly on Yorke Peninsula. Lake Hart, about 60 square miles in area, situated about 120 miles N.W. from Port Augusta, contains immense supplies of salt of good quality, and supplies are also obtained from Lake Bumbunga north of the head of St. Vincent's Gulf. During recent years a fair amount has been produced by evaporation of sea water at the heads of Spencer's and St. Vincent's Gulfs. About 78,000 tons of crude salt, valued at £176,000, were produced during 1925. In Western Australia salt is obtained from depressions in the calcareous sandstones of the coast, which are filled to a shallow depth in winter with salt water. In summer the depressions dry up, leaving a layer of salt two or three inches thick, which is collected and refined. Up to the present, the four chief localities producing salt were Rottneest Island, off Fremantle; Middle Island, near Esperance; Yarra Yarra Lakes, near Three Springs; and Lynton, near Port Gregory. There is a very large number of salt and brine lakes which may ultimately be used as sources of salt. In the Northern Territory a small quantity of salt is produced from salt pans on Ludmillah Creek near Fannie Bay.

14. **Diatomaceous Earth.**—Although this mineral has been found at various localities in New South Wales, the deposits have not been worked commercially on any considerable scale. The output in 1925 was 701 tons, valued at £1,084, of which 439 tons were raised in the Coonabarabran division, 250 tons in the Barraba division, and 12 tons at Bunyan in the Cooma division. Part of the product is used as a filtering medium in the manufacture of gelatine, and part for the manufacture of metal polish in powdered and liquid form. In Victoria there is a remarkably pure deposit at Lillicur, near Talbot, while beds of the mineral are also met with at other places in the Loddon Valley, near Ballarat, at various places close to Melbourne, at Craigieburn, Lancefield, Portland, Swan Hill, Bacchus Marsh, etc. During 1920, a production of 1,000 tons, valued at £5,000, was recorded, but no production was returned for 1921 to 1925. Fairly extensive deposits of diatomite exist in Queensland, in the Nerang, Beaudesert, and Canungar areas, but the various outcrops have as yet been only partly examined. In Tasmania a deposit of diatomaceous earth has been located at Oatlands, but its use for the manufacture of explosives is apparently prejudiced by the circumstance that the diatoms are pulverized and contaminated with clay.

§ 14. Gems and Gemstones.

1. **Diamonds.**—It is difficult to secure accurate returns in connexion with the production of precious stones, but the yield of diamonds in 1925 in New South Wales was estimated at 210 carats, valued at £240, while the total production to the end of 1925 is given at 202,200 carats, valued at £144,500. The yield in 1925 was obtained almost entirely by individual miners at Copeton in the Tingha division. A considerable amount of prospecting work has been carried out at Red Hill in the Crookwell division, and some of the diamonds already won have been sent to Amsterdam to be cut and polished in order to ascertain the marketable qualities of the stones. Sapphires, chrysoberyl, rubies, beryl, garnets, tourmalines, zircons, and olivines have also been obtained in this area. Small quantities of diamonds are found in Victoria in the gravels of streams running through granite country in the Beechworth district, at Kongbool in the Western District, and near Benalla. The stones are generally small, and the production up to date has been trifling. In 1912, eleven small diamonds, valued at £20, were picked out of the sluice boxes of the Great Southern alluvial mine at Rutherglen. In Queensland a discovery was made in 1924 at Diamond Vale, about 2 miles east of Stanthorpe, the stones being found in alluvial tin wash. A flawless green diamond weighing 1 carat, a slightly smaller green, and a white weighing 1 carat, were recovered. The green diamond is extremely rare, and a specimen weighing $1\frac{1}{2}$ carats, exhibited at Wembley Park, was valued at £1,750. In South Australia diamonds have been found on the Echunga gold-fields, the most notable gem being Glover's diamond, which was sold for £70. A few small diamonds have been found in the Pilbara district in Western Australia. Small diamonds have, from time to time, been found in Tasmania, chiefly while sluicing for gold in the Donaldson district.

2. **Sapphires.**—The production of sapphires in New South Wales during 1925 was returned as 1,490 ozs., valued at £7,772, obtained at Horse Gully, Sapphire and Nullamanna in the Inverell division. It is probable that the output is understated owing to the difficulty of obtaining accurate returns from individual miners and prospectors. A fair quantity of machine stones, zircon and corundum, was also raised, but values thereof are not included in the figures above.

In Queensland, 22,237 ozs. of sapphires to the value of £34,573 were obtained in 1925 on the Anakie mineral field. Fancy stones occasionally bring high prices, an orange yellow which cut at 31 carats being valued at £300. Amongst other good stones found in 1925 were a yellow valued at £50, another at £15, and a first grade blue weighing 2 ozs. There is a lapidary on the Anakie field, but many stones are sent away for cutting.

Sapphires are plentifully found in the tin drifts of the Ringarooma and Portland districts in Tasmania, but the stones are, as a rule, small and not worth saving.

3. **Precious Opal.**—The estimated value of the opal won in New South Wales during the year 1925 was £10,030, practically the whole of the yield being obtained on the Lightning Ridge field, where there still remains an area of 12,000 acres of opal-bearing country of which little has been prospected. A small quantity of the gem was also obtained by prospectors on the White Cliffs field. Some very fine stones are at times obtained, one weighing 5 ozs. and valued at £300 being recovered in 1911. Occasionally, black opals of very fine quality are found, one specimen from the Wallangulla field, weighing $6\frac{1}{2}$ carats, being sold in 1910 for £102, while in the early part of 1920 a specimen realized £600. It is stated that this locality is the only place in the world where the "black" variety of the gem has been found. The total value of opal won in New South Wales since the year 1890 is estimated at £1,550,000, but it is a well known fact that fine pieces of the gem have been found and sold privately without notification to the Mines Department.

Small quantities of precious opal are found in the Beechworth district in Victoria.

The opaliferous district in Queensland stretches over a considerable area of the western interior of the State, from Kynuna and Opalton as far down as Cunnamulla. The yield in 1925 was estimated at £1,000, and up to the end of that year at about

£182,000. These figures are, however, merely approximations, as large quantities of opal, of which no record is obtained, are disposed of privately. At present the industry, which is not followed by practical miners, suffers from the peculiar disability that in good seasons there is plenty of work available on the pastoral stations, and most men prefer this to the uncertain results obtainable by fossicking, while in dry seasons, when constant work is not obtainable, the search for opal is blocked by the absence of grass and water on the fields. During the year 1925 several good specimens were obtained by stockmen in the Jundah district, but no actual mining was carried on.

Renewed activity was manifested in 1925 at the Stuart's Range opal field in South Australia, the estimated value of the production being £9,000, as compared with £4,000 in 1924. The field is extremely prolific, and only a small portion of the known opal-bearing area has been tested. A fine collection of gems from this field was despatched to the British Empire Exhibition.

According to a report a few years ago by the Australian Trade Commissioner in the East there is a good sale for the gems in China. It is stated that there is no difficulty in cutting and polishing, as the Chinese method of dealing with jade, dating back many centuries, can also be applied to opal.

4. **Other Gems.**—Various other gems and precious stones have from time to time been discovered in the different States, the list including agates, amethysts, beryls, chiasolite, emeralds, garnets, olivines, moonstones, rubies, topazes, tourmalines, turquoises, and zircons.

§ 15. Numbers Engaged, Wages Paid, and Accidents in Mining.

1. **Total Employment in Mining.**—The number of persons engaged in the mining industry in Australia fluctuates according to the season, the price of industrial metals, the state of the labour markets, and according also to the permanence of new finds, and the development of the established mines. During the year 1925 the number so employed was as follows :—

NUMBER OF PERSONS ENGAGED IN MINING, 1925.

State.	Number of Persons engaged in Mining for—						Total.
	Gold.	Silver, Lead, and Zinc.	Copper.	Tin.	Coal and Shale.	Other.	
New South Wales ..	831	5,770	47	1,012	24,049	1,905	33,614
Victoria ..	2,353	..	..	..	2,593	163	5,109
Queensland ..	347	590	878	653	2,826	521	5,815
South Australia ..	34	19	55	2	..	834	944
Western Australia ..	5,009	204	34	55	677	32	6,011
Tasmania ..	103	579	743	1,035	312	549	3,321
Northern Territory ..	32	4	6	118	..	25	185
Australia ..	8,709	7,166	1,763	2,875	30,457	4,029	54,999

Included in the figures for "other" in South Australia were 407 engaged in mining for iron, 131 gypsum miners, 154 salt gatherers, and 50 opal miners. The Tasmanian figures include 442 osmiridium miners, and those for the Northern Territory were mica miners.

The following table shows the number of persons engaged in mining in Australia during each of the years 1891, 1901, and 1925, together with the proportion of the total population so engaged :—

NUMBER ENGAGED IN MINING PER 100,000 OF POPULATION, 1891, 1901, AND 1925.

State.	1891.		1901.		1925.	
	Miners employed.	No. per 100,000 of Population.	Miners employed.	No. per 100,000 of Population.	Miners employed.	No. per 100,000 of Population.
New South Wales	30,604	2,700	36,615	2,685	33,614	1,475
Victoria	24,649	2,151	28,670	2,381	5,109	306
Queensland	11,627	2,934	13,352	2,664	5,815	683
South Australia	2,683	834	7,007	1,931	944	174
Western Australia	1,269	2,496	20,895	11,087	6,011	1,633
Tasmania	3,988	2,695	6,923	4,017	3,321	1,556
Northern Territory .. ..	..	..	..	..	185	5,026
Australia	74,820	2,341	113,462	2,992	54,999	927

The general falling-off since 1901 is due to the stagnation caused by the war, the low price of industrial metals, and largely to the decline in the gold-mining industry.

2. **Wages Paid in Mining.**—Information regarding rates of wages paid in the mining industry, which in earlier issues of the Year Book was given in this chapter, is now contained in the Labour Report issued by this Bureau.

3. **Accidents in Mining, 1925.**—The following table gives particulars of the number of men killed and injured in mining accidents during the year 1925 :—

MINING ACCIDENTS, 1925.

Mining for—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	Australia.
KILLED.								
Coal and shale	27	5	3	..	..	..	..	35
Copper .. ..	..	..	..	..	..	1	..	1
Gold	1	1	..	..	12	..	..	14
Silver, lead, and zinc	2	..	..	..	..	..	..	2
Tin .. ..	..	..	..	..	..	..	..	..
Other minerals .. ..	..	..	..	..	..	..	..	..
Total	30	6	3	..	12	1	..	52
INJURED.								
Coal and shale	115	20	62	..	78	4	..	279
Copper .. ..	..	..	8	..	..	17	..	25
Gold	1	6	1	..	304	..	..	312
Silver, lead, and zinc	53	..	14	..	1	14	..	82
Tin .. ..	..	..	1	..	..	13	..	14
Other minerals .. ..	..	..	1	2	..	..	..	3
Total	169	26	87	2	383	48	..	715

The number killed in mining accidents in 1925 was considerably less than that for 1921 when 132 deaths were recorded, the figures for the earlier year being swollen by the 75 fatalities in the Colliery disaster at Mount Mulligan in Queensland.

§ 16. Government Aid to Mining.

1. **Commonwealth.**—Assistance to mining is given by the Commonwealth under the provisions of the *Precious Metals Prospecting Act 1926*, and the *Petroleum Prospecting Act 1926*.

The first-mentioned Act provides for a sum of £40,000, of which £15,000 is to be expended in the Northern Territory, and the balance is to be allocated to the States in such proportions as the Minister determines.

Under the Petroleum Prospecting Act a trust account of £60,000 was established to assist in the search for oil. The Minister was authorized to make advances out of the money standing to the credit of this account to persons or companies engaged in the search for oil, and to assist persons, companies, or State Governments to make geological surveys.

2. **New South Wales.**—The chief aid given in this State is in the direction of assistance to prospectors. Up to the end of 1925 the total sum expended in this manner amounted to £565,025, of which £17,547 was advanced in 1925. A sum of £750 was made available during the year for the purpose of assisting in the erection of crushing batteries or reduction plants, but no advances were made therefrom. The reward for the discovery of new mineral fields within the State has been increased from £500 to £1,000, with provision for sums of £250 and £500 in respect of fields not large enough to qualify for the full amount, and the conditions have been made more liberal.

3. **Victoria.**—During the year 1925–26 expenditure in connexion with mining development amounted to £24,918, of which £2,891 represented advances to miners, £3,629 aid to mining companies, while £12,233 was expended on boring, £3,141 on testing plants, and £2,194 on geological surveys.

4. **Queensland.**—State assistance to the mining industry in 1925–26 amounted to £15,694, of which £2,279 consisted of loans in aid of deep sinking; £9,533 grants in aid of prospecting, and £3,882 in aid of roads and bridges to gold and mineral fields and water supply. In addition, a sum of £4,540 was expended in loans under the Act of 1906, £40,881 on State Coal Mines, £6,475 in aid of mining, and £10,000 on State Smelting Works.

During the year the Chillagoe State Smelters produced 2,837 tons of lead bullion containing 692 ozs. of gold, 189,223 ozs. silver, and 2,751 tons of lead, in addition to 605 tons of blister copper containing 243 ozs. gold, 45,285 ozs. silver, and 588 tons copper. The State Arsenic Works at Jibbinbar produced 379 tons of high-grade arsenic in 1924, but the mine closed down in 1925. Four State batteries were in operation during 1925, the works at Irvinebank producing 949 tons of tin concentrates; 760 ozs. of gold were extracted by the battery at Kidston; at Charters Towers parcels of ore were treated for miners and prospectors, and the battery was rented for short periods to parties of miners; and at Bamford tin crushing was carried on intermittently. The State Assay Office at Cloncurry in addition to free assays dealt with 377 parcels of samples aggregating 5,375 tons.

5. **South Australia.**—Aid is given to the mining industry under the terms of the Mining Act of 1893, and previous measures. Up to the end of 1925 the total amount of subsidy paid was £66,279, of which £13,374 has been repaid, and £2,250 written off, leaving a debit of £50,655. Portion of this amount is represented by machinery that has fallen into the hands of the Government. Repayments must be provided from profits, but in only two instances have the profits enabled a full return to be made. During the year 1925 assays and pan tests numbering 404 were made by State batteries and cyanide works of small parcels of ore or tailings received from prospectors. Forty parcels of ore weighing 600 tons were treated for a return of 927 ozs. gold valued at £3,300.

6. **Western Australia.**—Under the Mining Development Act of 1902 assistance was granted in 1925 in accordance with the subjoined statement :—Advances in aid of mining work and equipment of mines with machinery, £22,588; aid to prospectors, £5,640; subsidies paid on stone crushed for the public, £133; making a total of £28,361. In addition, a sum of £49,135 was charged against the vote on account of rebates to the Gold-fields Water Supply Branch, and other assistance amounted to £4,207. The receipts under the Act, exclusive of interest payments, came to £3,574, of which £2,416 consisted of refunds of advances. The industry has been further assisted by Government guarantees to banks on behalf of various companies, and at the end of 1925 the liability in this respect amounted to £44,500.

In 1924 there were 29 State batteries in operation. The amount expended thereon up to the end of 1925 was £91,981 from revenue and £311,240 from loan, giving a total of £403,221. During the year receipts amounted to £21,303, and working expenditure to £28,888. The total value of gold and tin recovered to the end of 1925 at the State plants was £5,950,837, resulting from the treatment of 1,420,000 tons of gold ore and 81,000 tons of tin ore, together with a small amount from residues. Free assays and determinations of mineral values for prospectors are made at the Kalgoorlie School of Mines.

7. **Tasmania.**—In the Aid to Mining area at Zeehan the expenditure in 1925 amounted to £1,313, of which £534 represented salaries and wages, £508 advances to prospectors, and £172 assay material. The amount received from ore sales was £2,868, of which £2,582 was paid to tributers. At the end of 1925, the total advances to the Argent Prospecting Syndicate amounted to £3,222, and the balance still owing to £2,143.

Tributers' assays are made at a nominal charge, and all tribute surveys are carried out free of charge by the Assay and Survey Office at Zeehan.

8. **Northern Territory.**—During the year 1924–25 a sum of £316, representing the balance of a subsidy of £350, was paid to the Golden Dyke Syndicate in aid of developmental work. A small number of prospectors on the Marranboy tin field received free rations.

The Government maintains a battery at Marranboy, and the Government Assayer makes free assays for prospectors, and arranges for the sampling, storage, and sale of ores.

§ 17. Commonwealth Government Control of Industrial Metals.

The proclamation under the Customs Act prohibiting the exportation of metals without the consent of the Minister for Trade and Customs is still in force, but consent is granted in every case where the contract relating to the sale of the metals has been approved.

§ 18. Metallic Contents of Ores, etc., Produced and Exported.

1. Local Production.—According to returns compiled from various sources by the Australian Mines and Metals Association the quantities of the principal metals (exclusive of gold) extracted in Australia during the five years 1922 to 1926 were as follows:—

REFINED METALS PRODUCED IN AUSTRALIA, 1922 TO 1926.

Metal.			1922.	1923.	1924.	1925.	1926.
Silver	..	ozs.	7,896,052	7,645,689	7,631,213	8,573,506	8,946,218
Lead, pig	..	tons	105,528	118,513	126,625	146,129	150,460
Zinc	..	tons	23,724	41,153	46,372	45,608	47,356
Copper	..	tons	11,524	17,825	14,100	10,984	11,148
Tin	..	tons	2,657	3,053	3,167	3,171	3,188

The local production of pig iron during the last five years ranged between 330,000 tons in 1923, and 439,000 tons in 1926.

2. Metallic Contents of Ores, Concentrates, etc., Exported.—The estimated metallic contents of ores, concentrates, etc., exported during the five years 1922 to 1926 are given in the following table:—

METALLIC CONTENTS OF ORES, CONCENTRATES, ETC., EXPORTED, 1922 TO 1926.

Metal.		Contained in—	1922.	1923.	1924.	1925.	1926.
Silver	ozs.	Lead—Silver—Gold Bullion	165,290	283,453	158,361	189,223	..
		Lead Concentrates and Ores	281,728	1,298,750	90,360	850,552	190,647
		Zinc Concentrates and Ores	3,390,964	3,526,774	1,941,507	1,270,166	1,206,313
		Copper Ores ..	12,201	1,378	51,942	..	..
		Total	3,850,243	5,110,355	2,242,170	2,309,941	1,396,960
Lead	tons	Lead—Silver—Gold Bullion	1,790	3,564	1,808	2,751	2,483
		Lead Concentrates and Ores	2,959	18,572	4,852	19,651	7,174
		Zinc Concentrates and Ores	19,910	425	19,859	12,423	13,943
		Total	24,659	22,561	26,519	34,825	23,600
	
Zinc	tons	Lead Concentrates and Ores	..	..	384	366	529
		Zinc Concentrates and Ores	135,690	146,693	122,305	79,996	94,043
		Total	135,690	146,693	122,689	80,362	94,572
Copper	tons	Ores, Matte, etc. ..	326	2,182	875	864	1,112
Tin	tons	Concentrates and Ores ..	..	..	4	..	1

§ 19. Oversea Exports of Ores, Metals, etc.

The following table shows the quantity and value of the principal overseas exports of ores, concentrates, and metals, the produce of Australia, together with the countries to which the respective products were forwarded, for the year 1925-26 :—

OVERSEA EXPORTS OF AUSTRALIAN ORES, METALS, ETC., 1925-26.

Article.	Total Exports.	Exports to—						
		United Kingdom.	United States.	Belgium.	Germany.	Japan.	New Zealand.	Other Countries.
QUANTITY.								
Ores—	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.
Alunite	21,300	21,300	..	..	..	..	..	..
Antimony	33	33	..	..	..	..	..	..
Cobalt	7,062	7,062	..	..	..	..	..	..
Silver and Silver-lead	180,902	..	..	118,353	59,677	..	..	(a)2,872
Concentrates—								
Silver and Silver-lead	533,518	129,945	..	164,171	33,653	..	..	(b)205,749
Zinc	5,346,314	4,274,543	..	858,107	213,664	..	..	..
Cadmium—Blocks, Ingots, etc. ..	3,672	2,297	..	..	..	..	..	(c)1,375
Copper—								
Matte	37,108	6	1,040	36,062	..	..	..	..
Ingot	58,500	50,003	2,427	..	..	..	70	(d)6,000
Tin—Ingot	35,816	16,310	13,074	..	200	..	5,577	(e)655
Lead—								
Matte	68,423	68,423	..	..	..	..	..	..
Pig	2,540,568	2,090,906	..	60,450	128,039	162,369	40,790	(f)58,014
Zinc—Bars, Blocks, etc. ..	580,920	121,996	..	..	133,004	324,440	261	(g)1,219
	oz.	oz.	oz.	oz.	oz.	oz.	oz.	oz.
Platinum, Osmium, etc.	5,148	3,043	1,729	..	20	..	12	344
Gold—								
Matte	762	762	..	..	..	..	..	..
Bar, Dust, etc. ..	85,671	682	..	..	..	..	..	(h)84,989
Silver—								
Matte	250,251	250,251	..	..	..	..	..	..
Bar, Ingot, etc. ..	7,588,673	2,113	..	..	..	..	711	(i)7,585,849
VALUE—£.								
Ores—								
Alunite	4,260	4,260	..	..	..	..	..	..
Antimony	140	140	..	..	..	..	..	..
Cobalt	17,655	17,655	..	..	..	..	..	..
Silver and Silver-lead	189,397	..	..	117,293	68,892	..	..	3,212
Concentrates—								
Silver and Silver-lead	528,296	136,653	..	148,783	34,038	..	..	208,822
Zinc	1,495,373	1,156,344	..	240,340	98,689	..	..	..
Cadmium—Blocks, Ingots, etc. ..	38,534	24,372	..	..	..	..	..	14,162
Copper—								
Matte	82,431	20	1,488	80,923	..	..	..	..
Ingot	198,112	171,535	6,770	..	..	..	282	19,525
Tin—Ingot	486,473	222,487	176,755	..	2,867	..	76,029	8,335
Lead—								
Matte	107,380	107,380	..	..	..	..	..	..
Pig	4,416,762	3,608,643	..	104,554	241,119	292,018	70,147	100,281
Zinc—Bars, Blocks, etc. ..	1,069,332	228,300	..	..	252,350	585,635	600	2,447
Platinum, Osmium, etc.	153,836	91,160	53,630	..	560	..	232	8,254
Gold—								
Matte	3,243	3,243	..	..	..	..	..	..
Bar, Dust, etc. ..	345,707	2,748	..	..	..	..	..	342,959
Silver—								
Matte	34,468	34,468	..	..	..	..	..	..
Bar, Ingot, etc. ..	1,073,356	301	..	..	..	..	94	1,072,961

(a) France, 2,665 cwt.; Netherlands, 207 cwt. (b) Spain. (c) France, 852 cwt.; Japan, 60 cwt.; Sweden, 463 cwt. (d) India. (e) France, 600 cwt.; Pacific Islands, 48 cwt.; Other British Countries, 7 cwt. (f) Chiefly Hong Kong, 32,312 cwt.; China, 15,401 cwt. and South Africa, 9,727 cwt. (g) China, 1,200 cwt.; Other, 19 cwt. (h) India. (i) India, 7,489,013 oz., Ceylon, 89,236 oz., Fiji, 7,600 oz.

CHAPTER XXII.

MANUFACTURING INDUSTRY.

[NOTE].—For the year 1921-22 the Queensland, Western Australian and Tasmanian year ended 31st December, 1921, and that of the three remaining States ended 30th June, six months later. In 1923-24 Tasmania adopted the year ended 30th June, and Queensland fell into line during 1924-25. Western Australia made the change over in 1925-26, but included particulars for the eighteen months ended 30th June, 1926.

In all tables relating to employees—except where specially mentioned—"Number of Employees" includes working proprietors.

§ 1. Number and Classification of Factories.

1. General.—The number of factories in each State does not necessarily furnish an accurate indication of the extent or progress of manufacturing throughout Australia, since the larger establishments in many cases tend to absorb smaller enterprises, while on the other hand new factories are constantly springing up, and small plants are as numerous as large ones.

2. Number of Factories in each State, 1921-22 to 1925-26.—The following table gives the number of factories in each State for the years 1921-22 to 1925-26 :—

FACTORIES.—NUMBER IN EACH STATE, 1921-22 TO 1925-26.

Year.(a)	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
1921-22 ..	6,356	6,753	1,810	1,432	986	686	18,023
1922-23 ..	6,702	7,096	1,878	1,609	1,199	689	19,173
1923-24 ..	7,321	7,289	1,912	1,698	1,188	781	20,189
1924-25 ..	7,906	7,425	1,890	1,711	1,188	675	20,795
1925-26 ..	8,196	7,461	1,897	1,791	1,170	727	21,242

(a) See general note above.

3. Classification of Factories, Australia, 1921-22 to 1925-26.—The following table shows the number of factories in Australia for each year from 1921-22 to 1925-26 classified in the groups agreed upon by the Conferences of Statisticians in 1902 and 1906. Details in regard to some of the principal industries in these groups will be found in § 9 hereinafter :—

FACTORIES.—CLASSIFICATION, AUSTRALIA, 1921-22 TO 1925-26.

Class of Industry.	1921-22. (a)	1922-23. (a)	1923-24. (a)	1924-25. (a)	1925-26. (a)
I. Treating raw material, product of agricultural and pastoral pursuits, etc. ..	No. 762	No. 810	No. 799	No. 780	No. 751
II. Treating oils and fats, animal, vegetable, etc. ..	99	97	99	98	98
III. Processes in stone, clay, glass, etc. ..	736	782	845	871	900
IV. Working in wood ..	2,103	2,236	2,497	2,507	2,552
V. Metal Works, machinery, etc. ..	2,181	2,349	2,575	2,600	2,656
VI. Connected with food and drink, etc. ..	2,539	2,635	2,702	2,756	2,840
VII. Clothing and textile fabrics, etc. ..	3,893	4,225	4,408	4,616	4,635
VIII. Books, paper, printing and engraving ..	1,313	1,347	1,423	1,477	1,511
IX. Musical instruments, etc. ..	45	59	50	55	93
X. Arms and explosives ..	17	14	15	13	12
XI. Vehicles and fittings, saddlery and harness, etc. ..	1,778	1,913	2,189	2,338	2,499
XII. Ship and boat building and repairing ..	81	81	88	87	89
XIII. Furniture, bedding, and upholstery ..	927	1,010	1,160	1,192	1,223
XIV. Drugs, chemicals, and by-products ..	313	327	323	340	333
XV. Surgical and other scientific instruments ..	77	81	84	92	93
XVI. Jewellery, timepieces, and plated ware ..	247	254	258	262	270
XVII. Heat, light, and power ..	563	590	435	448	436
XVIII. Leatherware, n.e.i. ..	115	118	126	121	122
XIX. Other Industries, n.e.i. ..	234	245	113	142	174
Total ..	18,023	19,173	20,189	20,795	21,242

(a) See general note above.

For the purpose of the returns in the above table the definition of a factory adopted at the Conference of Statisticians in 1902 is used, viz., "Any factory, workshop or mill where four or more persons are employed or power is used."

The expansion in the number of factories in Australia has been particularly marked during recent years. More than 800 additional establishments have been added to the total number in each of the past four years. As previously pointed out, however, any increase or decrease in the number of factories from year to year does not necessarily indicate a change in the position of the industry.

4. Classification of Factories, States, 1925-26.—The following table shows the number of factories in each State during 1925-26 classified according to the nature of the industry:—

FACTORIES.—CLASSIFICATION, STATES, 1925-26.

Class of Industry.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust. (a)	Tas.	Aust.
	No.	No.	No.	No.	No.	No.	No.
I. Treating raw material, product of agricultural and pastoral pursuits, etc.	243	265	38	96	42	67	751
II. Treating oils and fats, animal, vegetable, etc.	41	30	11	10	5	1	98
III. Processes in stone, clay, glass, etc.	402	264	47	109	56	22	900
IV. Working in wood	984	693	337	146	161	231	2,552
V. Metal works, machinery, etc.	985	1,044	190	248	147	42	2,656
VI. Connected with food and drink, etc.	979	716	487	336	212	110	2,840
VII. Clothing and textile fabrics, etc.	1,807	1,993	263	324	167	81	4,635
VIII. Books, paper, printing, and engraving	601	553	140	103	94	20	1,511
IX. Musical instruments, etc.	23	19	1	5	..	..	48
X. Arms and explosives	3	8	..	1	..	..	12
XI. Vehicles and fittings, saddlery and harness, etc.	1,038	870	171	205	137	78	2,499
XII. Ship and boat building and repairing	52	11	9	8	5	4	89
XIII. Furniture, bedding and upholstery	446	473	109	95	64	36	1,223
XIV. Drugs, chemicals, and by-products	151	128	5	21	16	12	333
XV. Surgical and other scientific instruments	30	39	11	7	6	..	93
XVI. Jewellery, timepieces and plated ware	97	114	14	25	11	9	270
XVII. Heat, light, and power	187	127	45	31	33	13	436
XVIII. Leatherware, n.e.l.	45	58	9	6	3	1	122
XIX. Other Industries n.e.l.	82	56	10	15	11	..	174
Total	8,196	7,461	1,897	1,791	1,170	727	21,242

(a) Eighteen months ended 30th June, 1926.

§ 2. Classification of Factories according to Number of Employees.

1. States, 1925-26.—A more satisfactory method of measuring the importance of the manufacturing industry in Australia may, perhaps, be obtained by grouping the factories according to the average number of employees therein.

The following table shows, for each State, the number of factories classified according to the number of hands employed, and the average number of hands employed therein, during 1925-26:—

FACTORIES.—CLASSIFICATION ACCORDING TO NUMBER OF EMPLOYEES, 1925-26.

No. of Persons Employed in each Factory.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust. (a)	Tasmania.	Australia.
NUMBER OF FACTORIES.							
Under 4 ..	2,230	1,879	345	310	296	178	5,238
4 ..	789	797	156	176	117	74	2,109
5 to 10 ..	2,426	2,210	535	615	364	284	6,434
11 to 20 ..	1,184	1,142	384	301	165	96	3,272
21 to 50 ..	946	883	278	247	135	58	2,547
51 to 100 ..	348	303	90	93	60	24	918
Over 100 ..	273	247	109	49	33	13	724
Total ..	8,196	7,461	1,897	1,791	1,170	727	21,242

(a) Eighteen months ended 30th June, 1926.

FACTORIES.—CLASSIFICATION ACCORDING TO NUMBER OF EMPLOYEES,
1925-26—continued.

No. of Persons Employed in each Factory.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust. (a)	Tasmania.	Australia.
AVERAGE NUMBER OF HANDS EMPLOYED.							
Under 4 ..	4,613	4,011	757	717	624	393	11,115
4 ..	3,156	3,188	624	704	468	296	8,436
5 to 10 ..	16,692	15,304	3,795	4,277	2,552	1,924	44,544
11 to 20 ..	17,183	16,615	5,582	4,340	2,402	1,436	47,558
21 to 50 ..	29,798	28,066	8,699	7,829	4,459	1,823	80,674
51 to 100 ..	23,809	20,838	6,375	6,291	4,123	1,614	63,050
Over 100 ..	78,850	64,937	24,664	15,893	7,514	3,685	195,543
Total ..	174,101	152,959	50,496	40,051	22,142	11,171	450,920

(a) Eighteen months ended 30th June, 1926.

2. Australia, 1921-22 to 1925-26.—For the period covered in the following table the number of factories has increased at a faster rate than that of employees, consequently a reduction has occurred in the average number of employees per factory. Nevertheless a satisfactory increase in employment is recorded for the larger establishments where the average has risen from 257.98 in 1921-22 to 270.09 employees in 1925-26.

FACTORIES.—CLASSIFICATION ACCORDING TO NUMBER OF EMPLOYEES,
AUSTRALIA, 1921-22 TO 1925-26.

Year.(a)	Establishments Employing on the Average—							
	20 hands and under.		21 to 100 hands.		101 hands and upwards.		Total.	
	Es- tablish- ments.	Hands.	Es- tablish- ments.	Hands.	Es- tablish- ments.	Hands.	Es- tablish- ments.	Hands.
1921-22—								
Number ..	14,211	100,301	3,163	127,692	649	167,432	18,023	395,425
Average per establishment ..		7.06		40.37		257.98		21.94
Percentage on total ..	78.86	25.37	17.54	32.29	3.60	42.34	100.00	100.00
1922-23—								
Number ..	15,176	104,545	3,337	137,998	660	169,867	19,173	412,410
Average per establishment ..		6.89		41.35		257.37		21.51
Percentage on total ..	79.15	25.35	17.41	33.46	3.44	41.19	100.00	100.00
1923-24—								
Number ..	16,086	109,673	3,421	141,549	682	178,768	20,189	429,990
Average per establishment ..		6.82		41.38		262.12		21.30
Percentage on total ..	79.68	25.51	16.94	32.92	3.38	41.57	100.00	100.00
1924-25—								
Number ..	16,672	110,884	3,428	141,773	695	187,292	20,795	439,949
Average per establishment ..		6.65		41.36		269.48		21.16
Percentage on total ..	80.17	25.20	16.49	32.23	3.34	42.57	100.00	100.00
1925-26—								
Number ..	17,053	111,653	3,465	143,724	724	195,543	21,242	450,920
Average per establishment ..		6.55		41.48		270.09		21.23
Percentage on total ..	80.28	24.76	16.31	31.87	3.41	43.37	100.00	100.00

(a) See general note on first page of this Chapter.

§ 3. Power used in Factories.

1. States, 1925-26.—The following table shows the number of factories using steam, gas, oil, electricity, or water, and the horse-power of engines or motors during 1925-26 :—

FACTORIES.—HORSE-POWER OF ENGINES USED, 1925-26.

State.	Number of Establishments.			Actual Horse-power of Engines Used.					
	Using Machinery worked by Steam, Gas, Oil, Electricity, or Water.	Others.	Total.	Steam.	Gas.	Oil.	Electricity.	Water.	Total.
	No.	No.	No.	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
N.S.W. ..	7,276	920	8,196	299,538	15,618	5,308	181,890	1,585	503,939
Victoria ..	6,294	1,167	7,461	235,872	15,422	8,212	107,812	(a)	367,318
Queensland ..	1,615	282	1,897	93,605	15,227	2,112	31,293	26	142,263
S. Australia ..	1,504	287	1,791	72,391	8,368	5,196	32,522	19	118,496
W. Australia ..	1,007	163	1,170	45,813	5,659	2,255	21,503	..	75,230
Tasmania ..	662	65	727	5,791	351	1,033	50,397	70,384	127,956
Australia ..	18,358	2,884	21,242	753,010	60,645	24,116	425,417	72,014	1,335,202

(a) Statistics of Water Power not collected.

The utilization of mechanical power in factories is greatest in New South Wales where the largest number of industries requiring a considerable amount of power is located. Victoria, on the other hand, has the largest number of establishments, such as those connected with clothing and textile fabrics, wherein much less power is utilized.

The number of establishments in Australia during 1925-26 using steam, gas, oil, electricity, or water was 18,358; or 86.42 per cent. of the total; 2,884 establishments, representing 13.58 per cent., used no mechanical power. The total actual horse-power in use was 1,335,202, distributed in the following proportions :—Steam, 56.40 per cent.; gas, 4.54 per cent.; oil, 1.81 per cent.; electricity, 31.86 per cent.; and water, 5.39 per cent.

2. Australia, 1921-22 to 1925-26.—The following table shows the horse-power of engines used in connexion with factories in Australia during each of the last five years :—

FACTORIES.—HORSE-POWER OF ENGINES USED, AUSTRALIA, 1921-22 TO 1925-26.

Year (a)	Number of Establishments.			Actual Horse-power of Engines Used.					
	Using Machinery worked by Steam, Gas, Oil, Electricity, or Water.	Others.	Total.	Steam.	Gas.	Oil.	Electricity.	Water.	Total.
	No.	No.	No.	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
1921-22 ..	14,859	3,164	18,023	460,258	57,877	10,363	240,379	20,216	798,093
1922-23 ..	15,951	3,222	19,173	475,917	59,702	12,240	283,850	35,732	867,441
1923-24 ..	17,056	3,133	20,189	633,683	60,237	16,277	344,085	56,492	1,110,774
1924-25 ..	17,717	3,078	20,795	715,475	59,980	17,232	394,381	73,008	1,260,076
1925-26 ..	18,358	2,884	21,242	753,010	60,645	24,116	425,417	72,014	1,335,202

(a) See general note on first page of this Chapter.

The growth of electrical power has been one of the chief factors in the rapid increase of mechanical power which has taken place in factories during recent years. From 72,250 horse-power in 1913, or roughly one-sixth of the total horse-power of engines used, it has increased to 425,417 horse-power, or one-third of the total installations in 1925-26. Steam power continues to expand with the development of the larger industries, but the increase in the use of gas and oil engines is negligible. During the past four years 134,127 horse-power has been added each year to the plant actually in use.

3. Classes of Industry, States, 1925-26.—The following table gives a classification of the actual horse-power of engines used in factories of different descriptions in each State during 1925-26 :—

FACTORIES.—HORSE-POWER OF ENGINES USED IN EACH CLASS, 1925-26.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust. (a)	Tas.	Aus- tralia.
	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
I. Treating raw material, product of agricultural and pastoral pursuits, etc. . .	9,253	9,363	1,277	2,039	751	636	23,319
II. Treating oils and fats, animal, vegetable, etc. . .	2,230	1,046	826	496	354	21	4,973
III. Processes in stone, clay, glass, etc. . .	29,278	14,089	3,830	5,641	3,537	3,522	59,897
IV. Working in wood . .	27,368	19,067	12,241	3,959	10,668	3,930	77,233
V. Metal works, machinery, etc. . .	89,863	26,565	11,970	14,012	7,022	37,697	187,129
VI. Connected with food and drink, etc. . .	47,048	46,293	53,449	11,909	9,291	4,529	172,519
VII. Clothing and textile fabrics, etc. . .	11,566	22,237	2,767	1,408	955	1,536	40,460
VIII. Books, paper, printing, and engraving . .	13,871	9,797	2,107	1,917	1,458	463	29,613
IX. Musical instruments, etc. . .	954	569	3	24	..	..	1,550
X. Arms and explosives . .	524	623	..	2	..	..	1,219
XI. Vehicles and fittings, saddlery and harness, etc. . .	4,905	3,873	838	4,356	610	305	14,887
XII. Ship and boat building and repairing . .	9,490	1,375	114	933	33	53	11,998
XIII. Furniture, bedding, and upholstery . .	5,671	4,431	1,520	1,724	963	419	14,728
XIV. Drugs, chemicals, and by-products . .	4,262	4,536	201	4,492	1,495	204	15,190
XV. Surgical and other scientific instruments . .	109	112	19	22	16	..	278
XVI. Jewellery, timepieces, and plated ware . .	536	587	49	107	42	18	1,339
XVII. Heat, light, and power . .	243,234	194,680	50,856	65,404	37,880	74,622	666,676
XVIII. Leatherware, n.e.i. . .	239	281	26	7	7	1	561
XIX. Other Industries, n.e.i. . .	3,538	7,724	170	44	148	..	11,624
Total . .	503,939	367,318	142,263	118,496	75,230	127,956	1,335,202

(a) Eighteen months ended 30th June, 1926.

4. Classes of Industry, Australia, 1921-22 to 1925-26.—The following table shows a similar classification of the actual horse-power of engines used in manufacturing industries in Australia during the years 1921-22 to 1925-26 inclusive :—

FACTORIES.—HORSE-POWER OF ENGINES USED, AUSTRALIA, 1921-22 TO 1925-26.

Class of Industry.	1921-22. (a)	1922-23. (a)	1923-24. (a)	1924-25. (a)	1925-26. (a)
I. Treating raw material, product of agricultural and pastoral pursuits, etc. . .	23,439	23,976	24,319	23,225	23,319
II. Treating oils and fats, animal, vegetable, etc. . .	3,062	3,421	3,848	4,084	4,973
III. Processes in stone, clay, glass, etc. . .	41,031	42,787	48,014	55,132	59,897
IV. Working in wood . .	58,677	60,343	68,234	72,935	77,233
V. Metal works, machinery, etc. . .	135,690	140,009	162,153	167,801	187,129
VI. Connected with food and drink, etc. . .	136,773	147,160	159,982	160,194	172,519
VII. Clothing and textile fabrics, etc. . .	23,451	30,382	35,295	36,638	40,469
VIII. Books, paper, printing, and engraving . .	21,392	21,812	26,569	27,700	29,613
IX. Musical instruments, etc. . .	590	888	1,116	1,339	1,550
X. Arms and explosives . .	1,691	809	1,236	1,192	1,219
XI. Vehicles and fittings, saddlery and harness, etc. . .	6,990	8,361	11,454	13,084	14,887
XII. Ship and boat building and repairing . .	11,879	11,406	11,247	11,775	11,998
XIII. Furniture, bedding, and upholstery . .	8,923	9,995	11,338	12,084	14,728
XIV. Drugs, chemicals, and by-products . .	11,386	11,300	12,378	14,166	15,190
XV. Surgical and other scientific instruments . .	179	209	213	290	278
XVI. Jewellery, timepieces, and plated ware . .	945	1,066	1,120	1,251	1,339
XVII. Heat, light, and power . .	297,409	344,373	522,621	646,605	666,676
XVIII. Leatherware, n.e.i. . .	651	708	760	805	561
XIX. Other Industries, n.e.i. . .	8,933	8,427	8,272	9,176	11,624
Total . .	798,093	867,441	1,110,774	1,260,076	1,335,202

(a) See general note on first page of this Chapter.

The actual horse-power of engines used increased in every branch of industry except three, viz., Class I. Treating raw materials, Class X. Arms and explosives, and Class XVIII. Leatherware, n.e.i., during the last four years. The industries using the greatest amount of power were Class XVII. Heat, light, and power; Class V. Metal works, machinery, etc.; and Class VI. Connected with food and drink. These three classes, which together accounted for 76.86 per cent. of the total power used in 1925-26 increased their horse-power from 569,872 to 1,026,324 during the four years under review, and are mainly responsible for the development of mechanical power in factories since 1921-22.

§ 4. Employment in Factories.

1. **Total Number Employed.**—Each person employed in and about a factory, in whatever capacity, is now included as a factory employee, consequently every proprietor who works in his own business is counted as an employee, and all "outworkers" (see sub-section 5 (ii) hereinafter) are also included. The individuals embraced may be classed under the following heads:—(i) Working proprietors; (ii) managers and overseers; (iii) accountants and clerks; (iv) engine-drivers and firemen; (v) skilled and unskilled workers in the factories, mills, or workshops; (vi) carters and messengers; and (vii) others.

The following table shows, for each year from 1921-22 to 1925-26 inclusive, (a) the average numbers of persons (including both sexes and all ages) employed in manufacturing industries in each State; (b) the percentage of the numbers employed in each State on the total numbers employed in Australia; and (c) the numbers employed per ten thousand of the mean population in each State and Australia:—

FACTORIES.—EMPLOYMENT, 1921-22 TO 1925-26.

Year.(a)	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
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AVERAGE NUMBER.

1921-22	..	148,876	144,876	42,248	31,171	18,127	10,127	395,425
1922-23	..	152,266	152,625	43,403	34,695	19,097	10,324	412,410
1923-24	..	159,674	156,162	44,948	37,275	19,712	12,219	429,990
1924-25	..	165,760	154,158	48,922	38,353	21,758	10,998	439,949
1925-26	..	174,101	152,959	50,496	40,051	22,142	11,171	450,920

PERCENTAGE ON AUSTRALIAN TOTAL.

1921-22	..	37.65	36.64	10.69	7.88	4.53	2.56	100.00
1922-23	..	36.92	37.01	10.53	8.41	4.63	2.50	100.00
1923-24	..	37.13	36.32	10.45	8.67	4.59	2.84	100.00
1924-25	..	37.68	35.04	11.12	8.72	4.94	2.50	100.00
1925-26	..	38.61	33.92	11.20	8.88	4.91	2.48	100.00

PER 10,000 OF MEAN POPULATION.

1921-22	..	699	934	553	620	544	475	719
1922-23	..	701	960	556	676	562	481	734
1923-24	..	723	961	554	710	566	557	748
1924-25	..	735	930	586	712	598	505	749
1925-26	..	766	915	593	736	601	523	760

(a) See general note on first page of this Chapter.

2. Rates of Increase, 1920-1921 to 1925-26.—The following table shows the percentage of increase or decrease on the average number of persons employed for the preceding year in each of the years from 1920-21 to 1925-26.

FACTORY EMPLOYEES.—PERCENTAGE OF INCREASE, 1920-21 TO 1925-26.

Year.(a)	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	%	%	%	%	%	%	%
1920-21—1921-22..	2.67	2.94	-2.20	2.44	6.42	-0.96	2.27
1921-22—1922-23..	2.28	5.35	2.73	11.31	5.35	1.95	4.30
1922-23—1923-24..	4.87	2.32	3.56	7.44	3.22	18.36	4.26
1923-24—1924-25..	3.81	-1.28	8.84	2.89	10.38	-10.00	2.32
1924-25—1925-26..	5.03	-0.78	3.22	4.43	1.76	1.57	2.49

NOTE.—The minus sign indicates decrease.

(a) See general note on first page of this Chapter.

3. Employees in Classes of Industry, Australia, 1921-22 to 1925-26.—The following table gives the average numbers of persons employed* in factories under each group in Australia during the years 1921-22 to 1925-26 inclusive :—

FACTORY EMPLOYEES.—CLASSES, AUSTRALIA, 1921-22 TO 1925-26.

Class of Industry.	1921-22. (a)	1922-23. (a)	1923-24. (a)	1924-25 (a)	1925-26. (a)
I. Treating raw material, product of agricultural and pastoral pursuits, etc.	10,925	11,304	10,842	10,289	10,414
II. Treating oils and fats, animal, vegetable, etc.	3,103	3,173	3,424	3,342	3,350
III. Processes in stone, clay, glass, etc.	16,974	18,666	20,256	20,342	20,723
IV. Working in wood	32,393	33,102	36,319	36,252	35,812
V. Metal works, machinery, etc.	76,798	78,614	88,213	90,868	96,782
VI. Connected with food and drink, etc.	50,252	60,888	61,550	64,712	66,084
VII. Clothing and textile fabrics, etc.	97,194	102,451	100,850	100,830	103,501
VIII. Books, paper, printing and engraving	28,673	31,015	32,659	33,043	33,123
IX. Musical instruments, etc.	1,154	1,415	1,357	1,441	1,647
X. Arms and explosives	1,372	433	803	819	870
XI. Vehicles and fittings, saddlery and harness, etc.	16,808	19,532	22,490	24,234	25,592
XII. Ship and boat building and repairing	7,035	6,053	5,794	6,230	6,107
XIII. Furniture, bedding, and upholstery	11,475	12,608	15,230	15,697	15,943
XIV. Drugs, chemicals, and by-products	6,933	6,884	7,215	7,511	7,747
XV. Surgical and other scientific instruments	570	682	608	690	697
XVI. Jewellery, timepieces, and plated ware	2,503	2,489	2,447	2,365	2,343
XVII. Heat, light, and power	13,431	14,112	12,967	13,735	11,534
XVIII. Leatherware, n.e.l.	2,414	2,476	2,576	2,506	2,780
XIX. Other Industries n.e.l.	6,418	6,523	4,390	5,023	5,871
Total	395,425	412,410	429,090	439,940	450,920

(a) See general note on first page of this Chapter.

On the average during each of the last four years employment has been found for 13,874 additional persons in the manufacturing industries. The classes responsible for the bulk of the increase were Class V. Metal Works, Class XI. Vehicles etc., Class VI. Food and Drink, and Class VII. Clothing and Textile Fabrics, in several of the principal industries of which classes considerable development has occurred during the period.

4. **Employees in Classes of Industry, States, 1925-26.**—The following table gives a classification of employees in manufacturing industries in each State during 1925-26 :—

FACTORY EMPLOYEES.—CLASSES, STATES, 1925-26.

Class of Industry.	N.S.W.	Vic.	Q'land.	S.A.	W.A. (a)	Tas.	Aus- tralia.
I. Treating raw material, product of agricultural and pastoral pursuits, etc.	3,741	4,199	824	844	321	485	10,414
II. Treating oils and fats, animal, vegetable, etc.	1,657	891	238	298	224	42	3,350
III. Processes in stone, clay, glass, etc.	9,853	5,975	1,015	2,297	1,145	438	20,723
IV. Working in wood	10,445	9,659	5,730	2,149	5,775	2,054	35,812
V. Metal works, machinery, etc.	44,760	26,890	8,655	10,430	4,002	2,045	96,782
VI. Connected with food and drink, etc.	20,792	18,813	16,682	4,980	2,725	2,092	66,084
VII. Clothing and textile fabrics, etc.	35,364	50,188	7,222	5,706	3,150	1,871	103,501
VIII. Books, paper, printing and engraving	13,327	11,274	3,864	2,422	1,563	673	33,123
IX. Musical instruments, etc.	1,044	529	11	63	..	..	1,647
X. Arms and explosives	395	471	..	4	..	..	870
XI. Vehicles and fittings, saddlery, and harness, etc.	8,944	7,363	2,067	5,385	1,240	593	25,592
XII. Ship and boat building and repairing	4,977	388	104	590	19	29	6,107
XIII. Furniture, bedding, and upholstery	6,345	5,065	1,794	1,533	892	314	15,943
XIV. Drugs, chemicals, and by-products	3,176	2,813	139	1,040	503	76	7,747
XV. Surgical and other scientific instruments	305	230	70	59	33	..	697
XVI. Jewellery, timepieces, and plated ware	841	1,097	126	178	72	29	2,343
XVII. Heat, light, and power	4,391	3,018	1,508	1,841	348	428	11,534
XVIII. Leatherware, n.e.l.	1,472	919	208	149	30	2	2,780
XIX. Other Industries, n.e.l.	2,272	3,177	239	83	100	..	5,871
Total ..	174,101	152,959	50,496	40,051	22,142	11,171	450,920

(a) Eighteen months ended 30th June, 1926.

The largest number employed in any particular class in Australia during 1925-26 was in Class VII., in which there were 103,501 employees, or 22.95 per cent. of the total in all classes. The class affording employment to the smallest number of hands was Class XV., in which there were 697 hands, or 0.15 per cent. of the total. Classes VI., VII., and VIII. include those industries in which female labour is largely employed. (See § 5, 5 hereof.)

5. **Employees According to Nature of Employment.**—(i) *General.* In the following table the average numbers of persons employed in each State during 1925-26 are classified according to the nature of their employment :—

FACTORY EMPLOYEES.—NATURE OF EMPLOYMENT, 1925-26.

State.	Average Number of Persons Employed.						Total.
	Working Proprietors.	Managers and Overseers.	Accountants and Clerks.	Engine-drivers and Firemen.	Workers, Skilled & Unskilled, in Factory Mill or Workshop. (a)	Carters, Messengers and Others.	
New South Wales ..	7,144	6,114	8,935	3,224	146,427	2,257	174,101
Victoria ..	7,254	5,213	6,034	2,065	129,684	2,709	152,959
Queensland ..	1,393	1,858	2,685	2,104	39,257	3,199	50,496
South Australia ..	1,467	1,415	2,392	562	33,535	680	40,051
Western Australia	854	841	1,083	544	17,300	1,520	22,142
Tasmania ..	522	518	796	287	8,777	271	11,171
Australia ..	18,634	15,959	21,925	8,786	374,980	10,636	450,920

(a) Including Outworkers.

(ii) *Outworkers.* The term "outworker" or "homeworker" has acquired a special meaning in connexion with manufacturing industries, and technically embraces only those to whom work is given out by factory owners to be wrought upon in the employees' own homes. Individuals working for themselves are not included. The following table gives particulars of the average number of outworkers connected with factories in each State during each year from 1921-22 to 1925-26 inclusive :—

FACTORIES.—OUTWORKERS(a), 1921-22 TO 1925-26.

Year.(b)	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
1921-1922 ..	618	1,476	26	59	8	48	2,235
1922-1923 ..	547	1,228	33	84	8	32	1,932
1923-1924 ..	470	870	38	35	9	41	1,463
1924-1925 ..	461	728	32	62	4	19	1,306
1925-1926 ..	403	736	23	83	2	24	1,271

(a) In all tables relating to number of hands employed in factories, outworkers are included.

(b) See general note on first page of this Chapter.

The Factories Acts in each State contain provisions regulating the employment of outworkers. Records of outwork, specifying the names and remuneration of workers, and stating the places where the work is done, must be kept by factory proprietors. Fuller information regarding the operation of the Factories Acts will be found in Official Year Book No. 16, pp. 540 to 566.

§ 5. Sex Distribution in Factories.

1. *Employment of Females.*—In all the States the employment of female labour in factories is regulated by Acts of Parliament. More extended reference to this matter will be found in Official Year Book No. 16, pp. 540 to 566.

2. *Distribution of Employees according to Sex.*—(i) *General.* In New South Wales the ratio of the number of females employed in factories to the number of males during 1886 was about one to seven; in 1891 one to six; in 1903 it became about one to four; and is now less than one to three. In Victoria the ratio of females to males during the year 1886 was about one to five. Five years later (1891) it was somewhat less, but in 1896 had increased to about one woman to three men, and at present is nearly one to two. In the remaining States the ratio was roughly one female employed to every five males, while that for Australia as a whole was one to three. The employment of women is, however, mainly confined to a few trades.

Increasing activity in the clothing and textile industries is the principal cause of the growth in female employment. Certain occupations are regarded as specially suitable for women, such as clothing and textile manufacture, preparation of food, book-binding, and wrapping and packing connected with various industries. In common also with commercial establishments, a considerable number of factories employ women as clerks and typists.

(ii) *Average Number of Males and Females Employed, 1921-22 to 1925-26.* The following table shows the average number of male and female employees in factories in each State from 1921-22 to 1925-26 :—

FACTORIES.—MALES AND FEMALES EMPLOYED, 1921-22 TO 1925-26.

State.	1921-22.(a)	1922-23.(a)	1923-24.(a)	1924-25.(a)	1925-26.(a)
MALES.					
New South Wales ..	112,362	114,970	121,845	126,496	132,239
Victoria ..	97,789	103,092	107,578	105,984	104,512
Queensland ..	35,050	35,528	36,788	40,895	42,525
South Australia ..	25,006	27,988	30,261	31,238	33,117
Western Australia ..	15,514	15,851	16,439	18,316	18,634
Tasmania ..	8,525	8,453	10,046	9,016	9,055
Australia ..	294,246	305,882	322,957	331,945	340,082
FEMALES.					
New South Wales ..	36,514	37,296	37,829	39,264	41,862
Victoria ..	47,087	49,533	48,584	48,174	48,447
Queensland ..	7,198	7,875	8,160	8,027	7,971
South Australia ..	6,165	6,707	7,014	7,115	6,934
Western Australia ..	2,613	3,246	3,273	3,442	3,508
Tasmania ..	1,602	1,871	2,173	1,982	2,116
Australia ..	101,179	106,528	107,033	108,004	110,838

(a) See general note on first page of this Chapter.

During the years specified in the above table there has been an increase in the number of male factory employees in Australia of 45,836, or an annual average of 11,459, whilst the number of female employees increased by 9,659, or an annual average of 2,415.

(iii) *Average Number of Males and Females Employed per 10,000 of Mean Population, 1921-22 to 1925-26.* The following table shows the average number of male and female employees per 10,000 of the mean male and female population respectively in each State from 1921-22 to 1925-26 :—

MALE AND FEMALE FACTORY EMPLOYEES PER 10,000 OF MEAN MALE AND FEMALE POPULATION RESPECTIVELY, 1921-22 TO 1925-26.

State.	1921-22.(a)	1922-23.(a)	1923-24.(a)	1924-25.(a)	1925-26.(a)
MALES.					
New South Wales ..	1,037	1,038	1,081	1,099	1,140
Victoria ..	1,279	1,307	1,333	1,286	1,256
Queensland ..	869	862	868	929	946
South Australia ..	992	1,087	1,140	1,141	1,192
Western Australia ..	875	876	883	938	943
Tasmania ..	792	782	917	830	851
Australia ..	1,053	1,070	1,105	1,108	1,123

(a) See general note on first page of this Chapter.

MALE AND FEMALE FACTORY EMPLOYEES PER 10,000 OF MEAN MALE AND FEMALE POPULATION RESPECTIVELY—*continued.*

State.	1921-22.(a)	1922-23.(a)	1923-24.(a)	1924-25.(a)	1925-26.(a)
FEMALES.					
New South Wales ..	350	350	350	356	376
Victoria ..	599	618	593	578	577
Queensland ..	199	213	215	203	198
South Australia ..	246	262	274	269	260
Western Australia ..	168	205	202	204	206
Tasmania ..	152	175	198	181	198
Australia ..	374	386	380	375	382

(a) See general note on first page of this Chapter.

3. Rate of Variation for each Sex.—The percentages of annual increase or decrease during the years 1921-22 to 1925-26 in the average number of males and females employed in factories are shown below :—

PERCENTAGES OF ANNUAL INCREASE, MALE AND FEMALE FACTORY EMPLOYEES, 1921-22 TO 1925-26.

State.	1920-21— 1921-22.(a)	1921-22— 1922-23.(a)	1922-23— 1923-24.(a)	1923-24— 1924-25.(a)	1924-25— 1925-26.(a)
MALES.					
New South Wales ..	0.16	2.31	5.91	3.82	4.54
Victoria ..	1.46	5.42	4.35	-1.48	-1.39
Queensland ..	-2.67	1.36	3.54	11.16	3.99
South Australia ..	1.87	11.93	8.12	3.23	6.01
Western Australia ..	8.27	2.17	3.71	11.42	1.74
Tasmania ..	-2.53	-0.84	18.84	-10.26	0.43
Total ..	0.70	3.95	5.58	2.78	2.45

FEMALES.					
New South Wales ..	11.24	2.14	1.43	3.79	6.62
Victoria ..	6.14	5.19	-1.92	-0.84	0.57
Queensland ..	0.18	9.41	3.62	-1.63	-0.70
South Australia ..	4.81	8.79	4.58	1.43	-2.54
Western Australia ..	3.40	24.23	0.83	5.16	1.92
Tasmania ..	8.32	16.79	16.14	-8.79	6.76
Total ..	7.14	5.29	0.47	0.91	2.62

NOTE.—The minus sign indicates decrease.

(a) See general note on first page of this Chapter.

4. **Masculinity of Employees in Factories.**—The extent to which females are employed in the factories of Australia may perhaps be more clearly shown by giving the masculinity of employees for each State for a series of years. The following table furnishes particulars for each of the years 1921–22 to 1925–26 inclusive:—

MASCULINITY (b) OF FACTORY EMPLOYEES, 1921–22 TO 1925–26.

Year.(a)	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
1921–22 ..	51.0	35.0	65.9	60.4	71.2	68.4	48.8
1922–23 ..	51.0	35.1	63.7	61.3	66.0	63.8	48.3
1923–24 ..	52.6	37.8	63.7	62.4	66.8	62.0	50.2
1924–25 ..	52.6	37.5	67.2	62.9	68.4	64.0	50.9
1925–26 ..	51.9	36.7	68.4	65.4	68.3	62.1	50.8

(a) See general note on first page of this Chapter.

(b) Excess of males over females per 100 of both sexes combined.

The ratio of the sexes employed in factories in Australia has revealed a tendency towards increased masculinity of late years. This tendency is general throughout the States, with the exception of Western Australia and Tasmania, where the proportion of females employed is increasing. The tables given in the succeeding sub-section show that the comparatively high proportions of females have been due not so much to the incursion of female labour into what may be termed men's trades, as to the activity in those trades in which women are ordinarily engaged, more especially in dressmaking, millinery, etc.

5. **Employment of Females in Particular Industries.**—The employment of women in manufacturing industries in Australia is mainly confined to a few trades, of which the more important are comprised in Classes VI., VII., and VIII., viz., in connexion with food, drink, etc., clothing and textile fabrics, and books, paper, printing, etc. The following tables show the average number of females employed in each of these classes in each State during 1925–26 and the percentages of the average number so employed on the total average number of females employed in all classes of factories:—

FEMALES EMPLOYED IN PARTICULAR INDUSTRIES, AND PERCENTAGES ON AVERAGE TOTAL EMPLOYED, 1925–26.

Class.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust. (a)	Tas.	Aus- tralia.
AVERAGE NUMBER.							
VI. Food, drink, etc. ..	6,425	5,087	943	839	497	587	14,378
VII. Clothing and textile fabrics ..	24,784	35,343	5,242	4,237	2,281	1,218	73,105
VIII. Books, paper, printing, etc. ..	3,806	3,200	876	732	371	127	9,112
All other classes ..	6,847	4,817	910	1,126	359	184	14,243
Total ..	41,862	48,447	7,971	6,934	3,508	2,116	110,838

PERCENTAGES ON AVERAGE TOTAL FEMALE EMPLOYEES.

VI. Food, drink, etc. ..	15.35	10.50	11.83	12.10	14.17	27.74	12.97
VII. Clothing and textile fabrics ..	59.20	72.95	65.76	61.10	65.02	57.56	65.96
VIII. Books, paper, printing, etc. ..	9.09	6.60	10.99	10.56	10.58	6.00	8.22
All other classes ..	16.36	9.95	11.42	16.24	10.23	8.70	12.85
Total ..	100.00	100.00	100.00	100.00	100.00	100.00	100.00

(a) Eighteen months ended 30th June, 1926.

The largest proportion of females is engaged in one or other of the three classes of industry indicated, Class VII. being the most important. The classification of the employment of females in the several industries in that class, and the relation of their number to that of the males so employed, are shown in the following table:—

FEMALES EMPLOYED IN EACH INDUSTRY IN CLASS VII. DURING 1925-26.

Industry.	New South Wales.			Victoria.			Other States.		
	Males.	Females	Femininity. (a)	Males.	Females	Femininity. (a)	Males.	Females	Femininity. (a)
Woollen and tweed mills	800	1,310	24.17	2,291	2,992	12.37	546	796	18.63
Knitting factories ..	785	2,509	52.34	792	4,046	67.26	40	237	71.12
Cotton mills ..	273	335	10.20	..	..	..	60	3	-90.48
Boots and shoes ..	4,050	2,174	-30.14	6,952	5,310	-13.39	1,837	1,105	-24.88
Clothing (tailoring and slop) ..	2,551	8,808	55.08	2,102	7,394	55.73	1,731	5,708	53.46
Clothing (waterproof and oilskin) ..	21	95	63.79	79	234	49.52	..	..	..
Dressmaking and millinery ..	145	3,686	92.43	420	7,936	89.95	26	2,490	97.93
Dyeworks and cleaning	259	154	-25.42	131	162	10.58	134	170	11.84
Furriers ..	208	292	16.80	176	349	32.95	38	74	32.14
Hats and caps ..	520	985	30.90	668	991	19.47	66	110	25.00
Shirts, ties, and scarves	420	3,988	82.82	494	5,346	83.08	137	2,011	87.24
Rope and cordage ..	244	80	-50.62	505	375	-14.77	185	54	-54.81
Tents and tarpaulins	146	137	-3.18	122	97	-11.41	119	105	-6.25
Bags and sacks ..	158	231	18.77	113	111	-0.89	52	115	37.72
Total, Class VII. ..	10,580	24,784	40.17	14,845	35,343	40.84	4,971	12,978	44.61

NOTE.—The minus sign denotes excess of males over females.

(a) Excess of females over males per 100 of both sexes combined.

§ 6. Child Labour in Factories.

1. **Conditions of Child Labour.**—The employment of young persons in factories in each State of Australia is regulated by Acts of Parliament, as is the case with the employment of female labour. Reference to the legislation regarding the employment of child labour in factories will be found in Official Year Book No. 16, pp. 540 to 566. The general object of the restrictions imposed is to assure that a proper period shall be devoted to primary education, and that the early years of toil shall not exhaust the worker before the attainment of full growth.

2. **Average Number of Children Employed, 1921-22 to 1925-26.**—In the statistical compilations of the various States the term "child" may be taken to denote any person

under sixteen years of age. The following table shows the average number of children of each sex employed in manufacturing industries in each State during the years 1921-22 to 1925-26 :—

CHILDREN EMPLOYED IN FACTORIES, 1921-22 TO 1925-26.

State.	1921-22.(a)	1922-23.(a)	1923-24.(a)	1924-25.(a)	1925-26.(a)
MALES.					
New South Wales ..	3,911	3,995	4,128	3,968	4,527
Victoria ..	3,780	4,031	4,057	4,027	3,980
Queensland ..	1,077	1,119	1,236	1,507	1,566
South Australia ..	996	1,125	1,199	1,080	1,095
Western Australia ..	401	452	530	552	682
Tasmania ..	287	282	360	238	214
Australia ..	10,452	11,004	11,510	11,372	12,064
FEMALES.					
New South Wales ..	4,150	4,288	4,038	4,256	4,688
Victoria ..	3,120	3,163	3,422	3,223	3,489
Queensland ..	774	969	972	979	1,003
South Australia ..	714	795	773	839	783
Western Australia ..	235	251	200	254	248
Tasmania ..	135	266	294	190	191
Australia ..	9,128	9,732	9,699	9,741	10,402
TOTAL.					
New South Wales ..	8,061	8,283	8,166	8,224	9,215
Victoria ..	6,900	7,194	7,479	7,250	7,469
Queensland ..	1,851	2,088	2,208	2,486	2,569
South Australia ..	1,710	1,920	1,972	1,919	1,878
Western Australia ..	636	703	730	806	930
Tasmania ..	422	548	654	428	405
Australia ..	19,580	20,736	21,209	21,113	22,466

(a) See general note on first page of this Chapter.

3. Percentage of Children on Total Number of Employees.—The foregoing table shows a general increase in the number of children employed in factories during the past four years. This increase is greater among the males than is the case with the females, the respective gains being 1,612 and 1,274. Examined in conjunction with the total number of persons employed the percentage of children has remained practically constant since 1921-22.

PERCENTAGE OF CHILDREN ON TOTAL NUMBER OF FACTORY EMPLOYEES,
1921-22 TO 1925-26.

State.	1921-22.(a)	1922-23.(a)	1923-24.(a)	1924-25.(a)	1925-26.(a)
	%	%	%	%	%
New South Wales ..	5.41	5.44	5.11	4.96	5.29
Victoria ..	4.76	4.71	4.79	4.70	4.88
Queensland ..	4.38	4.81	4.91	5.08	5.09
South Australia ..	5.49	5.53	5.29	5.00	4.69
Western Australia ..	3.51	3.68	3.70	3.70	4.20
Tasmania ..	4.17	5.31	5.35	3.89	3.63
Australia ..	4.95	5.03	4.93	4.80	4.98

(a) See general note on first page of this Chapter.

4. Industries Employing Child Labour.—The employment of children is largely confined to a limited number of industries, the most important of which are specified in the next table, which shows the average number of children of each sex employed during 1925-26 in the several industries indicated.

CHILDREN EMPLOYED.—VARIOUS INDUSTRIES, 1925-26.

Class.	Industry.	N.S.W.		Victoria.		Q'land.		S. Aust.		W. Aust. (a)		Tas.		Australia.	
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
II.	Soap and candles ..	39	28	25	12	13	2	12	15	12	..	..	..	101	57
III.	Bricks, tiles, pottery, and earthenware ..	213	5	57	13	27	1	19	..	18	8	6	..	340	27
IV.	Joinery, boxes, cases, etc. ..	105	3	148	8	50	..	35	1	20	..	5	..	363	12
	Saw mills ..	73	3	19	1	98	4	14	..	36	4	12	..	252	12
V.	Agricultural imple- ments ..	21	..	96	8	1	..	27	4	3	..	..	..	148	12
	Engineering, ironworks, and foundries ..	376	14	425	2	93	..	126	8	49	2	2	..	1,071	26
	Galvanized ironwork- ing and tinsmithing ..	162	41	189	25	59	1	41	..	25	..	..	..	476	67
	Railway carriage, rail- way and tramway workshops ..	111	1	104	..	39	..	54	..	9	..	..	..	317	1
	Wire working ..	109	..	17	1	8	..	6	..	6	..	..	..	146	1
	Electric apparatus ..	118	9	70	5	2	..	11	..	1	..	..	..	202	14
VI.	Meat and fish preserving ..	..	..	15	..	109	5	..	..	1	..	..	..	125	5
	Biscuits ..	218	206	103	72	16	25	18	13	50	30	..	..	405	346
	Confectionery ..	95	231	34	59	33	48	7	36	2	25	44	31	215	430
	Jams, pickles, sauces, etc. ..	23	30	33	14	10	22	7	12	3	..	21	12	97	90
	Condiments, coffee, spices, etc. ..	39	78	6	13	..	..	48	9	15	..	..	..	108	100
	Tobacco, cigars, etc. ..	50	110	50	16	..	..	2	1	5	5	..	..	107	132
VII.	Woollen and tweed mills ..	113	207	334	354	17	42	7	10	14	5	27	71	512	689
	Knitting factories ..	56	390	49	472	1	10	2	19	..	7	..	1	108	899
	Boots and shoes ..	216	301	319	453	46	100	32	43	50	11	23	15	686	923
	Clothing (tailoring and slop) ..	87	781	70	331	43	239	23	141	11	46	4	12	238	1,550
	Dressmaking and mil- linery ..	9	402	11	601	..	83	..	144	..	22	1	24	21	1,276
	Shirts, ties, scarves, etc. ..	35	641	28	377	8	151	1	85	1	36	1	11	74	1,301
	Hats and caps ..	36	94	38	32	..	13	3	2	..	..	..	..	77	141
	Rope and cordage ..	27	11	56	32	16	..	9	..	12	..	..	..	120	43
VIII.	Printing and binding ..	420	204	325	91	211	104	86	65	90	26	12	7	1,144	497
	Paper making, paper boxes, etc. ..	106	252	80	149	5	24	17	56	1	8	..	..	209	489
XI.	Coach and wagon building ..	31	..	50	1	26	..	14	..	13	..	3	..	137	1
	Cycles and motors ..	299	11	196	2	77	2	170	30	61	..	17	..	820	45
XIII.	Billiard tables, cabinet making and furniture ..	105	2	204	2	76	8	74	1	25	..	3	..	487	13
	Bedding, flock, and upholstery ..	34	20	26	22	11	3	16	7	1	..	2	1	90	53
XIV.	Chemicals, drugs, and medicines ..	51	112	21	45	3	20	6	16	6	1	2	..	89	194
XVIII.	Leather belting, etc. ..	86	125	33	40	14	18	6	31	1	2	..	..	140	216
XIX.	Rubber goods ..	54	47	26	17	16	51	3	..	8	..	..	..	107	115

(a) Eighteen months ended 30th June, 1926.

5. **Apprenticeship.**—In all the States Acts are in force for the regulation of the age at which children may be employed in gainful occupations. Legislative provision is also made for the regulation of apprenticeship under the various State Factories Acts or Arbitration Acts. These Acts, while laying down general principles, leave to the wages tribunals the actual determination of the conditions under which apprentices may be employed.

§ 7. Salaries and Wages Paid and Value of Production.

[NOTE.]—In all tables relating to Salaries and Wages paid in Factories the amounts given are exclusive of all sums drawn by working proprietors.

1. **General.**—The importance of the manufacturing industries of Australia is indicated by the fact that the total value of the output for 1925–26 was £400,342,393, of which amount the sum of £231,834,908 represents the value of the raw materials used, and £13,083,226 the value of the fuel and light used. The difference between the sum of the two latter amounts and the value of the output, viz., £155,424,259, represents the amount by which the value of the raw materials was enhanced in the process of manufacture. The total amount of salaries and wages paid in factories during 1925–26 was £86,724,683.

2 **Salaries and Wages Paid.**—(i) *Total Amount, 1925–26.* The total amount of salaries and wages paid during the year 1925–26 in various classes of factories in Australia is shown in the following table:—

SALARIES AND WAGES PAID IN FACTORIES, 1925–26.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust. (a)	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treating raw material, product of agricultural and pastoral pursuits, etc.	733,752	851,944	121,915	152,574	67,836	33,467	1,961,488
II. Treating oils and fats, animal, vegetable, etc.	316,811	189,674	43,902	58,659	50,463	9,371	668,880
III. Processes in stone, clay, glass, etc.	2,184,955	1,312,213	184,619	495,081	236,678	81,447	4,554,993
IV. Working in wood	2,059,812	1,994,488	1,104,837	438,848	1,970,236	312,956	7,881,177
V. Metal works, machinery, etc.	10,205,891	5,846,609	1,867,747	2,368,330	1,251,855	500,760	22,041,242
VI. Connected with food and drink, etc.	3,954,375	3,797,084	3,489,859	946,212	767,910	349,516	13,304,956
VII. Clothing and textile fabrics, etc.	4,483,530	6,621,473	852,742	648,656	504,727	196,423	13,307,551
VIII. Books, paper, printing, and engraving	2,655,053	2,215,813	795,095	466,272	508,752	147,898	6,788,883
IX. Musical instruments, etc.	214,492	109,053	1,895	10,062	..	..	335,502
X. Arms and explosives	101,961	96,578	..	580	..	..	199,114
XI. Vehicles and fittings, saddlery and harness, etc.	1,615,373	1,290,252	344,378	1,029,125	295,619	87,818	4,662,565
XII. Ship and boat building and repairing	1,260,339	93,139	20,100	137,524	5,514	4,372	1,520,988
XIII. Furniture, bedding, and upholstery	1,123,406	872,614	332,809	251,317	222,479	44,289	2,851,914
XIV. Drugs, chemicals, and by-products	653,020	561,821	20,473	210,013	166,392	15,634	1,627,353
XV. Surgical and other scientific instruments	53,263	39,602	10,887	10,314	7,703	..	121,769
XVI. Jewellery, timepieces, and plated ware	166,822	195,073	21,697	30,796	18,335	3,062	435,785
XVII. Heat, light & power	1,157,588	782,326	280,089	508,494	127,446	93,140	2,949,083
XVIII. Leatherware, n.e.i.	191,811	127,999	24,495	12,865	5,234	168	362,572
XIX. Other industries, n.e.i.	423,292	660,003	26,576	12,140	20,857	..	1,148,868
Total	33,566,546	27,657,753	9,544,115	7,787,912	6,288,036	1,880,321	86,724,683

(a) Eighteen months ended 30th June, 1926.

The maximum amount of salaries and wages paid in any particular class during 1925-26 was in Class V., the amount being £22,041,242; or 25.41 per cent. on the total amount; the minimum amount was in Class XV., £121,769, or 0.14 per cent. on the total. The State in which the largest amount was paid was New South Wales.

(ii) *Totals and Averages, 1921-22 to 1925-26.* The following statement shows the total amount of salaries and wages paid, and the average amount paid per employee in each State, during each of the years 1921-22 to 1925-26. The figures are exclusive of working proprietors and of the amounts drawn from the business by them:—

SALARIES AND WAGES PAID IN FACTORIES.—TOTAL AND AVERAGE PER ANNUM PER EMPLOYEE, 1921-22 TO 1925-26.

Year. (a)	Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
		£	£	£	£	£	£	£
1921-22	Total amount paid ..	26,783,242	23,846,495	7,217,773	5,313,927	3,386,550	1,502,874	68,050,861
	Average per employee ..	186.21	172.84	177.12	177.76	191.94	156.93	179.24
1922-23	Total amount paid ..	27,050,730	25,547,192	7,447,950	5,943,745	3,500,625	1,642,901	71,133,152
	Average per employee ..	184.44	175.79	178.16	178.83	189.32	167.23	179.92
1923-24	Total amount paid ..	29,772,994	27,472,084	7,764,929	6,727,398	3,640,959	1,899,901	77,278,265
	Average per employee ..	194.08	184.80	179.21	188.17	190.22	163.60	187.61
1924-25	Total amount paid ..	31,520,849	27,444,141	9,228,454	7,150,658	4,127,839	1,888,080	81,360,021
	Average per employee ..	198.21	186.81	193.98	193.54	194.03	179.34	192.78
1925-26	Total amount paid ..	33,566,546	27,657,753	9,544,115	7,787,912	6,288,036	1,880,321	86,724,683
	Average per employee ..	201.04	189.82	194.37	201.84	196.92	176.57	195.77

(a) See general note on first page of this Chapter.

(b) Average computed on estimated salaries and wages for twelve months ended 30th June, 1926.

In comparing the figures in the preceding table, regard should be paid to the nature of certain industries which are carried on to a greater extent in some States than in others. In Victoria, for instance, there is a large number of hands employed in Class VII., comprising a heavy percentage of women and children. The highest average wage per employee in 1925-26 was paid in South Australia, where the percentage of females employed is low.

In consequence of the rapid rise in the cost of living, the salaries and wages paid in factories have advanced considerably during recent years. During the past four years the average was increased by £16.53 or 9.22 per cent., while the additional outlay for wage increases amounted in the aggregate to over £7,000,000.

(iii) *Earnings of Males and Females, 1925-26.* The following table shows the approximate amount paid in salaries and wages to males and females in each class of industry in each State during the year 1925-26:—

SALARIES AND WAGES.—MALE AND FEMALE FACTORY EMPLOYEES, 1925-26.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust. (a)	Tas.	Australia.
MALES.							
	£	£	£	£	£	£	£
I. Treating raw material product of agricultural and pastoral pursuits, etc. . .	707,030	846,894	120,931	151,824	67,641	33,229	1,927,549
II. Treating oils and fats, animal, vegetable, etc. . .	279,177	172,366	41,688	53,395	49,415	8,368	604,409
III. Processes in stone, clay, glass, etc. . .	2,164,352	1,293,814	182,564	492,154	291,742	81,155	4,505,781
IV. Working in wood . .	2,034,866	1,976,163	1,089,910	432,749	1,968,101	309,909	7,811,698
V. Metal works, machinery, etc. . .	10,061,084	5,765,353	1,854,316	2,348,204	1,243,204	496,370	21,768,531

(a) Eighteen months ended 30th June, 1926.

SALARIES AND WAGES.—MALE AND FEMALE FACTORY EMPLOYEES.
1925-26—*continued.*

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust. (a)	Tas.	Australia.
MALES—<i>continued.</i>							
VI. Connected with food and drink, etc. . .	£ 3,354,407	£ 3,236,682	£ 3,397,446	£ 872,173	£ 706,722	£ 299,090	£ 11,866,520
VII. Clothing and textile fabrics, etc. . .	1,988,469	2,937,832	382,779	250,210	187,190	106,465	5,852,945
VIII. Books, paper, printing, and engraving . .	2,270,090	1,866,891	706,425	401,419	450,313	133,596	5,823,734
IX. Musical instruments, etc. . .	193,044	105,958	1,791	9,903	..	..	310,696
X. Arms and explosives . .	101,011	77,727	..	580	..	..	179,318
XI. Vehicles and fittings, saddlery and harness, etc. . .	1,576,273	1,272,877	326,985	995,280	286,747	84,699	4,542,861
XII. Ship and boat building and repairing . .	1,252,203	92,829	20,100	137,524	5,514	4,372	1,512,542
XIII. Furniture, bedding, and upholstery . .	1,048,968	805,836	317,251	239,283	208,802	42,017	2,662,157
XIV. Drugs, chemicals, and by-products . .	550,580	476,151	13,258	198,645	159,471	14,529	1,412,634
XV. Surgical and other scientific instruments . .	48,482	38,231	9,972	9,477	7,099	..	113,261
XVI. Jewellery, timepieces, and plated ware . .	155,909	180,772	20,933	29,620	17,953	2,982	408,169
XVII. Heat, light, & power . .	1,147,629	732,621	273,820	497,203	126,882	91,428	2,869,583
XVIII. Leatherware, n.e.l.	135,782	89,069	18,669	8,334	3,671	..	255,525
XIX. Other industries, n.e.l.	300,706	576,837	18,714	11,579	16,514	..	924,350
Total ..	29,370,062	22,544,903	8,797,552	7,139,556	5,796,981	1,708,209	75,357,263

FEMALES.

I. Treating raw material product of agricultural and pastoral pursuits, etc. . .	26,722	5,050	984	750	195	238	33,939
II. Treating oils and fats, animal, vegetable, etc. . .	37,634	17,308	2,214	5,264	1,048	1,003	64,471
III. Processes in stone, clay, glass, etc. . .	20,603	18,399	2,055	2,927	4,936	292	49,212
IV. Working in wood . .	24,946	18,325	14,927	6,099	2,135	3,047	69,479
V. Metal works, machinery, etc. . .	144,807	81,256	13,431	20,176	8,651	4,390	272,711
VI. Connected with food and drink, etc. . .	509,968	560,402	92,413	74,039	61,188	50,426	1,438,436
VII. Clothing and textile fabrics, etc. . .	2,495,061	3,683,641	469,963	398,446	317,537	89,958	7,454,606
VIII. Books, paper, printing, and engraving . .	384,963	348,922	88,670	64,853	58,439	14,302	960,149
IX. Musical instruments, etc. . .	21,448	3,095	104	159	..	..	24,806
X. Arms and explosives . .	950	18,846	..	..	..	..	19,796
XI. Vehicles and fittings, saddlery and harness, etc. . .	39,100	17,375	17,393	33,845	8,872	3,119	119,704
XII. Ship and boat building and repairing . .	8,136	310	..	..	..	..	8,446
XIII. Furniture, bedding, and upholstery . .	79,438	66,778	15,558	12,034	13,677	2,272	169,757
XIV. Drugs, chemicals, and by-products . .	102,440	85,670	7,215	11,368	6,921	1,105	214,719
XV. Surgical and other scientific instruments . .	4,781	1,371	915	837	604	..	8,508
XVI. Jewellery, timepieces, and plated ware . .	10,913	14,301	764	1,176	382	80	27,616
XVII. Heat, light, & power . .	9,959	49,705	6,269	11,291	564	1,712	79,500
XVIII. Leatherware, n.e.l.	56,029	38,930	5,826	4,531	1,563	163	107,047
XIX. Other industries, n.e.l.	128,586	83,166	7,862	561	4,343	..	224,518
Total ..	4,196,484	5,112,850	746,563	648,356	491,055	172,112	11,367,420

(a) Eighteen months ended 30th June, 1926.

(iv) *Total and Average Earnings of Males and Females, 1921-22 to 1925-26.*
Similar information for the last five years is given in the table hereunder:—

**SALARIES AND WAGES.—MALE AND FEMALE FACTORY EMPLOYEES,
1921-22 TO 1925-26.**

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
MALES.							
1921-22. Amount paid .. £	23,466,560	19,497,451	6,596,101	4,827,612	3,155,091	1,388,741	58,931,562
Per cent. on total ..	87.62	81.76	81.39	90.85	93.17	92.41	88.60
Average per employee .. £	218.05	213.07	196.28	203.02	209.65	173.57	210.79
1922-23. Amount paid .. £	23,456,421	20,799,140	6,781,882	5,392,340	3,217,347	1,499,750	61,146,886
Per cent. on total ..	86.71	81.41	81.06	90.72	91.91	91.29	85.66
Average per employee .. £	213.83	215.56	199.57	202.85	210.53	187.99	210.84
1923-24. Amount paid .. £	26,166,890	22,581,677	7,058,196	6,115,959	3,345,430	1,739,153	67,007,804
Per cent. on total ..	87.89	82.20	80.90	90.91	91.88	91.54	86.71
Average per employee .. £	225.71	224.08	200.39	212.48	210.39	183.75	218.93
1924-25. Amount paid .. £	27,670,943	22,515,561	8,508,263	6,504,470	3,817,930	1,726,639	70,743,800
Per cent. on total ..	87.78	82.04	82.20	90.96	92.49	91.45	86.95
Average per employee .. £	230.29	226.49	214.83	217.70	216.26	201.66	224.41
1925-26. Amount paid .. £	29,370,062	22,544,903	8,797,552	7,139,556	5,793,981	1,708,209	75,357,263
Per cent. on total ..	87.50	81.61	82.15	91.67	92.19	90.65	86.89
Average per employee .. £	233.97	230.26	213.66	225.25	226.92	199.93	227.55
FEMALES.							
1921-22. Amount paid .. £	3,316,676	4,349,044	621,672	486,315	231,459	114,133	9,119,299
Per cent. on total ..	12.38	18.24	8.61	9.15	6.83	7.59	13.40
Average per employee .. £	91.62	93.60	87.01	79.54	89.19	72.42	91.11
1922-23. Amount paid .. £	3,594,309	4,748,046	666,077	551,405	283,278	143,151	9,986,266
Per cent. on total ..	13.29	18.59	8.94	9.28	8.09	8.71	14.04
Average per employee .. £	97.23	97.21	85.13	82.87	88.30	75.55	94.80
1923-24. Amount paid .. £	3,606,104	4,890,407	706,733	611,443	295,529	160,748	10,270,961
Per cent. on total ..	12.11	17.80	9.10	9.09	8.12	8.46	13.29
Average per employee .. £	96.22	102.12	87.20	87.75	91.21	74.83	97.05
1924-25. Amount paid .. £	3,849,006	4,928,580	720,191	646,188	309,909	161,447	10,616,221
Per cent. on total ..	12.22	17.96	7.80	9.04	7.51	8.55	13.05
Average per employee .. £	100.20	103.74	90.30	91.42	91.07	82.08	99.41
1925-26. Amount paid .. £	4,196,484	5,112,850	746,563	648,356	491,055	172,112	11,367,420
Per cent. on total ..	12.50	18.49	7.82	8.33	7.81	9.15	13.11
Average per employee .. £	101.30	106.97	94.17	94.13	99.42	81.76	102.21

(a) See general note on first page of this Chapter.

(b) Averages computed on estimated salaries and wages for twelve months ended 30th June, 1926.

(v) *Managers, Overseers, and Other Employees.* A further analysis of salaries and wages paid is given in the following table, the amounts paid to managers, overseers, etc., being differentiated from those paid to other employees. As previously mentioned, amounts drawn by working proprietors are excluded in all cases.

**SALARIES AND WAGES.—MANAGERS, OVERSEERS, AND OTHER FACTORY
EMPLOYEES, AUSTRALIA, 1925-26.**

Class of Industry.	Salaries and Wages Paid to—						
	Managers, Overseers, Accountants, and Clerks.		All other Employees.		All Employees.		Total.
	Males.	Females.	Males.	Females.	Males.	Females.	
I. Treating raw material product of agricultural and pastoral pursuits, etc. . .	£ 234,868	£ 11,249	£ 1,692,681	£ 22,690	£ 1,927,549	£ 33,939	£ 1,961,488
II. Treating oils and fats, animal, vegetable, etc. . .	128,003	19,873	476,406	44,598	604,409	64,471	668,880
III. Processes in stone, clay, glass, etc. . .	496,253	27,426	4,009,528	21,786	4,505,781	49,212	4,554,993
IV. Working in wood . .	779,986	52,308	7,031,712	17,171	7,811,698	69,479	7,881,177
V. Metal works, machinery, etc. . .	2,254,373	138,520	19,514,158	134,191	21,768,531	272,711	22,041,242
VI. Connected with food and drink, etc. . .	2,196,073	225,965	9,670,447	1,212,471	11,866,520	1,438,436	13,304,956
VII. Clothing and textile fabrics, etc. . .	1,005,281	400,096	4,847,664	7,054,510	5,852,945	7,454,606	13,307,551
VIII. Books, paper, printing and engraving . .	1,012,850	191,801	4,815,884	768,348	5,828,734	960,149	6,788,883
IX. Musical instruments, etc. . .	38,620	5,768	272,076	19,038	310,696	24,806	335,502
X. Arms and explosives . .	28,660	2,238	150,658	17,558	179,318	19,796	199,114

SALARIES AND WAGES.—MANAGERS, OVERSEERS, AND OTHER
FACTORY EMPLOYEES, AUSTRALIA, 1925-26—*continued.*

Class of Industry.	Salaries and Wages Paid to—						
	Managers, Overseers, Accountants, and Clerks.		All Other Employees.		All Employees.		
	Males.	Females.	Males.	Females.	Males.	Females.	Total.
XI. Vehicles and fittings, saddlery and harness, etc.	£ 511,747	£ 79,531	£ 4,031,114	£ 40,173	£ 4,542,861	£ 119,704	£ 4,662,565
XII. Ship and boat building and repairing...	178,893	6,548	1,333,649	1,898	1,512,542	8,446	1,520,988
XIII. Furniture, bedding, and upholstery	240,956	39,476	2,421,201	150,281	2,662,157	189,757	2,851,914
XIV. Drugs, chemicals, and by-products	314,691	50,179	1,097,943	164,540	1,412,634	214,719	1,627,353
XV. Surgical and other scientific instruments	19,663	3,119	93,598	5,389	113,261	8,508	121,769
XVI. Jewellery, timepieces, and plated ware	33,208	9,802	374,961	17,814	408,169	27,616	435,785
XVII. Heat, light, and power	508,829	24,676	2,360,754	54,824	2,869,533	79,500	2,949,033
XVIII. Leatherware, n.e.l.	39,653	9,847	215,872	97,200	255,525	107,047	362,572
XIX. Other industries, n.e.l.	129,929	15,149	794,421	209,369	924,350	224,518	1,148,868
Total	10,152,536	1,313,571	65,204,727	10,053,849	75,357,263	11,367,420	86,724,683
Average paid per employee	347.98	138.33	215.86	98.35	227.55	102.21	195.77

3. Value of Fuel and Light Used.—(i) *Total Amount, 1925-26.* The expenditure in factories on fuel and light is of considerable importance; in 1925-26 it amounted to £13,083,226. The classes of industry in which fuel was most extensively used were Class V., Metal Works, Machinery, etc., £3,585,728; Class XVII., Heat, Light, Power, etc., £3,133,143, of which amount £2,684,312 was expended on generating electric light and power; Class VI., Connected with Food, Drink, etc., £2,404,557; and Class III., Stone, Clay, Glass, etc., £1,619,509. The following table shows the value of fuel and light used in the different classes of industry during 1925-26:—

VALUE OF FUEL AND LIGHT USED IN FACTORIES, 1925-26.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust. (a)	Tas.	Australia.
I. Treating raw material, product of agricultural pursuits, etc.	£ 143,221	£ 118,409	£ 18,436	£ 21,520	£ 7,958	£ 3,091	£ 312,635
II. Treating oils and fats, animal, vegetable, etc.	60,087	50,566	4,970	11,168	13,504	1,324	141,619
III. Processes in stone, clay, glass, etc.	727,607	430,510	73,662	224,007	108,070	55,653	1,619,509
IV. Working in wood	89,501	62,672	35,163	14,417	29,035	14,022	244,810
V. Metal works, machinery, etc.	2,291,021	354,029	122,772	442,477	64,536	310,893	3,585,728
VI. Connected with food and drink, etc.	739,282	653,212	646,927	182,327	132,914	49,895	2,404,557
VII. Clothing and textile fabrics, etc.	144,476	281,137	21,871	19,885	16,852	28,486	512,707
VIII. Books, paper, printing, and engraving	133,632	123,126	27,986	17,753	15,634	5,370	323,501
IX. Musical instruments, etc.	7,127	2,640	31	208	..	..	10,006
X. Arms and explosives	5,530	16,474	..	8	..	..	22,012
XI. Vehicles and fittings, saddlery and harness, etc.	55,651	47,223	10,068	94,391	11,827	3,329	222,489
XII. Ship and boat building and repairing	65,345	4,306	265	8,939	67	47	78,969
XIII. Furniture, bedding and upholstery	30,827	30,679	10,312	8,260	5,336	1,436	86,850
XIV. Drugs, chemicals, and by-products	71,072	66,669	1,778	30,318	18,329	696	188,862
XV. Surgical and other scientific instruments	1,498	1,590	474	603	211	..	4,376
XVI. Jewellery, timepieces, and platedware	5,965	7,902	574	1,839	636	211	17,127
XVII. Heat, light, and power	1,636,947	784,281	156,832	253,468	274,422	27,203	3,133,143
XVIII. Leatherware, n.e.l.	3,111	3,265	292	300	124	11	7,103
XIX. Other industries, n.e.l.	44,825	117,692	2,117	1,036	1,553	..	167,223
Total	6,256,725	3,156,382	1,134,530	1,332,914	701,008	501,667	13,083,226

(a) Eighteen months ended 30th June, 1926.

(ii) *Total Amount, 1921-22 to 1925-26.* The following table gives the sums expended on fuel and light during the past five years :—

VALUE OF FUEL AND LIGHT USED IN FACTORIES, 1921-22 TO 1925-26.

Year.(a)	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
1921-22 ..	3,983,730	2,329,760	668,224	798,495	324,619	151,553	8,256,381
1922-23 ..	4,021,068	2,443,681	690,656	948,455	361,990	193,765	8,659,615
1923-24 ..	5,129,848	2,803,239	708,888	1,008,557	380,499	265,409	10,296,440
1924-25 ..	5,883,494	2,964,635	782,384	1,154,902	392,753	535,082	11,713,250
1925-26 ..	6,256,725	3,156,382	1,134,530	1,332,914	701,008	501,667	13,083,226

(a) See general note on first page of this Chapter.

4. Value of Raw Materials Used.—(i) *Total Amount, 1925-26.* The value of raw materials worked up (i.e., exclusive of fuel, lubricants, etc.) in factories in Australia during 1925-26 was £231,834,908, which represents 57.91 per cent. of the total value of the final output. (See next sub-section.) The following table shows the value of the raw materials worked up in various classes of industry in each State :—

VALUE OF RAW MATERIALS USED IN FACTORIES, 1925-26.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust. (a)	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treating raw material, product of agricultural and pastoral pursuits, etc. ..	6,124,626	4,623,937	1,678,565	702,065	553,266	28,871	13,711,330
II. Treating oils and fats, animal, vegetable, etc. ..	1,874,141	980,676	140,803	267,411	182,421	42,059	3,487,511
III. Processes in stone, clay, glass, etc. ..	1,904,419	876,884	159,953	422,396	247,615	40,718	3,651,985
IV. Working in wood ..	5,075,946	2,485,820	2,148,398	1,348,612	773,655	213,600	12,046,031
V. Metal works, machinery, etc. ..	25,335,443	7,310,881	1,937,490	6,710,809	1,455,489	1,281,462	44,031,574
VI. Connected with food and drink, etc. ..	36,565,440	26,947,766	18,290,765	6,991,777	4,948,524	1,426,234	95,170,506
VII. Clothing and textile fabrics, etc. ..	8,209,977	13,930,948	1,710,761	1,101,455	1,010,617	377,643	26,341,401
VIII. Books, paper, printing, and engraving ..	3,231,166	2,573,021	521,596	501,099	388,316	91,213	7,306,411
IX. Musical instruments, etc. ..	425,045	181,051	2,032	12,388	..	..	571,116
X. Arms and explosives ..	20,441	221,149	..	1,336	..	..	242,926
XI. Vehicles and fittings, saddlery and harness, etc. ..	1,515,081	1,002,365	489,558	1,835,949	320,943	57,706	5,221,602
XII. Ship and boat building and repairing ..	610,013	42,391	10,913	132,471	4,603	2,178	802,569
XIII. Furniture, bedding, upholstery ..	1,975,829	1,303,221	426,985	347,716	294,093	38,316	4,476,160
XIV. Drugs, chemicals, and by-products ..	2,491,279	1,762,752	55,800	717,596	813,764	77,528	5,918,719
XV. Surgical and other scientific instruments ..	49,342	36,024	9,173	9,124	9,478	..	113,141
XVI. Jewellery, timepieces, and plated ware ..	152,808	240,876	12,604	27,462	18,082	691	452,523
XVII. Heat, light, and power ..	1,807,260	1,702,131	190,973	224,667	79,023	46,774	4,050,828
XVIII. Leatherware, n.e.i. ..	378,908	279,114	39,291	38,098	6,118	450	741,979
XIX. Other Industries, n.e.i.	1,120,887	2,247,134	59,101	37,803	31,671	..	3,496,596
Total ..	98,868,051	68,788,141	27,885,361	21,430,234	11,137,678	3,725,443	231,834,908

(a) Eighteen months ended 30th June, 1926.

The largest value of raw materials used was in Class VI., "Connected with Food and Drink, etc." the total being £95,170,506. The next in order of importance was Class V., "Metal Works, Machinery, etc.," in which raw materials valued at £44,031,574 were used. The minimum value appears in Class XV., "Surgical and other Scientific Instruments," the total being only £113,141.

(ii) *Total Amount, 1921-22 to 1925-26.* The following table presents particulars of the values of raw materials used in factories during the past five years:—

VALUE OF RAW MATERIALS USED IN FACTORIES, 1921-22 TO 1925-26.

Year.(a)	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	£	£	£	£	£	£	£
1921-22 ..	82,090,396	60,352,561	24,808,420	14,087,936	6,087,693	2,088,265	190,410,265
1922-23 ..	77,222,401	62,658,163	21,403,740	16,015,552	5,553,347	3,229,460	186,082,663
1923-24 ..	85,568,596	62,217,874	22,110,052	17,463,156	5,897,549	3,781,499	197,038,726
1924-25 ..	94,681,328	66,290,693	30,726,434	19,469,892	6,993,731	3,891,000	221,993,978
1925-26 ..	98,868,051	68,788,141	27,883,361	21,430,234	11,137,678	3,725,443	231,834,908

(a) See general note on first page of this Chapter.

5. *Total Value of Output.* (i) *Total, 1925-26.* The value of the output of new goods manufactured and of repairs effected in factories of various classes in each State during 1925-26 is shown in the following table. The figures given represent not only the increase in value due to the process of manufacture, but also include the value of the raw materials and the fuel and light used. The difference between the sum of the values of the materials and the fuel and light used and the total output (see sub-section 6 hereof) is the real value of production from manufactories.

TOTAL VALUE OF OUTPUT OF FACTORIES, 1925-26.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust. (a)	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treating raw material, product of agricultural and pastoral pursuits, etc. ..	7,626,183	6,238,423	1,830,932	974,695	760,015	92,846	17,523,094
II. Treating oils and fats, animal, vegetable, etc. ..	3,030,899	1,557,945	285,157	394,512	301,180	63,355	5,633,048
III. Processes in stone, clay, glass, etc. ..	6,578,300	3,577,456	670,733	1,461,447	777,995	256,878	13,322,809
IV. Working in wood ..	8,352,837	5,630,988	3,765,747	2,035,527	3,268,453	670,637	23,724,189
V. Metal works, machinery, etc. ..	44,364,601	16,152,999	4,398,342	10,429,623	3,233,427	2,650,385	81,229,377
VI. Connected with food and drink, etc. ..	48,623,526	36,464,761	26,347,989	9,244,583	6,622,410	2,009,812	129,313,081
VII. Clothing and textile fabrics, etc. ..	16,090,211	25,312,669	3,039,359	2,109,056	1,745,844	682,963	48,980,102
VIII. Books, paper, printing, and engraving ..	7,988,490	6,454,522	1,818,896	1,301,315	1,172,925	298,488	19,034,636
IX. Musical instruments, etc. ..	778,518	300,636	6,560	30,890	..	..	1,116,604
X. Arms and explosives ..	158,446	407,441	..	2,025	..	..	567,912
XI. Vehicles and fittings, saddlery and harness, etc. ..	3,908,206	2,913,729	1,079,399	3,489,455	764,876	195,938	12,351,603
XII. Ship and boat building and repairing ..	2,068,282	165,352	36,384	311,578	11,788	8,813	2,602,197
XIII. Furniture, bedding, and upholstery ..	3,762,488	2,856,477	938,034	738,582	603,091	110,708	9,009,380
XIV. Drugs, chemicals, and by-products ..	4,966,373	3,084,698	108,530	1,139,426	1,302,340	130,531	10,731,896
XV. Surgical and other scientific instruments ..	131,342	105,978	35,066	39,204	25,204	..	336,794
XVI. Jewellery, timepieces, and plated ware ..	429,334	575,368	44,185	79,180	44,743	6,234	1,179,044
XVII. Heat, light, and power ..	8,373,656	4,217,389	1,341,302	1,535,772	730,120	426,752	16,624,901
XVIII. Leatherware, n.e.i. ..	730,448	508,926	67,039	56,586	14,397	854	1,378,250
XIX. Other Industries, n.e.i. ..	2,001,000	3,460,682	87,014	63,691	70,991	..	5,683,384
Total ..	169,963,146	119,986,439	45,900,668	35,437,147	21,449,799	7,605,194	400,342,393

(a) Eighteen months ended 30th June, 1926.

New South Wales far exceeds the other States in respect of the total value of output, the value being £169,963,146, or 42.45 per cent. on the total for all States. Next in order of value is Victoria, which produced 29.97 per cent.; the value of the output of Queensland was 11.47 per cent.; of South Australia 8.85 per cent.; of Western Australia 5.36 per cent.; and of Tasmania 1.90 per cent. The two most important classes in order of value of output (Classes VI. and V.) are the same as in order of value of raw materials used.

(ii) *Totals and Averages, 1921-22 to 1925-26.* The following statement shows the value of output of factories, value per employee, and value per head of mean population in each State during the five years ended 1925-26 :—

TOTAL VALUE OF OUTPUT OF FACTORIES, 1921-22 TO 1925-26.

Year.(a)	N.S.W	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
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TOTAL.

	£	£	£	£	£	£	£
1921-22 ..	132,820,065	106,243,181	40,334,298	23,854,857	11,291,739	5,796,625	320,340,765
1922-23 ..	132,735,140	111,286,343	37,824,101	26,903,775	11,321,551	6,426,226	326,497,136
1923-24 ..	146,359,260	113,921,927	38,867,603	29,650,995	11,976,310	7,801,488	348,577,583
1924-25 ..	159,608,873	118,177,398	49,142,436	32,143,993	13,928,782	7,842,504	380,843,986
1925-26 ..	169,963,146	119,986,439	45,900,668	35,437,147	21,449,799	7,605,194	400,342,393

PER EMPLOYEE.

	£	£	£	£	£	£	£
1921-22 ..	892	733	955	765	623	572	810
1922-23 ..	872	729	871	775	593	622	792
1923-24 ..	917	730	865	795	608	638	811
1924-25 ..	963	767	1,005	838	640	713	866
1925-26 ..	976	784	909	885	646	680	872

PER HEAD OF MEAN POPULATION.

	£	£	£	£	£	£	£
1921-22 ..	62.42	68.51	52.87	47.48	33.83	27.18	58.27
1922-23 ..	61.09	69.98	48.43	52.42	33.33	29.92	58.11
1923-24 ..	66.24	70.09	48.42	56.51	34.39	35.61	60.76
1924-25 ..	70.80	71.32	58.86	59.69	38.25	36.00	64.84
1925-26 ..	73.94	71.25	53.30	64.24	38.42	35.04	65.62

(a) See general note on first page of this Chapter.

(b) Averages computed on the estimated output for the twelve months ended 30th June, 1926.

6. Value added in Process of Manufacture.—(i) *Total in Classes, 1925-26.* The difference between the figures given in sub-section 5 and the sum of the corresponding figures in sub-sections 3 and 4 represents the amount added to the value of the raw materials by the process of manufacture. This is the real measure of the value of production of manufacturing industries. The following table shows the value added in this manner during 1925-26 in each State for the various classes of factories :—

VALUE ADDED IN PROCESS OF MANUFACTURE, 1925-26.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust. (a)	Tas.	Australia.
I. Treating raw material, product of agricultural and pastoral pursuits, etc. . .	£ 1,358,336	£ 1,496,077	£ 133,931	£ 251,110	£ 198,791	£ 60,884	£ 3,499,129
II. Treating oils and fats, animal, vegetable, etc. . .	1,096,671	526,703	139,334	115,933	105,255	19,972	2,003,918
III. Processes in stone, clay, glass, etc. . .	3,946,274	2,270,062	437,118	815,044	422,310	160,507	8,051,315
IV. Working in wood . .	3,157,390	3,082,496	1,582,186	672,498	2,465,763	443,015	11,433,348
V. Metal works, machinery, etc. . .	16,738,137	8,488,089	2,338,080	3,276,337	1,713,402	1,058,030	33,612,075
VI. Connected with food and drink, etc. . .	11,318,804	8,863,783	7,410,297	2,070,479	1,540,972	533,633	31,738,018
VII. Clothing and textile fabrics, etc. . .	7,735,758	11,100,584	1,306,727	987,716	718,375	276,834	22,125,994
VIII. Books, paper, printing and engraving . .	4,623,602	3,758,375	1,269,314	782,463	768,975	201,905	11,404,724
IX. Musical instruments, etc. . .	346,346	166,945	3,897	18,294	..	..	535,482
X. Arms and explosives . .	132,475	169,818	..	681	..	..	302,974
XI. Vehicles and fittings, saddlery and harness etc. . .	2,337,474	1,864,141	579,773	1,559,115	432,106	134,903	6,907,512
XII. Ship and boat building and repairing . .	1,392,924	118,655	25,206	170,168	7,113	6,588	1,720,659
XIII. Furniture, bedding, and upholstery . .	1,755,832	1,432,577	500,737	382,606	303,662	70,956	4,446,370
XIV. Drugs, chemicals, and by-products . .	2,404,022	1,255,277	50,952	391,512	470,247	52,307	4,624,317
XV. Surgical & other scientific instruments . .	80,502	68,364	25,419	29,477	15,515	..	219,277
XVI. Jewellery, timepieces, and plated ware . .	270,561	326,590	31,007	49,879	26,025	5,332	709,394
XVII. Heat, light and power . .	4,929,449	1,730,977	993,497	1,057,647	376,675	352,775	9,441,020
XVIII. Leather ware, n.e.i. . .	348,429	226,547	27,456	18,188	8,155	393	629,168
XIX. Other Industries, n.e.i. . .	835,294	1,095,856	25,796	24,852	37,767	..	2,019,565
Total . .	64,838,370	48,041,916	16,880,777	12,673,999	9,611,113	3,378,084	155,424,259

(a) Eighteen months ended 30th June, 1926.

(ii) *Totals and Averages, 1921-22 to 1925-26.* The amount of the value added is in much the same order as in the case of value of output, the six most important classes being V., VI., VII., IV., VIII. and XVII., in the order named. The value added to raw materials by process of manufacture and the amount per employee and per head of mean population are shown in the following table for the years 1921-22 to 1925-26 :—

FACTORIES.—VALUE ADDED IN PROCESS OF MANUFACTURE,
1921-22 TO 1925-26.

Year.(a)	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
VALUE.							
1921-22 . .	£ 46,745,939	£ 43,560,860	£ 14,857,654	£ 8,968,432	£ 4,879,427	£ 2,661,807	£ 121,674,119
1922-23 . .	51,491,671	46,184,499	15,729,705	9,939,768	5,406,214	3,003,001	131,754,858
1923-24 . .	55,660,816	48,900,814	16,048,663	11,179,282	5,698,262	3,754,580	141,242,417
1924-25 . .	59,044,051	48,922,070	17,633,618	11,579,199	6,542,298	3,415,522	147,136,758
1925-26 . .	64,838,370	48,041,916	16,880,777	12,673,999	9,611,113	3,378,084	155,424,259

(a) See general note on first page of this chapter.

FACTORIES—VALUE ADDED IN PROCESS OF MANUFACTURE, 1921-22 TO 1925-26—*continued.*

Year.(a)	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
PER EMPLOYEE.							
1921-22	£ 314	£ 300	£ 352	£ 238	£ 269	£ 263	£ 308
1922-23	338	303	362	286	283	291	319
1923-24	349	313	357	300	289	307	328
1924-25	356	317	360	302	301	311	334
1925-26	372	314	334	316	<i>b</i> 289	302	338
PER HEAD OF MEAN POPULATION.							
1921-22	£ 21.97	£ 28.09	£ 19.47	£ 17.85	£ 14.62	£ 12.48	£ 22.13
1922-23	23.70	29.00	20.14	19.37	15.92	13.98	23.45
1923-24	25.19	30.09	19.99	21.30	16.36	17.14	24.62
1924-25	26.19	29.52	21.12	21.50	17.97	15.68	25.05
1925-26	28.21	28.53	21.99	22.98	<i>b</i> 17.22	15.56	25.40

(a) See general note on first page of this Chapter.
value for the twelve months ended 30th June, 1926.

(b) Averages computed on the estimated added

7. Value of Output and Cost of Production.—As the total value of the output for Australia for 1925-26 was estimated at £400,342,393, there remained, after payment of £231,834,908, the value of the raw materials used, of £86,724,683 for salaries and wages and of £13,083,226 for fuel, the sum of £68,699,576 to provide for all other expenditure and profits. The following table gives corresponding particulars for each State, expressed absolutely, and as percentages on the total value of the output for the year 1925-26 :—

FACTORIES.—VALUE OF OUTPUT AND COST OF PRODUCTION, 1925-26.

State.	Raw Materials Used. (a)	Fuel and Light. (c)	Salaries and Wages.	All other Expenditure, Interest, and Profits.	Total Value of Output.
VALUE AND COST, ETC.					
New South Wales	£ 98,868,051	£ 6,256,725	£ 33,566,546	£ 31,271,824	£ 169,963,146
Victoria	68,788,141	3,156,382	27,657,753	20,384,163	119,986,439
Queensland	27,885,361	1,134,530	9,544,115	7,336,662	45,900,668
South Australia	21,430,234	1,332,914	7,787,912	4,886,087	35,437,147
Western Australia	11,137,678	701,008	6,288,036	3,323,077	21,449,799
Tasmania	3,725,443	501,667	1,880,321	1,497,763	7,605,194
Australia	231,834,908	13,083,226	86,724,683	68,699,576	400,342,393
PERCENTAGE OF COSTS, ETC., ON TOTAL VALUE.					
New South Wales	% 58.17	% 3.68	% 19.75	% 18.40	% 100.00
Victoria	57.33	2.63	23.05	16.99	100.00
Queensland	60.75	2.47	20.79	15.99	100.00
South Australia	60.47	3.76	21.98	13.79	100.00
Western Australia	51.92	3.27	29.32	15.49	100.00
Tasmania	48.99	6.60	24.72	19.69	100.00
Australia	57.91	3.27	21.66	17.16	100.00

(a) Including the values of containers, packing, etc.; and also the cost of tools replaced and repairs to plant.

§ 8. Value of Land, Buildings, Plant, and Machinery.

1. *General.*—As an indication of the permanent character and stability of the industries which have been established in Australia, it may be noted that the values of land and buildings and of plant and machinery used in the factories are rapidly increasing. Thus, for the whole of Australia the total value of land and buildings and plant and machinery has increased from 1921–22 to 1925–26 by £63,405,644, i.e., from £145,408,138 to £208,813,782, or at the rate of £15,851,411 per annum.

The following statement shows the values of land and buildings and of plant and machinery used in connexion with manufacturing industries in each State during the year 1925–26 :—

VALUE OF LAND, BUILDINGS, PLANT AND MACHINERY, 1925–26.

Value of—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust. (a)	Tasmania.	Australia.
	£	£	£	£	£	£	£
Land and buildings	43,954,312	29,847,370	8,155,604	7,520,625	4,855,161	2,202,560	96,535,632
Plant and machinery	45,994,534	30,549,130	15,226,566	8,322,025	5,480,905	6,704,990	112,278,150
Total ..	89,948,846	60,396,500	23,382,170	15,842,650	10,336,066	8,907,550	208,813,782

(a) Eighteen months ended 30th June, 1926.

The total capital invested in land, buildings, plant and machinery in manufacturing industries in Australia during the year 1925–26 was approximately £208,813,782 (or £34 17s. 0d. per head of population); of that sum £96,535,632 was invested in land and buildings occupied as manufactories, the remaining £112,278,150 being the value of the plant and machinery used in connexion therewith.

2. *Value of Land and Buildings.*—(i) *Total Australia, 1921–22 to 1925–26.* The value of the land and buildings occupied in connexion with manufacturing industries may be conveniently classified according to the nature of the industry concerned.

The following table shows for Australia as a whole the approximate value of land and buildings occupied in connexion with manufacturing industries of various classes during each year from 1921–22 to 1925–26 inclusive :—

VALUE OF LAND AND BUILDINGS.—AUSTRALIA, 1921–22 TO 1925–26.

Class of Industry.	1921–22.(a)	1922–23.(a)	1923–24.(a)	1924–25.(a)	1925–26.(a)
	£	£	£	£	£
I. Treating raw material, product of agricultural and pastoral pursuits, etc.	1,910,816	1,983,100	2,085,336	2,249,180	2,273,275
II. Treating oils and fats, animal, vegetable, etc.	741,683	831,004	952,566	1,024,779	1,022,445
III. Processes in stone, clay, glass, etc.	3,067,776	3,242,782	3,592,378	4,247,108	4,368,411
IV. Working in wood	3,359,738	3,889,858	4,101,394	4,322,832	4,620,929
V. Metal works, machinery, etc.	10,607,622	11,396,988	12,999,237	14,389,232	15,382,362
VI. Connected with food and drink, etc.	15,306,571	17,064,884	18,277,106	19,568,157	20,802,518
VII. Clothing and textile fabrics, etc.	10,122,483	11,588,846	13,247,960	14,841,895	15,289,607
VIII. Books, paper, printing, and engraving	5,158,723	6,132,123	6,747,855	7,376,113	8,022,096
IX. Musical instruments, etc.	226,751	304,432	254,266	325,792	356,935
X. Arms and explosives	277,562	207,500	298,217	417,831	573,136
XI. Vehicles and fittings, saddlery and harness, etc.	3,576,519	4,145,937	5,166,587	6,175,406	7,130,967
XII. Ship and boat building and repairing	1,860,720	1,796,690	1,789,464	1,822,238	1,852,806
XIII. Furniture, bedding, and upholstery	1,839,005	2,109,655	2,498,679	2,693,412	2,947,986
XIV. Drugs, chemicals, and by-products	2,059,410	2,171,915	2,351,728	2,453,897	2,565,553
XV. Surgical and other scientific instruments	156,048	189,777	221,256	274,283	259,766
XVI. Jewellery, timepieces, and plated ware	578,963	580,094	620,686	629,775	679,828
XVII. Heat, light, and power	5,138,371	5,277,183	6,102,874	7,170,768	7,107,993
XVIII. Leatherware, n.e.i.	310,904	359,638	394,402	401,588	409,110
XIX. Other industries, n.e.i.	1,022,793	1,108,904	860,074	857,571	869,819
Total	67,322,458	74,381,308	82,562,061	91,241,907	96,535,632

(a) See general note on first page of this Chapter.

As shown in the above table, the total net increase during the four years was £29,213,174, or an annual average of £7,303,294. The largest increases were in Classes VI., VII., V., XI., VIII. and XVII., and amounted to £5,495,947; £5,167,124; £4,774,740; £3,554,448; £2,863,373 and £1,969,622 respectively.

(ii) *Value in each State, 1925-26.* The following table gives similar information for each State for the past year:—

VALUE OF LAND AND BUILDINGS.—STATES, 1925-26.

Class of Industry.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust. (a)	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treating raw material, product of agricultural and pastoral pursuits, etc.	1,066,381	879,650	88,407	148,750	75,379	14,708	2,273,275
II. Treating oils and fats, animal, vegetable, etc.	609,029	229,495	89,721	65,130	20,807	8,263	1,022,445
III. Processes in stone, clay, glass, etc.	2,257,191	1,192,440	153,879	359,096	225,787	179,418	4,368,411
IV. Working in wood	2,028,598	1,116,605	492,528	277,844	571,626	133,728	4,690,929
V. Metal works, machinery, etc.	8,086,110	3,915,485	781,944	1,281,903	849,659	467,261	15,382,362
VI. Connected with food and drink, etc.	7,793,719	5,567,770	3,746,999	1,898,212	1,177,995	617,823	20,802,518
VII. Clothing and textile fabrics, etc.	6,442,588	6,450,635	719,162	834,018	472,827	370,377	15,289,607
VIII. Books, paper, printing, and engraving	3,781,335	2,494,245	717,163	578,325	363,747	87,231	8,022,096
IX. Musical instruments, etc.	180,380	166,065	850	9,640	..	..	356,935
X. Arms and explosives	154,621	413,515	..	5,000	..	..	573,136
XI. Vehicles and fittings, saddlery and harness, etc.	3,049,465	2,027,965	504,893	963,454	424,641	160,559	7,130,967
XII. Ship and boat building and repairing	1,519,188	266,240	7,725	40,888	15,630	3,225	1,852,896
XIII. Furniture, bedding, and upholstery	1,238,278	1,030,280	265,630	214,344	155,139	44,315	2,947,986
XIV. Drugs, chemicals, and by-products	1,370,960	704,010	36,477	263,630	171,806	18,670	2,565,553
XV. Surgical and other scientific instruments	130,141	67,675	22,977	28,485	10,488	..	259,766
XVI. Jewellery, timepieces, and plated ware	273,685	275,285	25,609	53,945	35,790	15,454	679,828
XVII. Heat, light, and power	3,405,481	2,471,270	455,398	449,161	246,205	80,478	7,107,993
XVIII. Leatherware, n.e.i.	41,351,080	28,468,160	23,473	11,595	7,935	1,000	409,110
XIX. Other industries, n.e.i.	363,980	416,815	22,719	36,605	29,700	..	869,819
Total	43,954,312	29,847,370	8,155,604	7,520,625	4,855,161	2,202,560	96,535,632

(a) Eighteen months ended 30th June, 1926.

The maximum value for Australia of land and buildings in any particular class was in Class VI., amounting to £20,802,518, or 21.55 per cent. on the total value. The next in order of importance were Classes V., VII., VIII., XI., and XVII. in which the values were £15,382,362; £15,289,607; £8,022,096; £7,130,967 and £7,107,993 respectively. The sum of the values for the six classes mentioned amounted to £73,735,543, or 76.38 per cent. on the total value for all classes.

(iii) *Value in each State, 1921-22 to 1925-26.* The total value of factory land and buildings at the end of each year from 1921-22 to 1925-26 is given hereunder.

VALUE OF LAND AND BUILDINGS, 1921-22 TO 1925-26.

Year.(a)	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	£	£	£	£	£	£	£
1921-22	32,052,303	19,810,170	6,373,504	4,711,022	3,206,295	1,169,164	67,322,458
1922-23	34,559,510	22,428,525	6,615,350	5,324,484	4,001,366	1,452,073	74,381,308
1923-24	37,979,192	24,972,560	7,284,212	6,312,553	4,206,874	1,806,670	82,562,061
1924-25	41,351,080	28,468,160	7,873,660	6,882,119	4,562,184	2,104,704	91,241,907
1925-26	43,954,312	29,847,370	8,155,604	7,520,625	4,855,161	2,202,560	96,535,632

(a) See general note on first page of this Chapter.

Since 1921-22 there has been a marked increase throughout Australia, the States showing the greatest progress being New South Wales, Victoria, and South Australia, with average annual increases of £2,975,502, £2,509,300, and £702,401 respectively.

3. Value of Plant and Machinery.—(i) *Total, Australia, 1921-22 to 1925-26.* The following table shows for Australia as a whole the approximate value of plant and machinery used in factories during each year from 1921-22 to 1925-26 inclusive :—

VALUE OF PLANT AND MACHINERY.—AUSTRALIA, 1921-22 TO 1925-26.

Class of Industry.	1921-22.(a)	1922-23.(a)	1923-24.(a)	1924-25.(a)	1925-26.(a)
	£	£	£	£	£
I. Treating raw material, product of agricultural and pastoral pursuits, etc.	1,915,266	2,064,189	2,170,405	2,065,838	2,130,333
II. Treating oils and fats, animal, vegetable, etc.	881,060	1,035,461	1,147,029	1,166,482	1,322,592
III. Processes in stone, clay, glass, etc.	4,281,438	4,841,188	5,462,976	5,781,144	5,928,978
IV. Working in wood	4,543,992	4,734,078	5,291,155	5,405,755	5,562,722
V. Metal works, machinery, etc.	15,833,262	16,701,195	18,410,074	19,723,951	21,015,046
VI. Connected with food and drink, etc.	18,037,602	20,214,770	20,948,905	22,845,337	25,368,336
VII. Clothing and textile fabrics, etc.	4,840,385	5,775,392	6,722,006	7,164,675	7,251,468
VIII. Books, paper, printing, and engraving	4,890,224	5,800,029	6,706,697	7,282,913	7,736,172
IX. Musical instruments, etc.	66,274	86,660	94,453	111,238	140,000
X. Arms and explosives	271,845	216,667	252,658	309,017	323,458
XI. Vehicles and fittings, saddlery and harness, etc.	941,849	1,047,440	1,277,937	1,524,491	1,896,950
XII. Ship and boat building and repairing	2,161,809	2,035,576	2,045,117	1,888,127	1,949,848
XIII. Furniture, bedding, and upholstery	505,870	559,354	673,810	743,217	891,450
XIV. Drugs, chemicals, and by-products	1,646,119	1,785,912	2,094,340	2,289,112	2,460,230
XV. Surgical and other scientific instruments	36,542	39,577	45,919	55,094	58,143
XVI. Jewellery, timepieces, and plated ware	125,764	137,512	146,907	144,983	159,058
XVII. Heat, light, and power	16,032,361	17,887,928	25,030,504	29,538,177	26,752,765
XVIII. Leatherware, n.e.i.	76,251	91,306	106,574	99,684	93,340
XIX. Other industries, n.e.i.	997,767	1,027,676	925,073	1,103,665	1,232,261
Total	78,085,680	86,081,910	99,552,539	109,242,000	112,278,150

(a) See general note on first page of this Chapter.

During the past four years there has been a steady and substantial net increase amounting in all to £34,192,470, or an annual average of £8,548,117. All classes of industry participated, the largest increase being in Class XVII., "Heat, Light, and Power," where it amounted to £10,720,404, while the next in order were Class VI., "Connected with Food and Drink, etc.," £7,330,734, and Class V., "Metal Works, Machinery, etc.," £5,181,784.

(ii) *Value in each State, 1921-22 to 1925-26.* The figures in the previous table refer to Australia as a whole. In the following table results are shown for each State, and it will be seen that the increase is general throughout the States. New South Wales shows the largest advance, viz., £10,765,004; while Victoria comes next with £9,367,020.

VALUE OF PLANT AND MACHINERY.—STATES, 1921-22 TO 1925-26.

Year.(a)	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
	£	£	£	£	£	£	£
1921-22	35,229,530	21,182,110	10,253,104	4,896,264	3,596,877	2,927,795	78,085,680
1922-23	37,548,766	23,994,715	11,098,375	5,519,035	4,218,550	3,702,469	86,081,910
1923-24	41,141,890	28,223,915	12,321,440	6,929,821	4,496,082	6,439,391	99,552,539
1924-25	43,553,900	32,563,815	14,002,476	7,529,854	4,864,253	6,728,602	109,242,900
1925-26	45,994,534	30,549,130	15,226,566	8,322,025	5,480,905	6,704,990	112,278,150

(a) See general note on first page of this Chapter.

(iii) *Value according to Industry, 1925-26.* The following table shows the value of plant and machinery used in factories in each State during 1925-26, classified according to the nature of the industry in which used :—

VALUE OF PLANT AND MACHINERY.—INDUSTRIES, 1925-26.

Class of Industry.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust. (a)	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treating raw material, product of agricultural and pastoral pursuits, etc. . .	979,857	741,965	119,385	145,511	70,618	72,997	2,130,333
II. Treating oils and fats, animal, vegetable, etc. . .	671,246	230,920	102,129	141,554	112,089	4,654	1,322,592
III. Processes in stone, clay, glass, etc. . .	3,207,860	1,283,765	344,602	550,743	328,780	213,138	5,928,978
IV. Working in wood . .	1,652,038	1,294,855	812,710	187,206	1,365,853	250,060	5,562,722
V. Metal works, machinery, etc. . .	12,288,266	3,530,350	1,042,345	1,569,425	765,932	1,818,728	21,015,046
VI. Connected with food and drink, etc. . .	7,891,505	5,774,800	8,583,772	1,589,427	1,182,006	346,766	25,368,336
VII. Clothing and textile fabrics, etc. . .	2,288,036	3,996,050	266,773	221,895	173,073	305,639	7,251,466
VIII. Books, paper, printing, and engraving . .	3,610,755	2,753,155	532,002	406,453	317,785	116,022	7,736,172
IX. Musical instruments, etc. . .	87,830	50,550	120	1,500	..	..	140,000
X. Arms and explosives . .	41,288	283,780	..	390	..	..	328,458
XI. Vehicles and fittings, saddlery and harness, etc. . .	642,815	587,960	101,314	453,121	82,322	20,418	1,896,950
XII. Ship and boat building and repairing . .	1,716,896	101,090	39,188	89,584	1,410	1,680	1,949,848
XIII. Furniture, bedding and upholstery . .	381,160	269,935	85,096	88,194	44,447	22,618	891,450
XIV. Drugs, chemicals, and by-products . .	837,760	800,445	38,991	487,277	236,920	58,837	2,460,230
XV. Surgical and other scientific instruments . .	27,160	16,845	6,670	5,498	1,970	..	58,143
XVI. Jewellery, timepieces, and plated ware . .	60,669	75,700	4,918	11,950	3,703	2,118	159,058
XVII. Heat, light and power. . .	9,205,915	7,816,260	3,128,161	2,363,120	777,051	3,462,258	26,752,765
XVIII. Leatherware, n.e.i. . .	43,604	40,245	5,091	1,763	2,575	57	93,340
XIX. Other Industries, n.e.i. . .	356,815	840,460	13,209	7,406	14,371	..	1,232,361
Total . .	45,994,534	30,549,130	15,226,566	8,322,025	5,480,905	6,704,990	112,278,150

(a) Eighteen months ended 30th June, 1926.

The greatest value for any particular class of industry is for class XVII., "Heat, Light, and Power," and amounts to £26,752,765, or 23.84 per cent. on the total for all classes. The next in order of importance is Class VI., "Connected with Food and Drink, etc.," amounting to £25,368,336, or 22.59 per cent. on the total, followed by Class V., "Metal Works, Machinery, etc.," which amounts to £21,015,046, or 18.72 per cent. on the total value. The total for these three classes amounts to £73,136,147, or 65.14 per cent. on the total value for all classes.

§ 9. Individual Industries.

1. *General.*—The preceding remarks and tables furnish a general view of the recent development of particular classes of industries in Australia treated under the nineteen categories adopted by the Conference of Statisticians in 1906. In order to make the information complete, it is necessary to furnish details of the development of individual industries. While it is not possible, within the limits of this work, to give a full and detailed account of all the manufacturing industries of Australia, it is proposed to deal herein with such particular industries as are of special importance by reason of the number of persons employed, the number of factories, the amount of capital invested therein, the value of the production, or other features of special interest. In cases where there are only one or two establishments of a particular class in any State, returns relative to output are not published, in order to avoid disclosing information as to the operations of individual factories.

2. *Tanneries.*—(i) *Details for each State, 1925-26.* In Class I. the most important industry is tanning. Formerly the production of tanneries in Australia was confined to the coarser class of leathers, but there are now very few kinds which cannot be produced locally, and by reason of their superiority an export trade has been built up in some varieties.

TANNERIES, 1925-26.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W.A. (a)	Tas.	Aus- tralia.
Number of factories	76	46	16	11	5	2	156
Number of employees	1,265	2,435	310	181	110	46	4,347
Actual horse-power of engines employed	2,808	4,591	474	362	287	150	8,672
Approx. value of land and buildings £	309,757	487,465	33,558	31,238	30,881	9,190	902,089
Approx. value of plant and machinery £	210,965	422,650	37,032	25,351	25,788	7,760	729,546
Total amount of wages paid during year £	285,960	538,453	57,491	38,663	32,491	6,595	959,653
Value of fuel used	£ 23,440	48,496	5,064	4,734	1,588	719	84,041
Value of raw material worked up ..	£ 1,499,302	1,875,079	259,869	110,907	142,488	21,092	3,908,737
Total value of output	£ 1,980,168	2,786,278	381,887	176,267	205,954	34,092	5,564,646
Value added in process of manufacture £	457,426	862,703	116,954	60,626	61,878	12,281	1,571,868

(a) Eighteen months ended 30th June, 1926.

(ii) *Development in Australia, 1921-22 to 1925-26.* The development of the tanning industry during the period 1921-22 to 1925-26 is shown in the following table :—

TANNERIES.—AUSTRALIA, 1921-22 TO 1925-26.

Items.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
Number of factories	164	163	166	155	156
Number of employees	4,438	4,542	4,485	4,189	4,347
Actual horse-power of engines used	7,697	7,740	8,182	8,149	8,672
Approx. value of land and buildings £	721,699	769,328	818,212	879,185	902,089
Approx. value of plant and machinery £	581,008	627,560	684,329	694,603	729,546
Total amount of wages paid	£ 935,009	963,526	964,563	906,492	959,653
Value of fuel used	£ 72,581	75,064	80,117	80,858	84,041
Value of raw material worked up ..	£ 3,684,000	3,765,981	3,630,198	3,507,778	3,908,737
Value of final output	£ 5,451,596	5,568,358	5,475,956	5,171,005	5,564,646
Value added in process of manufacture £	1,695,015	1,727,313	1,765,641	1,582,369	1,571,868

Very little change has taken place in the tanning industry during the past four years. The number of factories has declined, but the number of employees and the value of the output have remained practically constant. The actual production of leather during each of the years 1921-22 to 1925-26 was as follows :—1921-22, 49,846,838 lb.; 1922-23, 55,913,930 lb.; 1923-24, 51,957,999 lb.; 1924-25, 48,911,506 lb.; and 1925-26, 55,078,267 lb.

(iii) *Raw Materials Used and Production, 1925-26.* The quantities of raw materials used and leather produced in tanneries in each State are shown in the following table :—

TANNERIES.—RAW MATERIALS USED AND PRODUCTION, 1925-26.

Particulars.		N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust. (a)	Tas.	Australia.
Hides and calf skins	No.	1,007,559	1,322,138	194,809	52,278	78,897	19,272	2,674,953
Sheep pelts	"	1,966,142	1,363,793	84,912	61,723	2,855	..	3,479,425
Other skins	"	389,751	532,859	205,450	4,140	..	682	1,132,882
Bark	tons	11,746	11,772	1,891	810	1,234	291	27,744
Leather made	lb.	22,797,546	23,671,168	4,078,104	1,198,059	2,951,512	381,878	55,078,267
Basils produced	"	1,661,195	1,528,633	84,912	61,645	..	1,860	3,338,245

(a) Eighteen months ended 30th June, 1926.

3. **Fellmongering and Wool-scouring Works.**—(i) *Details for each State, 1925-26.* The next industry in importance in Class I. is that of fellmongering and wool-scouring, one of the earliest industries established in Australia. The following table gives particulars of the industry in each State during the past year :—

FELLMONGERING AND WOOL-SCOURING WORKS, 1925-26.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W.A. (a)	Tas.	Aus- tralia.
Number of factories	38	30	14	5	6	..	93
Number of employees	1,092	503	421	119	60	..	2,195
Actual horse-power of engines used ..	3,260	1,384	574	298	218	..	5,734
Approx. value of land and buildings £	266,442	165,875	42,918	27,327	34,978	..	537,540
Approx. value of plant and machinery £	402,367	156,795	65,824	52,065	27,738	..	704,789
Total amount of wages paid	£ 215,625	107,861	42,561	19,748	12,483	..	398,278
Value of fuel used	£ 40,852	27,046	9,455	3,529	3,826	..	85,308
Value of raw material worked up ..	£ 3,198,431	1,445,553	1,329,830	180,431	170,178	..	6,324,429
Value of final output	£ 3,621,841	1,704,799	1,333,126	212,768	257,474	..	7,130,008
Value added in process of manufacture £	382,558	231,600	—6,165	28,808	83,470	..	720,271

(a) Eighteen months ended 30th June, 1926.

(ii) *Development in Australia, 1921-22 to 1925-26.* The following return furnishes particulars of fellmongering and wool-scouring establishments in Australia for the last five years :—

**FELLMONGERING AND WOOL-SCOURING WORKS.—AUSTRALIA,
1921-22 TO 1925-26.**

Items.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26
Number of factories	97	99	102	94	93
Number of employees	2,571	2,576	2,181	1,997	2,195
Actual horse-power of engines used ..	6,657	6,530	6,250	5,455	5,734
Approx. value of land and buildings £	541,501	542,373	594,547	570,258	537,540
Approx. value of plant and machinery £	720,972	733,919	766,689	668,960	704,789
Total amount of wages paid	£ 533,705	546,015	422,788	356,938	398,278
Value of fuel used	£ 99,741	108,019	84,445	75,706	85,308
Value of raw material worked up ..	£ 5,660,278	6,848,785	8,158,925	7,813,400	6,324,429
Value of final output	£ 6,669,452	8,602,162	8,977,412	8,343,973	7,130,008
Value added in process of manufacture £	939,433	1,645,358	734,042	454,867	720,271

The wool-scouring industry developed considerably under the régime of the Central Wool Committee, and during 1919-20 the record output of 107,726,653 lb. of scoured wool was produced. The production declined considerably since that date, however, and during 1925-26 only 92,783,467 lb. of greasy wool and 3,482,681 skins were treated for an output of 54,634,754 lb. of scoured wool.

4. **Soap and Candle Factories.**—(i) *Details for each State, 1925-26.* In Class II, soap and candle factories are the most important establishments. The manufacture of these two products is frequently carried on in the same factory, so that separate returns cannot be obtained; it may, however, be noted that the manufacture of soap is the more important. The following table gives particulars of soap and candle factories in each State during the year 1925-26 :—

SOAP AND CANDLE FACTORIES, 1925-26.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W.A. (c)	Tas.	Australia.
Number of factories	28	17	10	5	5	1	66
Number of employees	1,080	700	192	243	224	42	2,487
Actual horse-power of engines employed	1,251	761	201	374	(a)	(a)	(b) 2,962
Approx. value of land and buildings £	347,053	167,770	44,942	49,178	(a)	(a)	(b) 638,013
Approx. value of plant and machinery £	390,862	214,125	51,409	120,573	(a)	(a)	(b) 893,712
Total amount of wages paid during year £	204,621	144,257	34,210	49,867	(a)	(a)	(b) 492,789
Value of fuel used	39,821	37,423	2,834	9,991	(a)	(a)	(b) 104,897
Value of raw material worked up	863,310	725,703	123,865	207,799	(a)	(a)	(b) 2,145,157
Total value of output	1,495,065	1,185,722	230,603	316,907	(a)	(a)	(b) 3,592,832
Value added in process of manufacture £	591,934	422,596	103,904	99,117	(a)	(a)	(b) 1,342,778

(a) Particulars not available for publication.

(b) Including Western Australia and Tasmania.

(c) Eighteen months ended 30th June, 1926.

(ii) *Development in Australia, 1921-22 to 1925-26.* The following table gives similar particulars for the last five years as regards Australia as a whole :—

SOAP AND CANDLE FACTORIES.—AUSTRALIA, 1921-22 TO 1925-26.

Items.	1921-22.a	1922-23.a	1923-24.a	1924-25.a	1925-26.a
Number of factories	69	69	70	67	66
Number of employees	2,329	2,419	2,556	2,425	2,487
Actual horse-power and engines used	2,015	2,320	2,622	2,744	2,962
Approx. value of land and buildings £	479,872	563,216	650,163	637,819	638,013
Approx. value of plant and machinery £	610,418	759,192	834,673	775,027	893,712
Total amount of wages paid	394,567	415,681	438,748	454,149	492,789
Value of fuel used	94,204	75,728	77,976	83,138	104,897
Value of raw material worked up	1,755,252	1,790,540	1,729,946	2,037,505	2,145,157
Value of final output	3,007,286	3,042,506	2,915,030	3,365,010	3,592,832
Value added in process of manufacture £	1,157,830	1,176,238	1,107,108	1,244,367	1,342,778

(a) Including other small establishments in Western Australia.

(iii) *Raw Materials Used and Production, 1921-22 to 1925-26.* The following statement shows the quantities of certain raw materials used, together with the production, in soap and candle factories in Australia during the years 1921-22 to 1925-26 :—

SOAP AND CANDLE FACTORIES.—RAW MATERIALS USED, AND PRODUCTION, AUSTRALIA, 1921-22 TO 1925-26.

Particulars.	1921-22.a	1922-23.a	1923-24.a	1924-25.a	1925-26.a
Tallow used cwt.	460,164	482,422	434,622	483,756	470,101
Alkali used „	134,994	144,092	140,923	168,587	162,887
Coconut oil used gal.	591,117	662,161	739,377	796,400	763,910
Soap made cwt.	824,002	878,238	883,944	997,902	955,893
Candles made „	91,116	101,586	86,684	80,771	80,043

(a) Exclusive of Western Australia.

5. Saw-mills, etc.—(i) *Details for States, 1925-26.* The most important industry in Class IV. is that of saw-milling. As separate particulars of forest saw-mills are not available for some of the States, both forest and other saw-mills, as well as joinery, moulding, and box factories, have been combined in the following table:—

SAW-MILLS, FOREST AND OTHER ; JOINERY, ETC., 1925-26.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust. (a)	Tas.	Australia.
Number of factories ..	864	650	316	138	156	216	2,340
Number of employees ..	9,410	8,791	5,361	2,066	5,762	1,919	33,309
Actual horse-power of engines employed ..	25,343	18,097	11,578	3,903	10,604	3,399	72,924
Approximate value of land and buildings .. £	1,744,282	982,765	457,791	267,124	566,951	100,801	4,119,714
Approximate value of plant and machinery .. £	1,435,898	1,194,575	748,300	184,729	1,363,981	218,490	5,195,973
Total amount of wages paid during year .. £	1,879,609	1,788,176	1,042,891	421,516	1,969,761	290,954	7,401,907
Value of fuel used .. £	79,172	56,329	31,013	14,070	28,907	11,967	221,458
Value of raw material worked up .. £	4,765,652	2,286,593	2,019,989	1,311,496	772,191	199,831	11,355,751
Total value of output .. £	7,690,556	5,126,110	3,542,244	1,964,674	3,264,370	635,063	22,223,017
Value added in process of manufacture .. £	2,845,732	2,783,188	1,491,243	639,108	2,463,272	423,265	10,645,808

(a) Eighteen months ended 30th June, 1926.

(ii) *Development in Australia, 1921-22 to 1925-26.* The development of forest and other saw-mills, etc., since 1921-22 is shown in the following table:—

SAW-MILLS, FOREST AND OTHER ; JOINERY, ETC.—AUSTRALIA,
1921-22 TO 1925-26.

Items.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
Number of establishments ..	1,943	2,067	2,315	2,312	2,340
Number of employees ..	30,522	31,173	34,092	34,041	33,309
Actual horse-power of engines used ..	56,046	57,615	64,580	69,099	72,924
Approx. value of land and buildings .. £	3,036,444	3,525,233	3,693,174	3,870,005	4,119,714
Approx. value of plant and machinery .. £	4,271,225	4,446,516	4,955,110	5,081,439	5,195,973
Total amount of wages paid .. £	5,701,531	5,832,137	6,576,474	6,754,128	7,401,907
Value of fuel used .. £	115,049	123,106	140,152	173,840	221,458
Value of raw material worked up .. £	8,348,619	9,104,572	10,344,024	10,758,499	11,355,751
Value of final output .. £	16,832,110	17,912,365	20,755,852	21,228,966	22,223,017
Value added in process of manufacture .. £	8,368,442	8,679,687	10,271,676	10,296,627	10,645,808

Progress has taken place in the building and other trades using timber since 1921-22, although during the past two years the number of employees in the saw-milling industry has declined, and the saw-mill output of native timber dropped from 670,023,000 super. feet in 1923-24 to 649,245,000 super. feet in 1925-26.

6. *Agricultural Implement Works.*—(i) *General.* The manufacture of agricultural implements is an important industry in Australia, and is of particular interest, owing to the fact that it was one of the first to which it was sought to apply the so-called "New Protection." The articles manufactured include header and stripper-harvesters, strippers, reapers and binders, reaper threshers, stump-jump and other ploughs, harrows, disc and other cultivators, winnowers, corn-shellers and baggers, drills, and other implements employed in agriculture. The stripper-harvester, which combines the stripper with a mechanism for winnowing and bagging grain, is an Australian invention, and has been exported to many countries.

(ii) *Details for States, 1925-26.* The following table gives particulars of the agricultural implement works in each State for the year 1925-26 :—

AGRICULTURAL IMPLEMENT WORKS, 1925-26.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
					(a)		
Number of factories	30	63	5	44	6	..	148
Number of employees	694	3,246	239	1,292	220	..	5,691
Actual horse-power of engines employed	355	3,367	100	1,221	301	..	5,344
Approx. value of land and buildings £	189,187	233,840	37,741	159,741	74,705	..	695,214
Approx. value of plant and machinery £	57,398	324,505	27,010	180,402	32,850	..	622,165
Total amount of wages paid during year £	147,245	742,522	51,213	247,346	82,229	..	1,270,555
Value of fuel used	6,041	44,721	3,108	14,328	2,939	..	71,137
Value of raw material worked up £	175,055	744,150	142,381	267,563	55,940	..	1,385,089
Total value of output	423,780	1,790,088	225,357	620,148	169,129	..	3,228,502
Value added in process of manufacture £	242,684	1,001,217	79,868	338,257	110,250	..	1,772,276

(a) Eighteen months ended 30th June, 1926.

(iii) *Development in Australia, 1921-22 to 1925-26.* The Agricultural Implement industry declined considerably during the war years, but steady development has taken place since 1921-22, and increases have occurred in all the items enumerated in the following table. Details for the past five years are as follows :—

AGRICULTURAL IMPLEMENT WORKS.—AUSTRALIA, 1921-22 TO 1925-26.

Items.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
Number of factories	140	154	160	153	148
Number of employees	4,696	4,674	5,584	5,535	5,691
Actual horse-power of engines used	3,312	3,619	3,807	4,349	5,344
Approx. value of land and buildings £	435,233	499,987	590,066	625,767	695,214
Approx. value of plant and machinery £	478,896	508,921	595,151	559,413	622,165
Total amount of wages paid	987,610	941,778	1,126,002	1,181,572	1,270,555
Value of fuel used	60,410	54,546	63,096	70,680	71,137
Value of raw material worked up	1,387,571	1,190,905	1,442,679	1,569,456	1,385,089
Value of final output	2,863,875	2,685,342	3,132,305	3,283,008	3,228,502
Value added in process of manufacture £	1,415,894	1,439,891	1,626,530	1,642,872	1,772,276

7. *Engineering Works, Ironworks, and Foundries.*—(i) *Details for States, 1925-26.* The classification in these industries is not very satisfactory. Generally, engineering shops, ironworks, and foundries are included, as also are factories for making safes, patterns, meters, springs, and other metal works. Railway workshops, agricultural implement factories, metal extraction and ore reduction works, galvanized iron works, stove and oven-making works, and wire-working establishments are not included. The combination of industries is rendered necessary owing to the limited classification still adopted by some of the States.

ENGINEERING WORKS, IRONWORKS, AND FOUNDRIES, 1925-26.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
					(a)		
Number of factories	526	564	60	91	77	21	1,339
Number of employees	15,644	11,677	2,820	2,995	1,243	395	34,774
Actual horse-power of engines employed	38,916	13,940	3,257	2,669	2,028	417	61,227
Approximate value of land and buildings £	2,353,175	1,756,480	245,171	264,437	208,840	37,887	5,365,990
Approximate value of plant and machinery £	4,139,777	1,718,935	339,879	315,894	294,345	48,056	6,856,936
Total amount of wages paid during year	3,497,925	2,527,215	594,591	587,882	381,328	81,888	7,670,829
Value of fuel used	460,510	199,735	38,558	49,003	22,663	6,978	777,447
Value of raw materials worked up	9,966,606	2,936,335	684,653	641,617	603,554	48,880	14,881,645
Total value of output	15,455,055	6,990,292	1,588,907	1,459,889	1,200,015	161,742	26,855,900
Value added in process of manufacture	5,027,939	3,854,222	865,696	769,269	573,798	105,884	11,196,808

(a) Eighteen months ended 30th June, 1926.

In addition to engineering works which supply ordinary requirements, there is now a large number of establishments which engage in the manufacture of special classes of machinery and implements. The manufacture of mining, smelting, and textile machinery and apparatus forms an important section of this industry.

(ii) *Development in Australia, 1921-22 to 1925-26.* The development of engineering works, ironworks, and foundries in Australia since 1921-22 is shown in the following table:—

**ENGINEERING WORKS, IRONWORKS, AND FOUNDRIES.—AUSTRALIA,
1921-22 TO 1925-26.**

Items.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
Number of factories	1,281	1,368	1,343	1,347	1,339
Number of employees	30,628	31,872	33,052	33,071	34,774
Actual horse-power of engines used ..	51,780	51,328	52,051	53,101	61,227
Approx. value of land and buildings £	4,197,014	4,560,030	4,570,486	5,011,264	5,365,990
Approx. value of plant and machinery £	5,933,667	6,201,317	6,348,433	6,664,275	6,856,936
Total amount of wages paid .. £	6,265,599	6,078,966	6,949,295	7,095,333	7,670,829
Value of fuel used .. £	623,273	560,783	685,916	709,573	777,447
Value of raw material worked up £	11,727,407	8,794,023	13,386,286	14,671,875	14,881,645
Value of final output .. £	21,468,595	18,260,945	24,151,439	25,644,739	26,855,900
Value added in process of manufacture £	9,117,915	8,906,139	10,079,237	10,263,291	11,196,808

The expansion of local industry during recent years has necessitated an increased provision of machinery, and the difficulty of obtaining overseas supplies during the war and for some years after created an opportunity of which the Australian engineering trade has availed itself largely. The industry has grown to large proportions, but its progress in recent years has been restricted by severe competition from overseas, while the depression in 1921-22 and 1922-23 was caused by the closing down of the Broken Hill Proprietary Company's Steel Works for the greater part of that period. These industries are all large consumers of Australian materials, and for this reason their progress is doubly important.

8. *Railway and Tramway Workshops.*—(i) *Details for each State, 1925-26.* The railway and tramway workshops which form an important item in Class V. are chiefly State-owned institutions. The following table giving details concerning them includes, however, private and municipal establishments for manufacturing and repairing rolling-stock:—

RAILWAY AND TRAMWAY WORKSHOPS, 1925-26.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust. (a)	Tos.	Australia.
Number of factories ..	44	18	11	22	20	6	121
Number of employees ..	13,180	6,170	3,549	3,276	2,057	317	28,558
Actual horse-power of engines employed ..	10,647	5,179	3,464	2,261	4,277	340	26,168
Approximate value of land and buildings .. £	2,311,792	882,200	300,616	523,450	472,173	1,165	4,491,396
Approximate value of plant and machinery .. £	3,161,448	826,250	278,875	331,066	387,750	91,387	5,076,776
Total amount of wages paid during year .. £	3,249,865	1,483,407	864,511	849,145	669,014	76,927	7,192,869
Value of fuel used .. £	99,169	57,195	26,837	29,709	33,014	4,708	250,632
Value of raw material worked up .. £	2,529,188	1,885,306	550,486	375,970	642,226	25,055	6,008,231
Total value of output .. £	6,683,701	3,768,500	1,309,183	1,498,594	1,511,913	114,103	14,885,994
Value added in process of manufacture .. £	4,055,344	1,825,999	731,860	1,092,915	836,673	84,340	8,627,131

(a) Eighteen months ended 30th June, 1926.

In addition to the above, a railway workshop is in operation in the Northern Territory. The work is confined almost exclusively to repairs to rolling-stock, etc., no new goods being manufactured. For the sake of convenience this establishment is not included in any of the tables in this chapter.

(ii) *Development in Australia, 1921-22 to 1925-26.* The following table shows the development of railway and tramway workshops in Australia since 1921-22 :—

RAILWAY AND TRAMWAY WORKSHOPS.—AUSTRALIA, 1921-22 TO 1925-26.

Items.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
Number of factories	101	112	122	123	121
Number of employees	23,802	23,672	25,130	26,345	28,558
Actual horse-power of engines used ..	15,880	16,603	17,830	20,965	26,168
Approx. value of land and buildings £	3,287,393	3,429,066	3,887,082	4,174,175	4,491,396
Approx. value of plant and machinery £	3,111,789	3,299,252	3,867,175	4,204,254	5,076,776
Total amount of wages paid .. £	5,609,957	5,591,520	5,799,183	6,140,676	7,192,869
Value of fuel used .. £	143,357	155,795	159,651	175,760	250,632
Value of raw material worked up £	4,518,058	4,459,599	4,596,829	4,919,728	6,008,231
Value of final output .. £	10,610,662	10,603,049	11,652,306	12,384,177	14,885,994
Value added in process of manufacture £	5,949,247	5,987,655	6,895,826	7,288,689	8,627,131

The growth of the railway and tramway systems, conjointly with heavy increases in passenger and goods traffic throughout Australia, has resulted in corresponding activity in workshops engaged in the manufacture or repair of rolling-stock, etc. During the war the operations of these establishments were restricted to necessary work, but since 1921-22 the rate of expansion has been rapid. The number of employees has risen from 23,802 to 28,558 and the value of the output has increased by more than 45 per cent. during the past four years.

9. *Metal Extraction and Ore Reduction Works.*—The following table gives particulars of metal extraction and ore reduction works. The classification of these works is not uniform in the several States, and the combination of industries is, therefore, somewhat unsatisfactory. The returns do not include particulars of plants used on mines.

METAL EXTRACTION AND ORE REDUCTION WORKS, 1925-26.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W.A. (a)	Tas.	Australia.
Number of factories	19	8	9	2	..	3	41
Number of employees	3,210	61	612	1,470	..	1,215	6,577
Actual horse-power of engines employed	26,378	65	4,503	b	..	b	c 74,839
Approx. value of land and buildings £	586,910	11,095	19,838	b	..	b	c 1,179,684
Approx. value of plant and machinery £	2,905,552	9,300	224,895	b	..	b	c 5,421,668
Total amount of wages paid during year £	959,601	13,213	104,790	b	..	b	c 1,845,593
Value of fuel used .. £	1,520,315	2,349	47,938	b	..	b	c 2,207,395
Value of raw material worked up £	6,963,530	125,569	121,408	b	..	b	c 13,436,863
Total value of output .. £	12,017,767	157,168	395,004	b	..	b	c 20,962,329
Value added in process of manufacture £	3,533,922	29,250	225,658	b	..	b	c 5,318,071

(a) In Western Australia all the plants are worked on the mines, and are therefore not included.
 (b) Information not available for publication. (c) Including South Australia and Tasmania.

10. Bacon-curing Factories.—(i) *Details for each State, 1925-26.* The following table gives particulars of factories engaged in bacon-curing in each State during the past year:—

BACON-CURING FACTORIES, 1925-26.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust. (a)	Tas.	Aus- tralia.
Number of factories	24	21	7	9	6	5	72
Number of employees	344	546	555	166	61	32	1,704
Actual horse-power of engines employed	566	1,546	1,070	337	266	103	3,888
Approximate value of land and buildings £	163,134	178,030	161,654	37,092	37,116	9,680	586,706
Approximate value of plant and machinery £	72,262	97,810	114,291	26,384	14,019	5,153	329,919
Total amount of salaries and wages paid £	93,561	135,409	127,865	41,947	22,208	6,958	427,948
Value of fuel used £	16,346	21,498	19,590	5,378	4,687	1,176	68,675
Value of raw material worked up £	1,022,944	1,222,394	904,892	295,200	243,228	80,088	3,760,645
Total value of output £	1,248,381	1,520,272	1,284,012	396,393	299,472	95,630	4,844,160
Value added in process of manufacture £	209,091	276,380	359,530	95,815	51,557	13,466	1,005,839

(a) Eighteen months ended 30th June, 1926.

(ii) *Quantity and Value of Production.* The following table shows the number of pigs killed and the quantity and value of the production of bacon-curing factories in each State for the year 1925-26:—

BACON-CURING FACTORIES.—PIGS KILLED, AND PRODUCTION, 1925-26.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust. (b)	Tasmania.	Aus- tralia.
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PIGS KILLED.

Number.. ..	250,084	222,487	243,151	58,187	(a)36,056	18,098	828,063
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PRODUCTS.

Bacon and ham lb.	21,548,888	19,739,326	18,013,086	5,018,825	4,199,573	1,641,946	70,161,644
Lard "	592,736	937,795	895,925	199,767	276,655	82,517	3,035,395

VALUE.

Bacon and ham £	1,109,484	1,269,907	856,372	(a)303,357	233,981	88,060	3,861,161
Lard £	19,450	35,000	33,317	7,874	11,728	3,137	110,506
Other products £	106,446	215,365	394,323	85,162	20,696	4,433	826,425

(a) In Western Australia, a portion of the bacon and ham treated in factories is imported and subsequently smoked in that State. (b) Eighteen months ended 30th June, 1926.

Bacon and ham and other pig products are dealt with more fully in Chapter XVIII. *Farmyard, Dairy, and Bee Products.*

11. Butter, Cheese, and Condensed Milk Factories.—(i) *Details for each State, 1925-26.* The subjoined table gives particulars of butter, cheese and condensed milk factories in each State during the year 1925-26 :—

BUTTER, CHEESE, AND CONDENSED MILK FACTORIES, 1925-26.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.A. (a)	Tas.	Aus- tralia.
Number of factories	173	183	127	60	7	35	585
Number of employees	1,422	2,213	1,349	325	43	138	5,490
Actual horse-power of engines employed	6,057	6,007	4,299	1,050	255	319	17,987
Approximate value of land and buildings £	577,898	854,180	295,612	180,251	14,581	42,365	1,964,887
Approximate value of plant and machinery £	768,231	1,035,295	516,422	146,885	17,577	37,957	2,522,367
Total amount of wages paid £	355,144	523,105	270,110	63,190	12,629	20,292	1,244,470
Value of fuel used £	98,114	144,470	51,758	13,526	2,048	4,270	314,186
Value of raw material worked up £	7,379,771	6,416,116	4,272,919	833,621	117,583	228,162	19,248,172
Total value of output £	8,346,901	7,631,400	5,565,803	995,157	148,420	283,735	22,971,416
Value added in process of manufacture £	869,016	1,070,814	1,241,126	148,010	28,789	51,303	3,409,058

(a) Eighteen months ended 30th June, 1926.

(ii) *Development in Australia, 1921-22 to 1925-26.* The following table shows the progress of the factories in this industry during the past five years :—

**BUTTER, CHEESE, AND CONDENSED MILK FACTORIES.—AUSTRALIA,
1921-22 TO 1925-26.**

Items.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
Number of factories	591	573	583	600	585
Number of employees	5,368	5,141	5,233	5,826	5,490
Actual horse-power of engines used	11,947	13,149	14,836	15,934	17,989
Approx. value of land and buildings £	1,335,760	1,490,729	1,770,157	1,863,439	1,964,887
Approx. value of plant and machinery £	1,711,169	2,184,761	2,155,632	2,385,027	2,522,367
Total amount of wages paid £	1,109,860	1,091,218	1,112,425	1,287,689	1,244,470
Value of fuel used £	263,585	244,144	249,988	311,685	314,186
Value of raw material worked up £	18,062,449	17,464,258	16,542,862	19,080,739	19,248,172
Value of final output £	22,003,615	20,746,782	19,526,119	22,726,214	22,971,416
Value added in process of manufacture £	3,677,581	3,038,380	2,733,269	3,333,790	3,409,058

(iii) *Quantity and Value of Production.* The following table shows the quantity and value of butter, cheese, and condensed milk produced, and the quantity of milk used in butter, cheese, and condensed milk factories in each State during the past year :—

BUTTER, CHEESE, AND CONDENSED MILK FACTORIES.—PRODUCTION, 1925-26.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust. (a)	Tasmania.	Aus- tralia.
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MILK USED (,000 OMITTED).

Butter factories .. gals.	209,354	180,685	122,194	20,154	3,589	8,096	544,072
Cheese	6,409	4,930	11,058	3,652	..	653	26,702
Condensed milk factories ..	2,788	9,700	2,314	..	..	..	14,802

(a) Eighteen months ended 30th June, 1926.

BUTTER, CHEESE, AND CONDENSED MILK FACTORIES.—PRODUCTION,
1925-26—*continued.*

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust. (a)	Tasmania.	Aus- tralia.
PRODUCTS (,000 OMITTED).							
Butter lb.	101,698	77,013	60,492	10,147	1,873	3,528	254,751
Cheese "	6,321	4,889	12,566	3,636	..	650	28,068
Condensed and concentrated milk lb.	4,084	35,403	8,832	..	..	..	48,319
Powdered milk "	1,661	8,243	..	..	..	..	9,904
VALUE (,000 OMITTED).							
Butter £	7,655	5,823	4,726	822	150	258	19,434
Cheese £	293	211	589	152	..	26	1,271
Condensed and concentrated milk £	139	1,023	246	..	..	..	1,406
Powdered Milk £	105	368	..	..	..	..	473

(a) Eighteen months ended 30th June, 1926.

The butter, cheese, and condensed milk industries are dealt with more fully in the Chapter entitled *Farmyard, Dairy, and Bee Products.*

12. Meat and Fish Preserving Works.—These industries are now of considerable importance in Australia. Large freezing works have been installed at many ports throughout the continent for the purpose of freezing produce chiefly for export, while insulated space for the carriage of frozen produce is provided by a number of steamship companies trading between Australia and other parts of the world.

MEAT AND FISH PRESERVING WORKS, 1925-26.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust. (a)	Tas.	Australia.
Number of factories	3	15	13	1	5	3	40
Number of employees	191	1,066	3,663	8	277	21	5,226
Actual horse-power of engines employed	(b)	5,468	9,489	(b)	876	(b)	c 15,934
Approximate value of land and buildings £	(b)	791,975	1,481,306	(b)	304,173	(b)	c 2,622,019
Approximate value of plant and machinery £	(b)	580,500	904,622	(b)	403,601	(b)	c 1,917,293
Total amount of wages paid dur- ing year £	(b)	239,790	808,756	(b)	81,215	(b)	c 1,174,975
Value of fuel used £	(b)	43,557	120,751	(b)	9,862	(b)	c 180,242
Value of raw material worked up ..	(b)	2,215,038	2,927,812	(b)	168,018	(b)	c 5,479,658
Total value of output £	(b)	2,744,854	4,086,963	(b)	301,093	(b)	c 7,402,271
Value added in process of manu- facture £	(b)	486,259	1,038,400	(b)	123,213	(b)	c 1,742,341

(a) Eighteen months ended 30th June, 1926.

(b) Not available for publication.

(c) Including New South Wales, South Australia and Tasmania.

Full particulars regarding quantities and values of beef, mutton, and lamb preserved by cold process, exported from Australia during a series of years, will be found in Chapter XVI.

13. Biscuit Factories.—The following table gives particulars regarding establishments at which the manufacture of biscuits, cakes, etc., was carried on in each State during the year 1925-26:—

BISCUIT, ETC., FACTORIES, 1925-26.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust. (a)	Tas. (b)	Australia.
Number of factories ..	80	9	24	14	18	..	145
Number of employees ..	2,763	1,296	713	428	383	..	5,583
Actual horse-power of engines employed ..	1,184	534	304	332	151	..	2,505
Approximate value of land and buildings .. £	507,241	129,145	116,473	90,057	46,715	..	889,631
Approximate value of plant and machinery .. £	208,358	159,450	74,004	73,548	26,603	..	541,963
Total amount of wages paid during year .. £	443,820	203,710	137,145	65,229	74,544	..	924,457
Value of fuel used .. £	50,469	23,433	7,774	7,324	9,530	..	98,530
Value of raw material worked up .. £	1,429,132	716,870	272,281	215,504	258,514	..	2,892,301
Total value of output .. £	2,428,374	1,189,677	644,226	355,595	403,535	..	5,021,407
Value added in process of manufacture .. £	948,773	449,374	364,171	132,767	135,491	..	2,030,576

(a) Eighteen months ended 30th June, 1926.

(b) Included with confectionery.

14. Jam and Fruit Preserving, Pickles, Sauces, and Vinegar Factories.—(i) *Details for each State, 1925-26.* The subjoined table gives particulars of factories at which these industries were carried on in each State during the year 1925-26. Separate returns for the different branches of the industry are not available for most of the States.

JAM AND FRUIT PRESERVING, PICKLES, ETC., FACTORIES, 1925-26.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust. (a)	Tas.	Australia.
Number of factories ..	43	57	16	17	12	20	165
Number of employees ..	1,838	2,628	351	556	83	733	6,189
Actual horse-power of engines employed ..	859	1,651	248	279	102	1,381	4,520
Approximate value of land and buildings .. £	355,238	385,205	53,048	104,763	15,912	124,653	1,038,819
Approximate value of plant and machinery .. £	147,623	291,045	45,644	77,879	9,078	44,183	615,452
Total amount of wages paid during year .. £	212,778	433,344	46,455	89,764	11,293	104,225	902,859
Value of fuel used .. £	16,098	31,199	3,706	6,731	1,122	11,093	70,549
Value of raw material worked up .. £	863,439	1,309,260	178,655	272,759	126,227	385,183	3,135,573
Total value of output .. £	1,433,489	2,177,677	255,628	439,279	145,341	551,073	5,002,487
Value added in process of manufacture .. £	553,302	837,218	73,267	159,789	17,992	154,797	1,796,365

(a) Eighteen months ended 30th June, 1926.

(ii) *Development in Australia, 1921-22 to 1925-26.* The following table refers to jam and fruit preserving, etc., establishments in Australia for the last five years:—

JAM AND FRUIT PRESERVING, PICKLES, ETC., FACTORIES.—AUSTRALIA, 1921-22 TO 1925-26.

Items.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
Number of factories ..	164	170	175	164	165
Number of employees ..	5,958	5,933	6,600	6,278	6,189
Actual horse-power of engines employed ..	3,257	3,698	3,941	3,989	4,320
Approx. value of land and buildings .. £	830,434	895,513	981,354	937,288	1,038,819
Approx. value of plant and machinery .. £	556,801	606,716	599,857	616,675	615,452
Total amount of wages paid .. £	885,017	781,429	885,104	881,317	902,559
Value of fuel used .. £	48,987	56,718	63,406	69,152	70,549
Value of raw material worked up .. £	2,541,268	2,704,356	2,939,187	3,127,593	3,135,573
Total value of output .. £	3,975,779	4,549,216	4,722,383	4,995,671	5,002,487
Value added in process of manufacture .. £	1,385,524	1,788,142	1,719,790	1,798,926	1,796,365

The progress of the jam industry was very marked during the war years, when considerable quantities were exported overseas. During the past five years, however, the exports have declined to insignificant proportions, and the production of jams and jellies has remained stationary at about 67,000,000 lb. The output of preserved fruit, however, is growing steadily, and during 1925-26, 61,382,822 lb. were processed, while the production of pickles and sauces is also on the increase.

(iii) *Production.* The following table shows the quantity and value of jams, pickles, and sauces manufactured in each State during 1925-26 :—

JAMS, PRESERVED FRUIT, PICKLES AND SAUCES.—OUTPUT, 1925-26.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust. (b)	Tasmania.	Aus- tralia.
QUANTITY (,000 OMITTED).							
Jams lb.	19,067	26,470	5,039	6,355	(a)	10,453	67,389
Pulp "	2,593	13,913	417	4,813	(a)	8,186	34,927
Fruit, preserved "	11,326	39,241	3,853	3,280	(a)	3,683	61,383
Pickles pints	2,664	2,687	436	620	128	20	6,555
Sauces "	6,138	9,305	972	3,625	317	33	20,390
VALUE.							
Jams £	555,294	700,915	114,734	148,831	(a)	304,932	1,824,706
Pulp £	16,337	110,000	1,891	23,475	(a)	124,608	276,311
Fruit, preserved £	264,734	817,432	72,093	68,990	(a)	76,792	1,300,106
Pickles £	95,906	16,475	16,254	23,128	3,751	1,000	161,514
Sauces £	344,734	526,000	23,711	141,051	6,685	1,225	1,037,406

(a) Particulars not available.

(b) Eighteen months ended 30th June, 1926.

15. Confectionery Factories.—(i) *Details for each State, 1925-26.* The growth of this industry will be apparent when it is stated that at the close of 1900 there were in New South Wales only 16 establishments, with 706 employees, and in Victoria 16 establishments, employing 731 persons, the plant and machinery in the former State being valued at £2,815, and in the latter at £19,070. Returns for 1925-26 are given hereunder :—

CONFECTIONERY FACTORIES, 1925-26.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust. (a)	Tas. (b)	Australia
Number of factories	87	115	9	22	13	11	267
Number of employees	3,023	3,650	544	441	346	845	8,849
Actual horse-power of engines employed	3,229	7,075	496	582	320	1,345	13,047
Approximate value of land and buildings £	939,614	611,285	61,260	82,226	58,565	261,613	2,014,563
Approximate value of plant and machinery £	912,203	949,395	43,369	87,719	66,485	140,689	2,199,860
Total amount of wages paid during year £	430,827	620,370	72,286	54,904	67,619	145,108	1,391,114
Value of fuel used £	49,256	80,548	5,296	8,011	6,099	17,636	166,846
Value of raw material worked up £	1,353,737	1,848,469	91,712	174,092	191,373	224,662	3,884,045
Total value of output £	2,574,010	3,060,453	362,269	317,000	298,657	331,177	6,993,566
Value added in process of manufacture £	1,171,017	1,131,436	265,261	134,897	101,185	138,379	2,942,675

(a) Eighteen months ended 30th June, 1926.

(b) Including Biscuits.

(ii) *Development in Australia, 1921-22 to 1925-26.* The growth of the confectionery industry during the past four years is exhibited in the following table :—

CONFECTIONERY FACTORIES.—AUSTRALIA, 1921-22 TO 1925-26.

Items.	1921-22.	1922-23.	1923-24.	1924-25. (a)	1925-26. (a)
Number of factories	223	258	258	276	267
Number of employees	7,399	7,945	8,724	8,818	8,849
Actual horse-power of engines employed	6,313	6,434	11,668	12,725	13,047
Approx. value of land and buildings £	1,185,539	1,593,346	1,773,340	2,021,439	2,014,563
Approx. value of plant and machinery £	1,419,984	1,746,738	1,951,422	2,104,208	2,199,860
Total amount of wages paid during year £	1,046,797	1,159,980	1,262,099	1,349,717	1,391,114
Value of fuel used £	105,479	114,947	126,547	155,050	166,846
Value of raw material worked up £	3,220,680	3,336,349	3,318,423	3,619,005	3,884,045
Total value of output £	5,597,920	5,941,691	6,162,631	6,623,826	6,993,566
Value added in process of manufacture £	2,271,761	2,490,395	2,717,656	2,849,773	2,942,675

(a) Including Biscuits in Tasmania.

The confectionery industry has expanded considerably during recent years, largely as a result of the stimulus afforded by the embargo placed on the importation of luxuries during the period of the war. The establishments engaged therein found employment for 8,849 persons in 1925-26, and the value of the output amounted to £6,993,566, or nearly 25 per cent. greater than the value of the production in 1921-22. The Australian market has been captured, and an export trade is being developed. Several large British manufacturers of confectionery have established branch works in Australia.

16. *Flour Mills.*—(i) *Details for States, 1925-26.* The following table shows the position of the flour-milling industry in each State in 1925-26 :—

FLOUR MILLS, 1925-26.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust. (a)	W. Aust. (b)	Tas. (a)	Australia.
Number of factories ..	58	45	10	36	16	9	174
Number of employees ..	1,210	1,039	340	539	449	107	3,684
Actual horse-power of engines employed ..	7,053	5,752	1,228	3,017	2,962	521	20,533
Approximate value of land and buildings ..	£ 710,106	£ 341,710	£ 127,279	£ 182,037	£ 201,151	£ 42,200	£ 1,604,483
Approximate value of plant and machinery ..	£ 902,868	£ 532,800	£ 154,364	£ 255,930	£ 213,902	£ 29,720	£ 2,089,584
Total amount of wages paid during year ..	£ 307,046	£ 246,121	£ 68,649	£ 112,408	£ 149,647	£ 20,960	£ 904,831
Value of fuel used ..	£ 75,774	£ 54,424	£ 11,184	£ 32,274	£ 29,873	£ 3,505	£ 207,039
Value of raw material worked up ..	£ 6,471,450	£ 5,103,134	£ 1,078,056	£ 2,038,202	£ 2,935,109	£ 415,844	£ 18,131,795
Total value of output ..	£ 7,438,168	£ 5,995,735	£ 1,254,457	£ 2,287,915	£ 3,275,605	£ 457,392	£ 20,709,272
Value added in process of manufacture ..	£ 890,944	£ 748,177	£ 165,217	£ 217,439	£ 310,618	£ 38,043	£ 2,370,438

(a) The manufacture of cornflour, oatmeal, etc., was also carried on in some of these establishments.

(b) Eighteen months ended 30th June, 1926.

(ii) *Production of Flour and By-products, 1921-22 to 1925-26.* The production of flour by the mills in each State for the years 1921-22 to 1925-26 was as follows :—

FLOUR MILLS.—PRODUCTION OF FLOUR, 1921-22 TO 1925-26.

Year (b).	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	Tons. ^a	Tons. ^a	Tons. ^a	Tons. ^a	Tons. ^a	Tons. ^a	Tons. ^a
1921-22 ..	336,572	308,532	54,694	108,893	82,148	20,613	911,452
1922-23 ..	354,704	352,002	51,476	109,761	94,316	23,220	985,479
1923-24 ..	409,645	382,204	54,244	113,436	107,990	25,337	1,092,856
1924-25 ..	395,409	359,597	52,592	117,042	122,192	21,866	1,068,698
1925-26 ..	434,407	336,704	61,587	138,127	190,369	24,774	1,185,968

(a) Tons of 2,000 lb.

(b) See general note on first page of this Chapter.

The total production of flour in Australia for the last year, viz., 1,185,968 tons, was valued at £16,522,444. In addition, 483,758 tons of bran and pollard, valued at £3,694,126, were made. The total quantity of wheat ground was 56,256,310 bushels.

17. *Sugar Mills.*—(i) *Details for 1925-26.* The following table shows the position of the cane-crushing branch of the sugar-making industry in Queensland and New South Wales in 1925-26. Sugar-cane is not grown in the other States. Details regarding the area, yield, etc., of sugar-cane will be found in Chapter XVII., *Agricultural Production.*

SUGAR MILLS, 1925-26.

Items.	N.S.W.	Queensland.	Australia.
Number of factories	3	37	40
Number of employees	487	6,835	7,322
Actual horse-power of engines employed	2,047	28,248	30,295
Approximate value of land and buildings	£ 127,325	757,622	884,947
Approximate value of plant and machinery	£ 509,301	5,687,580	6,196,881
Total amount of wages paid during year	£ 121,558	1,555,160	1,676,718
Value of fuel used	£ 20,394	316,643	337,037
Value of raw material worked up	£ 435,188	6,901,501	7,336,689
Total value of output	£ 654,385	9,816,080	10,470,465
Value added in course of manufacture	£ 198,803	2,597,936	2,796,739

The products of the sugar mill are raw sugar and molasses, the former being sent to the refineries in different parts of Australia for further treatment. Part of the molasses produced is used for distillation, part is prepared for human consumption, part is turned into food-cake for cattle, and part is used for manuring land, but a considerable quantity is allowed to run to waste.

(ii) *Progress of Industry.* (a) *New South Wales.* The following table shows the progress of this industry in New South Wales since 1921-22 :—

SUGAR MILLS.—NEW SOUTH WALES, 1921-22 TO 1925-26.

Items..	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
Number of factories ..	3	3	3	3	3
Number of employees ..	428	446	445	445	487
Cane crushed .. tons	149,474	147,992	132,084	228,978	297,335
Sugar produced .. tons	17,806	18,580	16,829	26,682	32,385
Molasses produced gals.	940,700	816,720	752,650	1,313,400	1,820,000

The number of New South Wales mills has been reduced to three during recent years owing chiefly to the tendency towards concentration of cane-crushing in mills fitted with modern machinery, and the consequent closing of the small home mill. On the north coast of New South Wales some land formerly devoted to sugar-cane has been turned into pasture in connexion with the dairying industry, but a revival in cane-growing in this district has led to a movement for the erection of additional mills to treat the increased production.

(b) *Queensland.* Details for Queensland from 1911 onwards are given hereunder.

SUGAR MILLS.—QUEENSLAND, 1911 TO 1925-26.

Items.	1911.	1922.	1923.	1924-25.	1925-26.
Number of factories ..	49	38	37	37	40
Number of employees ..	4,295	5,589	5,555	6,250	7,322
Cane crushed .. tons	1,534,451	2,167,990	2,045,808	3,175,377	3,653,860
Sugar produced .. tons	173,296	287,785	269,175	400,645	479,023
Molasses—					
Sold to distillers and others .. gals.	2,393,669	1,774,224	2,657,252	5,367,352	3,749,788
Used as fodder .. gals.	789,564	1,916,393	2,448,595	2,236,788	2,176,649
Used as manure .. gals.	223,000	322,113	209,600	196,080	1,287,400
Run to waste or burnt (a) .. gals.	1,847,333	5,503,099	4,883,071	5,921,246	9,360,367
In Stock .. gals.	1,197,626	803,050	866,460	1,398,837	1,590,212
Total Molasses a .. gals.	6,451,192	10,318,879	11,064,978	15,120,303	18,164,416

(a) Quantity recorded ; large quantities run to waste of which no record is kept.

18. **Sugar Refineries.**—The establishment of the sugar-refining industry considerably antedates the establishment of the sugar-milling industry, the raw material operated upon being originally brought chiefly from Mauritius and the East. In 1925-26 there were two sugar refineries in each of the States of Victoria and Queensland, and one in each of the States of New South Wales and South Australia. The returns for the individual States cannot be disclosed.

In the six refineries, an average number of 1,626 hands was employed during the year. The approximate value of land and buildings was £754,605, of plant and machinery, £1,482,112; and the total amount of wages paid during the year was £374,542. The value of all materials used in sugar refineries was £9,235,113, while the total output reached £10,830,696. The amount of crude sugar used was 302,256 tons, and of refined sugar produced 295,196 tons, valued at £10,037,345.

19. **Breweries.**—(i) *Details for each State, 1925-26.* The following table gives particulars concerning breweries in each State :—

BREWERIES, 1925-26.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust. (a), (b)	Tas.	Australia.
Number of breweries	12	11	10	7	10	2	52
Number of employees	1,247	1,113	598	376	387	91	3,812
Actual horse-power of engines employed	3,460	5,118	1,903	1,068	1,435	262	13,246
Approximate value of land and buildings	800,159	591,690	275,990	162,274	256,273	55,500	2,141,886
Approximate value of plant and machinery	1,092,675	755,105	275,284	171,737	248,774	52,380	2,595,955
Total amount of wages paid during year	£ 365,955	£ 341,161	£ 144,111	£ 121,093	£ 196,806	£ 25,298	£ 1,194,424
Value of fuel used	£ 105,883	£ 81,108	£ 35,011	£ 24,194	£ 30,536	£ 6,568	£ 283,300
Value of raw material worked up	£ 1,213,942	£ 1,279,108	£ 219,057	£ 329,812	£ 474,429	£ 60,864	£ 3,577,212
Total value of output	£ 2,807,038	£ 2,594,835	£ 711,922	£ 631,057	£ 943,103	£ 154,225	£ 7,842,180
Value added in process of manufacture	£ 1,487,213	£ 1,234,619	£ 457,854	£ 277,051	£ 438,138	£ 86,793	£ 3,981,668

(a) Includes malting.

(b) Eighteen months ended 30th June, 1926.

(ii) *Development in Australia, 1921-22 to 1925-26.* The following table shows the progress of this industry during the past four years :—

BREWERIES.—AUSTRALIA, 1921-22 TO 1925-26.

Items.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
Number of breweries	64	61	57	56	52
Number of employees	3,814	3,774	3,854	3,965	3,812
Actual horse-power of engines used	12,132	11,492	12,761	13,403	13,246
Approx. value of land and buildings	£ 1,676,471	£ 1,710,321	£ 1,778,442	£ 1,996,644	£ 2,141,886
Approx. value of plant and machinery	£ 1,993,699	£ 2,140,654	£ 2,247,811	£ 2,506,284	£ 2,595,955
Total amount of wages paid	£ 1,032,430	£ 1,027,689	£ 1,063,250	£ 1,093,323	£ 1,194,424
Value of fuel used	£ 214,803	£ 194,324	£ 197,596	£ 241,918	£ 283,300
Value of raw material worked up	£ 3,087,460	£ 2,913,409	£ 2,787,891	£ 3,010,592	£ 3,577,212
Value of final output	£ 6,798,223	£ 6,872,682	£ 6,887,462	£ 7,117,029	£ 7,842,180
Value added in process of manufacture	£ 3,495,960	£ 3,764,949	£ 3,901,975	£ 3,855,519	£ 3,981,668

The main feature in the history of the brewing industry, which was established at an early date in Australia, has been the change from the small local brewery in every township of moderate size to the large centralized city brewery. This, however, has not been so much in evidence during the period embraced in the above table, the reduction of the number of establishments during recent years being mainly due to several large amalgamations. The total value of output of breweries in Australia increased from £6,798,223 in 1921-22 to £7,842,180 in 1925-26, and the quantity of

ale and stout brewed rose from 67,331,541 to 72,505,829 gallons during the same period. The consumption of ale and stout per head of the population remains fairly constant in Australia, and for the year 1925-26 averaged 11½ gallons.

(iii) *Materials Used and Production.* The table below shows the quantity of raw materials used and the quantity and value of ale and stout brewed in each State during the year 1925-26.

BREWERIES.—MATERIALS USED AND PRODUCTION, 1925-26.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust. ^b	Tasmania.	Australia.
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RAW MATERIALS USED.

Malt .. bushels	852,996	777,041	227,617	189,918	242,618	43,952	2,334,142
Hops .. lb.	827,894	811,063	224,633	201,026	266,852	65,872	2,397,250
Sugar .. cwt.	104,025	118,310	27,336	27,534	37,802	4,607	319,614

RAW MATERIALS USED PER 1,000 GALLONS OF ALE AND STOUT PRODUCED.

Malt .. bushels	33.32	30.77	32.31	32.17	31.95	39.51	32.19
Hops .. lb.	32.34	32.12	31.88	34.05	35.14	59.22	33.06
Sugar .. cwt.	4.06	4.68	3.88	4.66	4.98	4.14	4.41

ALE AND STOUT BREWED.

Quantity .. gallons	25,597,281	25,253,950	7,045,713	5,903,639	7,592,900	1,112,346	72,505,829
Value (a) .. £	2,772,477	2,594,835	711,922	626,759	908,997	154,088	7,769,078

(a) Exclusive of excise duty.

(b) Eighteen months ended 30th June, 1926.

20. *Distilleries.*—The subjoined table gives particulars of distilleries in four States. There are no distilleries in Western Australia or Tasmania.

DISTILLERIES, 1925-26.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	Australia.
Number of distilleries	2	10	4	27	43
Number of employees	32	156	60	173	421
Actual horse-power of engines employed	(a)	406	(a)	469	b 1,343
Approx. value of land and buildings	£ (a)	133,030	(a)	160,733	b 354,483
Approx. value of plant and machinery	£ (a)	146,715	(a)	143,021	b 469,619
Total amount of wages paid during year	£ (a)	34,792	(a)	30,207	b 89,743
Value of fuel used	£ (a)	8,201	(a)	15,969	b 37,405
Value of raw materials worked up	£ (a)	107,585	(a)	283,601	b 515,834
Total value of output	£ (a)	212,816	(a)	393,949	b 855,163
Value added in process of manufacture	£ (a)	97,030	(a)	94,379	b 301,924

(a) Not available for publication.

(b) Including New South Wales and Queensland.

The total quantity of spirit distilled during the year was 6,010,861 proof gallons, while the materials used comprised 807,094 cwt. of molasses, 97,480 bushels of malt, and 8,494,905 gallons of wine.

21. *Tobacco, etc., Factories.*—(i) *Details for each State, 1925-26.* During the year 1925-26 there were twenty-six establishments in which the manufacture of tobacco cigars, and cigarettes was carried on. There were no factories engaged in this industry in Queensland or Tasmania.

TOBACCO, CIGAR, AND CIGARETTE FACTORIES, 1925-26.

Items.	N.S.W.	Victoria.	S. Aust.	W. Aust. (c)	Australia.
Number of factories	9	14	1	2	26
Number of employees	2,457	1,762	25	81	4,325
Actual horse-power and engines employed ..	947	733	..	33	1,713
Approx. value of land and buildings ..	£ 370,133	256,565	(a)	(a)	b 640,239
Approx. value of plant and machinery ..	£ 321,614	177,430	(a)	(a)	b 508,100
Total amount of wages paid during year ..	£ 439,097	343,257	(a)	(a)	b 800,615
Value of fuel used	£ 20,627	6,681	(a)	(a)	b 28,053
Value of raw material worked up ..	£ 3,324,858	1,238,654	(a)	(a)	b 4,589,301
Total value of output	£ 4,769,829	2,045,188	(a)	(a)	b 6,892,332
Value added in process of manufacture ..	£ 1,424,344	799,553	(a)	(a)	b 2,274,978

(a) Not available for publication.

(b) Including South Australia and Western Australia.

(c) Eighteen months ended 30th June, 1926.

(ii) *Development in Australia.* This industry was among the first to be established in Australia. In 1861 New South Wales had eleven factories, producing 177,744 lb. of manufactured tobacco; in the same year there was one factory in Victoria, but the quantity of tobacco manufactured is not available. The Australian market has for many years been largely supplied with local manufactures. The imports into Australia during 1925-26 comprised—manufactured tobacco 619,503 lb., cigars 107,221 lb., and cigarettes 547,425 lb., while the quantities manufactured in Australian factories were respectively 15,405,147 lb., 455,548 lb., and 5,134,371 lb. The following tables show the development of the tobacco manufacturing industry in Australia during recent years:—

TOBACCO, CIGAR, AND CIGARETTE FACTORIES.—AUSTRALIA,
1921-22 TO 1925-26.

Items.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
Number of factories	36	29	28	27	26
Number of employees	4,340	4,319	4,312	4,421	4,325
Actual horse-power of engines used ..	1,203	1,466	1,609	1,676	1,713
Approx. value of land and buildings ..	£ 490,414	493,597	531,273	620,694	640,239
Approx. value of plant and machinery ..	£ 413,119	427,825	478,477	497,034	508,100
Total amount of wages paid	£ 724,919	784,070	742,697	781,471	800,615
Value of fuel used	£ 20,354	20,612	18,954	27,172	28,053
Value of raw material worked up ..	£ 4,925,066	4,603,215	4,500,304	4,613,357	4,589,301
Value of final output	£ 6,710,757	6,690,791	6,645,451	6,927,087	6,892,332
Value added in process of manufacture ..	£ 1,765,337	2,066,871	2,126,193	2,286,558	2,274,978

LEAF USED AND PRODUCTION.

Leaf used 1,000 lb.	16,867	17,104	17,104	18,073	18,661
Tobacco made	14,216	14,636	14,145	14,978	15,405
Cigars	508	483	431	470	456
Cigarettes	4,907	4,384	4,794	4,873	5,134

Although the manufacturing side of the tobacco industry is so firmly established in Australia, the production of locally-grown leaf is comparatively small, and manufacturers are dependent on imported leaf for the supply of their raw material. The respective quantities of Australian and imported leaf used during 1925-26 were 1,152,132 and 17,509,175 lb.

22. *Woollen, Cotton, and Tweed Mills.*—(i) *Details for each State, 1925-26.* The manufacture of woollens and tweeds was established in Australia at an early period in its history, and was under Government control, the first record in New South Wales dating back to 1801, when a few blankets were made by the convicts; the first record

in Victoria was in 1867. The following table, which gives particulars for 1925-26 shows that the industry is now well established:—

WOOLLEN AND TWEED MILLS, 1925-26.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.A. (c)	Tas.	Australia.
Number of factories	13	27	2	2	1	5	50
Number of employees	2,110	5,283	295	191	123	733	8,735
Actual horse-power of engines employed	3,551	12,078	717	390	300	1,390	18,426
Approx. value of land and buildings	£ 341,060	1,002,920	(a)	(a)	(a)	224,108	b 1,659,446
Approx. value of plant and machinery	£ 677,827	2,087,985	(a)	(a)	(a)	280,941	b 3,247,602
Total amount of wages paid during year	£ 282,722	786,115	(a)	(a)	(a)	74,700	b 1,222,596
Value of fuel used	£ 36,672	127,846	(a)	(a)	(a)	24,438	b 203,237
Value of raw material worked up	£ 719,540	2,312,877	(a)	(a)	(a)	219,135	b 3,400,316
Total value of output	£ 1,193,071	3,976,224	(a)	(a)	(a)	329,537	b 5,758,267
Value added in process of manufacture	£ 436,859	1,535,501	(a)	(a)	(a)	85,964	b 2,154,714

(a) Information not available for publication.

(b) Including Queensland, South Australia and Western Australia.

(c) Eighteen months ended 30th June, 1926.

(ii) *Development in Australia, 1921-22 to 1925-26.* The progress of woollen and tweed milling in Australia during the last four years is shown in the following table:—

WOOLLEN AND TWEED MILLS.—AUSTRALIA, 1921-22 TO 1925-26.

Items.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
Number of factories	36	40	47	49	50
Number of employees	6,101	6,928	7,532	7,941	8,735
Actual horse-power of engines used	11,630	12,347	15,406	16,310	18,426
Approx. value of land and buildings	£ 940,578	1,131,396	1,426,493	1,620,318	1,659,446
Approx. value of plant and machinery	£ 1,849,919	2,428,133	3,043,586	3,297,229	3,247,602
Total amount of wages paid	£ 842,683	991,801	1,043,298	1,102,718	1,222,596
Value of fuel used	£ 109,514	127,573	128,487	165,724	203,237
Value of raw material worked up	£ 1,940,050	2,511,204	2,824,176	3,197,778	3,400,316
Value of annual output	£ 4,096,808	4,712,964	4,863,657	5,071,124	5,758,267
Value added in process of manufacture	£ 2,047,244	2,074,187	1,910,994	1,707,622	2,154,714

(iii) *Quantity and Value of Production.* The production consists chiefly of tweed cloths, flannels, rugs, blankets and yarn, all of which have acquired a reputation for purity and durability. Detailed particulars for the several States are not available for publication. The total length of tweed and cloth manufactured in Australia during 1925-26 was 5,992,637 yards. In New South Wales 2,042,983 yards of tweed and cloth, and in Victoria 3,438,142 yards were manufactured. The production of flannel amounted to 6,172,304 yards, while blankets, shawls, and rugs to the number of 937,135 were manufactured. The output of yarn reported was 2,308,575 lb., most of which was produced in Victoria.

In addition to the woollen and tweed factories, there were 255 hosiery and knitting mills operating throughout Australia during 1925-26. These establishments provided employment for 8,409 persons, of whom 6,792 were females, and the value of their output amounted to £4,579,734.

Cotton ginning has been carried on intermittently in the Northern States, and the recent development in cotton growing has led to the establishment of modern ginning plants at convenient centres in Queensland. In New South Wales during 1923-24 the first up-to-date mill for the manufacture of cotton goods was erected. There were eight establishments treating cotton in Australia during 1925-26, and these employed 671 hands, while the value of the output was £534,059.

23. **Boot Factories.**—(i) *Details for each State, 1925-26.* Among the manufactories of Australia the boot and shoe industry holds an important place in regard to employment afforded and extent of output. The following table gives particulars of this industry for each State during 1925-26 :—

BOOT AND SHOE FACTORIES, 1925-26.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust. (a)	Tas.	Australia.
Number of factories	642	431	32	68	25	11	1,209
Number of employees	6,224	12,262	1,394	778	517	253	21,428
Actual horse-power of engines employed	2,286	3,520	339	322	239	77	6,783
Approx. value of land and buildings £	1,329,801	1,166,070	79,382	123,982	98,013	18,674	2,815,922
Approx. value of plant and machinery £	333,232	598,615	46,748	40,459	27,529	8,887	1,055,470
Total amount of wages paid during year £	934,315	1,930,806	207,554	107,358	90,154	33,965	3,304,152
Value of fuel used	19,007	44,200	2,805	2,521	1,858	747	71,138
Value of raw material worked up	1,362,649	3,048,148	270,380	144,203	184,765	49,371	5,059,516
Total value of output	2,902,500	6,045,226	548,580	290,104	317,439	102,671	10,206,520
Value added in process of manufacture £	1,520,844	2,952,878	275,395	143,380	130,816	52,553	5,075,866

(a) Eighteen months ended 30th June, 1926.

(ii) *Development in Australia, 1921-22 to 1925-26.* The progress of the industry in the last four years is shown in the following table :—

BOOT AND SHOE FACTORIES.—AUSTRALIA, 1921-22 TO 1925-26.

Items.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
Number of factories	744	896	1,030	1,172	1,209
Number of employees	20,390	21,487	21,464	21,220	21,428
Actual horse-power of engines used	5,130	5,837	6,281	6,427	6,783
Approx. value of land and buildings £	1,612,781	1,975,873	2,317,210	2,676,525	2,815,922
Approx. value of plant and machinery £	711,449	881,298	998,200	1,079,479	1,055,470
Total amount of wages paid	3,050,125	3,302,811	3,295,088	3,235,877	3,304,152
Value of fuel used	49,244	56,636	61,504	65,960	71,138
Value of raw material worked up	5,291,027	5,263,889	4,838,929	4,908,260	5,059,516
Value of final output	10,241,279	10,486,294	9,899,903	9,811,222	10,206,520
Value added in process of manufacture £	4,901,008	5,165,769	4,999,470	4,837,002	5,075,866

The inclusion of boot-repairing establishments in the returns is largely responsible for the increases recorded in the above table since 1921-22. The output of boots and shoes has varied little during each of the last five years, but the production of slippers rose from 1,523,909 pairs in 1921-22 to 2,722,365 pairs in 1925-26.

(iii) *Quantity and Value of Production.* The number and value of boots, shoes, and slippers made at factories in each State are shown in the following table :—

BOOT AND SHOE FACTORIES.—OUTPUT, 1925-26.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust. (b)	Tas.	Australia.
QUANTITY (,000 OMITTED).							
Boots and shoes .. pairs	3,815	7,661	767	396	452	146	13,237
Slippers	690	1,724	14	24	270	..	2,722
Uppers (a)	42	24	3	9	3	3	84
VALUE.							
Boots and shoes £	2,291,401	4,601,530	500,466	206,007	256,171	97,186	7,952,821
Slippers	117,788	294,399	4,461	5,008	28,847	..	450,503
Uppers (a)	14,955	8,508	1,268	4,109	1,564	899	31,303

(a) Made for other than factory use.

(b) Eighteen months ended 30th June, 1926.

24. *Clothing (Tailoring and Slop) Factories.*—(i) *Details for each State, 1925-26.* The importance of this industry in the several States is shown in the following table :—

CLOTHING (TAILORING AND SLOP) FACTORIES, 1925-26.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust. (a)	Tas.	Australia.
Number of factories	548	536	139	150	73	35	1,481
Number of employees	11,359	9,496	3,162	2,509	1,269	499	28,294
Actual horse-power of engines employed	734	560	254	130	82	27	1,787
Approximate value of land and buildings	£ 2,060,771	1,289,740	350,282	397,161	213,070	92,683	4,403,707
Approximate value of plant and machinery	£ 149,806	117,080	55,924	28,540	18,724	6,435	376,509
Total amount of wages paid during year	£ 1,487,713	1,205,101	372,549	289,156	221,695	58,546	3,634,760
Value of fuel used	£ 22,679	23,754	8,021	6,542	3,684	958	65,638
Value of raw material worked up ..	£ 2,054,776	2,155,792	547,421	396,512	370,470	57,383	5,582,354
Total value of output	£ 4,317,203	4,063,913	1,213,054	848,767	678,880	152,771	11,274,588
Value added in process of manufacture	£ 2,239,749	1,884,367	657,612	445,713	304,726	94,430	5,626,596

(a) Eighteen months ended 30th June, 1926.

(ii) *Development in Australia, 1921-22 to 1925-26.* The tailoring and slop branch of the clothing industry has made progress during the past four years despite the high level of values. New factories have been established, the number of hands increased, and extra mechanical power has been employed. It is not possible to measure the growth of the output owing to price fluctuations. Employment in this industry is, however, about 2,000 less than the highest pre-war figure. Details for the past five years are as follows :—

CLOTHING (TAILORING AND SLOP) FACTORIES.—AUSTRALIA,
1921-22 TO 1925-26.

Items.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
Number of factories	1,379	1,418	1,440	1,472	1,481
Number of employees	27,616	28,822	28,148	28,600	28,294
Actual horse-power of engines used	1,386	1,617	1,655	1,823	1,787
Approx. value of land and buildings ..	£ 3,230,794	3,445,473	3,899,477	4,291,681	4,403,707
Approx. value of plant and machinery ..	£ 290,453	328,347	358,603	374,079	376,509
Total amount of wages paid	£ 3,189,402	3,370,258	3,402,069	3,482,436	3,634,760
Value of fuel used	£ 49,525	56,194	56,492	58,943	65,638
Value of raw material worked up	£ 5,978,992	5,521,496	5,257,702	5,407,676	5,582,354
Total value of output	£ 10,782,182	10,719,900	10,527,577	10,881,684	11,274,588
Value added in process of manufacture ..	£ 4,753,665	5,142,210	5,213,383	5,415,065	5,626,596

25. *Dressmaking and Millinery Establishments.*—(i) *Details for each State, 1925-26.* Particulars of dressmaking and millinery establishments are given in the following table :—

DRESSMAKING AND MILLINERY ESTABLISHMENTS, 1925-26.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust. (a)	Tas.	Australia.
Number of factories	252	490	44	50	44	18	898
Number of employees	3,831	8,356	713	978	630	195	14,703
Actual horse-power of engines employed	170	546	49	34	49	6	854
Approximate value of land and buildings	£ 861,052	1,198,320	49,048	120,078	68,075	11,832	2,308,405
Approximate value of plant and machinery	£ 45,602	103,590	5,010	9,176	8,700	1,290	173,368
Total amount of wages paid during year	£ 351,800	863,189	62,866	86,741	84,501	13,813	1,462,410
Value of fuel used	£ 4,931	18,462	389	1,161	885	436	21,344
Value of raw material worked up ..	£ 587,759	1,811,038	103,507	131,290	153,535	17,936	2,805,062
Total value of output	£ 1,218,002	3,267,544	190,583	265,046	265,401	36,907	5,243,483
Value added in process of manufacture	£ 625,315	1,443,044	86,687	132,595	110,901	18,535	2,417,077

(a) Eighteen months ended 30th June, 1926.

(ii) *Development in Australia, 1921-22 to 1925-26.* The development of dressmaking and millinery establishments in Australia during the past four years is shown in the following table :—

**DRESSMAKING AND MILLINERY ESTABLISHMENTS.—AUSTRALIA,
1921-22 TO 1925-26.**

Items.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
Number of factories	910	922	926	922	898
Number of employees	16,572	16,213	15,623	14,823	14,703
Actual horse-power of engines used	709	693	701	699	854
Approximate value of land and buildings £	1,579,428	1,732,865	2,047,288	2,270,977	2,308,405
Approximate value of plant and machinery £	146,814	150,242	155,011	166,102	173,368
Total amount of wages paid	£ 1,467,066	£ 1,435,885	£ 1,448,046	£ 1,383,138	£ 1,462,410
Value of fuel used	£ 17,207	£ 18,252	£ 18,680	£ 19,042	£ 21,344
Value of raw material worked up	£ 2,695,834	£ 2,514,140	£ 2,658,051	£ 2,648,815	£ 2,805,062
Value of final output	£ 5,000,412	£ 4,815,441	£ 4,999,412	£ 4,920,650	£ 5,243,483
Value added in process of manufacture £	£ 2,287,371	£ 2,283,049	£ 2,322,681	£ 2,252,793	£ 2,417,077

26. *Electrotyping, Stereotyping, Printing, and Binding Works.*—(i) *Details for each State, 1925-26.* Printing ranks high in importance among the industries of Australia. It affords employment for more than 25,000 employees, and pays nearly £6,000,000 in salaries and wages. During 1925-26 the total value of the output amounted to £14,493,764.

The following table gives particulars of these industries in each State for the year 1925-26 :—

**ELECTROTYPING, STEREOTYPING, PRINTING, AND BINDING ESTABLISHMENTS,
1925-26.**

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust. (a)	Tas.	Australia.
Number of factories	499	433	129	90	83	20	1,254
Number of employees	10,019	7,688	3,609	1,801	1,423	673	25,213
Actual horse-power of engines employed	7,638	5,922	2,015	1,612	1,398	463	19,048
Approximate value of land and buildings	£ 2,943,945	£ 1,756,105	£ 659,668	£ 472,719	£ 338,767	£ 87,281	£ 6,258,485
Approximate value of plant and machinery	£ 2,767,398	£ 1,925,110	£ 509,682	£ 335,831	£ 307,033	£ 116,022	£ 5,961,076
Total amount of wages paid during year	£ 2,132,682	£ 1,629,895	£ 756,935	£ 376,324	£ 482,947	£ 147,898	£ 5,526,681
Value of fuel used	£ 74,018	£ 49,980	£ 26,537	£ 14,888	£ 14,720	£ 5,370	£ 185,513
Value of raw materials worked up	£ 2,258,458	£ 1,714,937	£ 479,175	£ 371,662	£ 361,924	£ 91,213	£ 5,277,369
Total value of output	£ 5,923,685	£ 4,451,427	£ 1,714,834	£ 1,007,427	£ 1,097,903	£ 208,488	£ 14,493,764
Value added in process of manufacture	£ 3,591,209	£ 2,686,510	£ 1,209,122	£ 620,877	£ 721,259	£ 201,905	£ 9,030,882

(a) Eighteen months ended 30th June, 1926.

(ii) *Development in Australia, 1921-22 to 1925-26.* The development of electrotyping stereotyping, printing, and binding in Australia since 1921-22 is shown in the following table :—

**ELECTROTYPING, STEREOTYPING, PRINTING AND BINDING ESTABLISHMENTS.—
AUSTRALIA, 1921-22 TO 1925-26.**

Items.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.
Number of establishments	1,175	1,203	1,194	1,238	1,254
Number of employees	29,992	25,857	25,162	25,279	25,213
Actual horse-power of engines used	13,257	15,262	17,225	18,203	19,048
Approximate value of land and buildings £	£ 4,218,547	£ 5,134,668	£ 5,260,806	£ 5,709,421	£ 6,258,485
Approximate value of plant and machinery £	£ 3,840,895	£ 4,613,369	£ 5,132,411	£ 5,624,487	£ 5,961,076
Total amount of wages paid	£ 4,557,165	£ 5,182,861	£ 5,253,593	£ 5,232,040	£ 5,526,681
Value of fuel used	£ 135,188	£ 146,889	£ 148,927	£ 165,046	£ 185,513
Value of raw materials worked up	£ 4,434,932	£ 5,658,994	£ 4,879,459	£ 4,904,536	£ 5,277,369
Value of final output	£ 14,408,689	£ 15,382,659	£ 14,577,413	£ 13,621,903	£ 14,493,764
Value added in process of manufacture £	£ 7,838,569	£ 9,576,776	£ 9,549,027	£ 8,552,321	£ 9,030,882

The figures shown in the above table for some years were considerably augmented by the inclusion of all details in respect of the newspapers industry, but from 1924-25 onwards only the cost of printing and publishing the papers has been taken into account in computing factory returns.

27. Coach and Wagon Building Works.—This industry forms one of the principal branches of manufacture in Class XI. Particulars of the operations of these establishments in 1925-26 are given in the subjoined table :—

COACH AND WAGON BUILDING WORKS, 1925-26.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust. (a)	Tas.	Australia.
Number of factories	189	281	49	67	40	23	629
Number of employees	1,039	2,219	353	562	284	153	4,610
Actual horse-power of engines employed	749	1,332	233	460	197	87	3,058
Approximate value of land and buildings £	255,178	292,050	59,814	81,964	53,673	28,775	871,454
Approximate value of plant and machinery £	67,135	131,409	19,251	27,926	15,196	5,449	266,357
Total amount of wages paid during year £	160,301	390,616	53,262	89,060	61,794	21,567	776,600
Value of fuel used £	10,264	14,954	1,674	7,174	4,532	1,025	39,623
Value of raw material worked up £	178,204	413,024	75,796	121,832	91,681	20,668	901,205
Total value of output £	457,805	1,028,009	175,196	264,002	191,933	59,677	2,176,622
Value added in process of manufacture £	269,337	600,031	97,726	134,998	95,720	37,984	1,235,794

(a) Eighteen months ended 30th June, 1926.

28. Cycle and Motor Works.—This industry has made rapid progress in recent years owing to the increasing use of motor-propelled vehicles. The imposition of a heavy tariff duty on imported bodies has had the effect of establishing a local body-building industry, and the majority of cars now purchased in Australia are fitted with locally-made bodies. The classification of the various branches of this industry is not uniform in the States, consequently combined results are given in the following table. An endeavour is being made to obtain separate particulars in respect of motor-repairing and assembling, motor-body building and repairing, and motor cycle and bicycle building and repairing.

CYCLE AND MOTOR WORKS, 1925-26.

Item.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust. (a)	Tas.	Australia.
Number of factories	792	565	88	131	87	49	1,712
Number of employees	7,324	4,096	1,432	4,715	836	398	13,401
Actual horse-power of engines employed	3,829	2,453	435	3,856	389	204	11,166
Approximate value of land and buildings £	2,665,750	1,539,900	362,341	859,645	303,703	124,366	5,855,705
Approximate value of plant and machinery £	537,101	434,545	61,193	420,415	61,332	22,607	1,537,193
Total amount of wages paid during year £	1,344,466	822,471	245,605	918,122	198,320	60,475	3,589,459
Value of fuel used £	43,941	31,225	7,040	80,894	6,875	2,159	178,734
Value of raw material worked up £	1,207,424	479,739	369,078	1,681,916	163,665	28,984	3,930,806
Total value of output £	3,154,373	1,647,138	791,241	3,166,915	463,698	120,215	9,343,580
Value added in process of manufacture £	1,903,008	1,136,174	414,523	1,398,105	293,158	89,072	5,234,040

(a) Eighteen months ended 30th June, 1926.

29. Furniture and Cabinet Making and Billiard Table Making Factories.—These industries constitute the principal manufactures in Class XIII. The following table gives particulars for each State :—

FURNITURE AND CABINET MAKING AND BILLIARD TABLE MAKING FACTORIES, 1925-26.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust. (a)	Tas.	Australia.
Number of factories ..	267	332	78	53	42	24	796
Number of employees ..	3,912	3,326	1,355	983	559	220	10,355
Actual horse-power of engines employed ..	3,707	3,170	1,288	1,335	765	387	10,652
Approximate value of land and buildings ..	£ 723,280	708,710	201,560	117,654	104,987	35,090	1,891,281
Approximate value of plant and machinery ..	£ 215,506	180,895	71,002	63,857	33,070	20,813	585,143
Total amount of wages paid during year ..	£ 736,852	577,326	270,275	174,058	150,343	32,593	1,941,447
Value of fuel used ..	£ 19,265	21,246	8,679	5,968	3,364	1,202	60,224
Value of raw material used ..	£ 1,074,465	711,646	316,324	195,343	202,827	21,391	2,521,996
Total value of output ..	£ 2,190,470	1,677,204	724,935	449,372	408,902	77,746	5,528,629
Value added in process of manufacture ..	£ 1,096,740	944,312	399,932	248,061	202,211	55,153	2,946,409

(a) Eighteen months ended 30th June, 1926.

30. **Electric Light and Power Works.**—The increased demand for electrical energy has been responsible for considerable development in the electric light and power works of Australia during recent years. Since 1921-22 the production of electric light and power has increased from 801,650,705 to 1,729,936,637 British units, or by more than 115 per cent. Particulars for the years 1925-26 are as follows :—

ELECTRIC LIGHT AND POWER WORKS, 1925-26.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust. (a)	Tas.	Australia
Number of factories ..	124	83	27	23	29	10	296
Number of employees ..	1,795	1,149	810	1,116	260	182	5,312
Actual horse-power of engines employed ..	233,930	188,342	50,307	63,956	37,599	70,766	644,900
Approximate value of land and buildings ..	£ 2,270,469	1,745,155	218,951	423,913	163,913	4,900	4,827,301
Approximate value of plant and machinery ..	£ 5,376,105	5,035,460	2,029,267	1,682,199	626,513	3,222,113	17,971,657
Total amount of wages paid during year ..	£ 524,953	338,171	104,727	323,452	92,581	45,636	1,429,520
Value of fuel used ..	£ 1,410,961	650,222	143,138	214,096	261,862	4,033	2,681,312
Total value of output ..	£ 4,510,432	1,648,113	818,617	899,413	579,809	261,736	8,718,120

(a) Eighteen months ended 30th June, 1926.

31. **Gas and Coke Works.**—(i) *Details for each State, 1925-26.* Gas works are in operation in nearly all the chief towns in Australia. In New South Wales there are thirteen and in Queensland two coke factories which are worked as separate industries. The subjoined table gives particulars of gas and coke works in each State for the year 1925-26 :—

GAS AND COKE WORKS, 1925-26.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust. (c)	Tas.	Australia.
Number of factories ..	60	35	18	8	4	2	127
Number of employees ..	2,411	933	693	725	88	140	4,995
Actual horse-power of engines employed ..	8,561	2,811	549	1,448	281	156	13,806
Approximate value of land and buildings ..	£ 1,062,353	438,035	236,447	25,248	(a)	(a)	61,894,002
Approximate value of plant and machinery ..	£ 3,701,505	1,742,405	1,098,804	680,921	(a)	(a)	67,547,733
Total amount of wages paid during year ..	£ 610,917	258,764	175,362	185,042	(a)	(a)	61,296,194
Value of fuel used ..	£ 219,078	105,421	13,694	39,362	(a)	(a)	6,396,052
Value of raw material used ..	£ 1,728,166	851,660	165,973	203,623	(a)	(a)	63,042,152
Total value of output ..	£ 3,755,184	1,433,090	522,685	636,359	(a)	(a)	66,614,540
Value added in process of manufacture ..	£ 1,809,940	476,009	343,018	393,374	(a)	(a)	63,176,336

(a) Information not available for publication.

(b) Including Western Australia and Tasmania.

(c) Eighteen months ended 30th June, 1926.

(ii) *Coal Used and Production, 1925-26.* The following table shows the quantity and value of the production of gas and coke works in each State during the year 1925-26:—

GAS AND COKE WORKS.—COAL USED AND PRODUCTION, 1925-26.

Particulars.		N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust. (a)	Tas.	Australia.
COAL USED.								
Coal	tons	1,495,932	422,783	113,950	88,525	(b)	(b)	c 2,158,273
PRODUCTS.								
Gas	1,000 cubic feet	10,005,876	5,801,335	1,350,039	1,333,736	(b)	(b)	c 19,088,340
Coke	tons	979,715	273,773	63,167	58,129	(b)	(b)	c 1,391,370
VALUE.								
Gas	£	1,892,127	1,097,036	521,864	465,150	(b)	(b)	c 4,198,360
Coke	£	1,327,384	225,188	60,454	105,549	(b)	(b)	c 1,748,991

(a) Eighteen months ended 30th June, 1926.

(b) Not available for publication.

(c) Including Western Australia and Tasmania.

In order to cope with the general industrial expansion, the production of gas increased from 15,981,920 cubic feet in 1921-22 to 19,088,340 cubic feet in 1925-26, while the output of coke rose from 1,141,644 to 1,391,370 tons during the same period.

CHAPTER XXIII.

WATER CONSERVATION AND IRRIGATION.

§ 1. Artesian Water.

1. **General.**—In every country in which droughts are recurrent, there are few problems the solution of which is of greater importance than that of an adequate system of water conservation. Much has been done in Australia so far as the supply of water to centres of population is concerned, and a description of several of the metropolitan water-works will be found herein, viz., in the chapter dealing with Local Government. Interstate Conferences on artesian water were held in 1912, 1914, 1921, and 1924, when combined Governmental action was agreed upon with reference to delimitation of the artesian basins, hydrographic surveys, analyses and utilization of artesian water, etc. (See map on page 827.)

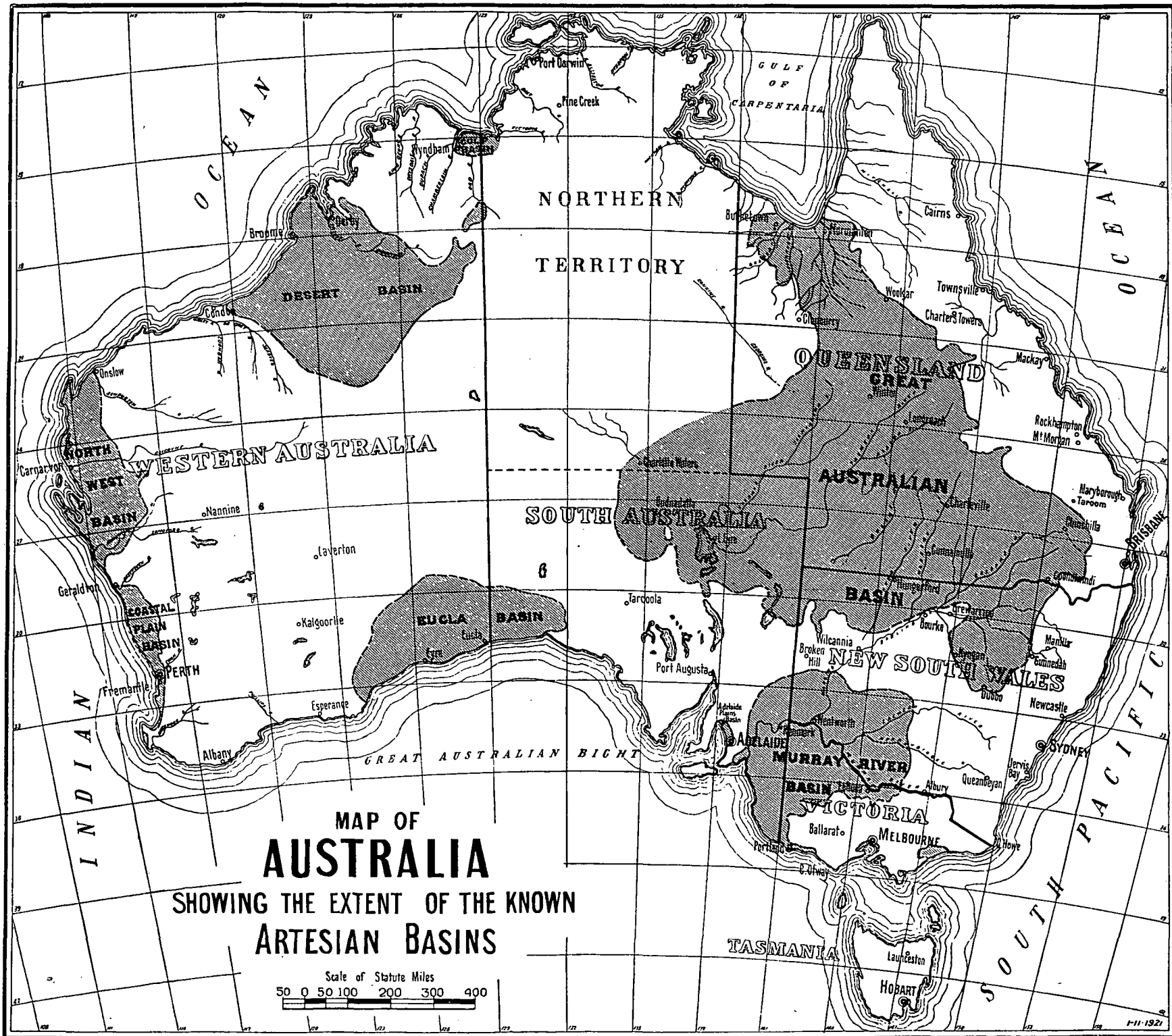
2. **The Great Australian Artesian Basin.**—In speaking of the "Great Australian Artesian Basin," the area is understood which includes (a) considerably more than one-half of Queensland, taking in practically all that State lying west of the Great Dividing Range, with the exception of an area in the north-west contiguous to the Northern Territory; (b) a considerable strip of New South Wales along its northern boundary and west of the Great Dividing Range; and (c) the north-eastern part of South Australia proper, together with the extreme south-eastern corner of the Northern Territory. This basin (shown approximately by the map on page 827) is said to be the largest yet discovered, and measures about 600,000 square miles, of which 376,000 square miles are in Queensland, 118,000 square miles in South Australia, 80,000 square miles in New South Wales, and 25,000 square miles in the Northern Territory. The area of the intake beds is estimated at 60,010 square miles, viz., 50,000 square miles in Queensland and 10,010 square miles in New South Wales. A description of the basin and its geological formation will be found in previous issues of the Year Book (see No. 6, p. 569).

3. **The Western Australian Basins.**—The Western Australian Basins fall naturally within five distinct groups, viz., the Eucla Basin, in the extreme south-east of the State, extending well into South Australia along the shores of the Great Australian Bight; the Coastal Plain Basin, west of the Darling Range; the North-West Basin, between the Murchison and Ashburton Rivers; the Gulf Basin, between Cambridge Gulf and Queen's Channel; and the Desert Basin, between the De Grey and Fitzroy Rivers.

The Recent and Tertiary strata which enter Western Australia at its eastern border, and which have a prevailing dip towards the Great Australian Bight, form the Eucla artesian water area. Where boring operations have been undertaken, the water has been found to be salt or brackish, and there are other conditions affecting the supply, such as local variations in the thickness of the beds, their relative porosity, and the unevenness of the floor upon which they rest, which, so far, have not been examined with sufficient thoroughness to enable many particulars to be given in regard to this basin.

In the Coastal Plain Basin to the west of the Darling Ranges artesian boring has, on the other hand, been carried on successfully for many years.

4. **The Murray River Basin.**—The Murray River basin extends over south-western New South Wales, north-western Victoria, and south-eastern South Australia. It is bounded on the west by the azoic and palæozoic rocks of the Mount Lofty and other ranges extending northwards from near the mouth of the Murray to the Barrier Range, and on the east and north-east by the ranges of Victoria and New South Wales. This tertiary water-basin is occupied by a succession of sedimentary formations, both porous and impervious. It is of interest to note that the waters of the Murray River are partly



This map was included in the Report of the Third Interstate Conference on Artesian Water held in Adelaide during September, 1921. It contains the latest available information regarding the extent of the artesian basins. See also letterpress on page 826.

supplied by influx from the water-bearing beds of this basin: this is proved by the fact that, at low water, springs are observed at certain places flowing into it from beneath the limestone cliffs from Pyap Bend downwards. Similar springs exist along the courses of other branches of the River Murray system, where they cut through the tertiary formation. On the Victorian side bores have been put down, and water has been struck at various levels.

5. **Plutonic or Meteoric Waters.**—In previous Year Books will be found a statement of the theory of Professor Gregory* as to the origin of the water in the Australian artesian basins together with the objections held thereto by a former Government Geologist of New South Wales.† (See Official Year Book No. 6, p. 570.)

6. **Artesian and Sub-Artesian Bores.**—(i) *General.* The following table gives particulars of artesian and sub-artesian bores in each State and in the Northern Territory:—

ARTESIAN AND SUB-ARTESIAN BORES, 1925-26.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust. (c)	W. Aust.	N. Ter.	Total.
Bores existing .. No.	518	367	3,138	144	230	180	4,577
Total depth of existing bores .. feet	873,288	97,960	23,828,924	112,812	212,267	58,829	5,184,080
Daily flow 1,000 gals. ..	280,778	b	2,291,622	212,972	66,760	7,462	2,459,594
Depth at which artesian water was struck—							
Maximum .. feet	4,338	700	6,000	4,850	3,225	1,760	6,000
Minimum .. feet	89	150	10	55	39	42	10
Temperature of flow—							
Maximum .. °Fahr.	140	b	212	208	140	b	212
Minimum .. °Fahr.	72	b	78	82	75	b	72

(a) Flowing bores only.

(b) Not available.
all bores.

(c) Government bores only.
(e) Incomplete.

(d) Total depth of

(ii) *New South Wales.*—(a) *Artesian Water Supply.* The New South Wales portion of the great Australian basin, comprising approximately 80,000 square miles, is situated in the north-western portion of the State. Artesian boring in New South Wales dates from 1879, when a private bore was put down on the Kallara pastoral holding, between Bourke and Wilcannia. The first Government bore was that at Goonery, on the Bourke-Wanaring road, completed in 1884.

The following statement shows the extent of the work successfully carried out by the Government and by private owners up to 30th June, 1926:—

EXISTING ARTESIAN BORES.—NEW SOUTH WALES, 1926.

Bores.	Flowing.	Pumping.	Total.	Total Depth.
For Public Watering-places, Artesian Wells, etc. ..	133	37	170	feet 355,111
For Country Towns Water Supply ..	3	1	4	6,533
For Improvement Leases ..	20	6	26	38,621
Total Government Bores ..	156	44	200	400,265
Private Bores ..	224	94	318	473,023

* See J. W. Gregory, F.R.S., D.Sc.: "The Dead Heart of Australia," London, John Murray, 1906; "The Flowing Wells of Central Australia," Geogr. Journ., July and August, 1911.

† E. F. Pittman, A.R.S.M., formerly Government Geologist of New South Wales: "Problems of the Artesian Water Supply of Australia, with special reference to Professor Gregory's Theory." (Clarke Memorial Lecture, delivered before the Royal Society of New South Wales, 31st October, 1907); "The Great Australian Artesian Basin," Sydney, 1914; "The Composition and Porosity of the Intake Beds of the Great Australian Artesian Basin," Sydney, 1915.

The average depth is 2,001 feet in the case of Government bores, and of private bores 1,487 feet, and it ranges from 89 to 4,338 feet. The two deepest wells in New South Wales are those at Boronga, in the County of Stapylton, with a depth of 4,338 feet and a present outflow of 841,772 gallons; and at Dolgelly, in the Parish of Careunga, in County Stapylton, with a depth of 4,086 feet, and a present discharge of 478,170 gallons per day. The largest flow at the present time is that at the Angledool No. 2 bore, in the County of Finch, which yields 1,505,310 gallons a day, and has a depth of 3,479 feet.

Of the 567 bores which have been sunk, 380 are flowing, and give an aggregate discharge of 80,778,119 gallons per day; 138 bores give a pumping supply, the balance of 49 being failures; the total depth bored represents 935,636 feet.

The flow from 86 bores is utilized for supplying water for stock on holdings served in connexion with Bore Water Trusts or Artesian Districts under the Water Act of 1912. The total flow from these bores amounts to 32,602,282 gallons per day, watering an area of 4,811,202 acres by means of 2,911 miles of distributing channels. The average rating by the Bore Trusts to repay the capital cost with 4 per cent. interest in twenty-eight years, is 1.5d. per acre, including the cost of maintenance and administration.

In the majority of cases the remaining bores are used by pastoralists for stock-watering purposes only, but in a few instances the supply is utilized in connexion with country towns.

The watering of the north-western country by means of bore water has largely increased the carrying capacity of the land; and, what is of perhaps greater importance, it has made comparatively small pastoral holdings practicable in country previously confined almost entirely to the operations of companies holding immense areas.

It having been determined that multiplicity of bores is the chief factor governing the annual decrease in bore flows, and that limiting the discharge from a bore will prolong its flowing life, action has been taken to prevent any waste by controlling the bore flow to actual requirements. It is confidently anticipated that this action will materially reduce the rate of decrease in the future.

(b) *Private Artesian Bores.* Much has been done in the way of artesian boring by private enterprise. As far as can be ascertained, 343 private bores have been undertaken in New South Wales, of which 25 were failures. The yield of the flowing bores is estimated at 38 million gallons per day. No data are available regarding the pumping bores.

(c) *Shallow Boring.* The scheme described in Official Year Book No. 9 (p. 520) for assisting settlers by sinking shallow bores has met with considerable success.

Operations commenced with one plant only, but the number has been increased gradually until 35 plants are at work.

A large number of applications from settlers wishing to take advantage of the liberal conditions offered under the regulations has been received, and further applications are coming to hand daily, consequently the plants now in use will probably be insufficient to cope with the demand. Out of 1,822 bores put in hand up to 30th June, 1926, 319 have proved failures.

There can be no question that the added value of the holdings represented by the bores already put down is considerably in excess of their cost, and as fairly conclusive evidence of this, it might be stated that in several instances the Government Savings Bank has, on completion of a bore, made the settler a sufficient advance to enable him to pay the total cost in cash.

In addition to the work carried out under the Shallow Boring Regulations outlined above, shallow boring plants have sunk 22 bores in the Pilliga scrub and on Crown lands for the Lands and Forestry Departments.

The fact that of the bores put down in the Pilliga scrub, 57 are giving a flowing supply, adds much to their value, and is of special interest as indicating the possibility of tapping a small and hitherto unknown artesian basin.

(d) *Shallow Boring by Privately-owned Plants.* In addition to the abovementioned scheme, regulations have been gazetted providing for the sinking of shallow bores for settlers by privately-owned plants. Under these regulations, upon a settler submitting an application accompanied by a tender from a contractor for the sinking of a bore, agreements are entered into—

- (a) with the contractor under a standard specification in which the proper construction of the bore is provided for, and it is also stipulated that no payment shall be made unless a supply of serviceable water of at least 100 gallons per hour is obtained ;
- (b) with the settler that he shall pay the ascertained cost as set out in certificate under extended terms of repayment, with interest.

Under this scheme up to June, 1926, one bore, to a depth of 158 feet, had been completed.

(iii) *Victoria.* Victoria lies altogether outside the Great Australian Artesian Basin, and as water is generally available from surface or shallow underground supplies, there has not been much occasion for artesian boring. As early as 1880, however, an artesian well was bored at Sale, which gave a large supply of water of fair quality before it failed through corrosion of the casing. In 1905 a new bore was put down, which at a depth of 277 feet yielded sufficient water to fill Lake Guthridge, a local depression. As the water was, however, impure, and contained an excess of sulphuretted hydrogen, boring operations were continued to 520 feet, when the lowering of the casing shut off the supply of water. A further bore was then put down at some distance from the first, and this, at a depth of 238 feet, yielded a fresh and clear water supply of about 145,000 gallons per day. Corrosion troubles occurred here also, and at the end of 1912 another bore was put down to a depth of 235 feet, artesian flows being struck at 187 feet and 235 feet. Towards the end of 1915 a flow of 200,000 gallons per day was struck at a depth of 125 feet on the Powerscourt Estate, near Maffra. Other bores are being put down in the locality.

Largely due to the failure of surface supplies in the drought of 1878 to 1886, no less than 499 bores were, before the end of 1888, put down by shire councils aided by the Government. The total depth bored was 40,000 feet ; fresh water was struck in 78 instances ; 47 yielded brackish but usable water ; 229 were salt, while the balance were dry. The bores covered practically the whole of the settled portions of Northern and North-western Victoria and parts of Gippsland.

In the late eighties a number of bores was put down in the north-western part of the State, varying from 200 to over 2,000 feet in depth, but without any notable success. In 1897 a Board reported on boring for artesian water supply in the Mallee country, but this report was adverse, except as regards the extreme northern portion thereof. In 1906 eight bores were put down on the Overnewton Estate, Maribyrnong, to depths varying from 147 to 272 feet ; small supplies of good and medium water for stock purposes were obtained, but only one of the wells yielded water fit for domestic purposes. In 1908 boring was commenced in the Mallee country near the border east of Pinnaroo in South Australia, and a line of bores from the Border to Kow Plains has proved the existence of a large sheet of underground water. Altogether, 98 bores have been successful in striking fresh water, and their depths vary from 155 to 752 feet, the water rising to within from 207 to 6 feet of the surface. In three instances the bores flow, the water rising from 4 to 17 feet above the surface. The fresh water extends nearly as far east as the 142nd meridian, and its northern limit is approximately the 35th parallel.

At the 30th June, 1926, the number of existing bores in use in the north-western portion of Victoria (Mallee) was 367, from which supplies are obtained by pumping. The total depth bored amounted to 97,960 feet, while the maximum and minimum depths at which water was struck were 700 and 150 feet respectively. The figures include about 269 existing private bores, with a total depth of about 52,400 feet.

(iv) *Queensland.* A return relating to the 30th June, 1926, classifies the Queensland artesian bores under the following headings:—

ARTESIAN BORES.—QUEENSLAND, 30th JUNE, 1926.

Sunk by—	Artesian Flows.	Sub- Artesian or Pumped Supplies.	In Progress, Abandoned, or Uncertain.	Total.
Government	79	133	161	373
Local governing authorities .. .	19	22	25	66
Private owners .. .	1,264	1,621	1,000	3,885
Total .. .	1,362	1,776	1,186	4,324

The estimated yield of water from 1,362 flowing bores on 30th June, 1926, was 291,621,910 gallons per diem. The deepest well was about 40 miles west of Blackall, lying east of the Barcoo River; this had a depth of 7,009 feet, and was stated to yield 70,000 gallons daily. The flow is, of course, a comparatively small one, many wells yielding, when uncontrolled, from one to three million gallons a day. The waters of many of the wells have been analysed, and some found suitable for wool-scouring only, others are suitable for watering stock but not for irrigation, owing to the presence of alkali; others again serve for both stock and irrigation, while some, such as those containing sulphuretted hydrogen, are not of any use. Water fit for stock may generally be said to be "safe" for domestic purposes in spite of its slightly mineral taste. The wells yielding the mineral waters known as "Helidon Spa," "Boonah Spa," and "Junot Spa," which are much in use in Queensland and New South Wales, are shallow wells from 60 to 200 feet in depth.

Of the 4,324 bores in Queensland, 439 have been put down by the State Government or Local Authorities, while 3,885 have been sunk by private enterprise; 1,362 bores are flowing, and 1,776 give a pumping supply; the balance of 1,186 are either in progress of construction, abandoned, or uncertain. The total depth bored is 3,828,924 feet. The minimum and maximum depths at which artesian water was struck are 10 feet and 6,000 feet respectively, while the temperature of the flow ranged from 78 to 212 degrees Fahr.

Fifty-two Bore Water Supply Areas were completed on 30th June, 1926, comprising a total of 4,696,924 acres within the gazetted areas, over which water was distributed in 1,939 miles of drains. Five additional Bore Water Supply Areas were in hand on 30th June, 1926, comprising an area of 611,791 acres, and 361 miles of drains.

(v) *South Australia.*—(a) *General.* There were in South Australia 144 Government bores existing at 30th June, 1926, of which 36 were artesian and 108 sub-artesian. Of these, 106 were under 1,000 feet in depth; 23 from 1,000 to 2,000 feet; 7 from 2,000 to 3,000 feet; 5 from 3,000 to 4,000 feet; and 3 over 4,000 feet. The deepest flowing bore was at Patchawarra, on the Farina to Haddon via Innamincka route, measuring 5,458 feet, but now yielding only 50 gallons per day. The maximum flow, viz., 1,250,000 gallons, is obtained at Coonie Creek, east of Lake Frome.

The following table gives particulars as to South Australian bores at 30th June, 1926:—

ARTESIAN BORES. (b)—SOUTH AUSTRALIA, 1926.

Particulars.						Artesian and Sub-artesian.
Bores sunk during 1925-26	..	..	..	No.	1	
Bores existing	..	..	..	No.	144	
Total depth of existing bores	..	..	..	feet	112,812	
Daily flow	..	..	..	,000 gallons	(a) 12,972	
Depth at which water was struck—						
Maximum	..	..	..	feet	4,850	
Minimum	..	..	..	feet	55	
Temperature of flow—						
Maximum	..	..	..	°Fahr.	208	
Minimum	..	..	..	°Fahr.	82	
Total cost of construction of existing bores up to 30th June, 1926				£	324,416	
Expenditure during year on boring operations				£	2,621	

(a) Flowing bores only.

(b) Government bores only.

Of the above-mentioned bores, 46 are situated within the Great Artesian Basin, and the remainder are in the Lower Murray and other local basins.

(b) *Bores between the Murray and the Eastern Boundary of the State.* The sinking of bores across the Ninety-mile Desert between the Murray and the Victorian boundary was commenced in 1886 at Coonalpyn; with the exception, however, of salt water at 55 feet, no success was met with. Ki Ki bore was sunk in 1887, and at 361 feet a good supply of water fit for stock was struck. Tintinarra bore was sunk in 1887; it was artesian when first tapped. The water was found to be fit for locomotive engines and is still used for that purpose. The bore at Emu Flat was also sunk in 1887. In 1904, a bore was sunk at Cotton, and numerous successful bores have since been put down by the Public Works Department, and subsequently by residents of the district. The water rises to a distance from the surface of from 15 to 320 feet, and the maximum quantity obtained per diem is 48,000 gallons at the Gosden bore. Several wells, ranging in depth from 55 to 221 feet, have also been sunk in this district. The latest Government bores are Pata bore in the Hundred of Pyap, and Beulah bore in the Hundred of Wilson, at both of which large supplies of water containing $\frac{1}{4}$ oz. of solids per gallon were obtained.

(c) *Bores West of Oodnadatta.* A series of bores has been sunk, beginning with Breaden bore, 20 miles west of Oodnadatta, which was put down in 1911. The others since put down in this district are at Gypsum, Imbitcha, Mirackina, Raspberry Creek, Appreetinna, Wintinna, and Marla. Of these, the only artesian supply is at Raspberry Creek, where 1,000,000 gallons per day of good water are obtained. The depths of these bores range from 280 feet at Mirackina to 1,122 feet at Breaden, and the water from all of them is good. Warranarrea bore, situated 72 miles west of Oodnadatta on Pastoral Lease No. 1297 has been completed to a depth of 466 feet, a large supply of good water being obtained.

(d) *Eyre Peninsula.* From time to time bores have been sunk on Eyre Peninsula, but with little success. In some instances, stock water ($1\frac{1}{2}$ oz. salt to the gallon) was obtained, but this occurred only on the Nullarbor plains. In all other cases the water struck was too salt to be used. Consequently the supply of water is now principally from catchments, and a number of reservoirs has been constructed to hold from 1,000,000 to 18,500,000 gallons each, while many underground tanks have been built to contain from 40,000 up to 500,000 gallons each.

(e) *Bores sunk during the Year.* A bore has been put down in the Park Lands at Quorn and completed to a depth of 250 feet, from which a supply of good water of 54,000 gallons per day was being obtained. Boring operations are also being carried out at

Andado Station, 35 miles north-east of Charlotte Waters on behalf of the Commonwealth Government. Further boring has been carried out during the year by the Land and Survey Department with the object of ascertaining whether useful supplies of underground water are available in the north-western portion of the State, which is at present unsuitable for pastoral occupation.

(vi) *Western Australia.*—(a) *General.* The work by which the Government of Western Australia provides a permanent supply of water to Kalgoorlie, Boulder, and adjacent districts on the eastern goldfields comes properly under the heading of "Water Supply Works." A description of this undertaking is fully given in previous issues of the Official Year Book. (See Official Year Book No. 6, p. 576.)

Statistics in connexion with the Goldfields Water Supply undertaking and the Mines Water Supplies will be found in the chapter of this book dealing with *Local Government*.

The following table gives particulars regarding Western Australian artesian bores at 30th June, 1926:—

EXISTING ARTESIAN BORES.—WESTERN AUSTRALIA, 30th JUNE, 1926.

Particulars.	State.	Private.	Total.
Bores sunk during year No.		7	7
Bores existing No.	112	118	230
Total depth of existing bores feet	95,834	116,433	212,267
Daily flow gallons	27,458,700	39,301,180	66,759,880
Depth at which artesian water was struck—			
Maximum feet	2,527	3,325	3,325
Minimum feet	39	70	39
Temperature of flow—			
Maximum °Fahr.	140	128	140
Minimum °Fahr.	76	75	75

To 30th June, 1926, the total number of Government bores was 112, while there were, in addition, approximately 118 private bores recorded, making a total of 230 bores, distributed as follows:—Kimberley Division, 11, North-West Division 101, Metropolitan Division 48, South-West Division 45, and Eucla Division 25.

(b) *The Coastal Plain Basin or Perth Area*, which, generally speaking, extends from Cape Leeuwin to Dongarra, and from which the Metropolitan Water Supply is largely drawn, yields a supply of water mostly fresh and suitable for domestic purposes, though towards the north it becomes brackish and is only suitable for stock.

There are 48 bores in the Metropolitan area, several of which have been put down to augment the hills supply and the domestic supply of the suburbs, and Fremantle is largely dependent upon this source.

(c) *The North-west Basin or Carnarvon Area* may be said to extend from Gantheaume Bay in the south to Onslow in the north, and embraces a very large tract of ideal sheep country.

Many private bores have been put down on sites which permit of the gravitation of the water for miles, and, by this means, a very considerable area has been made available for stock-raising. In all, about 101 bores have been put down.

(d) *The Desert Basin or Broome Area.* So far very little development work has been done. Artesian bores have been put down in the town site, and the domestic requirements of the town are entirely supplied from this source. The area extends from Condon in the south-west to the Meda River beyond Derby in the north, and for a considerable distance inland. So far about 11 bores have been sunk, 3 being at Broome, 2 at Derby, and 3 on the telegraph line on the road between Derby and Hall's Creek, about 12, 67, and 80 miles inland.

(e) *Eucla Area.* This area extends from Eucla, on the South Australian border, to west of Israelite Bay. So far, beyond the bores put down on the route of the Trans-Australian Railway, very little has been done in proving the resources of this area. In 1902 the first bore was sunk, about 35 miles north of Madura, and sub-artesian water was struck at 430 feet, at an elevation of 400 feet above sea level. Following upon this, a deep bore was put down at Madura, below the cliff and nearer the coast, when an artesian supply of stock water was obtained at a depth of 2,041 feet, yielding 5,700 gallons per day. Later, about 23 bores were sunk along the survey line of the railway, which runs east and west about 90 miles inland. These bores were put in at intervals between the 205 mile peg and the South Australian border, and ranged in depth between 323 and 1,344 feet. In most instances only stock water was struck at depths varying between 300 and 1,300 feet, and the largest supply was estimated at about 10,000 gallons per day.

(vii) *Northern Territory.* In the Northern Territory, bores to the number of 180 were put down up to 31st March, 1926, which number does not include bores put down by hand-boring plants for test purposes. One bore is artesian, and the others give a pumping supply, the daily flow at the end of the year being 7,462,120 gallons. The total depth bored in State and private bores was 58,829 feet, and the maximum and minimum depths were 1,760 and 42 feet respectively.

§ 2. Irrigation.

1. *General.*—Australia's first experiments in irrigation were made with the object of bringing under cultivation areas in which an inadequate rainfall rendered agricultural and even pastoral occupations precarious and intermittent, and, although these original settlements have generally proved fairly successful, most of the States, instead of promoting new settlement in unoccupied regions, are adopting the policy of making existing settlements closer, by repurchasing large estates, subdividing them into holdings of suitable sizes for cultivation, and selling the land upon easy terms of payment. It is in connexion with this Closer Settlement policy that the special value of irrigation is recognized.

2. *New South Wales.*—(i) *General.* The recognition of the fact that the area suitable for cultivation might be extended largely by a system of water conservation and irrigation has induced the Government to undertake various detached works and schemes, which will constitute portion of the system necessary to serve the whole State.

The system, and the works necessary to its maintenance and development within the State of New South Wales, are under the control of the Water Conservation and Irrigation Commission, which consists of the Minister for Agriculture for the time being as Chairman, and two other Commissioners. The works controlled by the Commission include the great Murrumbidgee Irrigation Scheme; the small irrigation settlements at Hay, Curlwaa (Wentworth) and Coomealla; national works of water conservation; shallow boring for settlers; and water trusts and artesian bore trusts operating under the Water Act. The Commission has control also of storage and diversions of water by private persons for purposes of conservation and irrigation.

(ii) *Murrumbidgee Irrigation Scheme.* The main features of the scheme include a storage dam across the Murrumbidgee at Burrinjuck to retain the floodwaters, which are released for use lower down the river during the dry summer months; a movable diversion weir at Berembid, about 240 miles below the dam, to turn the required amount of water from the river into the main canal; a main canal, leaving the river near the weir; four main branch canals and a series of subsidiary canals and distributing channels throughout the area to be irrigated; bridges, checks, regulators and other structures throughout the entire system, and meters for measuring the volume allowed to each farm. Towns and villages, roadways to serve each farm, and a general surface drainage system, are also included in this scheme.

Further details in respect of the storage dam, diversion weir and canals, together with the areas thrown open for settlement are contained in previous issues of the Official Year Book. (See Official Year Book No. 15, page 442.)

Particulars in respect of tenure are set out in Chapter V., Land Tenure and Settlement.

The irrigation area is situated on the northern side of the Murrumbidgee River, where it is anticipated that there will ultimately be upwards of 200,000 acres under irrigation in blocks devoted to fruit, vegetable and rice growing, dairying, stock-raising, etc. With the aid of irrigation, the soil and climate of these areas are suitable for the production of apricots, peaches, nectarines, prunes, pears, plums, almonds, melons, cantaloups, and citrus fruits, also wine and table grapes, raisins, sultanas, figs, olives, peanuts, and most varieties of vegetable and fodder crops. Dairying and pig-raising are being undertaken by large numbers of settlers in the areas, and the canning and drying of fruit and the production of wine are industries of large dimensions. The district is one of the greatest fresh fruit producing centres in the State. The growing of rice on this area promises to develop into an important industry. An area of about 5,000 acres was sown to rice in 1926-27, and it is expected that the acreage in the future will be larger.

The Department of Agriculture, which controls the Yanco Experimental Farm, has established at Griffith (Mirrool irrigation area), a viticultural nursery for the propagation of vines.

On the 30th June, 1926, 1,969 farms were held, representing a total area of 111,839 acres. The number of town blocks held was 848.

In the matter of cultivation, the following particulars indicate the extent of the work performed by the settlers:—There are approximately 7,512 acres under deciduous fruits, 5,392 under citrus fruits, 5,806 under vines, and 5,000 acres under rice. The estimated population of the area is about 15,000.

(iii) *Curlwaa Irrigation Area.* The Curlwaa irrigation area is situated on the Murray River near its junction with the Darling River, and comprises 10,550 acres, of which on 30th June, 1926, irrigable holdings consisting of 1,902 acres had been taken up in areas of $1\frac{1}{2}$ to 40 acres, with a leasehold tenure of 30 years, at rentals of from 3s. to 10s. per acre per annum for the most part, and up to 35s. per acre in some blocks set apart during recent years. Of the balance, 7,292 acres were leased as non-irrigable holdings for short terms, in the majority of cases up to five years, with rentals of from 7d. to 5s. per acre, while the remainder of the area, with the exception of a few vacant holdings, is made up of roads, channels, and other reserves. Of the irrigable area, 1,230 acres are planted as orchards and vineyards, of which 980 acres are in full bearing. There is also a small area under lucerne. It has been proved that the Curlwaa soil is eminently suited to the growth of citrus and other kinds of fruit, and some of the finest oranges grown in New South Wales are produced on this area.

The estimated weight of dried fruits produced on the Curlwaa area in the year 1925-26 was 12,000 cwt., the principal yields being sultanas, 3,951 cwt.; peaches, 1,486 cwt.; lemons, 1,920 cwt.; apricots, 951 cwt.; and currants, 3,128 cwt. The value of the dried fruit production was estimated at £50,633, while fresh fruit, crops, and other produce of the value of £23,170 were also produced.

Water is pumped from the Murray River by a suction gas plant in 3 units, with a total capacity of 12,500 gallons per minute and a lift of about 36 feet, and is supplied to the lessees at a flat rate of 20s. per acre per annum. There is also a general rate of 14s. per acre per annum upon the portion of the irrigated area in productive bearing. During the season 1925-26 the quantity of water supplied was 225,922,929 cubic feet, or 5,186 acre-feet, the average area watered during six irrigations being 1,444 acres. Each lessee is entitled to receive a quantity of water equivalent to a depth of 30 inches per annum.

(iv) *Hay Irrigation Area.* The Hay irrigation area consists of about 4,500 acres, of which on 30th June, 1926, the area held and used for irrigation purposes was 1,035 acres, in 108 blocks of from 3 to 34 acres. The term of lease is generally 30 years, and the annual rental from 5s. to 12s. per acre. In addition, there was at that date an area of 2,876 acres of non-irrigated land taken up in 50 blocks for short terms up to five years, with rentals of

from 1s. to 10s. per acre. Water is lifted from the Murrumbidgee River by suction gas-driven pumping machinery in 2 units, with a total capacity of 4,000 gallons per minute, and a maximum lift of 30 feet. The rate charged to settlers is £1 10s. per acre per annum, but no general rate is levied as at Curlwaa. During the 1925-26 season 141,661,764 cubic feet of water were pumped with six pumpings. The principal industry is dairying, milk being supplied to the town of Hay, and cream to the local butter factory.

(v) *Coomeealla Irrigation Area.* The Coomealla Irrigation Area is situated on the Murray River about 9 miles by road from Wentworth. The land is rich chocolate loam, timbered with pine, belah, and sandalwood, and has a limestone subsoil varying from 2 feet to 10 feet below the surface. The soil is admirably suited to horticultural farming, especially viticulture. The first section at present being developed embraces 3,090 acres, of which 2,314 acres have been subdivided into 43 residential holdings and 129 horticultural farms, the average area of the latter being 17.2 acres, of which 15.4 acres are irrigable. The tenure is either perpetual leasehold or farm purchase, at the option of the settler, with a payment period of 36½ years. Water is pumped from the Murray River by steam-driven engines, operating two-stage centrifugal pumps, in duplicate, with a total capacity of 38 cubic feet per second. The rising main is of steel, 2,150 feet long, 5 ft. 6 in. diameter, and is of sufficient capacity to permit of an extension of the area later. The supply channels have been lined throughout with concrete and mortar, and the scheme also includes the construction of drainage channels, bridges, and other structures. These works were completed during the year, the total expenditure to 30th June, 1926, being £124,904.

At 30th June, 1926, 23 blocks had been taken up, while a number of other applications had also been received.

(vi) *Projected Irrigation Schemes.* (a) *General.* The Water Conservation and Irrigation Commission is investigating schemes for utilizing the New South Wales share of the Murray waters, and for storing water for the purpose of irrigation and stock and domestic supply on the Lachlan, Macquarie, Hunter, Namoi and Peel Rivers.

(b) *Murray River.* The effect of constructing the Upper Murray storage will be to ensure at all times sufficient flow below Albury to permit of diversions for irrigation and stock and domestic supplies, and also to make good the losses in the river due to seepage, evaporation, and lockages. The Act provides that, subject to certain conditions, New South Wales and Victoria shall share the regulated flow of the river at Albury, and shall each have the full use of all tributaries of the River Murray within its territory below Albury, with the right to divert, store, and use the flows thereof.

It is estimated that the New South Wales regulated river flow after the construction of the Upper Murray storage will amount to at least 120,000 acre-feet per month at Albury during the irrigating season, and this will permit of a considerable amount of irrigation development along the river.

An investigation is being made into the manner in which the New South Wales proportion of the Murray waters can be most profitably applied, but as yet no conclusion has been reached.

(c) *Lachlan River.* The Parliamentary Public Works Committee has entered upon an inquiry into alternative schemes for water conservation on the Lachlan River. These comprise the construction of a large dam at Wyangala, below the confluence of the Lachlan and Abercrombie Rivers, the raising of Lake Cudgellico, and a number of low weirs between Goolgong and Booligal.

(d) *Macquarie River.* The construction of a storage reservoir on the river at Burrendong, below the confluence of the Cudgegong River, for the purpose of affording water for irrigation and stock and domestic supply below Wellington is now being investigated. Smaller schemes for the construction of storage dams at White Rock and on Campbell's River, at Bathurst, have also received consideration. Systematic gaugings are being made of the river flow with a view to determining the quantity of water which will be available if the storage dam be constructed.

(e) *Hunter, Namoi, and Peel Rivers.* Pumping by licensed private irrigators under the Water Act is increasing at such a rapid rate that in the case of some of the rivers, such as the Peel and the Hunter, it will not be possible to adequately supply the pumps in dry seasons until head storage works have been constructed. Investigations are in progress for storage dams on the Hunter and Peel Rivers, for dams on the Namoi River above Manilla, and lower down above the junction of the Peel River at alternate sites.

(vii) *Water Rights.* By Part II. of the Water Act 1912, the right to the use and flow and to the control of the water in all rivers and lakes which flow through, or past, or are situate within the land of two or more occupiers is vested in the Crown. Private rights are almost wholly abolished, riparian law is simplified, and a system of licences is established for the protection of private works of water conservation, irrigation, water supply, drainage, and the prevention of inundation of land. The enactment prevents litigation and determines the rights of riparian owners.

During the year ending 30th June, 1926, 151 applications were received for fresh licences, comprising 103 in respect of pumps, or pumps in conjunction with dams or other works, 32 in regard to dams, and 16 other works. The number of applications received for the renewal of existing licences was 284; 212 of the applications were in respect of pumps, in some cases used in conjunction with dams or other works, 63 respecting dams, and 9 other works. Approximately 1,907 licences were in force on the 30th June, 1925, and in the succeeding twelve months 94 new licences were issued and 39 were allowed to lapse, so that there were about 1,962 licences current on the 30th June, 1926.

(viii) *Water Trusts and Bore Trusts.* Part III. of the Water Act 1912 provides for the supply of water either for irrigation, stock, or domestic purposes, or for drainage. The liabilities thereon are repaid to the Crown, with interest spread over a period of usually from 10 to 28 years inclusive. Under the Act administration, except for the Western Division, is vested in trustees—either 3 or 5 to each trust, of whom, in the former case, one is the official trustee representing the Government, and in the latter two are official trustees acting in a similar capacity. In all existing trusts the number of trustees is three, except in the Western Division, where the Western Land Board is appointed as trustee. For the supply of water, trusts have been constituted in connexion with (a) 71 Bore Water Trusts and 12 Artesian Wells Districts; (b) eight schemes for the improvement of natural off-takes of effluent channels, for the purpose of diverting supplies from the main rivers; (c) in five instances for the construction of weirs across stream channels; (d) seven pumping schemes; and (e) one for impounding by means of regulators water which flows into natural lakes. The area included within these trusts amounts to:—Bore Water Trusts 4,486,255 acres, Artesian Wells 324,947 acres, and Water Trusts and Irrigation Trusts 3,417,312 acres.

3. *Victoria.*—(i) *General.* The Water Conservation Works in Victoria consist of irrigation works proper, and those providing mainly a domestic supply, such as the works for the supply of Melbourne, controlled by the Melbourne and Metropolitan Board of Works; the Coliban, Wonthaggi, Broken River, Kerang Lakes, Naval Base and Mornington Peninsula, and Mallee Supply Works administered by the State Rivers and Water Supply Commission; and other works of domestic supply controlled by Water Works Trusts or Municipal Corporations. Particulars of the works not controlled by the Commission will be found in the chapter on Local Government in this volume. With the exception of that of the First Mildura Irrigation Trust, all the irrigation schemes, and the more important domestic and stock water-supply works in rural districts, are vested in and controlled by the State Rivers and Water Supply Commission, a body composed of three members, which was created by the Water Act 1905, now incorporated in the Water Act 1915.

The storages for irrigation and domestic and stock supply purposes, have, at present, a total capacity of 948,500 acre-feet. The completion of works now under construction will bring the total to over 1,279,450 acre-feet, as against a total of 172,000 acre-feet in 1902. The capacity of the Hume Reservoir, which is being constructed on the Upper Murray, is not included in these figures. This reservoir, when completed, will contain 2,000,000 acre-feet, half of which, under the provisions of the River Murray Agreement, can be credited to the State of Victoria.

(ii) *Irrigation Schemes.* (a) *General.* This division comprises the schemes constructed and under construction for the supply of water to some twenty-nine irrigation districts. Up to 1906, irrigation schemes were controlled by local Trusts, which had obtained the moneys for their construction on loan from the State. By the Water Act 1905, all local control was abolished except in the case of Mildura, and the districts were transferred to the State Rivers and Water Supply Commission. Since that date the Government has adopted a vigorous irrigation policy, and the capital expenditure at 30th June, 1926, on water supply for the irrigation and water supply districts under the control of the Commission and at Mildura, exclusive of the amount of £1,202,000 expended by it on River Murray Agreement Works, was £8,946,000. The irrigation works draw their supplies mainly from headworks constructed on the Goulburn, Murray, and Loddon Rivers. The cost of these headworks, which now stands at £1,127,000, is not debited to any particular districts, but is borne by the State. The extent of land under irrigated culture during the year 1925-26 for all kinds of crop was 343,685 acres, being an increase of 10,204 acres over the average area irrigated during the past five years.

(b) *Goulburn Irrigation System.* The Goulburn Irrigation System (see Official Year Book No. 13, map on page 561) is the largest project of the kind in Victoria. The need for irrigation in the Goulburn Valley is indicated by its low annual rainfall, 18 inches, while the great variation in the rainfall over the catchment area, 20 inches to 52 inches; in the rate of flow, 180 cusecs* to 80,000 cusecs; and in the volume of the annual river discharge, 620,000 acre-feet to 6,200,000 acre-feet, reveal clearly the necessity for regulating the river flow by storage. The progress made in this direction is shown by the fact that the existing storages of this system will hold some 660,000 acre-feet, which, added to 300,000 acre-feet divertible direct from the river, brings the total artificial supply to 960,000 acre-feet.

The Goulburn Scheme comprises a diversion weir on the Goulburn River, near Nagambie, which raises the summer level of the river about 45 feet to 408 feet above sea level, the height necessary to command the lands to be irrigated; two main channels, the eastern diverting water to the Shepparton Irrigation District, and the western supplying the eastern half of the Rodney main channels and filling Waranga Basin, the principal storage reservoir of the scheme. Two further main channels issue from this reservoir, one feeding the western half of the Rodney main channels, and the other serving settlements due west as far as the Loddon River. Further details in respect of this scheme are contained in previous issues of the Year Book (see Official Year Book, No. 19, page 834).

In view of the continually increasing demand for water in dry seasons, and the repeated requests for extensions of the system, the Commission had investigations made to determine the most suitable site for an additional storage reservoir. After a number of sites had been examined as to foundations, probable storage capacity, and estimated cost, the Commission adopted what is known as the Sugarloaf site, just below the junction of the Goulburn and Delatite Rivers, as the most economical. A dam has been constructed to a height of 140 feet above the river bed, its foundation being in places 75 feet below the natural surface. It has an over-all length of 3,000 feet, of which 2,300 feet consist of "rock fill" bank with a reinforced concrete-core wall, the remaining 700 feet being of mass concrete, and forming a flood spillway. The dam submerges an area of 8,000 acres and permits the storage of 306,000 acre-feet of water. The catchment area above this reservoir is 1,500 square miles. The design provides that the dam may ultimately be carried to a height of 190 feet from the river bed, which addition would submerge 16,200 acres and impound 918,000 acre-feet.

The portion of the State at present served by the Goulburn system comprises 44,900 acres east of the river, 564,000 acres between the Goulburn and the Campaspe, and 313,100 acres between the Campaspe and the Loddon. These areas include the irrigated closer settlements at Shepparton, Stanhope, Tongala, Rochester, Echuca North, and Dingee, as well as the districts formerly controlled by the Rodney and Tragowel Plains Trusts, where the holdings are larger than in closer settlement areas. The main channels of the system have an aggregate length of 200 miles, in addition to which there are 1,800 miles of distributaries, a total for the whole system of 2,000 miles.

* Cusecs = Cubic feet per second.

The balance of the area, including Deakin District, is provided with a domestic and stock supply, and water is sold for occasional irrigation on application. The amount of the compulsory charge for irrigation water allotted as a "right" is at present 7s. per acre-foot in the two districts—Tragowel Plains and Dingee—farthest removed from the sources of supply, 7s. 6d. in special circumstances at Echuca North, and 6s. per acre-foot elsewhere.

Following strong demands for the extension of existing districts and the provision of an irrigation supply for new areas, the Commission is having the eastern main channel enlarged for its whole length, and extended to command large areas of land north of Shepparton District, and to serve also the suitable lands commanded south of the Broken River. These works are so far advanced that water is being delivered to some of the latter lands, and a new Irrigation District, "South Shepparton," of 14,000 acres has been constituted, in which water rights have been allotted of 1 acre-foot of water to each 4 acres of irrigable land. The Waranga western main channel has been extended to the west side of the Loddon, to improve the supply to Boort District; and a new channel from the Waranga main channel near Tandarra, through Calivil, to the No. 1 main of Tragowel Plains district, was recently completed. These works will strengthen existing supplies, and bring large areas of new irrigable land under irrigation in the near future.

The development of the fruit-canning industry emphasizes the success of irrigation in the Goulburn Valley. The canneries at Shepparton and Kyabram, together with the recently established one at Mooroopna, processed during the year the largest pack of canned fruit yet produced in Victoria, the aggregate of the three canneries being 12,000,000 tins.

(c) *River Murray Irrigation Schemes.* The group of irrigation schemes for the service of the districts along the frontage of the River Murray, and drawing supplies direct from that river, ranks next in importance in point of development to the Goulburn Irrigation System. These schemes already supply an area of 388,000 acres, served by 1,600 miles of channels, and are capable of considerable expansion when the Hume Storage Reservoir, now under construction, becomes operative.

The districts supplied are all situated in the portion of the Murray Valley below the town of Echuca, and in an area of comparatively low rainfall. Those between Echuca and Swan Hill, excepting Tresco, are supplied by gravitation, while the Tresco district, and those lower down the river—Nyah, Merbein, Mildura and Red Cliffs—are supplied by pumping.

The present headwork of the gravitation schemes is a weir and lock at Torrumbarry—some 20 miles (by road) down-stream from Echuca—constructed under the powers conferred by the River Murray Waters Acts, the constructing authority being the State Rivers and Water Supply Commission.

This weir was commenced early in 1919 and completed in the latter part of 1923. It raises the summer level of the river by some 16 feet, and thus substitutes continuous diversion for the intermittent diversion hitherto dependent on the varying level in the river, and at the same time provides for the passing of river craft but without offering serious obstruction to the passage of floods.

These objects have been achieved by the construction of a concrete foundation, combined with movable steel trestles, which support stop bars to the height necessary to keep the river at diverting level. In times of flood the bars, and if necessary the trestles themselves, are removed to the river bank.

The effect of this work, as regards irrigation, is the ensuring of a regular supply by gravitation throughout the year to the districts between Torrumbarry and Swan Hill. The districts first benefited by this supply are those known as Cohuna, Gannawarra, Koondrook and Swan Hill, comprising in all 184,000 acres on the river frontage (hitherto dependent on pumping plants during low stages of river flow), and the Kerang districts and adjacent areas, containing about 119,000 acres, more distant from the river, and receiving a more or less irregular supply, by gravitation, from the Kow Swamp Free Headworks. These headworks comprise a gravitation offtake at the effluence from the Murray of the Gunbower Creek, a main channel thence (the Gunbower Creek improved) to Kow Swamp Reservoir, a natural depression improved so as to hold 40,860 acre-feet, and a main supply channel therefrom (the Macorna channel) westward to the Loddon River.

The quantity of water allotted as a "right" in these districts is one acre-foot per irrigable acre. The compulsory charge is at present 6s. per acre-foot of such water rights. In Kerang district—not yet under a compulsory irrigation charge—water is sold to irrigators on application at a charge not exceeding 4s. per acre-foot of water supplied. The districts supplied include the Cohuna, Koondrook, and Swan Hill Closer Settlement Estates, comprising in all 34,000 acres. Of this area 8,000 acres were specially purchased for soldier settlement, the channel systems being correspondingly extended.

In addition to improving the supplies to existing irrigation districts, the Torrumbarry weir will enable large areas adjacent to these districts to be commanded by extensions of existing gravitation channel systems. The most important works so far constructed for this purpose are (a) the Gunbower-Cohuna Main Channel, which with the necessary distributaries provides water for irrigation for the new Leitchville Irrigation District of 10,000 acres situate between Kow Swamp State Works and the Cohuna Irrigation District, and (b) the Third Lake Main Channel and distributaries, which convey supplies for the irrigation of some 13,000 acres of land (constituted the Third Lake Irrigation District) and 5,800 acres (constituted the Fish Point Irrigation District) lying between that Lake and the Little Murray River.

Extensions of irrigation schemes dependent on the River Murray, hitherto impracticable owing to lack of storage on that river, will be rendered possible on the completion of the Hume Reservoir. This storage work, now in course of construction jointly by the States of New South Wales and Victoria, is one of the works authorized by the River Murray Waters Acts. Detailed reference to this undertaking will be found at the end of this section.

The irrigation areas supplied by means of pumping, and not commandable by gravitation from the Torrumbarry offtake, stated in geographical order, are the Tresco Irrigation District, the Nyah and Merbein Murray Frontage Settlements, the First Mildura Irrigation Trust District, and the Red Cliffs Soldier Settlement.

The Tresco District of 4,000 acres, created by private enterprise, and recently taken over by the State Rivers and Water Supply Commission, is supplied by water lifted from Lake Boga by pumps throwing 80 acre-feet per day. Its channel mileage is 50. The water supplied is $2\frac{1}{4}$ acre-feet to each irrigable acre, and the compulsory charge at present £2 per acre.

The Nyah Irrigation Area is supplied with water diverted from the Murray by a high-lift pumping plant—capacity, 94 acre-feet per day. The total length of the channels is 51 miles. The settlement contains 3,800 acres, subdivided into 237 holdings of an average area of 15 acres—practically all settled. The settlers include 66 discharged soldiers. Water rights are apportioned to these holdings on the basis of $2\frac{1}{4}$ acre-feet of water for each irrigable acre, and the compulsory charge is at present 20s. per acre-foot of such water rights. The land is devoted mainly to vineyards and orchards, and the settlers, taken as a whole, are making good progress. The value of irrigation to the district is reflected in the selling price of the land, fully planted blocks bringing remarkably high prices.

The Merbein Irrigation Area comprises 8,300 acres, originally Crown lands. This settlement now contains 410 holdings, averaging 20 acres each, practically all settled, the settlers including 161 discharged soldiers. The water is obtained from the Murray by pumps, which deliver 225 acre-feet per day. The main and distributary channels have a combined length of 60 miles. The land settlement conditions and the water rights apportioned are the same as at Nyah, but the compulsory charge is 24s. per acre-foot. The Merbein Works supply also the adjacent Yelta Waterworks District of 32,000 acres.

The Red Cliffs Irrigation Settlement comprises an area of 18,000 acres including the township and 15,000 acres of first class irrigable land adjoining the Mildura Settlement. It is the irrigable portion of the large Red Cliffs estate of 33,000 acres, known as the Debenture Holders' Land, acquired by the State for soldier settlement. The scheme of works for this district ranks first in importance among Victoria's pumping systems. It includes a pumping plant capable of delivering 500 acre-feet of

water per day, lifted 105 feet, a reinforced concrete rising main 6 feet 6 inches in diameter, 34 chains long, two electric generators each of about 350 k.v.a. capacity, to provide for re-lifts, and a system of main and distributary channels to command every holding in the district. The three pumping units have already been installed and are in operation. The total length of channels constructed to date is 124 miles, the excavation involved totalling 665,000 cubic yards. Channels having a length of 107 miles have been lined with concrete with the result that 665 blocks, 92 per cent. of the total in the settlement, are protected from seepage from the channels. Some 700 discharged soldiers have been allotted blocks on this settlement. The Red Cliffs township, which is growing rapidly, has been proclaimed an urban division of the Irrigation District, and is supplied with the necessary reticulation from a concrete stand pipe 70 feet high and 26 feet in diameter. The Red Cliffs works supply also the adjacent Carwarp and Carwarp Central Waterworks Districts having a total area of 187,000 acres.

The area planted to date consists of 8,000 acres of vines and 600 acres of citrus trees. The first harvest (1924) returned 570 tons of dried fruit, in addition to which large quantities of table grapes were sold for consumption. The 1927 harvest produced 11,000 tons of raisins, currants, and sultanas, in addition to large quantities of grapes sold for dessert and distillation.

(d) *Loddon River Scheme.* This also is wholly a gravitation system, with a regulating weir on the Loddon at Laanecoorie as its headwork. Its storage capacity is 14,000 acre-feet, and other works include timber diversion weirs at Serpentine and Kinypanial, and 160 miles of channels in the Boort district, which supply an area of 79,000 acres for domestic and stock purposes and partial irrigation.

(e) *Werribee River Schemes.* (1) *Bacchus Marsh.* The headwork of this gravitation scheme is a reservoir of 15,000 acre-feet capacity on Pyke's Creek, a tributary of the Werribee, the intake from the creek catchment being supplemented by a tunnel through a dividing spur, which taps the Werribee River near Ballan. The area of the district is 6,700 acres—half of which is irrigable and includes some of the richest lucerne land in the State. The annual water right is one acre-foot per irrigable acre, and the present compulsory charge is 22s. 6d. per acre-foot of such right. The higher portion of the district receives a supply for domestic and stock purposes.

(2) *Werribee.* This is another gravitation scheme on the same river, with a reservoir of 17,000 acre-feet capacity at Melton as its headwork. The irrigation district comprises 10,000 acres of first-class land, being the irrigable portion of the Werribee Closer Settlement Estate, which is within 20 miles south-westerly of Melbourne. The water-right allotment is one acre-foot per irrigable acre, and the charge at present is 12s. per acre-foot. The non-irrigable portion of the estate, containing about 13,000 acres, is supplied with water for domestic and stock purposes.

(f) *Macallister River (Maffra) Scheme.* The works of this scheme, the first irrigation scheme in the south-eastern portion of the state, now in course of construction, comprise a storage reservoir on the Macallister River, at Glenmaggie near Heyfield, and a system of main and distributary channels capable of commanding by gravitation some 80,000 acres of the rich river flats along the Macallister, Avon, and Thomson Rivers, near Maffra, Stratford, and Sale. The conditions in these areas as to quality of lands and annual rainfall are similar to those at Bacchus Marsh and Werribee before irrigation. The design of the dam—a large cyclopean concrete structure 1,000 feet in length—provides for the raising of water to a maximum height of 100 feet above the foundations. The catchment area above the dam is 813 square miles and the area submerged at full supply level will be 4,500 acres, while the capacity of the storage will be 150,000 acre-feet, and the unregulated flow of the river will yield an additional 100,000 acre-feet. The construction of the works is well advanced, and it is expected that during the coming year about 80,000 acre-feet of water will be stored, and the settlers on the Boisdale Closer Settlement portion of the district will be supplied with water. The commanded lands are specially suitable for beet culture and dairying, and include some 11,000 acres acquired by the State Rivers and Water Supply Commission for soldier settlement. Outlets for the produce of irrigated farms are already provided by the sugar, butter, and condensed milk factories, which are within easy reach; while the proximity to railway stations ensures to settlers the necessary transport facilities.

(iii) *Domestic and Stock Schemes.* (a) *General.* The second division takes into account the schemes constructed and under construction for the supply of water for domestic and stock purposes, the capital expenditure on which at 30th June, 1926, was £7,276,000. The area of country lands artificially supplied with water for these purposes is 22,500 square miles. The number of towns supplied, exclusive of the City of Melbourne and its suburbs, is 199, serving an estimated population of 359,800. In addition to the Commission's districts, some large areas are still administered by local authorities.

(b) *Wimmera-Mallee System.* The principal scheme in this division is that known as the Wimmera-Mallee Gravitation Channel System. This comprehensive scheme of works will compare favourably, it is believed, with any similar individual scheme for domestic and stock service, in any part of the world. The main supply is drawn from four reservoirs in the catchment area of the Wimmera River, at the foot of the Grampians Ranges, viz.:—Lake Lonsdale, Wartook, Fyans Lake, and Taylor's Lake. The reservoirs in use, including some minor works, have a combined storage capacity of 152,700 acre-feet. The completion of the works in progress will bring this total to 212,700 acre-feet. The water is conveyed partly by natural water-courses but chiefly by artificial channels aggregating 5,070 miles in length over farming districts comprising about 11,000 square miles, approximately one-eighth of the whole State (see Official Year Book No. 13, map on page 562). This system also furnishes supplies for 29 townships controlled by the Commission, and 6 towns controlled by local Waterworks Trusts.

(c) *Northern Mallee Water Supply Scheme.* In what is known as the northern Mallee, an area of about 1,250,000 acres, adjoining the Wimmera-Mallee Gravitation Channel System, but above its channel level, the Commission has provided a water supply for the large wheat holdings in the Walpeup and adjoining districts, by means of bores and large public tanks. The number of successful Government bores in use in this area is 98, their average depth being 460 feet. There are also 195 tanks, having a total capacity of 1,043,300 cubic yards, or 176 million gallons.

(d) *Carwarp Scheme.* The works of this scheme—a system of distributary channels—were constructed to provide domestic and stock supplies for an area of 187,000 acres of Mallee lands situated immediately south of the Red Cliffs Irrigation District and traversed by the Mildura Railway, the supply being drawn from the Red Cliffs pumping station. The whole of this area was at first embraced within the Carwarp Waterworks District, but, subsequently, an improved supply was given to some 15,000 acres around the railway station, and above the general level of the surrounding country, by means of a pump and rising main, with 12 miles of channels. The high lands so supplied have been constituted the Carwarp Central Waterworks District.

(e) *Millewa Scheme.* This recent and important addition to Victoria's water supply schemes for domestic and stock purposes is designed to serve 1,000,000 acres of the extreme northern Mallee between the Mildura railway and the South Australian border, which is being opened up for settlement by this water supply scheme, and the construction of 55 miles of railway from Red Cliffs westward toward South Australia. The water for this extensive area will be drawn from the River Murray. The scheme comprises two main lifts, of about 125 and 150 feet respectively, the first lift being from Lake Cullulleraine on the flats 5 miles from the Murray. This lake, the main storage of the scheme, which holds 2,000 acre-feet, will be filled from No. 9 Lock now in course of construction. Holdings aggregating 350,000 acres have already been allotted to 421 settlers, and, for the service of this area, 350 miles of channels have been excavated, and 30 earthen storages, with a combined capacity of 317,000 cubic yards, have been constructed at convenient distances from railway stations. The first unit of the pumping scheme and the rising main having been completed, water was turned into the channels and storages early in 1924, and in May and June of that year the whole occupied area received a supply of water by channel. The extension of the pumping stations to their final capacity is being proceeded with. The construction of the remaining works of the scheme will precede the throwing open of additional lands for settlement. In this area and the adjacent Sunset country, 80 tanks have been constructed with a total storage capacity of 110,700 cubic yards.

(f) *The Coliban System* comprises two main storage reservoirs on the Coliban River, on the northern slope of the Dividing Range, the "Upper Coliban" with a capacity of 25,700 acre-feet, and "Malmsbury" with a capacity of 12,300 acre-feet, together with

main and distributary channels aggregating 340 miles in length, 23 subsidiary reservoirs, and 300 miles of urban pipe reticulation. This scheme supplies water for domestic and stock purposes to the city of Bendigo, also to Castlemaine, Maldon, and eighteen other townships, and the interjacent rural districts, containing in all some 235,000 acres. The population served is 61,000. This system also supplies the demands of the quartz and sluice mining industries throughout this area, and provides water for irrigation for orchards, market gardens and similar purposes, the area irrigated annually being about 6,000 acres.

(g) *Naval Base and Mornington Peninsula Scheme.* Another scheme in this division which calls for mention here is the Naval Base and Mornington Peninsula Scheme. This comprehensive scheme—prepared at the request of the Naval Authorities—is for the supply of water to the Flinders Naval Base, and for the service of fifteen townships *en route*, including Berwick, Beaconsfield, Pakenham, Aspendale, Chelsea, Carrum, Frankston, Mornington, and Hastings. An ample supply of water is obtainable both for ordinary domestic and stock use and for market gardening, in the vicinity of Dandenong, from the headwaters of the Bunyip River, which drains some 30 square miles of forest country above the point of off-take. The works are so far advanced that water is already being delivered at the Naval Base, and to the townships of Mornington, Frankston, Carrum, Aspendale, and the intervening bayside resorts, as well as the inland townships of Beaconsfield, Berwick, Cranbourne, Somerville, and Bittern.

The scheme has been extended to supplement the supply to the township of Dandenong hitherto controlled by a local Trust, the works of which were recently transferred to the Commission, which will administer them as part of the general scheme.

An important development of this scheme was the purchase by the Commission of 3,300 acres of land in the vicinity of Narre Warren, on the main Gippsland railway, for closer settlement under irrigation. This land, which is within about 25 miles of the metropolis, is being subdivided into blocks of 10 to 15 acres, suitable for market gardening and other forms of intensive culture. Drainage works will be provided where necessary, and every block will receive a satisfactory supply of water under pressure from a pipe system connected with the main race. Electricity for all purposes will be available from the works of the Electricity Commission. The land is being settled under the ordinary closer settlement conditions, and there is a good demand for the blocks.

(h) *The Kerang North-West Lakes Works* consist of a chain of lakes, situate a few miles to the north-west of Kerang, connected by channels to each other and to the Loddon River, and improved so as to be capable of storing 88,500 acre-feet of water. This system serves, for domestic and stock purposes, an area of 40,000 acres, constituted the "Kerang North-West Lakes Waterworks District." When the supply from the Loddon River is insufficient, the lakes are filled by gravitation from the Torrumbarry Weir, on the River Murray, via the Kow Swamp Irrigation Works. The water is diverted along Sheepwash Creek—an improved natural effluent from the Loddon—the river level having been raised by a concrete weir at Kerang. As in the Coliban District, limited quantities of water are sold on application for irrigation purposes, about 5,500 acres having been irrigated annually from this source for some years. These irrigation facilities have been so appreciated that, in response to a strong demand, an irrigation District of 18,000 acres ("Mystic Park") has been constituted on the west of the Lakes, and further works have been constructed to provide an irrigation supply to some 13,000 acres lying to the north of "Third Lake." This area has also been constituted an Irrigation District in which water rights will be allotted on the basis of one acre-foot of water to each acre of irrigable land. To provide complete circulation throughout the chain of lakes a large channel with a capacity of 400 acre-feet per day has been constructed from Lake Tutchevop to Lake Boga.

(i) *The Broken River Works* comprise two weirs—"Casey's" and "Gowangardie"—above Shepparton, and offtake works therefrom, for the diversion of water into the channels of the Tungamah, Shepparton, and Numurkah Waterworks Trusts.

(j) *The Wonthaggi Works* comprise a storage reservoir on Lance Creek, capacity 421,000,000 gallons, a main pipe line therefrom 9 miles in length to the coal-mining town of Wonthaggi, a service reservoir—capacity 1,400,000 gallons, and 18 miles of pipe reticulation for the service of that town. The population supplied is 5,000, and there is a service to the State Coal Mine and Railways Department.

(iv) *Flood Protection.* The Water Acts of Victoria provide for the constitution of Flood Protection Districts, in which the residents are rated for schemes carried out for their benefit. The works are constructed, and districts administered by the State Rivers and Water Supply Commission, and the Commission is carrying out extensive schemes at Koo-wee-rup and Cardinia, in the south-eastern portion of the State, at Loch Garry and Kanyapella on the Goulburn River between Shepparton and Echuca, and works on a smaller scale at the town of Echuca.

The Koo-wee-rup and Cardinia Flood Protection Districts together embrace the whole of a large continuous depression south of the main Gippsland railway and along the sea-board of Westernport, containing in all about 100,000 acres of very fertile country, the proper development of which was seriously retarded by periodical inundations. A large portion of the land was reclaimed, subdivided, and settled by the State, but it became evident, during periods of heavy rainfall, that only a comprehensive drainage scheme for the whole area affected would afford the needed protection from flooding.

At the request of the settlers, the Commission prepared schemes for this purpose, and, after the concurrence of the settlers had been obtained, practically carried the schemes into effect; and the two large districts above-mentioned were constituted, and are now being rated on an acreage basis in respect of benefits derived from the works. The Commission's works are now well advanced, and provide flood protection from all but abnormal floods, and the duration of even these is considerably shortened and their effect correspondingly lessened as the result of the works, which consist of the substantial enlargement and remodelling of most of the existing principal drains, the construction of new internal drains, and the cutting of several distinct outlets, thus avoiding concentration of flood waters in the main drains.

The Loch Garry Flood Protection Works comprise about $5\frac{1}{2}$ miles of earthen levee banks around Loch Garry, and a concrete regulator and spillway 400 feet in length, to control overflows from the loch. The purpose of the scheme is to protect some 40,000 acres of lands previously flooded by overflows of the Goulburn River by way of Loch Garry and Bunbartha Creek. The Kanyapella Scheme provides for the conservation of a domestic and stock supply in Warrigal Creek, and the exclusion therefrom of certain flood waters. The area benefited is 13,500 acres. Both schemes have been approved of by a majority of the land holders concerned and are now in operation.

(v) *Mildura.* The Mildura Irrigation Scheme is controlled by the First Mildura Irrigation Trust, and water is obtained by pumping from the River Murray. The area of the settlement is 45,000 acres, of which 14,000 acres are under intense culture, vines predominating. During the year ending 30th June, 1926, the Trust's receipts aggregated £51,104, and its expenditure £44,891; whilst loans—exclusive of £11,343, arrears of interest—advanced by the Government amounted at 30th June, 1926, to £97,753. The number of water-acres supplied during the year was 42,230.

4. Queensland.—The main irrigation works in Queensland are as follows :—

(i) *Dawson Valley Scheme.* The Dawson Valley Irrigation Scheme, now under construction, comprises :—(a) A concrete dam at Nathan's Gorge, some 30 miles below the town of Taroom, to impound 2,500,000 acre-feet of water; (b) an offtake weir 27 miles down stream for the diversion of water for the irrigation of 200,000 acres in the Dawson Valley.

The Dawson River rises in the Great Dividing Range. The catchment above the proposed Nathan Dam is 9,000 square miles, over which the average annual rainfall is 27 inches. An arched dam is involved, with termini on lines tangential to the curve. The rock forming the foundations is a hard sandstone, the crushing strength of which ranges from 3,000 to 5,000 lb. per square inch. It is designed to fix the water level 130 feet above summer water level at the site, and the crest height at 145 feet, with a spillway on the left bank. The crest length of the dam will be 860 feet, 500 feet on the curved portion. The reservoir will be the largest artificial storage in the world.

An approach road from Wandoan Railway Station to the dam site has been under construction during the year. This is 45 miles in length and now available for light traffic, so that the carting of plant and materials for the construction of the Nathan Dam can be commenced at an early date.

The irrigable lands are of a good agricultural type, suitable for irrigation, with good capillarity, ample humus, and containing liberal amounts of all mineral plant foods in readily available form. About 120,000 acres are commanded on the eastern side of the river, and 80,000 on the western side. It is proposed to construct a hydro-electric station at the Nathan Dam to utilize the water power to irrigate high level lands not commanded by gravitation, provide stock and domestic supplies to dry areas, power for factories, and light throughout the settlement.

The Dawson Valley is situated in the Central Division of the State, which comprises 209,340 square miles, or nearly one-third of the total area of Queensland. The population is less than one person to two square miles, and subtracting those resident in the principal towns, the ratio is one inhabitant to four square miles, although there is only a comparatively small proportion of inferior land in the whole area. This irrigation scheme not only provides an opportunity for increasing population and extending agriculture, but will also form a fodder reserve area for pastoral lands where rainfall is insufficient for agriculture, and water conservation impracticable. A fodder conservation proposal is being considered for the early stages of settlement with this end in view, and to give settlers an opportunity readily to dispose of some of their produce.

A railway line is in course of construction through the irrigation areas from the present terminus of the Dawson Valley line at Baralaba. This was completed to Nipan, 13 miles from Theodore, on 30th June, 1926, and completion of the line is anticipated in 1927.

In order to minimize heavy interest charges accruing during the process of construction, the project has been designed on the zone system, by which one area is prepared for settlement and completed before the next zone is proceeded with. Five zones have been designed, each averaging 40,000 acres of irrigated land attached to a considerable acreage of dry lands. The dry lands will be allotted in proportion to irrigated land held. The farms grow smaller as the centre of the zone is approached, till the unit of 12½ acres is the standard immediately adjacent to each central town. Though forming an integral part of the gravitation system, each zone will be a separate entity, served by its own central township, and in close connexion with the Dawson Valley railway system now under construction.

(c) *Theodore Zone.* By the completion of all works for irrigation purposes in the Theodore zone, 30,000 acres are now made available for settlement. This area is divided into 373 farms, of which 264 are irrigated and 109 are attached dry farms. A considerable proportion of the latter consists of good vine scrub land, and all is classed as soil suitable for agriculture, on which dry areas products such as wool, butter, cotton, etc., can be raised in conjunction with an irrigation farm, as an insurance over dry periods. The rich country back from the river flats is expected to form a great attraction to settlement. The pumping station established on the river operated satisfactorily during the past year. The river bank at this point is higher than the surrounding 5,000 acres, so that when the water is pumped up, the channels radiating from the Power Station carry it by gravitation. Local storage of over 2,000 acre-feet has been obtained by the erection of a timber and earth weir below the pumping station, the crest of which is 8 feet above ordinary summer level of the river.

(ii) *Inkerman Irrigation Area.* This area is situated at Home Hill, Ayr district, using the waters of the Burdekin River, with electrically operated shallow well pumps. The number of wells and pumps is 230, and the acreage under irrigation at the end of 1924 was 5,000. Provision is being made to increase this area to 10,000 acres.

(iii) *Other Schemes.* Smaller schemes include Townsville (wells, creek, and river); Rockhampton (wells, river, creek, etc.); those at Bingera, near Bundaberg, which utilize water pumped from the Burnett River just above the point of meeting of the salt and fresh waters; and those at Fairymead, which utilize water pumped from a number of shallow spear wells sunk on the alluvial flats on the north side of the Burnett River and about 6 miles from Bundaberg.

5. *South Australia.*—(1) *The Renmark Irrigation Trust.* The Renmark Irrigation Trust was established on similar lines to Mildura, but on a smaller scale. The area of settlement is 23,000 acres, and the irrigated area 7,700 acres, while the population of the town and settlement is 4,800. Water is obtained from the Murray by pumping. The

main pump situated on the river bank lifts the water into a large lagoon, from which three further pumps of 17 feet, 26 feet, and 27 feet-lift raise the water and irrigate 950, 4,200, and 1,800 acres respectively. A fifth pumping plant again lifts the water 26 feet and irrigates 750 acres. The total length of the channels is 78 miles, and of roads 98 miles, while the annual water rate is £2 15s. 0d. per acre. It is anticipated that when Murray locks 4 and 5 are completed, it will be possible to gravitate the water into the lagoon, and plans are on foot for the establishment of a central power station and the gradual electrification of all the pumping plants. Cultivation on the settlement is as follows: Sultanas, 2,441 acres; currants, 1,335 acres; gordos, 922 acres; doradillos and wine grapes, 404 acres; pears, 155 acres; apples, 8 acres; apricots, 292 acres; peaches and nectarines, 109 acres; citrus fruits, 438 acres; figs, 11 acres; prunes, 7 acres; olives, 39 acres; miscellaneous fruits, 16 acres; and balance in fodder crops. The most up-to-date and largest fruit-packing shed in the State is situated at Renmark, and is co-operatively owned, as is also a large distillery for the manufacture of grape spirit. There are several private packing sheds and a private distillery.

(ii) *Other Waterworks.* A number of country water-works is under the control of the Public Works Department. As, however, they are not irrigation works properly so called, but are used for supplying water for domestic purposes, etc., to several towns, no further reference will be made to them in this chapter. (See chapter on Local Government.)

(iii) *Areas under Irrigation.* The Irrigation Areas on the River Murray above Morgan under Government control up to the end of March, 1927, contained 29,036 acres of irrigable land, allotted to 1,119 settlers, including 568 returned soldiers. The pumping plants at present installed or being installed on these areas aggregate 7,653 brake horse-power, with a pumping capacity of over 12 million gallons per hour.

The *Cadell Irrigation Area* is 7 miles by river above Morgan, and comprises 2,727 acres, of which 1,164 are irrigable. Blocks have been allotted to 63 soldier settlers and 6 civilian settlers. The area is suitable for fruit growing. The pumping plant is a 190 b.h.p. steam plant, with a capacity of 4,200 gallons per minute against a head of 75 feet. This area was first allotted on 30th September, 1919.

The *Waikerie Irrigation Area* is 39 miles above Morgan by river, and includes the old Waikerie and Ramco settlements. The total area is 9,300 acres, of which 3,362 acres are irrigable land, growing fruit trees and vines. The area allotted is divided between 201 settlers, 16 of whom are soldiers, the first allotment taking place on 5th July, 1910. The pumping plant consists of five units, four suction gas and one steam unit, with a total of 1,300 b.h.p. The capacity of the plant is 17,000 gallons per minute against a total head of 140 feet.

The *Holder Scheme* adjoins the Waikerie Irrigation Area, and has been incorporated as a portion of the latter. It contains 452 acres of irrigable land, and 1,901 acres of dry land. Blocks have been allotted to 70 settlers, including 16 soldier settlers. An area of 115 acres of the irrigable land has been subdivided into 43 small allotments, of which 41 have been allotted. The pumping plant consists of two steam units, with a total of 238 b.h.p., and a capacity of 3,750 gallons per minute against a total head of 115 feet. An adjoining irrigable area of 110 acres, held by Holder Ltd., is also irrigated by this plant.

The *Kingston Irrigation Area* is situated 75 miles above Morgan by river, and comprises the old village settlement of that name. It has a total area of 3,748 acres, of which 469 acres are irrigable, and has been allotted to 34 settlers. The water is pumped by a 130 b.h.p. steam plant with a capacity of 2,000 gallons per minute against a total head of 114 feet.

The *Moorook Irrigation Area*, adjoining the Kingston Area, contains 5,970 acres of land, of which 650 acres are irrigable. Altogether 644 acres of irrigable land have been allotted to 38 settlers, of whom 15 are soldier settlers. The first allotment took place in March, 1916. This area is irrigated by a 430 b.h.p. steam plant of two units, with a capacity of 7,160 gallons per minute against a total head of 120 feet.

The *Cobdogla Irrigation Area* is on the opposite side of the river to Kingston and Moorook Areas. It was formerly a sheep station held under pastoral lease, and was resumed by the Government for irrigation purposes. The total area of the station was

160,000 acres, of which 23,400 acres had been set apart as the Berri Area, and the remaining 136,600 acres as the Cobdogla Area. The latter area includes Lake Bonney, 4,000 acres in extent. This lake is situated 3 miles inland from the Murray from which it is kept partially filled by Chambers Creek, now that No. 3 Lock is in operation.

The Cobdogla Area contains about 30,000 acres of land capable of being irrigated. It is divided into 5 sections viz., the Cobdogla, Nookamka, Loveday, McIntosh, and Weigall divisions.

The Cobdogla division has been developed as a low-lift area, the pumping head being about 34 feet, to irrigate 1,572 acres of land, suitable for vine and fodder growing. An irrigable area of 1,197 acres has been allotted to 45 settlers, including 6 soldiers.

The Nookamka division, south of Lake Bonney, has an irrigable area of 2,549 acres, of which 2,152 acres have been allotted to 119 soldier and 12 civilian settlers. The first allotment took place on 16th March, 1922.

The Loveday division has an irrigable area of 9,324 acres. The construction work on this area has been completed, and 868 acres have been allotted to 52 soldier settlers and 1 civilian. The reticulation is by means of concrete pipe lines, for both main and branches, instead of open channels.

Pumping plants have been installed on the Cobdogla, Nookamka, and Loveday divisions. On the Cobdogla division a 240 b.h.p. steam plant with a capacity of 16,700 gallons per minute has been installed. Two "Humphrey" gas pumps have been installed with a combined capacity of 47,600 gallons per minute. These pumps will shortly be tested. The Nookamka division has two steam units, totalling 640 b.h.p., with a capacity of 12,500 gallons per minute. The Loveday division has a 300 b.h.p. gas plant, with a capacity of 6,000 gallons per minute, and two steam units of 1,315 b.h.p., with a total pumping power of 33,300 gallons per minute to 93 total head.

The *Berri Irrigation Area* is 120 miles above Morgan by river, and contains a total area of 23,400 acres, of which 7,800 acres are suitable for fruit and vine culture. A total of 7,131 acres of irrigable land has been allotted to 419 settlers, of whom 225 are soldier settlers. An area of 80 acres of the irrigable land is used as an experimental farm. The first allotment of the older portion of this area took place in January, 1911. The pumping plant consists of five units, three suction gas and two steam units, with a total of 2,250 b.h.p., and a capacity of 42,500 gallons per minute against total heads varying from 50 feet to 120 feet.

The *Chaffey Irrigation Area* comprises a large area of country adjacent to Renmark. Preliminary survey work has been carried out over 14,000 acres of prospective irrigable land. A portion of this area, known as the Ral Ral Division, containing 1,930 acres, of which 1,694 are irrigable land, has been surveyed into blocks. A total of 1,030 acres, including 912 acres of irrigable land, has been allotted to 60 settlers, 56 of whom are soldiers. A pumping plant of 220 b.h.p., with a capacity of 12,500 gallons per minute against a total head of 30 feet has been installed.

The *Irrigation and Reclaimed Swamp Areas* under Government control on the River Murray below Morgan contain 11,286 acres of rateable land, i.e., 1,100 acres of high irrigable and 10,186 acres of reclaimed swamp land, allotted to 313 settlers, of whom 44 are soldier settlers. The former land is irrigable by pumping, and the latter by gravitation. Pumping plants installed total 1,546 b.h.p., with a capacity of 4½ million gallons per hour.

Mobilong and Burdett Divisions of the Murray Bridge Irrigation Area, adjoining Murray Bridge, contain 576 acres of irrigable reclaimed fodder land with 41 settlers.

Long Flat and Monteith Flat below Murray Bridge have between them a reclaimed irrigable area of 1,330 acres, of which 1,065 acres have been allotted to 52 settlers.

Swanport Area below Murray Bridge has 192 acres of fruit and fodder land.

The *Jervois Irrigation Area* is divided into four divisions, i.e.—

Jervois Division is 15 miles below Murray Bridge, and includes 1,199 acres of irrigable reclaimed land, of which 708 acres have been allotted to 19 civilian and 2 soldier settlers.

Woods Point Division is 12 miles below Murray Bridge, and contains 1,100 acres of irrigable reclaimed land, of which 1,066 acres have been allotted to 2 soldier and 26 civilian settlers.

Wellington Division is 18 miles below Murray Bridge, and has an area of about 1,627 acres of irrigable reclaimed land. Provision is being made for 26 settlers.

Highland Division has an area of 9,105 acres of dry land suitable for grazing and cultivation purposes. An area of 6,344 acres has been allotted to 45 settlers.

The *Mypolonga Area* is 9 miles above Murray Bridge, and has a river frontage of 7 miles. The total area of this settlement is 5,800 acres, of which 908 are irrigable and 1,341 acres irrigable reclaimed land. The area has 86 settlers, of whom 13 are soldiers.

The *Pompoola Area* is situated 13 miles above Murray Bridge, and was previously used as a Training Farm for prospective soldier settlers. The area contains 4,127 acres, of which 402 acres are irrigable reclaimed land. Blocks have been allotted to 9 soldier settlers.

The *Wall Area*, 16 miles above Murray Bridge, has an area of 998 acres, of which 453 acres are rateable reclaimed swamp land. Eleven soldiers are settled on the area.

The *Neeta Irrigation Area* is 20 miles above Murray Bridge, and contains a total of 2,750 acres, of which 525 acres are rateable reclaimed swamp land. A rateable area of 467 acres has been allotted to 6 civilian and 7 soldier settlers.

The *Cowirra Irrigation Area* is 20 miles above Murray Bridge, and contains a total of 2,358 acres, of which 581 acres are rateable reclaimed swamp land. A rateable area of 283 acres has been allotted to 7 civilian settlers.

The *Baseby Area* is about 21 miles above Murray Bridge, and has an area of 1,350 acres. This area has not yet been settled.

The reclaimed lands consist mainly of peaty soils composed of rich river silt, and are eminently suitable for the growth of lucerne and other fodders, onions, potatoes, etc. The soils of the irrigable lands have already proved their suitability for the production of peaches, apricots, nectarines, oranges, lemons, figs, and grapes.

(iv) *Allotment of Irrigated Land.* All lands are allotted under perpetual lease, and blocks are surveyed into areas varying up to 50 acres of irrigable or reclaimed land. No lessee is permitted to hold more than 50 acres of irrigable or reclaimed land, or of both irrigable and reclaimed, except that in the case of a partnership 50 acres may be allotted for each member of the partnership up to a maximum of 150 acres, but in the Jervois Area a rateable reclaimed area of up to 100 acres may be held by one lessee.

In addition, areas of non-irrigable land are allotted to lessees of irrigation and reclaimed blocks for dry farming. The rentals of the blocks are fixed by the Irrigation Commission immediately prior to the land being offered for application. For the reclaimed land an amount is charged sufficient to cover interest on cost of the land, the survey thereof, and interest on cost of the levee; while for the irrigable land the rent is based on the unimproved value of Crown lands, or to cover interest on cost of repurchased lands.

On the irrigable land, the present rate is 60s. per acre per annum. On the reclaimed lands an amount is charged to meet the annual management, drainage, maintenance expenses, and certain interest charges, the present rate being 30s. per acre. A sliding scale covers the rent on all land and water rates on the irrigable land for the first four years, i.e., first year, one-quarter of the full rent and water rates; second year, one-half; third, three-quarters; fourth and afterwards, full amount, per acre. On the irrigable lands each lessee is entitled for the water rates to 24 acre-inches per annum, supplied in four irrigations; special irrigations and domestic supplies are available at times other than during the general irrigation at a nominal cost. On the reclaimed lands, water is supplied regularly by reticulation from the river.

Liberal assistance is provided by the Government to lessees of irrigation blocks. Apart from the erection of pumping plants, construction of main channels and other work necessary to render the land ready for occupation, the Irrigation Commission has power to carry out improvements in the nature of clearing, channelling, fencing, etc. The lessee on allotment is required to take over any expenditure so incurred, and to pay an amount of not less than 15 per cent. of the cost of the work. Subsequent to allotment the Commission has power to expend a sum not exceeding £30 per acre of the irrigable land in any lessee's block in making the following improvements, or any of them:—Fencing, clearing, grading, constructing irrigation channels, drains and tanks thereon, and connecting such channels or drains with the nearest main channel or drain. The lessee is required

to pay a deposit before the work is commenced equal to not less than 15 per cent. of the Commission's estimate of the cost of carrying out such improvements. The Commission may also make cash advances to any lessee for all or any of the following purposes :—

- (a) For carrying out improvements and the erection of buildings to the extent of the estimated value of the lease and improvements already made or in course of being made thereon, but not exceeding £850.
- (b) For the purchase of implements, stock, seeds, plants, trees, etc., to any amount not exceeding £200.
- (c) For any other purpose that may be approved by the Commission, but not exceeding three-fourths of the estimated value of the lease and any improvements already made thereon.

The total amount that may be expended or advanced, however, for all or any of the above purposes, including improvements carried out by the Commission, shall not exceed in aggregate the sum of £600, or £30 per acre of the irrigable portion of the land, whichever sum is the greater.

All expenditure incurred by the Commission in improving the land either before or after allotment, or advanced to the lessee to carry out further improvements, must be repaid under the following conditions :—For the period of 5 years following the date on which the expenditure was incurred or advances made, the lessee shall pay interest on the amount at current rates. After the expiration of 5 years, the lessee is required to repay the amount expended or advanced by 70 equal half-yearly instalments, together with interest at current rates on the balance remaining unpaid.

6. Western Australia.—In this State an Irrigation Act provides for the constitution of irrigation districts. At Harvey, works for irrigating about 4,000 acres devoted to fruit growing, principally oranges, were opened on the 21st June, 1916. A scheme is now in preparation for irrigating a further area in the same district.

Numerous small private irrigation schemes are in full operation on many of the south-west rivers, in connexion with fruit, fodder, and potato growing.

7. Murray Waters.—(i) *River Murray Agreement.* The River Murray Agreement, with subsequent amendments, entered into by the Governments of the Commonwealth and the States of New South Wales, Victoria, and South Australia, provides for the construction of the following works :—(a) The Hume reservoir, (b) The Lake Victoria storage, (c) Twenty-six weirs and locks in the River Murray, and (d) Nine weirs and locks in the River Murrumbidgee. In the Agreement provision is made for these works to be undertaken by the Governments of the three States—the Hume Reservoir and 17 weirs and locks between Echuca and Wentworth, including that at Wentworth, to be constructed by the Governments of New South Wales and Victoria severally or jointly, as may be mutually agreed upon by them; the 9 weirs and locks in the River Murrumbidgee to be constructed by the Government of New South Wales; and the Lake Victoria Storage and 9 weirs and locks in the River Murray below Wentworth by the Government of South Australia.

The River Murray Commission, appointed in pursuance of the Agreement referred to, and comprising a representative of each of the four contracting Governments, is charged with the duty of giving effect to the Agreement and the River Murray Waters Acts.

(ii) *Works.*—(a) *General.* The whole of the works which have been put in hand to date, with the exception of the weir and lock at Blanchetown, which work was commenced before the Agreement came into operation, and which was in that Agreement specifically exempted from the provisions thereof, has been constructed, or is being constructed, in accordance with designs approved by the River Murray Commission.

The following are the works which have been put in hand :—

The Hume Reservoir,	} By the Governments of New South Wales and Victoria.
Weir and Lock at Torrumbarry (near Echuca),	
Weir and Lock No. 11 (Mildura),	
Weir and Lock No. 10 (Wentworth), a little below the junction of the Rivers Murray and Darling,	
The Lake Victoria Storage,	} By the Government of South Australia.
Weirs and Locks Nos. 1, 2, 3, 4, 5, and 9,	

(b) *The Hume Reservoir.* The site of the Hume Dam, which is being constructed jointly by the Constructing Authorities for New South Wales and Victoria, is located a little below the junction of the Rivers Murray and Mitta Mitta, where the reservoir will receive the run-off from a catchment of 6,000 square miles of mountainous country. The original designs prepared in connexion with this work provided for a reservoir with a capacity of 1,100,000 acre-feet, and the work was put in hand on both sides of the river in accordance with such designs, but in order to utilize the Hume Reservoir works for the purpose of hydro-electric generation the four Contracting Governments, acting on expert advice, later agreed to the construction of the dam of dimensions and height sufficient for a capacity of 2,000,000 acre-feet. The cost of the enlarged reservoir has been estimated at £4,563,100.

The dam, which is in course of construction, will consist of two main sections—(1) the outlets and flood spillway, and (2) the earthen embankment containing a concrete core wall sunk into the solid granite, and provided with a tunnel for drainage and inspection purposes. The first section, which will extend from the New South Wales bank of the river to the Victorian bank, and which will be practically all of concrete, is being constructed by the New South Wales Constructing Authority. The remaining section of the dam, which extends from the Victorian bank of the river to the high ground bordering the river flats, is in course of construction by the Victorian Constructing Authority. The total length of the dam, including both sections above referred to, will be 4,200 feet.

On the New South Wales section of the work the river has been diverted, and the work of placing concrete in the foundations of the main portion of the dam inside the coffer dam is proceeding. On the Victorian side of the river the construction of the earthen embankment and the concrete core wall has advanced considerably during the year. Approval has been given to the designs and estimate of cost, viz., £194,500, for a bridge over the Hume Reservoir near the dam, which work has been put in hand. The total expenditure incurred to date on the whole of the works at the Hume Reservoir amounts to £1,875,000.

§§ (c) *Lake Victoria Storage.* The Lake Victoria Storage is situated in the south-west corner of the State of New South Wales. The scheme approved consists of the construction of extensive embankments and channels, the construction of three regulators (the inlet regulator in the Frenchman's Creek, the controlling regulator in the main inlet channel, and the outlet regulator in the Rufus River), and improvements to Frenchman's Creek and Rufus River.

These works, which are now practically completed, will provide for the storage in the lake of 514,000 acre-feet of water for use by the State of South Australia.

(d) *Weirs and Locks.* Four weirs and locks, viz., that at Torrumbarry (Victoria) and Nos. 1, 3, and 9 (South Australia) have been completed, and are now in operation. Of the remaining weirs and locks at present in hand, three, Nos. 2 and 5 (South Australia) and 11 (Victoria), are in an advanced stage of construction. At Weir and Lock No. 10 (New South Wales) work has commenced inside the first coffer-dam, and at Weir and Lock No. 4 (South Australia) the first coffer-dam is in course of construction.

Investigations are proceeding with a view to the location of the sites of the weirs and locks to be constructed in the River Murray above Mildura.

(iii) *Finance.* In the River Murray Agreement of 1914, the estimated total cost of the whole of the works was set down at £4,663,000, but it is now clear, from the experience which has been gained in connexion with the works which have been put in hand to date, that the total cost of the whole of the works will be considerably in excess of the estimate referred to. The total expenditure incurred up to 31st December, 1927, on that portion of the scheme completed and in course of construction amounted to £4,620,000, towards which expenditure the four Contracting Governments, in conformity with the amending Agreement previously referred to, have contributed in equal shares.

The Commission's estimate of expenditure on works, surveys, investigations, etc., during the year 1927-28 is as follows :—

New South Wales—

Hume Reservoir, including Land Resumption, etc.	£410,000
Weir and Lock No. 10	150,000
Weir and Lock No. 15	30,000
Surveys and Borings	5,000
	<hr/>
	£595,000

Victoria—

Hume Reservoir	£220,000
Bethanga Bridge	50,000
Weir and Lock No. 11 (Mildura)	30,000
Surveys, Investigations, etc.	20,000
Land Compensation.. .. .	130,000
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	£450,000

South Australia—

Weir and Lock No. 2	£50,000
Weir and Lock No. 4	80,000
Weir and Lock No. 5	10,000
Weir and Lock No. 6	50,000
Lake Victoria Storage	15,000
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	£205,000

Total	<hr/>	£1,250,000
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The four Contracting Governments will furnish their respective contributions towards this expenditure as required during the year.

(iv) *Gaugings.* The River Murray Agreement places upon the Commission the duty of carrying on an effective and uniform system of making and recording continuous gaugings of the main stream of the River Murray and its tributaries within the boundaries of each of the States of New South Wales, Victoria, and South Australia, and of all diversions, whether natural or artificial or partly natural and partly artificial, from the main stream and its tributaries. It is further provided that, in lieu of making any such gaugings, the Commission may accept any gaugings made and recorded by any of the Contracting State Governments.

Arrangements have been made with the three Contracting State Governments for the adoption of uniform methods in connexion with all gaugings on the River Murray and its tributaries, and for the submission periodically to the Commission, for purposes of the River Murray Agreement, of the results of such gaugings.

The gaugings made at the Renmark Gauging Station during the year 1925-26 indicated that the total flow of the river at that point was 7,981,427 acre-feet for the year. The total flow at the same station for the preceding year was 11,205,333 acre-feet, the average for all years being about 8,500,000 acre-feet.

The approximate quantity of water diverted from the river by the three States by artificial or partly artificial means for the same year was 1,856,782 acre-feet.

The River Murray Commission, as at present constituted, is as follows :—

Commonwealth—Hon. W. C. Hill, M.P., Minister for Works and Railways (President).

Deputy Commissioner—Mr. T. Hill, M.V.I.E.

New South Wales—Mr. H. H. Dare, M.E., M. Inst. C.E., M. Inst. E., Aust.

Victoria—Mr. R. Horsfield, M. Inst. C.E.

South Australia—Mr. J. H. O. Eaton, M. Inst. C.E., M. Inst. E., Aust.

Secretary—Mr. P. A. Gourgaud.

Accountant—Mr. H. J. Rowlands, A.F.I.A.

More detailed references to the River Murray Agreement and the operations of the Commission will be found in previous issues of the Year Book (see Official Year Book, No. 19, pages 845-850).

CHAPTER XXIV.

POPULATION.

§ 1. Enumerations and Estimates.

The nature of the early "musters" of the population and the subsequent Census enumerations which have been conducted in Australia were reviewed in Official Year Book, Number 15, pp. 1083-5. This review was accompanied by a tabular statement showing the dates on which the various enumerations were made, and the numbers counted on such occasions.

§ 2. Census of 4th April, 1921.

1. Numbers Enumerated.—The Census for the whole of Australia was taken as for the night between the 3rd and the 4th of April, 1921, and was the second Census under the provisions of the Commonwealth Census and Statistics Act 1905-20, which provides for the enumeration being dealt with from one centre, instead of each State being responsible for its own count as on previous occasions. The numbers recorded in the several States and Territories were as follows:—

POPULATION.—4th APRIL, 1921.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

States and Territories.	Males.	Females.	Persons.
States—			
New South Wales	1,071,501	1,028,870	2,100,371
Victoria	754,724	776,556	1,531,280
Queensland	398,969	357,003	755,972
South Australia	248,267	246,893	495,160
Western Australia	177,278	155,454	332,732
Tasmania	107,743	106,037	213,780
Territories—			
Northern	2,821	1,046	3,867
Federal Capital	1,567	1,005	2,572
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Australia	2,762,870	2,672,864	5,435,734

2. Increase since Census of 1881.—(i) *Australia*.—The increase of population between the Census of 3rd April, 1911, and that of 4th April, 1921, was 980,729, of which 449,835 were males and 530,894 were females, as compared with an increase of 681,204, comprising 335,107 males and 346,097 females, for the preceding ten years. The population of each sex enumerated at the Censuses of 3rd April, 1881, 5th April, 1891, 31st March, 1901, 3rd April, 1911, and 4th April, 1921, was as follows:—

POPULATION.—AUSTRALIA, LAST FIVE CENSUSES.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

Date of Census.	Males.	Females.	Persons.	(a) Masculinity.
3rd April, 1881	1,214,913	1,035,281	2,250,194	7.98
5th April, 1891	1,704,039	1,470,353	3,174,392	7.36
31st March, 1901	1,977,928	1,795,873	3,773,801	4.83
3rd April, 1911	2,313,035	2,141,970	4,455,005	3.84
4th April, 1921	2,762,870	2,672,864	5,435,734	1.66

(a) Excess of males over females per 100 persons.

(ii) *States and Territories.* The increases in the population of the several States and Territories during the past four intercensal periods have been as follow :—

POPULATION.—STATES, ETC., INTERCENSAL INCREASES.

State or Territory.	1881-1891.		1891-1901.		1901-1911.		1911-1921.	
	Numerical.	Per cent.	Numerical.	Per cent.	Numerical.	Per cent.	Numerical.	Per cent.
N.S. Wales	(a)374,129	40.90	(a)230,892	20.54	(a)293,602	21.67	453,637	27.55
Victoria	278,274	32.30	61,230	5.37	114,481	9.53	215,729	16.40
Queensland	180,193	84.39	104,411	26.52	107,684	21.62	150,159	24.79
South Australia ..	39,119	14.15	42,813	13.57	50,212	14.01	86,602	21.20
Western Australia ..	20,074	67.57	134,342	269.86	97,990	53.22	50,618	17.94
Tasmania	30,962	26.76	25,808	17.60	18,736	10.86	22,569	11.80
N. Territory	1,447	41.93	(b)-87	(b)-1.78	(b)-1,501	(b)-31.20	557	16.83
Fed. Cap. Ter. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	858	50.06
Australia	924,198	41.07	599,409	18.88	681,204	18.05	980,729	22.01

(a) Including Federal Capital Territory.

(b) Decrease.

For Australia as a whole, the increase during the period 1911-1921 was greater by 299,525 than that for the period 1901-1911, the rate of increase being 22.01 per cent. for 1911-1921, as against 18.05 for 1901-1911. The former corresponds to an increase of 1.67 per cent. per annum, the latter to an increase of 2.01 per cent. per annum.

As regards the separate States, both the numerical and relative increases in the case of New South Wales, Victoria, Queensland, South Australia, and Tasmania were greater for 1911-1921 than for 1901-1911. On the other hand, Western Australia experienced a smaller increase during the decade 1911-1921 than in either of the two immediately preceding decades. The Northern Territory showed during the period 1911-1921 its first increase in population since the decade 1881-1891.

§ 3. Distribution and Fluctuation of Population.

1. *Present Number.*—The population of Australia on the 31st December, 1926, was estimated at 6,110,514 persons, of whom 3,122,581, or 51.10 per cent., were males and 2,987,933, or 48.90 per cent., were females. The increase during the year 1926 was 118,430, equal to 1.98 per cent., males having increased by 62,266, or 2.03 per cent., and females by 56,164, or 1.92 per cent. Of the increase referred to, 76,210, or 64.35 per cent., was due to the excess of births over deaths, and 42,220, or 35.65 per cent., was due to the excess of immigration over emigration.

2. *Growth and Distribution.*—The following tables show the population of the States at decennial intervals from their foundation to the year 1910, and for each of the

last five years. In issues of the Year Book up to No. 15, the male and female populations of Australia as a whole were given at quinquennial periods from 1788, but it is considered that the abridged table presented herewith will suffice for general purposes.

POPULATION.—1788 TO 1926.

Estimated Population at end of Year.

Year.	States.					Territories.			Australia.
	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Northern	Federal Capital.	
MALES.									
(a) 1800	3,780	..	..	..	..	..	..	..	3,780
1810	7,585	..	..	..	..	..	..	..	7,585
1820	23,784	..	..	..	..	..	..	..	23,784
1830	33,900	..	..	..	877	(b) 18,108	..	..	52,885
1840	85,560	..	..	8,272	1,434	32,040	..	..	127,306
1850	154,976	..	..	35,902	3,576	44,229	..	..	238,683
1860	197,851	(b) 330,302	(b) 16,817	64,340	9,597	49,653	..	..	668,560
1870	272,121	397,230	69,221	94,894	15,511	53,517	..	..	902,494
1880	404,952	450,558	124,013	147,438	16,985	60,568	..	..	1,204,514
1890	602,704	595,519	223,252	166,049	28,854	76,453	..	..	1,692,831
1900	716,047	601,773	274,684	180,349	110,088	89,763	(c) 4,288	..	1,976,992
1910	858,181	646,482	325,513	206,557	157,971	98,866	2,738	..	2,296,308
1920	1,067,945	753,803	396,555	245,300	176,895	107,259	2,911	(b) 1,062	2,751,730
1923	1,127,195	806,546	428,312	265,340	189,429	109,546	2,527	1,407	2,930,302
1924	1,150,759	824,182	440,115	273,701	195,341	108,569	2,538	1,643	2,996,848
1925	1,171,590	838,693	454,819	282,790	199,596	108,047	2,550	2,230	3,060,315
1926	1,196,559	852,399	465,644	292,846	203,210	106,330	2,773	2,820	3,122,581

FEMALES.

(a) 1800	1,437	..	..	..	..	..	..	..	1,437
1810	3,981	..	..	..	..	..	..	..	3,981
1820	9,759	..	..	..	..	..	..	..	9,759
1830	10,688	..	..	..	295	(b) 6,171	..	..	17,154
1840	41,908	..	..	6,358	877	13,959	..	..	63,102
1850	111,924	..	..	27,798	2,310	24,641	..	..	166,673
1860	159,695	(b) 207,932	(b) 11,239	61,242	5,749	40,168	..	..	477,025
1870	225,871	326,695	46,051	89,652	9,624	47,369	..	..	745,262
1880	336,190	408,047	87,027	123,955	12,576	54,222	..	..	1,027,017
1890	510,571	538,209	168,864	152,898	19,648	68,334	..	..	1,458,524
1900	644,258	594,440	219,163	176,901	69,879	83,137	(c) 569	..	1,789,347
1910	785,674	654,926	273,503	200,311	118,861	94,937	563	..	2,128,775
1920	1,023,777	774,106	354,069	245,706	154,428	105,493	1,078	(b) 910	2,659,567
1923	1,082,250	818,834	382,856	250,408	164,386	109,528	1,023	1,215	2,819,505
1924	1,103,691	832,913	394,779	264,805	168,783	109,270	1,059	1,355	2,876,655
1925	1,126,852	845,324	406,366	268,843	172,587	108,985	1,106	1,706	2,931,769
1926	1,151,222	859,428	416,549	273,548	175,536	108,424	1,125	2,101	2,987,933

PERSONS.

1788	859	..	..	..	..	..	..	..	859
1790	2,056	..	..	..	..	..	..	..	2,056
1800	5,217	..	..	..	..	..	..	..	5,217
1810	11,566	..	..	..	..	..	..	..	11,566
1820	33,543	..	..	..	..	..	..	..	33,543
1830	44,588	..	..	..	1,172	(b) 24,279	..	..	70,039
1840	127,468	..	..	14,630	2,311	45,999	..	..	190,408
1850	266,900	..	..	63,700	5,886	68,870	..	..	405,356
1860	348,546	(b) 538,234	(b) 28,056	125,582	15,346	89,821	..	..	1,145,585
1870	497,992	723,925	115,272	184,546	25,135	100,886	..	..	1,647,756
1880	741,142	858,605	211,040	276,393	29,561	114,790	..	..	2,231,531
1890	1,113,275	1,133,728	392,116	318,947	48,502	144,787	..	..	3,151,355
1900	1,360,305	1,196,213	493,847	357,250	179,967	172,900	(c) 4,557	..	3,765,339
1910	1,643,855	1,301,408	599,016	406,868	276,832	193,803	3,301	..	4,425,083
1920	2,091,722	1,527,909	750,624	491,006	331,323	212,752	3,989	(b) 1,972	5,411,297
1923	2,209,445	1,625,380	811,168	524,748	353,815	219,074	3,555	2,622	5,749,807
1924	2,254,450	1,657,095	834,894	538,506	364,124	217,839	3,597	2,998	5,873,503
1925	2,298,442	1,684,017	861,185	551,633	372,183	217,032	3,656	3,936	5,992,084
1926	2,347,781	1,711,827	882,193	566,394	378,746	214,754	3,898	4,921	6,110,514

(a) Details as to sex not available for earlier decennial dates. (b) Previously included with New South Wales. (c) Previously included with South Australia.

So far as the numbers can be ascertained, the nucleus of the population of Australia consisted of 1,024 persons, including the military, who landed in Sydney Cove on the 26th January, 1788. For many years the number increased very slowly, and in 1825, when Tasmania (then known as Van Diemen's Land) was separated from New South Wales and constituted a separate colony, *i.e.*, 37 years after the first settlement, the total population was only 52,505 persons, of whom 38,313 were in New South Wales, and 14,192 were in Tasmania. The total for Australia attained its first million in 1858, 70 years after settlement. At this time the population was distributed among the States, or Colonies as they were then, as follows:—New South Wales, 31.97 per cent.; Victoria, 47.22 per cent.; Western Australia, 1.38 per cent.; South Australia, 11.29 per cent.; and Tasmania, 8.14 per cent. The second million was reached in 1877, after a lapse of nineteen years, by an average rate of increase of 3.53 per cent. per annum. The third million was reached twelve years later, in 1889, by an annual rate of increase of 3.48 per cent.; the fourth million sixteen years later, in 1905, at the rate of increase of 1.74 per cent. per annum; the fifth million thirteen years later in 1918, by an annual average rate of 1.79 per cent.; and the sixth million eight years later in 1926 by an annual average rate of 2.31 per cent.

The growth of the population of Australia and of each State thereof, is illustrated by the graph accompanying this chapter.

3. **Mean Population.**—The following table shows the mean population for each State and Territory for the five years 1922 to 1926.

MEAN POPULATION, EXCLUSIVE OF FULL-BLOOD ABORIGINALS.

Year.	States.					Territories.			Australia.
	New South Wales.	Victoria.	Queens- land.	South Australia.	Western Australia.	Tas- mania.	Nor- thern.	Fed. Cap.	
1922 ..	2,149,349	1,570,824	781,022	506,036	339,649	214,777	3,653	2,815	5,568,125
1923 ..	2,190,410	1,607,773	802,748	517,445	348,275	215,327	3,610	3,315	5,688,903
1924 ..	2,228,337	1,641,852	825,151	529,691	359,521	214,687	3,603	3,848	5,806,690
1925 ..	2,274,247	1,671,467	851,419	543,986	368,194	213,469	3,681	4,721	5,931,184
1926 ..	2,320,288	1,696,670	875,187	558,883	374,996	211,216	3,765	6,106	6,047,111

4. **Increase at Decennial Periods since 1790.**—The following table furnishes particulars relative to the increase in population of Australia during each decade, and the percentage of such increase on the population at the commencement of the decade:—

POPULATION.—AUSTRALIA, DECENNIAL INCREASE.

Increase during Decade—

Decade ended 31st December—	Numerical.			Percentage.		
	Males.	Females.	Persons.	Males.	Females.	Persons.
				%	%	%
1790 ..	(a)	(a)	2,056	..	..	..
1800 ..	(a)	(a)	3,161	(a)	(a)	153.75
1810 ..	3,805	2,544	6,349	100.66	177.04	121.70
1820 ..	16,199	5,778	21,977	213.57	145.14	190.01
1830 ..	29,101	7,395	36,496	122.36	75.78	108.80
1840 ..	74,421	45,948	120,369	140.72	267.86	171.86
1850 ..	111,377	103,571	214,948	87.49	164.13	112.89
1860 ..	429,877	310,352	740,229	180.10	186.20	182.61
1870 ..	233,934	268,237	502,171	34.99	56.23	43.84
1880 ..	302,020	281,755	583,775	33.47	37.81	35.43
1890 ..	488,317	431,507	919,824	40.54	42.02	41.22
1900 ..	284,161	329,823	613,984	16.79	22.61	19.48
1910 ..	319,316	340,428	659,744	16.15	19.04	17.52
1920 ..	455,422	530,792	986,214	19.83	24.93	22.29

(a) Not available.

5. Area, Population, Masculinity, and Density.—States, 1926.—A previous table showed the estimated number of persons on the 31st December, 1926, in each of the States and Territories. In the following table the proportions of the total area, and of the total population represented by each State or Territory, are given, together with the masculinity and the density of population :—

AREA, POPULATION, MASCULINITY, AND DENSITY.—STATES, 1926.

State or Territory.	Percentage on Total Area.	Per cent. Estimated Population 31st December, 1926.			Masculinity. (a)	Density. (b)
		Males.	Females.	Persons.		
New South Wales ..	10.40	38.32	38.53	38.42	1.93	7.59
Victoria ..	2.96	27.30	28.76	28.01	—0.41	19.48
Queensland ..	22.54	14.91	13.94	14.44	5.57	1.32
South Australia ..	12.78	9.38	9.16	9.27	3.41	1.49
Western Australia ..	32.81	6.51	5.87	6.20	7.31	0.39
Tasmania ..	0.88	3.40	3.63	3.51	—0.98	8.19
Northern Territory ..	17.60	0.09	0.04	0.07	42.28	0.007
Federal Capital Territory ..	0.03	0.09	0.07	0.08	14.61	5.24
Australia ..	100.00	100.00	100.00	100.00	2.20	2.05

(a) Excess of males over females in each 100 persons.

(b) Number of persons per square mile.

NOTE.—The minus sign (—) indicates excess of females over males in each 100 persons.

6. Urban and Rural Distribution.—The following table shows the number of persons and the percentage on the total population recorded at the Census of the 4th April, 1921, as resident in urban and rural areas respectively. The metropolitan divisions include the capital city and the adjoining urban areas; the urban provincial districts cover those cities and towns which are not adjacent to the metropolitan areas, and which are incorporated for local government purposes; those persons classed as migratory were mostly on board ships in Australian ports :—

URBAN AND RURAL POPULATION.—AUSTRALIA, CENSUS, 4th APRIL, 1921.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

Particulars.	States.					Territories.				Australia.
	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Northern	Federal Capital.		
NUMBER.										
Urban—										
Metropolitan	899,059	766,465	209,946	255,375	154,873	52,361	..	..	2,338,079
Provincial	525,007	187,490	183,720	41,637	42,571	55,644	1,399	..	1,037,468	
Rural ..	664,590	571,577	359,014	195,054	130,098	105,123	2,403	2,563	2,030,422	
Migratory ..	11,715	5,748	3,292	3,094	5,190	652	65	9	29,765	
Total ..	2,100,371	1,531,280	755,972	495,160	332,732	213,780	3,867	2,572	5,435,734	
PERCENTAGE ON TOTAL.										
Urban—										
Metropolitan	42.80	50.05	27.77	51.57	46.55	24.49	..	..	43.01
Provincial..	25.00	12.24	24.30	8.41	12.79	26.03	36.18	..	19.09	
Rural ..	31.64	37.33	47.49	39.39	39.10	49.17	62.14	99.65	37.35	
Migratory ..	0.56	0.38	0.44	0.63	1.56	0.31	1.68	0.35	0.55	
Total ..	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	

For Australia as a whole 62.10 per cent. of the population is urban, this percentage being exceeded by New South Wales, 67.80 per cent., and Victoria 62.29 per cent. Tasmania, with 50.52 per cent., has the smallest percentage of urban population in all the States.

During the ten years between the Censuses of 1911 and of 1921 the population of the metropolitan areas in the aggregate increased in proportion to the total population of Australia from 38.03 per cent. in 1911 to 43.01 per cent. in 1921. This movement was common to all the States, though in varying degree. The relative accretion to the metropolitan total was greatest in Western Australia, where it increased from 37.85 per cent. to 46.55 per cent. of the population of the State, and was least in New South Wales, where it increased from 38.23 per cent. to 42.80 per cent. The abnormal increase in the proportion of the metropolitan population to the total population of Western Australia is not due entirely to the actual increase to the population of Perth and suburbs, but is caused in some measure by the departure from the State of many persons who had been engaged in connexion with the mining industry in extra-metropolitan districts.

In Victoria and in South Australia more than half the population lives within the metropolitan areas. At the Census of 1921, 50.05 per cent. of the population of Victoria, and 51.57 per cent. of the population of South Australia, were resident in their respective capitals. Of the total population of Australia, 43.01 per cent. was in the metropolitan areas, the proportion of the total males being 40.35 per cent., and of the females 45.77 per cent. The post-censal estimates, which are given in the following table, show a higher proportion in each of the capitals than was shown by the Census.

7. Metropolitan Population—Australia and Other Countries.—The abnormal concentration of population in the capitals of the States of Australia, as compared with other countries, may be readily seen from the following table. It may be mentioned, however, that, in most of the European countries, the capital is not always the most populous of many big cities, whereas, in Australia, the capital is invariably the most populous city, and in some States is the only town of important magnitude.

METROPOLITAN POPULATION.—AUSTRALIA AND OTHER COUNTRIES.

State or Country.	Metropolis.	Year.	Population.	Percentage on total of State or Country.
				%
New South Wales ..	Sydney ..	31st Dec., 1926	1,070,510	45.60
Victoria ..	Melbourne ..		944,400	55.17
Queensland ..	Brisbane ..		274,260	31.09
South Australia ..	Adelaide ..		316,865	55.94
Western Australia ..	Perth ..		184,223	48.64
Tasmania ..	Hobart ..		55,130	25.67
Australia ..	(6 Cities) ..		2,845,388	46.63
New Zealand ..	Wellington ..	1.4.1927	126,310	8.19
New York State ..	New York ..	1926	5,970,782	52.07
Northern Ireland ..	Belfast ..	1926	416,000	33.11
Austria ..	Vienna ..	1923	1,865,780	28.56
Denmark ..	Copenhagen ..	1925	731,496	21.30
Hungary ..	Budapest ..	1921	1,217,325	14.91
Irish Free State ..	Dublin ..	1926	421,000	14.17
Saxony ..	Dresden ..	1925	679,159	13.60
England ..	London (a) ..	1926	4,605,400	11.79
Belgium ..	Brussels ..	1925	801,656	10.26
Norway ..	Oslo ..	1920	258,483	9.75
Netherlands ..	Amsterdam ..	1925	718,046	9.68
Bavaria ..	Munich ..	1925	680,704	9.22
Scotland ..	Edinburgh ..	1926	426,100	8.69
Portugal ..	Lisbon ..	1921	435,359	7.31
Sweden ..	Stockholm ..	1925	442,528	7.31
France ..	Paris ..	1926	2,871,429	7.05
Germany ..	Berlin ..	1925	4,013,588	6.36
Greece ..	Athens ..	1923	385,026	6.21
Finland ..	Helsingfors ..	1925	211,691	6.00
Spain ..	Madrid ..	1925	1,136,760	5.14
Czecho-Slovakia ..	Prague ..	1921	676,657	4.98
Poland ..	Warsaw ..	1921	936,713	3.44
Japan ..	Tokio ..	1925	1,995,567	3.34
Switzerland ..	Berne ..	1925	106,680	2.71
Italy ..	Rome ..	1926	758,569	1.87
Russia (European) ..	Leningrad ..	1926	1,611,102	1.15
United States ..	Washington ..	1926	528,000	0.45

(a) Population of Greater London in 1926 was 7,791,310.

8. **Principal Urban Centres.**—The following table gives particulars of the population of the principal urban incorporated areas in each State at the 31st December, 1926 :—

**POPULATION OF PRINCIPAL URBAN INCORPORATED AREAS.—AUSTRALIA,
31st DECEMBER, 1926.**

Town.	Population.	Town.	Population.
New South Wales—		Queensland—continued.	
Sydney and Suburbs ..	1,070,510	Maryborough ..	12,000
Newcastle and Suburbs ..	99,850	Bundaberg ..	10,000
Broken Hill ..	24,010	Gympie ..	9,131
Auburn ..	17,710	Charters Towers ..	9,100
Bankstown ..	17,270	Cairns ..	9,000
Granville ..	16,800	Mackay ..	7,250
Parramatta ..	16,400	Warwick ..	7,000
Lithgow ..	16,380	Mount Morgan ..	6,700
Cessnock ..	13,840	Southport ..	5,000
Lidcombe ..	13,540	Roma ..	4,000
Maitland (East and West) ..	12,960		
Goulburn ..	11,940	South Australia—	
Katoomba ..	10,020	Adelaide and Suburbs ..	316,865
Bathurst ..	9,380	Port Pirie ..	9,720
Lismore ..	9,280	Mount Gambier ..	3,997
Wagga Wagga ..	8,410	Walleroo ..	3,237
Albury ..	8,210	Victor Harbour ..	3,153
Orange ..	7,960	Kadina ..	2,473
Wollongong ..	7,580	Peterborough ..	2,610
Tamworth ..	6,960	Burra ..	1,829
Grafton (including South Grafton) ..	6,350	Gawler ..	1,771
Liverpool ..	5,910	Kapunda ..	1,554
Armidale ..	5,730	Jamestown ..	1,393
Dubbo ..	5,130	Port Augusta ..	1,355
		Moonta ..	1,321
Victoria—		Western Australia—	
Melbourne and Suburbs ..	944,400	Perth and Suburbs ..	184,223
Ballarat and Suburbs ..	41,550	Boulder ..	5,884
Geelong and Suburbs ..	40,880	Kalgoorlie ..	5,300
Bendigo and Suburbs ..	33,550	Northam ..	5,000
Warrnambool ..	8,050	Bunbury ..	4,900
Mordialloc ..	7,760	Geraldton ..	4,199
Castlemaine and Suburbs ..	7,170	Albany ..	3,980
Wonthaggi ..	6,800	Collie ..	3,550
Carrum ..	6,750	Narrogin ..	2,500
Mildura ..	6,000	York ..	1,600
Hamilton ..	5,260		
Ararat ..	5,010	Tasmania—	
Maryborough ..	4,860	Hobart and Suburbs ..	55,130
Stawell ..	4,670	Launceston and Suburbs ..	26,900
Colac ..	4,400	Devonport ..	4,950
Horsham ..	4,170	Burnie ..	3,710
Wangaratta ..	3,870	Ulverstone ..	2,790
Queensland—		Queenstown ..	2,590
Brisbane and Suburbs ..	274,260	New Norfolk ..	2,190
Rockhampton ..	30,000	Latrobe ..	1,740
Townsville ..	29,800	Zeehan ..	1,600
Toowoomba ..	23,886	Deloraine ..	1,550
Ipswich ..	20,526		

§ 4. Elements of Increase.

1. **Natural Increase.**—(i) *General.* The two factors which contribute to the growth of a population are the “natural increase” by excess of births over deaths, and the “net immigration,” i.e., the excess of arrivals over departures. While the relative potency of these factors depends upon a variety of causes, it may be said that, in general, in the case of a new country “net immigration” provides an important part of the increase of population, while in an old country “natural increase,” modified more or less by “net emigration,” or excess of departures over arrivals, is the principal element of increase. A graph showing the natural increase to the population of each State and of Australia, from year to year since 1861, accompanies this chapter.

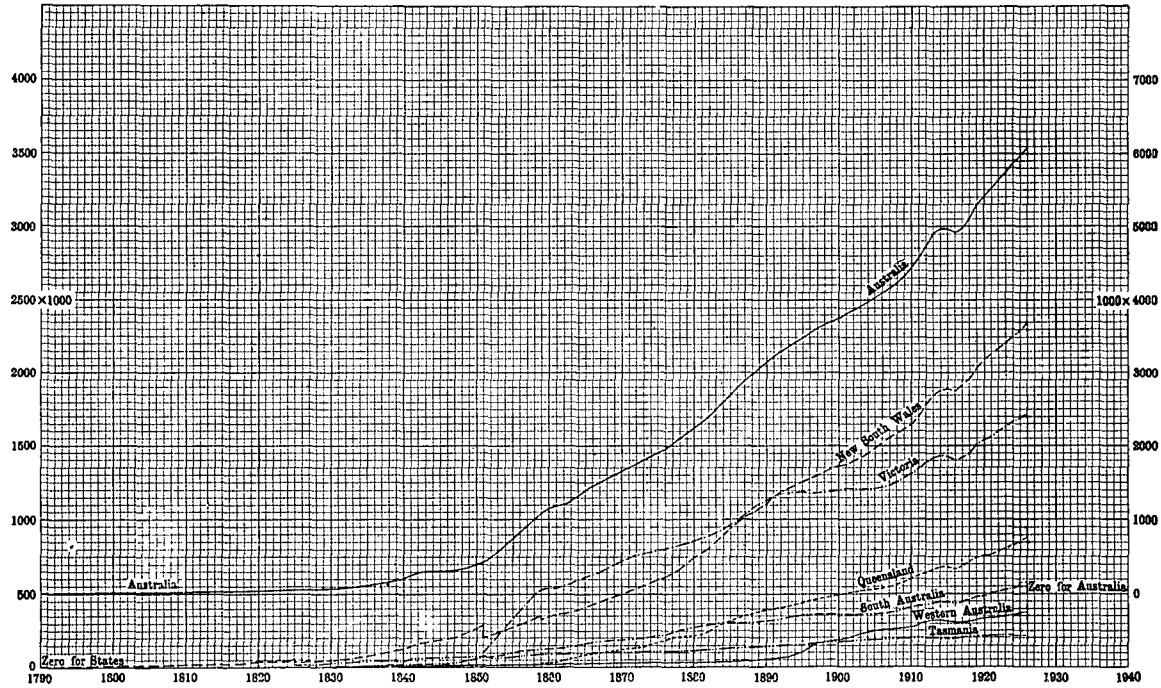
POPULATION.—NATURAL INCREASE (a), 1861 TO 1926.

Period.	States.					Territories.			Australia.
	N.S.W. (b)	Victoria.	Q'land.	S. Aust. (c)	W. Aust.	Tas.	North- ern. (d)	Fed. Cap. (e)	
MALES.									
1861 to 1870	47,905	69,283	8,183	20,526	1,519	7,174	..	..	154,590
1871 to 1880	64,107	67,117	14,664	23,655	1,733	6,549	..	..	177,825
1881 to 1890	97,411	73,142	25,858	33,488	2,757	11,377	..	..	244,033
1891 to 1900	105,526	79,251	38,249	28,320	4,838	13,262	..	..	269,446
1901 to 1910	115,306	73,280	38,043	26,649	19,045	16,658	-487	..	288,494
1911 to 1920	149,100	87,548	54,391	35,086	22,517	18,059	-326	153	366,528
1921 ..	16,515	9,626	6,241	3,467	1,779	1,778	-31	12	39,387
1922 ..	17,204	10,551	5,891	3,613	2,169	1,911	-14	12	41,337
1923 ..	15,744	9,430	5,464	3,249	2,107	1,748	5	4	37,743
1924 ..	15,463	9,637	5,610	3,297	2,176	1,523	-13	4	37,697
1925 ..	15,934	10,010	5,735	3,095	2,053	1,583	-15	13	38,408
1926 ..	14,547	9,438	5,110	3,230	2,175	1,544	-17	8	36,035
1861 to 1926	674,762	508,313	213,439	187,675	64,868	83,166	-898	198	1,731,523
FEMALES.									
1861 to 1870	56,670	80,534	11,137	21,210	2,406	9,059	..	..	181,016
1871 to 1880	75,843	79,023	21,997	25,552	2,840	8,891	..	..	214,146
1881 to 1890	112,294	87,964	39,500	35,353	4,347	13,592	..	..	293,050
1891 to 1900	121,037	93,664	49,794	30,235	10,430	14,499	..	..	319,659
1901 to 1910	130,460	82,460	48,958	27,455	24,822	16,549	61	..	330,765
1911 to 1920	168,873	93,144	65,736	36,143	29,447	18,425	197	150	412,115
1921 ..	18,095	9,800	6,946	3,525	2,548	1,780	30	11	42,735
1922 ..	18,800	10,582	6,944	3,780	2,795	1,909	24	14	44,848
1923 ..	17,277	9,228	6,625	3,482	2,817	1,772	29	13	41,243
1924 ..	17,407	10,000	6,771	3,425	2,862	1,737	26	22	42,250
1925 ..	17,859	10,075	7,003	3,383	2,817	1,639	18	22	42,816
1926 ..	16,410	9,589	6,440	3,376	2,776	1,532	26	26	40,175
1861 to 1926	771,025	576,063	277,851	196,919	90,907	91,384	411	258	2,004,818
PERSONS.									
1861 to 1870	104,575	149,817	19,320	41,736	3,925	16,233	..	..	335,606
1871 to 1880	139,950	146,140	36,661	49,207	4,573	15,440	..	..	391,971
1881 to 1890	209,705	161,106	65,358	68,841	7,104	24,969	..	..	537,083
1891 to 1900	226,563	172,915	88,043	58,555	15,268	27,761	..	..	589,105
1901 to 1910	245,766	155,740	87,001	54,104	43,867	33,207	-426	..	619,259
1911 to 1920	317,973	180,692	120,127	71,229	51,964	36,484	-129	303	778,643
1921 ..	34,610	19,426	13,187	6,992	4,327	3,558	-1	23	82,122
1922 ..	36,004	21,133	12,835	7,393	4,964	3,820	10	26	86,185
1923 ..	33,021	18,658	12,089	6,731	4,924	3,520	34	9	78,986
1924 ..	32,870	19,637	12,381	6,722	5,038	3,260	13	26	79,947
1925 ..	33,793	20,085	12,738	6,478	4,870	3,222	3	35	81,224
1926 ..	30,957	19,027	11,550	6,606	4,951	3,076	9	34	76,210
1861 to 1926	1,445,787	1,034,376	491,290	384,594	155,775	174,550	-487	456	3,736,341

(a) Excess of births over deaths. (b) Including Federal Capital Territory prior to 1911.
(c) Including Northern Territory prior to 1901. (d) Included in South Australia prior to 1901.
(e) Part of New South Wales prior to 1911.

NOTE.—Minus sign (—) denotes excess of deaths over births.

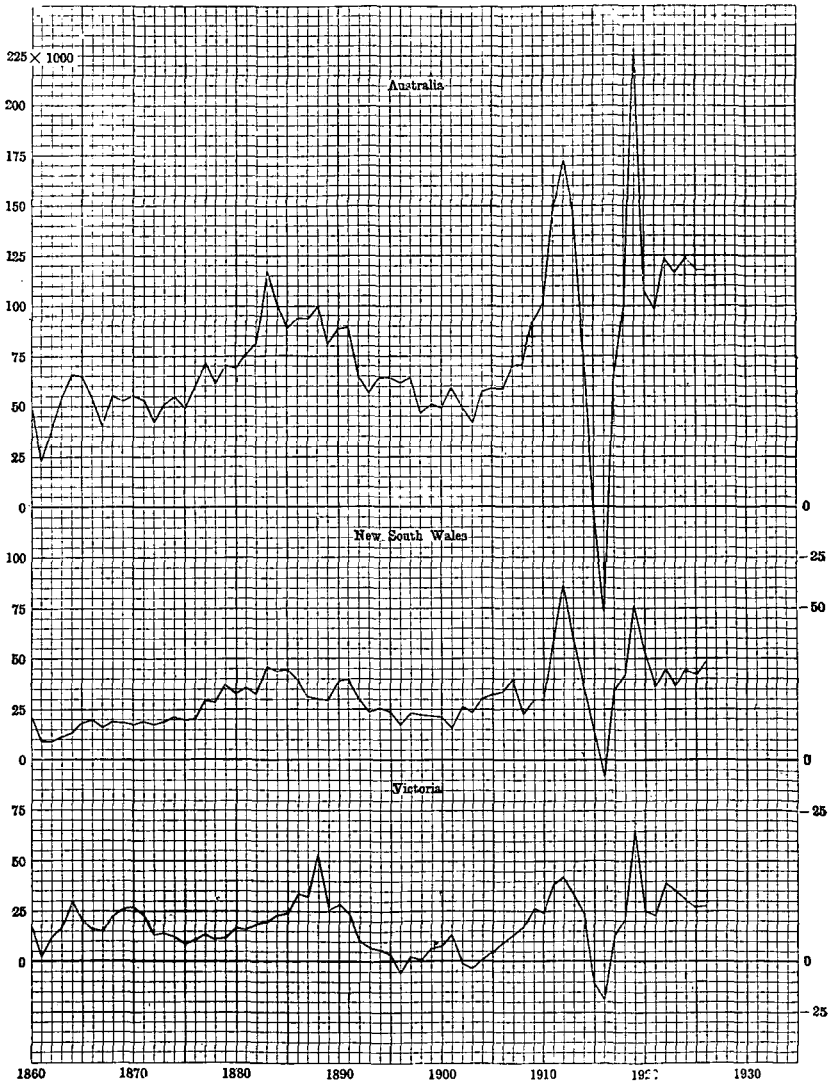
TOTAL POPULATION, 1788 TO 1926.



EXPLANATION.—The base of each small square represents one year's interval for the States and Australia, and the vertical height for the States 50,000 persons, and for Australia 100,000 persons.

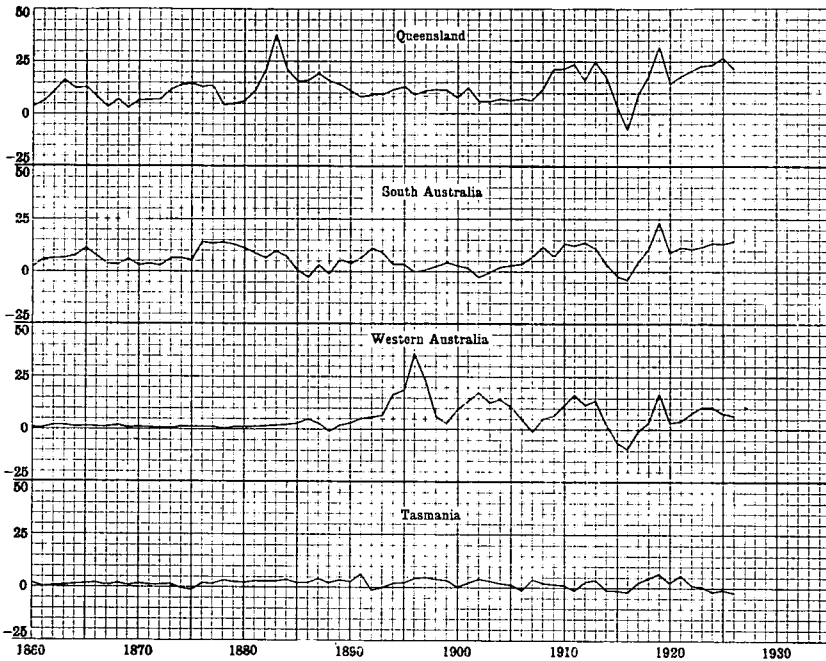
Where the population falls suddenly, the fall denotes the creation of a new colony, *e.g.*, New South Wales in 1825 lost the whole population of Tasmania.

TOTAL INCREASE OF POPULATION—AUSTRALIA, AND NEW SOUTH WALES AND VICTORIA, 1860 TO 1926.



(For explanation see next page.)

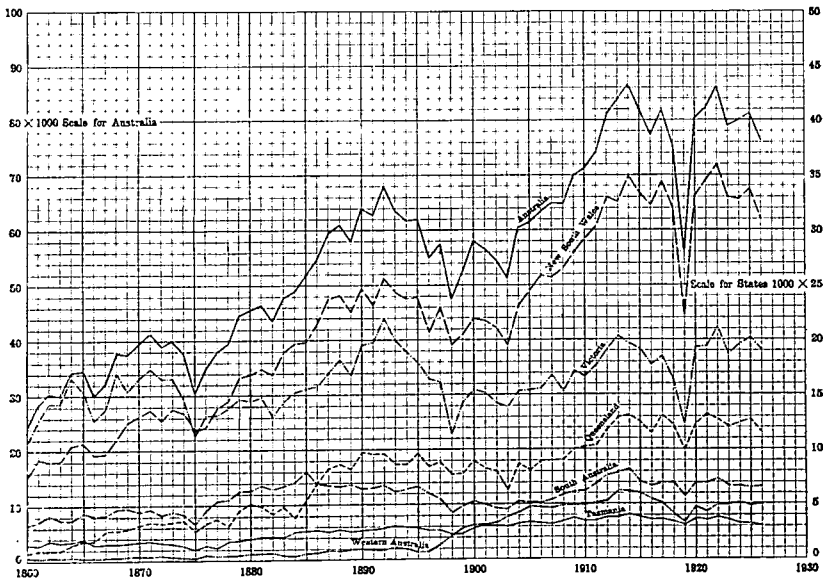
TOTAL INCREASE OF POPULATION.—QUEENSLAND, SOUTH AUSTRALIA, WESTERN AUSTRALIA, AND TASMANIA, 1860 TO 1926.



EXPLANATION.—The base of each small square represents an interval of a year for both States and Australia; the vertical height represents 5,000 persons. In the first graph (on page 862) three zero lines are taken (i) for Australia, (ii) for New South Wales, and (iii) for Victoria. In the second graph four zero lines are taken (i) for Queensland, (ii) for South Australia, (iii) for Western Australia, and (iv) for Tasmania.

DECREASES in population are shown by carrying the curve in such cases below the zero line, the distance below the zero line indicating the extent of the decrease.

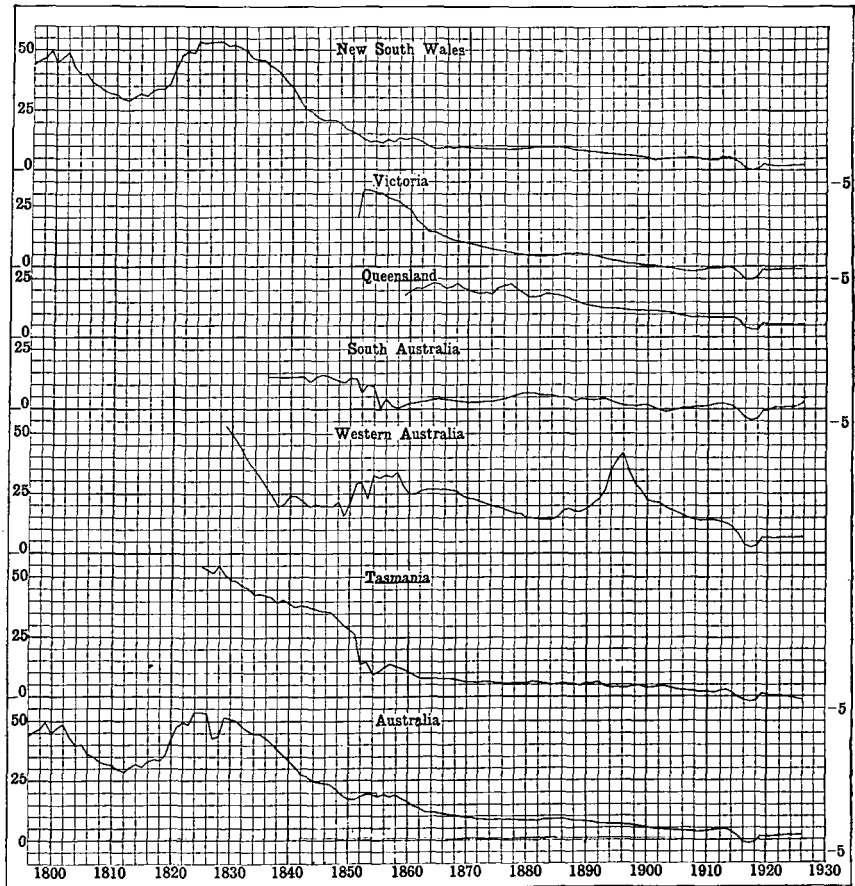
NATURAL INCREASE OF POPULATION 1860 TO 1926.



EXPLANATION.—The base of each small square represents one year for both States and Australia, and the vertical height 1,000 persons for the States and 2,000 persons for Australia.

The distances upward from the zero line, marked 0 for both Australia and States, denote the excess of births over deaths. The scale on the left relates to Australia, and that on the right to the States.

MASCULINITY OF POPULATION—1796 TO 1926.



EXPLANATIONS.—The base of each small square represents an interval of two years, and the vertical height an excess of five males per 100 of the population. The basic lines (shown thickened) for Australia and all the States are at zero, equivalent to a numerical equality of the sexes.

It will be noticed that in the case of Australia in the years 1916, 1917, and 1918, Victoria in the years 1903 to 1926, South Australia in the years 1902 to 1904 and 1915 to 1920, and Tasmania for the years 1915 to 1918, and 1924 to 1926 the curves are below the zero line, thus showing an excess of females over males.

N.S. Wales 2,102,943
Victoria 1,531,280
Queensland 755,972
S. Australia 495,160
W. Australia 332,732
Tasmania 213,780
N. Territory 3,867

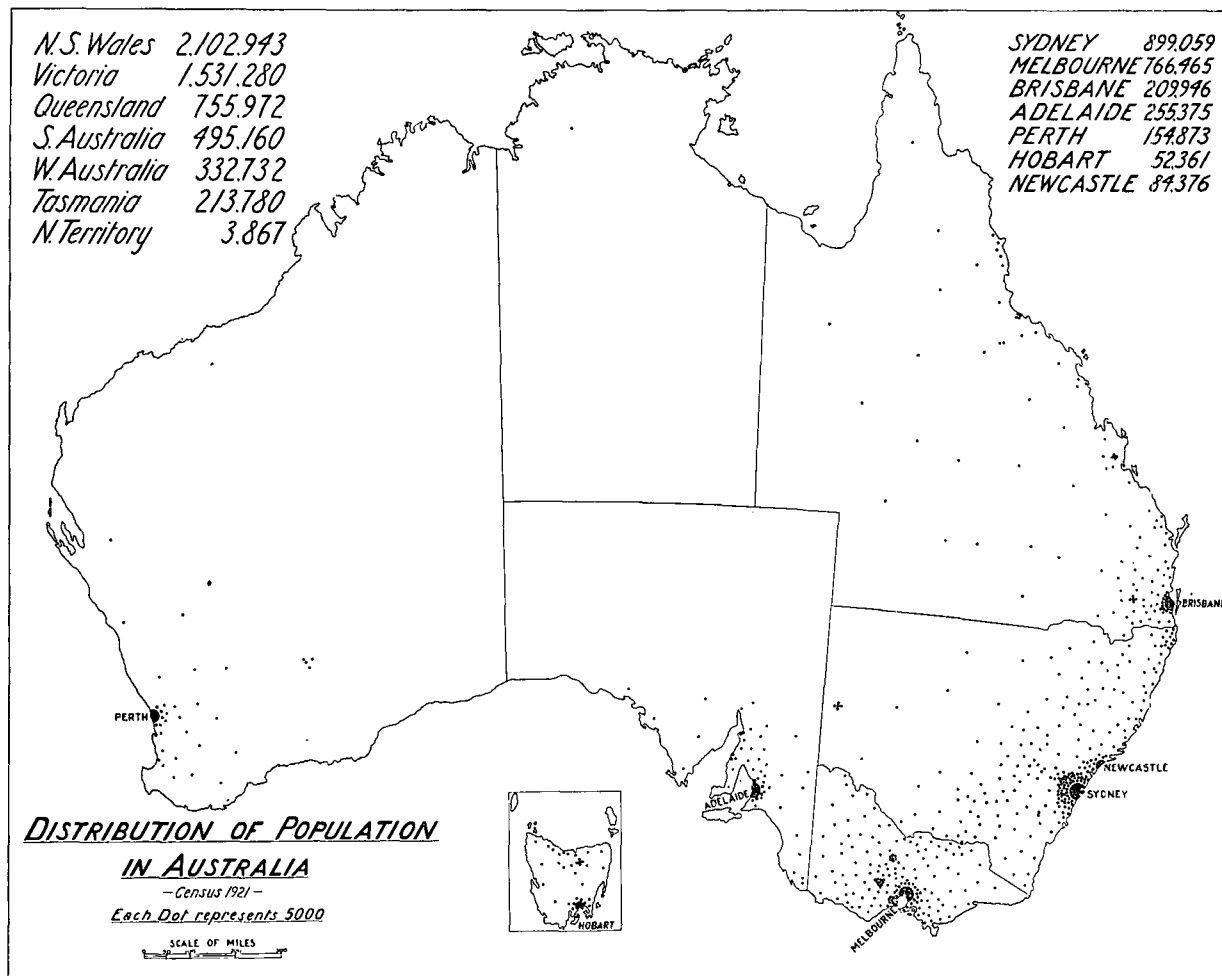
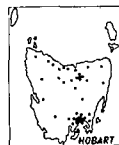
SYDNEY 899,059
MELBOURNE 766,465
BRISBANE 209,946
ADELAIDE 255,375
PERTH 154,873
HOBART 52,361
NEWCASTLE 84,376

DISTRIBUTION OF POPULATION
IN AUSTRALIA

— Census 1921 —

Each Dot represents 5000

SCALE OF MILES



In the natural increase, females have exceeded the males during the period under review. This is due to the higher death rate among males, the effect of which is augmented by the larger number of males subject to the greater risk of death. Although males predominate in both births and deaths, they exceed the females to a greater degree in the deaths than in the births.

(ii) *Comparison with other Countries.*—Notwithstanding its comparatively low birth-rate, Australia has a high rate of natural increase, owing to the fact that its death-rate is very low. The following table gives a comparison between the average rates per annum of natural increase for some of the principal countries of the world for which such information is available, and those for the several States of Australia and the Dominion of New Zealand :—

NATURAL INCREASE PER ANNUM PER 1,000 OF MEAN POPULATION.

(VARIOUS COUNTRIES.)

Country.	Natural Increase per 1,000.	Country.	Natural Increase per 1,000.
Australasia (1922-26)—		Europe— <i>continued.</i>	
Tasmania	15.8	Switzerland	(d) 7.0
New South Wales	15.0	England and Wales	(e) 6.9
Queensland	14.9	Sweden	(e) 6.3
Australia	13.9	Austria	(d) 6.2
Western Australia	13.8	Irish Free State	(e) 6.0
New Zealand	13.1	France	(e) 1.7
South Australia	12.8		
Victoria	12.1	Asia—	
Europe—		Japan	(d) 12.7
Soviet Republics	(b) 18.9	Ceylon	(e) 12.7
Netherlands	(d) 15.3		
Italy	(d) 12.1	Africa—	
Norway	(d) 11.1	Union of South Africa	
Denmark	(d) 11.0	(whites only)	(d) 17.4
Finland	(d) 9.7		
Spain	(d) 9.7	America—	
Prussia	(d) 8.9	Quebec (Canada)	(e) 20.0
Germany	(d) 8.8	Uruguay	(d) 14.7
Scotland	(e) 8.4	Canada (excluding Quebec)	(e) 13.2
Northern Ireland	(e) 7.4	Ontario (Canada)	(e) 11.7
Belgium	(d) 7.1	United States	(a) 11.1
		Chile	(d) 8.8

(a) 1919-23. (b) 1923-25. (d) 1921-25. (e) 1922-26.

Graphs of natural increase for each of the States, as well as for Australia, accompany this chapter.

2. *Net Immigration.**—The other factor of increase in the population, viz., the excess of arrivals over departures, known as “net immigration” is, from its nature, much more subject to variations than is the factor of “natural increase.” These variations are due to numerous causes, some of which are referred to later in this chapter, in dealing with the influences which affect the growth of population.

* The subject of immigration is dealt with at some length later in this chapter.

POPULATION.—INCREASE BY NET IMMIGRATION, 1861 TO 1926.

Period.	States.						Territories.		Australia.
	N.S.W.	Victoria.	Q'land.	S. Aust. (a)	W. Aust.	Tas.	North- ern. (b)	Fed. Cap. (c)	
MALES.									
1861 to 1870	26,365	— 2,355	44,221	10,028	4,395	— 3,310	..	..	79,344
1871 to 1880	68,724	— 13,789	40,128	28,889	— 259	502	..	..	124,191
1881 to 1890	100,341	71,819	73,381	— 14,877	9,112	4,508	..	..	244,284
1891 to 1900	7,817	— 72,997	13,183	— 9,732	76,396	48	..	..	14,715
1901 to 1910	26,828	— 28,571	12,786	— 441	28,838	— 7,555	— 1,063	..	30,822
1911 to 1920	61,633	19,773	16,651	3,657	— 3,593	— 9,666	499	— 60	88,894
1921 ..	— 61	1,476	2,111	3,377	— 174	989	— 162	54	7,610
1922 ..	6,092	13,170	5,004	1,718	— 2,717	— 2,443	— 164	303	26,397
1923 ..	3,756	8,490	7,046	4,616	3,936	— 1,696	— 18	— 32	26,098
1924 ..	8,101	7,999	6,193	5,064	3,736	— 2,500	24	232	28,849
1925 ..	4,897	4,501	8,969	5,994	2,202	— 2,105	27	574	25,059
1926 ..	10,422	4,268	5,715	6,826	1,439	— 3,261	240	582	26,231
1861 to 1926	324,915	13,784	235,388	45,119	128,745	— 26,489	— 617	1,653	722,498
FEMALES.									
1861 to 1870	18,506	38,229	23,675	7,200	1,469	— 1,858	..	..	87,221
1871 to 1880	34,476	2,329	18,979	13,751	112	— 2,038	..	..	67,609
1881 to 1890	62,087	42,198	42,337	— 11,410	2,725	520	..	..	138,457
1891 to 1900	12,650	— 37,433	505	— 5,663	39,801	304	..	..	10,164
1900 to 1910	10,956	— 21,974	5,382	— 4,045	24,160	— 4,749	— 67	..	9,663
1911 to 1920	69,906	26,036	14,830	9,252	6,120	— 7,869	318	84	118,677
1921 ..	1,645	1,875	2,309	1,036	239	1,017	— 92	15	8,044
1922 ..	2,920	5,236	2,220	1,672	212	— 769	— 29	164	11,626
1923 ..	— 264	8,007	3,743	207	1,347	— 1,674	— 12	88	11,442
1924 ..	4,034	4,079	5,152	1,972	1,535	— 1,995	5	118	14,900
1925 ..	5,302	2,336	4,584	655	987	— 1,924	29	329	12,298
1926 ..	7,960	4,515	3,743	1,329	173	— 2,093	— 7	369	15,989
1861 to 1926	230,178	75,433	127,459	15,956	78,880	— 23,128	145	1,167	506,090
PERSONS.									
1861 to 1870	44,871	35,874	67,896	17,228	5,864	— 5,168	..	..	166,565
1871 to 1880	103,200	— 11,460	59,107	42,640	— 147	1,536	..	..	191,804
1881 to 1890	162,428	114,017	115,718	— 26,287	11,837	5,028	..	..	382,741
1891 to 1900	20,467	— 110,430	13,688	— 15,395	116,197	352	..	..	24,879
1901 to 1910	37,784	— 50,545	18,168	— 4,486	52,998	— 12,304	— 1,130	..	40,485
1911 to 1920	131,539	45,809	31,481	12,909	2,527	— 17,535	817	24	207,571
1921 ..	1,584	3,351	4,420	4,413	65	2,006	— 254	69	15,654
1922 ..	9,012	18,406	7,224	3,390	2,929	— 3,212	— 193	467	38,023
1923 ..	3,492	16,497	10,789	4,823	5,283	— 3,370	— 30	56	37,540
1924 ..	12,135	12,078	11,345	7,036	5,271	— 4,495	29	350	43,749
1925 ..	10,199	6,837	13,553	6,649	3,189	— 4,029	56	903	37,357
1926 ..	18,382	8,783	9,458	8,155	1,612	— 5,354	233	951	42,220
1861 to 1926	555,093	89,217	362,847	61,075	207,625	— 49,617	— 472	2,820	1,228,588

(a) Including Northern Territory up to 1900.

(b) Included in South Australia up to 1900.

(c) Part of New South Wales prior to 1911.

NOTE.—Minus sign (—) indicates the excess of departures over arrivals.

From 1861 to 1926 the increment to the population arising from the excess of births over deaths amounted to 3,736,341, or 75.25 per cent. of the total increase, while the increase from net immigration amounted to 1,228,588 or 24.75 per cent. During the 26 years of the present century the total increase to the population was made up of 1,882,576 or 80.27 per cent. by natural increase, and 462,599 or 19.73 per cent. by net immigration. The greatest increase to the population by net immigration which has occurred in any one decade was during the ten years 1881 to 1890. This period, however, concluded in world wide speculation, which, in Australia, took the form of speculation in land values, and the effect of the financial collapse which followed this boom is shown by the

small increment by migration from 1891 to 1910. For many of the years during this last-mentioned period there was an actual loss to Australian population by net migration. In 1907 the stream of migration again turned in favour of Australia, and during the five years 1909-1913 the net immigration represented 281,193. The war interrupted the flow, but in 1926 the net immigration represented 42,220 persons.

3. **Total Increase.**—The total increase of the population is obtained by the combination of the natural increase with the net immigration.

The following table gives the total increase in each decade from 1861 to 1920 and for the six years 1921 to 1926:—

POPULATION.—TOTAL INCREASE, 1861 TO 1926.

Period.	States.						Territories.		Australia.
	N.S.W.	Victoria.	Q'land.	S. Aust. (a)	W. Aust.	Tas.	North- ern. (b)	Fed. Cap. (c)	
MALES.									
1861 to 1870	74,270	66,928	52,404	30,554	5,914	3,864	..	..	233,934
1871 to 1880	132,831	53,328	54,792	52,544	1,474	7,051	..	..	302,020
1881 to 1890	197,752	144,961	99,239	18,611	11,869	15,885	..	..	488,317
1891 to 1900	113,343	6,254	51,432	18,588	81,234	13,310	..	..	284,161
1901 to 1910	142,134	44,709	50,829	26,208	47,883	9,103	-1,550	..	319,316
1911 to 1920	210,733	107,321	71,042	38,743	18,924	8,393	173	93	455,422
1921 ..	16,454	11,102	8,352	6,844	1,605	2,767	-193	66	46,997
1922 ..	23,296	23,721	10,895	5,331	4,886	-532	-178	315	67,734
1923 ..	19,500	17,920	12,510	7,865	6,043	52	-13	-36	63,841
1924 ..	23,564	17,636	11,803	8,361	5,912	-977	11	236	66,546
1925 ..	20,831	14,511	14,704	9,089	4,255	-522	12	587	63,467
1926 ..	24,969	13,708	10,825	10,056	3,614	-1,717	223	590	62,266
1861 to 1926	999,677	522,097	448,827	232,794	193,613	56,677	-1,515	1,851	2,454,021
FEMALES.									
1861 to 1870	75,176	118,763	34,812	28,410	3,875	7,201	..	..	268,237
1871 to 1880	110,319	81,352	40,976	39,303	2,952	6,853	..	..	281,755
1881 to 1890	174,381	130,162	81,837	23,943	7,072	14,112	..	..	431,507
1891 to 1900	133,687	56,231	50,299	24,572	50,231	14,803	..	..	329,823
1901 to 1910	141,416	60,486	54,340	23,410	48,982	11,800	-6	..	340,428
1911 to 1920	238,779	119,180	80,566	45,395	35,567	10,556	515	234	530,792
1921 ..	19,740	11,675	9,255	4,561	2,787	2,797	-62	26	50,779
1922 ..	21,720	15,818	9,164	5,452	3,007	1,140	-5	178	56,474
1923 ..	17,013	17,235	10,368	3,689	4,164	98	17	101	52,685
1924 ..	21,441	14,079	11,923	5,397	4,397	-258	31	140	57,150
1925 ..	23,161	12,411	11,587	4,038	3,804	-285	47	351	55,114
1926 ..	24,370	14,104	10,183	4,705	2,949	-561	19	395	56,164
1861 to 1926	1,001,203	651,496	405,310	212,875	169,787	68,256	556	1,425	2,510,928
PERSONS.									
1861 to 1870	149,446	185,691	87,216	58,964	9,789	11,065	..	..	502,171
1871 to 1880	243,150	134,680	95,768	91,847	4,426	13,904	..	..	583,775
1881 to 1890	372,133	275,123	181,076	42,554	18,941	29,997	..	..	919,824
1891 to 1900	247,030	62,485	101,731	43,160	131,465	28,113	..	..	613,984
1901 to 1910	283,550	105,195	105,169	49,618	96,865	20,903	-1,556	..	659,744
1911 to 1920	449,512	226,501	151,608	84,138	54,491	18,949	688	327	986,214
1921 ..	36,194	22,777	17,607	11,405	4,392	5,564	-255	92	97,776
1922 ..	45,016	39,539	20,059	10,783	7,893	608	-183	493	124,208
1923 ..	36,513	35,155	22,878	11,554	10,207	150	4	65	116,526
1924 ..	45,005	31,715	23,726	13,758	10,309	-1,235	42	376	123,696
1925 ..	43,992	26,922	26,291	13,127	8,059	-807	59	938	118,581
1926 ..	49,339	27,810	21,008	14,761	6,563	-2,278	242	985	118,430
1861 to 1926	2,000,880	1,173,593	854,137	445,669	363,400	124,933	-959	3,276	4,964,929

(a) Including Northern Territory up to 1900. (b) Included in South Australia up to 1900.

(c) Part of New South Wales prior to 1911.

NOTE.—Minus sign (—) denotes decrease.

For Australia as a whole the greatest numerical increase during any decennial period occurred in the decade 1911 to 1920. The increase during this decade amounted to 986,214, or 22.29 per cent. The greatest proportional increase, on the other hand, occurred during the decade 1881-1890 when it amounted to 919,824, which, on the smaller population of that time represented an increase of 41.22 per cent. for the decade. Of this increase of 919,824, 537,083 or 58.38 per cent. was from the excess of births over deaths, whereas during the decade 1911-1920, of the total increase of 986,214 the natural increase produced 778,643 or 78.96 per cent. A graph showing the increase in the population of each State and of Australia from year to year since 1860 accompanies this chapter.

As regards the individual States the maximum increases in any decennium are as follows:—New South Wales, 449,512, in 1911-20; Victoria, 275,123, in 1881-90; Queensland, 181,076, in 1881-90; South Australia, 91,847, in 1871-80; Western Australia, 131,465, in 1891-1900; Tasmania, 29,997, in 1881-1890.

4. Rates of Increase.—(i) *For various Countries.* The table hereunder gives approximate rates of increase in population for Australia, and its component States, and for other countries:—

POPULATION.—RATES OF INCREASE (VARIOUS COUNTRIES), 1886 TO 1926.

Countries.	Annual Rate of Increase in Population during period—							
	1886 to 1891.	1891 to 1896.	1896 to 1901.	1901 to 1906.	1906 to 1911.	1911 to 1916.	1916 to 1921.	1921 to 1926.
AUSTRALASIA—	%	%	%	%	%	%	%	%
Australia ..	3.06	1.86	1.49	1.38	2.03	1.95	1.99	2.09
New South Wales (a) ..	3.23	1.99	1.57	1.99	2.03	2.61	2.17	2.01
Victoria ..	3.12	0.37	0.52	0.18	2.17	1.38	1.68	2.00
Queensland ..	3.80	2.49	2.25	1.35	2.76	2.20	2.21	2.81
South Australia (b) ..	1.15	1.63	0.77	0.27	2.46	1.52	2.34	2.27
Western Australia ..	5.54	20.81	7.25	6.22	2.43	1.76	1.27	2.44
Tasmania ..	2.87	1.06	1.83	1.33	0.65	0.58	1.84	-0.33
New Zealand ..	1.47	2.41	1.98	2.86	2.56	1.61	2.32	1.95
EUROPE—								
England and Wales ..	1.11	1.15	1.15	1.04	1.04	-0.95	1.89	0.62
Scotland ..	0.75	1.06	1.06	0.55	0.56	0.31	0.24	0.09
Ireland ..	-0.94	-0.60	-0.43	-0.22	-0.06	-0.21	0.58	..
Austria ..	0.83	0.79	1.05	0.87	0.86	(c) 0.80	(g)	i 0.34
Belgium ..	0.75	1.15	0.92	1.26	0.69	0.54	-0.56	1.03
Denmark ..	0.87	0.99	1.32	1.12	1.26	1.20	2.13	1.01
Finland ..	1.51	1.20	1.41	1.36	1.43	1.18	0.25	j 0.94
France ..	0.06	0.09	0.24	0.15	0.16	-0.72	0.55	0.76
Germany ..	1.09	1.17	1.51	1.46	1.36	0.71	-1.62	j 1.04
Hungary ..	1.01	0.92	1.03	0.77	0.84	(c) 0.84	(g)	j 0.92
Italy ..	0.71	0.68	0.61	0.52	0.80	1.16	0.22	0.91
Netherlands ..	1.03	1.28	1.30	1.53	1.22	1.72	1.16	j 1.56
Norway ..	0.54	0.96	1.31	0.52	0.66	1.00	1.14	0.90
Prussia ..	1.15	1.29	1.59	1.57	1.48	0.85	-1.67	j 1.03
Rumania ..	1.34	1.15	1.41	1.46	1.48	(e) 2.77	(g)	i 1.50
Serbia ..	2.08	1.37	1.57	1.52	1.55	(c) 1.72	(g)	i 1.32
Spain ..	0.48	0.45	0.45	0.52	0.87	0.66	(f) 0.34	j 0.73
Sweden ..	0.40	0.61	0.86	0.61	0.84	0.70	0.64	0.40
Switzerland ..	0.40	1.22	1.10	1.28	1.17	0.81	0.01	j 0.29
ASIA—								
Ceylon ..	1.35	1.41	2.03	1.62	1.20	1.71	1.28	k 2.29
Japan ..	1.12	0.96	1.25	1.29	1.08	1.42	0.37	j 1.31
AMERICA—								
Canada ..	1.08	0.97	1.19	2.99	2.99	(d) 3.87	(h) 2.00	1.58
Chile ..	0.72	2.66	0.90	1.53	1.56	1.66	0.07	1.04
Jamaica ..	1.37	1.66	1.72	1.63	0.28	1.36	(f) 0.62	k 1.66
United States ..	2.15	1.93	2.02	2.00	1.82	1.67	1.21	1.67

(a) Including Federal Capital Territory.

(b) Including Northern Territory.

(c) 1911 to 1912.

(d) 1911 to 1914.

(e) 1911 to 1915.

(f) 1916 to 1920.

(g) Not available owing to changes of boundaries. (h) 1911-21. (i) 1920-25. (j) 1920-24. (k) 1921-25.

NOTE.—The minus sign (—) denotes decrease.

(ii) *Variations in the Rates.*—The fluctuations in the rates of increase in the population of Australia are, for the greater part, due to variations in the volume of immigration. The more important of these periodic variations, so far as they affected the population of Australia as a whole, have been referred to in the preceding sub-sections dealing with net immigration. The large increase in the population of Western Australia during the quinquennium 1892-6 marks the opening up of the gold mines of that State.

§ 5. Seasonal Variations of Population.

1. *Variations in Natural Increase.*—The following table shows the natural increase to the population, during each quarter of the year, based on the experience of the ten years 1917-1926. For Australia as a whole, the rate of natural increase was greatest in the quarter ended 31st March, and least in the quarter ending 30th June, the difference between the rates of increase for these two periods being equal to 23 persons for every 100,000 of the population. In New South Wales, Victoria, South Australia and Western Australia the March quarter was the most favourable, in Queensland the June quarter, and in Tasmania the September quarter. The natural increase was lowest in New South Wales, Victoria and Tasmania in the June quarter, in Queensland and Western Australia in the December quarter, and in South Australia in the September quarter. The differences between the least favourable and the most favourable quarters ranged from 24 per 100,000 of the population in Victoria to 37 per 100,000 in Queensland.

During recent years there have been two unusual occurrences which have considerably disturbed the normal contributions of the several quarters. The first of these was the payment of the Maternity Allowance which commenced on the 10th October, 1912, with the result that births were registered in the December quarter of that year, which otherwise would not have been registered until the March quarter of the following year. As the results given in earlier issues in this connexion are the averages for decennial periods, this factor is present in the results given for the December quarter up to and including the decade 1912-21, but, with the increasing population it became less important from year to year. Although this factor did not seriously disturb the order of increase in the various quarters, it very materially reduced the margins between the highest and the lowest quarters.

The other disturbance referred to was the influenza epidemic of 1919. The total number of deaths during 1919, for which influenza was stated to be the primary cause, was 11,989, which were distributed over the four quarters of the year as follows:—March quarter, 926; June quarter, 5,958; September quarter, 4,658; December quarter, 447. Prior to this epidemic, the September quarter had been consistently the highest, and the June quarter had been, almost invariably, next in order during each decade from 1901-10 to 1909-18, while the March quarter had been almost consistently the lowest. The same consistency, however, did not prevail throughout the individual years. The deaths from influenza in the June and September quarters, and the comparative freedom of the March quarter from such deaths, have given the March quarter precedence in the four successive decennial periods in which the year 1919 is included. During the same periods, the September quarter has been consistently second, and the December quarter has most frequently been the lowest.

The precedence—with regard to its contribution to the natural increase in population—which was so consistently held by the September quarter prior to the influenza epidemic of 1919, was due entirely to its higher birth rate. With the exception of the year 1915, the September quarter was distinguished by a greater number of births than any other quarter in each of the 21 years 1906-26, and with the exception of 1915 and 1919, it

showed the greatest birth rate per 1,000 persons. On the other hand, with the exceptions of the years 1915, 1919 and 1926, the September quarter showed the highest death rate per 1,000. The high death rate in conjunction with the high birth rate is due in some measure to the increased risk, from the greater number of births, of infantile deaths and deaths due to childbirth.

POPULATION.—AVERAGE QUARTERLY NATURAL INCREASE, 1917 TO 1926.

State or Territory.	Average Natural Increase for Quarter ended on last day of—								Average Natural Increase per Annum. 1917-26.	
	March.		June.		September.		December.		Persons.	°/°
	Persons.	°/°	Persons.	°/°	Persons.	°/°	Persons.	°/°		
N.S.W.	8,419	4.02	7,722	3.66	7,990	3.78	8,154	3.83	32,285	15.40
Victoria	4,782	3.11	4,439	2.87	4,523	2.91	4,706	3.01	18,450	11.98
Q'land	3,110	4.08	3,158	4.12	3,051	3.92	2,936	3.75	12,255	16.09
S. Aust.	1,769	3.57	1,682	3.38	1,633	3.27	1,654	3.29	6,738	13.61
W. Aust.	1,215	3.62	1,185	3.52	1,150	3.39	1,107	3.27	4,657	13.89
Tas. . .	873	4.12	824	3.93	873	4.20	866	4.17	3,436	16.21
N. Ter.	3	0.74	6	1.47	5	1.21	— 2	— 0.49	12	2.95
F.C.Ter.	5	2.03	5	1.52	8	2.35	7	1.99	25	10.15
Total	20,176	3.71	19,021	3.48	19,233	3.50	19,428	3.51	77,858	14.30

NOTE.—The minus sign (—) indicates an excess of deaths over births, and °/° denotes “ per thousand.”

2. **Variations in Net Immigration.**—In the following table the figures relating to the separate States and Territories include interstate migrants, but so far as these persons are concerned, the arrivals into any State are departures from some other State, so that they do not affect the figures shown for Australia as a whole, which, therefore, represent the overseas arrivals and departures. For each of the decades from 1901–1910 to 1904–1913 inclusive, the December quarter showed the greatest rate of increase from migration, with the other quarters consistently in order directly reverse to their position in the calendar. The despatch of troops from Australia during November and December, 1914, and the effects of the war on the overseas passenger traffic, altered the position so that in the decade 1905–14, and each decade since, the September quarter has been the highest, with the March quarter second. On the average, however, of the six years 1921–26 which were not affected by the movements of the troops, the December quarter again has first place. The precedence of the December quarter during the last six years was due both to the small number of departures (22.83 per cent.) and to the large number of arrivals (28.64 per cent.) during that quarter. The normal quota for each quarter would of course be 25 per cent. in both cases. Notwithstanding that the interstate movement is very much greater than the overseas migration, the results shown in the following table are to some extent vitiated in their application to the particular States, by the inclusion of the war period. For instance, the small increases shown for New South Wales and for Victoria in the June quarter, and for South Australia in the March and June quarters are largely due to large embarkations of troops during those periods of the years 1917 and 1918. Although it is usual for Queensland to show a loss of population during the December quarter, owing to the return of sugar workers and tourists to the southern States, the loss for the decade 1917–26 is aggravated by the despatch of troops. Western Australia shows an increase of population by migration, for each quarter September having the greatest increase and December the lowest. The gain to Tasmania in the December quarter represents the influx of tourists from the mainland, whereas the departure of tourists and of other persons during the remainder of the year represents an average net annual loss of 1,521 persons.

POPULATION.—AVERAGE QUARTERLY NET IMMIGRATION, 1917 TO 1926.

State or Territory.	Quarter ended on last day of—								Average Net Immigration per Annum, 1917-26.	
	March.		June.		September.		December.			
	Persons.	%	Persons.	%	Persons.	%	Persons.	%	Persons.	%
N.S.W.	3,175	1.51	859	0.41	5,343	2.52	4,611	2.17	13,988	6.67
Victoria	3,895	2.53	760	0.49	2,954	1.90	4,658	2.98	12,267	7.97
Q'land	1,659	2.18	7,691	10.03	2,425	3.12	3,513	4.49	8,262	10.84
S. Aust.	564	1.14	544	1.09	1,844	3.69	2,765	5.50	5,717	11.55
W. Aust.	288	0.68	1,028	3.05	998	2.94	216	0.64	2,530	7.55
Tas. . .	- 2,528	- 11.93	- 2,490	- 11.89	- 661	- 3.20	4,161	20.01	- 1,521	- 7.18
N.T. . .	- 4	- 0.98	53	13.02	- 50	- 12.10	- 88	- 21.53	- 89	- 21.85
F.C. Ter.	827	335.81	103	31.26	80	23.51	- 765	- 217.74	245	99.48
Total	7,876	1.45	8,548	1.56	12,930	2.35	12,045	2.18	41,399	7.60

NOTE.—The minus sign (—) denotes excess of departures over arrivals, and % denotes "per thousand" of population.

§ 6. Influences affecting Increase and Distribution.

1. **Mineral Discoveries.**—The discovery of gold in Australia in 1851 was undoubtedly one of the most influential factors in bringing about a rapid settlement of the country. Its effect may be gauged by comparing the increase during the ten years preceding with that during the ten years succeeding the discovery. From 31st December, 1840 to 31st December, 1850, the increase was only 214,948 (from 190,408 to 405,356). During the succeeding decennium there was an increase of 740,229, the population advancing to 1,145,585 on 31st December, 1860. In 1861, owing to the opening up of the New Zealand goldfields, a rush of population from Australia set in, the result being that the net increase per annum to the population of Australia, which in 1855 amounted to 98,343, and even in 1860 was as much as 48,280, fell in 1861 to 22,564. In fact, during the year 1861 the departures from Australia exceeded the arrivals by 6,283, the gain of 22,564 being due to the births exceeding the deaths by 28,847.

In 1886 and subsequent years the gold discoveries of Western Australia led to such extensive migration to that State that its population, which on 31st December, 1885, amounted to only 35,959, increased during the next twenty years by 595 per cent., or by 10.18 per cent. per annum, to 250,138 in 1905. In this case, however, the additions to the population of the western State were largely drawn from the eastern States, so that the actual gain of population to Australia was relatively small.

2. **Pastoral Development.**—Very early in the colonization of Australia it was recognized that large areas were well adapted for pastoral pursuits, and pastoral developments led to the spread of population in various directions. As the numbers engaged in connexion therewith, compared with the value of the interests involved, are relatively small, and as pastoral occupancy tends to segregation rather than aggregation of population, the growth of the pastoral industry is not noticeably reflected in the population statistics.

3. **Agricultural Expansion.**—At the present time the area under crop in Australia is over 16½ million acres. Although substantial in itself, this area, viewed in relation to the total area of Australia, is relatively small, and represents only 0.88 per cent. of the total area. Per head of population the area under crop, however, is 2.8 acres, a fairly large area when allowance is made for the recency of Australian settlement. About 78 per cent. of the area under crop in 1925-26 was devoted to the production of wheat and hay, both of which, for profitable production in Australia, require a considerable area in the one holding. Consequently, the agricultural districts are for the most part sparsely populated, though in a less marked degree than the pastoral areas.

4. **Progress of Manufacturing Industries.**—One direct effect of the development of manufacturing industries is the concentration of population in places offering the greatest facilities for the production of particular commodities. In Australia, where manufacturing industries are as yet in their infancy, the tendency throughout has been to concentrate the manufacturing establishments in each metropolis. This has accentuated the growth of the capital cities to an extent which, when compared with that of the rest of the country, appears somewhat abnormal.

5. **Influences of Droughts.**—Droughts, which at times so seriously affect the agricultural and pastoral industries of Australia, have a marked influence on the distribution of population. Districts, which in favourable seasons are fairly populous, become more or less depopulated in times of drought. This movement, however, ordinarily affects only the internal distribution of the population, and not the total, but severe drought may even make its influence felt in the statistics of the total population. Thus, in the case of the drought of 1902–3, the departures from Australia exceeded the arrivals for the two years 1903 and 1904 by 12,859. It may be noted also, that for the former of these years, the natural increase of population by excess of births over deaths was abnormally low, being only 51,150, as compared with 54,698 in the preceding, and 60,541 in the succeeding year. As the solution of the problem of dealing with droughts is advanced, their influence will be less marked.

6. **Assisted Immigration.**—Assisted immigration has been a factor of some importance in the increase of population. The number of persons brought to Australia by this means has varied considerably in different periods, according to the activities of Governments in this direction. The table given in sub-section 5 of § 10 hereinafter shows that 995,559 persons have been brought to Australia in connexion with schemes for assisting immigration.

7. **Other Influences.**—(i) *Commercial Crises.* The effect on population of a commercial crisis, such as that which occurred in the early nineties of last century, is clearly indicated by comparing the migration statistics of Australia for the five years 1887 to 1891 with those for the five years 1892 to 1896. During the earlier periods the arrivals exceeded the departures by 146,872, whereas in the later period the excess of arrivals was only 2,064.

(ii) *War.* The war in South Africa left its impress on the population statistics of Australia, the departures during 1899 and 1900 exceeding the arrivals by 10,546. The effect of the recent European war is, of course, much more marked.

§ 7. Density.

1. **General.**—From certain aspects population may be less significant in respect of its absolute amount than in its relation to the area of the country. Australia, with an area of 2,974,581 square miles, and a population on 31st December, 1926, of 6,170,514 including aborigines, has a density of only 2.07 persons to the square mile, and is, therefore, the most sparsely populated of the civilized countries of the world. For the other continents the densities are approximately as follows:—Europe, 128; Asia, 65; Africa, 11; North and Central America, 18; and South America 10. The population of Australia has thus about 22 per cent. of the density of South America; about 20 per cent. of that of Africa; about 12 per cent. of that of North and Central America; about 3 per cent. of that of Asia; and about $1\frac{1}{2}$ per cent. of that of Europe.

A map showing the density of population throughout Australia as at the Census of 1921 accompanies this chapter.

Particulars concerning the number and density of the population of the various countries of the world for the latest dates for which such information is available are given in the following table. These figures have in the main been taken from the 1927 issue of the "Statesman's Year Book," and in some instances, more particularly in the cases of Asia and Africa, must be considered as rough approximations only, complete data not being obtainable.

POPULATION, WORLD'S.—NUMBER AND DENSITY.

Country.	Population.	Density (a).	Country.	Population.	Density (a).
EUROPE.			ASIA—continued.		
Russia	125,616,003	74.74	Khiva	987,000	41.13
Germany	63,113,732	340.80	Straits Settlements	976,818	610.61
Great Britain and North- ern Ireland	45,226,300	477.71	British Borneo, Brunei and Sarawak	883,248	11.46
France	40,743,851	191.59	Hong Kong and Depend- encies	874,420	2,236.37
Italy	40,548,683	338.97	Laos	837,364	10.14
Poland	29,249,000	135.10	Armenia	867,671	56.93
Spain (including Canary and Balearic Islands)	22,127,699	113.50	Palestine	852,268	94.70
Rumania	17,393,149	142.24	Goa, etc.	548,472	334.84
Czecho-Slovakia	14,356,400	264.84	Oman	500,000	6.10
Jugo-Slavia	12,017,323	125.01	Timor, etc.	377,815	51.54
Hungary	8,368,273	233.03	Cyprus	310,709	86.69
Belgium	7,811,876	664.56	French India	273,081	1,393.27
Netherlands	7,416,418	561.51	Bhutan	250,000	12.50
Austria	6,535,363	201.91	Kwan Chau Wan	205,000	1,078.95
Sweden	6,053,562	34.97	Weihaiwei	154,416	541.81
Portugal	6,032,991	169.99	Bahrain Islands	120,000	480.00
Greece	6,200,000	124.22	Macao, etc.	74,866	18,716.50
Bulgaria	5,483,123	137.72	Maldives Islands	70,000	608.70
Switzerland	3,936,339	246.95	Aden and Dependencies	54,923	6.10
Finland	3,525,359	26.59	Total	1,041,779,478	65.23
Denmark	3,457,390	201.67			
Irish Free State	2,972,800	110.27			
Norway	2,649,775	21.20			
Georgia	2,621,019	101.75			
Lithuania	2,229,876	37.39			
Azerbaijan	2,301,788	67.76			
Latvia	1,844,805	73.79			
Turkey	1,344,458	123.55			
Estonia	1,115,000	60.75			
Albania	831,877	47.88			
Danzig	384,000	509.27			
Luxemburg	260,767	261.03			
Malta	224,680	1841.64			
Iceland	99,893	2.51			
Monaco	22,153	2769.13			
Gibraltar	20,766	10383.00			
San Marino	12,952	340.84			
Liechtenstein	10,716	164.89			
Andorra	5,231	27.39			
Spitzbergen	1,197	0.05			
Total	494,172,809	127.56			
ASIA.					
China and Dependencies	467,521,000	109.25			
British India	247,003,293	225.72			
Japan and Dependencies	83,455,137	320.11			
Feudatory Independent States	71,939,000	101.18			
Netherlands East Indies	50,818,418	88.69			
Turkey, including Armenia and Kurdistan	11,988,182	24.79			
Philippine Islands	11,401,701	99.12			
Persia	12,000,000	13.11			
Siam	9,831,000	49.05			
Afghanistan	8,000,000	32.68			
Russia in Asia	7,607,919	1.39			
Tonking	7,369,745	181.83			
Arabia	7,000,000	7.00			
Nepal	5,400,000	103.70			
Annam	5,171,986	130.09			
Ceylon	5,009,501	197.75			
Bokhara	4,803,600	60.81			
Cochin China	4,001,093	151.12			
Syria	3,000,000	50.00			
Iraq	2,849,282	19.89			
Cambodia	2,535,178	37.53			
Federated Malay States	1,476,032	53.66			
Malay Protectorate, in- cluding Johore	1,123,264	49.95			
Kwantung	1,056,076	1962.96			

(a) Number of persons per square mile.

POPULATION, WORLD'S.—NUMBER AND DENSITY—*continued*.

Country.	Population.	Density, (a).	Country.	Population.	Density (a).
<i>AFRICA—continued.</i>			<i>SOUTH AMERICA.</i>		
Togoland (British) ..	188,265	14.94	Brazil ..	30,635,605	9.38
Réunion ..	173,190	178.55	Argentina Republic ..	9,942,873	8.62
Bechuanaland Protectorate ..	152,983	0.56	Colombia ..	6,617,833	15.01
Cape Verde Islands ..	149,793	101.21	Peru ..	5,550,000	10.43
Spanish Guinea ..	140,000	12.95	Chile ..	3,963,462	13.66
Swaziland ..	112,838	16.90	Bolivia ..	2,990,220	5.82
Comoro and Mayotte ..	119,305	151.02	Venezuela ..	2,563,334	6.51
St. Thomas and Principe ..	53,907	163.63	Ecuador and Galapagos ..	2,000,000	11.48
Seychelles ..	26,185	167.86	Uruguay ..	1,677,686	23.25
Fernando Po, etc. ..	23,846	29.99	Paraguay ..	903,321	14.65
Ifni ..	20,000	20.73	Panama Republic ..	442,486	13.67
Sokotra ..	12,000	8.68	British Guiana ..	304,412	3.40
St. Helena ..	3,747	79.73	Dutch Guiana ..	139,869	2.58
Rio de Oro and Adrar ..	495	0.004	French Guiana ..	44,202	1.27
Ascension ..	250	7.35	Panama Canal Zone ..	27,692	50.08
Total ..	133,972,938	10.60	Falkland Islands and South Georgia ..	3,569	0.64
<i>NORTH AND CENTRAL AMERICA.</i>			Total ..	67,806,564	9.50
United States of America ..	117,136,000	38.70	<i>OCEANIA, ETC.</i>		
Mexico ..	14,234,799	18.55	Australia ..	(b) 6,170,514	2.07
Canada ..	9,504,700	2.55	New Zealand ..	1,444,676	13.91
Cuba ..	3,470,217	78.58	Territory of New Guinea ..	420,963	4.72
Haiti ..	2,031,000	199.04	Papua ..	276,452	3.05
Guatemala ..	2,004,500	47.34	Hawaii ..	328,444	50.93
Salvador ..	1,634,000	124.01	Dutch New Guinea ..	195,460	1.22
Porto Rico ..	1,299,809	378.40	Fiji ..	157,266	22.20
Jamaica, including Turks and Caicos Islands, etc. ..	916,620	196.11	Solomon Islands (British) ..	150,583	13.69
Santo Domingo ..	897,405	46.42	New Hebrides ..	60,000	10.53
Honduras ..	773,408	17.47	New Caledonia ..	57,208	6.09
Nicaragua ..	638,119	12.35	Marshall Islands, etc. ..	51,951	54.12
Costa Rica ..	507,193	22.05	Western Samoa ..	40,229	32.18
Trinidad and Tobago ..	385,091	194.88	Gilbert and Ellice Islands Colony ..	29,381	29.06
Newfoundland and Labrador ..	262,299	1.61	French Oceania ..	31,703	20.86
Martinique ..	244,439	634.91	Tonga ..	24,935	64.77
Guadeloupe and De- pendencies ..	229,839	334.07	Guam ..	16,159	76.95
Windward Islands ..	173,465	338.47	Samoa (American) ..	8,772	141.48
Barbados ..	162,211	977.24	Nauru ..	2,217	221.70
Leeward Islands ..	122,242	170.97	Norfolk Island ..	747	57.46
Curacao ..	58,931	146.23	Total ..	9,467,660	2.73
Bahamas ..	55,423	12.58	<i>SUMMARY.</i>		
Alaska ..	55,036	0.09	Europe ..	494,172,809	127.56
British Honduras ..	47,893	5.57	Asia ..	1,041,779,478	65.23
Virgin Islands ..	26,051	197.36	Africa ..	133,972,938	10.60
Bermudas ..	27,741	1,460.85	America, North and Central ..	156,917,104	17.52
Greenland ..	14,355	0.31	America, South ..	67,806,564	9.50
St. Pierre et Miquelon ..	3,918	42.13	Oceania, etc. ..	9,467,660	2.73
Total ..	156,917,104	17.52	Total ..	1,904,116,553	36.84

(a) Number of persons per square mile.

(b) Including 60,000 aboriginals.

2. *Position of the British Empire.*—The approximate relationship of the British Empire to the world as a whole in regard to its area and population is given hereunder :—

BRITISH EMPIRE IN RELATION TO THE WORLD.

Particulars.	The World.	British Empire.
Area in square miles (exclusive of Polar Circles) ..	51,683,000	13,366,000
Population	1,904,000,000	454,000,000
Population per square mile	36.8	34.0

§ 8. General Characteristics.

1. **Sex Distribution.**—(i) *General.* The distribution of the sexes in the populations of young countries shows marked contrasts to that of older countries. In young countries there will be, invariably, a greater number of males than females, whereas in countries which have been long settled the females predominate. In the older countries the populations have grown almost entirely by the excess of births over deaths, which tends towards equality in the numbers of the sexes. The table on page 879, however, shows that in many instances, this natural tendency has been deflected to an excess of females. This has been due possibly to the following causes—(a) preponderance of males amongst emigrants; (b) greater propensity of males to travel; (c) employment of males away from the home country in the army, navy, and mercantile marine; (d) effects of war. In a young country, on the other hand, the increase in the population is largely brought about by immigration, in which males preponderate. The pioneering conditions of a young country, naturally, are less attractive to females than to males, and in the case of Australia, the disabilities inseparable from the early stages of settlement were aggravated by the great distance from the mother country.

Information regarding the sexes of the first settlers in Australia is not available, but on the 31st December, 1796—nearly nine years later—there was an excess of 44 males in every 100 of a total population of 4,100.

The subsequent development of the natural industries of the country attracted male rather than female immigrants, and notwithstanding the equalizing tendency of the expanding factor of natural increase, and the heavy loss of males through the war, the population of Australia, on the 31st December, 1926, contained an excess of 2.20 males in every 100 persons.

The relation between the degree of development of a country and the masculinity of its population is exemplified by the conditions in the various Australian States. The table on page 857 shows that the greatest masculinity is associated with the smallest density of population, i.e., the masculinity is greatest in the less developed States. For instance, in Queensland, which embraces over 22 per cent. of the area of Australia, but which holds only 14 per cent. of the total population (1.32 persons per sq. mile) the masculinity is 5.57, and in Western Australia, where the density of population is less (0.39 persons per sq. mile), the masculinity is greater (7.31). On the other hand, in Victoria, where the density is greatest (19.48 persons per sq. mile), there is an excess of females of 0.41 per 100 persons. In fact, if either Victoria or Tasmania be excluded, the masculinity indexes for all the other States will fall in reverse sequence to the indexes to density.

The position in South Australia is somewhat unusual, inasmuch as the people of that State are concentrated within a relatively small area, while a large portion of the area carries no population, and the masculinity, therefore, is governed by the density of the populated area.

(ii) *Masculinity.* On pages 163 to 165 in the second issue of this publication a table was included showing the masculinity of the population of each of the States for each year from 1796 to 1907. In the fifth issue, on page 123, the figures in this table for the years 1901 to 1907 were modified in accordance with the results of the Census of 3rd April, 1911.

The figures given in those tables showed the number of males to each 100 females, but it is considered that a more satisfactory index is obtained by computing the ratio of the excess of males over females to the total population. This ratio, expressed as a percentage, has been adopted as the "masculinity" of the population, and the ratios so computed are given hereunder for intervals of ten years from 1800 to 1910 and for the five years 1922 to 1926 :—

POPULATION.—MASCULINITY, 1800 TO 1926.

(EXCESS OF MALES OVER FEMALES PER 100 OF POPULATION.)

Year.	States.						Territories.		Australia.
	N.S.W.(a)	Victoria.	Q'land.	S.A.(b)	W. Aust.	Tasmania.	Northern (c)	Fed. Cap. (d)	
1800	44.91	..	..	..	..	..	..	..	44.91
1810	31.16	..	..	..	..	..	..	..	31.16
1820	41.81	..	..	..	..	..	..	..	41.81
1830	52.06	..	..	..	49.66	49.17	..	..	51.02
1840	34.25	..	..	13.08	24.10	39.31	..	..	33.72
1850	16.13	..	..	12.72	21.51	28.44	..	..	17.76
1860	13.53	22.74	19.88	2.47	25.07	10.56	..	..	16.72
1870	9.29	9.74	20.10	2.84	23.42	6.09	..	..	9.54
1880	9.28	4.95	17.53	6.69	14.92	5.53	..	..	7.95
1890	8.28	5.06	13.87	4.12	18.98	5.61	..	..	7.43
1900	5.28	0.61	11.24	1.98	22.34	3.83	76.57	..	5.01
1910	4.41	-0.65	8.69	1.54	14.13	2.03	65.89	..	3.79
1920	2.11	-1.33	5.66	-0.08	6.78	0.83	45.95	7.71	1.70
1922	1.95	-0.82	5.49	0.34	6.74	0.03	43.06	12.87	1.77
1923	2.03	-0.76	5.60	1.13	7.08	0.01	42.17	7.32	1.93
1924	2.09	-0.53	5.43	1.65	7.29	-0.32	41.12	9.61	2.05
1925	1.95	-0.39	5.63	2.53	7.26	-0.43	39.50	13.31	2.15
1926	1.93	-0.41	5.57	3.41	7.31	-0.98	42.28	14.61	2.20

(a) Including Federal Capital Territory prior to 1911.

(b) Including Northern Territory prior to 1900.

(c) Included with South Australia prior to 1900.

(d) Part of New South Wales prior to 1911.

NOTE.—The minus sign (—) denotes excess of females over males per 100 of persons.

The table shows the progress towards equalization of the sexes as the country developed, and conditions suitable to family life became more general.

The war naturally had a great affect on the masculinity of the population. In 1913 there was in Australia as a whole an excess of 4.41 males in every 100 persons, but by 1918 the excess was on the side of females to the extent of 0.96 per 100 persons. This excess of females was experienced in Victoria, South Australia, and Tasmania, but, largely by the return of the military forces, the excess of males was restored in all States except Victoria; subsequent changes, however, brought about an excess of females over males in Tasmania.

Graphs showing the masculinity of the population of each State and of Australia accompany this chapter.

The difference between young and old countries in the masculinity of their populations is clearly illustrated by the comparisons furnished in the following table, which are based on the latest statistics available. It is interesting to note that of the countries named, Chile is the only non-European country with an excess of females :—

POPULATION OF VARIOUS COUNTRIES.—MASCULINITY.

Country.	Year.	Excess of Males over Females in each 100 of Population.	Country.	Year.	Excess of Males over Females in each 100 of Population.
Argentine Republic ..	1918	7.27	Jugo-Slavia ..	1921	-1.92
Ceylon ..	1921	5.91	Denmark ..	1925	-2.39
British India ..	1921	2.73	Norway ..	1920	-2.60
India (Fondatory States) ..	1921	2.73	Hungary ..	1921	-2.97
Australia ..	1926	2.20	Prussia ..	1925	-3.00
Union of South Africa(a) ..	1926	2.17	Spain ..	1920	-3.07
New Zealand ..	1926	2.11	Northern Ireland ..	1926	-3.18
United States of America ..	1920	1.98	Poland ..	1921	-3.37
Irish Free State ..	1926	1.38	Bavaria ..	1925	-3.42
Rumania ..	1919	0.75	German Empire ..	1925	-3.47
Japan ..	1925	0.48	Switzerland ..	1920	-3.69
Canada ..	1921	0.31	Scotland ..	1925	-3.82
Chile ..	1920	-0.57	Austria ..	1920	-4.24
Greece ..	1920	-0.62	Great Britain ..	1925	-4.25
Bulgaria ..	1924	-0.78	England and Wales ..	1925	-4.34
Belgium ..	1925	-1.19	France ..	1921	-4.92
Finland ..	1923	-1.23	Portugal ..	1920	-5.23
Sweden ..	1926	-1.80	Netherlands ..	1923	-7.29
Italy ..	1911	-1.81	Russia (European) ..	1920	-9.56

NOTE.—The minus sign (—) denotes excess of females over males in each 100 of population.

(a) White population only.

2. Age Distribution.—(i) *Australia*. The causes which brought about the excess of males also made the age constitution of the population of Australia essentially different from that of older countries. The high birth rate of the earlier years, coupled with the low average age of immigrants, produced a population in which young and middle-aged persons were above, and the persons of advanced ages were below, the normal proportions. With time, however, these differences have been modified, so that they are no longer important.

The following table shows the proportions in three main groups of ages, of the population of Australia over a period of 60 years in decennial periods from 1861, and of England and Wales for 1861, 1911 and 1921. The percentages are in all cases based on Census results. The Australian figures for 1861 include the results of the Western Australian Census of 1859, and those for 1871 include the results of the Western Australian and Tasmanian Censuses of 1870.

Throughout the period covered by the table, the age distribution of the Australian population has varied considerably in consequence of the fluctuations of the birth-rate and of net migration.

There is a steady approach to similarity in the age composition of males to that of females in harmony with the equalization of the numbers of each sex, and an increasing similarity in the composition of the Australian population to that of England and Wales.

POPULATION.—AGE DISTRIBUTION.

Census Year.	Males.				Females.				Persons.			
	Under 15 Years.	15 and under 65.	65 and over.	Total.	Under 15 Years.	15 and under 65.	65 and over.	Total.	Under 15 Years.	15 and under 65.	65 and over.	Total.

AUSTRALIA, 1861 TO 1921.

	%	%	%	%	%	%	%	%	%	%	%	%
1861..	31.41	67.42	1.17	100	43.03	56.20	0.77	100	36.28	62.72	1.00	100
1871..	38.84	59.11	2.05	100	46.02	52.60	1.38	100	42.09	56.17	1.74	100
1881..	36.37	60.85	2.78	100	41.89	56.07	2.04	100	38.91	58.65	2.44	100
1891..	34.77	62.02	3.21	100	39.36	58.08	2.56	100	36.90	60.20	2.90	100
1901..	33.87	61.82	4.31	100	36.50	59.85	3.65	100	35.12	60.88	4.00	100
1911..	30.84	64.82	4.34	100	32.52	63.28	4.20	100	31.65	64.68	4.27	100
1921..	31.64	63.88	4.48	100	31.79	63.83	4.38	100	31.71	63.86	4.43	100

ENGLAND AND WALES, 1861, 1911, AND 1921.

1861..	36.70	58.97	4.33	100	34.62	60.44	4.94	100	35.64	59.72	4.64	100
1911..	31.70	63.66	4.64	100	29.64	64.62	5.74	100	30.64	64.16	5.20	100
1921..	29.24	65.34	5.42	100	26.32	67.06	6.62	100	27.72	66.24	6.04	100

(ii) *States and Territories.* The disparity in sex distribution in the States is accompanied by a corresponding inequality in age distribution. For convenient comparison in respect to ages, the several populations may each be divided into groups, indicative of dependence on the one hand, and ability to support on the other. The usual division for this purpose is into an initial group of "under 15" classed as "dependent age," a second group of "15 and under 65" classed as "supporting age," and a final group of "65 and upwards" classed "old age." From certain points of view the division might be into two classes, the "supporting" and the "dependent," as the majority of those aged "65 and upwards" strictly belong to the dependent class. The number and proportion of persons in each State and Territory at the Census of 4th April, 1921, in each of the three groups mentioned, were as follows:—

POPULATION.—DEPENDENT, SUPPORTING, AND OLD AGE GROUPS,
4th APRIL, 1921.

State or Territory.	Number of Persons of—				Proportion of Population of—		
	Dependent age (under 15).	Supporting age (15 and under 65).	Old age (65 and upwards).	All ages.	Dependent age (under 15).	Supporting age (15 and under 65).	Old age (65 and upwards).
States—					%	%	%
New South Wales	677,770	1,332,214	90,387	2,100,371	32.26	63.42	4.32
Victoria ..	455,640	1,002,050	73,590	1,531,280	29.76	65.43	4.81
Queensland ..	251,445	474,160	30,367	755,972	33.27	62.71	4.02
South Australia	156,560	313,318	25,282	495,160	31.63	63.26	5.11
Western Australia	107,390	214,508	10,834	332,732	32.27	64.47	3.26
Tasmania ..	73,420	130,279	10,081	213,780	34.34	66.95	4.71
Territories—							
Northern ..	806	2,859	202	3,867	20.84	73.94	5.22
Federal Capital	847	1,648	77	2,572	32.93	64.07	3.00
Australia ..	1,723,878	3,471,036	240,820	5,435,734	31.71	63.86	4.43

Victoria has the highest proportion of the population in the "supporting" age-group, while Tasmania has the lowest proportion. This high proportion in Victoria is largely due to the relatively low birth-rate in that State during the years which produced the lives under 15 years at the Census of 1921. The relatively small proportion of the population in the age group 15-65 in Tasmania is due to the fact that many Tasmanian natives, in their early adult years, seek the wider opportunities available on the mainland.

POPULATION.—IN AGE GROUPS, 4th APRIL, 1921.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

Age last Birthday.	States.						Territories.		Australia.
	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	North-ern.	Fed. Cap.	
0-4 ..	239,340	155,636	90,148	53,902	34,977	25,546	331	326	600,206
5-9 ..	233,424	157,132	86,655	54,798	37,884	25,283	289	293	595,758
10-14 ..	205,600	143,168	74,783	47,936	34,533	22,615	184	221	529,040
15-19 ..	175,178	130,609	65,470	41,183	29,668	19,851	196	273	482,428
20-24 ..	172,086	129,599	66,317	40,238	25,769	17,772	285	245	452,311
25-29 ..	178,516	132,492	65,728	42,308	24,429	16,701	329	215	460,718
30-34 ..	180,372	122,683	62,858	41,261	24,296	15,562	345	238	447,615
35-39 ..	155,623	104,486	51,707	36,710	22,922	13,737	258	194	385,637
40-44 ..	129,060	92,799	43,321	29,880	22,885	11,858	262	151	330,216
45-49 ..	105,450	81,934	36,193	23,981	21,477	9,948	251	123	279,357
50-54 ..	91,822	80,565	32,513	22,096	18,444	9,247	295	74	255,056
55-59 ..	76,911	70,764	26,921	18,582	13,363	8,183	273	85	215,082
60-64 ..	62,105	53,676	20,925	15,874	8,967	6,867	229	61	168,704
65-69 ..	39,868	30,771	13,289	10,981	5,122	4,408	128	37	104,604
70-74 ..	25,047	19,239	8,152	6,790	2,955	2,697	53	13	64,946
75-79 ..	15,128	12,241	5,040	4,211	1,605	1,621	12	15	39,873
80-84 ..	6,769	6,822	2,610	2,100	684	887	3	4	19,879
85-89 ..	2,548	3,008	840	857	248	325	2	3	7,831
90 and over	664	988	214	252	53	91	..	1	2,263
Unspecified	4,860	2,668	2,288	1,220	2,451	581	142	..	14,210
Total ..	2,100,371	1,531,280	755,972	495,160	332,732	213,780	3,867	2,572	5,435,734
Under 21 ..	889,082	613,454	330,556	206,070	142,801	97,181	1,060	1,183	2,281,387
21 and over	1,206,429	915,158	423,128	287,870	187,480	116,018	2,665	1,389	3,140,137
Unspecified	4,860	2,668	2,288	1,220	2,451	581	142	..	14,210
Total ..	2,100,371	1,531,280	755,972	495,160	332,732	213,780	3,867	2,572	5,435,734

3. Race and Nationality.—(i) *General*. With regard to its racial characteristics, the population of Australia may be divided into two main groups, one comprising the aboriginal natives, and the other consisting of the various immigrant races which have made the country their home. [It will of course be understood that full-blood aboriginals are not counted in the population.] The term "immigrant races" naturally covers not only those residents of Australia who were born in other countries, but includes their descendants who were born in Australia.

(ii) *Aboriginals*. (a) *Early Estimates of Numbers*. The number of aboriginals in Australia at the advent of the white race has been estimated by various observers at somewhere in the vicinity of 150,000, but this figure must be regarded as a very rough approximation only.

(b) *Various Estimates from 1826 to 1921*. In 1826 the native black population in the settled districts of New South Wales numbered 3,019, this figure, however, offering little indication of the total for the whole State.

In Victoria an enumeration of the aboriginals in the settled districts in 1861 gave a total of 2,384, while at the Census of 1871, 1,330 were enumerated. In New South Wales 983 were counted in 1871 who were more or less in contact with white settlers, and it was estimated that 12,000 others were living in a wild and wandering condition.

At the Census of 1881 the aboriginals recorded in Victoria had dwindled to 780. In New South Wales the number enumerated was 1,643, while the unenumerated were estimated at 10,000. In South Australia (exclusive of the Northern Territory) the number counted and estimated was 6,346. In Queensland officers of the Police Department supplied an estimate of 20,585.

At the Census of 1891 the number in Victoria had decreased to 317. In New South Wales, where the first complete enumeration of the blacks was made, the number was returned as 5,097. In Western Australia 5,670 were enumerated, this figure, however, excluding natives not in contact with white settlers.

At the Census of 1911, 19,939 aboriginals were recorded for the whole of Australia, the figure again being exclusive of natives in unsettled areas.

At the Census of 1921 special efforts were made to obtain a reliable indication of the number of aboriginals living in the various States, including wild and wandering natives, as well as those in contact with the whites. Great difficulty was experienced in gaining anything like a reliable estimate in regard to the numbers of those in a wild state in Western Australia, the Northern Territory, and Queensland. The estimates gave a total of 60,300, distributed as follows:—New South Wales, 1,597; Victoria, 144; Queensland, 14,014; South Australia, 1,609; Western Australia, 25,587; Northern Territory, 17,349. (It may be mentioned here that the last representative of the Tasmanian aboriginals died in 1876.)

(c) *Census of Aboriginals in 1926.* A census of the aboriginal population taken in 1926 gave the following results:—

CENSUS OF ABORIGINALS, 1926.

State.	Full Bloods.					Half Castes.				
	Adults.		Children.		Total.	Adults.		Children.		Total.
	M.	F.	M.	F.		M.	F.	M.	F.	
New South Wales ..	450	288	142	151	1,031	1,692	1,269	1,531	1,543	6,035
Victoria ..	28	18	9	..	55	142	128	101	88	459
Queensland ..	6,299	4,301	1,572	1,432	13,604	1,095	1,011	1,017	924	4,047
South Australia ..	1,198	840	246	247	2,531	465	360	309	318	1,452
Western Australia ..	5,816	4,852	846	708	22,222a	779	649	562	430	2,420
Northern Territory ..	8,454	6,513	2,684	2,202	19,853	177	193	147	172	689
Total 1926 ..	22,245	16,812	5,499	4,740	59,296	4,350	3,610	3,667	3,475	15,102
Total 1925 (b) ..	23,385	18,421	5,750	4,838	62,394	3,996	3,266	3,084	3,047	13,393
Total 1924 ..	23,234	18,444	5,787	4,950	62,415	4,032	3,280	2,526	2,464	12,302

(a) Including 10,000 estimated as living outside the influence of Europeans.

(b) The figures for Queensland and South Australia are those for 1924.

NOTE.—In the case of aboriginals, all those twelve years of age and over are counted as adults, and the balance as children.

DISTRIBUTION OF ABORIGINALS, 1926.

State or Territory.	Full Blood and Half Castes.				
	Nomadic.	In Regular Employment.	In Supervised Camps.	Not Stated.	Total.
New South Wales ..	..	..	2,382	4,684	7,066
Victoria ..	..	..	293	221	514
Queensland ..	4,384	3,844	7,320	2,103	17,651
South Australia ..	2,460	830	693	..	3,983
Western Australia ..	16,485	5,069	3,088	..	24,642
Northern Territory ..	..	..	..	20,542	20,542
Total ..	23,329	9,743	13,776	27,550	74,398

NOTE.—Under "In Regular Employment" those regularly employed in Supervised Camps are not included.

The figures for 1926 show a small increase over the total for 1921, but this increase is more apparent than real, and is due to underestimation in 1921 of the numbers of the wild and unapproachable natives. In South Australia, for example, tribes previously

unknown have been found living west of Oodnadatta, near the boundary of Western Australia. Except in a few places where the blacks are under missionary influence, the numbers generally tend to decline, and the figures for New South Wales and Victoria, which are probably the most reliable, certainly evidence a rapid decline since the foundation of white settlement.

(d) *Decline in Numbers since 1891.* As evidence of the decline alluded to in the previous sub-section, a table is appended showing the numbers in the States of New South Wales and Victoria from 1891 onwards:—

NEW SOUTH WALES AND VICTORIA.—FULL-BLOOD ABORIGINALS, 1891 TO 1926.

State.	1891.	1901.	1911.	1921.	1925.	1926.
New South Wales ..	5,097	3,778	2,012	1,597	1,081	1,031
Victoria	317	250	196	144	66	55

The figures refer to full-blood aboriginals actually enumerated at the dates mentioned.

(iii) *Immigrant Races.* The immigrant races consist mainly of natives of the British Isles and their descendants. Of the total population (5,435,734) enumerated at the Census of 1921, 5,387,143, or over 99 per cent., were of European race. Of the remainder, 30,975 were full-blood, and 17,616 were half-caste non-Europeans.

The Census figures included all persons on board ships which were in Australian waters on the night of the Census, and 4,576 persons of full-blood and 49 half-castes of non-European race were thus enumerated. Amongst the 4,576 full-bloods were 1,018 Chinese, 1,330 Japanese, 942 Hindus, and 623 Malays.

The following table shows the number of full-blood and half-caste persons of non-European race—according to continental divisions—who were included in the Census of 1921. Of the 28,087 full-blood Asiatics, 17,157 were Chinese, 2,881 Hindus, 2,892 Syrians, 2,740 Japanese, and 1,087 Malays. The number of full-blood non-Europeans enumerated at the Census of 1921 was less than in 1911 by 6,814, or 18.03 per cent., whereas the half-caste non-Europeans had increased by 3,062, or 21.03 per cent. During the intercensal period the number of full-blood Chinese declined by 5,596, Japanese by 749, and Hindus by 418. The non-European element is relatively strongest in those parts of Australia where there are bêche-de-mer and pearl fisheries. More detailed information relating to the non-European races in the Australian population may be found in the Census Bulletins and Parts:—

POPULATION.—NON-EUROPEAN RACES, CENSUS. 4th APRIL, 1921.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

States and Territories.	Australian.	Asiatic.		African.		American.		Polynesian.		Indefinite.		Total.	
	Half-caste Aborigines.	Full-blood.	Half-caste.	Full-blood.	Half-caste.	Full-blood.	Half-caste.	Full-blood.	Half-caste.	Full-blood.	Half-caste.	Full-blood.	Half-caste.
States—													
N.S. Wales ..	4,588	10,608	2,081	72	116	31	35	332	162	38	7	11,081	6,989
Victoria ..	442	4,202	1,255	15	40	8	19	8	8	23	1	4,346	1,765
Queensland ..	3,090	7,122	1,453	42	27	25	21	1,869	247	155	6	9,213	4,844
S. Australia ..	811	1,210	224	13	5	17	4	..	2	56	2	1,296	1,048
W. Australia ..	1,960	3,734	242	13	7	14	7	10	4	3	3	3,774	2,223
Tasmania ..	152	327	78	1	..	..	..	..	2	1	..	329	232
Territories—													
Northern ..	460	913	21	3	..	..	..	7	1	4	..	927	482
Federal Capital	33	9	..	..	..	..	..	..	..	..	..	9	33
Australia ..	11,536	29,215	5,354	159	195	95	86	2,226	426	280	19	30,975	17,616

The proportion of population of non-European race (exclusive of full-blood aboriginals) in each State and Territory is shown in the following table, full-blood and half-caste non-Europeans being shown separately:—

POPULATION.—NON-EUROPEAN RACES, PROPORTIONS, CENSUS, 4th APRIL, 1921.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

States and Territories.	Total Population.	Non-European Race.					
		Full-blood.		Half-caste.		Total.	
		Number.	Number per 1,000 of Total Population.	Number.	Number per 1,000 of Total Population.	Number.	Number per 1,000 of Total Population.
States—							
N.S. Wales ..	2,100,371	11,081	5.27	6,989	3.33	18,070	8.60
Victoria ..	1,531,280	4,346	2.84	1,765	1.15	6,111	3.99
Queensland ..	755,972	9,213	12.19	4,844	6.41	14,057	18.60
S. Australia ..	495,160	1,296	2.62	1,048	2.11	2,344	4.73
W. Australia	332,732	3,774	11.34	2,223	6.67	5,997	18.01
Tasmania ..	213,780	329	1.54	232	1.09	561	2.63
Territories—							
Northern ..	3,867	927	239.70	482	124.64	1,409	364.34
Fed. Capital	2,572	9	3.50	33	12.83	42	16.33
Australia ..	5,435,734	30,975	5.70	17,616	3.24	48,591	8.94

(iv) *Biological and Sociological Significance.* The population of Australia is fundamentally British in race and nationality, and furnishes an example of the transplanting of a race into conditions greatly different from those in which it had been developed. The biological and sociological significance of this will ultimately appear in the physical and moral constitution produced by the complete change of climatic and social environment. The new conditions are likely to modify considerably the physical characteristics and the social instincts of the constituents of the population. At present, the characteristics of the Australian population, whether physical, mental, moral, or social, are only in the making, and probably a distinct Australian type will not appear until three or four generations more have passed. Even then, it is probable that, with the great extent of territory and differing conditions there will be a number of types varying with locality. At present the Australian is little more than a transplanted Briton, with the essential characteristics of his British forbears, with perhaps some accentuation of the desire for freedom from restraint. The greater opportunity for an open-air life, and the absence of the restricting conventions of older countries, may be mainly responsible for this development.

(v) *Nationality.* Prior to the Census of 1921 no attempt had been made to ascertain the allegiance of the people, except in so far as a person was or was not a British subject. At the last Census all persons were asked to state their nationality, and the results which are given in the following table, show that of a total population of 5,435,734, as many as 5,387,205, or over 99 per cent., were definitely stated to be British subjects. Of the foreign element, the Chinese were the most numerous, representing 30 per cent. of the foreign people and 2.56 in every 1,000 of the total population:—

POPULATION.—NATIONALITY (ALLEGIANCE), AUSTRALIA, CENSUS,

4th APRIL, 1921.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

Nationality.	4th April, 1921.			Nationality.	4th April, 1921.		
	Males.	Females.	Persons.		Males.	Males.	Persons.
British ..	2,722,152	2,665,053	5,387,205	Foreign—continued.			
Foreign—				Jugo-Slavian ..	502	107	609
Austrian ..	217	40	257	Norwegian ..	960	65	1,025
Belgian ..	171	106	277	Polish ..	351	149	500
Bulgarian ..	56	10	66	Russian ..	1,655	662	2,317
Chinese ..	13,614	185	13,799	Spanish ..	405	140	545
Czecho-Slovakian ..	97	22	119	Swedish ..	1,399	80	1,479
Danish ..	956	260	1,216	Swiss ..	413	151	564
Dutch ..	1,430	187	1,617	Turkish ..	72	26	98
Finnish ..	517	37	554	U.S. of America ..	2,520	737	3,257
French ..	1,221	867	2,088	Other ..	1,042	376	1,418
German ..	2,538	1,017	3,555	Total Foreign ..	39,067	6,687	45,754
Greek ..	2,430	387	2,817	Not stated ..	1,651	1,124	2,775
Hungarian ..	28	7	35	Grand Total ..	2,762,870	2,672,864	5,435,734
Italian ..	3,984	919	4,903				
Japanese ..	2,489	150	2,639				

(vi) *Birthplaces.* The proportion of native-born in the Australian population has increased rapidly in recent years. At the Census of 1921 the Australian-born numbered 4,581,663 persons, or 84.51 per cent. of a total population of 5,421,242 persons whose birthplaces were specified. Of the remainder, 676,387, or 12.48 per cent., were natives of the British Isles, and 38,611, or 0.71 per cent., were natives of New Zealand, so that 97.70 of the total population at that time had been born either in Australasia or in the British Isles. Excluding these, the following countries are the most important recorded as the birthplaces of persons in Australia at the Census of 1921:—

Germany, 22,396 (0.41 per cent.); China, 15,224 (0.28 per cent.); Scandinavia (comprising Sweden, Norway, and Denmark), 14,341 (0.26 per cent.); Italy, 8,135 (0.15 per cent.); British India, 6,918 (0.13 per cent.); United States of America, 6,604 (0.12 per cent.); Union of South Africa, 5,408 (0.10 per cent.); Canada, 3,550 (0.07 per cent.)

The Australian-born element is lowest in Western Australia and Queensland, where the density of population is also least, but where the masculinity is greatest. On the other hand, in Tasmania, where the density is high and the masculinity is low, the proportion of Australian-born is highest. These related facts indicate that conditions throughout these territorially larger but less developed States hitherto have been, on the whole, less attractive to women and less conducive to the rearing of families than the conditions existing in the more settled States.

Information in greater detail respecting birthplaces will be found in Bulletins and other matter published in connexion with the Census of 1921.

POPULATION.—BIRTHPLACES AT CENSUS OF 1921.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

Birthplace.	States.					Territories.			Australia.
	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	North- ern.	Fed. Cap.	
PERSONS.									
Australia ..	1,772,614	1,330,136	592,163	436,991	248,866	196,245	2,536	2,112	4,581,663
New Zealand ..	19,266	11,210	2,949	1,218	2,540	1,360	41	27	38,611
British Isles ..	260,426	161,117	128,234	46,326	66,739	12,750	410	385	676,387
Other European Countries ..	19,948	13,266	20,064	6,371	7,256	951	168	18	68,042
Asia ..	11,036	5,218	6,745	1,518	4,410	711	638	16	30,292
Africa ..	2,769	2,004	741	473	577	192	16	3	6,775
America ..	5,244	3,022	1,763	754	971	279	34	5	12,072
Polynesia (a) ..	1,882	354	1,218	82	85	58	8	5	3,692
At Sea ..	1,283	1,111	589	394	234	92	4	1	3,708
Unspecified ..	5,903	3,842	1,506	1,033	1,054	1,142	12	..	14,492
Total ..	2,100,371	1,531,280	755,972	495,160	332,732	213,730	3,867	2,572	5,435,734

(a) Includes Norfolk Island, Papua and the Territory of New Guinea.

POPULATION.—BIRTHPLACES AT CENSUS OF 1921—*continued.*

Birthplace.	States.						Territories.		Australia.
	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	North- ern.	Fed. Cap.	
PERCENTAGE OF TOTAL POPULATION.									
Australia ..	% 84.64	% 87.08	% 78.49	% 88.44	% 75.03	% 92.29	% 65.78	% 82.12	% 84.51
New Zealand ..	0.92	0.74	0.39	0.25	0.77	0.64	1.06	1.05	0.71
British Isles ..	12.43	10.55	17.00	9.37	20.12	6.00	10.64	14.97	12.48
Other European Countries ..	0.95	0.87	2.66	1.29	2.19	0.45	4.36	0.70	1.26
Asia ..	0.53	0.34	0.80	0.31	1.33	0.33	16.55	0.62	0.56
Africa ..	0.13	0.13	0.10	0.09	0.17	0.09	0.42	0.12	0.12
America ..	0.25	0.20	0.23	0.15	0.29	0.13	0.88	0.19	0.22
Polynesia(a) ..	0.09	0.02	0.16	0.02	0.03	0.03	0.21	0.19	0.07
At Sea ..	0.06	0.07	0.08	0.08	0.07	0.04	0.10	0.04	0.07
Total ..	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

(a) Includes Norfolk Island, Papua, and the Territory of New Guinea.

(vii) *Length of Residence of Immigrants.* At the Census of 1921 the population of Australia included 839,579 persons who were classed as immigrants, and the following table shows the number of years during which these people had resided in Australia. The number of persons whose length of residence is shown as less than one year is necessarily large, as it includes many persons, such as the crews of oversea ships, travellers, and others, who did not intend to remain in the country. The variations in the numbers with different periods of residence show the fluctuations in the volume of immigration. Thus the figures for length of residence groups 5-9 years and 10-14 years include those persons who arrived in Australia during the years 1911-1913 when immigration was large, those for the groups 30-44 years represent the arrivals during the boom period of the eighties of last century, while those for the groups 65-74 represent the survivors of the gold rush of the fifties.

POPULATION.—IMMIGRANT, LENGTH OF RESIDENCE IN AUSTRALIA, CENSUS 4th APRIL, 1921.

Number of Completed Years of Residence.	Males.	Females.	Persons.	Number of Completed Years of Residence.	Males.	Females.	Persons.
0 ..	28,386	19,827	48,213	60-64 ..	10,372	11,671	22,043
1 ..	8,375	16,998	25,373	65-69 ..	11,378	13,594	24,972
2 ..	2,026	2,490	4,516	70-74 ..	2,875	3,669	6,544
3 ..	1,715	1,404	3,119	75-79 ..	716	935	1,651
4 ..	2,779	2,623	5,402	80-84 ..	519	693	1,212
5-9 ..	111,895	87,723	199,618	85-89 ..	78	124	202
10-14 ..	58,919	31,883	90,802	90-94 ..	16	15	31
15-19 ..	18,077	7,915	25,992	95 and upwards ..	1	—	1
20-24 ..	15,875	8,990	24,865	Not stated ..	13,903	12,050	25,953
25-29 ..	16,873	10,721	27,594	Total ..	480,618	358,961	839,579
30-34 ..	47,206	32,773	79,979	Born in Australia ..	2,273,999	2,307,664	4,581,663
35-39 ..	56,144	38,272	94,416	Birthplace not stated ..	8,253	6,239	14,492
40-44 ..	31,843	20,851	52,694	Total Population ..	2,762,870	2,672,864	5,435,734
45-49 ..	16,616	11,773	28,389				
50-54 ..	10,954	9,640	20,603				
55-59 ..	13,077	12,912	25,989				

Further details are available from the Bulletins and Parts published in connexion with the Census of 1921.

4. *Education.*—(i) *General.* The information concerning educational attainments which can be satisfactorily collected at a Census is necessarily meagre. In Australia the particulars ascertained have never amounted to more than a statement as to whether or not a person could read and write. The results, therefore, merely divide the population into three main groups, viz.:—(a) Those who cannot read; (b) those who can read but cannot write; and (c) those able to read and write. Of the 5,435,734 persons who

comprised the population of Australia on the 4th April, 1921, there were 805,798 who were definitely shown to be unable to read, and there were 86,641 persons whose ability in this direction was not stated. Thus, approximately 15 per cent. of the population were unable to read. Of the 805,798 persons returned as unable to read, 600,206, or 74.5 per cent., were under five years of age, and many of the remaining 25.5 per cent. were also children. Allowing for those persons whose ability to read and write was unspecified, it may be said that over 95 per cent. of the population over five years of age can read and write, and of those over ten years of age more than 98 per cent. can read and write. The number of persons returned at the Census of 1921 as able to read but unable to write was 14,493, of whom 943 could read a foreign language only. With the exception of New Zealand, there is probably no country in the world so strikingly unilingual as Australia.

POPULATION.—EDUCATION, CENSUS OF 4th APRIL, 1921.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

States and Territories.	English Language.		Foreign Language only.		Cannot Read.		Un-specified.	Australia.
	Read and Write.	Read only.	Read and Write.	Read only.	Under age 5 years.	Age 5 years and over.		
STATES—								
New South Wales ..	1,725,326	5,291	4,190	296	239,340	92,858	33,070	2,100,371
Victoria ..	1,309,334	2,838	2,558	230	155,636	39,971	20,713	1,531,280
Queensland ..	619,447	2,621	4,502	288	90,148	28,897	10,069	755,972
South Australia ..	411,256	1,476	1,030	64	53,902	18,046	9,386	495,160
Western Australia ..	273,079	743	2,485	57	34,977	13,224	8,167	332,732
Tasmania ..	170,743	566	120	5	25,546	11,796	5,004	213,780
TERRITORIES—								
Northern ..	2,331	7	325	3	331	657	213	3,867
Federal Capital ..	2,069	8	7	..	326	143	19	2,572
Australia ..	4,513,585	13,550	15,217	943	600,206	205,592	86,641	5,435,734

(ii) *Place of Education.* At the Census of 1921 the place of instruction was given for 1,023,462 persons, and of these 74.93 per cent. were attending State schools, 18.93 per cent. were at private schools, 2.43 per cent. at technical schools, 3 per cent. were receiving instruction at home, and 7 per thousand were attending universities. Of the males receiving instruction, 75.85 per cent. were at State schools, and 17.04 per cent. were at private schools; of the females 73.96 per cent. were at State schools and 20.90 per cent. at private schools.

POPULATION.—PLACE OF EDUCATION, CENSUS, 4th APRIL, 1921.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

States and Territories.	Number being educated at—					Total.
	State School.	Private School.	Technical School.	University.	At Home.	
STATES—						
New South Wales ..	291,365	77,553	8,006	2,934	13,181	393,939
Victoria ..	203,025	59,788	8,097	2,663	5,772	279,945
Queensland ..	116,050	23,457	3,012	261	6,163	148,943
South Australia ..	72,397	14,382	1,599	990	2,042	91,410
Western Australia ..	50,356	12,299	2,585	267	1,932	67,439
Tasmania ..	32,459	6,204	612	137	1,540	40,852
TERRITORIES—						
Northern ..	239	58	..	..	50	347
Federal Capital ..	350	33	172	..	32	587
Australia ..	766,841	193,774	24,883	7,252	30,712	1,023,462

5. *Religions.*—At the Census of the 4th April, 1921, of a total population of 5,435,734, the number who objected to state their religion was 46,268; a further number of 45,990 failed to specify their religion in any degree; 20,544 stated that they had no religion:

and 19,896 classed themselves in indefinite groups, such as "Freethinker," "Agnostic," "No Denomination," etc. Of those remaining (5,303,046), 5,267,641, or 99.33 per cent., were definitely stated to be Christians, and 35,405 were stated to be Non-Christians. The number who were definitely stated to be Christians represented nearly 97 per cent. of the total population. Of the total Christians, 2,372,995, or 45.04 per cent., belonged to the Church of England; 1,134,002, or 21.53 per cent., to the Roman Catholic Church; 636,974, or 12.09 per cent., to the Presbyterian Church; and 632,629, or 12.01 per cent., were Methodists. Thus, the four denominations named embraced over 90 per cent. of the declared Christians. It is possible that the number given above for Roman Catholics may be somewhat understated, as some of those shown in the table as "Catholics undefined" were doubtless Roman Catholics.

**POPULATION OF AUSTRALIA, CENSUSES OF 1901, 1911, AND 1921,
ACCORDING TO RELIGION.**

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

RELIGION.	Census of 31st March, 1901.	Census of 3rd April, 1911.	Census of 4th April, 1921.	RELIGION.	Census of 31st March, 1901.	Census of 3rd April, 1911.	Census of 4th April, 1921.
I. CHRISTIAN—				III. INDEFINITE—			
Baptist ..	89,338	97,074	105,703	Freethinker ..	9,182	3,254	3,629
Catholic, Roman ..	850,620	921,425	1,134,002	Agnostic ..	971	3,084	3,234
Catholic, Greek ..	1,314	2,646	5,372	No Denomination ..	19,757	2,688	3,376
Catholic, Undefined ..	5,179	75,379	38,659	Others ..	1,101	5,647	9,647
Church of Christ ..	24,192	38,748	54,574				
Church of England ..	1,497,576	1,710,443	2,372,995	Total ..	31,011	14,673	19,886
Congregational ..	73,561	74,046	74,513				
Independent ..	75,021	72,395	57,519				
Lutheran ..	504,101	547,806	632,629	IV. NO RELIGION—			
Methodist ..	426,105	558,336	636,974	Atheist ..	274	579	1,200
Presbyterian ..	20,558	109,861	67,112	Others ..	6,505	9,437	19,344
Protestant, Undefined ..	31,100	26,665	31,589				
Salvation Army ..	3,332	6,095	11,305	Total ..	6,779	10,016	20,544
Seventh Day Adventist ..	2,629	2,175	1,714				
Unitarian ..	21,823	31,320	42,981				
Others ..							
Total, Christian ..	3,626,449	4,274,414	5,267,641				
II. NON-CHRISTIAN—				V. OBJECT TO STATE ..	42,131	83,003	46,268
Hebrew ..	15,239	17,287	21,615	VI. UNSPECIFIED ..	14,060	36,114	45,990
Buddhist ..		3,269	2,065				
Chinese ..		3,283	3,591				
Confucian ..	35,666	5,194	2,692				
Mohammedan ..		3,908	2,868				
Pagan ..		1,447	457				
Others, Non-Christian ..	2,466	2,397	2,117				
Total, Non-Christian ..	53,371	36,785	35,405	GRAND TOTAL ..	3,773,801	4,455,005	5,435,734

6. Conjugal Condition.—The number of persons whose conjugal condition was definitely stated at the Census of 4th April, 1921, was 5,421,191, of whom 2,753,740 were males and 2,667,451 were females. Of the 5,421,191 persons referred to, 1,998,662, or 36.86 per cent., were married, as compared with 33 per cent. in 1911; 237,821, or 4.39 per cent., were widowed; 8,528, or 0.15 per cent., were divorced; and 3,176,180, or 58.60 per cent., had never married. Of those who had never married, 1,725,004, or 54.31 per cent., were under 15 years of age. The proportion of married persons per cent. to the total population of the several States varied in the following order:—South Australia, 38.14; New South Wales, 37.40; Western Australia, 36.85; Victoria, 36.63; Tasmania, 35.88; Queensland, 35.32. On the basis of the adult population, the percentage of married persons in Australia was about 63.36, and in each State was approximately as follows:—Tasmania, 65.66; South Australia, 65.31; New South Wales, 64.78; Western Australia, 64.16; Queensland, 62.65; Victoria, 60.99.

POPULATION.—CONJUGAL CONDITION, CENSUS, 4th APRIL, 1921.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

Conjugal Condition.	States.						Territories.		Australia
	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	North-ern.	Fed. Cap.	
Never married—									
Under age 15 ..	678,364	455,936	251,586	156,636	107,394	73,444	804	840	1,725,004
Age 15 and over ..	540,267	434,010	206,632	126,301	87,241	54,297	1,709	719	1,451,176
Total never married	1,218,631	889,946	458,218	282,937	194,635	127,741	2,513	1,559	3,176,180
Married ..	783,730	559,677	266,307	188,798	121,635	76,482	1,076	957	1,998,662
Widowed ..	88,552	76,207	29,040	21,919	13,054	8,874	121	54	237,821
Divorced ..	4,609	2,313	488	384	610	118	5	1	8,528
Unspecified ..	4,849	3,137	1,919	1,122	2,798	565	152	1	14,543
Total ..	2,100,371	1,531,280	755,972	495,160	332,732	213,780	3,867	2,572	5,435,734

7. *Occupations.*—(i) *General.* The following table shows, for each State and Territory and for Australia as a whole, the population grouped according to the various classes of occupations. The bulletins which have been published in connexion with the Census of 1921 give, in greater detail than is possible here, the occupations of the people of each State and Australia, and also give comparisons of the results of the Censuses of 1911 and 1921.

(ii) *Breadwinners.* After distributing the number of persons whose occupations were not specified there were at the Census of 1921, 2,322,471 breadwinners, representing 42.7 per cent. of the total population. At the Census of 1911, the breadwinners represented 45 per cent. of the population. Of the total male population, 67.25 per cent. were breadwinners in 1921, as compared with 69.4 per cent. in 1911. Of the female population the percentage of breadwinners was 17.4 in 1921, and 18.6 in 1911. The proportion of females to the total of breadwinners was almost identical at both periods, being about 20 per cent.

(iii) *Industrial.* The decade 1911–1921 marks an interesting phase in the industrial development of Australia, inasmuch as, during that period, the persons engaged in manufacturing and other construction work became more numerous than those engaged in primary production. In 1911, the Industrial Class already had first place in New South Wales, Victoria and South Australia, but in the other States the predominance of the Primary Class was such that, for Australia as a whole, the Primary Class was the greater. In 1921, the preponderance of the Industrial Class in New South Wales, Victoria, and South Australia had increased to such an extent, and at the same time the excess in favour of the primary industries, though still existent in Queensland, Western Australia, and Tasmania, had so diminished, that the number of persons engaged in industrial occupations throughout Australia exceeded those in the primary industries by 126,066, or by nearly 21 per cent. In 1911 the primary industries employed 39,711 persons, or 7.0 per cent., more than were employed in the industrial group. Of the total of 2,322,471 breadwinners in 1921, 725,816, or 31.2 per cent., belonged to the Industrial Class, as compared with 569,132, or 28.4 per cent., of all breadwinners in 1911. The principal group within the Industrial Class is composed of the manufacturing industries. During the intercensal period, the number of persons engaged in manufacturing industries increased from 367,939, or 18.4 per cent., of all breadwinners in 1911, to 442,598, or 19 per cent., of breadwinners in 1921, an increase of 74,659, or 20.3 per cent.

(iv) *Primary Producers.* As mentioned in the preceding paragraph, the primary producers have ceased to be the most numerous of the occupational classes. In 1911 the primary producers numbered 608,843, or 30.4 per cent., of all breadwinners, while the number decreased to 599,750, representing only 25.8 per cent. of the breadwinners in 1921. The number of persons engaged in Agriculture increased by 14.3

per cent. from 295,710 to 338,088. This increase in numbers however represents a relative decline of about two per thousand of all breadwinners. The number engaged in the Pastoral Industries declined from 157,967 to 142,349, or by nearly 10 per cent. The number engaged in Mining was less in 1921 by 42,866, or 39 per cent., having fallen to 66,882 from 109,748, in 1911. Those engaged in Forestry and in connexion with Water Supply, though still relatively few, increased substantially—the former by 20 per cent., and the latter by 48 per cent.

(v) *Commercial*. The number of persons recorded as engaged in commercial pursuits in Australia as a whole increased by 22.1 per cent. during the intercensal decade, the increases in the various States ranging from about 15½ per cent. in Victoria to 29 per cent. in New South Wales. This class represented 15.3 per cent. of all breadwinners in Australia in 1921, as against 14.5 per cent. in 1911. The similar proportions in the various States in 1921 were:—New South Wales, 15.7 per cent.; Victoria, 16.1 per cent.; Queensland, 13.3 per cent.; South Australia, 16 per cent.; Western Australia, 14.9 per cent.; and Tasmania, 12.2 per cent.

(vi) *Domestic*. Notwithstanding an increase in the number in the Domestic Class from 202,925 in 1911 to 210,362 in 1921, the class relatively to the total breadwinners declined from 10.1 per cent. in 1911 to 9.1 per cent. in 1921. For Australia as a whole the number in the Domestic Class increased by 7,437, of whom 6,203 were females. The number in this class was actually less in 1921 in Victoria by 7 per cent., and in Tasmania by 8.8 per cent. than in 1911, while in the other States the increases varied from 3.0 per cent. in Western Australia to 11.2 per cent. in New South Wales.

(vii) *Transport and Communication*. The number of persons employed in connexion with transport and communication increased from 158,854, or 8 per cent., of all breadwinners in 1911, to 208,222, or 9 per cent. in 1921.

(viii) *Professional*. The Professional Class embraces all persons, not otherwise classed, who are mainly engaged in government and defence, and in ministering to the moral, intellectual, and social wants of the community. The number of persons in this class increased from 146,603 in 1911 to 201,887 in 1921, or by 37.7 per cent. The Professional Class represented 8.7 per cent. of all breadwinners in 1921, as compared with 7.3 per cent. in 1911.

POPULATION.—OCCUPATIONS, CENSUS OF 4th APRIL, 1921.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

Occupation.	States.						Territories.		Australia
	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	North-ern.	Fed. Cap.	
Class									
I. Professional..	78,004	60,732	26,081	15,898	13,493	6,957	165	557	201,887
II. Domestic ..	81,858	58,291	23,818	19,660	14,145	7,306	213	71	210,362
III. Commercial..	139,044	108,190	43,149	32,936	21,959	10,263	190	36	355,767
IV. Transport and Communication	84,719	53,445	29,833	19,507	14,321	6,085	270	42	208,222
V. Industrial ..	285,665	234,829	85,623	63,640	32,794	22,603	457	205	725,816
VI. Primary Pro- ducers	208,936	147,514	109,719	52,658	49,399	29,911	1,238	315	599,750
VII. Independent	8,099	7,691	2,025	1,226	815	810	1	..	20,667
Total Breadwinners	886,325	670,692	323,248	205,525	146,926	83,935	2,594	1,226	2,322,471
VIII. Dependents..	1,214,046	860,588	430,724	289,635	185,806	129,845	1,273	1,346	3,113,263
Total ..	2,100,371	1,531,280	755,972	495,160	332,732	213,780	3,867	2,572	5,435,734

(ix) *Changes in Occupation, 1871 to 1921*. The following table shows the changes which have taken place in the occupations of the people in the 50 years from 1871 to 1921, and illustrates the relative decline in the number of breadwinners engaged in the primary industries and the corresponding expansion of the other industrial groups. The arrest of progress from the financial crisis of the nineties is also brought into striking relief. From the Census of 1871 the proportion engaged in the primary group fell, and that in the industrial group rose until at the Census of 1891 the two groups were

practically equal. The Census of 1901, i.e., after the financial collapse, showed a reversion to the primary from the secondary industries. A feature of the movement of that time was the transfer of workers from the industries of the eastern States to the gold-fields of Western Australia. The same cause was no doubt responsible for the increased proportion represented in 1901 by the domestic class, which, with this exception, has declined since 1881. The curve of the development of the industrial group during the twenty years 1901-1921 is somewhat similar to that during the period 1871 to 1891, but, whereas in 1891 the proportions represented by the industrial and primary groups were equal, in 1921 the industrial group represented 31.2 per cent. of all breadwinners, and the primary group 25.8 per cent. only.

Increased proportions in the professional, commercial, and transport classes evidence the higher standard of life and the increasing complexity of the social structure.

POPULATION.—OCCUPATIONS, AUSTRALIA, CENSUSES 1871 TO 1921.

Occupations.	1871.	1881.	1891.	1901.	1911.	1921.
I. Professional ..	35,534	50,495	84,887	112,356	146,608	201,887
II. Domestic ..	79,684	111,164	158,651	202,216	202,925	210,362
III. Commercial ..	56,131	83,918	167,653	224,028	291,366	355,767
IV. Transport and Communication	26,173	41,445	92,632	122,702	158,854	208,222
V. Industrial ..	182,615	269,140	419,445	429,012	569,132	725,816
VI. Primary Producers	303,044	349,344	419,499	535,766	608,843	599,750
VII. Independent ..	5,953	8,778	23,126	22,430	26,402	20,667
Total Breadwinners ..	689,134	914,284	1,365,893	1,648,510	2,004,130	2,322,471
VIII. Dependents ..	979,452	1,338,333	1,808,499	2,125,291	2,450,875	3,113,263
Total ..	1,668,586	2,252,617	3,174,392	3,773,801	4,455,005	5,435,734

NOTE.—In this table those cases for which no occupation was stated have been distributed proportionately over the various classes of breadwinners.

OCCUPATIONS.—PERCENTAGES OF EACH CLASS ON TOTAL BREADWINNERS, AUSTRALIA, CENSUSES 1871 TO 1921.

Occupations.	1871.	1881.	1891.	1901.	1911.	1921.
	%	%	%	%	%	%
Professional	5.1	5.5	6.2	6.8	7.3	8.7
Domestic	11.6	12.2	11.6	12.2	10.1	9.1
Commercial	8.1	9.2	12.3	13.6	14.5	15.3
Transport and Communication	3.8	4.5	6.8	7.4	8.0	9.0
Industrial	26.5	29.4	30.7	26.1	28.4	31.2
Primary	44.0	38.2	30.7	32.5	30.4	25.8
Independent	0.9	1.0	1.7	1.4	1.3	0.9
Total Breadwinners ..	100.0	100.0	100.0	100.0	100.0	100.0

8. Grade of Employment—(i) General. The term "grade of employment" indicates the capacity in which persons are employed in the various branches of industry. The grades recorded are five in number, viz.:—(a) Employer, (b) Working on own account, (c) Assisting but not receiving wages or salary, (d) Receiving wages or salary, (e) Unemployed. In addition to these categories provision is made for (f) Grade not applicable—which consists mainly of dependents and persons of independent means not engaged in gainful occupations, and (g) Grade not stated.

(ii) *Employers and Workers on Own Account.* For all States the figures show a decline in the number of employers, and an increase in the number of those working on their own account. For Australia as a whole the number of employers fell from

222,866 in 1911 to 141,570 in 1921, or by 36.5 per cent., while the number working on their own account increased by 87.5 per cent. from 185,161 in 1911, to 347,250 in 1921. From these results it would appear that many of the small employers of 1911 had dispensed with paid assistance in 1921. It is probable, also, that the establishment of returned soldiers in small businesses and other ventures increased the number of workers on their own account.

(iii) *Assisting, but not Receiving Wages.* The number of those assisting, but not receiving wages or salary—mainly sons, daughters, or other relatives of the principal—fell by 55.4 per cent., from 78,427 in 1911 to 34,983 in 1921.

(iv) *Wage Earners.* In considering the proportion of the wage and salary-earning division of the community, account must be taken of the persons returned as unemployed at the date of the Census, since, ordinarily, these persons are wage or salary earners. Combining the two grades, therefore, it appears that of the total population of Australia on the 4th April, 1921, the wage and salary earners represented 31 per cent. Excluding those persons to whom grade of employment is not applicable, about 74 per cent. of male breadwinners and 86 per cent. of the female breadwinners were wage or salary earners.

(v) *Unemployed.* The number returned as unemployed in 1921 was nearly three times as great as in 1911, this result being confirmed by figures collected in connexion with the Labour and Industrial Branch of the Bureau of Census and Statistics.

POPULATION.—GRADE OF EMPLOYMENT, AUSTRALIA, CENSUS OF 4th APRIL, 1921.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

Grade.	States.						Territories.		Australia
	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	North- ern.	Fed. Cap.	
Employer ..	48,674	45,289	19,770	13,590	9,317	4,792	101	37	141,570
Working on own account ..	123,668	98,293	54,302	31,893	23,445	14,902	607	140	347,250
Assisting but not re- ceiving wages or salary ..	11,046	11,803	5,748	2,931	1,498	1,942	10	5	34,983
Receiving wages or salary ..	593,283	437,679	197,165	137,478	96,879	54,247	1,473	832	1,519,036
Unemployed ..	62,502	40,443	33,665	10,692	9,157	4,116	356	25	160,956
Grade not applicable	1,261,198	897,773	445,322	298,576	192,436	133,781	1,320	1,533	3,231,939
Total ..	2,100,371	1,531,280	755,972	495,160	332,732	213,780	3,867	2,572	5,435,734

9. *Unemployment.*—(i) *Causes.* At the Census of the 4th April, 1921, there were in Australia 1,679,992 wage or salary earners, of whom 160,956 were unemployed. The following table shows that approximately 50 per cent. of the unemployment was due to scarcity of work, 29 per cent. to illness or accident, 3 per cent. to industrial disputes, 1.5 per cent. to old age, and 17 per cent. to other causes.

POPULATION.—CAUSES OF UNEMPLOYMENT, AUSTRALIA, CENSUS OF 4th APRIL, 1921.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

Particulars.	Scarcity of Em- ployment.	Illness.	Accident.	Industrial Dispute.	Old Age.	Other Cause.	Total.
Males ..	72,882	31,648	4,833	4,511	2,199	23,365	139,438
Females ..	6,456	10,170	261	307	77	4,247	21,518
Persons ..	79,338	41,818	5,094	4,818	2,276	27,612	160,956

(ii) *Duration.* At the Census of 1921 persons who were unemployed on Saturday, 2nd April, 1921, were asked to state the number of working days during which they had been out of work. The results of the enquiry show that approximately 46 per cent. were unemployed under five weeks, 17.2 per cent. from five to ten weeks, 10.6 per cent. from ten to fifteen weeks, and 26.2 per cent. above fifteen weeks :—

**POPULATION.—DURATION OF UNEMPLOYMENT, AUSTRALIA, CENSUS OF
4th APRIL, 1921.**

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

Duration of Unemployment in Working Days.	4th April, 1921.			Duration of Unemployment in Working Days.	4th April, 1921.		
	Males.	Females.	Persons.		Males.	Females.	Persons.
Under 10 ..	26,215	4,101	30,316	70-79 ..	4,991	807	5,798
10-19 ..	22,482	3,440	25,922	80-89 ..	2,862	409	3,271
20-29 ..	15,221	2,381	17,602	90 and over	36,950	5,426	42,376
30-39 ..	12,113	1,906	14,019				
40-49 ..	7,273	1,199	8,472				
50-59 ..	4,479	748	5,227				
60-69 ..	6,852	1,101	7,953	Total ..	139,438	21,518	160,956

(iii) *Unemployment in States.* Particulars regarding unemployment in the separate States at the time of the Census may be found in Part XVII. (Occupations) of the tables relating to the Census of 1921.

§ 9. Dwellings.

[NOTE.—Information concerning dwellings will be found in detail in Census Parts Nos. XVIII.—XXV.]

1. *General.*—The following table represents a summary of the information relating to dwellings which was obtained at the Census of 1921. Including those in course of construction there were in Australia on the 4th April, 1921, 1,210,786 dwellings—including hotels, boarding-houses, hospitals, gaols and any structure for the purpose of shelter as a dwelling, but excluding wagons used as camps, and dwellings occupied solely by full-blood aboriginals. The number of dwellings per square mile varies from 1 to every 433 square miles in the Northern Territory to 1.87 (approximately one dwelling to every half a square mile) in Tasmania, the average throughout Australia being 0.41. Of the total dwellings referred to above, 51,163 were stated to be unoccupied. This description does not, however, mean all dwellings so returned were "to let" but, merely, that they had no inmates on the night of the census. The average number of rooms per occupied dwelling ranged from 5.33 in Victoria to 4.59 in Western Australia, the average for Australia being 4.96 as compared with 5.18 in 1911. The number of persons per occupied dwelling varied from 4.85 in New South Wales to 4.52 in Western Australia, the average for Australia being 4.71, as compared with 4.82 in 1911. For Australia as a whole, there were 0.95 persons per room in 1921, as against 0.93 persons in 1911.

2. *Occupied Private Dwellings.*—A better index to the housing conditions of the people is obtained by excluding all other than occupied *private* dwellings. The following table shows that of the 1,153,285 occupied dwellings in Australia, 1,107,010 were private dwellings. These contained an average of 4.94 rooms in 1921, as compared with 4.93 in

1911, and had an average of 4.40 inmates, as against 4.53 in 1911. The number of inmates per room in occupied private dwellings in Australia declined from 0.92 in 1911 to 0.89 in 1921.

3. *Private Dwellings occupied by Tenants.*—For Australia as a whole the proportion of private dwellings which were occupied by tenants dropped from 47.78 per cent. in 1911 to 43.68 in 1921. The falling off was due mainly to the increase in the number of dwellings occupied by rent purchasers resultant on the policies of the State Governments of advancing money for the building of homes, and on the activities of the War Service Homes Commissioners.

DWELLINGS.—AUSTRALIA, CENSUS, 4th APRIL, 1921.

(EXCLUSIVE OF DWELLINGS OCCUPIED SOLELY BY FULL-BLOOD ABORIGINALS.)

Particulars of Dwellings.	States.						Territories.		Australia
	New South Wales.	Victoria.	Q'land.	South Aust.	West. Aust.	Tasmania.	North-ern.	Fed. Cap.	
All Dwellings									
Occupied (a)	432,976	331,290	160,139	107,914	73,548	45,818	1,074	526	1,153,285
Unoccupied	18,619	14,994	6,747	4,431	3,274	2,934	135	29	51,163
Being Built	2,724	2,009	347	674	289	295	..	..	6,338
Total Dwellings	454,319	348,293	167,233	113,019	77,111	49,047	1,209	555	1,210,786
Number of Dwellings per square mile	1.47	3.96	0.25	0.30	0.08	1.87	.002	0.59	0.41
Rooms per Occupied Dwelling	5.23	5.33	5.31	5.09	4.59	4.70	2.80	5.29	4.96
Population per Occupied Dwelling	4.85	4.62	4.72	4.59	4.52	4.67	3.60	4.89	4.71
Occupied <i>Private</i> Dwellings	414,468	318,936	153,313	104,295	70,185	44,432	1,005	376	1,107,010
Rooms per Dwelling	4.97	5.11	4.94	4.90	4.22	4.80	2.70	4.85	4.94
Inmates per Dwelling	4.52	4.34	4.40	4.34	4.11	4.44	2.83	4.39	4.40
Inmates per Room	0.91	0.85	0.89	0.89	0.97	0.93	1.05	0.91	0.89
Percentage occupied by Tenants	49.72	42.46	33.59	40.67	36.95	47.30	25.31	65.18	43.68
Weekly Rental Value (b)	18s. 2d.	16s. 11d.	13s. 6d.	14s. 7d.	13s. 11d.	11s. 10d.	13s. 5d.	9s. 0d.	10s. 6d.

(a) Excluding Wagons and Camps.

(b) Average weekly rental value of private dwellings occupied by tenants.

4. *Private Dwellings in Urban and Rural Divisions.*—(i) *General.* The following table, which relates to *occupied private dwellings* in the Urban and Rural Divisions of Australia, shows that, while the average number of rooms and the average number of inmates per occupied private dwelling are greater in the Metropolitan Area than in the Urban Provincial or Rural Districts, the average number of inmates per room is least in the Metropolitan Districts.

(ii) *Tenants.* The proportion of occupied private dwellings occupied by tenants is greatest in the Metropolitan Areas, where it represents 53.17 per cent. of all dwellings for which the mode of occupancy was stated, as against 46.05 per cent. in the Urban Provincial Districts, and 31.02 per cent. in the Rural Districts. In urban districts, however, the dwelling is as a rule valued as a purely residential entity, whereas in rural districts the productive property of the land—to which the dwelling is an appurtenance—is most often the incentive to ownership.

(iii) *Rental Value.* Considerable divergence was shown between the Metropolitan and other divisions of the country in the weekly rental value of private dwellings, which vary from an average of 9s. 11d. in the Rural Districts to 20s. 8d. in the Metropolitan Areas.

**OCCUPIED PRIVATE DWELLINGS.—URBAN AND RURAL, AUSTRALIA,
CENSUS, 4th APRIL, 1921.**

Particulars.	Urban.		Rural.	Total.
	Metropolitan.	Provincial.		
Occupied Private Dwellings	467,913	207,807	431,290	1,107,010
Rooms per Dwelling	5.15	5.07	4.66	4.94
Inmates per Dwelling	4.42	4.40	4.39	4.40
Inmates per Room	0.86	0.87	0.95	0.89
Percentage occupied by Tenants ..	53.17	46.05	31.02	43.68
Weekly Rental Value(a)	20s. 8d.	14s. 0d.	9s. 11d.	16s. 6d.

(a) Average weekly rental value of private dwellings occupied by tenants.

5. *Private Dwellings in Metropolitan Areas.*—(i) *General.* The number of rooms per dwelling in these areas varied from a minimum of 4.67 in Perth to a maximum of 5.47 in Brisbane—a difference of 17 per cent., but the number of inmates per dwelling varied from 4.31 in Adelaide to 4.52 in Sydney—a difference of 5 per cent. only. The average number of inmates per room was highest in Perth, with 95 persons to every 100 rooms, and lowest in Brisbane, where there were 81 persons to every 100 rooms.

(ii) *Tenants.* The proportion of private dwellings in Metropolitan Areas occupied by tenants ranged from 39.18 per cent. in Brisbane to 59.22 per cent. in Sydney, the average for the six capitals being 53.17 per cent., as against 63.48 per cent. in 1911. As already mentioned, the decline during the decade 1911–1921 in the proportion of tenants was due largely to the action of the State Government and of the War Service Homes Commissioners in facilitating the acquisition of houses under the system of purchase by instalment.

(iii) *Rental Value.* The weekly rent of private dwellings ranged from 17s. 1d. per week in Hobart to 23s. per week in Sydney.

**OCCUPIED PRIVATE DWELLINGS IN METROPOLITAN AREAS.—CENSUS,
4th APRIL, 1921.**

Particulars of Dwellings.	Sydney and Suburbs.	Melbourne and Suburbs.	Brisbane and Suburbs.	Adelaide and Suburbs.	Perth and Suburbs.	Hobart and Suburbs.	Total.
Occupied Private Dwellings ..	173,322	158,001	42,378	53,741	29,741	10,730	467,913
Rooms per Dwelling ..	5.14	5.19	5.47	5.06	4.67	5.10	5.15
Inmates per Dwelling ..	4.52	4.34	4.44	4.31	4.43	4.35	4.42
Inmates per Room ..	0.88	0.84	0.81	0.85	0.95	0.85	0.86
Percentage occupied by Tenants ..	59.22	54.14	39.18	46.64	43.57	55.02	53.17
Weekly Rental Value(a) ..	23s. 0d.	20s. 0d.	17s. 2d.	17s. 9d.	17s. 8d.	17s. 1d.	20s. 8d.
Weekly Rental Value per Room	4s. 6d.	3s. 10d.	3s. 2d.	3s. 6d.	3s. 10d.	3s. 5d.	4s. 0d.

(a) Average weekly rental value of private dwellings occupied by tenants.

§ 10. Immigration.

(A) The Encouragement of Immigration into Australia.

1. **General.**—Various measures have from time to time been adopted by the Commonwealth and State Governments, as well as by private societies and individuals, to promote the immigration of suitable settlers into Australia. The activities of the Commonwealth Government (which is vested with constitutional powers in regard to immigration under section 51, xxvii., of the Constitution Act 1900) with respect to the encouragement of immigration, were formerly confined to advertising the resources and attractions of Australia by means of exhibitions, and in handbooks, in newspapers, and periodicals. During the war, immigration operations were almost entirely suspended.

2. **Joint Commonwealth and States' Immigration Scheme.**—In 1920 an arrangement was arrived at between the Commonwealth and State Governments under which the Commonwealth is responsible for the recruiting of immigrants abroad and for their transport to Australia, whilst the State Governments advise the Commonwealth as to the numbers and classes of immigrants which they are prepared to receive. Briefly stated, the Commonwealth selects the immigrant according to the requirements of the State concerned and brings him to Australia, and on his arrival the State Government assumes the responsibility for placing him in employment or upon the land. Incidentally, the Commonwealth undertakes all publicity and propaganda in connexion with the encouragement of immigration.

3. **Assisted Passages.**—During the period 1st May, 1925, to 31st March, 1928, the British and Commonwealth Governments will jointly donate the following contributions towards the passages of approved settlers for Australia from the United Kingdom:—Children under 12 years, £16 10s. (representing the whole of the half fare); juveniles 12 and under 17 years, £27 10s.; juveniles 17 years and under 19 years, £22; married couples, including widowers or widows, and wives nominated by husbands, with at least, one child under 19 years, £22 per parent (children at rate according to age); domestic servants, £33; others including children 19 years of age and over, £16 10s. Allowing for this financial assistance, children under 12 years will be carried free; juveniles 12 years of age and under 17 years, who are ordinarily charged for by the shipping companies as adult passengers, will merely require to pay £5 10s. each; juveniles 17 years and under 19 years, £11 each; married couples, including widowers or widows, and wives nominated by husbands, with at least one child under 19 years, £11 per parent (children at rate according to age); domestic servants free; others, including children 19 years and over, £16 10s. each. Persons who have previously resided in the Commonwealth are not eligible for assistance. In addition to these contributions, loans of the balance of the passage money are in special cases granted by the Governments concerned. Persons entitled to assisted passages are divided into two classes—"Selected" and "Nominated." "Selected" immigrants are those such as farm workers and domestics who are originally recruited abroad by the Commonwealth Government. "Nominated" immigrants are those nominated by persons resident in Australia, and the nominators, who must submit their applications through the officers in charge of the State Immigration Offices in the various capital cities, are held responsible for their nominees upon arrival, so that they shall not become a burden upon the State.

Intending settlers or immigrants may, on application, obtain full information from the Director of Migration and Settlement, Australia House, Strand, London, W.C.2.; or from the Secretary, Development and Migration Commission, "Kurrajong House" 175-177 Collins-street, Melbourne.

4. **Migration Agreement between British and Commonwealth Governments.**—On the 8th April, 1925, the British and Commonwealth Governments entered into an agreement under which it is proposed to furnish to the Governments of the various States, loan moneys at a very low rate of interest, to enable suitable areas of land to be made available for settlement, or to enable such public works to be carried out as will

tend to develop and expand settlement areas or will enable areas already settled to carry a greater population. The maximum amount of loan moneys provided for in the agreement is £34,000,000. It is provided that for every principal sum of £75 issued to a State Government under the agreement, one assisted migrant shall sail direct from the United Kingdom and be received into and satisfactorily settled in the State concerned. If full advantage is taken of the offer of loan moneys contained in the agreement, 450,000 new settlers will be absorbed during a period of ten years.

5. **Results of Assisted Immigration.**—In the earlier days of settlement in Australia, State-assisted immigration played an important part. Such assistance ceased for the time being in Victoria in 1873, in South Australia in 1886, and in Tasmania in 1891. In New South Wales, general State-aided immigration was discontinued in the year 1887, but those who arrived under that system and were still residing in New South Wales, might, under special regulations, send for their wives and families. A certain amount of passage money, graduated according to the age of the immigrant, had to be paid in each case. Under the provisions of these regulations, immigrants to the number of 1,994 received State assistance during the years 1888 to 1899 inclusive. From 1900 to 1905 no assistance of any kind was given, but from 1906 onwards assistance has again been granted. In Queensland and Western Australia, such assistance, although varying considerably in volume from year to year, has been accorded for many years past. Assistance to immigrants, which in the case of Victoria had practically ceased in 1873, has recently been again afforded. In South Australia the principle of State assistance was again introduced in 1911, and in Tasmania in 1912.

The number of assisted immigrants for the years 1914 to 1926 and the total from the earliest years up to the end of 1926 are given in the following table:—

ASSISTED IMMIGRATION.—1914 TO 1926, AND UP TO THE END OF 1926.

Persons.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
No. Assisted during 1914	6,655	7,496	4,096	644	1,729	185	20,805
" " " 1915	1,695	1,724	1,599	79	635	64	5,796
" " " 1916	649	327	300	..	103	18	1,397
" " " 1917	239	146	91	..	26	2	504
" " " 1918	199	101	100	..	26	..	426
" " " 1919	67	139	39	..	..	..	245
" " " 1920	3,211	2,763	1,272	..	1,499	314	9,059
" " " 1921	4,980	3,987	1,147	572	3,381	615	14,682
" " " 1922	7,087	9,145	1,711	1,531	4,373	411	24,258
" " " 1923	5,005	9,504	2,377	1,711	7,654	394	26,645
" " " 1924	6,211	8,721	1,788	1,375	6,715	226	25,036
" " " 1925	8,788	8,589	2,318	1,292	3,701	139	24,827
" " " 1926	12,830	8,586	3,669	1,993	4,030	152	31,260
Total from earliest years to end of 1926 ..	320,113	238,189	228,468	111,181	73,174	24,434	995,559

(B) The Regulation of Immigration into Australia.

1. **Pre-Federal Restrictions.**—(i) *Alien Races.* For many years prior to federation the States had imposed certain restrictions upon the admission of persons desirous of becoming permanent residents. The influx of Chinese, for example, was limited by stringent statutes, and later, general Acts were passed in some of the States which restricted the immigration of other—principally Asiatic—races.

(ii) *Undesirable Immigrants.* Further restrictions were placed upon the admission of persons who were undesirable as inhabitants, either for medical or moral reasons, or who were likely to become an economic burden upon the community.

2. Powers and Legislation of the Commonwealth.—(i) *Constitutional.* Under Part V., Sec. 51, xxvii. and xxviii. of the Commonwealth Constitution Act the Parliament of the Commonwealth is empowered to make laws with respect to immigration and emigration and the influx of criminals. (See page 24 hereinbefore.)

(ii) *Legislation.* The powers above specified have been exercised by the Commonwealth Government, and the laws passed in pursuance thereof supersede the previously existing State laws. The present Commonwealth Acts dealing with Immigration are the Immigration Act 1901–1925 and the Contract Immigrants Act 1905. A summary of the provisions of these Acts (excepting the provisions of the Amending Immigration Acts of 1920, 1924 and 1925, which are given below), containing particulars regarding the admission of immigrants, prohibited immigrants, the liabilities of shipmasters and others, and kindred matters, will be found in preceding Year Books (see Year Book, No. 12, pp. 1166 to 1168).

3. Amending Immigration Act 1920.—The principal provisions of this Act, which came into operation as from the 2nd December, 1920, are those prohibiting the entry of (a) any person who advocates the overthrow by force or violence of the established Government of the Commonwealth or of any State or of any other civilized country, or of all forms of law, etc.; (b) for a period of five years, and thereafter until the Governor-General by proclamation otherwise determines, any person of German, Austro-German, Bulgarian, or Hungarian parentage and nationality, or Turk of Ottoman race; (c) any person over 16 years of age who, on demand by an officer, fails to prove that he is the holder of a valid passport; (d) any person who has been deported under any Act.

Section 9 of the War Precautions Act Repeal Act also provides for prohibiting the entry of any British subject who upon being required to make and subscribe an oath or affirmation of loyalty fails to do so.

4. Amending Immigration Act 1924.—The provisions of this Act were mainly intended to improve the machinery of the existing law. Section 3, paragraph (f), of the principal Act was amended to include amongst the classes of prohibited immigrants any persons who in the opinion of an officer were considered likely to become a charge upon the public through having insufficient means of support or from any other cause. It is now required that every alien immigrant must be in possession of at least £40 landing money, unless his maintenance has been guaranteed by some one residing in Australia.

5. Amending Immigration Act 1925.—This measure contains several important amendments, the principal of which are those providing power—(i) To prohibit the entry of any person declared by the Minister to be in his opinion, from information received from the Government of the United Kingdom or of any other part of the British Dominions or from any foreign Government, through official or diplomatic channels, undesirable as an inhabitant of, or visitor to, the Commonwealth. (ii) To prohibit by proclamation, either wholly or in excess of specified numerical limits, and either permanently or for a specified period, the immigration into the Commonwealth, or the landing at any specified port or place in the Commonwealth, of aliens of any specified nationality, race, class or occupation, in any case where it is deemed desirable so to do—(a) on account of the economic, industrial, or other conditions existing in the Commonwealth; (b) because the persons specified in the proclamation are deemed to be unsuitable for admission into the Commonwealth; or (c) because they are deemed unlikely to become readily assimilated or to assume the duties and responsibilities of Australian citizenship within a reasonable time after their entry. (iii) To deport persons, other than those born in Australia, who have been concerned in Australia in acts directed towards hindering or obstructing, to the prejudice of the public, the transport or the conveyance of passengers, or the provision of necessary services, and whose presence in Australia is considered likely to be injurious to the peace, order, and good government of the Commonwealth. Before action can be taken under the latter provision to deport any person from the Commonwealth, he must be required to appear before a specially appointed Board, to afford him an opportunity to show cause why he should not be deported. The Board will consist of three members nominated by the Minister, and the Chairman must be a person who holds or has held the office of Judge, or of Police, Stipendiary, or Special Magistrate.

6. **Compilation of Statistics.**—The statistics relative to immigration, which are presented in this Chapter, have been compiled by the Department of Home and Territories in accordance with the provisions of the Immigration Act 1901-25. The number of persons admitted without test includes Australian citizens who have been abroad, and other persons landing in Australia irrespective of the length of time which they propose to stay. Certain persons who are permitted to land (under security for their subsequent departure) pending transhipment to another country are not included. The majority of the persons of Asiatic or other non-European nationality shown in the table are former residents of Australia who have returned from visits abroad, or are persons who have been admitted temporarily under exemption certificates, for business, educational, or other purposes. The Immigration Act 1901-25 does not require any statistical record of the departures from Australia.

It may be mentioned, however, in this connexion, that the Bureau of Census and Statistics, for the purpose of estimating the population of Australia, compiles—from data collected by the Department of Trade and Customs—statistics of both arrivals into and departures from Australia. For this compilation, all persons leaving an overseas ship, and all persons joining an overseas ship, in any Australian port, are counted. Consequently the number of arrivals as recorded respectively under the Immigration Act and by this Bureau are not in complete agreement. During the last five years the number of persons who desired but were not permitted to land was 18 in 1922; 49 in 1923; 50 in 1924; 35 in 1925; and 58 in 1926.

7. **Persons Admitted Without Dictation Test.**—The following table shows the number and nationality of persons admitted during the years 1922 to 1926 without passing the dictation test:—

**PERSONS ADMITTED WITHOUT DICTATION TEST.—NATIONALITIES,
AUSTRALIA, 1922 TO 1926.**

Nationality or Race.	1922.	1923.	1924.	1925.	1926.
EUROPEANS—					
Austrian	(a)8	(a)2	9	28	48
Belgian	72	84	69	112	106
British	84,263	85,440	88,335	82,662	90,562
Danish	179	172	189	150	184
Dutch	233	219	248	183	206
Finnish	110	154	374	149	126
French	525	378	660	577	703
German	(a)86	(a)130	195	288	547
Greek	472	922	2,028	645	683
Italian	3,367	1,739	4,640	6,102	3,952
Jugo-Slav	125	240	1,933	950	1,427
Maltese (British)	373	323	418	401	384
Norwegian and Swedish	361	491	383	172	258
Polish	45	58	111	178	501
Portuguese	2	4	..	..	..
Rumanian	14	14	23	21	34
Russian	116	256	312	515	477
Spanish	51	85	108	103	92
Swiss	169	160	277	258	246
Turkish	4	2	..	..	..
Other European ..	104	193	428	298	401
AMERICANS—					
North Americans ..	1,372	1,470	1,400	1,479	1,626
South Americans ..	14	13	27	..	..
American Indians ..	..	..	..	..	..
Negroes	5	13	11	9	20
West Indians	3	6	2	3	2

(a) Landed on exemption certificates or under special authority.

**PERSONS ADMITTED WITHOUT DICTATION TEST.—NATIONALITIES,
AUSTRALIA, 1922 TO 1926—continued.**

Nationality.	1922.	1923.	1924.	1925.	1926.
ASIATICS—					
Arabs	5	3	16	7	10
Chinese	1,964	1,974	1,917	1,256	1,780
Filipinos	10	25	15	22	15
Japanese	390	222	240	440	328
Javanese	8	4	1	12	5
Malays	39	29	23	69	72
Natives of India and Ceylon	225	141	174	186	188
Palestinians	(a)	(a)	(a)	87	83
Syrians	79	147	288	172	224
Timorese	371	243	316	287	212
OTHER RACES—					
Maoris .. ..	..	..	..	..	..
Mauritians .. ..	..	..	..	..	..
Pacific Islanders	47	43	50	36	69
Papuans	368	282	365	383	312
Unspecified	39	44	86	39	35
Total	95,618	95,725	105,571	98,279	105,918

(a) Not previously recorded.

8. **Departures of Persons of Non-European Races.**—The following table shows the number of persons of non-European races who left Australia during the years 1922 to 1926:—

**DEPARTURES OF PERSONS OF NON-EUROPEAN RACES—AUSTRALIA,
1922 TO 1926.**

Nationality.	1922.	1923.	1924.	1925.	1926.
American Negroes	4	4	7	11	9
West Indians	2	7	1	..	3
Afghans .. ..	..	1	2	6	..
Arabs	6	3	4	9	8
Chinese	2,189	2,310	1,898	1,732	2,145
Filipinos	25	23	14	15	33
Japanese	359	436	366	336	293
Javanese	4	2	3	7	7
Malays	79	92	43	32	31
Natives of India and Ceylon	199	167	156	246	212
Pacific Islanders	46	38	57	35	43
Papuans	146	359	282	382	323
Timorese	(a)	(a)	(a)	(a)	275
Others	154	214	488	31	38
Total	3,213	3,656	3,321	2,842	3,420

(a) Not previously recorded.

(C) Passports.

Provision is made in the Immigration Act 1920 for the production of passports by all persons over 16 years of age who desire to enter Australia. Similarly, the Passports Act 1920 provides that no person over the age of 16 years shall leave Australia unless—

- (a) he is the holder of a passport or other document authorizing his departure; and
- (b) his passport has been viséed or indorsed in the prescribed manner for that journey, and the visé or indorsement has not been cancelled.

Among the exceptions to this requirement are natural-born British subjects leaving for New Zealand, Papua, or Norfolk Island; members of the crew of any vessel who sign on in Australia for an oversea voyage and who satisfy an authorized officer that they are by occupation seafaring men; aboriginal natives of Asia, or of any island in the East Indies, or in the Indian or Pacific Oceans. The charge for a Commonwealth passport is 10s., and for a visé 2s.

With regard to (b), the Commonwealth Government has agreed to the inclusion of Australia in reciprocal arrangements for the abolition of visé requirements made by the British Government with the respective Governments of the following countries, viz.:—France, Switzerland, Liechtenstein, Italy, Belgium, Denmark, Sweden, and Norway.

§ 11. Naturalization.

1. **Commonwealth Legislation.**—A brief summary of the Commonwealth legislation regarding naturalization is given in Year Book No. 15 (p. 1090).

The "Nationality Act 1920" was amended by the "Nationality Act 1922," which extends the operation of the principal Act to the Territories of Papua and Norfolk Island, and to any other territories under the authority of the Commonwealth to which the Governor-General by proclamation declares it to extend. A further amendment made by the Nationality Act 1925, the object of which was to bring the Nationality Act into line with the British law and to meet the wishes of British communities in foreign countries, restores the privilege of British nationality to children of the second generation, and also under certain conditions to children of later generations. A penal clause was also inserted dealing with trafficking in naturalization certificates.

The grant of a certificate of naturalization entitles the recipient to all the rights and privileges, and renders him subject to all the obligations of a natural-born British subject, with the exception that where, by any Commonwealth or State Constitution or Act, a distinction is made between natural-born British subjects and naturalized persons, such distinction shall hold good in the case of all persons naturalized under the Commonwealth Act.

The "Nationality Act 1920" provides that applications for certificates of naturalization must be made to the Governor-General, the qualifications required in an applicant being:—(i) Residence in Australia or a Territory continuously for not less than one year immediately preceding his application for naturalization, and previous residence, either in Australia or in some other part of His Majesty's dominions, for a period of four years within the last eight years before the application; (ii) Good character and an adequate knowledge of the English language; (iii) Intention to settle in the British Empire.

The applicant is required to furnish the following particulars in support of his application:—His own statutory declaration stating—(a) Name; (b) Age; (c) Birth-place; (d) Occupation; (e) Residence; (f) Length of residence in the British Empire; (g) Intention to settle in the British Empire; (h) Such other particulars as are prescribed. He must also furnish—(a) Newspapers containing copies of an advertisement, as prescribed, of his intention to seek naturalization; (b) Certificates of character from three natural-born British subjects, two of whom must be householders, and the third a Justice of the Peace, Postmaster, State School Teacher, or Police Officer; (c) Satisfactory evidence that he has an adequate knowledge of the English language.

The Governor-General in Council may, in his absolute discretion, and with or without assigning any reason, grant or withhold a certificate of naturalization as he thinks most conducive to the public good; but the issue of a certificate of naturalization will not be effected until the applicant furnishes a certificate signed by a Justice of the High Court of Australia, a State Judge, or a Magistrate, certifying that he has renounced allegiance to the country of which he was a subject at the time of his application for naturalization, and that he has taken an oath or affirmation of allegiance to the Crown in accordance with the Constitution. The grant of a certificate is made free of charge.

In addition to naturalization by grant of certificate, the act makes provision for—
(a) Naturalization by marriage; (b) Naturalization by inclusion in certificate granted to parent.

The former relates to the case of a woman who is not herself a British subject, but is married to a British subject; the latter to that of a person who is not a natural-born British subject, but who being under 21 years of age has, at the request of the parent, been included in the certificate granted to him by the Commonwealth. In each instance the person concerned is deemed to be naturalized under the Commonwealth Act.

The Governor-General may revoke a certificate of naturalization on any one of a number of grounds set out in Section 12 of the Nationality Act 1920-22, and the grantee thereupon ceases to be a British subject and is regarded as a subject of the State to which he belonged at the date of issue of the certificate of naturalization.

Where a wife and any minor children have acquired British nationality under the certificate issued to the husband and father, and such certificate is subsequently revoked, the wife and children remain British subjects unless the Governor-General otherwise declares, or unless they themselves elect to make a declaration of alienage.

In accordance with the Act, a list of persons naturalized, with their addresses, is published in the *Commonwealth Gazette* from time to time.

The administration of the Act is carried out by the Home and Territories Department and the Governor-General is authorized to make such regulations as are necessary or convenient for giving effect to the Act.

2. Certificates Granted.—(i) *Australia.* Particulars regarding the previous nationalities of the recipients of certificates of naturalization issued under the Act during each of the five years 1922 to 1926, and the countries from which such recipients had come, are given in the following table:—

**NATURALIZATION.—COMMONWEALTH CERTIFICATES GRANTED,
1922 TO 1926.**

Previous Nationalities of Recipients.	No. of Certificates Granted.					Countries from which Recipients of Commonwealth Certificates had come.	No. of Certificates Granted.				
	1922.	1923.	1924.	1925.	1926.		1922.	1923.	1924.	1925.	1926.
Italian ..	200	138	177	154	286	Great Britain ..	201	128	122	108	129
Swedish ..	47	27	37	29	56	Italy ..	188	136	163	142	274
Danish ..	53	42	44	36	48	Germany ..	293	155	151	104	103
Russian ..	159	82	60	68	62	America (North) ..	88	55	44	45	54
German ..	876	196	176	134	126	Sweden ..	15	7	15	17	28
Norwegian ..	38	31	30	17	29	Denmark ..	22	9	21	16	36
Greek ..	138	141	173	172	215	Norway ..	20	16	12	13	19
American (North) ..	23	17	22	19	26	Greece ..	106	85	131	131	155
Dutch ..	18	15	22	16	20	France ..	24	16	25	11	21
Swiss ..	22	13	15	10	19	Egypt ..	41	47	31	26	41
French ..	28	10	33	28	27	America (South) ..	11	16	14	8	13
Spanish ..	16	26	22	17	20	Holland ..	11	6	9	8	8
Belgian ..	4	3	3	4	10	Russia ..	73	43	35	30	28
Rumanian ..	7	4	5	3	4	South Africa ..	13	9	13	15	15
Portuguese ..	2	2	1	1	1	Belgium ..	32	17	2	6	9
American (South) ..	1	1	..	1	2	New Zealand ..	16	17	17	12	9
Austrian ..	20	14	3	8	9	Switzerland ..	9	7	11	6	10
Mexican ..	..	..	..	..	..	Spain ..	14	19	12	16	13
Chinese ..	..	..	1	..	..	New Caledonia ..	..	..	..	5	8
Serbian ..	3	2	3	1	1	Argentina ..	..	..	..	2	4
Syrian ..	64	33	31	30	28	Canada ..	..	6	5	6	2
Polish ..	45	19	24	22	38	Finland ..	4	2	10	15	14
Finnish ..	21	18	16	27	26	Other Countries ..	183	124	121	126	130
Others ..	89	77	66	72	70						
Total ..	1,353	920	964	868	1,123	Total ..	1,353	920	964	868	1,123

(ii) *States.* The following table furnishes particulars concerning the States in which the recipients of Commonwealth certificates of naturalization during the years 1922 to 1926 were resident :—

NATURALIZATION.—COMMONWEALTH CERTIFICATES GRANTED IN EACH STATE, ETC., 1922 TO 1926.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Northern Territory.	Australia.
1922 ..	409	199	381	116	228	17	3	1,353
1923 ..	272	145	290	63	145	3	2	920
1924 ..	280	163	254	75	176	10	6	964
1925 ..	294	156	180	60	172	3	3	868
1926 ..	385	172	258	67	224	14	3	1,123

3. *Census Particulars.*—On the Personal Card used at the Census of 4th April, 1921, an inquiry as to naturalization was made, all persons who were British subjects by naturalization being required to indicate the fact by inserting the letter N in the place provided for the purpose on the card. In addition, in checking the cards in the Census Bureau, instructions were given that cases of women naturalized by marriage to British subjects, and of children naturalized by residence with parents who have become British subjects, should be duly taken into account by the insertion of the letter N if originally omitted. The results of the tabulation will be found in the following table :—

NATURALIZATION.—NATURALIZED BRITISH SUBJECTS, CENSUS OF 4th APRIL, 1921.

Particulars.	States.						Territories.		Australia.
	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	North-ern.	Fed. Cap.	
Males ..	9,300	6,357	9,654	3,098	2,751	568	57	14	31,799
Females ..	3,249	2,434	5,764	1,411	856	223	6	3	13,946
Persons ..	12,549	8,791	15,418	4,509	3,607	791	63	17	45,745

§ 12. Population of Territories.

At the Census of the 4th April, 1921, special arrangements were made to obtain complete and uniform information concerning each of the five Territories of the Commonwealth, viz. :—(1) Northern Territory; (2) Federal Capital Territory; (3) Norfolk Island; (4) Papua; (5) Territory of New Guinea.

The work of Census enumeration in each Territory was carried out under the direction of the Commonwealth Supervisor of Census, the local organization in each Territory being under the control of a Deputy Supervisor of Census stationed in each Territory. On the conclusion of the collection the whole of the material was forwarded to the Census Office, Melbourne, for tabulation in conjunction with the data for Australia. A summary of the population and number of dwellings in each Territory is shown in the following table :—

POPULATION AND DWELLINGS.—TERRITORIES, 4th APRIL, 1921.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS IN THE NORTHERN AND FEDERAL CAPITAL TERRITORIES AND OF THE INDIGENOUS POPULATION OF PAPUA AND NEW GUINEA).

Territory.	Population.			Dwellings.			Total.
	Males.	Females.	Persons.	Occu- pied.	Unoccu- pied.	Being Built.	
Northern Territory ..	2,821	1,046	3,867	1,074	138	1	1,213
Federal Capital Territory ..	1,567	1,005	2,572	526	29	..	555
Norfolk Island ..	339	378	717	168	22	3	193
Papua ..	1,408	670	2,078	672	43	4	719
Territory of New Guinea ..	2,562	671	3,173	1,056	18	..	1,074

§ 13. The Aboriginal Population.

In Official Year Book No. 17, pp. 951 to 961, a brief account was given of the Australian aboriginal population, its origin, its numbers as estimated from time to time, and the steps taken for its protection. Pages 881 to 883 of this issue contain a statement showing the numbers of full-blood and half-caste aboriginals in each of the States and Territories of Australia at successive periods.

§ 14. The Chinese in Australia.

In Official Year Book No. 18, pp. 951 to 956, a brief historical sketch was given regarding "The Chinese in Australia," but limitations of space preclude its repetition in the present volume.

§ 15. The Pacific Islanders in Australia.

In Official Year Book No. 19, pp. 902-3, a brief account was given of the introduction of Kanakas into Australia.

CHAPTER XXV.

VITAL STATISTICS.

§ 1. Births.

1. Births, 1922 to 1926.—The number of male and female births and the total births registered in Australia during the years 1922 to 1926 are shown in the tables hereunder. The numerical relation which these births bear to the population, and various other associated features, are given in later tables.

MALE BIRTHS, 1922 TO 1926.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	North. Ter.	Fed. Cap. Ter.	Aus- tralia.
1922	28,218	18,738	10,263	6,150	4,163	2,995	38	17	70,582
1923	27,713	18,565	10,163	5,976	4,014	2,888	40	6	69,365
1924	27,350	18,500	10,050	5,941	4,215	2,700	29	15	68,800
1925	27,878	18,592	10,316	5,824	4,210	2,664	36	22	69,542
1926 { Single births	26,660	17,825	9,922	5,764	4,215	2,531	40	30	66,987
Twins ..	550	372	207	142	90	53	..	4	1,418
Triplets ..	7	6	3	..	1	..	..	..	17
Total births	27,217	18,203	10,132	5,906	4,306	2,584	40	34	68,422

FEMALE BIRTHS, 1922 TO 1926.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	North. Ter.	Fed. Cap. Ter.	Aus- tralia.
1922	26,952	17,550	9,724	5,851	3,968	2,822	32	15	66,914
1923	26,356	17,312	9,819	5,716	3,840	2,769	32	13	65,857
1924	26,355	17,640	9,658	5,651	4,086	2,683	28	26	66,127
1925	26,737	17,330	9,967	5,633	3,975	2,554	29	25	66,250
1926 { Single births	25,328	16,775	9,450	5,470	3,894	2,359	31	39	63,346
Twins ..	569	378	182	104	96	45	2	2	1,378
Triplets ..	2	6	..	3	5	..	..	..	16
Total births	25,899	17,159	9,632	5,577	3,995	2,404	33	41	64,740

TOTAL BIRTHS, 1922 TO 1926.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	North. Ter.	Fed. Cap. Ter.	Aus- tralia.
1922	55,170	36,288	19,987	12,001	8,131	5,817	70	32	137,496
1923	54,069	35,877	19,982	11,692	7,854	5,657	72	19	135,222
1924	53,705	36,140	19,708	11,592	8,301	5,383	57	41	134,927
1925	54,615	35,922	20,283	11,457	8,185	5,218	65	47	135,792
1926 { Single births	51,988	34,600	19,372	11,234	8,109	4,890	71	69	130,333
Twins ..	(a)1,119	(c)750	(d)389	246	(b)186	98	2	6	(e)2,796
Triplets ..	9	12	3	3	6	..	..	..	33
Total births	53,116	35,362	19,764	11,483	8,301	4,988	73	75	133,162

(a) Seventeen stillborn twins not included. (c) Two stillborn twins not included.
 (b) Eight stillborn twins not included. (d) One stillborn twin not included.
 (e) Twenty-eight stillborn twins not included.

2. Birth Rates.—The next table gives the crude birth rates for the years 1922 to 1926.

CRUDE BIRTH RATE(a), 1922 TO 1926.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Northern Territory.	Federal Capital Territory.	Australia.
1922 ..	25.67	23.10	25.59	23.71	23.94	27.08	19.16	11.37	24.69
1923 ..	24.69	22.31	24.89	22.60	22.55	26.27	19.94	5.73	23.77
1924 ..	24.11	22.01	23.87	21.88	23.09	25.07	15.82	10.65	23.24
1925 ..	24.01	21.49	23.82	21.06	22.23	24.44	17.69	9.96	22.89
1926 ..	22.89	20.84	22.58	20.55	22.14	23.62	19.39	12.28	22.02

(a) Number of births per 1,000 of the mean annual population.

Generally speaking the crude birth rate of Australia has shown a constant decline for many years, and the rate for 1926 is the lowest yet recorded.

The principal factor in determining the crude birth rate is the proportion of *married* women of child-bearing age in the community, but as the fecundity of women varies with age, the birth rate per 1,000 married women will vary according to the age composition of the group, and, other things being equal, the rate generally should be highest where the average age of married women is lowest. For the purposes of the following table the child-bearing age has been taken as from 15–44 years inclusive, and all births of which the mothers were stated to be over 45 years have been counted in the group 40–44.

The following table shows some of the more important factors which affect the birth rates, and also the birth rates computed on various bases as follows:—Births per 1,000 of the population (crude); births per 1,000 women of child-bearing age; nuptial births per 1,000 married women of child-bearing age; births per 1,000 married women of child-bearing age corrected for inequalities in the age composition by taking the female population of Australia as a whole for a standard; and ex-nuptial births per 1,000 unmarried women aged 15–44 inclusive. The results are obtained from the births during the years 1920, 1921, and 1922 in relation to the age and conjugal condition of the population at the time of the Census of the 4th April, 1921.

The rates obtained from these computations place Tasmania first, and Queensland second, although the proportions of married women of child-bearing age in their populations were lower than the average for Australia. This result was due to the relatively low average age of the married women in these States, and the large proportion of ex-nuptial births. The relatively low proportion of married women of child-bearing age in Queensland was due to the large number of adult males employed in localities unsuited to women, a circumstance which accounts for the high masculinity of the population.

In Tasmania the relatively small proportion of married women arises from conditions directly opposite to those in Queensland. In the island State the numbers of the sexes were almost equal, while large numbers of the young adults emigrate to the mainland, leaving a population with abnormally high proportions of very young and very old. Although the proportion of married women of child-bearing age was lower in Tasmania than in Queensland, and the average age was the same in both States, Tasmania had the greater weight in the more productive age-groups—from 15 to 24 years.

Western Australia, though fifth in order of the crude birth rates, takes third place when the rates are computed in relation to women only, the change in position being

due to the high masculinity. Although the average age of married women of reproductive ages was higher than in any other State, the uncorrected birthrate for nuptial births per 1,000 married women was higher than in New South Wales, Victoria, or South Australia. The adjustment for age improves the status of Western Australia very considerably, though not sufficiently to alter the sequence of its position.

The crude birth rate placed New South Wales third, but on the adjusted rate per 1,000 married women it takes fifth place. The high position of New South Wales in regard to crude birth rates was due rather to the large proportion in the population of married women of child-bearing age than to their productiveness.

Victoria was the only State with an excess of females in its population, and the proportion to the total population of women aged 15-44 was the largest among the States, but as the proportion of these who were married was the lowest, the primary factor in the crude birth rate, viz., the proportion to the total population of married women of reproductive ages was the smallest.

The difference between the adjusted birth rates per 100 married women of child-bearing ages for New South Wales and Victoria was very small, and the proportions of ex-nuptial to all births in these States were almost identical.

Although 12.53 per cent. of its total population consisted of married women of child-bearing age—against an average of 12.20 for Australia—South Australia occupies fourth place in the order of crude birth rates. The advantage from its high proportion of potentially productive women was to some extent counteracted by their average age being somewhat above the average for Australia, while its position was also affected by the very small proportion of ex-nuptial births. The number of nuptial births per 100 women of child-bearing age in South Australia represented 18.71, as against 19.65 for Australia, but the difference was somewhat reduced by the adjusting process which makes the rate for South Australia 18.99 as against the Australian rate of 19.65.

BIRTH RATES, AND FACTORS AFFECTING THEM.—AVERAGE OF YEARS 1920, 1921, 1922.

Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Australia.
Crude birth rate per 1,000 persons..	25.99	23.54	26.72	24.23	24.14	26.99	25.15
Birth rate per 100 women 15-44 incl.	11.04	9.79	11.83	10.25	11.05	11.91	10.74
Birth rate per 100 married women 15-44 incl.(a)	19.39	19.29	21.26	18.71	19.62	21.83	19.65
Birth rate per 100 married women 15-44 incl. (corrected for age variation)	19.14	19.44	20.77	18.99	20.44	21.24	19.65
Ex-nuptial births—per cent. on all births	4.82	4.84	5.00	3.28	4.02	5.11	4.69
Ex-nuptial births per 100 unmarried women 15-44 incl.	1.16	0.92	1.28	0.72	0.92	1.26	1.05
Women 15-44 incl.—per cent. all persons	23.54	24.02	22.57	23.65	21.83	22.67	23.41
Average age of all women 15-44 incl.	28.67	28.61	28.09	28.73	28.45	28.10	28.54
Married women 15-44 incl.—per cent. on all persons	12.75	11.61	11.93	12.53	11.81	11.73	12.20
Average age of married women 15-44 incl.	32.24	32.74	32.16	32.67	33.02	32.16	32.48

(a) Nuptial births only.

The following figures give a comparison for Australia, at Census periods from 1880, of the total births per 1,000 women (married and unmarried) and of the nuptial births per 1,000 married women of ages 15 to 44 inclusive:—

Particulars.	1880-82.	1890-92.	1900-02.	1910-12.	1920-22.
Births per 1,000 women aged 15-44	169.7	158.8	117.3	117.2	107.4
Nuptial births per 1,000 married women 15-44	321.0	332.0	235.8	236.0	196.5

3. Birth Rates of Various Countries.—(i) *Crude Rates.* A comparison with other countries shows that the Australian States occupy a midway position, which is, however, counterbalanced by a still lower position in regard to their death rates, as evidenced in the table hereinafter in the section dealing with "Deaths."

CRUDE BIRTH RATES(a).—VARIOUS COUNTRIES.

Country.	Year.	Rate.	Country.	Year.	Rate.
Egypt	1926	50.0	Finland	1925	22.3
Soviet Republics ..	1924	42.7	Western Australia ..	1926	22.1
Ceylon	1926	41.0	Australia	1926	22.0
Chile	1925	40.5	Ontario (Canada) ..	1926	21.5
Rumania	1924	36.9	New Zealand	1926	21.1
Jamaica	1924	36.8	Scotland	1926	20.9
Japan	1925	34.9	Prussia	1925	20.9
Quebec (Canada) ..	1926	32.1	Victoria	1926	20.8
Spain	1925	29.3	South Australia ..	1926	20.6
Italy	1925	27.8	Irish Free State ..	1926	20.6
Hungary	1926	27.3	Germany	1925	20.6
Union of South Africa			Denmark	1926	20.5
(whites)	1926	26.2	Great Britain	1926	20.3
Uruguay	1924	25.8	United States (b) ..	1926	20.1
Bulgaria	1926	25.5	Norway	1925	20.0
Canada (including			New York State ..	1926	19.8
Quebec)	1926	24.8	Belgium	1925	19.8
Czecho-Slovakia ..	1926	24.5	Austria	1926	19.4
Netherlands	1926	23.8	France	1926	18.8
Tasmania	1926	23.6	Switzerland	1925	18.4
New South Wales ..	1926	22.9	England and Wales ..	1926	17.8
Queensland	1926	22.6	Sweden	1926	16.9
Northern Ireland ..	1926	22.5			

(a) Number of births per 1,000 of the mean population. (b) Figures for "provisional birth-registration area" which includes about 76 per cent. of the population.

(ii) *Nuptial Birth Rates at Child-bearing Ages.* The wide discrepancies between the crude birth rates of the various countries are, to some extent, due to differences in sex and age constitution and in conjugal condition. If the birth rates be calculated per 1,000 women of child-bearing ages, the comparison gives more reliable results. The comparative results given in the following table have been taken from the *Annuaire International de Statistique*, and are based on ages 15 to 49 years, Australia with a rate of 198 being, again, midway between maximum and minimum:—

NUPTIAL BIRTH RATES PER 1,000 MARRIED WOMEN AGED 15 TO 49 YEARS.—VARIOUS COUNTRIES.

Country.	Period.	Rate.	Country.	Period.	Rate.
Bulgaria	1910-11	280	Australia	1906-15	198
Ireland	1909-12	250	Hungary	1906-15	198
Netherlands	1905-14	233	Germany	1907-14	196
Finland	1906-15	230	Sweden	1908-13	196
Italy	1907-14	226	Denmark	1906-15	191
Norway	1907-14	224	New Zealand	1906-15	188
Austria	1908-13	219	Switzerland	1906-15	184
Spain	1906-15	218	England and Wales ..	1906-15	171
Prussia	1907-14	204	Belgium	1908-13	161
Scotland	1906-15	202	France	1910-11	114

4. *Masculinity of Births.*—(i) *General.* The masculinity of births, i.e., the excess of males over females per 100 births registered, during the last five years varied from 0.32 in Tasmania in 1924 to 3.75 in Western Australia in 1926. On account of the smallness of the numbers, the returns from the Northern Territory and the Federal Capital Territory have not been taken into consideration. The following table gives particulars for the years 1922 to 1926.

MASCULINITY(a) OF BIRTHS REGISTERED, 1922 TO 1926.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Northern Territory.	Federal Capital Territory.	Australia.
1922 ..	2.29	3.27	2.70	2.49	2.40	2.97	8.77	6.25	2.67
1923 ..	2.51	3.49	1.72	2.22	2.22	2.10	11.11	-36.84	2.59
1924 ..	1.85	2.38	1.99	2.50	1.55	0.32	1.75	-26.83	1.98
1925 ..	2.09	3.51	1.72	1.67	2.87	2.11	10.77	-6.38	2.42
1926 ..	2.48	2.95	2.53	2.87	3.75	3.61	9.59	-9.33	2.77

(a) Excess of males over females per 100 total births.

NOTE.—The minus sign (-) denotes an excess of females over males per 100 total births.

(ii) *Masculinity of Ex-nuptial Births.* The masculinity of ex-nuptial births was as follows:—

MASCULINITY(a) OF EX-NUPTIAL BIRTHS, 1922 TO 1926.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Northern Territory.	Federal Capital Territory.	Australia.
1922 ..	3.11	1.75	6.44	9.55	3.26	-2.64	-5.88	..	3.37
1923 ..	2.54	2.07	2.13	0.00	-5.96	-3.98	10.34	-100.00	1.72
1924 ..	3.21	-0.96	0.19	2.54	2.14	-5.26	7.69	100.00	1.20
1925 ..	4.12	4.86	-3.38	-4.18	8.66	-2.83	25.00	..	2.46
1926 ..	1.13	2.06	1.80	1.42	5.85	4.76	36.36	-66.66	1.97

(a) Excess of males over females per 100 total ex-nuptial births.

NOTE.—The minus sign (-) denotes an excess of females over males per 100 total ex-nuptial births.

Although the general tendency of the change in the sex composition of the ex-nuptial births has been the same as in the total births, the results in the smaller States do not show the same consistency in the former as in the latter on account of the relatively small numbers involved.

(iii) *Masculinity of Nuptial and Ex-nuptial Births, Various Countries.* There is ordinarily a very small difference between the masculinity of nuptial and ex-nuptial births. Thus, according to the following table, for periods from 1914 to 1925, the masculinity in various countries ranged from 4.72 to 2.26, and from 4.97 to 0.11 for nuptial and ex-nuptial births respectively.

MASCULINITY OF BIRTHS.—VARIOUS COUNTRIES.

Country.	Period.	Masculinity of Births.(a)		Country.	Period.	Masculinity of Births.(a)	
		Nuptial Live Births.	Ex-nuptial Live Births.			Nuptial Live Births.	Ex-nuptial Live Births.
Spain ..	1914-22	4.72	3.11	Denmark ..	1914-23	2.66	2.50
Hungary ..	1915-22	3.55	1.79	Italy ..	1914-23	2.64	2.39
Prussia ..	1914-24	3.37	2.96	Australia ..	1914-25	2.61	2.57
Germany ..	1914-23	3.30	3.03	Switzerland	1914-23	2.55	2.86
Finland ..	1914-23	3.03	2.35	Uruguay ..	1914-23	2.55	4.97
Irish Free State ..	1922-25	2.95	4.30	Northern Ireland ..	1913-23	2.48	2.73
Austria ..	1914-21	2.95	2.53	France ..	1912-19	2.46	1.75
Sweden ..	1914-20	2.93	2.59	Scotland ..	1914-23	2.38	2.05
Netherlands	1914-24	2.85	2.39	Japan ..	1914-24	2.34	0.11
Belgium ..	1919-23	2.82	1.51	England and Wales ..	1914-25	2.30	2.07
New Zealand	1914-25	2.72	1.48	Chile ..	1918-23	2.26	2.23
Norway ..	1914-22	2.71	3.64				
Canada (excluding Quebec) ..	1921-24	2.68	3.53				

(a) Excess of males over females per 100 total births.

5. *Ex-nuptial Births.*—(i) *General.* The number of ex-nuptial births reached its maximum, 7,438, in 1913, but it has since fallen considerably. On the average of the five years 1910–14, the number of ex-nuptial births in Australia was 7,171, while for the period 1922–26 it was only 6,255, a decline of 12.8 per cent., whereas the annual average total births for the same period increased by 4.8 per cent.; hence a comparison between the results for these two periods shows that the proportion of ex-nuptial births has fallen from 5.55 to 4.62 per cent. of all births.

It is, of course, possible that the number of ex-nuptial births is somewhat understated, owing to diffidence in proclaiming the fact of ex-nuptiality, and it is not unlikely that the majority of unregistered births are ex-nuptial.

EX-NUPTIAL BIRTHS, 1922 TO 1926.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Northern Territory.	Federal Capital Territory.	Australia.
1922 ..	2,667	1,602	932	356	337	265	17	..	6,176
1923 ..	2,676	1,595	1,079	360	285	251	29	1	6,276
1924 ..	2,589	1,668	1,052	355	327	228	13	1	6,233
1925 ..	2,764	1,543	1,035	359	335	247	24	..	6,307
1926 ..	2,747	1,603	1,000	353	325	231	22	3	6,284

(ii) *Rate of Ex-nuptiality, 1922 to 1926.* The rate of ex-nuptiality, i.e., the percentage of ex-nuptial on total births increased from 4.49 in 1922 to 4.72 in 1926. On the basis of the figures given in the preceding sub-section the ex-nuptial rate fell from 5.55 per cent. of all births during the years 1910–14 to 4.62 per cent. for the years 1922–26.

PERCENTAGE OF EX-NUPTIAL ON TOTAL BIRTHS, 1922 TO 1926.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Northern Territory.	Federal Capital Territory.	Australia.
1922 ..	4.83	4.41	4.66	2.97	4.14	4.56	24.29	..	4.49
1923 ..	4.95	4.45	5.40	3.08	3.63	4.44	40.28	5.26	4.64
1924 ..	4.82	4.62	5.34	3.06	3.94	4.24	22.81	2.44	4.62
1925 ..	5.06	4.30	5.10	3.13	4.09	4.73	36.92	..	4.64
1926 ..	5.17	4.53	5.06	3.07	3.92	4.63	30.14	4.00	4.72

A better comparison is obtained by calculating the number of ex-nuptial births per thousand of the single and widowed female population between the ages of 15 and 45. The number of ex-nuptial births per 1,000 unmarried women of ages 15 to 45 has been found to be as follows:—Years 1880–82, 14.49; years 1890–92, 15.93; years 1900–02, 13.30; years 1910–12, 12.53; years 1920–22, 10.50. The comparative results given in the following table have been taken from the *Annuaire International de Statistique*, Vols. II. and V., and are based on ages 15 to 49 years:—

**EX-NUPTIAL BIRTHS PER 1,000 UNMARRIED WOMEN AGED 15 TO 49 YEARS.—
VARIOUS COUNTRIES.**

Country.	Period.	Rate.	Country.	Period.	Rate.
Hungary	1906-15	38	Norway	1907-14	13
Austria	1908-13	30	Scotland	1906-15	13
Sweden	1908-13	26	Australia	1906-15	12
Denmark	1906-15	24	Belgium	1908-13	12
Germany	1907-14	23	New Zealand	1906-15	9
Prussia	1907-14	21	Switzerland	1906-15	8
Finland	1906-15	17	England and Wales	1906-15	7
France	1901-11	16	Netherlands	1905-14	5
Italy	1907-14	14	Ireland	1909-12	4
Spain	1906-15	14	Bulgaria	1910-11	4

(iii) *Comparison of Rates.* The following table shows the relative proportions of ex-nuptial and nuptial births to the total population during the last five years :—

**CRUDE EX-NUPTIAL, NUPTIAL, AND TOTAL BIRTH RATES (a).—AUSTRALIA,
1922 TO 1926.**

Rates.	1922.	1923.	1924.	1925.	1926.
Ex-nuptial	1.11	1.10	1.07	1.06	1.07
Nuptial	23.58	22.67	22.17	21.83	20.95
Total	24.69	23.77	23.24	22.89	22.02

(a) Number of births per 1,000 of mean population.

6. *Multiple Births.*—Among the total number of 133,162 births registered in Australia in 1926, there were 130,333 single births, 2,796 twins, and 33 triplets. The number of cases of twins was 1,412, there being 28 stillbirths, and there were 11 cases of triplets. The total number of mothers was, therefore, 131,756, the proportion of mothers of twins being one in every 93, and of mothers of triplets one in every 11,978 of total mothers.

MULTIPLE BIRTHS.—AUSTRALIA, 1907 TO 1926.

Year.	Cases of Twins.	Cases of Triplets.	Cases of Quadruplets.	Total Multiple Births.	Percentage of Cases of Multiple Births on Total Mothers.	Number of Mothers to Each Multiple Birth.
1907	1,029	14	..	1,043	0.95	105
1908	1,059	6	..	1,065	0.96	104
1909	1,128	14	..	1,142	1.01	99
1910	1,176	13	..	1,189	1.03	97
1911	1,222	14	..	1,236	1.02	98
1912	1,334	16	..	1,350	1.02	98
1913	1,361	8	..	1,369	1.02	98
1914	1,395	11	..	1,406	1.03	97
1915	1,407	10	..	1,417	1.06	94
1916	1,371	12	..	1,383	1.06	94
1917	1,477	17	1	1,495	1.16	86
1918	1,362	8	..	1,370	1.10	91
1919	1,311	15	1	1,327	1.09	91
1920	1,505	16	..	1,521	1.13	89
1921	1,453	12	..	1,465	1.09	92
1922	1,432	12	..	1,444	1.06	94
1923	1,394	6	..	1,400	1.05	96
1924	1,337	12	..	1,349	1.01	99
1925	1,458	11	..	1,469	1.09	91
1926	1,412	11	..	1,423	1.08	93

7. Ages of Parents.—(i) *Single Births.* The relative ages of the parents of children registered in 1926 have been tabulated separately for male and female births, twins and triplets being distinguished from single births, and are shown for single ages and for every State in the Bulletin of "Australian Demography," No. 44, published by this Bureau. In the present work the exigencies of space allow only the insertion of corresponding tables showing the relative ages of parents in groups of five years.

AGES OF PARENTS IN CASES OF SINGLE BIRTHS.—AUSTRALIA, 1926.

Ages of Fathers and Sexes of Children.		Total Children.	Ages of Mothers.								Un-spectified.
			Under 15.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 and upwards.	
Under 20	Males..	386	..	281	102	3	..	..	..	..	..
	Females	410	1	299	100	10	..	..	..	..	..
	Total ..	796	1	580	202	13	..	..	..	..	..
20 to 24	Males..	7,381	1	1,737	4,661	873	99	6	3	1	..
	Females	6,920	1	1,606	4,405	808	77	22	1	..	..
	Total ..	14,301	2	3,343	9,066	1,681	176	28	4	1	..
25 to 29	Males..	16,051	1	739	6,339	7,482	1,305	167	18	..	..
	Females	15,089	2	748	5,866	6,929	1,333	198	12	..	1
	Total ..	31,140	3	1,487	12,205	14,411	2,638	365	30	..	1
30 to 34	Males..	15,806	..	154	2,277	6,401	5,932	951	88	3	..
	Females	15,026	..	134	2,180	6,039	5,628	966	78	1	..
	Total ..	30,832	..	288	4,457	12,440	11,560	1,917	166	4	..
35 to 39	Males..	12,562	..	55	722	2,699	4,730	3,917	432	7	..
	Females	11,871	..	66	692	2,535	4,543	3,598	429	7	1
	Total ..	24,433	..	121	1,414	5,234	9,273	7,515	861	14	1
40 to 44	Males..	6,788	..	18	219	708	1,794	2,694	1,310	45	..
	Females	6,502	..	11	177	669	1,695	2,657	1,250	43	..
	Total ..	13,290	..	29	396	1,377	3,489	5,351	2,560	88	..
45 to 49	Males..	3,202	..	10	67	228	560	1,193	1,015	129	..
	Females	2,881	..	6	53	234	530	1,094	859	105	..
	Total ..	6,083	..	16	120	462	1,090	2,287	1,874	234	..
50 to 54	Males..	1,140	..	4	17	64	195	381	415	64	..
	Females	1,051	..	1	26	68	160	343	374	79	..
	Total ..	2,191	..	5	43	132	355	724	789	143	..
55 to 59	Males..	359	..	..	10	22	61	110	125	31	..
	Females	417	..	1	9	25	52	143	152	35	..
	Total ..	776	..	1	19	47	113	253	277	66	..
60 to 64	Males..	117	..	1	2	12	18	33	42	9	..
	Females	117	..	..	3	9	22	40	34	9	..
	Total ..	234	..	1	5	21	40	73	76	18	..
65 and upwards	Males..	55	..	..	1	5	13	19	15	2	..
	Females	39	..	..	1	2	7	11	15	3	..
	Total ..	94	..	..	2	7	20	30	30	5	..
Un-specified	Males..	1	..	..	..	1	..	..	..	..	..
	Females	2	..	..	..	1	..	1	..	..	..
	Total ..	3	..	..	..	2	..	1	..	..	..
Nuptial children	Males..	63,848	2	2,999	14,417	18,498	14,707	9,471	3,463	291	..
	Females	60,325	4	2,872	13,512	17,329	14,047	9,073	3,204	282	2
	Total ..	124,173	6	5,871	27,929	35,827	28,754	18,544	6,667	573	2
Ex-nuptial children	Males..	3,139	13	915	1,067	521	312	216	81	11	3
	Females	3,021	22	878	974	507	306	238	81	10	5
	Total ..	6,160	35	1,793	2,041	1,028	618	454	162	21	8
Total children	Males..	66,987	15	3,914	15,484	19,019	15,019	9,687	3,544	302	3
	Females	63,346	26	3,750	14,486	17,836	14,353	9,311	3,285	292	7
	Total ..	130,333	41	7,664	29,970	36,855	29,372	18,998	6,829	594	10

(ii) *Twins.* The ages of parents of twins in 1926 are given hereunder :—

AGES OF PARENTS OF TWINS.—AUSTRALIA, 1926.

Ages of Fathers and Sexes of Children.			Total Children.	Ages of Mothers.						
				Under 20.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 and over.
Under 20 ..	{ Males	..	11	8	3	..	..	..	..	..
	{ Females	..	7	4	3	..	..	..	..	..
	{ Total	..	18	12	6	..	..	..	..	..
20 to 24 ..	{ Males	..	111	23	72	14	2	..	..	..
	{ Females	..	92	14	63	13	2	..	..	..
	{ Total	..	203	37	135	27	4	..	..	..
25 to 29 ..	{ Males	..	263	1	64	149	39	10	..	..
	{ Females	..	275	6	92	126	43	8	..	..
	{ Total	..	538	7	156	275	82	18	..	..
30 to 34 ..	{ Males	..	361	3	34	133	151	37	3	..
	{ Females	..	338	1	36	115	158	25	3	..
	{ Total	..	699	4	70	248	309	62	6	..
35 to 39 ..	{ Males	..	313	..	8	49	113	128	15	..
	{ Females	..	317	..	16	53	102	137	9	..
	{ Total	..	630	..	24	102	215	265	24	..
40 to 44 ..	{ Males	..	178	..	2	17	41	94	23	1
	{ Females	..	170	..	..	13	40	86	30	1
	{ Total	..	348	..	2	30	81	180	53	2
45 to 49 ..	{ Males	..	77	..	..	6	16	37	18	..
	{ Females	..	82	..	..	3	16	37	24	2
	{ Total	..	159	..	..	9	32	74	42	2
50 to 54 ..	{ Males	..	29	..	..	4	5	11	9	..
	{ Females	..	19	..	..	..	3	9	7	..
	{ Total	..	48	..	..	4	8	20	16	..
55 to 59 ..	{ Males	..	10	..	..	..	2	7	1	..
	{ Females	..	14	..	..	2	..	7	5	..
	{ Total	..	24	..	..	2	2	14	6	..
60 and over	{ Males	..	2	..	..	..	..	2	..	..
	{ Females	..	6	..	..	..	2	4	..	..
	{ Total	..	8	..	..	..	2	6	..	..
Nuptial children	{ Males	..	1,355	35	183	372	369	326	69	1
	{ Females	..	1,320	25	210	325	366	313	78	3
	{ Total	..	2,675	60	393	697	735	639	147	4
Ex-nuptial children	{ Males	..	63	13	18	12	5	14	1	..
	{ Females	..	58	5	18	14	10	6	5	..
	{ Total	..	121	18	36	26	15	20	6	..
Total children	{ Males	..	1,418	48	201	384	374	340	70	1
	{ Females	..	1,378	30	228	339	376	319	83	3
	{ Total	..	2,796	78	429	723	750	659	153	4

(iii) *Triplets.* Particulars regarding the ages of parents in cases of triplets are given in the next table:—

AGES OF PARENTS OF TRIPLETS.—AUSTRALIA, 1926.

Ages of Fathers and Sexes of Children.	Total Children.	Ages of Mothers.									
		19.	24.	29.	31.	33.	34.	36.	39.	40.	41.
26 M.	3	..	3	..	..	..	..	..	..	..	..
27 M.	3	..	..	3	..	..	..	..	..	..	..
32 { M. F.	2 7	.. 3	..	..	2 1	.. 3	..	..	..	..	..
36 F.	3	..	..	..	..	..	3	..	..	..	..
42 { M. F.	2 1	..	..	..	..	..	..	..	..	..	2 1
43 { M. F.	2 1	..	..	..	..	..	..	..	2 1	..	..
44 { M. F.	2 1	..	..	..	..	..	2 1	..	..	..	..
45 { M. F.	1 2	..	..	..	..	..	..	1 2	..	..	..
Total Nuptial Children .. { M. F.	15 15	.. 3	3 ..	3 ..	2 1	.. 3	2 4	1 2	2 1	.. ..	2 1
Ex-nuptial Children .. { M. F.	2 1	..	..	..	..	..	..	..	..	2 1	..
Total Children .. { M. F.	17 16	.. 3	3 ..	3 ..	2 1	.. 3	2 4	1 2	2 1	2 1	2 1

8. *Birthplaces of Parents.*—The relative birthplaces of the parents of children whose births were registered during the year 1926 will be found in the Bulletin of "Australian Demography," published by this Bureau. A summary of the results of the tabulation is given hereunder.

BIRTHPLACES OF PARENTS.—AUSTRALIA, 1926.

Birthplaces.	Fathers.			Mothers of Nuptial Children.			Mothers of Ex-nuptial Children.		
	Single Births.	Twins.	Triplets.	Single Births.	Twins.	Triplets.	Single Births.	Twins.	Triplets.
AUSTRALASIA—									
New South Wales	40,563	461	3	42,187	461	3	2,388	20	..
Victoria ..	31,530	335	3	31,419	320	2	1,407	13	1
Queensland ..	13,675	141	1	15,174	158	1	879	9	..
South Australia ..	10,597	112	1	10,277	116	1	322	4	..
Western Australia	3,140	36	1	4,031	40	1	249	3	..
Tasmania ..	5,549	58	..	5,450	62	..	337	3	..
Northern Territory	37	..	..	41	..	..	20	1	..
Federal Capital Territory ..	10	..	..	17	..	..	..	..	..
New Zealand ..	882	10	..	653	11	1	49	1	..

BIRTHPLACES OF PARENTS.—AUSTRALIA, 1926—*continued.*

Birthplaces.	Fathers.			Mothers of Nuptial Children.			Mothers of Ex-nuptial Children.		
	Single Births.	Twins.	Trip-lets.	Single Births.	Twins.	Trip-lets.	Single Births.	Twins.	Trip-lets.
EUROPE—									
England and Wales	11,193	127	..	9,786	117	..	337	3	..
Scotland ..	2,696	31	..	2,467	34	..	92	3	..
Ireland ..	1,180	8	..	794	9	..	27	..	..
Other British Possessions in Europe	125	1	..	83	1	..	2	..	..
Denmark ..	111	3	..	19	1	..	2	..	..
France ..	38	..	..	57	..	..	2	..	..
Germany ..	324	5	..	136	3	..	3	..	..
Greece ..	282	3	..	203	1	..	..	..	..
Italy ..	606	6	1	470	2	1	2	..	..
Netherlands ..	53	1	..	12	..	..	1	..	..
Norway ..	79	..	..	17	..	..	..	..	..
Poland ..	33	1	..	17	1	..	..	..	..
Russia ..	146	2	..	84	3	..	4	..	..
Sweden ..	104	..	..	6	..	..	..	..	..
Switzerland ..	40	..	..	15	..	..	..	1	..
Other European Countries ..	225	2	..	137	2	..	3	..	..
ASIA—									
British India and Ceylon ..	125	1	..	81	..	..	2	..	..
China ..	88	1	..	20	..	..	..	..	..
Japan ..	14	..	..	10	..	..	..	..	..
Syria ..	86	..	..	67	..	..	..	..	..
Other Countries in Asia ..	45	..	..	21	1	..	..	..	..
AFRICA—									
Union of South Africa ..	140	2	..	154	3	..	9	..	..
Other African Countries ..	32	..	..	20	1	..	1	..	..
AMERICA—									
Canada ..	90	..	..	35	..	..	1	..	..
United States of America ..	177	2	..	86	2	..	4	..	..
Other American Countries ..	48	1	..	32	1	..	1	..	..
POLYNESIA—									
Fiji ..	21	..	..	24	1	..	1	..	..
New Caledonia ..	15	..	..	21	..	..	1	..	..
New Hebrides ..	1	..	..	2	..	..	..	..	..
Other Polynesian Islands ..	21	..	..	12	..	..	1	..	..
At Sea ..	44	1	..	22	..	..	2	..	..
Unspecified ..	8	..	..	14	..	..	11	..	..
Total ..	124,173	1,351	10	124,173	1,351	10	6,160	61	1

9. Occupations of Fathers.—(i) *Year 1926.* A summary of the main groups of occupations of the fathers of all nuptial children whose births were registered in 1926 is given in the following table:—

OCCUPATIONS OF FATHERS OF NUPTIAL CHILDREN.—AUSTRALIA, 1926.

Occupations.	Number of Fathers.	Occupations.	Number of Fathers.
CLASS I.—PROFESSIONAL.		CLASS V.—INDUSTRIAL.	
Government, Defence, Law ..	2,445	Art and Mechanic Productions..	6,969
Others	3,630	Textiles and Fibrous Materials..	1,884
Total Class I. ..	6,075	Food and Drinks ..	2,189
		Animal and Vegetable Substances ..	522
		Metals and Minerals ..	3,446
		Fuel, Light, and Energy ..	1,251
		Building and Construction ..	7,538
		Others	29,758
CLASS II.—DOMESTIC.		Total Class V. ..	53,557
Board and Lodging	1,102		
Others	1,017		
Total Class II. ..	2,119		
CLASS III.—COMMERCIAL.		CLASS VI.—AGRICULTURAL, PASTORAL, MINING, ETC.	
Property and Finance ..	1,657	Agricultural	20,245
Art, Mechanic, and Textile Products	1,050	Pastoral	4,820
Food and Drinks	4,219	Mining and Quarrying ..	3,037
Animal and Vegetable Substances	463	Others	1,532
Fuel, Light, and Metals ..	256	Total Class VI. ..	29,634
Merchants and Dealers ..	2,539		
Others	7,452		
Total Class III. ..	17,636		
CLASS IV.—TRANSPORT AND COMMUNICATION.		CLASS VII.—INDEFINITE.	
Railway Traffic	5,233	Independent Means	219
Road and Tramway Traffic ..	7,557	Occupation Unspecified ..	47
Sea and River Traffic ..	1,470	Total Class VII. ..	266
Others	1,987		
Total Class IV. ..	16,247	TOTAL	125,534

(ii) *Summary, 1922 to 1926.* The next table gives a summary in classes of the occupations of fathers of nuptial children in each of the last five years, with the percentage of each class on the total number of fathers. In 1926, 42.66 per cent. of fathers were of the industrial class, and 23.61 per cent. were of the agricultural, pastoral, mining, etc., class.

**OCCUPATIONS OF FATHERS OF NUPTIAL CHILDREN.—AUSTRALIA,
1922 TO 1926.**

Class.		1922.	1923.	1924.	1925.	1926.
I. Professional	.. { No.	6,369	6,010	5,946	6,077	6,075
	%	4.90	4.71	4.67	4.74	4.84
II. Domestic	.. { No.	2,045	2,242	2,098	2,180	2,119
	%	1.57	1.76	1.64	1.70	1.69
III. Commercial	.. { No.	18,731	18,210	18,519	17,978	17,636
	%	14.41	14.27	14.54	14.04	14.05
IV. Transport and Com- munication	.. { No.	15,809	15,244	15,670	16,306	16,247
	%	12.17	11.95	12.30	12.73	12.94
V. Industrial	.. { No.	54,104	53,737	53,899	54,214	53,557
	%	41.64	42.11	42.31	42.33	42.66
VI. Agricultural, pastoral, mining, etc.	.. { No.	32,665	31,974	31,046	31,082	29,634
	%	25.14	25.06	24.37	24.27	23.61
VII. Indefinite	.. { No.	204	186	213	244	266
	%	0.16	0.14	0.17	0.19	0.21
VIII. Dependents	.. { No.	7	..	..	..	..
	%	0.01	..	..	..	..
Total ...	.. { No.	129,934	127,603	127,391	128,081	125,534
	%	100.00	100.00	100.00	100.00	100.00

10. *Mother's Age, Duration of Marriage, and Issue.*—(i) *General.* The total number of nuptial confinements in 1926 was 125,534, viz., 124,173 single births, 1,351 cases of twins, and 10 cases of triplets, but in 58 cases the necessary information was lacking, and the following series of tables refers, therefore, to 125,476 nuptial confinements. Ex-nuptial children—previous issue by the same father—are included as previous issue, but children by former marriages, and stillborn children are excluded. The tables cannot be given *in extenso*, but the following are their most salient features. The complete tabulations are shown in "Australian Demography," No. 44.

(ii) *Duration of Marriage and Issue of Mothers.* The following table shows that the duration of marriage of mothers of nuptial children ranged from less than one year up to between 33 and 34 years, and that the average family increased fairly regularly with the duration of marriage. The average number of children of all marriages was 3.06, the corresponding figures for 1925 being 3.10; for 1924, 3.08; for 1923, 3.08; and for 1922, 3.10.

DURATION OF MARRIAGE AND ISSUE OF MOTHERS.—AUSTRALIA, 1926.

Duration of Marriage.	Total Mothers.	Total Issue.	Average Number of Children.	Duration of Marriage.	Total Mothers.	Total Issue.	Average Number of Children.
Years.				Years.			
0-1 ..	19,714	19,897	1.01	17-18 ..	1,554	11,120	7.16
1-2 ..	12,115	14,491	1.20	18-19 ..	1,339	9,922	7.41
2-3 ..	11,331	20,443	1.80	19-20 ..	1,119	8,698	7.77
3-4 ..	10,744	22,508	2.09	20-21 ..	877	7,201	8.21
4-5 ..	9,690	23,959	2.48	21-22 ..	702	5,999	8.54
5-6 ..	9,077	25,645	2.83	22-23 ..	469	4,210	8.98
6-7 ..	8,364	26,274	3.14	23-24 ..	311	2,868	9.22
7-8 ..	6,420	22,332	3.48	24-25 ..	244	2,336	9.57
8-9 ..	4,759	18,142	3.81	25-26 ..	168	1,608	10.18
9-10 ..	4,309	17,559	4.07	26-27 ..	98	1,034	10.55
10-11 ..	4,315	18,958	4.39	27-28 ..	47	474	10.09
11-12 ..	3,961	18,706	4.72	28-29 ..	26	303	11.65
12-13 ..	3,532	18,156	5.14	29-30 ..	16	196	12.25
13-14 ..	2,993	16,423	5.49	30-31 ..	1	9	9.00
14-15 ..	2,750	16,051	5.84	33-34 ..	1	16	16.00
15-16 ..	2,387	14,867	6.23				
16-17 ..	2,053	13,555	6.60				
				Total ..	125,476	383,960	3.06

(iii) *Ages of Mothers and Issue.* The ages of mothers, issue, and average family are given in the attached table, which shows that the average family increased fairly regularly to a maximum of 7.78 children in the age-group 45 years and over, and that the greatest number of mothers occurs in the group 25 to 29 years.

AGES AND ISSUE OF MOTHERS.—AUSTRALIA, 1926.

Ages of Mothers.	Total Mothers.	Total Issue.	Average Number of Children.	Ages of Mothers.	Total Mothers.	Total Issue.	Average Number of Children.
Under 20 years	5,900	7,129	1.21	40-44 years ..	6,740	42,094	6.25
20-24 years ..	28,110	48,475	1.72	45 yrs. and over	575	4,474	7.78
25-29 „ ..	36,172	90,171	2.49				
30-34 „ ..	29,116	101,678	3.49				
35-39 „ ..	18,863	89,939	4.77	All ages ..	125,476	383,960	3.06

(iv) *Previous Issue of Mothers, Various Ages.* The previous issue, according to the age of the mother, is given in the following table.

PREVIOUS ISSUE OF MOTHERS OF VARIOUS AGES.—AUSTRALIA, 1926.

Previous Issue.	Mothers' Ages.							
	Under 20 Years.	20-24 Years.	25-29 Years.	30-34 Years.	35-39 Years.	40-44 Years.	45 Years and Over.	Total.
0	4,823	14,652	10,610	4,701	1,792	412	30	37,020
1	964	8,471	10,266	6,016	2,357	462	18	28,554
2	105	3,595	7,531	5,904	2,795	593	23	20,546
3	8	1,111	4,449	4,610	2,773	719	39	13,709
4	..	238	2,129	3,216	2,361	775	51	8,770
5	..	35	807	2,213	2,082	735	51	5,923
6	..	8	264	1,305	1,664	713	67	4,021
7	..	..	86	704	1,271	642	45	2,748
8	..	..	28	270	861	580	56	1,795
9	..	..	2	108	488	461	63	1,122
10	..	..	..	50	242	295	45	632
11	..	..	..	15	105	184	36	340
12	..	..	..	2	49	95	20	166
13	..	..	..	2	14	41	14	71
14	..	..	..	..	6	17	11	34
15	..	..	..	..	3	8	2	13
16	..	..	..	..	..	5	..	5
17	..	..	..	..	..	1	2	3
18	..	..	..	..	..	2	1	3
21	..	..	..	..	..	..	1	1
Total Mothers	5,900	28,110	36,172	29,116	18,863	6,740	575	125,476

(v) *Previous Issue of Mothers of Twins and Triplets.* Figures regarding the previous issue of mothers of twins and triplets show that 308 mothers had twins at their first confinement; 263 at their second; 243 at their third; 167 at their fourth;

118 at their fifth; 79 at their sixth; 69 at their seventh; 37 at their eighth; 31 at their ninth; 15 at their tenth; 7 at their eleventh; 6 at their twelfth; 8 at their thirteenth; 3 at their fourteenth.

Of the 10 cases of triplets registered during 1926, 1 was a first confinement, 4 were second, 1 third, 1 fourth, 2 fifth, and 1 the ninth.

11. *Interval between Marriage and First Birth.*—(i) *Interval and Sex of Children.* The following table shows the interval between marriage and first birth, distinguishing the sexes of the children. Twins and triplets are included, the eldest born only being enumerated :—

INTERVAL BETWEEN MARRIAGE AND FIRST BIRTH.—AUSTRALIA, 1926.

Interval.	Number of First Children.			Interval.	Number of First Children.		
	Males.	Females.	Total.		Males.	Females.	Total.
Under 1 month	172	170	342	3 years ..	887	881	1,768
1 month ..	250	237	487	4 " ..	517	467	984
2 months ..	321	353	674	5 " ..	305	290	595
3 " ..	471	443	914	6 " ..	207	217	424
4 " ..	703	641	1,344	7 " ..	112	114	226
5 " ..	915	775	1,690	8 " ..	78	70	148
6 " ..	1,252	1,168	2,420	9 " ..	46	66	112
7 " ..	1,164	1,188	2,352	10 " ..	42	44	86
8 " ..	752	730	1,482	11 " ..	35	28	63
9 " ..	1,585	1,419	3,004	12 " ..	22	22	44
10 " ..	1,476	1,333	2,809	13 " ..	18	15	33
11 " ..	1,108	1,065	2,173	14 " ..	10	12	22
12 " ..	933	839	1,772	15 " ..	8	7	15
13 " ..	668	625	1,293	16 " ..	4	7	11
14 " ..	531	498	1,029	17 " ..	1	1	2
15 " ..	498	441	939	18 " ..	3	1	4
16 " ..	472	426	898	19 " ..	3	1	4
17 " ..	394	379	773	20 " ..	..	3	3
18 " ..	392	326	718	21 " ..	1	..	1
19 " ..	319	258	577	22 " ..	2	..	2
20 " ..	249	246	495	23 " ..	1	..	1
21 " ..	248	255	503	24 " ..	..	1	1
22 " ..	218	235	453	26 " ..	..	1	1
23 " ..	203	214	417				
2 years ..	1,479	1,433	2,912	Total ..	19,075	17,945	37,020

The masculinity of first births was 3.05 as compared with 2.77 for total births.

(ii) *Ages of Mothers and Interval.* The previous issue of mothers of ex-nuptial children is not recorded, but for the purposes of the following table all ex-nuptial births have been assumed to be first births. The table shows the ages of mothers in the cases of ex-nuptial first births, of nuptial first births occurring less than nine months after marriage, and of nuptial first births occurring nine months or more after marriage. A comparison of the combined total of the first two columns with the total of nuptial children born nine months or more after marriage shows that for all ages the ratio was about 2 to 3. At all ages up to and including 21, however, there was a great preponderance of ex-nuptial births and of births following on ante-nuptial conception. It must, of course, be understood that a certain number of premature births is necessarily included among the births which occurred less than nine months after marriage, but information in connexion therewith is not available.

AGES OF MOTHERS AND INTERVAL BETWEEN MARRIAGE AND FIRST BIRTH, ETC.—AUSTRALIA, 1926.

Age of Mother at Birth of Child.	Ex-nuptial Births.	Nuptial Births less than nine months after Marriage.	Total of two preceding columns.	Nuptial First Births nine months after Marriage, and later.	Total Nuptial First Births.	Nuptial First Births and Ex-nuptial Births.
12 years ..	..	1	1	..	1	1
13 " ..	6	..	6	..	..	6
14 " ..	29	5	34	..	5	34
15 " ..	84	47	131	1	48	132
16 " ..	209	231	440	20	251	460
17 " ..	364	614	978	129	743	1,107
18 " ..	546	1,169	1,715	415	1,584	2,130
19 " ..	599	1,407	2,006	784	2,191	2,790
20 " ..	556	1,461	2,017	1,107	2,568	3,124
21 " ..	489	1,439	1,928	1,531	2,970	3,459
22 " ..	385	1,170	1,555	2,026	3,196	3,581
23 " ..	325	917	1,242	2,146	3,063	3,388
24 " ..	304	635	939	2,220	2,855	3,159
25 " ..	266	557	823	2,235	2,792	3,058
26 " ..	259	441	700	2,077	2,518	2,777
27 " ..	173	318	491	1,715	2,033	2,206
28 " ..	171	237	408	1,508	1,745	1,916
29 " ..	172	214	386	1,308	1,522	1,694
30 " ..	149	187	336	1,217	1,404	1,553
31 " ..	112	127	239	928	1,055	1,167
32 " ..	146	114	260	796	910	1,056
33 " ..	109	80	189	655	735	844
34 " ..	110	67	177	530	597	707
35 " ..	116	81	197	480	561	677
36 " ..	97	57	154	388	445	542
37 " ..	97	33	130	274	307	404
38 " ..	82	29	111	251	280	362
39 " ..	72	21	93	178	199	271
40 " ..	60	12	72	145	157	217
41 " ..	27	10	37	99	109	136
42 " ..	48	9	57	64	73	121
43 " ..	16	7	23	37	44	60
44 " ..	15	5	20	24	29	44
45 " ..	7	..	7	17	17	24
46 " ..	6	1	7	3	4	10
47 " ..	5	..	5	4	4	9
48 " ..	1	2	3	1	3	4
49 " ..	2	..	2	2	2	4
Unspecified ..	8	..	8	..	..	8
Total ..	6,222	11,705	17,927	25,315	37,020	43,242

12. Interval between Birth and Registration of Birth.—Information was obtained for the years 1911 to 1921 regarding the period which elapsed between birth and registration. A detailed table giving the results for 1921 is contained in Demography Bulletin No. 39, issued by this Bureau. The law relating to maternity allowances has tended to accelerate the registration of births; and during the year under review it was found that approximately 35 per cent. were registered in the first week.

Since the granting of the maternity allowance the weighted average interval between the dates of birth and registration has been found to be about 13 days both for nuptial and ex-nuptial children.

§ 2. Marriages.

1. Marriages, 1922 to 1926.—The number of marriages registered in Australia during 1926 was 47,865, giving a rate of 7.92 per 1,000 of the mean population for the year. The numbers for the years 1922 to 1926 are given hereunder:—

MARRIAGES, 1922 TO 1926.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	North. Terr.	Fed. Cap. Terr.	Australia.
1922 ..	17,580	12,996	5,878	4,144	2,446	1,674	13	..	44,731
1923 ..	17,523	13,126	5,814	4,099	2,376	1,592	7	4	44,541
1924 ..	18,072	13,296	6,234	4,121	2,596	1,529	17	4	45,869
1925 ..	18,522	13,370	6,471	4,255	2,746	1,504	20	11	46,899
1926 ..	19,219	13,405	6,428	4,503	2,844	1,435	14	17	47,865

2. Marriage Rates, 1922 to 1926.—The number of marriages registered per 1,000 of mean population is given in the following table for the same period:—

CRUDE MARRIAGE RATES (a), 1922 TO 1926.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	North. Terr.	Fed. Cap. Terr.	Australia.
1922 ..	8.18	8.27	7.52	8.19	7.20	7.79	3.56	..	8.03
1923 ..	8.00	8.16	7.24	7.29	6.82	7.39	1.94	1.21	7.83
1924 ..	8.11	8.10	7.55	7.78	7.22	7.12	4.72	1.04	7.90
1925 ..	8.14	8.00	7.60	7.82	7.46	7.05	5.43	2.33	7.91
1926 ..	8.28	7.90	7.34	8.06	7.58	6.79	3.72	2.78	7.92

(a) Number of marriages (not persons married) per 1,000 of mean annual population.

As in some international tabulations the marriage rates are calculated per 1,000 of the unmarried population of 15 years and over, the corresponding rates have been worked out for Australia for the last four Census periods for which the particulars are available. The figures comprise in each case the Census year with the year immediately preceding and the year immediately following, and are as follows:—Years 1880–82, 48.98; years 1890–92, 45.74; years 1900–02, 42.14; years 1910–12, 50.44; years 1920–22, 56.02. These rates refer, of course, to persons married and not to marriages, as is the case in the preceding table.

3. Marriage Rates in Various Countries.—The following table shows the marriage rate for Australia in comparison with various other countries:—

CRUDE MARRIAGE RATES (a).—VARIOUS COUNTRIES.

Country.	Year.	Crude Marriage Rate.	Country.	Year.	Crude Marriage Rate.
Soviet Republics ..	1924	10.9	Chile ..	1925	7.4
United States (b) ..	1925	10.2	Queensland ..	1926	7.3
Belgium ..	1925	9.6	Bulgaria ..	1926	7.2
Czecho-Slovakia ..	1926	9.2	Austria ..	1926	7.2
Rumania ..	1924	9.1	England and Wales ..	1926	7.2
Hungary ..	1926	9.1	Spain ..	1925	7.2
Japan ..	1925	8.7	Switzerland ..	1925	7.1
Union of South Africa(c)	1926	8.5	Canada (including		
France ..	1926	8.5	Quebec) ..	1926	7.1
New South Wales ..	1926	8.3	Great Britain ..	1926	7.0
South Australia ..	1926	8.1	Quebec (Canada) ..	1926	7.0
Australia ..	1926	7.9	Tasmania ..	1926	6.8
Victoria ..	1926	7.9	Scotland ..	1926	6.4
New Zealand ..	1926	7.9	Finland ..	1925	6.3
Prussia ..	1925	7.8	Sweden ..	1926	6.3
Germany ..	1925	7.7	Ceylon ..	1926	6.1
Western Australia ..	1926	7.6	Norway ..	1925	5.9
Denmark ..	1926	7.5	Northern Ireland ..	1926	5.8
Ontario (Canada) ..	1926	7.5	Uruguay ..	1924	5.7
Italy ..	1925	7.4	Irish Free State ..	1926	4.6
Netherlands ..	1926	7.4	Jamaica ..	1924	3.5

(a) Number of marriages per 1,000 of mean population.

(b) Registration area includes about 87 per cent of total population.

(c) White population only.

4. Age and Conjugal Condition at Marriage.—(i) *General.* The ages at marriage of bridegrooms and brides will be found in "Australian Demography," Bulletin No. 44. A summary in age groups is given in the table hereunder, which also shows the previous conjugal condition of the contracting parties. There were 2,581 males who were less than twenty-one years of age married during 1926, while the corresponding number of females was 10,716. At the other extreme there were 52 men of sixty-five years and upwards, who described themselves as bachelors, and 19 spinsters of corresponding age.

AGES AND CONJUGAL CONDITION OF PERSONS MARRIED.—AUSTRALIA, 1926.

Age at Marriage.	Bridegrooms.				Brides.			
	Bachelors.	Widowers.	Divorced.	Total.	Spinsters.	Widows.	Divorced.	Total.
Under 20	1,271	1	1	1,273	7,461	4	..	7,465
20-24 years	15,109	16	12	15,137	20,010	53	46	20,109
25-29 "	15,498	175	76	15,749	10,741	212	217	11,170
30-34 "	6,660	332	176	7,168	3,743	391	247	4,381
25-39 "	3,244	498	203	3,945	1,577	472	182	2,231
40-44 "	1,282	432	128	1,842	622	406	109	1,137
45-49 "	611	402	91	1,104	291	306	55	652
50-54 "	260	316	42	618	113	187	27	327
55-59 "	142	284	19	445	54	135	6	195
60-64 "	71	229	13	313	17	81	4	102
65 years and over ..	52	216	2	270	19	75	1	95
Unspecified	1	..	..	1	1	..	..	1
Total	44,201	2,901	763	47,865	44,649	2,322	894	47,865

(ii) *Relative Ages, Bridegrooms and Brides.* The relative ages of bridegrooms and brides are shown for single years in "Australian Demography," Bulletin No. 44: a condensation into age-groups of five years is given below:—

RELATIVE AGES OF PERSONS MARRIED.—AUSTRALIA, 1926.

Ages.		Total Bride- grooms.	Ages of Brides.								
			Under 15.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 and upwards.	Not stated.
Ages of Bridegrooms.	Under 20	1,273	9	935	310	18	..	1	..	..	..
	20 to 24	15,137	10	4,316	8,958	1,596	205	40	9	2	1
	25 to 29	15,749	5	1,640	7,679	6,234	956	195	29	11	..
	30 to 34	7,168	1	369	2,140	2,634	1,438	468	95	23	..
	35 to 39	3,945	1	131	734	1,152	994	657	204	72	..
	40 to 44	1,842	..	32	188	326	463	399	299	134	..
	45 to 49	1,104	..	6	65	137	193	251	229	223	..
	50 to 54	618	..	3	22	50	80	105	112	246	..
	55 to 59	445	..	4	12	13	29	76	82	229	..
	60 to 64	313	..	1	1	8	17	28	47	211	..
	65 and upwards	270	..	..	..	2	6	11	31	220	..
Not stated		1	..	1	..	..	..	..	..	..	..
Total Brides		47,865	26	7,439	20,109	11,170	4,381	2,231	1,137	1,371	1

(iii) *Average Ages, Bridegrooms and Brides.* The age at marriage of brides has declined slightly during recent years to an average of about 26 years. The figures for the five years are:—1922, 26.14 years; 1923, 25.61 years; 1924, 25.46 years; 1925, 25.45 years; and 1926, 25.34. For the five years 1907–11 the average age was 25.70 years, compared with 25.92 years for the five years 1912–16, 26.07 years for the five years 1917–21, and 25.60 years for the five years 1922–1926. The average age of bridegrooms in 1922 was 29.65 years; in 1923, 29.12 years; in 1924, 28.99 years; in 1925, 28.94 years; and in 1926, 28.82 years. It follows, therefore, that brides are generally speaking rather less than three and one-half years younger than bridegrooms.

5. *Previous Conjugal Condition.*—The number of bachelors and spinsters, widowed and divorced persons, who were married during the year 1926 has already been given. The following table shows the conjugal condition of the contracting parties:—

PREVIOUS CONJUGAL CONDITION OF PERSONS MARRIED.—AUSTRALIA, 1926.

Conjugal Condition.	Total Bridegrooms.	Brides.		
		Spinsters.	Widows.	Divorced.
<i>Bridegrooms</i>				
{ Bachelors ..	44,201	42,171	1,383	647
{ Widowers ..	2,901	1,913	833	155
{ Divorced ..	763	565	106	92
Total Brides ..	47,865	44,649	2,322	894

6. *Birthplaces of Persons Married.*—The following table shows the birthplaces of persons who were married in 1926. In "Australian Demography," Bulletin No. 44 the relative birthplaces of bridegrooms and brides will be found tabulated in full detail.

BIRTHPLACES OF PERSONS MARRIED.—AUSTRALIA, 1926.

Birthplaces.	Bride-grooms.	Brides.	Birthplaces.	Bride-grooms.	Brides.
AUSTRALASIA—			ASIA—		
New South Wales ..	15,473	16,182	British India and Ceylon ..	65	42
Victoria ..	11,865	12,220	China ..	22	7
Queensland ..	4,970	5,473	Japan ..	9	2
South Australia ..	3,947	4,102	Syria ..	23	13
Western Australia ..	1,632	2,073	Other Countries in Asia ..	22	18
Tasmania ..	1,877	2,025			
Northern Territory ..	10	15			
Federal Capital Territory ..	4	3			
New Zealand ..	437	358	AFRICA—		
			Union of South Africa ..	79	91
			Other African Countries ..	10	8
EUROPE—			AMERICA—		
England and Wales ..	4,767	3,511	Canada ..	50	15
Scotland ..	1,223	925	United States ..	95	41
Ireland ..	492	282	Other American Countries ..	21	8
Other British Possessions in Europe ..	39	19			
Belgium ..	5	3	POLYNESIA		
Denmark ..	31	14	Fiji ..	11	13
Finland ..	21	3	Other Polynesian Islands ..	21	17
France ..	25	21			
Germany ..	117	57			
Greece ..	76	45			
Italy ..	160	119			
Netherlands ..	15	3			
Norway ..	21	2			
Russia ..	51	34			
Spain ..	11	5	At Sea ..	11	8
Sweden ..	40	6	Unspecified ..	11	25
Switzerland ..	30	12			
Other Countries in Europe ..	76	45	Total ..	47,865	47,865

7. **Occupations and Ages of Bridegrooms.**—A tabulation has been made of the occupations and ages of all males married in Australia, and the results for 1926 are published in detail in "Australian Demography," Bulletin No. 44. An abridgment of this tabulation is given below. The average ages of the persons falling under the twenty-eight subdivisions were determined, and it appears that, apart from the Indefinite class, which consists chiefly of persons who have retired from business and who are living on income from investments, and who may be expected to have reached a comparatively high age before attaining a position of financial independence, the average age ranges from 26.65 years for those engaged in the manufacture of animal and vegetable substances, to 31.83 years in the class employed in the sale of animal and vegetable substances. On the experience of 1926 the average age at marriage of bridegrooms in the larger classes of occupations was as follows:—Professional, 29.8 years; Domestic, 30.8 years; Commercial, 29.2 years; Transport, 28.0 years; Industrial, 28.0 years; and Primary Producers, 30.1 years.

OCCUPATIONS AND AGES OF BRIDEGROOMS.—AUSTRALIA, 1926.

Ages at Marriage.	Pro-fessional.		Domestic.		Commercial.							Transport and Communication.			
	Government Defence, and Law.	Others.	Board and Lodging.	Others.	Property and Finance.	Art, Mechanic, and Textile Products.	Food and Drinks.	Animal and Vegetable Substances.	Fuel, Light and Metals.	Merchants and Dealers.	Others.	Railways.	Roads and Trains.	Sea and Rivers.	Others.
15 years ..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..
16 " ..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..
17 " ..	..	..	..	..	..	..	2	..	..	..	1	..	..	..	..
18 " ..	..	6	..	9	..	..	1	..	..	..	2	..	..	2	..
19 " ..	..	11	..	7	..	..	1	..	..	..	3	..	..	4	..
20 " ..	2	15	3	13	4	..	1	..	..	1	2	10	35	11	7
21 " ..	33	83	21	31	16	..	1	..	..	1	19	47	29	63	..
22 " ..	60	83	24	26	19	..	1	..	..	..	14	70	42	123	11
23 " ..	72	136	22	31	28	..	1	..	..	..	57	210	111	234	47
24 " ..	95	148	24	30	40	..	1	..	..	..	68	347	133	274	53
25 " ..	120	164	28	33	62	..	1	..	..	..	82	451	145	229	68
26 " ..	112	167	27	30	73	..	1	..	..	..	81	415	131	241	51
27 " ..	87	161	27	20	52	..	1	..	..	..	68	379	99	153	44
28 " ..	77	140	29	20	56	..	1	..	..	..	59	305	93	125	32
29 " ..	62	97	22	21	30	..	1	..	..	..	52	220	62	116	33
30 " ..	56	74	15	14	45	..	1	..	..	..	51	222	54	83	28
31 " ..	31	59	21	13	30	..	1	..	..	..	4	39	173	40	73
32 " ..	45	65	15	13	19	..	1	..	..	..	3	30	182	43	61
33 " ..	26	68	11	7	28	..	1	..	..	..	2	32	127	40	62
34 " ..	27	37	17	6	21	..	1	..	..	..	4	32	106	30	50
35 to 39 ..	93	163	68	31	60	..	1	..	..	..	12	126	383	114	139
40 " 44 ..	47	77	28	20	32	..	1	..	..	..	10	52	159	60	50
45 " 49 ..	17	50	18	15	12	..	1	..	..	..	1	40	95	36	45
50 and over	40	84	24	23	37	..	1	..	..	..	73	110	52	48	31
Not stated ..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
Total ..	1,108	1,868	443	406	670	480	1,592	143	80	1,099	4,693	1,558	2,659	776	696
Average age— year 1926	29.49	29.99	31.71	29.80	30.90	29.89	27.78	31.83	30.29	31.18	28.78	28.54	26.89	30.23	28.15

Ages at Marriage.	Manufacturing.								Primary Producers.				
	Art and Machine Productions.	Textiles and Fibrous Materials.	Food and Drinks.	Animal and Vegetable Substances.	Metals and Minerals.	Fuel, Light, and Energy.	Building and Construction.	Others.	Agricultural.	Pastoral.	Mining and Quarrying.	Others.	Indefinite.
15 years ..	..	..	..	..	..	..	..	..	..	..	..	..	..
16 " ..	1	3	..	..	..	..	..	6	..	..	..	..	..
17 " ..	10	3	5	..	..	1	3	31	..	..	..	..	..
18 " ..	29	9	12	4	23	4	27	131	6	1	12	1	..
19 " ..	72	23	23	6	33	10	54	225	48	7	42	8	1
20 " ..	106	30	39	8	57	15	108	374	110	16	43	10	..
21 " ..	223	77	94	28	144	38	219	838	267	44	79	31	2
22 " ..	274	64	82	30	105	37	219	846	270	60	85	31	3
23 " ..	330	64	75	18	107	49	220	870	385	68	91	34	1
24 " ..	344	59	86	22	117	59	211	857	391	99	73	30	2
25 " ..	338	64	69	23	110	60	218	831	436	116	66	32	2
26 " ..	296	49	71	18	112	57	193	821	442	105	63	31	..
27 " ..	211	40	53	13	77	58	183	616	382	108	50	25	2
28 " ..	171	34	47	12	53	29	168	498	341	104	43	18	2
29 " ..	161	34	26	11	59	27	126	430	322	85	30	19	..
30 " ..	122	19	23	8	39	22	93	369	285	85	30	19	1
31 " ..	85	21	18	7	38	19	108	276	279	54	18	7	2
32 " ..	89	21	19	11	25	14	82	271	221	51	23	8	2
33 " ..	68	11	8	6	34	10	72	240	202	48	17	9	1
34 " ..	56	17	18	2	28	17	58	229	165	56	13	4	1
35 to 39 ..	218	68	50	19	89	30	239	814	611	186	81	36	9
40 " 44 ..	94	34	29	5	46	13	122	392	262	91	39	27	7
45 " 49 ..	48	18	24	3	30	13	70	219	165	53	26	9	8
50 and over	75	23	19	2	36	8	104	336	231	91	42	14	62
Not stated ..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total ..	3,421	794	890	256	1,368	590	2,897	10,520	5,840	1,538	909	403	108
Average age— year 1926	27.44	28.05	27.15	26.65	27.58	27.44	28.76	28.21	30.14	31.56	28.35	29.03	47.94

8. **Fertility of Marriages.**—The quotient obtained by division of the nuptial births registered, e.g., during the five years 1922 to 1926, by the number of marriages registered during the five years 1917 to 1921, i.e., the period antecedent by five years to the period of the births, has been called the "fertility of marriages." The quotient for this period is 3.14—in other words, the number of children to be expected from every marriage in Australia is about three. This method, while not absolutely accurate, generally furnishes results which agree fairly well with those found by more elaborate and careful investigation. For the following five-yearly periods the results were:—1916–20, 2.90; 1917–21, 2.91; 1918–22, 3.07; 1919–23, 3.25; 1920–24, 3.36; 1921–25, 3.25; and 1922–26, 3.14.

9. **Registration of Marriages.**—(i) *Marriages in each Denomination.* In all the States marriages may be celebrated either by ministers of religion whose names are registered for that purpose with the Registrar-General, or by certain civil officers—in most cases district registrars. Most of the marriages are celebrated by ministers of religion. The proportions so celebrated in 1926 were:—New South Wales, 93.79 per cent.; Victoria, 95.40 per cent.; Queensland, 95.69 per cent.; South Australia, 94.94 per cent.; Western Australia, 80.34 per cent.; and Tasmania, 96.03 per cent., the percentage for Australia being 93.87. The registered ministers in 1926 belong to more than forty different denominations, some of which, however, can hardly be regarded as having any valid existence. A number of these have been omitted from the tabulation and are bracketed under the heading "Other Christian." The figures for 1926 are shown in the following table:—

MARRIAGES IN EACH DENOMINATION.—AUSTRALIA, 1926.

Denomination.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	Nor. Ter.	Fed. Cap. Ter.	Aus- tralia.
Church of England ..	8,224	3,836	1,997	1,128	995	580	2	14	16,776
Roman Catholic ..	3,989	2,536	1,478	532	477	203	6	2	9,223
Methodist ..	2,137	1,770	1,057	1,404	390	238	4	1	7,001
Presbyterian ..	2,542	2,493	951	249	211	120	..	..	6,566
Congregational ..	473	853	116	234	78	62	..	..	1,816
Baptist ..	300	570	155	203	36	67	..	..	1,331
Church of Christ ..	91	305	40	241	50	65	..	..	792
Lutheran ..	34	54	151	199	2	..	..	..	440
Greek Catholic ..	25	13	12	9	..	..	..	..	59
Unitarian ..	6	196	..	2	..	..	..	..	204
Salvation Army ..	78	58	45	47	18	8	..	..	254
Seventh-Day Adventist	36	10	9	7	10	5	..	..	77
Other Christian ..	41	43	136	18	4	30	..	..	272
Hebrew ..	49	51	4	2	14	..	..	..	120
Registrar's Office ..	1,194	617	277	228	559	57	2	..	2,934
Total ..	19,219	13,405	6,428	4,503	2,844	1,435	14	17	47,865

(ii) *Number and Percentage in each Denomination, 1922 to 1926.* The number of marriages according to denomination, and the percentages on total marriages, are shown in the next table:—

MARRIAGES IN EACH DENOMINATION.—AUSTRALIA, 1922 TO 1926.

Denomination.		1922.	1923.	1924.	1925.	1926.
Church of England ..	{ Total	15,877	15,783	16,229	16,361	16,776
	%	35.49	35.43	35.38	34.89	35.05
Roman Catholic ..	{ Total	8,304	8,240	8,714	8,911	9,223
	%	18.57	18.50	19.00	19.00	19.27
Methodist ..	{ Total	6,904	6,965	6,919	7,104	7,001
	%	15.43	15.64	15.09	15.15	14.63
Presbyterian ..	{ Total	6,345	6,268	6,391	6,612	6,566
	%	14.18	14.07	13.93	14.10	13.72
Congregational ..	{ Total	1,773	1,694	1,697	1,741	1,816
	%	3.96	3.80	3.70	3.71	3.79
Baptist ..	{ Total	1,356	1,342	1,327	1,383	1,331
	%	3.03	3.01	2.89	2.95	2.78
Church of Christ ..	{ Total	768	720	740	770	792
	%	1.72	1.62	1.61	1.64	1.65
Lutheran ..	{ Total	422	390	405	415	440
	%	0.94	0.88	0.88	0.88	0.92
Greek Catholic ..	{ Total	34	47	59	44	59
	%	0.08	0.11	0.13	0.09	0.12
Unitarian ..	{ Total	18	17	19	95	204
	%	0.04	0.04	0.04	0.20	0.43
Salvation Army ..	{ Total	214	225	237	271	254
	%	0.48	0.51	0.52	0.58	0.53
Seventh-Day Adventiss	{ Total	56	60	67	108	77
	%	0.13	0.13	0.15	0.23	0.16
Other Christian ..	{ Total	483	424	321	294	272
	%	1.08	0.95	0.70	0.63	0.57
Hebrew ..	{ Total	90	100	130	97	120
	%	0.20	0.22	0.28	0.21	0.25
Registrar's Office ..	{ Total	2,075	2,263	2,614	2,693	2,934
	%	4.64	5.08	5.70	5.74	6.13
Unspecified ..	{ Total	12	3	..	..	..
	%	0.03	0.01	..	..	..
		44,731	44,541	45,869	46,899	47,895

§ 3. Deaths.

1. Male and Female Deaths, 1922 to 1926.—The two following tables show the number of deaths registered in each year from 1922 to 1926 inclusive. The annual average of male deaths during the period was 31,098, and of female deaths 23,711, the details being as follow :—

MALE DEATHS, 1922 TO 1926.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	North. Terr.	Fed. Cap. Terr.	Aus. tralia.
1922 ..	11,014	8,187	4,372	2,537	1,994	1,084	52	5	29,245
1923 ..	11,969	9,135	4,699	2,727	1,907	1,140	35	10	31,622
1924 ..	11,887	8,863	4,440	2,644	2,039	1,177	42	11	31,103
1925 ..	11,944	8,582	4,581	2,729	2,157	1,081	51	9	31,134
1926 ..	12,670	8,765	5,022	2,676	2,131	1,040	57	26	32,387
Rate (a), 1926	10.72	10.38	10.87	9.29	10.60	9.92	21.62	6.58	10.48

(a) Number of deaths per 1,000 of mean male population.

FEMALE DEATHS, 1922 TO 1926.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	North. Terr.	Fed. Cap. Terr.	⁂ Aus- tralia.
1922 ..	8,152	6,968	2,780	2,071	1,173	913	8	1	22,066
1923 ..	9,079	8,084	3,194	2,234	1,023	997	3	..	24,614
1924 ..	8,948	7,640	2,887	2,226	1,224	946	2	4	23,877
1925 ..	8,878	7,255	2,964	2,250	1,158	915	11	3	23,434
1926 ..	9,489	7,570	3,192	2,201	1,219	872	7	15	24,665
Rate (a), 1926	8.34	8.88	7.73	8.13	7.01	8.20	6.20	6.96	8.30

(a) Number of deaths per 1,000 of mean female population.

2. **Male and Female Death Rates, 1926.**—The crude male and female death rates for 1926 only are given in the last line of the preceding tables. Queensland had the highest and South Australia the lowest rate for males, and for the females Victoria had the highest and Western Australia the lowest rate. The rates for the two Territories are based on very small numbers, and comparisons with the States would be misleading.

Owing to differences in age constitution in the six States, the crude rates are not, however, strictly comparable. A more satisfactory rate is furnished by the "Index of Mortality" (see sub-para. 5). The death rates for males and females in each State in five-year age groups for the three years 1920 to 1922, that is, for the Census year and for the year immediately preceding and following, are shown in sub-section 9 hereafter.

The rates for the five years 1922–1926 averaged 10.5 per 1,000 for males, and 8.3 per 1,000 for females.

MALE AND FEMALE DEATH RATES (a).—AUSTRALIA, 1922 TO 1926.

Year.	1922.	1923.	1924.	1925.	1926.
Male rate	10.33	10.91	10.50	10.28	10.48
Female rate	8.06	8.82	8.39	8.07	8.30
Crude total rate	9.22	9.89	9.47	9.20	9.42

(a) Number of deaths per 1,000 of mean population.

3. **Total Deaths, 1922 to 1926.**—The total number of deaths during each of the five years 1922 to 1926 is given below :—

TOTAL DEATHS, 1922 TO 1926.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	North. Terr.	Fed. Cap. Terr.	Australia.
1922 ..	19,166	15,155	7,152	4,608	3,167	1,997	60	6	51,311
1923 ..	21,048	17,219	7,893	4,961	2,930	2,137	38	10	56,236
1924 ..	20,835	16,503	7,327	4,870	3,263	2,123	44	15	54,980
1925 ..	20,822	15,837	7,545	4,979	3,315	1,996	62	12	54,568
1926 ..	22,159	16,335	8,214	4,877	3,350	1,912	64	41	56,952

4. **Crude Death Rates, 1922 to 1926.**—The crude death rates for the five years 1922 to 1926 are given in the next table.

CRUDE DEATH RATES (a), 1922 TO 1926.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	North. Terr.	Fed. Cap. Terr.	Aus- tralia.
1922 ..	8.92	9.65	9.16	9.11	9.32	9.30	16.42	2.13	9.22
1923 ..	9.61	10.71	9.83	9.59	8.41	9.92	10.53	3.02	9.89
1924 ..	9.35	10.65	8.88	9.19	9.08	9.89	12.21	3.90	9.47
1925 ..	9.16	9.47	8.86	9.15	9.00	9.35	16.84	2.54	9.20
1926 ..	9.55	9.63	9.39	8.73	8.93	9.05	17.00	6.71	9.42

(a) Number of deaths per 1,000 of annual mean population.

5. **Index of Mortality.**—(i) *General.*—The death rates so far quoted are crude rates, i.e., they simply show the number of deaths per thousand of mean population, without taking the age constitution into consideration. Other conditions being equal, however, the death rate of a country will be lower if it contains a large percentage of young people (not infants). In order to obtain a comparison of the mortality of various countries on a uniform basis so far as age and age constitution is concerned, the standard population compiled by the International Institute of Statistics, according to age distribution (eleven age-groups) of the population of nineteen European countries at their censuses nearest to the year 1900 is used in the computation of the "Index of Mortality" as distinguished from the crude death rate.

(ii) *Sex and Age-Groups.* The distribution per 10,000 according to sex and age in the eleven age-groups used in computation of the "Index of Mortality" is given in the following table:—

Age Group.					Males.	Females.
Under 1 year	..	..	..	..	132	130
1 to 4 years	..	..	..	..	469	467
5 „ 14 „	..	..	..	..	1,037	1,032
15 „ 24 „	..	..	..	..	905	927
25 „ 34 „	..	..	..	..	725	755
35 „ 44 „	..	..	..	..	593	613
45 „ 54 „	..	..	..	..	454	485
55 „ 64 „	..	..	..	..	337	371
65 „ 74 „	..	..	..	..	187	218
75 „ 84 „	..	..	..	..	64	81
85 years and over	..	..	..	..	7	11
Total	..	..	..	..	4,910	5,090

In computing an index the death rate is ascertained for each age-group for each sex and multiplied by the corresponding number in the above table, and the sum of the products so obtained is divided by 10,000. The result represents the "Index of Mortality."

(iii) *Comparison of Rates.* For the year 1926 on the basis of the crude rates there is a range of 0.90 per 1,000 persons between the lowest rate in South Australia (8.73) and the highest rate in Victoria (9.63), whereas the standardized rates increase the range to

1.61 per 1,000, i.e. between 9.02 in South Australia and 10.63 in Western Australia. In its application to the figures for 1926 the process of adjustment altered the relative positions of three States from those determined by the crude rates. The principal changes were that Western Australia from second place fell to the lowest position, to the advantage of Victoria which was raised from the lowest position on the basis of crude rates to the third position on the standardized basis.

(iv) *Years 1922 to 1926.* For purposes of comparison with previous years the index of mortality, based on the method alluded to in (ii) *ante*, is shown in the following table for each of the five years 1922 to 1926 :—

INDEX OF MORTALITY, 1922 TO 1926.

Year.	States.						Territories.		Aus- tralia.
	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Northern.	Federal Capital.	
1922 ..	9.79	9.85	10.15	9.39	10.91	9.81	11.05	2.59	9.89
1923 ..	10.61	10.97	10.97	9.90	9.79	10.49	7.37	2.60	10.64
1924 ..	10.31	10.31	9.90	9.50	10.82	10.43	9.56	4.43	10.20
1925 ..	10.13	9.74	9.94	9.43	10.67	9.94	15.52	2.58	9.93
1926 ..	10.62	9.91	10.47	9.02	10.63	9.70	14.81	7.83	10.20

6. *Death Rates of Various Countries*—The following table gives particulars of the crude death rates of various countries for the latest available years :—

DEATH RATES (a).—VARIOUS COUNTRIES.

Country.	Year.	Crude Death Rate.	Country.	Year.	Crude Death Rate.
New Zealand ..	1926	8.7	Scotland ..	1926	13.0
South Australia ..	1926	8.7	Finland ..	1925	13.0
Western Australia ..	1926	8.9	Great Britain ..	1926	13.1
Tasmania ..	1926	9.1	Belgium ..	1925	13.1
Australia ..	1926	9.4	New York State ..	1926	13.4
Queensland ..	1926	9.4	Irish Free State ..	1926	14.1
Union of South Africa (Whites) ..	1926	9.5	Quebec (Canada) ..	1926	14.5
New South Wales ..	1926	9.6	Northern Ireland ..	1926	14.9
Victoria ..	1926	9.6	Austria ..	1926	14.9
Netherlands ..	1926	9.8	Czecho-Slovakia ..	1926	15.6
Norway ..	1925	10.9	Bulgaria ..	1926	15.7
Denmark ..	1926	11.1	Hungary ..	1926	16.6
Canada (including Que- bec) ..	1926	11.4	Italy ..	1925	16.8
Ontario (Canada) ..	1926	11.4	France ..	1926	17.5
England and Wales ..	1926	11.6	Spain ..	1925	19.4
Sweden ..	1926	11.8	Japan ..	1925	20.3
Uruguay ..	1924	11.8	Jamaica ..	1924	21.8
Germany ..	1925	11.9	Rumania ..	1924	22.7
Prussia ..	1925	11.9	Soviet Republics ..	1924	23.2
United States (b) ..	1926	12.1	Ceylon ..	1926	24.7
Switzerland ..	1925	12.2	Chile ..	1925	29.8
			Egypt ..	1926	33.6

(a) Number of deaths per 1,000 of mean population.

(b) Registration area includes about 89 per cent. of the population.

7. *Infantile Deaths and Death Rate.*—(i) *Australia 1922 to 1926.* In the following table, which shows both the total number of deaths of children under one year and the rate per thousand live births since 1922, males and females are distinguished. The universal experience that during the first few years of life the higher death rate of male infants tends to counteract the excess of male births is confirmed by the fact that out of 346,711 male infants born from 1922 to 1926, 21,410 (61.75 per 1,000) died during their first year of life, while of 329,888 female infants only 16,167 (49.01 per 1,000) died during the first year.

INFANTILE DEATHS AND DEATH RATES.—AUSTRALIA, 1922 TO 1926.

Year.	Registered deaths under one year.			Rate of Infantile Mortality (a).		
	Males.	Females.	Total.	Males.	Females.	Total.
1922	4,279	2,972	7,251	60.62	44.42	52.74
1923	4,617	3,567	8,184	66.56	54.16	60.52
1924	4,276	3,425	7,701	62.15	51.79	57.08
1925	4,089	3,162	7,251	58.80	47.73	53.40
1926	4,149	3,041	7,190	60.64	46.97	53.99

(a) Number of deaths under 1 year per 1,000 live births registered.

(ii) *States, 1922 to 1926.* For the States and Territories the rates of infantile mortality during the last five years were as follows :—

INFANTILE MORTALITY RATES (a), 1922 TO 1926.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	North. Terr.	Fed. Cap. Terr.	Aus- tralia.
1922 ..	53.60	53.35	50.38	47.50	55.59	55.70	57.14	31.25	52.74
1923 ..	60.68	65.70	53.95	60.30	56.02	57.45	13.89	..	60.52
1924 ..	58.93	61.32	51.30	51.33	49.87	54.99	35.09	48.78	57.08
1925 ..	54.95	56.98	45.21	46.09	56.57	55.19	30.77	106.38	53.40
1926 ..	57.61	55.68	50.65	44.33	49.27	47.61	68.49	53.33	53.99

(a) Number of deaths under 1 year per 1,000 live births registered.

The deaths of infants under one year of age during 1926 numbered 7,190, being the lowest number for 50 years, while the infantile mortality rate of 53.99 was next lowest to the rate of 52.74 experienced in 1922. Among the States in 1926, South Australia had the lowest and New South Wales the highest rate, while South Australia, Western Australia and Tasmania had lower rates than for the year 1922.

(iii) *Districts.* The total number of births, of deaths of children under one year of age, and the average rate of infantile mortality for the five years 1922 to 1926 are shown in the following table for each of the fifty-nine districts for which the vital statistics have been tabulated. To afford a better indication of the geographical position of the districts the name of a town situated in a fairly central part of each district has been added. The figures for the Territories and for Lord Howe Island are included for the sake of completeness, but are too small to be used in comparison with others. Remarkable variations

are shown in the mortality rate for the various districts. The lowest rate was experienced in the Central District (Gawler) of South Australia (38.16 per 1,000 births), and the highest in the Trans-Darling Plains (Broken Hill) of New South Wales (97.91 per 1,000 births).

INFANTILE MORTALITY.—STATE DISTRICTS, 1922 TO 1926.

States and Territories.	Districts.	Towns.	Total Births, 1922-26.	Total Deaths of Children under one year, 1922-26.	Average Infantile Mortality per 1,000 Births, 1922-26.
New South Wales ..	Metropolitan ..	Sydney ..	112,335	6,640	59.12
" ..	North Coast ..	Grafton ..	22,377	1,019	45.54
" ..	Lower Hunter ..	Newcastle ..	30,418	1,891	62.70
" ..	Cumberland ..	Parramatta ..	15,802	696	44.05
" ..	South Coast ..	Nowra ..	9,827	534	54.34
" ..	Northern Tableland ..	Armidale ..	12,533	611	48.75
" ..	Central Tableland ..	Bathurst ..	15,930	997	62.59
" ..	Southern Tableland ..	Goulburn ..	13,545	766	56.56
" ..	North-Western Slope ..	Moree ..	5,370	341	63.50
" ..	Central-Western Slope ..	Dubbo ..	9,470	524	55.33
" ..	South-Western Slope ..	Temora ..	11,056	583	52.73
" ..	Riverina ..	Hay ..	6,658	368	55.27
" ..	Plains East of Darling ..	Cobar ..	1,470	110	74.83
" ..	Trans-Darling Plains ..	Broken Hill ..	3,881	380	97.91
" ..	Lord Howe Island ..	—	3	—	—
Victoria ..	Metropolitan ..	Melbourne ..	95,701	6,095	63.69
" ..	Central ..	Geelong ..	17,513	1,014	57.90
" ..	North-Central ..	Kyneton ..	5,749	287	49.92
" ..	Western ..	Hamilton ..	17,174	889	51.76
" ..	Wimmera ..	Horsham ..	7,084	363	51.24
" ..	Mallee ..	Ultima ..	7,805	474	60.73
" ..	Northern ..	Rochester ..	15,779	812	51.46
" ..	North-Eastern ..	Beechworth ..	4,439	198	44.60
" ..	Gippsland ..	Sale ..	8,345	392	46.97
Queensland ..	Metropolitan ..	Brisbane ..	31,339	1,712	54.54
" ..	Moreton ..	Ipswich ..	10,036	411	40.95
" ..	Wide Bay ..	Maryborough ..	12,359	519	41.99
" ..	Port Curtis ..	Rockhampton ..	7,703	418	54.26
" ..	Edgecumbe ..	Townsville ..	9,631	486	50.20
" ..	Rockingham ..	Cairns ..	6,654	286	42.98
" ..	York Peninsula ..	Cooktown ..	1,028	77	74.90
" ..	Carpentaria ..	Croydon ..	1,381	89	64.45
" ..	Central-Western ..	Winton ..	505	27	53.47
" ..	South-Western ..	Charleville ..	1,380	111	80.42
" ..	Central ..	Blackall ..	3,105	173	55.72
" ..	Maranoa ..	Roma ..	1,543	75	48.61
" ..	Downs ..	Toowoomba ..	12,960	630	48.61
South Australia ..	Metropolitan ..	Adelaide ..	29,794	1,687	56.62
" ..	Central ..	Gawler ..	11,662	445	38.16
" ..	Lower North ..	Redruth ..	8,643	426	49.29
" ..	Upper North ..	Port Augusta ..	2,871	126	43.89
" ..	South-Eastern ..	Mount Gambier ..	2,785	103	36.98
" ..	Western ..	Port Lincoln ..	2,470	120	48.58
Western Australia ..	Metropolitan ..	Perth ..	21,388	1,249	58.40
" ..	Northern Agricultural ..	Geraldton ..	5,380	227	42.19
" ..	South-Western ..	Katanning ..	10,801	511	47.31
" ..	Eastern Goldfields ..	Kalgoorlie ..	2,429	144	59.28
" ..	Northern Goldfields ..	Pilbara ..	399	27	67.67
" ..	North-Western ..	Roebourne ..	207	7	33.82
" ..	Northern ..	Broome ..	168	15	89.29
Tasmania ..	Metropolitan ..	Hobart ..	7,714	497	64.43
" ..	Launceston ..	Launceston ..	4,149	240	57.84
" ..	North-Eastern ..	Scottsdale ..	2,316	122	52.68
" ..	North-Western ..	Stanley ..	7,083	345	48.71
" ..	Midland ..	Zeehan ..	2,401	113	47.06
" ..	South-Eastern ..	Sorell ..	2,796	121	43.28
" ..	South-Western ..	Franklin ..	604	28	46.36
Northern Territory ..	Federal Capital ..	Darwin ..	337	14	41.54
Territory ..	..	Canberra ..	214	12	56.07

(iv) *Various Countries and Cities.* Compared with other countries, the States of Australia occupy a very favourable position, being surpassed by New Zealand and Norway only. There are, however, several continental cities which show better results than the record for any Australian city. A study of the respective rates shows that a high birth rate is often, though not invariably, accompanied by a high infantile death rate.

INFANTILE MORTALITY RATES (a).—VARIOUS COUNTRIES.

Country.	Year.	Rate of Infantile Mortality. (a)	Crude Birth Rate. (b)	Country.	Year.	Rate of Infantile Mortality. (a)	Crude Birth Rate. (b)
New Zealand ..	1926	40	20.1	Finland ..	1925	85	22.3
South Australia ..	1926	44	20.6	Northern Ireland	1925	86	22.0
Tasmania ..	1926	47	23.6	Belgium ..	1925	94	19.9
Western Australia	1926	49	22.1	France ..	1926	98	18.8
Norway ..	1923	49	23.0	Canada (including Quebec) ..	1926	102	24.8
Queensland ..	1926	51	22.6	Prussia ..	1925	104	20.9
Australia ..	1926	54	22.0	Uruguay ..	1923	104	25.4
Victoria ..	1926	56	20.8	Germany ..	1925	105	20.6
Sweden ..	1926	57	16.9	Italy ..	1925	119	27.8
New South Wales	1926	58	22.9	Austria ..	1925	119	21.4
Netherlands ..	1926	61	23.8	Quebec (Canada)	1926	142	32.1
Switzerland ..	1924	62	18.8	Japan ..	1925	142	34.9
Union of South Africa (Whites)	1925	68	26.5	Bulgaria ..	1926	142	25.5
England and Wales	1926	70	17.8	Spain ..	1924	143	29.7
New York State ..	1926	71	19.8	Czecho-Slovakia	1926	154	24.5
United States (Re- gistration Area)	1926	73	20.1	Hungary ..	1926	167	27.3
Irish Free State ..	1926	74	20.6	Ceylon ..	1926	174	41.0
Great Britain ..	1924	78	19.3	Jamaica ..	1922	177	37.3
Ontario (Canada)	1926	79	21.5	Rumania ..	1923	207	36.6
Denmark ..	1925	81	21.1	Egypt ..	1926	215	50.0
Scotland ..	1926	83	20.9	Chile ..	1924	266	39.9

(a) Number of deaths under 1 year per 1,000 births registered. (b) Number of births per 1,000 of mean population.

INFANTILE MORTALITY RATES (a).—VARIOUS CITIES.

City.	Year.	Rate of Infantile Mortality. (a)	City.	Year.	Rate of Infantile Mortality. (a)
Amsterdam ..	1926	40	Edinburgh ..	1926	80
Auckland ..	1926	43	Washington ..	1926	83
San Francisco ..	1926	44	Manchester ..	1926	83
Wellington ..	1926	45	Detroit ..	1926	84
Stockholm ..	1926	45	Munich ..	1926	87
Oslo ..	1926	48	Berlin ..	1926	93
Brisbane ..	1926	50	Aberdeen ..	1926	96
Adelaide ..	1926	53	Cologne ..	1926	96
Christchurch ..	1926	54	Paris ..	1926	98
Perth ..	1926	54	Leipzig ..	1926	98
Hobart ..	1926	54	Liverpool ..	1926	103
Sydney ..	1926	61	Breslau ..	1926	103
Melbourne ..	1926	63	Glasgow ..	1926	104
London ..	1926	64	Brussels ..	1924	108
Chicago ..	1926	67	Prague ..	1924	110
New York City	1926	68	Buda Pest ..	1926	110
Copenhagen ..	1926	69	Belfast ..	1926	112
Birmingham ..	1926	70	Dublin ..	1926	114
Newcastle, N.S.W.	1926	70	Warsaw ..	1926	143
Hamburg ..	1926	74	Montreal ..	1926	144
Dresden ..	1926	76	São Paulo ..	1926	174
Toronto ..	1926	76	Colombo ..	1925	221
Antwerp ..	1926	77	Madras ..	1926	278
Philadelphia ..	1926	78	Bombay ..	1926	389
Sheffield ..	1926	78			

(a) Number of deaths under 1 year per 1,000 births registered.

(v) *Causes of Deaths of Children under one Year.* The following table gives for twenty-six causes the ages of all children who died under one year of age. Particulars for males and females may be found in Bulletin No. 44 of "Australian Demography."

CAUSES OF DEATHS OF CHILDREN UNDER ONE YEAR.—AUSTRALIA, 1926.

Age at Death.	Measles.	Whooping Cough.	Diphtheria.	Erysipelas.	Meningococcal Meningitis.	Pulmonary Tuberculosis.	Tubercular Meningitis.	Tuberculosis, other forms.	Syphilis.	Meningitis.	Convulsions.	Acute Bronchitis.	Broncho-Pneumonia.
Under 1 week ..	2	1	1	..	..	..	..	..	2	1	53	4	8
1 week and under 2 weeks ..	..	1	..	..	..	..	..	..	..	..	14	5	8
2 weeks ..	1	2	1	3	..	..	..	..	3	3	6	8	12
3 ..	..	9	3	12	..	..	..	..	4	12	6	4	10
1 month ..	1	51	1	6	1	..	..	..	3	5	6	15	47
2 months ..	..	43	..	..	1	1	1	..	11	3	7	14	49
3 ..	1	23	..	1	4	..	1	..	3	6	6	4	35
4 ..	1	11	3	..	..	1	1	1	4	6	4	3	32
5 ..	1	9	3	1	3	1	1	1	..	6	5	5	26
6 ..	2	21	2	3	3	..	..	1	..	7	1	4	34
7 ..	3	10	2	1	1	1	..	..	1	5	5	4	25
8 ..	1	12	3	1	4	..	3	..	2	4	4	2	17
9 ..	2	6	3	2	3	..	2	2	..	5	4	2	20
10 ..	2	13	7	..	1	..	4	..	..	4	3	3	32
11 ..	7	5	8	1	1	1	5	2	..	4	9	2	23
Total under 1 year ..	24	217	37	22	18	5	26	8	33	62	128	83	378
Infantile Mortality (a) ..	0.18	1.63	0.28	0.17	0.13	0.03	0.20	0.06	0.25	0.46	0.96	0.62	2.84
Ex-nuptial deaths under 1 year included in above ..	1	8	3	1	..	1	1	..	9	3	10	4	30
Infantile Mortality (b) ..	0.16	1.27	0.48	0.16	..	0.16	0.16	..	1.43	0.48	1.59	0.64	4.77

Age at Death.	Pneumonia.	Pleurisy.	Other Diseases of Stomach.	Diarrhoea and Enteritis.	Hernia.	Intestinal Obstruction.	Malformations.	Congenital Debility, Icterus and Sclerema.	Premature Birth.	Injury at Birth.	Other Diseases peculiar to Early Infancy.	Lack of Care.	Other Causes.	Total.
Under 1 week ..	15	..	1	4	..	1	278	295	1,693	300	304	10	67	3,040
1 week and under 2 weeks ..	6	1	1	7	..	..	46	63	143	17	30	..	34	378
2 weeks ..	7	..	4	14	1	..	33	51	96	9	20	..	19	292
3 ..	7	..	3	18	..	..	20	44	53	12	6	1	24	215
1 month ..	21	..	3	82	2	2	35	78	64	2	4	..	31	472
2 months ..	20	1	2	97	2	2	33	43	21	2	8	..	29	398
3 ..	17	..	12	119	1	3	34	52	22	2	1	..	45	369
4 ..	12	..	3	130	..	9	9	24	..	..	1	..	32	295
5 ..	20	..	3	132	..	8	9	20	22	1	..	..	32	289
6 ..	12	..	5	144	1	9	6	19	..	1	..	..	33	307
7 ..	14	..	7	104	..	11	4	4	..	..	..	..	33	244
8 ..	13	..	4	117	..	4	3	6	..	1	..	..	24	227
9 ..	22	1	2	92	..	6	5	9	..	..	..	..	26	228
10 ..	13	..	3	86	..	3	4	6	..	..	..	..	28	211
11 ..	12	..	2	103	..	2	7	4	..	..	..	..	27	225
Total under 1 year ..	211	3	61	1249	7	66	525	718	2,085	336	374	11	503	7,190
Infantile Mortality (a) ..	1.59	0.02	0.46	9.38	0.05	0.50	3.94	5.39	15.66	2.52	2.81	0.08	3.78	53.99
Ex-nuptial deaths under 1 year included in above ..	23	1	8	163	1	2	35	72	170	21	22	8	43	640
Infantile Mortality (b) ..	3.66	0.16	1.27	25.94	0.16	0.32	5.57	11.46	27.06	3.34	3.50	1.27	6.85	101.86

(a) Rate per 1,000 total births. (b) Rate per 1,000 ex-nuptial births.

Pre-natal influences, such as malformations, congenital debility, and premature birth, together with injuries at birth, accounted for 3,664, or 51 per cent., of all deaths under one year; and of these 3,664 deaths, 2,566, or 70 per cent., occurred within a week of birth. Among the survivors of the first week, diarrhoea and enteritis had the most fatal effects. These diseases were responsible for 1,249 deaths, representing 17

per cent. of all deaths under one year, or 9.38 per 1,000 births. Excluding deaths from pre-natal causes already referred to, over 47 per cent. of the deaths between three months and one year of age were due to diarrhœa and enteritis.

(vi) *Deaths of Ex-nuptial Children under one Year.* The deaths of ex-nuptial children were tabulated by this Bureau for the first time in 1925. The causes of death of these children in 1926 are shown as an addendum to the preceding table.

Pre-natal influences such as malformations, congenital debility, premature birth, and injuries from birth accounted for 298, or 46.6 per cent., and diarrhœa and enteritis for 163, or 25.5 per cent., of the total deaths.

8. *Deaths in Age-Groups, 1922 to 1926.*—A distribution into age-groups has been made of the 274,047 deaths which occurred in Australia from 1922 to 1926, and the results have been tabulated for each State. It is, however, sufficient to show here the results for Australia as a whole, which are as follows :—

DEATHS IN AGE GROUPS.—AUSTRALIA, 1922 TO 1926.

Age-Group.	Males.	Females.	Total.	Percentage on Total Males.	Percentage on Total Females.	Percentage on Total.
Under 1 year ..	21,410	16,167	37,577	13.77	13.64	13.71
1 year and under 5 ..	6,808	5,591	12,399	4.38	4.71	4.52
5 years and under 20 ..	7,656	5,782	13,438	4.92	4.88	4.90
20 years and under 40 ..	17,152	16,486	33,638	11.03	13.91	12.28
40 years and under 60 ..	33,988	22,462	56,450	21.86	18.95	20.60
60 years and under 65 ..	14,347	8,635	22,982	9.23	7.28	8.39
65 years and over ..	53,939	43,395	97,334	34.69	36.60	35.52
Age unspecified ..	191	38	229	0.12	0.03	0.08
Total ..	155,491	118,556	274,047	100.00	100.00	100.00

9. *Deaths at Single Ages and in Age-Groups, 1926.*—(i) *General.* The 56,952 deaths registered in Australia in the year 1926 will be found tabulated under single years, and in groups of five years for each State and Territory, in Bulletin No. 44 "Australian Demography, 1926." The deaths during the first two years of life have been tabulated in shorter periods. A summary for Australia is given in the following table :—

DEATHS AT SINGLE AGES AND IN AGE-GROUPS.—AUSTRALIA, 1926.

Ages.	Males.	Fe-males.	Total.	Ages.	Males.	Fe-males.	Total.
Total under 1 month ..	2,297	1,628	3,925	Total 20-24 years ..	719	697	1,416
" 1 month and under 3 ..	503	307	870	" 25-29 ..	771	793	1,564
" 3 months and under 6 ..	539	414	953	" 30-34 ..	874	858	1,732
" 6 months and under 12 ..	810	632	1,442	" 35-39 ..	1,007	1,042	2,139
Total under 1 year ..	4,149	3,041	7,190	" 40-44 ..	1,327	1,002	2,329
1 year and under 2 ..	697	547	1,244	" 45-49 ..	1,606	1,086	2,692
2 years ..	283	239	522	" 50-54 ..	1,828	1,180	3,006
3 " ..	199	170	369	" 55-59 ..	2,208	1,471	3,769
4 " ..	159	109	268	" 60-64 ..	2,966	1,816	4,782
Total under 5 years ..	5,487	4,106	9,593	" 65-69 ..	3,262	2,197	5,459
Total 5-9 years ..	505	371	876	" 70-74 ..	2,818	2,099	4,917
" 10-14 ..	449	318	767	" 75-79 ..	2,518	1,923	4,441
" 15-19 ..	640	431	1,071	" 80-84 ..	1,750	1,697	3,447
				" 85-89 ..	1,005	978	1,983
				" 90-94 ..	344	365	709
				" 95-99 ..	75	116	191
				" 100 and over ..	20	14	34
				Age Unspecified ..	30	5	35
				Total All Ages ..	32,387	24,565	56,952

(ii) *Rates.* The following tables give the death rate per 1,000 living at each age for the three years 1920, 1921, and 1922, i.e., the Census year 1921, and the years immediately preceding and following. The Northern Territory is included with South Australia, and the Federal Capital Territory with New South Wales :—

AVERAGE ANNUAL DEATH RATES.—AGE-GROUPS, 1920 TO 1922.

Age-Group.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
MALES.							
0 to 4 years ..	21.49	22.61	20.73	20.01	23.88	20.72	21.64
5 " 9 " ..	1.85	2.15	1.96	2.25	2.24	2.04	2.02
10 " 14 " ..	1.59	1.61	1.58	1.56	1.42	1.83	1.59
15 " 19 " ..	2.16	2.07	2.90	2.42	2.37	2.66	2.30
20 " 24 " ..	2.74	3.06	3.54	3.33	3.96	3.23	3.10
25 " 29 " ..	3.36	3.60	4.37	3.64	4.08	5.05	3.70
30 " 34 " ..	4.13	3.70	4.58	4.00	5.40	4.59	4.16
35 " 39 " ..	5.36	5.32	5.95	5.18	6.42	4.79	5.48
40 " 44 " ..	7.85	6.60	7.86	6.20	7.90	5.98	6.89
45 " 49 " ..	9.61	9.80	10.60	8.81	12.09	8.71	9.91
50 " 54 " ..	12.38	12.24	14.23	11.76	17.18	11.51	12.90
55 " 59 " ..	18.72	18.24	20.34	19.70	23.76	13.44	19.04
60 " 64 " ..	28.35	28.48	30.36	25.63	34.19	23.95	28.71
65 " 69 " ..	43.00	44.38	44.93	42.31	49.51	38.53	43.74
70 " 74 " ..	65.81	65.16	64.56	62.01	72.15	53.55	64.88
75 " 79 " ..	105.54	107.84	103.32	106.23	115.56	109.46	106.53
80 " 84 " ..	159.12	163.74	159.06	161.73	184.49	132.47	160.73
85 " 89 " ..	271.79	266.12	227.79	226.87	283.46	232.39	259.17
90 and over ..	368.58	387.01	314.96	387.09	566.67	350.00	376.08
FEMALES.							
0 to 4 years ..	16.92	17.91	16.05	16.25	18.80	16.74	17.09
5 " 9 " ..	1.66	1.95	1.89	2.27	1.28	2.09	1.82
10 " 14 " ..	1.21	1.20	1.43	1.34	1.23	1.63	1.27
15 " 19 " ..	1.63	2.00	1.99	2.72	1.34	2.58	1.90
20 " 24 " ..	2.43	2.92	2.81	2.85	3.07	3.74	2.75
25 " 29 " ..	3.47	3.55	3.61	3.85	3.99	3.87	3.59
30 " 34 " ..	3.85	4.13	4.11	4.21	4.60	4.41	4.06
35 " 39 " ..	4.64	4.98	5.80	5.18	4.90	5.98	5.00
40 " 44 " ..	5.15	5.74	6.03	4.98	6.39	5.48	5.51
45 " 49 " ..	6.71	6.91	6.76	6.40	8.12	7.31	6.87
50 " 54 " ..	9.35	9.11	9.11	9.10	10.62	8.61	9.27
55 " 59 " ..	13.17	12.87	13.60	10.85	12.81	14.23	12.92
60 " 64 " ..	19.08	19.06	19.71	18.27	17.78	20.13	19.05
65 " 69 " ..	31.59	31.69	30.81	32.89	30.49	34.72	31.76
70 " 74 " ..	50.24	51.83	50.61	45.65	54.20	49.42	50.43
75 " 79 " ..	88.19	88.52	88.10	83.98	96.43	80.32	87.81
80 " 84 " ..	140.29	143.71	126.40	132.25	137.07	126.00	138.32
85 " 89 " ..	225.11	231.45	210.65	193.54	219.51	208.79	221.44
90 and over ..	380.95	321.79	288.89	337.50	478.26	352.94	341.68
PERSONS.							
0 to 4 years ..	19.24	20.30	18.45	18.17	21.39	18.75	19.40
5 " 9 " ..	1.76	2.05	1.93	2.26	1.76	2.07	1.92
10 " 14 " ..	1.40	1.40	1.51	1.45	1.33	1.73	1.43
15 " 19 " ..	1.90	2.03	2.45	2.57	1.86	2.62	2.10
20 " 24 " ..	2.58	2.99	3.17	3.09	3.52	3.49	2.92
25 " 29 " ..	3.42	3.57	4.00	3.75	4.03	4.43	3.64
30 " 34 " ..	3.99	3.92	4.37	4.10	5.03	4.50	4.11
35 " 39 " ..	5.03	5.14	5.88	5.18	5.72	5.39	5.24
40 " 44 " ..	5.99	6.16	7.04	5.60	7.23	5.73	6.22
45 " 49 " ..	8.21	8.30	8.89	7.62	10.41	8.04	8.44
50 " 54 " ..	10.97	10.67	12.04	10.46	14.58	10.16	11.20
55 " 59 " ..	16.19	15.60	17.57	15.32	19.61	13.80	16.22
60 " 64 " ..	24.11	23.93	25.99	22.13	27.90	22.13	24.22
65 " 69 " ..	37.81	37.90	39.23	37.80	41.71	36.73	38.17
70 " 74 " ..	58.34	58.09	58.64	53.85	64.31	51.54	57.82
75 " 79 " ..	97.02	97.07	96.41	94.82	106.68	93.60	96.98
80 " 84 " ..	149.75	152.49	144.74	145.42	162.58	128.81	149.09
85 " 89 " ..	248.05	246.87	219.48	206.49	252.00	219.14	238.91
90 and over ..	374.81	349.09	304.15	355.73	528.30	351.64	357.36

The high death rate for children under five years of age rapidly diminishes until, at ages 10 to 14, it stands at 1.43 per 1,000, which is the lowest at any age. The rate thereafter gradually rises with increasing age until, at the ages 90 and over, more than one-third die every year.

10. Deaths of Centenarians, 1926.—Particulars concerning the thirty-four persons—twenty males and fourteen females—who died in 1926 aged 100 years and upwards, are given in the following table. While the Registrars-General of the various States verify the figures as far as possible, absolute reliance cannot be placed on their accuracy, owing to the well-known tendency of very old people to overstate their ages. In connexion with this question it may be noted that while parish registers in the United Kingdom often date very far back, compulsory registration of births dates practically from 1874 only, the Act of 1836 having left many loopholes open for those unwilling to register the births of their children.

DEATHS OF CENTENARIANS.—AUSTRALIA, 1926.

Age.	Locality where Death occurred.	State.	Cause of Death.	Occupation.	Birthplace.	Length of Residence in Australia.	Conjugal Condition.
MALES.							
110	South Melbourne	Victoria ..	Senility ..	Baker ..	England ..	70 years ..	Married
110	East Melbourne	" ..	Broncho-pneumonia	Not stated	West Indies	Not stated	"
109	Cairns ..	Q'land ..	Senility ..	"	China ..	"	Not stated
105	Wingham ..	N.S.W. ..	Atheroma ..	Farmer ..	Scotland ..	104 years ..	Married
104	Kurri Kurri ..	" ..	Bronchitis ..	Carter ..	England ..	80 years ..	"
104	Box Hill ..	Victoria ..	Broncho-pneumonia	Soldier ..	Scotland ..	40 years ..	"
104	Rockhampton	Q'land ..	Senility ..	Pensioner	Ireland ..	44 years ..	"
104	Cardwell ..	" ..	"	Labourer ..	England ..	15 years ..	"
103	Manilla ..	N.S.W. ..	Lobar pneumonia	Not stated	Japan ..	95 years ..	"
102	Cowra ..	" ..	Ch. bronchitis	Farmer ..	England ..	72 years ..	"
101	Albury ..	" ..	Cerebral hæmorrhage	Draper ..	Syria ..	35 years ..	"
100	Hillgrove ..	" ..	Senility ..	Not stated	N.S.W. ..	Native ..	"
100	Soone ..	" ..	Bronchitis ..	Farmer ..	England ..	70 years ..	"
100	Quirindi ..	" ..	Myocarditis ..	"	Ireland ..	70 years ..	"
100	Sale ..	Victoria ..	Senility ..	Gardener ..	China ..	72 years ..	"
100	Trafalgar ..	" ..	"	Farmer ..	Ireland ..	72 years ..	"
100	Beechworth ..	" ..	"	"	" ..	68 years ..	"
100	Ballarat ..	" ..	"	Not stated	" ..	Not stated	Single
100	Brisbane ..	Q'land ..	Hypostatic pneumonia	Miner ..	" ..	68 years ..	"
100	Perth ..	W. Aust.	Senility ..	Gardener ..	" ..	28 years ..	"
FEMALES.							
108	Darling Downs West	Q'land ..	Dengue fever	" ..	Scotland	70 years ..	Married
107	Ballarat ..	Victoria ..	Senility ..	" ..	England ..	Not stated	"
107	Brisbane ..	Q'land ..	Cardiac degeneration	" ..	Ireland ..	50 years ..	"
105	Jeparit ..	Victoria ..	Cerebral thrombosis	" ..	Scotland	93 years ..	"
104	Essendon ..	" ..	Senility ..	" ..	England ..	66 years ..	"
103	Landsborough	" ..	"	" ..	" ..	79 years ..	"
103	Daly ..	Sth. Aust.	"	" ..	Ireland ..	75 years ..	"
102	Ashfield ..	N.S.W. ..	Myocarditis	" ..	" ..	Not stated	"
101	Geelong ..	Victoria ..	Senility ..	" ..	" ..	74 years ..	"
101	Flinders ..	Sth. Aust.	Ch. Nephritis	" ..	" ..	63 years ..	"
100	Marrickville	N.S.W. ..	Senility ..	" ..	Scotland	79 years ..	"
100	Geelong ..	Victoria ..	"	" ..	England ..	81 years ..	"
100	Warwick ..	Q'land ..	Arterio-sclerosis	" ..	" ..	70 years ..	"
100	Daly ..	Sth. Aust.	Senility ..	" ..	" ..	74 years ..	"

11. Length of Residence in Australia of Persons who died in 1926.—The length of residence in Australia of all persons whose deaths were registered in the year 1926 is shown in the following table:—

LENGTH OF RESIDENCE IN AUSTRALIA OF PERSONS WHO DIED IN 1926.

Length of Residence.	Male Deaths.	Female Deaths.	Total Deaths.	Length of Residence.	Male Deaths.	Female Deaths.	Total Deaths.
Born in Australia ..	20,633	17,039	37,677	Resident 25 to 29 years ..	313	163	476
Resident under 1 year ..	131	56	187	" 30 to 34 ..	600	252	852
" 1 year ..	83	49	137	" 35 to 39 ..	677	401	1,081
" 2 years ..	99	50	149	" 40 to 44 ..	1,613	853	2,466
" 3 years ..	97	46	143	" 45 to 49 ..	860	547	1,407
" 4 ..	67	48	115	" 50 to 54 ..	896	520	1,416
" 5 ..	63	53	116	" 55 to 59 ..	434	334	768
" 6 ..	61	70	131	" 60 to 64 ..	887	762	1,649
" 7 ..	32	45	77	" 65 yrs. and over ..	1,689	1,857	3,546
" 8 ..	19	17	36	Length of residence ..			
" 9 ..	14	18	32	not stated ..	1,732	521	2,253
" 10 to 14 years ..	554	417	971				
" 15 to 19 ..	512	302	814				
" 20 to 24 ..	311	142	453	Total ..	32,387	24,565	56,952

12. Birthplaces of Persons who Died in 1926.—The following table gives the birthplaces of persons whose deaths were registered in 1926. More detailed information will be found in "Australian Demography," Bulletin No. 44.

BIRTHPLACES OF PERSONS WHO DIED IN 1926.—AUSTRALIA.

Birthplace.	Males.	Females.	Persons.	Birthplace.	Males.	Females.	Persons.
AUSTRALASIA—				ASIA—			
New South Wales ..	8,010	6,589	14,599	British India and			
Victoria ..	6,437	5,319	11,756	Ceylon ..	106	38	144
Queensland ..	2,284	1,819	4,103	China ..	258	4	262
South Australia ..	2,119	1,755	3,874	Japan ..	23	3	26
Western Australia ..	654	485	1,139	Other Asiatic			
Tasmania ..	1,123	1,057	2,180	Countries ..	71	15	86
Northern Territory ..	9	6	15				
Federal Capital Territory ..	2	9	11	AFRICA—			
New Zealand ..	200	151	351	Union of Sth. Africa ..	29	18	47
				Other African			
				Countries ..	13	4	17
EUROPE—				AMERICA—			
England and Wales ..	5,439	3,674	9,113	Canada ..	53	20	73
Scotland ..	1,395	1,072	2,467	United States of			
Ireland ..	2,039	1,792	3,831	America ..	82	33	115
Other Brit. Posses-				Other American			
sions in Europe ..	41	10	51	Countries ..	39	17	56
Austria ..	17	6	23				
Denmark ..	128	38	166	POLYNESIA—			
Finland ..	32	1	33	Other Polynesian			
France ..	55	19	74	Islands ..	49	11	60
Germany ..	435	249	684				
Greece ..	35	7	42				
Italy ..	115	30	145				
Netherlands ..	19	8	27				
Norway ..	71	10	81				
Poland ..	23	16	39				
Russia ..	51	18	69				
Sweden ..	136	10	146				
Switzerland ..	28	12	40				
Other European				At Sea ..	76	53	129
Countries ..	56	10	66	Unspecified ..	635	177	812
				Total Deaths ..	32,387	24,565	56,952

13. Occupations of Males who Died in 1926.—(i) *Australia, 1926.* Information as to the main groups of the occupations of the 32,387 males who died in Australia in 1926 is contained in the following table:—

OCCUPATIONS OF MALES WHO DIED IN 1926.—AUSTRALIA.

Occupations.	No. of Deaths.	Occupations.	No. of Deaths.
CLASS I.—PROFESSIONAL.		CLASS V.—INDUSTRIAL.	
Government, Defence, Law ..	551	Art and Mechanic productions ..	1,051
Others	881	Textiles and fibrous materials ..	472
Total Class I. ..	1,432	Food and drinks ..	327
		Animal and vegetable substances ..	72
		Metals and minerals ..	592
		Fuel, light and energy ..	122
		Building and construction ..	1,464
		Others	5,822
CLASS II.—DOMESTIC.		Total Class V. ..	9,922
Board and lodging	459		
Others	340		
Total Class II. ..	799		
		CLASS VI.—AGRICULTURAL, PASTORAL, MINING, ETC.	
CLASS III.—COMMERCIAL.		Agricultural	3,438
Property and finance	332	Pastoral	1,077
Art, mechanic and textile products ..	230	Mining and quarrying ..	1,300
Food and drinks	589	Others	290
Animal and vegetable substances ..	86	Total Class VI. ..	6,105
Fuel, light and metals	76		
Merchants and dealers	661		
Others	1,277		
Total Class III. ..	3,251	CLASS VII.—INDEFINITE.	
		Independent means	691
CLASS IV.—TRANSPORT AND COMMUNICATION.		Occupation unspecified ..	1,069
Railway traffic	711	Total Class VII. ..	1,760
Road and tramway traffic	800		
Sea and River traffic &c. ..	648	CLASS VIII.—DEPENDENTS ..	6,774
Others	185	Total Male Deaths ..	32,387
Total Class IV. ..	2,344		

(ii) *Australia, 1922 to 1926.* The male deaths in Australia grouped according to the main classes of occupations, and the percentage of each class on the total male deaths for the five years 1922 to 1926, are shown in the table hereunder:—

OCCUPATIONS OF MALES WHO DIED IN AUSTRALIA, 1922 TO 1926.

Occupation.		1922.	1923.	1924.	1925.	1926.
Class						
I. Professional	Total	1,317	1,339	1,327	1,378	1,432
	Per cent.	4.50	4.23	4.27	4.43	4.42
II. Domestic	Total	745	803	802	840	799
	Per cent.	2.55	2.54	2.58	2.70	2.47
III. Commercial	Total	2,871	2,914	3,063	3,067	3,251
	Per cent.	9.82	9.22	9.85	9.85	10.04
IV. Transport and communication	Total	1,842	1,931	2,041	2,102	2,344
	Per cent.	6.30	6.11	6.56	6.75	7.24
V. Industrial	Total	8,592	9,509	9,510	9,555	9,922
	Per cent.	29.38	30.07	30.57	30.69	30.64
VI. Agricultural, Pastoral, Mining, etc.	Total	5,664	5,902	5,959	6,101	6,105
	Per cent.	19.37	18.66	19.16	19.60	18.85
VII. Indefinite	Total	1,378	1,866	1,431	1,539	1,760
	Per cent.	4.71	5.90	4.60	4.94	5.43
VIII. Dependents	Total	6,836	7,358	6,970	6,552	6,774
	Per cent.	23.37	23.27	22.41	21.04	20.91
Total		29,245	31,622	31,103	31,134	32,387

14. *Causes of Death.*—(i) *General.* The classification adopted by the Commonwealth Bureau of Census and Statistics is that of the International Institute of Statistics, as amended by the Committees of Revision which met in 1909 and 1920. The detailed classification groups causes of death under 205 headings, in the following categories:—

- | | |
|--|--|
| i. Epidemic, Endemic, and Infectious Diseases. | viii. Puerperal Condition. |
| ii. General Diseases not included in (i). | ix. Diseases of the Skin and Cellular Tissue |
| iii. Diseases of the Nervous System and Organs of Sense. | x. Diseases of the Organs of Locomotion. |
| iv. Diseases of the Circulatory System. | xi. Malformations. |
| v. Diseases of the Respiratory System. | xii. Early Infancy. |
| vi. Diseases of the Digestive System. | xiii. Old Age. |
| vii. Diseases of the Genito-urinary System and Adnexa. | xiv. External Causes. |
| | xv. Ill-defined Diseases. |

(ii) *Mortality Statistics for 1907 and Subsequent Years.* The statistics relating to causes of death in Australia from the year 1907 onward have been tabulated in the Commonwealth Bureau of Census and Statistics in accordance with the above-mentioned classification, and the system is being employed also in the various State statistical offices.

(iii) *Classification of Causes of Death, 1922 to 1926, according to Abridged International Classification.* An abridged classification, which enumerates thirty-eight diseases and groups of diseases according to the revised classification, is in use in many European countries and American States, and a table has been prepared showing the causes of death according to the abridged classification, so that the results may be compared with those of countries which use the abridged index.

The compilations for the years 1922 to 1926 will be found in full in Bulletins Nos. 40 to 44 of "Australian Demography." In the following tables showing deaths of males, females, and persons for the year 1926, the abridged classification has been employed.

CAUSES OF DEATH.—MALES, 1926.

Cause.	N.S.W.	Vic.	Q'land.	S. Aus.	W. Aus.	Tas.	Nor. Ter.	Fed. Cap. Ter.	Aus- tralia.
1 Typhoid Fever ..	43	14	27	8	10	3	..	..	105
2 Typhus Fever ..	..	1	..	1	..	..	..	..	2
3 Malaria ..	3	2	15	..	..	..	..	..	20
4 Small-pox ..	..	..	..	..	1	..	..	..	1
5 Measles ..	49	8	1	..	..	..	..	..	58
6 Scarlet Fever ..	28	7	3	2	1	..	..	..	41
7 Whooping Cough ..	67	56	22	1	12	..	..	..	158
8 Diphtheria ..	87	30	28	15	3	2	..	..	165
9a Influenza—Pneumonic	105	68	35	11	19	24	..	..	262
9b Influenza—other ..	67	26	52	11	5	5	1	..	167
10 Asiatic Cholera ..	..	..	..	..	..	..	..	..	..
11 Cholera Nostras ..	1	1	..	..	..	..	..	..	2
12 Other Epidemic Diseases	87	79	84	14	17	2	5	..	288
13 Tuberculosis of the Respiratory System	687	505	259	175	178	55	7	2	1,868
14 Tuberculosis of the Men- inges ..	38	30	3	13	5	4	..	..	93
15 Other forms of Tuber- culosis ..	41	43	10	11	3	8	..	..	116
16 Cancer and other Malignant Tumours ..	1,174	855	423	269	174	95	2	1	2,993
17 Meningitis ..	64	42	26	13	9	11	..	..	165
18 Hæmorrhage, Embolism, and Softening of Brain	629	413	212	135	96	42	2	2	1,531
19 Diseases of the Heart	1,803	1,114	671	270	226	148	6	2	4,240
20 Acute Bronchitis ..	77	29	18	11	5	..	..	..	140
21 Chronic Bronchitis ..	154	131	57	39	37	17	..	2	437
22 Pneumonia ..	600	324	214	150	87	71	5	1	1,452
23 Other Diseases of the Respiratory System (Tuberculosis exceptd.)	478	538	264	96	103	49	2	1	1,531
24 Diseases of the Stomach (Cancer excepted) ..	137	91	56	23	15	8	..	..	330
25a Diarrhoea and Enteritis (children under 2 years of age) ..	446	246	100	63	59	16	..	3	933
25b Diarrhoea and Enteritis (2 years and over) ..	140	57	53	18	16	7	..	..	291
26 Appendicitis & Typhlitis	116	79	57	18	25	9	..	..	304
27 Hernia, Intestinal Ob- struction ..	119	96	64	28	21	7	1	..	336
28 Cirrhosis of the Liver	88	60	35	16	11	6	1	..	217
29 Acute and Chronic Nephritis ..	628	461	255	149	98	35	..	..	1,626
30 Non-cancerous Tumours and other Diseases of Female Genital Organs	..	..	..	..	..	..	..	..	..
31 Puerperal Septicæmia (Puerperal Fever) ..	..	..	..	..	..	..	..	..	..
32 Other Puerperal Acci- dents of Pregnancy and Confinement ..	..	..	..	..	..	..	..	..	..
33 Congenital Debility and Malformations ..	868	580	325	178	132	82	2	..	2,167
34 Senility ..	622	572	317	217	116	78	8	..	1,930
35a Homicides ..	17	16	7	7	7	2	..	..	56
35b Other Accidental Deaths	1,042	691	455	192	223	81	3	5	2,692
36 Suicides ..	236	125	90	52	69	8	2	1	583
37 Other Diseases	1,798	1,252	739	391	303	151	6	3	4,643
38 Unspecified or Ill-defined Diseases ..	131	123	45	79	45	14	4	3	444
Total—Males ..	12,670	8,765	5,022	2,676	2,131	1,040	57	26	32,387

CAUSES OF DEATH.—FEMALES, 1926.

Cause.	N.S.W.	Vic.	Q'land.	S. Aus.	W. Aus.	Tas.	Nor. Ter.	Fed. Cap. Ter.	Aus- tralia.
1 Typhoid Fever ..	37	15	16	..	5	5	..	..	78
2 Typhus Fever ..	..	..	..	..	..	..	..	..	..
3 Malaria ..	1	..	4	..	..	..	..	..	5
4 Small-pox ..	..	..	..	..	..	..	..	..	..
5 Measles ..	41	6	2	..	..	..	..	1	50
6 Scarlet Fever ..	25	8	5	..	1	1	..	..	40
7 Whooping Cough ..	65	65	39	2	10	1	..	..	182
8 Diphtheria ..	60	40	26	19	8	4	..	..	157
9a Influenza—Pneumonic ..	81	73	26	10	10	8	..	..	208
9b Influenza—other ..	63	25	18	5	3	4	..	..	118
10 Asiatic Cholera ..	..	..	..	..	..	..	..	..	..
11 Cholera Nostras ..	..	..	..	..	..	..	..	..	..
12 Other Epidemic Diseases ..	100	41	68	19	7	2	1	..	238
13 Tuberculosis of the Respiratory System ..	452	421	108	164	75	54	..	..	1,274
14 Tuberculosis of the Men- inges ..	25	27	2	11	2	6	..	..	73
15 Other forms of Tuber- culosis ..	38	43	11	18	7	4	..	..	121
16 Cancer and other Malignant Tumours ..	982	864	347	261	163	90	..	..	2,707
17 Meningitis ..	43	23	14	14	8	9	..	..	111
18 Haemorrhage, Embolism, and Softening of Brain ..	602	548	172	143	87	65	..	1	1,618
19 Diseases of the Heart ..	1,475	1,007	418	281	135	132	2	2	3,452
20 Acute Bronchitis ..	54	26	15	11	1	1	..	..	108
21 Chronic Bronchitis ..	123	113	32	41	6	14	..	..	329
22 Pneumonia ..	401	283	147	95	40	51	..	..	1,017
23 Other Diseases of the Respiratory System (Tuberculosis exceptd.) ..	381	332	139	90	41	18	..	2	1,003
24 Diseases of the Stomach (Cancer excepted) ..	81	56	34	12	9	6	..	1	199
25a Diarrhoea and Enteritis (children under 2 years of age) ..	353	163	85	30	31	18	..	1	681
25b Diarrhoea and Enteritis (2 years and over) ..	118	72	34	19	7	7	1	..	258
26 Appendicitis & Typhlitis ..	71	45	27	14	11	4	..	..	172
27 Hernia, Intestinal Ob- struction ..	90	78	36	16	11	11	..	..	242
28 Cirrhosis of the Liver ..	33	25	14	12	7	4	..	..	95
29 Acute and Chronic Nephritis ..	480	447	232	103	71	30	..	..	1,363
30 Non-cancerous Tumours and other Diseases of Female Genital Organs ..	57	46	26	20	12	5	..	..	166
31 Puerperal Septicæmia (Puerperal Fever) ..	83	64	27	18	14	11	..	1	218
32 Other Puerperal Acci- dents of Pregnancy and Confinement ..	192	130	90	33	33	9	1	..	488
33 Congenital Debility and Malformations ..	632	441	213	119	83	59	1	2	1,550
34 Senility ..	445	643	178	228	66	70	..	2	1,632
35a Homicides ..	16	16	10	2	3	..	..	..	47
35b Other Accidental Deaths ..	295	197	103	51	37	17	..	1	701
36 Suicides ..	57	37	17	9	5	3	..	..	128
37 Other Diseases ..	1,372	1,063	439	294	187	133	1	1	3,490
38 Unspecified or Ill-defined Diseases ..	65	87	18	37	23	16	..	..	246
Total—Females ..	9,489	7,570	3,192	2,201	1,219	872	7	15	24,565

CAUSES OF DEATH.—PERSONS, 1926.

Cause.	N.S.W.	Vic.	Q land.	S. Aus.	W. Aus.	Tas.	Nor. Ter.	Fed. Cap. Ter.	Aus- tralia.
1 Typhoid Fever ..	80	29	43	8	15	8	..	..	183
2 Typhus Fever ..	..	1	..	1	..	..	..	..	2
3 Malaria ..	4	2	19	..	..	..	..	..	25
4 Small-pox ..	..	..	..	..	1	..	..	..	1
5 Measles ..	90	14	3	..	..	..	..	1	108
6 Scarlet Fever ..	53	15	8	2	2	1	..	..	81
7 Whooping Cough ..	132	121	61	3	22	1	..	..	340
8 Diphtheria ..	147	70	54	34	11	6	..	..	322
9a Influenza—Pneumonic ..	186	141	61	21	29	32	..	..	470
9b Influenza—other ..	130	51	70	16	8	9	1	..	285
10 Asiatic Cholera ..	..	..	..	..	..	..	..	..	..
11 Cholera Nostras ..	1	1	..	..	..	..	..	..	2
12 Other Epidemic Diseases ..	187	120	152	33	24	4	6	..	526
13 Tuberculosis of the Respiratory System ..	1,139	926	367	339	253	109	7	2	3,142
14 Tuberculosis of the Men- inges ..	63	57	5	24	7	10	..	..	166
15 Other forms of Tuber- culosis ..	79	86	21	29	10	12	..	..	237
16 Cancer and other Malignant Tumours ..	2,156	1,719	770	530	337	185	2	1	5,700
17 Meningitis ..	107	65	40	27	17	20	..	..	276
18 Hæmorrhage, Embolism, and Softening of Brain ..	1,231	961	384	278	183	107	2	3	3,149
19 Diseases of the Heart ..	3,278	2,121	1,089	551	361	280	8	4	7,692
20 Acute Bronchitis ..	131	55	33	22	6	1	..	..	248
21 Chronic Bronchitis ..	277	244	89	80	43	31	..	2	766
22 Pneumonia ..	1,001	607	361	245	127	122	5	1	2,469
23 Other Diseases of the Respiratory System (Tuberculosis excepted.) ..	859	870	403	186	144	67	2	3	2,534
24 Diseases of the Stomach (Cancer excepted) ..	218	147	90	35	24	14	..	1	529
25a Diarrhœa and Enteritis (children under 2 years of age) ..	799	409	185	93	90	34	..	4	1,614
25b Diarrhœa and Enteritis (2 years and over) ..	258	129	87	37	23	14	1	..	549
26 Appendicitis & Typhlitis ..	187	124	84	32	36	13	..	..	476
27 Hernia, Intestinal Ob- struction ..	209	174	100	44	32	18	1	..	578
28 Cirrhosis of the Liver ..	121	85	49	28	18	10	1	..	312
29 Acute and Chronic Nephritis ..	1,108	908	487	252	169	65	..	..	2,989
30 Non-cancerous Tumours and other Diseases of Female Genital Organs ..	57	46	26	20	12	5	..	..	166
31 Puerperal Septicæmia (Puerperal Fever) ..	83	64	27	18	14	11	..	1	218
32 Other Puerperal Acci- dents of Pregnancy and Confinement ..	192	130	90	33	33	9	1	..	488
33 Congenital Debility and Malformations ..	1,500	1,021	538	297	215	141	3	2	3,717
34 Senility ..	1,067	1,215	495	445	182	148	8	2	3,562
35a Homicides ..	33	32	17	9	10	2	..	..	103
35b Other Accidental Deaths ..	1,337	888	558	243	260	98	3	6	3,393
36 Suicides ..	293	162	107	61	74	11	2	1	711
37 Other Diseases ..	3,170	2,315	1,178	685	490	284	7	4	8,133
38 Unspecified or Ill-defined Diseases ..	196	210	63	116	68	30	4	3	690
Total—Persons ..	22,159	16,335	8,214	4,877	3,350	1,912	64	41	56,952

The next table shows the total deaths in Australia during the last five years in accordance with the abridged classification alluded to previously.

CAUSES OF DEATH.—AUSTRALIA, 1922 TO 1926.

PERSONS.

Cause.	1922.	1923.	1924.	1925.	1926.
1 Typhoid Fever	227	242	218	170	183
2 Typhus Fever .. .. .	..	1	..	3	2
3 Malaria	21	21	30	35	25
4 Small-pox	2	..	..	..	1
5 Measles	28	222	119	130	108
6 Scarlet Fever	38	45	55	55	81
7 Whooping Cough	182	119	420	463	340
8 Diphtheria	543	395	437	273	322
9a Influenza—Pneumonic	162	769	341	190	470
9b Influenza—other	193	441	241	161	285
10 Asiatic Cholera .. .. .	..	..	..	..	..
11 Cholera Nostras	1	3	2	..	2
12 Other Epidemic Diseases	302	341	340	419	526
13 Tuberculosis of the Respiratory System	2,954	3,102	3,066	2,994	3,142
14 Tuberculosis of the Meninges	176	159	167	156	166
15 Other forms of Tuberculosis	267	283	316	274	237
16 Cancer and other Malignant Tumours	5,052	5,073	5,424	5,477	5,700
17 Meningitis	460	438	415	237	276
18 Hæmorrhage, Embolism, and Softening of the Brain	2,833	2,989	2,305	3,038	3,149
19 Diseases of the Heart	6,013	5,898	6,294	7,486	7,692
20 Acute Bronchitis	283	351	300	260	248
21 Chronic Bronchitis	796	892	808	741	766
22 Pneumonia	2,151	2,726	2,374	2,218	2,469
23 Other Diseases of the Respiratory System (Tuberculosis excepted)	2,208	2,901	2,742	2,522	2,534
24 Diseases of the Stomach (Cancer excepted)	467	444	437	475	529
25a Diarrhœa and Enteritis (children under two years only)	1,743	2,338	1,810	1,386	1,614
25b Diarrhœa and Enteritis (2 years and over)	607	624	486	442	549
26 Appendicitis and Typhlitis	402	436	408	438	476
27 Hernia, Intestinal Obstruction	545	508	551	564	578
28 Cirrhosis of the Liver	323	273	300	312	312
29 Acute and Chronic Nephritis	2,333	2,460	2,893	2,978	2,989
30 Non-cancerous Tumours and other Diseases of the Female Genital Organs	169	174	199	165	166
31 Puerperal Septicæmia (Puerperal Fever, Peritonitis)	196	233	265	236	218
32 Other Puerperal Accidents of Pregnancy and Confinement	425	458	473	530	488
33 Congenital Debility and Malformations	3,521	4,025	3,859	3,688	3,717
34 Senility	4,044	4,685	4,156	3,563	3,562
35 Violent Deaths—					
(a) Homicides	60	92	108	83	103
(b) Other Accidental Deaths	2,510	2,582	2,833	3,134	3,393
36 Suicides	533	599	653	700	711
37 Other Diseases	7,856	8,203	8,400	7,924	8,133
38 Unspecified or Ill-defined Diseases	665	691	735	648	690
Total	51,311	56,236	54,980	54,568	56,952

(a) Includes acute disseminated tuberculosis.

NOTE.—In consequence of changes made in the classification of the causes of death the figures given in the table above are not on identical lines throughout the period covered.

15. Deaths from Special Causes.—The above table furnishes particulars for the last five years only, and comparisons will, therefore, generally be restricted to that period

(i) *Typhoid Fever.* The number of deaths from typhoid fever declined from 227 in 1922 to 183 in 1926, the rate for the latter year being 3 per 100,000 living, and much lower than the average for the last five years. Of the 183 who died, 105 were males and 78 females.

(ii) *Typhus.* Deaths from typhus have been rare in Australia. During 1926, only 2 deaths were recorded from this cause, 1 of which occurred in Victoria and 1 in South Australia. In 1925 there were 2 deaths in Queensland and 1 in South Australia. In 1923 1 death occurred in South Australia. These represent the only deaths recorded from typhus in Australia.

(iii) *Malaria*.—Deaths from malarial diseases are mainly confined to the tropical districts of Northern Queensland and Western Australia, and to the Northern Territory; 19 out of the 25 deaths registered in 1926 occurred in Queensland, 4 in New South Wales, and 2 in Victoria.

(iv) *Small-pox*. The number of deaths from small-pox in Australia is very small, and during the five years under review only 3 deaths occurred from this cause.

(v) *Measles*. Of the deaths from measles the greatest number took place in 1923, when 222 were registered, while the minimum was in 1922 with a total of 28 deaths. During 1926 there were 108 deaths, of which 58 were males and 50 females; of these, 90 were registered in New South Wales, 14 in Victoria, 3 in Queensland, and 1 in the Federal Capital Territory.

(vi) *Scarlet Fever*. The mortality from this disease is very low, the number of deaths in 1926 being 81, of which 41 were males and 40 females.

(vii) *Whooping Cough*. In 1926 there were 340 deaths, of which 158 were males and 182 females. The deaths in each State were as follows:—New South Wales 132, Victoria 121, Queensland 61, South Australia 3, Western Australia 22, and 1 in Tasmania. The death rate in 1926 was 6 per 100,000 persons.

(viii) *Diphtheria*. The number of deaths due to diphtheria declined from 543 in 1922 to 322 in 1926. Of these deaths (representing a death rate of 5 per 100,000 persons) 165 were males and 157 females. The numbers in each State were as follows:—New South Wales 147, Victoria 70, Queensland 54, South Australia 34, Western Australia 11, and Tasmania 6.

(ix) *Influenza*. The deaths from influenza during 1926 were less than in 1923, when they were more numerous than in any year since the extraordinary epidemic of 1919. In 1926, there were 755 deaths from this disease, representing a rate of 13 per 100,000 persons. Of these deaths, 470 were ascribed to pneumonic influenza and 285 to ordinary influenza.

(x) *Asiatic Cholera*. No deaths from Asiatic cholera have been recorded in Australia.

(xi) *Cholera Nostras*. For the five years under review only 8 deaths have been due to this cause.

(xii) *Other Epidemic Diseases*. The deaths registered under this heading numbered 526 in 1926, including 126 from dengue fever, dysentery 130, erysipelas 78, lethargic encephalitis 74, meningococcal meningitis 58, acute poliomyelitis 39, mumps 9, leprosy 6, and other epidemic diseases 6. There were no deaths from plague in the years 1924, 1925, and 1926. An outbreak occurred in 1922, causing 9 deaths in New South Wales and 5 in Queensland, and 1 death occurred in 1923 in New South Wales.

(xiii) *Tuberculosis of the Respiratory System*. Of the various forms of tuberculosis prevalent in Australia, phthisis, or tuberculosis of the lungs, has attracted the most attention. The intimate relation, however, between tuberculosis of the lungs and of other parts of the respiratory system renders it desirable that all forms of tuberculosis of the respiratory system should be brought under one head for investigations concerning the age incidence and duration of this disease.

During 1926 there were 3,142 deaths from tuberculosis of the respiratory system, which compares favourably with the average of 3,029 for the preceding four years. The 3,142 deaths in 1926 represented a rate of 52 per 100,000 persons. Of these deaths, 1,868 were males and 1,274 females.

(xiv) *Tuberculosis of the Meninges*. The number of deaths ascribed to this cause in 1926 was 166, which is also the average number for the last five years.

(xv) *Other Forms of Tuberculosis*. The deaths in 1926 include the following:—Tuberculosis of the intestines and peritoneum, 61; tuberculosis of the spinal column, 30; tuberculosis of the joints, 25; tuberculosis of other organs, 24; acute disseminated tuberculosis, 83; and chronic disseminated tuberculosis, 14.

(xva) *All Forms of Tuberculosis*.—(a) *General*. A tabulation of all the tubercular diseases from which deaths occurred in 1926 will be found in Bulletin No. 44 of "Australian Demography." The total number of deaths therefrom in 1926 was 3,545, viz., 2,077 males and 1,468 females.

(b) *Ages at Death.* The following table shows the ages of these 3,545 persons :—

TUBERCULAR DISEASES.—DEATHS IN AGE-GROUPS, AUSTRALIA, 1926.

Ages.	Male.	Female.	Total.	Ages.	Male.	Female.	Total.
Under 5 years ..	76	60	136	55 years and under 60	177	58	235
5 years and under 10	15	15	30	60 " " 65	157	43	200
10 " " 15	15	21	35	65 " " 70	101	35	136
15 " " 20	69	115	184	70 " " 75	48	25	73
20 " " 25	108	232	340	75 " " 80	22	6	28
25 " " 30	186	200	386	80 " over ..	7	4	11
30 " " 35	210	203	413	Unspecified ..	2	..	2
35 " " 40	224	159	383				
40 " " 45	251	130	381				
45 " " 50	222	96	318				
50 " " 55	188	66	254	Total ..	2,077	1,468	3,545

(c) *Occupations at Death, Males.* A tabulation of occupations of the males who died from tubercular diseases in 1926 is given hereunder :—

OCCUPATIONS OF MALES WHO DIED FROM TUBERCULAR DISEASES—AUSTRALIA, 1926.

Occupations.	No. of Male Deaths.	Occupations.	No. of Male Deaths.
PROFESSIONAL CLASS—		INDUSTRIAL CLASS—	
Government, Defence, Law ..	49	Art and Mechanic Productions	78
Others	78	Textiles and Fibrous Materials	45
DOMESTIC CLASS—		Food and Drinks ..	32
Board and Lodging	43	Animal and Vegetable Substances ..	9
Others	27	Metals and Minerals ..	44
COMMERCIAL CLASS—		Fuel, Light and Energy ..	16
Property and Finance ..	21	Building and Construction ..	122
Art, Mechanic and Textile Products	17	Others	402
Food and Drinks	44	AGRICULTURAL, PASTORAL, MINING, ETC., CLASS—	
Animal and Vegetable Substances	2	Agricultural	137
Fuel, Light and Metal ..	6	Pastoral	48
Merchants and Dealers ..	54	Mining and Quarrying ..	171
Others	165	Others	16
TRANSPORT AND COMMUNICATION CLASS—		INDEPENDENT MEANS ..	27
Railway Traffic	55	DEPENDENTS	144
Road and Tramway Traffic ..	78	OCCUPATION NOT STATED ..	60
Sea and River Traffic ..	62	TOTAL MALE DEATHS ..	2,077
Others	25		

(d) *Length of Residence in Australia.* The length of residence in Australia of persons who died from tubercular diseases in 1926 is given in the next table.

LENGTH OF RESIDENCE IN AUSTRALIA OF PERSONS WHO DIED FROM TUBERCULAR DISEASES, 1926.

Length of Residence in Australia.	Male.	Fem.	Total.	Length of Residence in Australia.	Male.	Fem.	Total.
Born in Australia ..	1,473	1,236	2,709	Resident 10 years & under 15	78	40	118
Resident under 1 year ..	17	4	21	15 " " 20	52	24	76
" 1 year	12	9	21	" 20 " over ..	277	84	361
" 2 years	19	3	22	Length of residence not stated	88	17	105
" 3 "	23	8	31				
" 4 "	12	6	18				
" 5 " and under 10	26	37	63	Total Deaths ..	2,077	1,468	3,545

(e) *Death Rates.* The preceding table and the table on page 938 show that, among persons who have lived less than five years in Australia, 731 deaths occurred, and of these 113, or 15.5 per cent., were due to tubercular diseases.

In order to show the prevalence of tuberculosis in the several States, the death rates from tubercular diseases are given in the following table, together with the proportion which deaths from tuberculosis bear to 10,000 deaths from all causes:—

TUBERCULOSIS (ALL FORMS).—DEATH RATES (a) AND PROPORTION OF TOTAL DEATHS, 1926.

State.	Death Rates (a) from Tuberculosis.			Proportion per 10,000 Deaths from all Causes.		
	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales ..	65	45	55	605	543	578
Victoria ..	68	58	63	659	649	654
Queensland ..	59	29	45	542	379	478
South Australia ..	69	71	70	744	877	804
Western Australia ..	93	48	72	873	689	806
Tasmania ..	64	60	62	644	734	685
Northern Territory ..	266	..	186	1,228	..	1,094
Federal Capital Territory ..	51	..	33	769	..	488
Australia ..	67	50	59	641	598	622

(a) Number of deaths from tuberculosis per 100,000 of mean population.

(f) *Death Rates, Various Countries.* The following comparative table for various countries shows that Australia occupies a very favourable position as regards the death rate from this disease.

TUBERCULOSIS.—DEATHS PER 100,000 PERSONS LIVING, VARIOUS COUNTRIES.

Country.	Year.	Respiratory System.	All Forms.	Country.	Year.	Respiratory System.	All Forms.
Rumania ..	1914	40	(a)	Denmark ..	1925	85	100
Queensland ..	1926	42	45	Belgium ..	1924	71	103
Union of South Africa (Whites)	1925	38	45	Great Britain ..	1924	85	109
New Zealand ..	1926	44	54	Prussia ..	1925	(a)	109
New South Wales	1926	49	55	Germany ..	1924	101	120
Ontario (Canada)	1926	48	58	Quebec (Canada)	1926	105	128
Australia ..	1926	52	59	Sweden ..	1926	(a)	132
Tasmania ..	1926	52	62	Italy ..	1923	110	143
Victoria ..	1926	55	63	Northern Ireland	1926	(a)	146
South Australia..	1926	61	70	Irish Free State	1926	113	147
Ceylon ..	1926	66	71	Spain ..	1926	(a)	151
Western Australia	1926	67	72	Switzerland ..	1924	111	153
Canada (including Quebec)	1926	69	84	France ..	1925	(a)	166
United States (Registration Area)	1925	76	87	Austria ..	1925	(a)	171
New York State	1926	80	89	Norway ..	1923	148	190
Egypt ..	1926	69	89	Japan ..	1925	137	194
England and Wales	1926	77	96	Czecho-Slovakia	1926	175	196
Netherlands ..	1926	72	96	Chile ..	1923	223	232
Scotland ..	1926	69	99	Hungary ..	1926	211	242
				Finland ..	1925	214	260
				Bulgaria ..	1926	231	299

(a) Not available.

(xvi) *Cancer and other Malignant Tumours.*—(a) *General.* The number of deaths from cancer has increased continuously to 5,700 in 1926. Of the deaths registered 2,993 were of males, viz., 1,174 in New South Wales, 855 in Victoria, 423 in Queensland, 269 in South Australia, 174 in Western Australia, 95 in Tasmania, 2 in the Northern Territory, and 1 in the Federal Capital Territory, while 2,707 were of females, viz., 982 in New South Wales, 864 in Victoria, 347 in Queensland, 261 in South Australia, 163 in Western Australia, and 90 in Tasmania.

(b) *Type and Seat of Disease.* Tables showing the type and seat of disease, in conjunction with age, and also with conjugal condition, of the persons dying from cancer in 1926 will be found in Bulletin No. 44 of "Australian Demography." A summary regarding type and seat of disease for the year 1926 is given hereunder:—

DEATHS FROM CANCER.—TYPE AND SEAT OF DISEASE, AUSTRALIA, 1926.

Type of Disease.	Males.	Females	Persons.	Seat of Disease.	Males.	Females	Persons.
Carcinoma ..	1,822	1,755	3,577	Stomach and liver..	1,295	736	2,031
Cancer ..	451	439	890	Peritoneum, intes-			
Malignant disease ..	285	246	531	tines and rectum	442	413	855
Sarcoma ..	158	128	286	Female genital			
Epithelioma ..	166	54	220	organs ..		595	595
Malignant tumour	51	44	95	Breast ..		453	453
Rodent ulcer ..	50	25	75	Buccal cavity ..	313	30	343
Hypernephroma ..	8	5	13	Skin ..	144	70	214
Scirrhus ..	1	9	10	Other organs ..	799	410	1,209
Neoplasm ..	1	2	3				
Total Deaths ..	2,993	2,707	5,700	Total Deaths ..	2,993	2,707	5,700

(c) *Ages at Death.* The ages of the 5,700 persons who died from cancer in 1926 are given in the following table, which shows that while the ages below 35 are not immune from the disease, the great majority of deaths occurred at ages from 35 upwards, the maximum being found in the age-group 65 to 70:—

DEATHS FROM CANCER.—AGES, AUSTRALIA, 1926.

Ages.	Males.	Females	Total.	Ages.	Males.	Females	Total.
Under 15 years ..	25	21	46	60 years and under 65	519	410	929
15 years and under 20	8	6	14	65 " " 70	580	403	983
20 " " 25	4	8	12	70 " " 75	432	288	720
25 " " 30	16	17	33	75 " " 80	300	186	486
30 " " 35	28	32	60	80 " " 85	151	138	289
35 " " 40	52	108	160	85 years and over	78	63	141
40 " " 45	75	174	249	Unspecified ..	1		1
45 " " 50	134	235	369				
50 " " 55	238	291	529				
55 " " 60	352	327	679	Total Deaths ..	2,993	2,707	5,700

(d) *Occupations.* A tabulation in summarized form of occupations of the males who died from cancer in 1926 is given hereunder:—

OCCUPATION OF MALES WHO DIED FROM CANCER.—AUSTRALIA, 1926.

Occupation.	No. of Male Deaths.	Occupation.	No. of Male Deaths.
PROFESSIONAL CLASS—		INDUSTRIAL CLASS—	
Government, Defence, Law ..	54	Art and Mechanic Productions ..	117
Others	93	Textiles and Fibrous Materials ..	64
DOMESTIC CLASS—		Food and Drinks	35
Board and Lodging	41	Animal and Vegetable Sub-	
Others	29	stances	9
COMMERCIAL CLASS—		Metals and Minerals	85
Property and Finance ..	39	Fuel, Light and Energy ..	9
Art, Mechanic, and Textile		Building and Construction ..	177
Products	29	Others	680
Food and Drinks	51	AGRICULTURAL PASTORAL,	
Animal and Vegetable Sub-		MINING, ETC., CLASS—	
stances	6	Agricultural	473
Fuel, Light and Metals ..	9	Pastoral	136
Merchants and Dealers ..	80	Mining and Quarrying ..	121
Others	152	Others	30
TRANSPORT AND COMMUNICATION		INDEPENDENT MEANS ..	89
CLASS—		DEPENDENT	35
Railway Traffic	78	OCCUPATIONS UNSPECIFIED ..	110
Road and Tramway Traffic ..	71	TOTAL MALE DEATHS ..	2,993
Sea and River Traffic ..	70		
Others	21		

(e) *Death Rates.* The following table shows the death rates and the proportion per 10,000 deaths from cancer in each State for the year 1926.

DEATHS FROM CANCER.—RATES(a) AND PROPORTIONS, 1926.

State or Territory.	Death Rates (a) from Cancer.			Proportion of 10,000 Total Deaths.		
	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales	99	86	93	927	1,035	973
Victoria	101	101	101	975	1,141	1,052
Queensland	92	84	88	842	1,087	937
South Australia	93	96	95	1,005	1,186	1,087
Western Australia	87	94	90	817	1,337	1,006
Tasmania	91	85	88	913	1,032	968
Northern Territory	76	..	53	351	..	313
Federal Capital Territory ..	25	..	16	385	..	244
Australia	97	92	94	924	1,102	1,001

(a) Number of deaths from cancer per 100,000 of mean population.

(f) *Comparison with Tuberculosis.* In recent years the death rate from tuberculosis has shown a tendency to decrease, while that from cancer has displayed an almost continuous increase. The table hereunder shows that for each of the years under review the death rate for cancer has been greater than that from tuberculosis, the excess varying from 27 per 100,000 persons in 1923 to 35 in 1926. During the whole period the mortality of both sexes from cancer was always greater than that from tuberculosis.

TUBERCULOSIS AND CANCER.—DEATH RATES(a) AUSTRALIA, 1922 TO 1926.

Year.	Death Rate (a) from Tuberculosis.			Death Rate (a) from Cancer.		
	Males.	Females.	Total.	Males.	Females.	Total.
1922	71	51	61	93	88	91
1923	71	53	62	91	88	89
1924	71	51	61	96	91	93
1925	65	50	58	97	88	92
1926	67	50	59	97	92	94

(a) Number of deaths per 100,000 of mean population.

(g) *Deaths, Various Countries.* The following table shows the Australian death rate from cancer in comparison with that for other countries :—

CANCER.—DEATHS PER 100,000 PERSONS LIVING, VARIOUS COUNTRIES.

Country.	Year.	Rate.	Country.	Year.	Rate.
Ceylon	1926	10	Australia	1926	94
Rumania	1914	13	Prussia	1925	97
Greece	1921	18	Ontario (Canada) ..	1926	99
Egypt	1926	25	New Zealand	1926	99
Chile	1923	40	Irish Free State ..	1926	102
Bulgaria	1926	62	Czecho-Slovakia ..	1926	108
Spain	1926	67	Germany	1924	108
Japan	1925	70	Northern Ireland ..	1926	108
Italy	1923	71	Norway	1923	110
Quebec (Canada) ..	1926	72	Sweden	1923	111
Union of South Africa			Netherlands	1926	110
(Whites)	1925	73	New York State ..	1926	120
Uruguay	1923	74	Great Britain	1924	130
France	1925	78	England and Wales ..	1926	136
Belgium	1924	81	Scotland	1926	136
Canada (including			Switzerland	1924	138
Quebec)	1926	81	Austria	1925	139
Hungary	1926	89	Denmark	1925	140
United States (Regis-					
tration Area) ..	1925	93			

The fifth issue of this Year Book contains on pages 230, *et seq.*, a paper dealing, *inter alia*, with the incidence of cancer in Australia.

(xvii) *Meningitis.* The deaths during 1926 from meningitis numbered 276, of which 107 occurred in New South Wales, 65 in Victoria, 40 in Queensland, 27 in South Australia, 17 in Western Australia, and 20 in Tasmania.

(xviii) *Cerebral Hæmorrhage, Embolism and Softening of the Brain.* The deaths under this heading have increased in number during the period under review. The figures for 1926 are made up as follows:—Cerebral hæmorrhage and apoplexy, 1,273 males and 1,306 females; cerebral embolism, 221 males, 277 females; softening of the brain, 37 males and 35 females.

(xix) *Diseases of the Heart.* The number of deaths in 1926 was 7,692, viz., 4,240 males and 3,452 females. Of the 7,692 deaths 29 were attributed to pericarditis, 356 to endocarditis and acute myocarditis, 410 to angina pectoris, and 6,897 to other diseases of the heart. Of these deaths, New South Wales contributed 1,803 males and 1,475 females; Victoria, 1,114 males and 1,007 females; Queensland, 671 males and 418 females; South Australia, 270 males and 281 females; Western Australia, 226 males and 135 females; Tasmania, 148 males and 132 females; Northern Territory, 6 males and 2 females; and Federal Capital Territory, 2 males and 2 females. The death rates and proportions per 10,000 deaths in 1926 were as follows:—

DEATH RATES (a) FROM DISEASES OF THE HEART AND PROPORTION OF 10,000 TOTAL DEATHS, AUSTRALIA, 1926.

State or Territory.	Death Rates (a) from Diseases of the Heart.			Proportion of 10,000 Deaths.		
	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales	153	130	141	1,423	1,554	1,479
Victoria	132	118	125	1,271	1,330	1,298
Queensland	145	101	124	1,336	1,310	1,326
South Australia	94	104	99	1,009	1,277	1,220
Western Australia	112	78	96	1,061	1,107	1,078
Tasmania	141	124	133	1,423	1,514	1,464
Northern Territory	228	177	212	1,053	2,857	1,250
Federal Capital Territory ..	51	..	66	769	1,333	976
Australia	137	117	127	1,309	1,405	1,351

(a) Number of deaths from diseases of the heart per 100,000 of mean population.

(xx) *Acute Bronchitis.* Deaths from bronchitis are classified under the following headings:—(a) Acute, (b) chronic, (c) unspecified, under five years of age, and (d) unspecified, five years and over. For the purpose of the abridged classification, (a) and (c) are treated as "acute," and (b) and (d) as "chronic" bronchitis. Acute bronchitis caused 283 deaths in 1922, 351 in 1923, 300 in 1924, 260 in 1925, and 248 in 1926, viz., 140 males and 108 females.

(xxi) *Chronic Bronchitis.* The deaths from this cause in 1926 numbered 766, viz., 437 males and 329 females, which was lower than the average for previous four years.

(xxii) *Pneumonia.* The deaths from pneumonia during 1926 were 2,469—1,452 males and 1,017 females—which is slightly higher than the average, 2,367, for the previous four years.

(xxiii) *Other Diseases of the Respiratory System.* Deaths under this heading in 1922 numbered 2,208; in 1923, 2,901; in 1924, 2,742; in 1925, 2,522; and in 1926, 2,534. The total for 1926 is made up as follows, viz.:—Diseases of the nasal fossae, 18; diseases of the larynx, 34; broncho-pneumonia, 1,531; capillary bronchitis, 15; pleurisy, 192; pulmonary congestion and apoplexy, 255; gangrene of the lungs, 14; asthma, 138; pulmonary emphysema, 15; chronic interstitial pneumonia, 268; other diseases of the respiratory system (tuberculosis excepted), 54.

(xxiv) *Diseases of the Stomach (Cancer excepted).* In 1926 this heading includes ulcer of the stomach, 145 males, 86 females; ulcer of the duodenum, 91 males, 18 females; and other diseases of the stomach (cancer excepted), 94 males, 95 females; a total of 529.

(xxva) *Diarrhœa and Enteritis (Children under two years only)*. The number of deaths due to these causes was 1,614 in 1926, compared with the average of 1,569 for the previous four years. During 1926, 8,434 children died before reaching their second birthday, and of these, 1,614, or 19.1 per cent., died from diarrhœa and enteritis. The ages of children dying from these diseases during the first year of life will be found on page 934.

The number of deaths (under 2 years of age), the death rates, and proportions of 10,000 deaths due to diarrhœa and enteritis are given below :—

DEATHS, DEATH RATES(a), ETC., DIARRHŒA AND ENTERITIS (UNDER 2 YEARS OF AGE).—AUSTRALIA, 1926.

State.	Number of Deaths from Infantile Diarrhœa and Enteritis.			Death Rates (a) from Infantile Diarrhœa and Enteritis.			Proportion of 10,000 Deaths.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales	446	353	799	38	31	34	352	372	361
Victoria..	246	163	409	29	19	24	281	215	250
Queensland ..	100	85	185	22	21	21	199	266	225
South Australia ..	63	30	93	22	11	17	235	136	192
Western Australia	59	31	90	29	18	24	277	254	269
Tasmania	16	18	34	15	17	16	154	206	178
Federal Capital Territory ..	3	1	4	76	..	66	1,154	667	976
Australia ..	933	681	1,614	30	23	27	288	277	283

(a) Number of deaths from these diseases per 100,000 of mean population.

(xxvb) *Diarrhœa and Enteritis (2 years and over)*. As in the case of infants the number of deaths from the same causes in older ages, viz., 549, compared favourably with the average of 540 for the period 1922 to 1925.

(xxvi) *Appendicitis and Typhlitis*. Deaths under this heading numbered 402 in 1922, 436 in 1923, 408 in 1924, 438 in 1925, and 476 in 1926; the total for the last year included 304 males and 172 females.

(xxvii) *Hernia, Intestinal Obstruction*. The deaths under this heading have not varied greatly from year to year, the number registered in 1926 being 578, viz., hernia, 159, and intestinal obstruction, 419.

(xxviii) *Cirrhosis of the Liver*. The deaths from this cause during 1926 numbered 312, and include 30 deaths from alcoholic cirrhosis.

(xxix) *Acute and Chronic Nephritis*. The number of deaths attributable to these diseases shows a considerable increase on the number for 1922. In 1922 there were 2,333 deaths; in 1923, 2,460; in 1924, 2,893; in 1925, 2,978; and in 1926, 2,989, viz., 1,626 males and 1,363 females. Of the deaths registered in 1926, 185 were ascribed to acute nephritis, and 2,804 to chronic nephritis. 1,108 deaths occurred in New South Wales; 908 in Victoria; 487 in Queensland; 252 in South Australia; 169 in Western Australia; and 65 in Tasmania.

(xxx) *Non-Cancerous Tumours and other Diseases of the Female Genital Organs*. Deaths in 1922 numbered 169; in 1923, 174; in 1924, 199; in 1925, 165; and in 1926, 166. Included in the 166 deaths in 1926 were the following :—Cysts, etc., of the ovary, 33; salpingitis and pelvic abscess, 56; benign tumours of the uterus, 46; uterine hæmorrhage (non-puerperal), 2; other diseases of the female genital organs, 29.

(xxxi) *Puerperal Septicæmia (Puerperal Fever)*. The number of deaths from puerperal septicæmia during 1926 was less than in 1925, being 218, or 1.64 to every 1,000 live births. The corresponding rates during the preceding five years were:—1921, 1.53; 1922, 1.43; 1923, 1.72; 1924, 1.96; and 1925, 1.74. The following table shows the death rate per 1,000 live births from puerperal causes in various countries.

CHILDBIRTH.—DEATHS PER 1,000 LIVE BIRTHS, VARIOUS COUNTRIES.

Country.	Year.	Rates per 1,000 Live Births from—		
		Puerperal Sepsis.	Other Puerperal Causes.	All Puerperal Causes.
Sweden (b)	1922	1.06	1.43	2.49
Italy	1923	1.06	1.63	2.69
Norway	1923	0.77	2.04	2.81
Netherlands	1926	0.90	1.93	2.83
Finland	1925	(a)	(a)	2.90
Egypt	1926	1.54	1.38	2.92
Japan	1925	1.01	2.02	3.03
Hungary	1926	1.60	1.60	3.20
Czecho-Slovakia	1926	1.31	2.10	3.41
Tasmania	1926	2.21	1.80	4.01
England and Wales	1926	1.60	2.52	4.12
Great Britain	1924	1.43	2.73	4.16
New Zealand	1926	1.37	2.88	4.25
South Australia	1926	1.57	2.87	4.44
Northern Ireland	1925	1.55	2.89	4.44
Spain	1923	2.77	1.78	4.55
Switzerland	1924	1.63	3.14	4.77
Irish Free State	1926	1.88	3.01	4.89
Germany	1924	2.76	2.35	5.11
New York State	1926	1.36	3.81	5.17
New South Wales	1926	1.56	3.62	5.18
Quebec (Canada)	1926	1.78	3.42	5.20
Australia	1926	1.64	3.66	5.30
Prussia	1925	2.91	2.48	5.39
Victoria	1926	1.81	3.68	5.49
Union of South Africa (Whites)	1925	1.82	3.80	5.62
Ontario (Canada)	1926	1.75	3.90	5.65
Canada (including Quebec)	1926	1.86	3.80	5.66
Western Australia	1926	1.69	3.97	5.66
Belgium	1924	3.12	2.68	5.80
Queensland	1926	1.37	4.55	5.92
Bulgaria	1926	2.60	3.60	6.20
Scotland	1926	1.69	4.71	6.40
United States (Registration Area)	1925	2.40	4.00	6.40
Chile	1923	1.86	4.90	6.76
Ceylon	1926	7.40	11.70	19.10

(a) Not available. (b) Per 1,000 confinements.

(xxxii) *Other Puerperal Accidents of Pregnancy and Confinement*. The deaths under this heading in 1922 numbered 425; in 1923, 458; in 1924, 473; in 1925, 530; and 488 in 1926. Included in the 488 deaths in 1926 were the following:—Accidents of pregnancy, 118; puerperal hæmorrhage, 80; other accidents of childbirth, 66; puerperal phlegmasia alba dolens, embolus, sudden death, 52; puerperal albuminuria and convulsions, 162; deaths following childbirth, 9, and 1 death from puerperal disease of the breast.

(xxxiii) *All Puerperal Causes*. The 706 deaths in 1926 under the two preceding headings correspond to a death rate of 24 per 100,000 females. It may be expressed in other terms by stating that 1 of every 187 women confined in 1926 died from puerperal causes. The corresponding ratios for married women were 1 of every 195, and for single women 1 of every 100. More detailed information will be found in a series of tables in Bulletin No. 44 "Australian Demography."

The ages of the mothers who died varied from 16 to 47 years as shown hereunder :—
DEATHS FROM PUERPERAL CAUSES.—AGES OF MOTHERS, AUSTRALIA, 1926.

Age at Death.	Married Women.	Single Women.	Total.	Age at Death.	Married Women.	Single Women.	Total.
16 years ..	1	2	3	33 years ..	34	1	35
17 " ..	3	3	6	34 " ..	23	2	25
18 " ..	2	6	8	35 " ..	34	2	36
19 " ..	6	6	12	36 " ..	41	3	44
20 " ..	13	5	18	37 " ..	30	..	30
21 " ..	15	4	19	38 " ..	29	..	29
22 " ..	18	3	21	39 " ..	20	1	21
23 " ..	29	4	33	40 " ..	17	..	17
24 " ..	20	2	22	41 " ..	18	..	18
25 " ..	28	2	30	42 " ..	11	..	11
26 " ..	32	3	35	43 " ..	8	..	8
27 " ..	26	1	27	44 " ..	9	..	9
28 " ..	42	2	44	45 " ..	9	..	9
29 " ..	35	4	39	46 " ..	4	..	4
30 " ..	31	4	35	47 " ..	1	..	1
31 " ..	21	..	21				
32 " ..	34	2	36	Total Deaths	644	62	706

The total number of children left by the married mothers was 1,809, an average of 2.8 children per mother.

Thirty-four of the mothers who died had been married less than one year, 91 between one and two years, and 42 between two and three years. The duration of marriage ranged up to 28 years, apart from 5 cases in which the date of marriage was not stated. A tabulation, distinguishing the ages at marriage, will be found in Bulletin No. 44 "Australian Demography," which also includes a table, showing in combination the duration of marriage and previous issue.

(xxxiii) *Congenital Malformations, Debility, and Premature Birth.* The deaths under this heading in 1926 numbered 3,717, of which 3,664 were of children under one year of age. Of the deaths of children under one year of age 51 per cent. were due to these causes. The number of deaths for 1926 is given in the following table :—

DEATHS FROM CONGENITAL DEBILITY, ETC., AND MALFORMATIONS, 1926.

State or Territory.	Congenital Malformations.			Congenital Debility, Icterus, Sclerema.			Premature Birth, and Injury at Birth.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales	130	97	227	145	101	246	593	434	1,027
Victoria ..	94	80	174	132	87	219	354	274	628
Queensland ..	49	35	84	61	52	113	215	126	341
South Australia	22	19	41	42	27	69	114	73	187
Western Australia	21	11	32	25	14	39	86	58	144
Tasmania ..	12	8	20	19	10	29	51	41	92
Northern Territory	..	..	..	2	1	3	..	..	..
Fed. Cap. Territory	..	..	..	..	..	..	..	2	2
Australia ..	328	250	578	426	292	718	1,413	1,008	2,421
Number of deaths under one year per 1,000 births	4.43	3.43	3.94	6.23	4.51	5.39	20.65	15.57	18.18

(xxxiv) *Senility.* The deaths ascribed to "old age" prior to 1925 were in excess of those due to infantile debility. In 1926, 3,562 deaths were attributed to this cause, as follows :—1,067 occurred in New South Wales, viz., 622 males and 445 females; 1,215 in Victoria, viz., 572 males and 643 females; 495 in Queensland, viz., 317 males and 178

females; 445 in South Australia, viz., 217 males and 228 females; 182 in Western Australia, viz., 116 males and 66 females; 148 in Tasmania, viz., 78 males and 70 females; 8 males in the Northern Territory; and 2 females in the Federal Capital Territory.

Of the males whose deaths were described as due to senility, 10 were stated to be over 100, while 8 females also were aged 100 years or over.

(xxxva) *Violent Deaths, Homicides.* Deaths from homicide in 1926 numbered 103, this figure being slightly higher than the average for the previous four years.

(xxxvb) *Other Accidental Deaths.* Deaths from accidents in 1926 numbered 3,393, compared with an average of 2,765 for the previous four years. Of the deaths in 1926, 1,337 occurred in New South Wales; 888 in Victoria; 558 in Queensland; 243 in South Australia; 260 in Western Australia; 98 in Tasmania; 3 in Northern Territory; and 6 in the Federal Capital Territory.

The following table shows the various kinds of violent deaths, including homicides, recorded in Australia for the year 1926:—

DEATHS FROM EXTERNAL VIOLENCE.—AUSTRALIA, 1926.

Cause of Death.	Males.	Females.	Persons.
Poisoning by food	13	12	25
Venomous bites and stings	8	4	12
Other acute poisonings (gas excepted)	39	16	55
Conflagration	39	7	46
Burns (conflagration excepted)	149	114	263
Accidental mechanical suffocation	31	20	51
Absorption of irrespirable or poisonous gas	22	21	43
Accidental drowning	436	71	507
Traumatism by firearms	101	8	109
Traumatism by cutting or piercing instruments	11	..	11
Traumatism by fall	332	121	453
Traumatism in mines or quarries	70	..	70
Traumatism by machines	47	1	48
Traumatism by other crushing—			
Railway accidents	210	43	253
Tramway accidents	39	12	51
Automobile accidents	479	132	611
Injuries by other vehicles	222	32	254
Aeroplane accidents	10	..	10
Other crushings	196	19	215
Injuries by animals (not poisoning)	24	8	32
Wounds of war	11	..	11
Starvation, thirst, fatigue	21	..	21
Excessive cold	3	..	3
Effects of heat	47	25	72
Lightning	9	..	9
Other accidental electric shocks	34	2	36
Homicide by firearms	18	17	35
Homicide by cutting or piercing instruments	7	9	16
Homicide by other means	23	17	40
Infanticide (murder of children under 1 year)	8	4	12
Fractures (cause not specified)	9	7	16
Other external violence (cause specified)	60	18	78
Other external violence (cause unspecified)	20	8	28
Total Deaths	2,748	748	3,496
Death Rate per 100,000 of mean population	89	25	58

(xxxvi) *Suicide. (a) General.* Deaths by suicide in 1926 showed an increase on the figures for each of the previous four years, the number in 1922 being 533, viz., 441 males and 92 females; in 1923, 599, viz., 492 males and 107 females; in 1924, 653, viz., 534 males and 119 females; in 1925, 700, viz., 569 males and 131 females; and in 1926, 711, viz., 583 males and 128 females.

(b) *Modes Adopted.* The modes adopted by persons who committed suicide in the years 1922 to 1926 were as follows :—

SUICIDES, MODES ADOPTED.—AUSTRALIA, 1922 TO 1926.

Mode of Death.	Males.		Females.		Persons.	
	Total of 4 years, 1922-25.	1926.	Total of 4 years, 1922-25.	1926.	Total of 4 years, 1922-25.	1926.
Poisoning	424	129	188	44	612	173
Poisonous gas	25	14	17	6	42	20
Hanging or Strangulation	311	81	59	26	370	107
Drowning	194	38	89	17	283	55
Firearms	596	172	27	5	623	177
Cutting or piercing instruments	384	119	42	16	426	135
Jumping from a high place	29	6	8	3	37	9
Crushing	44	12	12	3	56	15
Other Modes	29	12	7	8	36	20
Total	2,036	583	449	128	2,485	711

(c) *Death Rates.* The death rates from suicide and the proportion per 10,000 of total deaths are given in the following table :—

SUICIDE.—DEATHS, DEATH RATES(a), AND PROPORTION OF TOTAL DEATHS, 1926.

State or Territory.	Number of Deaths.			Death Rates (a) from Suicide.			Proportion of 10,000 Total Deaths.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales	236	57	293	20	5	13	186	60	132
Victoria	125	37	162	15	4	10	143	49	99
Queensland	90	17	107	19	4	12	179	53	130
South Australia	52	9	61	18	3	11	194	41	125
Western Australia	69	5	74	34	3	20	324	41	221
Tasmania	8	3	11	8	3	5	77	34	58
Northern Territory	2	..	2	76	..	53	351	..	313
Fed. Cap. Territory	1	..	1	25	..	16	385	..	244
Australia	583	128	711	19	4	12	180	52	125

(a) Number of deaths from suicide per 100,000 of mean population.

(d) *Ages.* From the following table, which shows the ages of the persons who committed suicide in 1926, it will be seen that both extreme youth and extreme old age are represented :—

AGES OF PERSONS WHO COMMITTED SUICIDE.—AUSTRALIA, 1926.

Ages.	M.	F.	Total.	Ages.	M.	F.	Total.
10 years and under 15	1	1	2	60 years and under 65	43	12	55
15 " " 20	10	4	14	65 " " 70	35	2	37
20 " " 25	29	15	44	70 " " 75	12	2	14
25 " " 30	41	17	58	75 " " 80	11	2	13
30 " " 35	47	12	59	80 " " 85	9	3	12
35 " " 40	69	13	82	85 " " 90	1	..	1
40 " " 45	75	15	90	Not stated	2	..	2
45 " " 50	77	11	88				
50 " " 55	53	11	64				
55 " " 60	68	8	76	Total Deaths ..	583	128	711

(e) *Occupations of Males.* The next table gives the occupations of the males who committed suicide in 1926 :—

OCCUPATIONS OF MALES WHO COMMITTED SUICIDE.—AUSTRALIA, 1926.

Occupation.	Deaths.	Occupation.	Deaths.
PROFESSIONAL CLASS—		INDUSTRIAL CLASS—	
Government, Defence, Law ..	11	Art and Mechanic Productions	18
Others	14	Textiles and Fibrous Materials	4
DOMESTIC CLASS—		Food and Drinks ..	10
Board and Lodging ..	11	Animal and Vegetable Sub-	
Others	6	stances	3
COMMERCIAL CLASS—		Metals and Minerals ..	12
Property and Finance ..	13	Fuel, Light and Energy ..	2
Art, Mechanic and Textile		Building and Construction ..	27
Products	5	Others	158
Food and Drinks	18	AGRICULTURAL, PASTORAL	
Animal and Vegetable Sub-		MINING, ETC., CLASS—	
stances	3	Agricultural	60
Merchants and Dealers ..	22	Pastoral	32
Others	30	Mining and Quarrying ..	20
TRANSPORT AND COMMUNICATION		Others	10
CLASS—		INDEPENDENT MEANS ..	10
Railways	10	DEPENDENTS	2
Roads and Trams	21	OCCUPATION NOT STATED ..	31
Sea and Rivers	11		
Others	9	Total	583

(f) *Frequency.* The rates show a fairly general increase from 99.07 per million during the years 1871-75 to a maximum of 131.17 per million for the period 1911-15, after which there was a decline, the rate in 1926 standing at 117.58.

SUICIDES.—AUSTRALIA, 1871-75 TO 1926.

Period.	Number of Suicides.			Suicides per One Million of Persons Living. Average Annual Rate.			Suicides of Females to 100 Suicides of Males. Based on—	
	Males.	Females.	Persons.	Males.	Females.	Persons.	Absolute Figures.	Rates.
1871-75 ..	715	150	865	150.94	37.56	99.07	20.98	24.88
1876-80 ..	878	145	1,023	159.69	31.06	100.62	16.51	19.45
1881-85 ..	999	183	1,182	152.58	32.90	97.61	18.32	21.56
1886-90 ..	1,394	292	(a) 1,686	179.20	43.97	(c) 116.92	20.95	24.54
1891-95 ..	1,574	337	(b) 1,911	181.34	44.09	(d) 117.07	21.41	24.31
1896-1900	1,838	410	2,248	191.11	47.88	123.65	22.31	25.05
1901-05 ..	2,054	380	2,434	201.78	40.88	124.98	18.50	20.26
1906-10 ..	2,031	437	2,468	186.11	43.22	117.39	21.51	23.22
1911-15 ..	2,546	577	3,123	206.15	50.36	131.17	22.66	24.43
1916-20 ..	2,238	521	2,759	175.46	40.93	108.27	23.28	23.33
1921 ..	510	111	621	183.89	41.33	113.76	21.76	22.47
1922 ..	441	92	533	155.78	33.61	95.72	20.86	21.58
1923 ..	492	107	599	169.81	38.33	105.29	21.75	22.57
1924 ..	534	119	653	180.36	41.81	112.46	22.28	23.18
1925 ..	569	131	700	187.89	45.13	118.02	23.02	24.02
1926 ..	583	128	711	188.72	43.27	117.58	21.96	22.93

(a) 1,705 inclusive of Western Australian figures. (b) 1,984 inclusive of Western Australian figures.
(c) 116.49 inclusive of Western Australian figures. (d) 119.11 inclusive of Western Australian figures.

(xxxvii) *Other Diseases.* The number of causes included under this heading is very large, amounting to no less than 81 of the items shown in the detailed classification, and deaths were recorded under each of these with the exception of the following:—Glanders, anthrax, rabies, soft chancre, ankylostomiasis, other diseases of digestive system, and chyluria. The total number of deaths under "other diseases" in 1922 was 7,856, viz., 4,488 males and 3,368 females; in 1923, 8,203, viz., 4,712 males and 3,491 females; in 1924, 8,400, viz., 4,821 males and 3,579 females; in 1925, 7,924, viz., 4,640 males and 3,284 females; and in 1926, 8,133, viz., 4,643 males and 3,490 females. Some of the diseases included here account for very considerable numbers of deaths. Particulars for 1926 are shown in the following table:—

DEATHS FROM "OTHER DISEASES."—AUSTRALIA, 1926.

Causes.	M.	F.	Total.	Causes.	M.	F.	Total.
Tetanus	59	20	79	Embolism and Thrombosis (not cerebral) ..	74	68	142
Mycoses	5	6	11	Diseases of the Veins ..	6	18	24
Syphilis	90	49	139	Diseases of the Lymphatic System	8	6	14
Gonococcus Infection ..	5	1	6	Hæmorrhage (without specified cause)	13	12	25
Purulent Infection and Septicæmia	60	48	108	Other Diseases of the Circulatory System	9	14	23
Other Infectious Diseases ..	1	..	1	Diseases of the Mouth and its Associated Organs ..	18	23	41
Other Tumours (Tumours of the female genital organs excepted)	54	36	90	Diseases of the Pharynx ..	51	36	87
Acute Rheumatic Fever ..	98	114	212	Diseases of the Oesophagus ..	7	4	11
Chronic Rheumatism and Gout	59	86	145	Intestinal Parasites ..	17	7	24
Scurvy	1	..	1	Other Diseases of the Intestines	37	29	66
Pellagra	1	..	1	Acute Yellow Atrophy of the Liver	3	20	23
Beri-beri	17	..	17	Hydatid Tumours of the Liver	15	20	35
Rickets	9	5	14	Biliary Calculi	33	86	119
Diabetes	259	422	681	Other Diseases of the Liver ..	88	124	212
Anæmia, Chlorosis ..	220	230	450	Diseases of the Pancreas ..	19	25	44
Diseases of the Pituitary Gland	3	3	6	Peritonitis (without specified cause)	69	77	146
Exophthalmic Goitre ..	2	87	89	Other Diseases of the Kidneys and their Adnexa ..	176	115	291
Other Diseases of the Thyroid Glands	14	44	58	Calculi of Urinary Passages ..	38	13	51
Diseases of the Parathyroid Glands .. .. .	..	4	4	Diseases of the Bladder ..	112	12	124
Diseases of the Thymus Gland	10	8	18	Other Diseases of the Urethra, Urinary Abscesses, etc. ..	35	..	35
Addison's Disease ..	20	9	29	Diseases of the Prostate ..	332	..	332
Diseases of the Spleen ..	4	2	6	Non-venereal Diseases of the Male Genital Organs ..	10	..	10
Leucæmia	47	47	94	Non-puerperal Diseases of the Breast .. .. .	..	3	3
Hodgkin's Disease ..	46	18	64	Gangrene	62	35	97
Acute and Chronic Alcoholism ..	79	16	95	Furuncle	20	9	29
Chronic Lead Poisoning ..	18	6	24	Phlegmon, Acute Abscess ..	68	45	113
Chronic Organic Poisonings ..	8	1	9	Other Diseases of the Skin and Adnexa	28	24	52
Other General Diseases ..	54	40	94	Non-tuberculous Diseases of the Bones	61	32	93
Encephalitis	84	65	149	Other Diseases of the Joints (Tuberculosis and Rheumatism excepted) ..	26	7	33
Locomotor Ataxia	43	9	52	Amputation	3	..	3
Other Diseases of the Spinal Cord	132	85	217	Other Diseases of the Organs of Locomotion	3	..	3
Paralysis without specified cause	169	193	362	Other Diseases peculiar to Infancy	208	168	374
General Paralysis of the Insane	124	21	145	Lack of Care (Infants) ..	8	3	11
Other Forms of Mental Alienation	42	51	93				
Epilepsy	112	94	206				
Convulsions (non-puerperal) ..	4	6	10				
Convulsions of Children under 5 years of age	101	74	175				
Chorea	1	5	6				
Neuralgia and Neuritis ..	13	11	24				
Other Diseases of the Nervous System	229	187	416				
Diseases of the Eye	5	1	6				
Diseases of the Ear	58	36	94				
Diseases of the Arteries, Aneurism, Atheroma ..	626	317	943				
				Total Deaths	4,643	3,490	8,133

(xxxviii) *Unspecified or Ill-defined Diseases.* The number of deaths included under this heading was 665 in 1922, 691 in 1923, 735 in 1924, 648 in 1925, and 690 in 1926, of which 444 were males and 246 females. The detailed classification shows these ill-defined diseases under two headings—sudden death, including syncope; and unspecified or ill-defined causes, of which the following are specimens:—Heart failure, asthenia, anasarca, atrophy, exhaustion, dropsy, ascites, and general œdema, etc. In 1926, the number of deaths which came under the first of these categories was 73, and under the second, 617. It is inevitable that cases will occur regarding which the available information is insufficient to permit of a clear definition of the fatal disease in the certificate of death. In the majority of cases, however, there is little doubt that more satisfactory certificates might have been given.

16. *Causes of Deaths in Classes.*—The figures in the preceding sub-sections relate to specific causes of death, and are of greater value in medical statistics than a mere grouping under general headings. The classification under fifteen general headings adopted by the compilers of the International Nomenclature is, however, shown in the following table, together with the death rates and percentages on total deaths pertaining to those classes:—

DEATHS, DEATH RATES (a), ETC., IN CLASSES.—AUSTRALIA, 1926.

Class.	Total Deaths.			Death Rates. (a)			Proportion of 10,000 Deaths.		
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.
1. Epidemic, Endemic, and Infectious Diseases	3,560	2,068	6,234	115	90	103	1,101	1,086	1,095
2. General diseases not included above	4,016	3,885	7,901	130	131	131	1,240	1,582	1,387
3. Diseases of the Nervous System and of the Organs of Sense	2,813	2,567	5,380	91	87	89	869	1,045	945
4. Diseases of the Circulatory System	4,976	3,887	8,863	161	131	147	1,536	1,582	1,556
5. Diseases of the Respiratory System	3,560	2,457	6,017	115	83	99	1,099	1,000	1,057
6. Diseases of the Digestive Organs	2,768	2,098	4,866	90	71	80	855	854	854
7. Diseases of the Genito-Urinary System and Adnexa	2,329	1,672	4,001	75	57	66	719	681	703
8. Puerperal Condition .. .. .	..	706	706	..	24	12	..	287	124
9. Diseases of the Skin and of the Cellular Tissue	178	113	291	6	4	5	55	46	51
10. Diseases of the Bones and Organs of Locomotion	93	39	132	3	1	2	29	16	23
11. Malformations	328	250	578	11	8	10	101	102	101
12. Early Infancy	2,055	1,469	3,524	67	50	58	635	598	619
13. Old Age	1,930	1,632	3,562	62	55	59	596	664	625
14. External Causes	3,331	876	4,207	108	30	70	1,028	357	739
15. Ill-defined Diseases	444	246	690	14	8	11	137	100	121
Total	32,387	24,565	56,952	1,048	830	942	10,000	10,000	10,000

(a) Number of deaths per 100,000 of mean population.

17. *Ages at Death of Married Males and Females, and Issue.*—Bulletin No. 44 "Australian Demography" contains a number of tables showing the age at marriage, age at death, duration of life after marriage, birthplaces, and occupations, in combination with the issue of married persons who died in Australia in 1926. A summary of

those tables is given hereunder. Deaths of married males in 1926 numbered 17,798, and of married females, 16,230. The tabulations which follow deal, however, with only 17,241 males and 15,839 females, the information in the remaining 948 cases being incomplete. The total number of children in the families of the 17,241 males was 81,030, and of the 15,839 females, 78,132. The average number of children is shown for various age-groups in the following table :—

**AGES AT DEATH OF MARRIED MALES AND FEMALES, AND AVERAGE ISSUE.—
AUSTRALIA, 1926.**

Age at Death.	Average Family of Males.	Average Family of Females.	Age at Death.	Average Family of Males.	Average Family of Females.
Under 20 years ..	1.00	0.73	70 to 74 years ..	5.50	5.88
20 to 24 years ..	0.87	1.00	75 „ 79 „ ..	6.15	6.25
25 „ 29 „ ..	1.27	1.63	80 „ 84 „ ..	6.53	6.68
30 „ 34 „ ..	1.92	2.38	85 „ 89 „ ..	6.92	6.71
35 „ 39 „ ..	2.33	3.03	90 „ 94 „ ..	7.22	7.04
40 „ 44 „ ..	2.88	3.47	95 „ 99 „ ..	6.30	6.40
45 „ 49 „ ..	3.29	3.66	100 years and up- wards ..	9.85	7.31
50 „ 54 „ ..	3.58	3.82	Age unspecified ..	..	..
55 „ 59 „ ..	3.98	4.43			
60 „ 64 „ ..	4.47	4.84	All ages ..	4.70	4.93
65 „ 69 „ ..	5.02	5.62			

The figures in the preceding table include the issue both living and dead, the proportion between them, taking the issue of deceased males and females together, being about 1,000 to 280. The totals are shown in the following table :—

ISSUE OF MARRIED MALES AND FEMALES.—AUSTRALIA, 1926.

Issue of Married Males.	Males.	Females.	Total.	Issue of Married Females.	Males.	Females.	Total.
Living ..	32,844	32,143	64,987	Living ..	29,677	29,657	59,334
Dead ..	9,080	6,963	16,043	Dead ..	10,684	8,114	18,798
Total ..	41,924	39,106	81,030	Total ..	40,361	37,771	78,132

18. Ages at Marriage of Deceased Males and Females, and Issue.—While the table giving the average families of married males and females naturally shows an increase in the averages with advancing ages at death, the following table, which gives the average families of males and females according to the age at marriage of the deceased parents, shows a corresponding decrease in the averages as the age at marriage advances :—

AGES AT MARRIAGE OF DECEASED MALES AND FEMALES, AND AVERAGE ISSUE.—AUSTRALIA, 1926.

Age at Marriage.	Average Family of Males.	Average Family of Females.	Age at Marriage.	Average Family of Males.	Average Family of Females.
Under 14 years ..	3.00	7.92	50 to 54 years ..	1.12	..
15 to 19 " ..	6.23	6.80	55 " 59 " ..	1.01	..
20 " 24 " ..	5.74	5.33	60 " 64 " ..	0.49	..
25 " 29 " ..	4.94	3.94	65 years and upwards	0.43	..
30 " 34 " ..	4.08	2.55	Age unspecified ..	4.93	5.14
35 " 39 " ..	3.34	1.38			
40 " 44 " ..	2.51	0.44			
45 " 49 " ..	1.89	0.05	All ages ..	4.70	4.93

19. Duration of Life after Marriage of Males and Females.—The duration of life after marriage has been tabulated for males and females both in combination with the age at marriage, and with the total and average issue. The tables containing the results do not, however, lend themselves to condensation, and are, therefore, omitted here. They will be found in Bulletin No. 44 of "Australian Demography."

20. Birthplaces of Deceased Married Males and Females, and Issue.—The following table shows the birthplaces of married males and females who died in 1926, together with their average issue. No generalizations can, of course, be made in those cases in which the number of deaths was small, but where the figures are comparatively large, as in the case of natives of Australia, differences occur between the averages of the individual States, which appear inexplicable on any other ground than that of different age constitution of the locally born population of the various States due to the different dates of the foundation of settlement. Thus, New South Wales and Tasmania, owing to their early settlement, contain a larger number of locally-born inhabitants of advanced ages than Victoria and Queensland, in which colonization was begun almost fifty years after the foundation of New South Wales. It will be noted that the differences occur both in the male and female averages.

BIRTHPLACES OF DECEASED MARRIED MALES AND FEMALES, AND AVERAGE ISSUE.—AUSTRALIA, 1926.

Birthplace.	Married Males.		Married Females.		Birthplace.	Married Males.		Married Females.	
	Deaths.	Average Family.	Deaths.	Average Family.		Deaths.	Average Family.	Deaths.	Average Family.
New South Wales ..	3,567	4.74	3,679	5.03	Other European Countries ..	92	4.90	40	3.52
Victoria ..	3,222	4.04	3,995	4.12	British India and Ceylon ..	46	4.85	33	4.73
Queensland ..	676	3.86	770	3.86	China ..	69	2.48	8	7.00
South Australia ..	1,168	4.62	1,124	4.93	Syria ..	16	3.94	10	4.60
Western Australia ..	135	4.32	184	4.68	Other Asiatic Countries ..	14	3.64	6	2.16
Tasmania ..	631	5.20	686	4.96	Union of South Africa ..	15	3.73	9	2.67
Northern Territory ..	..	..	3	5.00	Other African Countries ..	9	4.44	3	3.33
Federal Capital Territory ..	1	4.00	2	4.50	Canada ..	32	4.69	14	4.71
New Zealand ..	130	3.39	118	3.83	United States ..	53	4.21	26	4.12
England and Wales ..	4,175	4.89	3,247	5.30	Other American Countries ..	29	3.58	12	4.58
Scotland ..	1,014	4.83	917	5.51	Polynesian Islands ..	12	2.66	7	4.57
Ireland ..	1,333	5.59	1,494	5.56	At Sea ..	61	6.54	49	7.02
Other British Possessions in Europe ..	29	4.93	10	6.80	Unspecified ..	42	3.93	33	3.64
Denmark ..	90	4.92	38	5.42					
France ..	27	5.11	18	4.17					
Germany ..	324	6.59	230	7.09					
Italy ..	55	4.02	23	4.04					
Norway ..	41	4.54	8	4.25					
Poland ..	20	5.15	16	4.13					
Russia ..	30	4.33	17	4.47					
Sweden ..	83	4.29	10	5.60					
					Total ..	17,241	4.70	15,839	4.93

21. Occupations of Deceased Married Males, and Issue.—The following tabulation shows the average issue in combination with the occupation of deceased males.

OCCUPATIONS OF DECEASED MARRIED MALES AND AVERAGE ISSUE.—
AUSTRALIA, 1926.

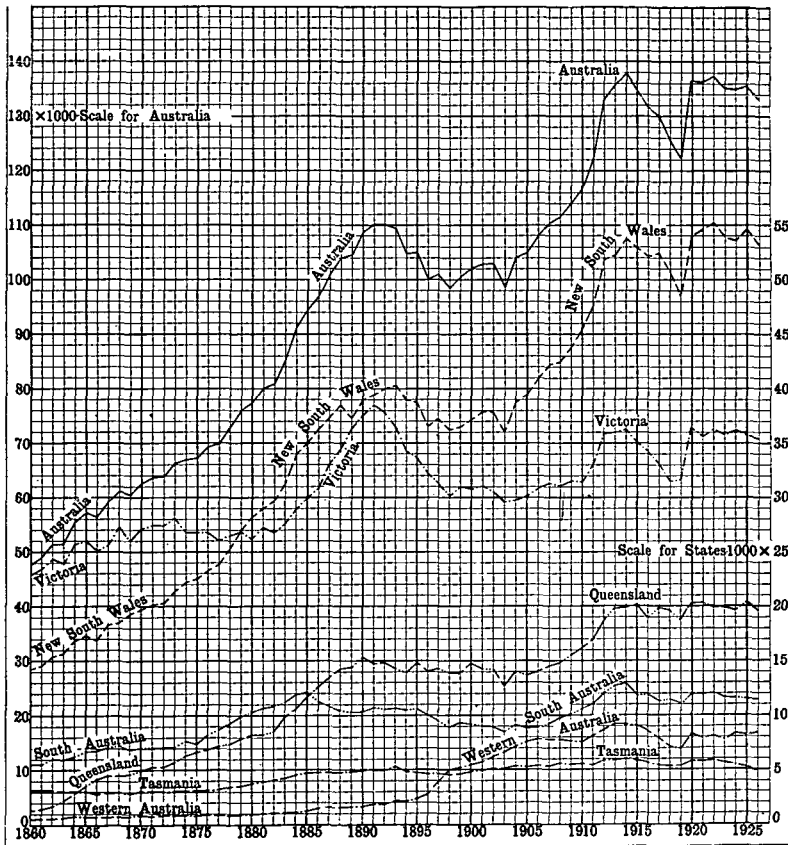
Occupation.	Deaths of Married Males.	Average Family.	Occupation.	Deaths of Married Males.	Average Family.
PROFESSIONAL CLASS—			INDUSTRIAL CLASS—		
Government, Defence, and			Art and Mechanic Products	779	4.23
Law	447	4.38	Textiles and Fibrous Materials	350	4.39
Others	631	3.72	Food and Drinks	249	4.45
DOMESTIC CLASS—			Animal and Vegetable Sub-		
Board and Lodging ..	303	3.69	stances	52	5.06
Others	230	3.83	Metals and Minerals ..	447	4.79
COMMERCIAL CLASS—			Fuel, Light, and Energy ..	85	3.72
Property and Finance ..	287	3.83	Building and Construction ..	1,143	4.76
Art, Mechanic and Textile			Others	3,089	4.77
Products	178	3.48	AGRICULTURAL, PASTORAL,		
Food and Drinks	431	4.75	MINING, ETC., CLASS—		
Animal and Vegetable Sub-			Agricultural	2,606	5.95
stances	75	4.72	Pastoral	727	5.02
Fuel, Light and Metals ..	64	3.53	Mining and Quarrying ..	851	5.02
Merchants and Dealers ..	510	4.05	Others	158	4.78
Others	870	3.21	INDEPENDENT MEANS		
TRANSPORT AND COMMUNICA-				472	5.40
TION CLASS—			DEPENDENTS		
Railways	586	4.69		20	4.45
Roads and Trams	606	4.41	OCCUPATION NOT STATED		
Sea and Rivers	402	3.72		461	5.26
Others	132	3.89	Total	17,241	4.70

§ 4. Australian Life Tables.

1. **General.**—Numerous Australian life tables based on the general populations of States, parts of States or groups of States, have been constructed at various times, as have also certain other tables based on the selected data derived from the experience of Life Assurance Societies, Friendly Societies, and the Public Service. A short account of these tables up to and including those constructed in connexion with the Census of 1911 will be found in Volume I. of the Australian Census of 1911, p. 293. Briefly it may be said that the Australian life tables derived from selected data are somewhat meagre and out of date, and that of those based on general population, all relating to periods prior to 1911 have been practically superseded by the tables compiled in connexion with the Census of 1911.

2. **Life Tables of Census of 1911.**—In connexion with the Census of 1911, the mortality of the Australian population for the thirty years 1881 to 1910 inclusive was investigated, separate tables being compiled for each State and for Australia as a whole in respect of each sex for each of the decennial periods 1881–90, 1891–1900, and 1901–10. These compilations represented in all forty-two separate life tables and furnished a comprehensive view of Australian mortality in respect of sex, of time, and of geographical distribution. Full tabulations are given in Volume III. of the Australian Census of 1911,

BIRTHS—1860 TO 1926.

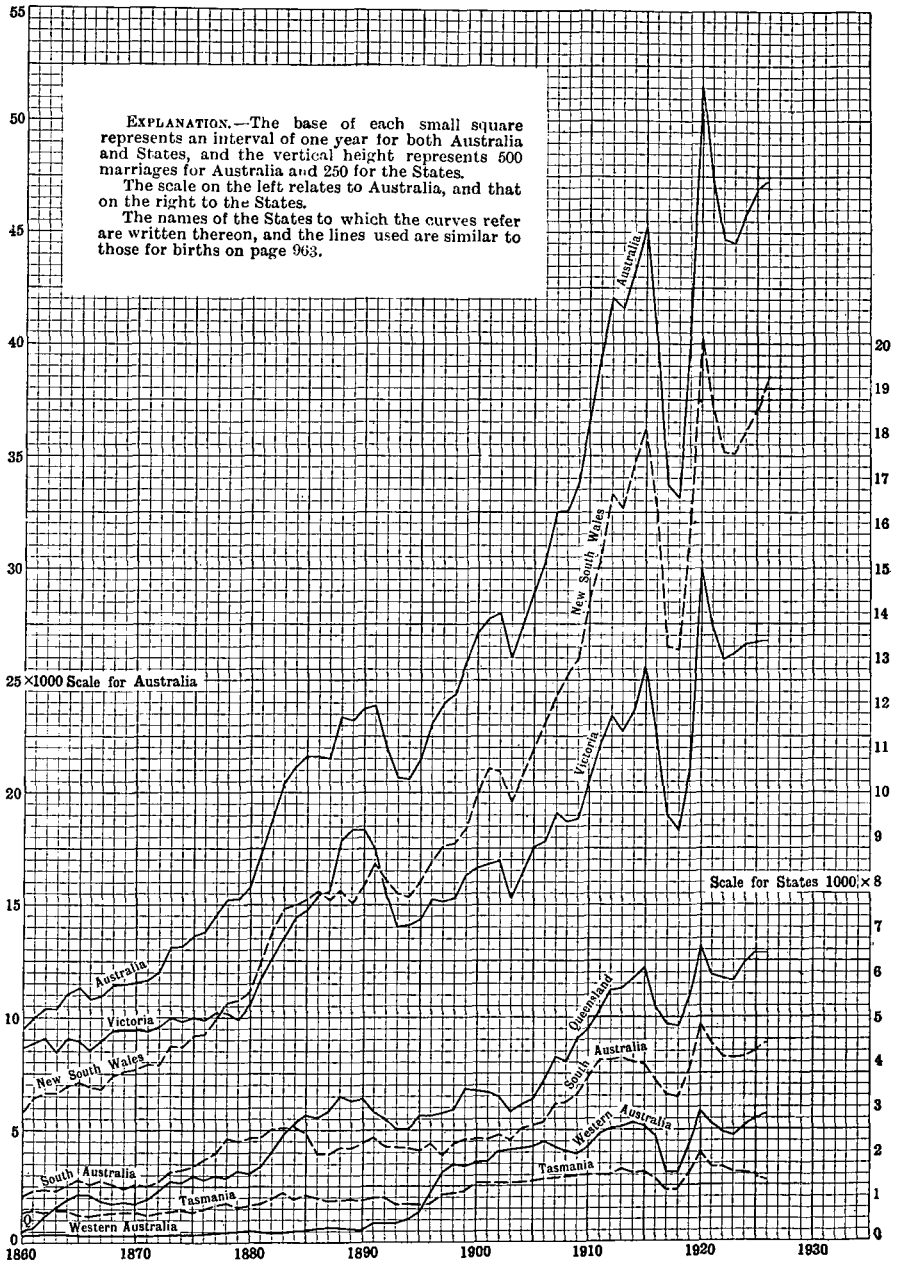


EXPLANATION.—The base of each small square represents an interval of one year for both Australia and States, and the vertical height represents 2,000 persons for Australia and 1,000 for the States.

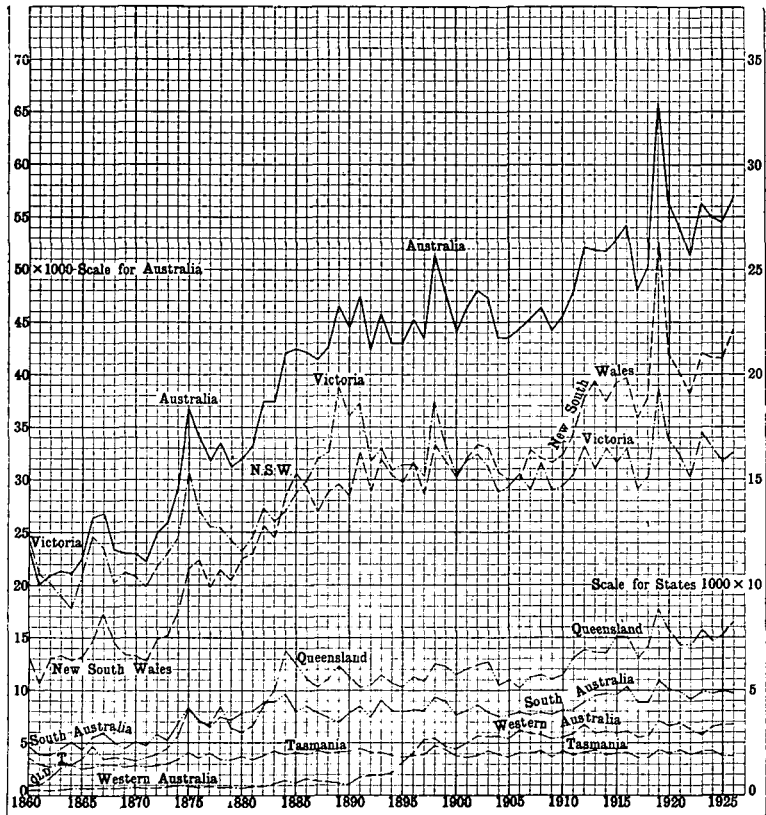
The scale on the left relates to Australia, and that on the right to the States.

The names of the States to which the curves refer are written thereon, and the characters of the lines used are as follows:—Australia, —————; New South Wales, —————; Victoria, —————; Queensland, —————; South Australia, —————; Western Australia, —————; Tasmania, —————.

MARRIAGES, 1860 TO 1926.



DEATHS—1860 TO 1926,

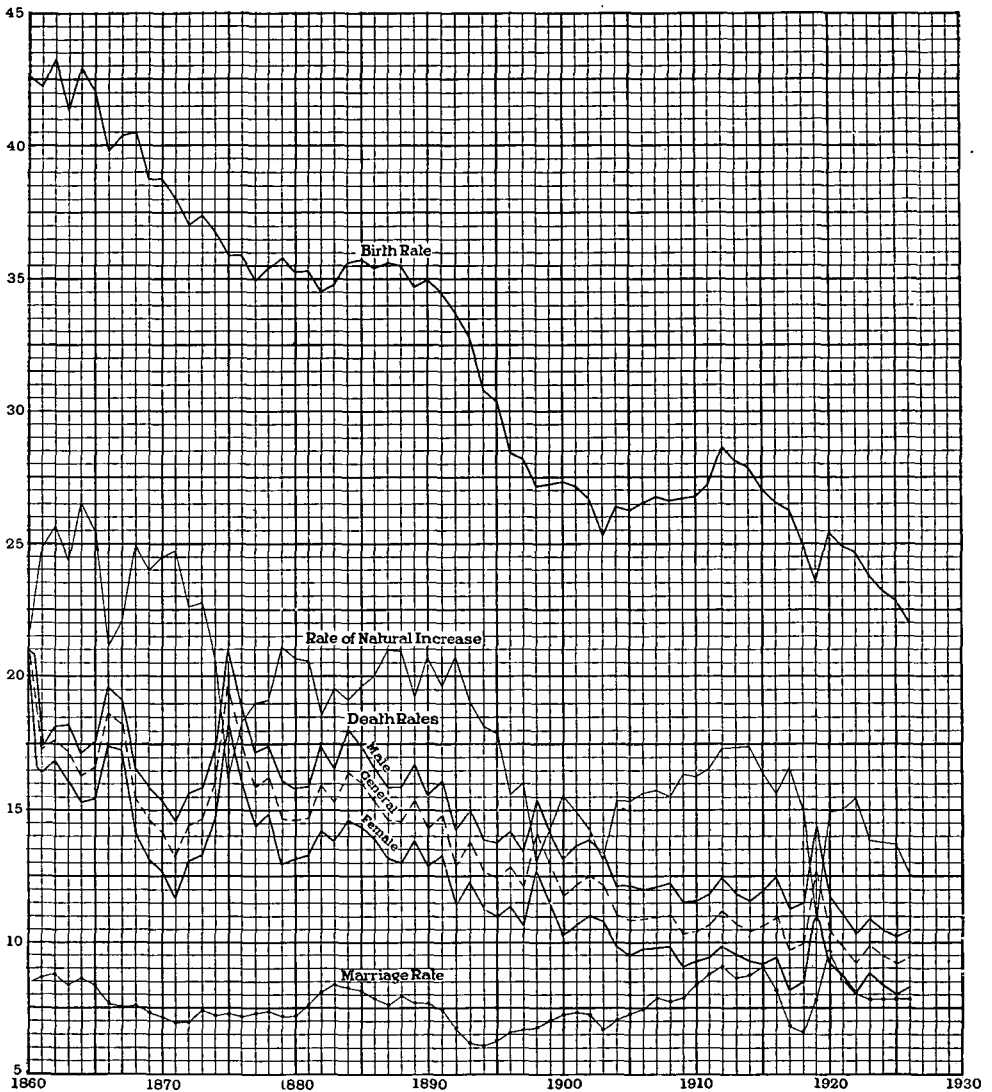


EXPLANATION.—The base of each small square represents an interval of one year for both Australia and States, and the vertical height represents 1,000 persons for Australia and 500 for the States.

The scale on the left relates to Australia, and that on the right to the States.

The names of the States to which the curves refer are written thereon, and the lines used are similar to those for births on page 963.

GENERAL BIRTH, NATURAL INCREASE, DEATH (MALE, GENERAL AND FEMALE) AND MARRIAGE
RATES—AUSTRALIA, 1860 TO 1926.



EXPLANATION.—The base of each small square represents one year's interval, and the vertical height one half per thousand of the population—the basic line being five per thousand of the population.

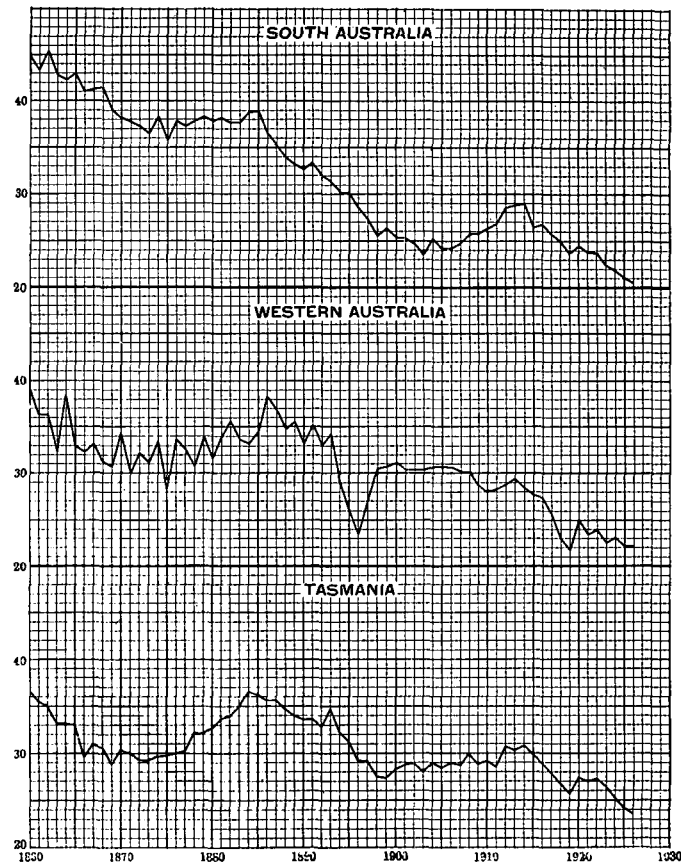
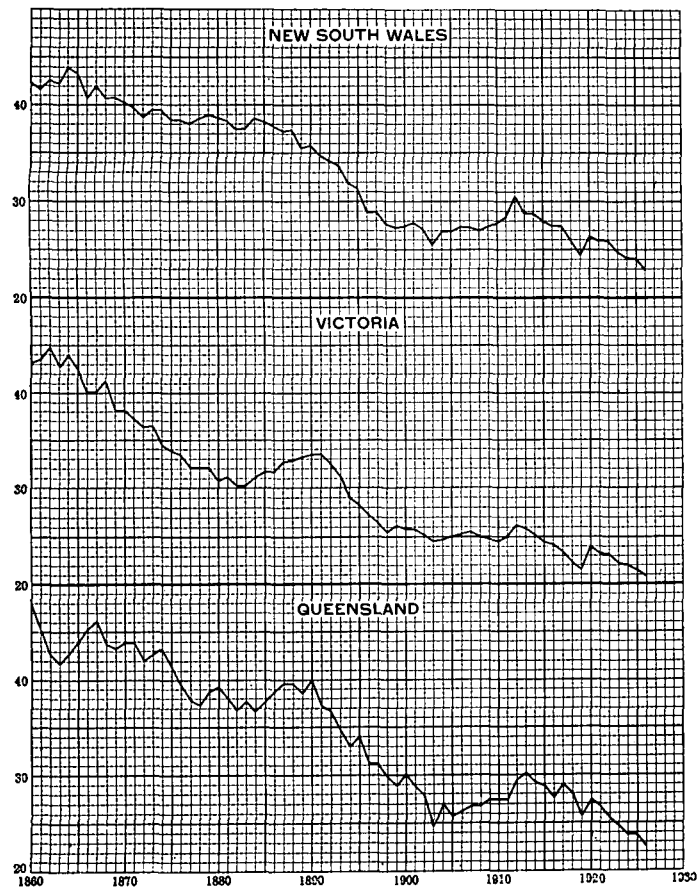
STATE BIRTH-RATE GRAPHS. (See page 967.)

EXPLANATION.—The base of each small square represents one year's interval, and the vertical height one birth per thousand of the population—the basic line for each State being twenty per thousand of the population.

STATE DEATH-RATE GRAPHS. (See page 968.)

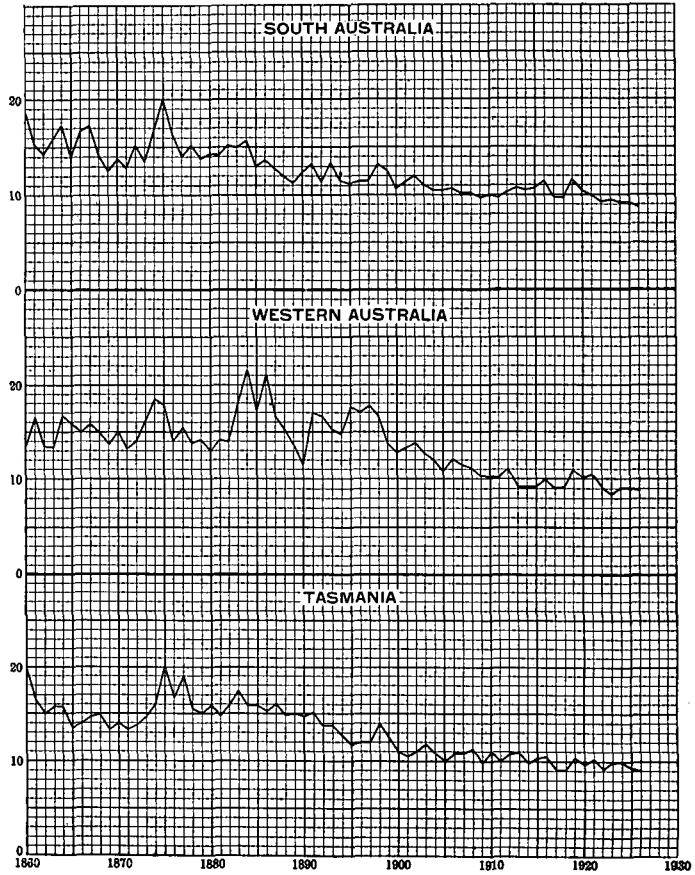
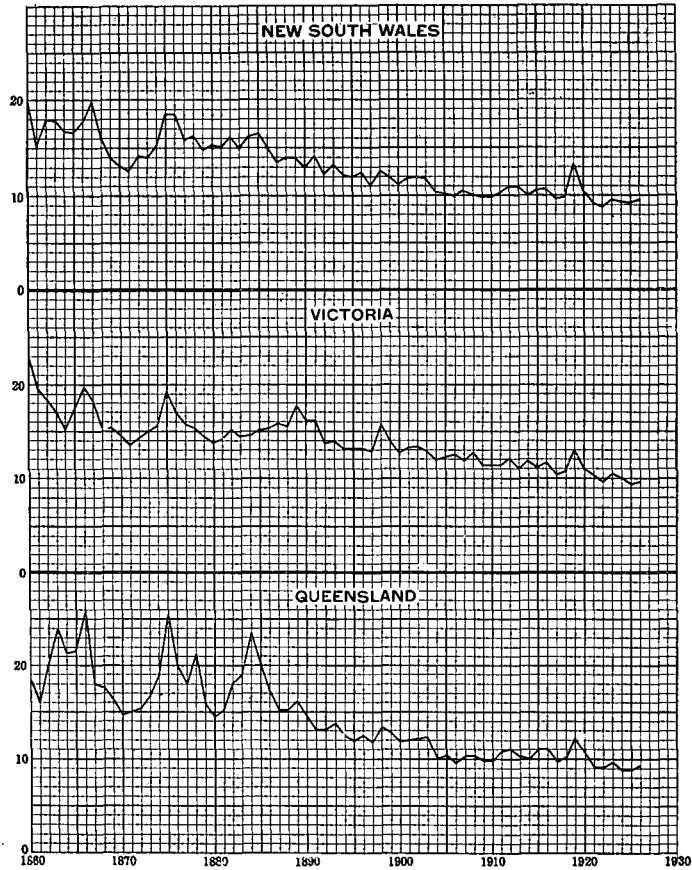
EXPLANATION.—The base of each small square represents one year's interval, and the vertical height one death per thousand of the population. The zero for each State is shown by a thickened line.

BIRTH RATES—STATES, 1860-1926.



For explanation of above graph see page 966.

DEATH RATES—STATES, 1860-1926.



For explanation of above graph see page 966.

pp. 1209-1278. In addition, monetary tables based on the experience for the whole of Australia for the decennium 1901-1910 were published, "Australian Life Tables 1901-10" in 1914, and "Australian Joint Life Tables 1901-10" in 1917.

3. Life Tables of Census of 1921.—In connexion with the Census of 1921 Life Tables have been constructed in respect of each sex for Australia as a whole, and these together with monetary tables on single lives based thereon have been published in Volume II. of the Australian Census of 1921, pp. 1838-1889. Tables in respect of the several States are in course of preparation. For the sake of uniformity with previous tables it would have been desirable to take the decennium 1911-1920 as the basis for deaths recorded, but the exceptional nature of this period owing to the war upheaval of 1914-18 and the influenza epidemic of 1919 rendered the experience of that decennium far from normal. It was consequently decided to base the life tables of the 1921 Census on the population recorded at that Census and the deaths recorded in the three years 1920, 1921 and 1922.

4. Comparisons of Numbers Surviving.—The following table furnishes a comparison of the numbers of males and females respectively surviving at each age out of 100,000 of each sex born, according to the experience of the different periods specified:—

AUSTRALIAN LIFE TABLES.—COMPARATIVE NUMBER OF SURVIVORS.

Age.	Number Surviving (L_x) at each Age out of 100,000 born according to experience for period.							
	Male Lives.				Female Lives.			
	1881-1890.	1891-1900.	1901-1910.	1920-1922.	1881-1890.	1891-1900.	1901-1910.	1920-1922.
0	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
5	81,281	84,047	87,585	90,283	83,090	85,842	89,285	92,148
10	79,700	82,781	86,622	89,389	81,643	84,606	88,395	91,314
15	78,696	81,845	85,789	88,685	80,677	83,792	87,619	90,753
20	76,630	80,349	84,493	87,697	79,099	82,473	86,459	89,906
25	73,665	78,229	82,802	86,318	76,782	80,657	84,875	88,640
30	70,531	75,706	80,844	84,743	73,862	78,329	82,909	87,086
35	67,457	72,942	78,607	82,992	70,811	75,577	80,618	85,330
40	64,106	69,788	75,887	80,813	67,453	72,487	78,001	83,279
45	60,239	66,228	72,479	78,040	63,876	69,498	75,103	81,024
50	55,606	62,014	68,221	74,330	59,978	66,095	71,945	78,313
55	50,039	56,833	63,107	69,650	55,479	61,977	68,199	74,793
60	43,483	50,205	56,782	63,386	50,039	56,617	63,247	70,150
65	36,134	41,887	48,670	54,886	43,631	49,567	56,256	63,857
70	27,291	32,134	38,275	44,332	34,877	40,943	46,793	54,771
75	18,706	22,341	25,962	31,911	25,765	30,587	34,479	42,214
80	10,438	12,568	14,330	18,614	15,691	18,631	21,356	27,170
85	4,464	5,225	5,995	7,916	6,991	8,636	10,527	13,118
90	1,328	1,501	1,652	2,141	2,095	2,833	3,566	4,238
95	243	276	244	306	402	581	687	774
100	22	25	15	17	42	52	56	62

According to the table for 1920-22, 54.9 per cent. of the males born reach age 65 and 18.6 per cent. reach 80 as compared with 36.1 per cent. reaching 65 and 10.4 per cent. reaching 80 according to the table for 1881-1890.

A similar improvement is shown in the case of female lives, as 63.9 per cent. of those born reach age 65 and 27.2 per cent. reach age 80 according to the 1920-22 table, whereas only 43.6 per cent. of those born reached age 65 and 15.7 per cent. reached age 80, according to the table for 1881-1890.

The greater vitality of female lives is in evidence in all the tables.

5. Comparison of Rates of Mortality.—The next table gives a similar comparison of the rate of mortality per annum experienced at quinquennial ages in each sex for each period. These rates form the bases of the several life tables.

AUSTRALIAN LIFE TABLES.—COMPARATIVE RATES OF MORTALITY.

Age.	Rate of Mortality per 1,000 per annum (1,000 q_x) at each age experienced during period.							
	Male Lives.				Female Lives.			
	1881-1890.	1891-1900.	1901-1910.	1920-1922.	1881-1890.	1891-1900.	1901-1910.	1920-1922.
0	132.48	118.40	95.10	71.32	115.72	101.39	79.53	55.68
5	5.37	3.98	2.81	2.52	4.98	3.88	2.58	2.40
10	2.53	2.25	1.79	1.56	2.39	2.00	1.59	1.27
15	3.72	2.90	2.55	1.84	2.99	2.48	2.19	1.44
20	7.14	4.73	3.70	2.84	5.28	3.88	3.29	2.52
25	8.62	6.17	4.48	3.55	7.02	5.33	4.30	3.27
30	8.67	6.98	5.19	3.90	8.28	6.52	5.19	3.87
35	9.51	8.21	6.33	4.75	9.01	7.98	6.17	4.50
40	11.29	9.69	8.16	6.17	10.40	8.37	7.18	5.24
45	14.24	11.83	10.83	8.44	11.67	9.17	8.07	6.06
50	18.61	15.22	13.95	11.58	13.99	11.42	9.56	8.08
55	24.74	21.07	18.16	15.52	18.18	15.42	12.77	11.03
60	32.30	30.27	25.84	24.07	23.95	22.45	19.20	15.71
65	45.82	44.96	38.59	35.52	35.50	32.39	29.98	24.26
70	64.16	60.54	61.62	52.90	52.19	46.72	47.77	40.90
75	92.72	90.11	96.10	83.40	76.37	76.30	77.79	68.20
80	136.46	138.39	137.95	133.40	124.47	122.35	113.33	112.30
85	188.95	196.29	197.01	195.80	187.79	174.63	164.59	172.00
90	256.90	258.38	277.36	283.00	253.59	239.99	242.21	251.00
95	337.23	334.83	381.11	384.00	324.87	325.67	341.45	347.00
100	473.92	481.14	525.36	530.00	452.82	501.91	500.73	501.00

Amongst male lives, at most ages under 35 the rate of mortality in 1920-22 was approximately half or was less than half the corresponding rate in 1881-90. Amongst female lives a similar relation held for ages under 40. From these points onwards the rates of mortality for 1920-22 gradually approach those for 1881-1890, being about 80 per cent. at age 70 and about 90 per cent. at age 75. At age 82 the male rate for 1920-22 becomes greater than that for 1881-1890, and the female rate becomes similarly greater at age 91.

6. Australian Life Tables.—Comparative Expectation of Life (e_x).—"The expectation of Life" at any age, or as it might be more correctly expressed, "the average future life time" at such age gives a comprehensive view of the trend and effect of the whole of that portion of the life table beyond the age in question. Thus the expectation of life at date of birth by any life table represents the average number of years of life lived according to that table by each person born.

A comparison of such expectations for the several Australian tables is furnished hereunder:—

AUSTRALIAN LIFE TABLES.—EXPECTATION OF LIFE (e_x).

Age.	Expectation of Life (e_x) at each age according to experience of period.							
	Male Lives.				Female Lives.			
	1881-1890.	1891-1900.	1901-1910.	1920-1922.	1881-1890.	1891-1900.	1901-1910.	1920-1922.
0	47.199	51.076	55.200	59.148	50.844	54.756	58.837	63.311
5	52.855	55.609	57.913	60.432	55.995	58.637	60.796	63.635
10	48.861	51.426	53.532	56.014	51.949	54.462	56.385	59.196
15	44.451	46.984	49.026	51.439	47.541	49.966	51.861	54.546
20	40.575	42.809	44.737	46.988	43.434	45.722	47.521	50.034
25	37.104	38.898	40.599	42.697	39.667	41.692	43.360	45.712
30	33.642	35.110	36.520	38.444	36.133	37.855	39.327	41.482
35	30.061	31.344	32.486	34.201	32.582	34.140	35.371	37.283
40	26.499	27.645	28.557	30.053	29.077	30.488	31.473	33.138
45	23.035	23.994	24.778	26.028	25.564	26.691	27.589	28.990
50	19.740	20.450	21.163	22.196	22.060	22.933	23.688	24.903
55	16.649	17.077	17.670	18.514	18.640	19.285	19.847	20.952
60	13.774	13.988	14.348	15.082	15.387	15.863	16.195	17.166
65	11.056	11.252	11.306	12.014	12.268	12.749	12.879	13.597
70	8.815	8.900	8.670	9.261	9.698	9.892	9.955	10.412
75	6.715	6.698	6.580	6.870	7.237	7.367	7.586	7.733
80	5.106	4.997	4.960	5.001	5.272	5.486	5.731	5.611
85	3.864	3.785	3.654	3.622	3.897	4.121	4.188	4.056
90	2.906	2.908	2.639	2.598	2.975	3.068	2.990	2.911
95	2.157	2.159	1.883	1.864	2.252	2.177	2.095	2.072
100	1.315	1.293	1.180	1.170	1.373	1.233	1.240	1.240

In each table the female expectation of life at date of birth exceeds the male, the excess being 3.645 years in the 1881-1890 table, 3.680 years in the 1891-1900 table, 3.637 years in the 1901-1910 table, and 4.163 years in that for 1920-1922. Taking the expectation of life at date of birth as a measure of the life efficiency of those born, it may be said that the experience of 1920-22 indicates a life efficiency about 25 per cent. in excess of that for the period 1881-1890.

7. Comparisons of Rates of Mortality with other Countries.—The next table furnishes a comparison of rates of mortality at decennial ages with certain other countries:—

COMPARISON OF RATES OF MORTALITY (1,000 qx).

Age.	Rate of Mortality per 1,000 per annum at each age specified.					
	Australia.	New Zealand.	Union of South Africa.	England and Wales.	U.S.A.	Japan.
	1920-1922.	1921-1922.	1920-1922.	1910-1912.	1909-1911.	1908-1913.
MALE LIVES.						
0	71.32	50.17	87.84	120.44	124.95	160.50
10	1.56	1.41	2.00	1.93	2.42	3.20
20	2.84	2.55	3.94	3.48	5.03	8.87
30	3.90	3.60	4.98	4.78	6.81	7.73
40	6.17	5.63	8.17	8.11	10.46	9.59
50	11.58	9.38	13.45	14.82	15.81	16.40
60	24.07	20.01	25.96	30.42	31.04	32.84
70	52.90	48.15	56.33	64.70	62.40	69.78
80	133.40	113.68	119.90	142.99	135.64	145.72
90	283.00	306.00	235.02	273.95	253.85	305.77

COMPARISON OF RATES OF MORTALITY (1,000 q_x)—*continued*.

Age.	Rate of Mortality per 1,000 per annum at each age specified.					
	Australia.	New Zealand.	Union of South Africa.	England and Wales.	U.S.A.	Japan.
	1920-1922.	1921-1922.	1920-1922.	1910-1912.	1909-1911.	1908-1913.
FEMALE LIVES.						
0	55.68	38.50	73.88	97.67	103.77	145.04
10	1.27	1.12	1.64	1.96	2.11	3.96
20	2.52	2.44	3.34	2.95	4.35	10.79
30	3.87	3.55	5.06	4.11	6.20	9.83
40	5.24	4.60	6.20	6.60	8.25	10.65
50	8.08	8.24	9.45	11.40	12.83	12.96
60	15.71	16.13	18.66	23.10	26.13	24.69
70	40.90	40.28	45.64	52.59	56.79	56.56
80	112.30	103.25	119.99	124.19	125.66	124.10
90	251.00	276.64	238.34	238.26	245.38	275.30

In view of the marked improvement with time shown in the successive Australian tables, the comparisons here made do not furnish reliable evidence of the relative mortality rates of the countries except in the case of Australia, New Zealand, and South Africa on the one hand, and of England, U.S.A. and Japan on the other. At most ages in both sexes the New Zealand rates of mortality are much lighter than the corresponding rates for other countries, Australia ranking next in order. The rates for England and Wales are lighter in the main in both sexes than those for U.S.A. and Japan.

8. Comparisons of Expectation of Life with Other Countries.—Corresponding comparisons of expectation of life are furnished hereunder:—

COMPARISONS OF EXPECTATION OF LIFE (e_x).

Age.	Expectation of Life at age specified.					
	Australia.	New Zealand.	Union of South Africa.	England and Wales.	U.S.A.	Japan.
	1920-1922.	1921-1922.	1920-1922.	1910-1912.	1909-1911.	1908-1913.
MALE LIVES.						
0	59.1	62.8	55.6	51.5	49.9	44.3
10	56.0	57.7	54.0	53.1	51.1	48.8
20	47.0	48.7	45.3	44.2	42.5	41.1
30	38.4	40.0	37.1	35.8	34.7	34.3
40	30.1	31.6	29.2	27.7	27.3	26.8
50	22.2	23.5	21.9	20.3	20.3	19.6
60	15.1	16.0	15.1	13.8	14.0	13.3
70	9.3	9.9	9.5	8.5	8.8	8.3
80	5.0	5.3	5.6	4.9	5.1	4.7
90	2.6	2.3	3.1	2.9	3.0	2.4

FEMALE LIVES.						
0	63.3	65.4	59.2	55.4	53.2	44.7
10	59.2	59.5	57.0	55.9	53.3	48.5
20	50.0	50.4	48.2	47.1	44.7	41.7
30	41.5	41.8	39.9	38.5	36.8	35.7
40	33.1	33.2	31.9	30.3	29.2	29.0
50	24.9	24.9	24.0	22.5	21.7	21.8
60	17.2	17.3	16.6	15.5	14.9	15.0
70	10.4	10.6	10.4	9.6	9.4	9.3
80	5.6	5.8	5.8	5.5	5.4	5.3
90	2.9	2.5	3.2	3.2	3.1	2.6

In comparing the expectations given above, the discrepancies between the dates of the several experiences to which attention has been drawn in paragraph 7 should be borne in mind. In both sexes the New Zealand expectations are markedly better than any of the others. From age 50 onwards in both sexes there is marked similarity between the Australian, and the South African results. Similarly from age 50 onwards the results for England and Wales, U.S.A. and Japan are in fair accord.

§ 5. Graphical Representation of Vital Statistics.

1. **General.**—The progressive fluctuations of the numbers of births, marriages, and deaths are important indexes of the economic conditions and social ideals of a community. Graphs have accordingly been prepared which show these fluctuations. It should be remembered, however, that, normally, the increase of births and marriages should be proportional to the growth of population.

2. **Graphs of Annual Births, Marriages, and Deaths.**—The outstanding features of the graph representing births are:—An almost continuous rise in the numbers from 1860 to 1891; a decline till 1898, associated with the commercial crisis of 1891–3; a sharp fall in 1903 which accompanied a severe drought; an uninterrupted increase from 1903 to 1914, the total for 1914 being the highest recorded; a rapid decline until 1920, the result of war conditions. The figures for the last five years show a tendency to return to normal.

The graph for marriages up to 1914 discloses approximately the same features as that for births—financial crises and droughts having a similar effect. The numbers for 1914 and 1915 showed a considerable increase over previous years. From 1916 to 1918 there was a rapid fall, the numbers being much below those of pre-war years. During 1919 and 1920 the recovery was very rapid, the total for the latter year being the highest ever recorded. The totals for 1922 to 1926 were not so favourable.

The characteristic feature of the graph of deaths is its irregular nature. On the whole, however, there is an increase which is due to the growth of population.

3. **Graphs of Annual Births, Marriages, and Death Rates, and Rate of Natural Increase.**—The graph of the birth rate indicates a well-marked decline throughout the whole period. This reduction of rate has been subject to fluctuations, there being two periods of arrested decline, viz., from 1877 to 1890, and from 1903 to 1912.

The variations in the marriage rates, though less abrupt than those in the birth and death rates, have ranged from a minimum of 6.08 per 1,000 which marked the culmination of a commercial depression to a maximum of 9.62 per 1,000 in 1920.

On the whole, the graph for the death rate furnishes clear evidence of a satisfactory decline during the period. The graph brings into prominence six years in which the rates were very high when compared with adjacent years, viz., 1860, 1866, 1875, 1884, 1898, and 1919. Epidemics of measles were largely responsible for the high rates in the first five years, while influenza caused the increase during 1919.

The graph of natural increase shows roughly the same variations as that for the birth rate, but the influence of the death rate is indicated by the very low rates of natural increase for 1875, 1898, and 1919, which resulted from the exceptionally high death rates of those years.

CHAPTER XXVI.

MISCELLANEOUS.

§ 1. Patents, Trade Marks, and Designs.

1. *Patents.*—(i) *General.* The granting of patents is regulated by the Commonwealth Patents Act 1903–21, which, in regard to principle and practice, has the same general foundation as the Imperial Statutes, modified to suit Australian conditions. The Act is administered by a Commissioner of Patents. Comparatively small fees, totalling £8, are now sufficient to obtain for an inventor protection throughout Australia, Papua and the Territory of New Guinea, and the only renewal fee (£5) is payable before the expiration of the seventh year of the patent, or within such extended time, not exceeding one year, and upon payment of further fees, as may be allowed.

(ii) *Summary.* The number of separate inventions in respect of which applications were filed during the years 1922 to 1926 is given in the following table, which also shows the number of letters patent sealed in respect of applications made in each year.

PATENTS, AUSTRALIA.—SUMMARY, 1922 TO 1926.

Particulars.	1922.	1923.	1924.	1925.	1926.
No. of applications	5,431	5,306	5,432	5,306	5,391
No. of applications accompanied by provisional specifications	3,643	3,454	3,637	3,405	3,515
Letters patent sealed during each year	3,273	2,464	2,313	2,479	2,706

(iii) *Revenue.* The revenue of the Commonwealth Patents Office during the years 1922 to 1926 is shown hereunder :—

PATENTS, AUSTRALIA.—REVENUE, 1922 TO 1926.

Particulars.	1922.	1923.	1924.	1925.	1926.
	£	£	£	£	£
Fees collected under—					
States Patents Acts	4	3	..	..	..
Patents Acts 1903–21	30,912	27,995	26,259	29,017	30,967
Receipts from publications	561	599	1,004	926	733
Total	31,477	28,597	27,263	29,943	31,700

2. *Trade Marks and Designs.*—(i) *Trade Marks.* Under the Trade Marks Act 1905, the Commissioner of Patents is also Registrar of Trade Marks. This Act has been amended from time to time, the last amendment having been made in 1922. Special provisions for the registration of a “Commonwealth Trade Mark” are contained in the

Act of 1905, and are applicable to all goods included in or specified by a resolution passed by both Houses of Parliament that the conditions as to remuneration of labour in connexion with the manufacture of such goods are fair and reasonable.

(ii) *Designs.* The Designs Act 1906, as amended by the Patents, Designs and Trade Marks Act 1910, and the Designs Act 1912, is now cited as the Designs Act 1906-12. Under this Act a Commonwealth Designs Office has been established, and the Commissioner of Patents appointed "Registrar of Designs."

(iii) *Summary.* The following table shows the applications for trade marks and designs received and registered during the years 1922 to 1926 :—

TRADE MARKS AND DESIGNS, AUSTRALIA.—SUMMARY, 1922 TO 1926.

Applications.		1922.	1923.	1924.	1925.	1926.
RECEIVED.						
Trade Marks	.. ..	2,763	2,773	2,829	2,770	2,821
Designs	.. ..	427	488	498	554	329
REGISTERED.						
Trade Marks	.. ..	1,991	2,038	1,801	2,029	1,971
Designs	.. ..	380	377	453	439	537

(iv) *Revenue.* The revenue of the Trade Marks and Designs Office during the years 1922 to 1926 is given hereunder :—

TRADE MARKS AND DESIGNS, AUSTRALIA.—REVENUE, 1922 TO 1926.

Particulars.	1922.			1923.			1924.			1925.			1926.		
	Trade Marks.	Designs.	Publications.	Trade Marks.	Designs.	Publications.	Trade Marks.	Designs.	Publications.	Trade Marks.	Designs.	Publications.	Trade Marks.	Designs.	Publications.
	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£
Fees collected under State Acts	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Fees collected under Commonwealth Acts	9,282	499	131	9,263	539	102	8,710	561	238	9,310	629	186	9,246	407	210
Total	9,283	499	131	9,263	539	102	8,710	561	238	9,310	629	186	9,246	407	210

§ 2. Copyright.

1. *Legislation.*—Copyright is regulated by the Commonwealth Copyright Act of 1912, details of which will be found in previous issues of the Official Year Book (see No. 8, p. 1066), while, subject to modifications relating to procedure and remedies, the British Copyright Act of 1911 has been adopted as law and declared to be in force within Australia.

Reciprocal protection was extended in 1918 to citizens of Australia and of the United States under which copyright may be preserved in the latter country by registration at the Library of Congress, Washington. The Commonwealth Government promulgated a further Order in Council which came into operation on the 1st February, 1923, and extended the provisions of the Copyright Act to the foreign countries of the Copyright Union, subject to the observance of the conditions therein contained.

2. **Applications and Registrations.**—The following table shows under the various headings the number of applications for copyright received and registered, and the total revenue received for the years 1922 to 1926 :—

COPYRIGHT, AUSTRALIA.—SUMMARY, 1922 TO 1926.

Particulars.	1922.	1923.	1924.	1925.	1926.
Applications received—					
Literary No.	1,027	1,133	1,145	1,269	1,166
Artistic No.	185	186	150	134	115
International No.	14	3	2	15	23
Applications registered—					
Literary No.	942	1,105	1,059	1,257	1,105
Artistic No.	160	190	138	117	105
International No.	..	13	2	4	19
Revenue £	312	339	336	360	340

§ 3. Local Option, and Reduction of Licences.

1. **General.**—Local option concerning the sale of fermented and spirituous liquors is in force in all the States, the States being divided into areas generally conterminous with electoral districts, and a poll of the electors taken from time to time in each district regarding the continuance of the existing number of licensed premises, the reduction in number, or the closing of all such premises. Provision is made for giving effect to the results of the poll in each district in which the vote is in favour of a change.

2. **New South Wales.**—(i) *Local Option.* The Liquor Act of 1912 made provision for taking a vote of the electors on the parliamentary rolls on the question of continuance of existing licences, the reduction of the same, or that no licence be granted of public houses, wine-shops, and clubs. This vote was to take place simultaneously with that for a general election. Three such polls were taken, but in 1919, by an Amending Act, further taking of polls was suspended pending a referendum on the question of prohibition, to be taken within eighteen months after the passing of this Act. This referendum was not held, and a later amendment of the Act in 1923 fixed the first Saturday in September, 1928, as the day on which the vote is to be taken.

(ii) *Licences Reduction Board.* The Liquor (Amendment) Act of 1923 provided for the reconstitution, as from 1st July, 1924, of the Licences Reduction Board and of the Licensing Courts which control the issue of licences. Three Licensing Magistrates constitute the Licensing Court in each licensing district, as well as the Licences Reduction Board, so that one tribunal controls all matters relating to the issue and withdrawal of licences. The funds for compensation in respect of publicans' licences are obtained by a levy at the rate of 3 per cent. on the value of all liquor purchased during the preceding year, of which the licensees pay one-third and the owners two-thirds. Since the beginning of 1923 the Board has also been empowered to reduce the number of Australian wine licences, the holders of which are liable to pay fees into the compensation fund at the rate of 1 per cent. of their purchases.

The Board, which was established by the Liquor (Amendment) Act of 1919, commenced operations in 1920, and up to 31st December, 1926, had terminated 272 publicans' licences and 60 wine licences, and had accepted the surrender of 67 publicans' licences

and 4 wine licences. The compensation awarded was £556,645 in respect of 333 publicans' licences and £53,040 for 64 wine licences, while compensation had not been awarded in respect of one publican's licence. The reductions made by the Board in the Sydney electoral district were 70 hotel licences and 31 wine licences, and the compensation awarded amounted to £155,870 and £28,075 respectively. In the Newcastle electoral district the reductions were 23 hotel licences, and the compensation awarded £29,470. The other reductions were in country districts. The fees payable into the compensation fund amounted to £1,515,245. During the years 1920 to 1926, 63 hotel licences were terminated by other than the Board's action, and 20 new licences were granted, and during the years 1923 to 1926, 7 wine licences were terminated and 2 new licences granted.

3. *Victoria.*—(i) *Local Option.* Under the Licensing Act of 1922, the previous system of local option was abolished, and provision was made for a vote of the electors for the Legislative Assembly to be taken once in every eighth year on the issue of "no licence," the first of such votes to be taken in the year 1930. The Act also prescribes that each licensing district shall consist of an electoral district, instead of the subdivisions which under the previous Acts formed licensing districts. Under the Redistribution of Seats Act passed in 1927 the new electorates become new licensing districts. Except by means of petitions under the special provisions for additional licences in areas proclaimed by the Governor in Council after recommendation by the Licensing Court, no licences to retail liquor can be obtained in these new electorates beyond the number existing therein on 1st January, 1917. The new electorates are in many cases widely different from the old areas.

(ii) *Licences Reduction Board.* This Board was established in 1906 with power to reduce the number of licensed victuallers' premises in districts in which there were more than the statutory number of licences. It has also the duty of fixing and awarding compensation to the owners and licensees of closed hotels. The compensation fund was in 1916 merged into the licensing fund, which, in addition to the fees received from billiard table licences and permits for special facilities, is derived from vendors of liquor who must all pay in proportion to the benefit they derive from their licences. The amount charged to the wholesale trade is 4 per cent. of the cost of all liquors sold to non-licensed persons, no charge being made on sales to other licensed vendors. The retail trade is charged 6 per cent. on liquor purchases, except the holders of Australian wine licences, who are charged 4 per cent. The expenses of operating the Licensing Act are a charge on the Licensing Fund, and, in addition, £23,000 is paid annually to the Police Superannuation Fund, and £68,000 to the municipalities which formerly granted licences. The balance is available for compensation purposes, but any surplus at the end of the financial year over an increment in the funds of £20,000 annually is carried to Consolidated Revenue. The balance in the Fund at the 30th June, 1926, was £381,715, and the amount transferred to Consolidated Revenue for the same year amounted to £192,041.

Under the 1922 Act, the Court has held deprivation sittings each year in different licensing districts, and has taken away 144 victuallers', 31 Australian wine, 3 spirit merchants', and 2 grocers' licences. When the Board came into existence in 1906, the number of hotels licensed was 3,521, of which 73 were roadside victuallers', and up to the 31st December, 1926, the number closed was 1,636. Of these, 1,224 represented hotels delicensed, and 412 hotels surrendered, the compensation paid to owners and licensees amounting to £868,301 and £180,820 respectively.

(iii) *Mallee and Additional Licences.* Under the 1916 Act, special provisions were made for the granting of victuallers' licences in proclaimed areas in the Mallee, and by the 1922 Act these provisions as amended by that Act are extended to any area outside the Mallee country proclaimed for the purpose. Licences have been granted in 10 such areas.

4. *Queensland.*—Local Option is regulated in Queensland by the Liquor Act of 1912, as amended by the Liquor Act Amendment Acts of 1920 and 1923. A vote on the question is to be taken on the request of one-tenth of the number of electors in an area, which is defined in the request, and such area may be (a) an electoral district, or (b) an electoral division of an electoral district, or (c) a group of two or more divisions of an

electoral district, provided that the whole of such local option area is wholly comprised within one and the same electoral district. A separate request is necessary for each resolution on which a vote is to be taken.

By the amending Act of 1926 every local option vote must be taken in the month of May in every seventh year, after the vote which is expected to be taken in 1928, on a day to be fixed by the Governor in Council. On the 16th May, 1925, 43 polls were taken as requested in local option areas defined by the petitioners on the questions of prohibition in 25 areas, and new licences in 18 areas. Increase of licence was carried in 16 areas, while in 2 areas the majority for prohibition did not reach the necessary three-fifths of the total votes polled.

5. *South Australia.*—In this State the subject of local option is regulated by Part VIII. of the Licensing Act 1917. Under this Act each electoral district for the House of Assembly is constituted a local option district, and each electoral district may, by proclamation of the Governor, be divided into local option districts. A quorum of 500 electors, or of one-tenth of the total number of electors—whichever is the smaller number—in any district may petition the Governor for a local option poll. The persons entitled to vote are those whose names appear on the electoral roll and who reside in the local option district. A local option poll is taken on the same date as a general election.

In order to settle any doubt as to the validity of the proclamation of 1917 relating to local option districts, an Act was passed in 1922 by which such proclamation was declared to be valid, and the local option resolutions in force in old districts at the time of the proclamation were declared to be still in force notwithstanding any alterations in the boundaries of the districts.

Early in 1927 petitions were presented from 30 local option districts requesting polls in the various districts.

The poll was taken in conjunction with the General State Elections on 26th March, 1927, the results being that the second resolution, "That the number of licences be not increased or reduced," was carried in all districts.

6. *Western Australia.*—(i) *General.* By an Amending Act, No. 39 of 1922, the Local Option provisions of the Licensing Act 1911 were repealed, and in lieu thereof a Licences Reduction Board was constituted, and charged with the duty of reducing the number of licences throughout the State over a period of 6 years from 1st January, 1923, to the extent of the money for the time being to the credit of a fund to enable compensation to be paid to the lessors and licensees of premises deprived of a licence. The fund is formed by a levy of 2 per cent. per annum on the amount of liquor purchased for licensed premises, excluding duties thereon. More extended reference to this subject was made in Official Year Book No. 18, page 1030.

(ii) *Prohibition.* In addition to the above provisions, the Act of 1922 provides that in the year 1925 and in every fifth year thereafter on a day to be fixed by proclamation, a poll shall be taken in each electoral district as to whether prohibition shall come into force. It also provides that where prohibition has been carried and is in force, the proposal shall be that the licences for sale of intoxicating liquor be restored. Where a resolution of prohibition is carried, no compensation is payable. A poll was taken on the 4th April, 1925, with the following result:—In favour of prohibition, 41,362; against, 77,113; informal, 658; total, 119,133. The percentage of persons voting on the number enrolled (200,212) was 59.5.

7. *Tasmania.*—In this State the subject of Local Option is dealt with in Part V. (Sections 39 to 53) of "The Licensing Act 1908" as amended by the "Licensing Act 1917." The provisions of Part V. of the Act of 1908 did not come into force until 1st January, 1917. It was thereby provided that a poll of ratepayers was to be taken in each city and in each municipality in which more than one licensed house was situate, once in every third year. The most recent polls taken were Launceston, December, 1926; Hobart, May, 1927; all other municipalities, April, 1927. In one municipality (New Norfolk) the resolution for continuance was carried. In each of the remaining 41 municipalities in which polls were taken, the statutory proportion of electors failed to vote and accordingly no resolution was carried.

§ 4. Lord Howe Island.

1. **Area, Location, etc.**—Between Norfolk Island and the Australian coast is Lord Howe Island, in latitude $31^{\circ} 30'$ south, longitude $159^{\circ} 5'$ east. It was discovered in 1788. The total area is 3,220 acres, the island being 7 miles in length and from $\frac{1}{2}$ to $1\frac{1}{2}$ miles in width. It is distant 436 miles from Sydney, and in communication therewith by monthly steam service. The flora is varied and the vegetation luxuriant, with shady forests, principally of palms and banyans. The highest point is Mount Gower, 2,840 feet. The climate is mild and the rainfall abundant, but on account of the rocky formation only about a tenth of the surface is suitable for cultivation.

2. **Settlement.**—The first settlement was by a small Maori party in 1853; afterwards a colony was settled from Sydney. Constitutionally, it is a dependency of New South Wales, and it is included in the electorate of Sydney. A Board of Control manages the affairs of the island and supervises the palm seed industry referred to hereunder.

3. **Population.**—The population at the Census of 3rd April, 1921, was 65 males, 46 females—total 111.

4. **Production, Trade, etc.**—The principal product is the seed of the native or *Kentia* palm. The lands belong to the Crown. The occupants pay no rent, and are tenants on sufferance.

§ 5. Commonwealth Council for Scientific and Industrial Research.

1. **General.**—By the Science and Industry Research Act, 1926, the previously existing Commonwealth Institute of Science and Industry was reorganized under the title of the Council for Scientific and Industrial Research. An account of the organization and work of the former Institute was given in previous issues of the Official Year Book. (See No. 18, p. 1062.)

2. **Science and Industry Research Act, 1926.**—This Act provides for a Council consisting of—

(a) Three members nominated by the Commonwealth Government.

(b) The Chairman of each State Committee constituted under the Act.

(c) Such other members as the Council, with the consent of the Minister, co-opts by reason of their scientific knowledge.

The three Commonwealth nominees form an Executive Committee which may exercise, between meetings of the Council, all the powers and functions of the Council, of which the principal are as follow:—(a) The initiation and carrying out of scientific researches in connexion with primary or secondary industries in the Commonwealth; (b) the training of research workers and the establishing of industrial research studentships and fellowships; (c) the making of grants in aid of pure scientific research; (d) the establishment of industrial research associations in any industries; (e) the testing and standardization of scientific apparatus and instruments; (f) the establishment of a Bureau of information; (g) the function of acting as a means of liaison between the Commonwealth and other countries in matters of scientific research.

State Committees have been constituted in accordance with regulations that have been prescribed, and their main function is to advise the Council as to matters that may affect their respective States. A sum of £250,000 has been appropriated under the terms of the Act for the purpose of scientific and industrial investigations.

3. **Science and Industry Endowment Act, 1926.**—Under this Act the Government has established a fund of £100,000, the income from which is to be used to provide assistance (a) to persons engaged in scientific research, and (b) in the training of students in scientific research. Provision is made for gifts or bequests to be made to the fund, which is controlled by a trust consisting of the three Commonwealth nominees on the Council. In accordance with the Act arrangements have been made to send a number of qualified graduates abroad for training in special fields of work.

4. **Work of the Council.**—The full Council held its first meeting in June, 1926, since which time it has held meetings at about half-yearly intervals. At the first meeting it

was decided to concentrate initially on five main branches of work, viz., (i) Animal problems; (ii) Plant problems; (iii) Fuel research—especially liquid fuels; (iv) Forest products; and (v) Preservation of food stuffs—especially cold storage problems. A fundamental investigation of the nutrition of all Australian animals of economic importance has been initiated and a special laboratory is to be erected in the grounds of the Adelaide University for the purpose. In co-operation with the Waite Agricultural Research Institute a comprehensive investigation aimed at the improvement of Australian pastures is under way. In addition six veterinary investigators have been appointed to carry out researches into such problems as the sheep blowfly pest, the stomach and lung parasites of sheep, caseous lymphadenitis in sheep and braxy disease.

In the field of plant problems laboratories at Merbein (Victoria) and Griffith (N.S.W.) have been taken over, and work is being carried out on the production of grapes and citrus fruits respectively. A survey of Australian plant problems has been made and largely as a result it is proposed to establish sections of economic botany, of entomology, and of mycology. Towards the end of 1927 the Council expects to receive reports from Dr. Kidd, a senior officer of the British Food Investigation Board, and from Mr. A. J. Gibson, of the Indian Forest Service, in regard to programmes of research which it should undertake in the fields of cold storage and of forest products respectively. As regards liquid fuels it has been decided to refrain from undertaking any costly and fundamental investigations for the present.

In addition to the above activities the Council is engaged on a number of researches which were either commenced by the former Institute of Science and Industry or by the Council itself. Other than that already mentioned, the chief research work now being carried out relates to the prickly-pear pest, bunchy top and squirter of bananas, tomato wilt, tobacco production, the underground grass grub in Tasmania, the buffalo fly pest, dried fruit grubs, paralysis in pigs, Kimberley horse disease, poisonous plants, paper pulp, tannin extracts, clays, synthetic stone, and mineragraphy. In addition one or two special Committees and Boards have been formed, e.g., a Committee on Maintenance of Standards and a Radio Research Board.

In carrying out its functions it is the policy of the Council to co-operate closely not only with existing scientific institutions and State Government Departments in Australia, but also with similar organizations in other parts of the Empire.

As far as Australia itself is concerned an important scheme of co-operation in agricultural research has been set up in the shape of a Standing Committee on Agriculture. This Committee consists of the permanent heads of the State Departments of Agriculture and of representatives of the Council. All agricultural research projects are referred to the Committee prior to the actual initiation of the work, and in that way unnecessary duplication of effort is avoided.

§ 6. The Commonwealth Solar Observatory.

1. Reasons for Foundation.—The Commonwealth Solar Observatory was established for the study of solar phenomena, for allied stellar and spectroscopic research, and for the investigation of associated terrestrial phenomena. Its situation is such that it will fill a gap in the chain of existing astrophysical observatories; with its completion there will be stations separated by 90 degrees of longitude round the globe. Its location in lat. 35° south places it in the unique position of being the only observatory making a feature of solar work south of the equator. In addition to advancing the knowledge of the universe and the mode of its development, it is hoped that the eventual discovery of the true relation between solar and terrestrial phenomena may lead to results which will prove of direct value to the country.

2. History of Inauguration.—A short account of the steps leading up to the establishment of the Observatory will be found in Official Year Book No. 19, p. 979. Limits of space preclude its repetition in this issue.

3. Site of the Observatory.—The site selected for the Observatory is on Mount Stromlo, a ridge of hills about seven miles west of Canberra. The highest point is 2,560 feet above sea level, or about 700 feet above the general level of the Federal Capital City. A road has been constructed to the summit, upon which has been erected the temporary building to house the Oddie telescope. From the summit clear views are obtained in

all directions. The approach to the Observatory passes the reservoir which supplies Canberra with water, and thence follows the eastern side of the ridge past several sheltered sites suitable for residences for the members of the staff, who will thus be within easy reach of the instruments to be housed on its crest.

4. Buildings.—The temporary structure for housing the Oddie telescope, which was the first building erected upon Mount Stromlo, is a concrete building, comprising a central dome 17 feet in diameter, with four rooms opening off it. A small reservoir has been built near the summit which is fed with water pumped from the main reservoir 120 feet below. In December, 1926, the administrative building upon Mt. Stromlo was occupied and the apparatus which had previously been housed and operated at the Hotel Canberra transferred thereto and installed. The atmospheric electricity apparatus was erected in the old kite house. During the year houses for an assistant, the chief mechanic, and a groundsman have been built, and additions made to the bachelor quarters. The houses for other members of the staff are approaching completion.

The present building programme includes the building to house the 30-inch reflecting telescope presented by Mr. Reynolds, the library, sun-telescope, electric substation, workshop and spectroscopic laboratory. With the exception of the first-named these buildings will be centred about the administrative building with which they will be connected by covered ways. Electric light and power have already been conveyed to the residential area and to the summit. The station is connected by telephone with the Canberra Post Office. The preliminary work of assembling the instruments, testing them and making a beginning with the observing programme was done in temporary offices in one of the pavilions of the Hotel Canberra.

5. Equipment.—The bulk of the present equipment is due to the generosity of supporters of the movement in England and Australia. The gifts include a 6-inch Grubb refracting telescope, presented by the late W. E. Wilson, F.R.S., and Sir Howard Grubb, F.R.S., trustees of the late Lord Farnham, a 9-inch Grubb refractor with a 6-inch Dallmeyer lens, both presented by the late Mr. James Oddie, of Ballarat, while Mr. J. H. Reynolds, of Birmingham, has presented a large reflecting telescope with a mirror 30 inches in diameter. Cash donations amounting to over £2,000 have been received, and will form the nucleus of a Foundation and Endowment Fund. With these generous gifts as testimony to the value of Australia's co-operation in solar and astrophysical research, it is hoped that the Government will liberally equip and endow the institution so that it may rank with the great observatories of the world.

6. Observational Work.—The Oddie telescope fitted with a dense flint prism has been employed in routine work upon stellar spectra, with the object of measuring the absolute brightness and distances of the stars. To determine the intensity of the auroral component, the luminosity of the night sky was observed with a Rayleigh photometer. Measures were recorded of the solar radiation reaching the earth throughout the 24 hours, and observations were made of the potential gradient of the earth's electric field. A laboratory research upon certain spectroscopic phenomena is in progress.

7. Staff.—The present staff consists of the Director, three Assistants, a Research Fellow, clerical assistant, two mechanics, and two groundsmen.

§ 7. Department of Chemistry, South Australia.

In South Australia, a Department of Chemistry was formed in 1915. The Department is principally engaged in general routine chemical examinations and analyses in pursuance of various Acts of Parliament and for Government Departments, but the chemical investigation of local products and industries forms an important branch of its work. At first the Department issued bulletins, of which nine have been published, but since 1918 the results of investigations made have been embodied in the reports of the Advisory Council of Science and Industry of South Australia. Researches have been carried out for the Wheat Weevil Committee, and investigations have been made into the lignites at Moorlands, the conditions of safe storage of petrol in tanks, the utilization of grapes and surplus lemons, cold-water paints, calorific values of South Australian firewoods, charcoal and coke, kernel oil from peaches and apricots, and a survey of the tannin resources of South Australia. Further investigations into South Australian lignite are reported in the South Australian Mining Review.

§ 8. State Advisory Council of Science and Industry of South Australia.

The Advisory Council of Science and Industry of South Australia is the result of the fusion of the members of the Committee of Scientific Research and the Committee on Post-war Problems. The members of the Council, who all act in an honorary capacity, are the nominees of the different public bodies in the State, such as the Chamber of Commerce, the Chamber of Manufactures, Associated Banks, United Trades and Labour Council, Employers' Federation, etc., and include a number of Government technical officials and University professors.

For the purposes of investigation, the Council is divided into Committees, under the headings Agriculture, Pastoral, Mineral, Manufacture, Trade, Commerce, and Transport. These Committees consider and take evidence on subjects proper to their provinces, and report to the Government.

The office of the Council is attached to the Department of Chemistry, where research work is carried out at the instance of the Council, the Director of Chemistry being Vice-Chairman of the Council. Seven reports have been issued for the years 1919 to 1925, and contain a summary of the work done, with reports of investigations, including the "Wheat Pests Problem," "Utilization of Surplus Lemons," "Cold Water Paint," "Caloric Values of Different Firewoods," "Peach and Apricot Kernel Oil," "Tannin Resources of South Australia," "Brown Coal Experiments," and "A Gauge for Petrol Tanks," etc. The Council also distributes information forwarded by the Commonwealth Department of Markets and Migration.

§ 9. Valuation of Australian Production.

1. Value of Production.—The want of uniformity in methods of compilation and presentation of Australian statistics renders it an extremely difficult task to make anything like a satisfactory valuation of the various elements of production. At present there is so little accurate statistical knowledge regarding such industries as forestry, fisheries, poultry, and bee-farming, that any valuation of the production therefrom can only be regarded as the roughest approximation. As a matter of fact, complete information as to value of production in all States is available in regard to the mining industry alone, and even in this case adjustments have to be made before the returns are strictly comparable. Careful estimates have been made in connexion with the value of production from the agricultural and pastoral industries, which, it is believed, in the main give fairly accurate results. The returns given in the following table for 1915 and subsequent years may be taken as substantially correct. The table hereunder shows the approximate value of the production from all industries during the years specified:—

ESTIMATED VALUE OF PRODUCTION.—AUSTRALIA, 1915 TO 1925-26.

Year.	Agriculture.	Pastoral.	Dairy, Poultry, and Bee-farming.	Forestry and Fisheries.	Mining.	Manufacturing.(a)	Total.
1915 ..	£1,000. 75,475	£1,000. 70,144	£1,000. 22,399	£1,000. 6,253	£1,000. 22,060	£1,000. 59,212	£1,000. 255,543
1916 ..	61,255	83,003	27,931	6,062	23,192	60,502	261,945
1917 ..	59,641	91,917	31,326	6,147	24,998	65,327	279,356
1918 ..	59,036	96,573	33,738	6,890	25,462	70,087	291,786
1919-20 ..	72,202	111,594	38,830	9,670	18,982	92,330	343,608
1920-21 ..	112,801	90,573	52,613	11,136	21,613	101,778	390,514
1921-22 ..	81,890	74,982	44,417	10,519	19,977	112,517	344,302
1922-23 ..	84,183	97,629	43,542	11,124	20,316	123,188	379,382
1923-24 ..	81,166	110,075	42,112	11,866	22,232	132,732	400,183
1924-25 ..	107,163	126,773	45,190	12,357	24,646	137,977	454,106
1925-26 ..	89,267	113,327	47,161	12,784	24,592	143,256	430,387

(a) These amounts differ from those given in Chapter XXII., Manufacturing Industry, which include certain products included under Dairy Farming and Forestry in this table.

2. **Relative Productive Activity.**—The relative output or production per head of population measured quantitatively cannot be gauged from a mere statement of the total value of production from year to year. If measured by mere value, increase of price might have the effect of making an equal production to that of a time when prices were lower, and show an increase which would, of course, be misleading. For example, the annual figures relating to the estimated value of production from Australian industries do not directly show whether there has been any increase in the *quantity* produced, since the price-level at the time is itself a factor in the determination of the values. Before therefore, any estimate of the relative increase or decrease in production (that is, in the relative quantity of output) can be formed, the variations due to the price element must be eliminated. This is done in the following table, in which Column I. shows the estimated value of production (i) in the aggregate and (ii) per head of mean population. In Column II. the estimated value of production per head of population is shown in the form of index-numbers with the year 1911 as base; that is to say, the production per head in 1911 is made equal to 1,000, and the values for the other years computed accordingly. In Column III. production price index-numbers are given; it is assumed that these index-numbers reflect, with substantial accuracy, variations in production prices in Australia as a whole. The figures in Column IV. are obtained by dividing the figures for each year in Column II. by the corresponding figures in Column III. They show the estimated relative productive activity per head of population, taking the year 1911 as the basic or standard year, the fluctuations due to variations in prices having been eliminated:—

RELATIVE PRODUCTIVE ACTIVITY.—AUSTRALIA, 1871 TO 1925-26.

Year.	I.		II.	III.	IV.
	Estimated Value of Production.		Relative Value of Production per Head (Year 1911 = 1,000).	Production Price Index-Numbers (Year 1911 = 1,000). (a)	Estimated Relative Productive Activity Index-Numbers (Year 1911 = 1,000). (a)
	(i) Total (000 omitted)	(ii) Per Head of Population.			
	£	£			
1871	46,700	27.46	667	1,229	543
1881	71,116	30.83	749	1,121	668
1891	96,087	29.65	720	945	762
1896	92,605	26.06	633	922	686
1901	114,585	29.96	728	974	747
1906	147,043	35.94	873	948	921
1911	188,359	41.18	1,000	1,000	1,000
1916	261,945	53.26	1,293	1,398	925
1921-22 ..	344,302	62.50	1,518	1,579	961
1922-23 ..	379,382	67.35	1,636	1,753	933
1923-24 ..	400,183	69.60	1,690	1,850	914
1924-25 ..	454,106	77.31	1,877	1,880	998
1925-26 ..	430,387	71.83	1,744	1,836	950

(a) Production Price Index-numbers are not available prior to 1908, and Wholesale Price Index numbers are substituted therefor.

The total production from all recorded industries during 1925-26 was £430,387,000, equal to an average of £71.83 per inhabitant.

The index of productive activity given above is based on total population and is that most usually employed for such a purpose. As a measure of the efficiency of the whole community to provide with its existing organization the commodities produced in the industries concerned the index is correct, but it does not necessarily indicate the variation in efficiency of the workers engaged in those industries, since these workers may not represent a constant proportion of the total population. As a fact this proportion

is diminishing, and if the index were based on persons engaged in the industries rather than on total population it would be increased by nearly 10 per cent. in the later years of the period, and the index for 1925-26 instead of falling short of the 1911 standard by 5 per cent. would be in excess of it by 4.7 per cent. This aspect of the question is at present the subject of further investigation.

In Year Book No. 5 (page 1217) will be found the value of production in each State at decennial intervals since 1871, and for the year 1909. Details for individual States are not available for subsequent years owing to discontinuance by the Customs Department of the collection of statistics of interstate trade.

§ 10. Wealth of Australia.

1. *Methods of Estimating.*—(i) *General.* At various times estimates have been made of the wealth of Australia, and more especially of the private wealth. For this purpose three different methods have been employed—(a) The Probate method, (b) The Census method, (c) The Inventory method.

(ii) *The Probate Method.* This method consists essentially in taking account over a given period of the amount of property left by deceased persons as disclosed by probate returns, and in assuming that, in respect of wealth, those dying at each age represent a fair sample of the persons living at that age. It also involves the further assumption that the whole of a deceased person's wealth passes under review in the probate returns. If the period involved is a fairly long one, and the community is large, the first of these assumptions is probably warranted; but, owing to the large number of cases in which property passes by settlement or by gift *inter vivos*, the second assumption is rarely allowable, and the probate method of estimate is consequently unsatisfactory. It has a further disadvantage in that it requires a record over a long period of the ages of the deceased persons combined with the values of the estates subject to probate, and thus involves an elaborate inquiry to furnish a result which when obtained relates to a somewhat remote and rather indefinite past. In these circumstances it may be regarded under Australian conditions as an unreliable method.

(iii) *The Census Method.* From many points of view the census method would appear to be that which should give the most reliable results. The figures are obtained directly from the persons who should be best able to give the information—the owners of the property concerned. The results relate to a comparatively recent and specific date, thereby avoiding one of the disadvantages of the probate method. Further, the form in which the information is obtained enables a classification to be made, showing the number of persons in each wealth group. Notwithstanding these manifest advantages, the census method is not convenient to employ for the purposes of an estimate of wealth, since in normal times its inquisitorial character is objected to, and its cost is very great.

(iv) *The Inventory Method.* The inventory method has been employed for many years in the United States of America, and has been the basis of several estimates of Australian wealth. This method consists in making use of various valuations of different forms of material wealth that have been made for other purposes, and of supplementing these by estimates based on statistical data available in respect of items for which no such valuations are already in existence. The estimate when obtained relates to a specific and fairly recent point of time, and is in such form as to enable a classification to be made according to nature and locality of the items concerned.

2. *Inventory Estimates, Private Wealth, 1813 to 1921.*—(i) *Australia.*—Inventory estimates for Australia are furnished for a number of years in the following table, together with the average wealth per head of population in each case. These figures relate to private wealth, and do not include any estimate in respect of Government or Municipal property :—

PRIVATE WEALTH, AUSTRALIA.—INVENTORY ESTIMATES, 1813 TO 1921.

Year to which Estimate Relates.	Authority.	Aggregate Amount.	Mean Population.	Average Private Wealth per Head of Mean Population.
		Million £.	Thousands.	£
1813	T. A. Coghlan	1	13	75
1838	"	26	143	182
1863 (a)	"	160	1,233	130
1888 (a)	"	885	2,932	302
1890	"	1,019	3,107	328
1899	"	879	3,690	238
1901	"	909	3,791	240
1903	"	982	3,893	252
1915	G. H. Knibbs	1,620	4,985	325
1921	C. H. Wickens	2,166	5,458	397

(a) Adjusted to allow for exclusion of New Zealand.

(ii) *Details for States, 1921.* The following table furnishes details as at 30th June, 1921, in respect of each State and Territory and for Australia as a whole:—

PRIVATE WEALTH.—INVENTORY ESTIMATE, DETAILS, 1921.

Class of Property.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	Fed. Ter.	Austra- lia.
I. Land and Improve- ments	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.
II. Live Stock	593,484	399,503	142,120	115,814	67,777	41,549	625	397	1,361,269
III. Agricultural, Dairying and Pastoral Imple- ments and Machin- ery	48,947	27,817	48,664	10,790	15,336	4,422	2,696	161	158,833
IV. Manufacturing Plant and Machinery	12,409	10,218	4,057	5,248	3,300	709	12	11	35,964
V. Mining Properties (in- cluding Plant and Machinery)	29,735	17,588	9,999	4,233	3,325	2,838	..	..	67,718
VI. Coin and Bullion	14,800	5,300	2,800	1,300	7,200	2,600	..	..	34,000
VII. Private Railways and Tramways	13,607	38,874	3,173	2,452	2,163	945	1	1	61,216
VIII. Shipping	3,511	777	4,906	278	5,047	1,454	..	..	15,973
IX. Agricultural and Pas- toral Products	2,970	2,793	370	756	164	186	4	..	7,243
X. Locally Manufactured Products	24,692	17,993	11,711	8,275	5,624	2,210	3	7	70,515
XI. Mining Products (other than gold)	44,479	34,481	12,755	7,132	3,645	2,343	..	..	104,835
XII. Imported Merchan- dise	1,964	111	214	148	88	132	3	..	2,660
XIII. Clothing and Personal Adornments	31,616	23,062	11,448	7,461	5,008	3,200	59	37	81,891
XIV. Furniture and Fitt- ings, Books, Pic- tures, etc.	10,536	7,685	3,815	2,486	1,669	1,066	20	12	27,289
XV. Motor Vehicles	43,482	33,229	12,183	10,845	5,529	3,428	46	38	108,780
	9,862	7,537	3,235	4,688	1,417	931	5	..	27,675
	886,094	626,968	271,450	181,906	127,292	68,013	3,474	664	2,165,861
Mean Population for 1921 (in thousands)	2,107.1	1,537.0	763.0	497.2	333.8	213.3	3.9	2.5	5,457.8
Private Wealth per Head ..	£421	£408	£356	£366	£381	£319	£889	£267	£397

(iii) *Details for Australia 1903, 1915, and 1921.* A comparison of the leading items for 1903, 1915, and 1921, and of the relative distribution of such items, is given in the following table :—

**PRIVATE WEALTH.—INVENTORY ESTIMATE, AUSTRALIA,
1903, 1915, AND 1921.**

Classification.	Aggregate Amount.			Relative Distribution.		
	1903 (Coghlan).	1915 (Knibbs).	1921 (Wickens).	1903 (Coghlan).	1915 (Knibbs).	1921 (Wickens).
	Million £.	Million £.	Million £.	%	%	%
Land and Improvements ..	683.9	1,105.6	1,361.3	69.6	68.3	62.9
Live Stock	96.9	100.4	158.8	9.9	6.2	7.3
Coin and Bullion	26.1	44.4	61.2	2.6	2.7	2.8
Merchandise and Produce on hand	59.6	148.0	259.9	6.1	9.1	12.0
Household Furniture and Personal Property	43.4	91.9	163.8	4.4	5.7	7.6
Shipping	6.4	13.3	7.2	0.7	0.8	0.3
Mines and Mining Plant ..	32.2	41.3	34.0	3.3	2.6	1.6
Plant, Machinery, etc., not elsewhere included ..	33.5	74.6	119.7	3.4	4.6	5.5
Total	982.0	1,619.5	2,165.9	100.0	100.0	100.0

(iv) *Private Wealth per Head.* A comparison of the wealth per head under the principal items mentioned above is furnished in the following table :—

**INVENTORY ESTIMATE.—PRIVATE WEALTH PER HEAD, AUSTRALIA,
1903, 1915, AND 1921.**

Classification.	Average Wealth per Head.		
	1903 (Coghlan).	1915 (Knibbs).	1921 (Wickens).
	£ s. d.	£ s. d.	£ s. d.
Land and Improvements	175 13 5	221 15 10	249 8 6
Live Stock	24 17 10	20 2 9	29 1 11
Coin and Bullion	6 13 11	8 18 1	11 4 3
Merchandise and Produce on hand ..	15 6 4	29 13 7	47 12 5
Household Furniture and Personal Property ..	11 2 9	18 8 10	30 0 3
Shipping	1 12 8	2 13 6	1 6 4
Mines and Mining Plant	8 5 5	8 5 9	6 4 7
Plant, Machinery, etc., not elsewhere included ..	8 12 1	14 19 2	21 18 8
Total	252 4 5	324 17 6	396 16 11

(v) *Distribution according to States and Territories.* The following table gives the distribution of the private wealth of Australia, according to the States and Territories in which it was situated. In the case of the 1903 estimates, the Northern Territory was regarded as part of South Australia, and the Federal Capital Territory not having come into being as a separate entity, was included in New South Wales :—

**PRIVATE WEALTH.—INVENTORY ESTIMATE, STATES, ETC.,
1903, 1915, AND 1921.**

State or Territory.	Estimated Private Wealth.					
	Aggregate Amount.			Per Head of Population.		
	1903 (Coghlan).	1915 (Knibbs).	1921 (Wickens).	1903.	1915.	1921.
	Million £.	Million £.	Million £.	£	£	£
New South Wales	368.8 _a	660.8	886.1	261 _a	350	421
Victoria	310.0	454.1	627.0	257	317	408
Queensland	119.5	209.6	271.4	232	303	356
South Australia	86.3 _b	134.0	181.9	240 _b	300	366
Western Australia	49.1	107.1	127.3	223	333	381
Tasmania	48.2	51.3	68.0	268	261	319
Northern Territory	(b)	2.0	3.5	(b)	450	889
Federal Capital Territory	(a)	0.6	0.7	(a)	236	267
Australia	982.0	1,619.5	2,165.9	252	325	397

(a) Particulars for Federal Capital Territory included with New South Wales.

(b) Particulars for Northern Territory included with South Australia.

In all instances the figures relate to the material private wealth existing in the several States and Territories, irrespective of the domicile of the owner.

3. Estimated Value of Government and Municipal Property, 1915 and 1921.—An estimate of the value of Government and Municipal property at any date cannot be readily obtained, but with the object of presenting a complete view of Australian wealth, a rough estimate has been prepared in respect of the years 1915 and 1921, the results of which are given hereunder :—

**GOVERNMENT AND MUNICIPAL PROPERTY.—ESTIMATED VALUE,
1915 AND 1921.**

Particulars.	1915.	1921.
<i>Commonwealth—</i>	Million £.	Million £.
Railways	6	11
Land, Buildings, and other Property	11	18
<i>State—</i>		
Railways and Tramways	202	240
Crown Lands	38	53
Buildings and other Property	100	121
<i>Municipal—</i>		
Roads and Streets	120	160
Other Property	40	54
Total	517	657

These figures indicate that the total for Government and Municipal property is about one-fourth of the aggregate wealth of Australia, public and private, a proportion which agrees approximately with estimates that have been made in the case of Great Britain.

As the estimates previously given, whether for public or private wealth, are in respect of the values of material objects, irrespective of ownership, the effect of public or private indebtedness does not enter into the question.

§ 11. Film Censorship.

1. *General.*—(i) *Legislation.* The censorship of films derives its authority from section 52 (g) of the Customs Act, which is the section giving authority to prohibit the importation of goods. Under this section proclamations have been issued prohibiting the importation of films and relative advertising matter except under certain conditions and with the consent of the Minister. The conditions governing importation are contained in regulations issued under the Customs Act and provide, *inter alia*, that no film shall be registered which in the opinion of the censor is (a) blasphemous, indecent or obscene; (b) likely to be injurious to morality, or to encourage or incite to crime; (c) likely to be offensive to the people of any friendly nation; (d) depicts any matter the exhibition of which is undesirable in the public interests; (e) likely to be offensive to the people of the British Empire.

The new regulations governing the exportation of Australian-made films are similar, with the addition that no film may be exported which in the opinion of the Censor is detrimental to Australian interests or is likely to lower Australia in the eyes of the world.

The Censorship consists of a Chief Censor and a Deputy Censor, and importers have the right of appeal to the Minister against their decisions.

(ii) *Imports of Films.* Imported films dealt with by the Censorship for the years 1925 and 1926 were as follows:—

IMPORTS OF FILMS, 1925 AND 1926.

Heading.	1925.		1926.	
	Films No.	Feet (one copy).	Films No.	Feet (one copy).
Passed without eliminations	1,324	2,996,898	1,590	3,584,877
Passed after eliminations	371	2,138,927	283	1,610,195
Rejected in first instance	68	437,107	87	538,203
Total	1,763	5,572,932	1,960	5,733,275

The countries of origin of the abovementioned films will be found in the following table:—

IMPORTS OF FILMS.—COUNTRY OF ORIGIN, 1925 AND 1926.

Country of Origin.	1925.		1926.	
	Films No.	Feet (one copy).	Films No.	Feet (one copy).
United States of America	1,555	5,115,133	1,618	5,085,720
United Kingdom	146	257,786	198	351,456
Other Countries	62	200,013	144	296,099
Total	1,763	5,572,932	1,960	5,733,275

(iii) *Export of Films.* The new regulations governing the export of films came into force on the 16th September, 1926. The number of films exported up to 31st December, 1926, and the length were 136 and 88,263 feet respectively, and were consigned to England, New Zealand, Singapore, Dutch East Indies, United States of America, and Ocean Island.

(iv) *Royal Commission.* A Royal Commission is at present (1927) engaged inquiring into all aspects of the Film Industry.

§ 12. Marketing of Australian Commodities.

1. **Introduction.**—Particulars in respect of the various Commonwealth Acts and Regulations, together with the operations of the Boards or Councils appointed to assist or control the marketing of Australian commodities, are set out below :—

2. **Dairy Produce Export Control Act 1924.**—(i) *General.* This Act, which was introduced at the request of the dairying industry, was passed by the Commonwealth Parliament with the object of organizing the marketing of Australian dairy produce overseas.

(ii) *Dairy Produce Export Control (Poll and Election of Board) Regulations.*—Regulations were approved providing for a poll of producers to enable the Act to operate and for the election of members to the Dairy Produce Control Board.

(iii) *Dairy Produce Control Board.*—A Board consisting of thirteen members, of whom nine are producers' representatives, was appointed under the Act to supervise the export, and the sale and distribution after export, of Australian dairy produce. In conjunction with its London Agency the Board has improved organization on overseas markets, ensured continuity of supply, regulated shipments, stabilized overseas prices, obtained reductions in overseas freight and insurance, and participated in an advertising campaign in the United Kingdom.

(iv) *Dairy Produce Export Control Licences Regulations.*—Provision was made for the issue, under certain conditions, of licences to exporters to permit of butter and cheese being exported from Australia.

3. **Dairy Produce Export Charges Act 1924.**—(i) *General.* This Act provided for the imposition of a levy on all butter and cheese exported from the Commonwealth. The levy is used to cover administrative expenses of the Board, and for advertising and other purposes.

(ii) *Dairy Produce Export Charges Regulations.* Regulations were issued under this Act to lower the rate of levy fixed upon the export of butter and cheese.

4. **Dried Fruits Export Control Act 1924.**—(i) *General.*—This act was passed by the Commonwealth Parliament at the request of the dried fruit industry to organize the overseas marketing of Australian dried fruit.

(ii) *Dried Fruits Export Control (Poll and Election of Board) Regulations.* Regulations providing for a poll of dried fruit growers were issued to enable the Act to operate and to hold an election of members to the Dried Fruits Control Board.

(iii) *Dried Fruits Control Board.*—A Board composed of seven members, including four growers' representatives, was appointed to control the export, and the sale and distribution after export, of Australian sultanas, currants and lexias. In conjunction with its London Agency the Board has improved the overseas marketing and increased the demand for Australian dried fruits. Its system of appraisalment has resulted in more satisfactory realizations, and its methods of ensuring continuity of supply, regulating shipments, advertising and securing reductions in freight and insurance have benefited the industry considerably.

(iv) *Dried Fruits Export Control Licenses Regulations.*—Regulations were framed providing for the issue, under certain conditions, of licences to exporters to enable Australian sultanas, currants and lexias to be shipped overseas.

5. **Dried Fruits Export Charges Act 1924.**—This Act provided for the imposition of a levy on all sultanas, currants and lexias exported from the Commonwealth. The levy is used to defray the administrative expenses of the Board and the cost of advertising, &c.

6. **Dried Fruits Export Charges Act 1927.**—This Act provides for the exemption of sultanas, currants or lexias from the levy imposed after recommendation by the Board.

7. **Canned Fruits Export Control Act 1926.**—(i) *General.* This legislation was introduced at the request of canners and representative organizations of fruit growers, and provides for the establishment of a Canned Fruits Control Board. The Act could not come into operation until a poll of canners was taken to determine whether a majority favoured the system of control provided under the Act. The poll was accordingly taken on 29th November, 1926, and a substantial majority of votes was cast in favour of the Act.

The Board is composed of three members—one representative of proprietary and privately-owned canneries, one representative of co-operative and State-controlled canneries, and one representative appointed by the Commonwealth Government. The terms and conditions of office are similar to those adopted in connexion with the Dried Fruits and Dairy Produce Boards. The Board controls the export of canned apricots, peaches, and pears only, but provision is made in the Act for the inclusion of pineapples or any other variety of canned fruits should the canners concerned at any time desire it. No canned fruits to which the Act applies are permitted to be exported from Australia unless under a licence issued to the exporter by the Department of Markets and Migration, subject to conditions recommended by the Board. Owing to a considerable drop in the production of canned fruits during the season 1926-27 only a small quantity of fruit was available for export, consequently the operations of the Board were somewhat limited.

(ii) *Regulations under the Act.*—The Regulations issued under the Act provide for the (a) preparation of rolls of voters for the poll and election of members to the Board; (b) taking the poll and election of members to the Board; (c) the rates of fees and expenses to be paid to members in connexion with their attendance at Board meetings, &c.; (d) the system of export under licence, which operates as from 14th February, 1927. For the season 1926-27, exporters are required to obtain a separate licence for each shipment to Great Britain, and a general licence, granted for a period from date of issue to 31st December, 1927, for all shipments to destinations other than Great Britain. The conditions under which licences are issued were adopted on the recommendation of the Board; and (e) the method of signing cheques drawn by the Board.

8. Canned Fruits Export Charges Act 1926.—(i) *General.*—The Canned Fruits Control Board is financed by the canning industry by means of a levy imposed on all canned fruits exported. Under this Act a levy not exceeding one-fourth of a penny per 30-oz. tin (3d. per dozen tins) may be imposed.

(ii) *Canned Fruits Export Charges Regulations.*—The Board has determined that a levy of 1d. per dozen tins on exports will produce sufficient revenue for its present requirements, and these Regulations provide for that rate to be adopted. The charge was imposed as from 14th February, 1927.

9. Fresh Fruits Overseas Marketing Act 1927.—This Act was passed by the Commonwealth Government at the request of the fresh fruit industry, to organize the overseas marketing of Australian fresh fruit. This Act, which is dependent for operation upon a poll of fresh fruit growers, will not now operate in view of the adverse result of the poll.

10. Fresh Fruits Export Charges Act 1927.—This Act was subsidiary to the Dried Fruits Export Control Act, and will not now operate in view of the adverse decision at the poll.

11. Pearl-Shell Overseas Marketing Act 1927.—(i) *General.*—This measure provides for the control of the export and sale overseas of pearl-shell produced in the Commonwealth. A poll of producers of pearl-shell throughout Australia will be taken about the end of 1927 to decide whether the Act shall be brought into operation. Should the result of the poll be favourable, a Pearl-Shell Overseas Marketing Board will be appointed consisting of one representative elected by the producers of Western Australia, one representative elected by the producers of Queensland and the Territory of North Australia, and a representative of the Commonwealth Government, appointed by the Governor-General. The Act provides for the prohibition of the export of pearl-shell except by licence issued by the Minister subject to such conditions and restrictions as are prescribed after recommendation to the Minister by the abovementioned Board. The Board may accept control of any pearl-shell placed under its control, and will have full authority to make arrangements for its handling, marketing, storage, shipment, sale and all other matters necessary in connexion with its disposal.

(ii) *Pearl-Shell Overseas Marketing (Preparation of Rolls) Regulations.* These regulations provide machinery for the preparation of a roll of pearl-shell producers entitled to vote at the poll to decide whether the Pearl-Shell Overseas Marketing Act shall be brought into operation, and to vote at the election of members of the Board.

(iii) *Pearl-Shell Overseas Marketing (Poll and Election of Board) Regulations.*—These regulations prescribe the machinery for taking the poll of producers under the Pearl-Shell Overseas Marketing Act, and conducting the election of members of the Overseas Marketing Board.

12. *Pearl-Shell Export Charges Act 1927.*—This Act provides for a levy on pearl-shell exported from Australia at the rate of £3 per ton, but this rate may be reduced by regulation. The funds collected as a result of this levy will be used in the payment of the administrative and other expenses of the Pearl-Shell Overseas Marketing Board, and any surplus will be invested in securities of, or guaranteed by, the Commonwealth or any State Government.

13. *Export Guarantee Act 1924-25.*—(i) *General.* Under this measure the Minister may, by *Gazette* notice, declare that the Act shall apply to any particular produce the export or marketing of which is controlled by a Board. The Treasurer may guarantee to the Commonwealth Bank or any other prescribed Bank the amount of any advance made by the Bank to a Board in connexion with the financing of any scheme for the export and marketing of the produce under the control of the Board. Any such guarantee shall not be more than 80 per cent. of the market value of the produce, which market value shall be determined by the Minister. The Treasurer may revoke the guarantee if it appears to him that its conditions have not been observed. Under this Act the Minister may also, upon the receipt of a report and recommendation from the Commonwealth Board of Trade, grant assistance :—

(a) in relation to the export and marketing of primary produce ;

(b) to the growers of primary produce used or to be used in the manufacture or preparation of goods of a kind suitable for export from the Commonwealth.

The sum of £500,000 has been appropriated for granting such assistance.

(ii) *Ohanez Grapes Assistance Regulations 1925.* Under the *Export Guarantee Act 1924-25*, the Commonwealth Government recouped growers of ohanez grapes exported during 1925 portion of the out-of-pocket expenses incurred in placing the grapes on the oversea market in those instances where the fruit exported by any grower realized on that market an average of less than 14s. per case over the whole season. The Government paid the grower the difference between 14s. per case and the amount actually realized, with a maximum payment of 4s. per case. The total amount paid under this regulation was £2,021.

(iii) *Broom Millet Assistance Regulations.*—Owing to the heavy crop of broom millet in 1924, and the difficulty of disposing of the surplus locally at satisfactory prices, the Commonwealth Government came to the assistance of the growers in Victoria, New South Wales and Queensland by granting a payment in those cases where the broom millet of that crop sold by them before 1st April, 1926, realized an average of not more than £30 per ton. The Government paid the grower the difference between that amount and the amount actually realized, with a maximum payment of £3 per ton. The total amount paid was £2,226.

(iv) *Assistance granted to 30th September, 1927.*—Assistance under the *Export Guarantee Act 1924-25* has been granted in the following directions :—

	£	s.	d.
A. Marston Process for the Preservation of Citrus Fruits ..	292	7	6
B. Citrus Fruits Exported	936	19	7
C. Tasmanian Hop Industry	24,572	4	0
D. Doradillo Grapes	15,248	6	6
E. Canned Fruits Exported	29,043	12	11
F. Broom Millet	2,226	3	7
G. Special Trade Publicity in the United Kingdom	39,382	7	2
H. Ohanez Grapes Exported	2,021	0	2
I. Herd Testing	1,454	1	3
J. Payment to recoup Dried Fruits Advances Account ..	127,103	12	5
K. Commonwealth Representation at the Canadian National Exhibition, Toronto, 1927	2,400	0	0
	£244,680	15	1

CHAPTER XXVII.

STATISTICAL ORGANIZATION AND SOURCES OF INFORMATION.

§ 1. General.

1. **Development of Australian Statistics.**—(i) *General.* Previous issues of this Year Book included an outline of the history and development of statistics in Australia, particular reference being made to the Crown Colony Blue Books, Statistical Registers, Prominent State Statisticians, Statistical Conferences, the Foundation of the Federal Bureau and Uniformity of Control. It is not proposed to repeat this information in this issue. (See Year Book No. 19, p. 988.)

(ii) *Present Organization.* The organization in respect of the collection, tabulation, etc., of statistical data as between the State and Federal Statistical Bureaux, and State and Federal Government Departments was described in Official Year Book No. 19, p. 990. Limits of space preclude its repetition in this issue.

§ 2. Statistical Publications of Australia.

1. **General.**—The official statistical publications of Australia may be divided bibliographically into two main divisions, viz. :—(1) Commonwealth publications dealing both individually and collectively with the several States of the Commonwealth, and (2) State publications dealing with individual States only. Besides these there are many other reports, etc., issued regularly, which though not wholly statistical, necessarily contain a considerable amount of statistical information. The more important of these published to September, 1927, are indicated below.

2. **Commonwealth Publications.**—Commonwealth publications may be grouped under two heads, viz. :—(i) Publications issued by the Commonwealth Statistician, and (ii) Parliamentary and Departmental Reports and Papers.

(i) *Publications issued by the Commonwealth Statistician.* The following is a list of the principal statistical publications issued from the Commonwealth Bureau of Census and Statistics since its inauguration up to September, 1927 :—

Australian Life Tables, 1901–1910. Australian Joint Life Tables, 1901–1910.

Census (1911) Bulletins.

Census (1911) Results.—Vols. I., II., and III., with Appendix “Mathematical Theory of Population.”

Census (1921) Results.—Bulletins, Nos. 1 to 26. Report, Parts I to XVI., forming Vol I., and Parts XVII. to XXIX., forming, with the Statistician's Report, Vol II. Note.—Part XXVIII., Life Tables.

Finance.—Bulletins, 1907 to 1916–17 annually; 1917–18 and 1918–19 (one vol.) ; 1919–20 and 1920–21 (one vol.) ; 1921–22 to 1925–26 annually.

Labour and Industrial Statistics.—Memoranda and Reports, various, to 1913.

Labour Report, annually, 1913 to 1926.

Local Government in Australia.—July, 1919.

Official Year Book of the Commonwealth of Australia.—Annually, 1907 to present issue (1927).

Oversea Trade, annually, 1906 to 1925–26.

Pocket Compendium of Australian Statistics (formerly Statistical Digest), 1913, 1914, 1916, and 1918 to 1927 annually.

Population and Vital Statistics Bulletins.—Reports, various. Commonwealth Demography, 1911 to 1926 annually.

Production.—Bulletins, annually, 1906 to 1925–26.

Professional Papers—Various. A full list will be found in Official Year Book No. 13, p. 3.

Quarterly Summary of Australian Statistics—first issue, No. 70, December, 1917, replacing *Monthly Summary of Australian Statistics* (Bulletins 1 to 69), and incorporating data from earlier publications relating to Finance, Labour, Shipping, Trade, Vital Statistics, Oversea Migration, etc.

Social Insurance—Report to the Hon. the Minister of Trade and Customs, 1910.

Social Statistics—Bulletins, 1907 to 1915 annually, and 1918.

Superannuation for the Commonwealth Public Service—Report to the Hon. the Minister for Home Affairs, 1910.

Transport and Communication—Bulletins, 1906, 1908 to 1916 annually; 1919 to 1926 annually.

Wealth—The Private Wealth of Australia and its Growth as ascertained by various methods, together with a Report of the War Census in 1915.

(ii) *Commonwealth Parliamentary and Departmental Reports and Papers*. Lists of the principal official reports and other documents containing statistical information issued from the inauguration of the Commonwealth were given in Year Books up to No. 15, but limits of space preclude the incorporation of this information in the present volume.

3. *State Publications*.—The chief statistical publications of each State are set out hereunder. Limits of space preclude a further enumeration of the various Departmental Reports, statements of accounts, etc., issued by officials, boards, local government bodies, etc., in each State.

(a) New South Wales—Statistical Register (annual); Official Year Book of New South Wales (annual); Statesman's Year Book (annual); Vital Statistics (monthly and annual); Statistical Bulletin (monthly to December, 1919, thereafter quarterly).

(b) Victoria—Statistical Register (annual to 1916, then discontinued); Victorian Year Book (annual); Statistical Abstracts (quarterly to 1917).

(c) Queensland—Statistical Register (annual); Official Year Book, 1901; A.B.C. of Queensland Statistics (annual); Vital Statistics (annual and monthly).

(d) South Australia—Statistical Register (annual); Official Year Book, 1912 and 1913; Statesman's Pocket Year Book (annual).

(e) Western Australia—Statistical Register (annual); Statistical Abstracts (quarterly, previously issued monthly to July, 1917); Pocket Year Book of Western Australia (annual); Circular (monthly), containing Principal Statistics.

(f) Tasmania—Statistical Register (annual); Statesman's Pocket Year Book (annual); Statistical Summaries (annual); Vital Statistics and Migration (annual and monthly).

§ 3. Bibliography of Recent Works on Australia.

1. *General*.—In Official Year Book No. 13, a list of the principal general works dealing with Australia and Australian affairs, published from 1901 to 1920, will be found. Of the publications of the first eighteen years of the Commonwealth the more important are now repeated, with a fuller list of works published within the last six years.

ALLEN, NELLIE B. *Africa, Australia, and the Islands of the Pacific*. Boston, 1924.

ANDERSSON, G. *Australien: Natur och Kultur: Studien och Minnen*. Stockholm, 1922.

APSLEY, LORD AND LADY. *The Amateur Settlers*. London, 1926.

ARMOUR, Rev. J. *The Spell of the Inland: a Romance of Central Australia*. Melbourne, 1923.

ATKINSON, MEREDITH (Ed.). *Australia: Economic and Political Studies*, by Various Writers. Melbourne, 1920.

AUSTRALASIAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE. *Biennial Reports of Proceedings*.

AUSTRALIA'S LEADING INDUSTRIES PTY., LTD. *Australia's Leading Industries*. Melbourne, 1925.

BASEDOW, DR. HERBERT. *The Australian Aboriginal*. Adelaide, 1925.

BEAN, C. E. W. *On the Wool Track*. Sydney, 1925.

BEAN, C. E. W. (Ed.). *Official History of Australia in the War of 1914-1918* (in 12 vols.). Vol. I. Sydney, 1921. Vol. II, Sydney, 1924.

BEAN, C. E. W., and GULLETT, H. S. *Official History of Australia in the War of 1914-18*. Vol. XII. Sydney, 1923.

- BECK, WALTER. *Das Individuum bei den Australien*. Leipzig, 1924.
- BOLAM, ANTHONY G. *The Trans-Australian Wonderland*. 3rd Edition. Melbourne, 1924.
- BRITISH IMMIGRATION LEAGUE OF AUSTRALIA. *Annual Reports*.
- BRYANT, J. *Great Events in Australian History*. Sydney, 1925.
- BYRCE, VISCOUNT. *Modern Democracies*. London, 1921.
- CARPENTER, F. G. *Australia, New Zealand and Some Islands of the South Seas*. New York, 1924.
- CHIDELL, F. *Australia—White or Yellow?* London, 1926.
- CHILDE, V. G. *How Labour Governs: a Study of Workers' Representation in Australia*. London, 1923.
- COBHAM, SIR A. J. *Australia and Back*. London, 1926.
- COGHLAN, SIR T. A. *Labour and Industry in Australia*. 4 vols. London, 1918.
- COLLINGRIDGE, GEORGE. *First Discovery of Australia and New Guinea*. Sydney, 1906.
- COOKE, S. R., and DAVENPORT, E. H. *Australian Finance*. London, 1926.
- COPLAND, D. B. *Monetary Policy and its Application to Australia*. Melbourne, 1926.
- CRIVELLI, G. M., and LOUVET, PIERRE. *L'Australie et le Pacifique*. Paris, 1923.
- CROWTHER, G. R. *Famous Australians*. Melbourne, 1926.
- CUTLACK, F. M. *Official History of Australia in the War of 1914-18*. Vol. VIII. Sydney, 1923.
- DARL, KNUT. *In Savage Australia*. London, 1926.
- DARLEY, T. H. *With the 9th A.L.H. in the Great War*. Adelaide, 1924.
- DEMANGEON, ALBERT. *The British Empire: a study in Colonial Geography*. London, 1925.
- DUNBABIN, T. *The Making of Australasia; a brief History of the Origin and Development of the British Dominions in the South Pacific*. London, 1922.
- DURKHEIM, EMILE. *Le Système totémique en Australie*. Paris, 1925.
- EBERT, PAUL. *Südsee-Erinnerungen*. Leipzig, 1924.
- ELLIS, DR. A. D. *Australia and the League of Nations*. Melbourne, 1926.
- FAVENC, E. *Explorers of Australia*. Melbourne, 1908.
- FEDERAL HANDBOOK OF AUSTRALIA. Melbourne, 1914.
- FEDERATION OF BRITISH INDUSTRIES. *Resources of the Empire: a Business Man's Survey*. London, 1924.
- FOWLER, J. M. *Australia's Perils, Real and Imaginary*. Melbourne, 1926.
- GULLETT, H. S. *Official History of Australia in the War of 1914-18*. Vol. VII. Sydney, 1923.
- HASSERT, KARL. *Australien und Neuseeland*. Stuttgart, 1924.
- HEATON, H. *Modern Economic History (with Special Reference to Australia)*, W.E.A. Series. Melbourne, 1921.
- HIGGINS, H. B. *A New Province for Law and Order*, W.E.A. Series. Sydney, 1922.
- HORNE, G. and AISTON, G. *Savage Life in Central Australia*. London, 1924.
- HOWITT, DR. A. W. *The Native Tribes of South East Australia*. London, 1904.
- HUNTINGTON, ELLSWORTH. *West of the Pacific*. New York, 1925.
- HURD, P. A. *The Empire: a Family Affair*. London, 1924.
- HURLEY, FRANK. *Pearls and Savages: Adventures in New Guinea*. New York, 1924.
- JACK, R. L. *Northmost Australia*. Melbourne, 1922.
- JAMES, A. V. G. *Intermediate Geography*. Melbourne, 1924.
- JEBB, RICHARD. *The Empire in Eclipse*. London, 1926.
- JENKS, E. *History of the Australasian Colonies*. 3rd Edition. Cambridge, 1912.
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- JOHNSTON, SIR HARRY. *Pioneers in Australia*. London, 1925.
- JOSE, A. W. *History of Australasia*. 7th Edition. Sydney, 1921.
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- KERR, DONALD. *The Law of the Australian Constitution*. Sydney, 1925.
- LEAF, HORACE. *Under the Southern Cross: a Record of a Pilgrimage*. London, 1923.
- LONG, C. R., and WALLACE, G. M. *Notable Deeds of Famous Men and Women*. Melbourne, 1921. *Stories of British Worthies on the Sea and Land*. Melbourne, 1921.
- LUCAS, SIR CHARLES. *The Empire at War*. Vol. III. (Australia and New Zealand). Oxford, 1925.
- LYNG, JENS. *Our New Possession*. Melbourne, 1919. *Island Films: Reminiscences of German New Guinea*. Sydney, 1925. *Non-Britishers in Australia*. Melbourne, 1927.
- MARES, E. G. *Watch the Pacific*. Sydney, 1924.
- MILLS, DR. R. C. *The Colonization of Australia (1829-42)*. London, 1915.
- MILLS, DR. R. C., and BENHAM, F. C. *Lectures on the Principles of Money, Banking and Foreign Exchange, and their application in Australia*. Sydney, 1925.
- MILLS, STEPHEN. *Taxation in Australia*. London, 1925.
- MONASH, LIEUT.-GEN. SIR JOHN. *The Australian Victories in France in 1918*. London, 1920.
- MONCKTON, C. A. W. *Some Experiences of a New Guinea Resident Magistrate*. London, 1921. *Last days in New Guinea: Further Reminiscences*. London, 1922.
- MOORE, W. H. *The Constitution of the Commonwealth of Australia*. Second Edition. Melbourne, 1910.
- MURDOCH, WALTER. *Alfred Deakin*. London, 1923.
- OVERALL, LILLIAN S. *A Woman's Impressions of German New Guinea*. London, 1923.
- OXFORD SURVEY OF EMPIRE (6 vols.). Vol. V. Australasia. London, 1925.
- PECK, C. W. *Australian Legends*. Sydney, 1925.
- QUICK, HON. SIR J., and GARRAN, SIR R. R. *The Annotated Constitution of the Australian Commonwealth*. Sydney, 1901.
- QUICK, HON. SIR J., and GROOM, HON. L. E. *The Judicial Power of the Commonwealth*. Melbourne, 1904.
- QUICK, HON. SIR JOHN. *The Legislative Powers of the Commonwealth and the States of Australia*. Melbourne and Sydney, 1919.
- ROBERTS, S. H. *History of Australian Land Settlement (1788-1920)*. Melbourne, 1924.
- RÖHEIM, GÉZA. *Australian Totemism*. London, 1925.
- RUSDEN, G. W. *History of Australia*. 3 vols. Melbourne, 1908.
- RUTTER, H. M. *Australian Milestones and Stories of the Past, 1770-1914*. Sydney, 1925.

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- SPENCER, SIR W. B., and GILLEN, F. J. The Northern Tribes of Central Australia. London, 1904. Across Australia. 2 vols. London, 1912. The Native Tribes of Central Australia. London, 1899.
- STANLEY, MILLICENT PRESTON. My Daily Message. Sydney, 1926.
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- SUTCLIFFE, J. T. The History of Trade Unionism in Australia. W.E.A. series. Melbourne, 1921. The National Dividend. Melbourne, 1926.
- SWEETMAN, DR. EDWARD. Australian Constitutional Development. Melbourne, 1925.
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- WILLARD, MYRA. History of the White Australia Policy. Melbourne, 1923.
- WISE, HON. B. R. Commonwealth of Australia. 2nd Edition, London, 1913. The Making of the Australian Commonwealth. London, 1913.
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- WOOD, G. A. The Discovery of Australia. London, 1922. The Voyage of the *Endeavour*. Melbourne, 1926.

2. Works on Special Subjects.—In addition to the works set out above, dealing generally with the historical, industrial and personal aspects of the Australian people, there has been a number of recent works upon special subjects, the more important of which will be found in Official Year Book No. 13, pp. 11-12. The following list of some of the more recent works of note may be of interest:—

- BAKER, RICHARD T., and SMITH, H. G. Wood Fibres of some Australian Timbers. Sydney, 1924.
- BARRETT, SIR JAMES. Save Australia: a plea for the right use of our flora and fauna. Melbourne, 1925.
- BLACK, J. M. Flora of South Australia. Parts 1-2. Adelaide, 1922-24.
- BREWSTER, A. A., and LE PLASTRIER, C. M. Botany for Australian Students. Sydney, 1922.
- FORESTS COMMISSION OF VICTORIA. Forests and Forestry in Victoria. Melbourne, 1925.
- FROGGATT, GLADYS H. The World of Little Lives. Sydney, 1924.
- FROGGATT, W. H. Forest Insects of Australia. Sydney, 1923.
- HALL, ROBERT. Australian Bird Maps. Hobart, 1922.
- HOWCHIN, W. Building of Australia and the Succession of Life. Adelaide, 1925.
- KAMPEN, P. N. VAN. Amphibia of the Indo-Australian Archipelago. London, 1923.
- LEACH, DR. J. A. Australian Nature Studies. Melbourne, 1922.
- LE SOUEF, A. S., and BURRELL, H. The Wild Animals of Australia. London, 1926.
- LUCAS, A. H. S., and LE SOUEF, W. H. D. Animals of Australia. Melbourne, 1909. The Birds of Australia. Melbourne, 1911.
- MAIDEN, J. H. Critical Revision of the Genus *Eucalyptus*. 6 vols. and 7 parts of 7th vol. Sydney, 1903-25. Forest Flora of New South Wales. 7 vols. and 7 parts of 8th vol. Sydney, 1904-25.
- STANLEY, E. R. Geology of Papua. Melbourne, 1924.
- SWEETMAN, DR. E., LONG, C. R., and SMYTH, DR. J. History of State Education in Victoria. Melbourne, 1922.
- TAYLOR, DR. T. G. Australian Meteorology. Oxford, 1920.
- TILLYARD, R. J. The Insects of Australia and New Zealand. Sydney, 1926.
- WAITE, E. R. Fishes of South Australia. Adelaide, 1923.
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APPENDIX.

[Recent information and returns which have come to hand since the various chapters were sent to press are given hereunder.]

CHAPTER I.

DISCOVERY, COLONIZATION, AND FEDERATION OF AUSTRALIA.

§. 9. Commonwealth Administration and Legislation.

2. Governors-General and Ministries (p. 36).

(c) Prime Minister and Minister for External Affairs .. RT. HON. STANLEY MELBOURNE BRUCE,
P.C., C.H., M.C.

3. STATE MINISTRIES.

NEW SOUTH WALES (p. 36).

Premier and Treasurer	HON. T. R. BAVIN.
Attorney-General and Vice-President of the Executive Council	HON. F. S. BOYCE, M.L.C.
Chief Secretary	HON. A. BRUNTNELL.
Minister for Works and Railways	HON. E. A. BUTTENSHAW.
Minister for Lands	HON. R. T. BALL.
Minister for Agriculture	HON. H. V. C. THORBY.
Minister for Education	HON. D. H. DRUMMOND.
Minister for Mines and Forests	HON. F. A. CHAFFEY.
Minister for Local Government	HON. M. F. BRUXNER.
Minister for Justice	HON. J. R. LEE.
Minister for Labour and Industry	HON. E. H. FARRAR, M.L.C.
Assistant Treasurer	HON. B. S. STEVENS.
Minister for Health	HON. R. ARTHUR.
Honorary Minister	HON. J. RYAN, M.L.C.

VICTORIA (p. 36).

Premier, Treasurer, and Minister of Markets	HON. E. J. HOGAN.
Minister of Railways, Minister in Charge of Electrical Undertakings, and a Vice-President of the Board of Land and Works	HON. T. TUNNECLIFFE.
Minister of Public Instruction and Minister of Labour	HON. J. LEMMON.
Chief Secretary	HON. G. M. PRENDERGAST.
Commissioner of Crown Lands and Survey, Minister of Water Supply, and President of the Board of Land and Works	HON. H. S. BAILEY.
Attorney-General and Solicitor-General and Minister of Agriculture	HON. W. SLATER.
Commissioner of Public Works, Minister of Mines, Minister in Charge of Immigration, and a Vice-President of the Board of Land and Works	HON. J. P. JONES, M.L.C.
Minister of Forests, Minister of Public Health, and a Vice-President of the Board of Land and Works	HON. W. J. BECKETT, M.L.C.
Ministers without Portfolio	HON. J. H. DISNEY, M.L.C.
	HON. R. WILLIAMS, M.L.C.
	HON. J. CAIN.
	HON. G. C. WEBBER.

CHAPTER II.

Physiography.

Map of Salient Topographic Features of Australia (p. 89)—

The portions of the Eastern Cordillera in Queensland and New South Wales which are marked Great Dividing Range should have been marked the Great Divide (see p. 81).

CHAPTER III.

GENERAL GOVERNMENT.

§ 2. Parliaments and Elections.

8. The Parliament of South Australia, p. 97.—The elections for the 26th Parliament were held on 26th March, 1927, when the voting, &c., was as follows :—

House.	Electors Enrolled.			Electors who Voted.			Percentage of Electors who Voted in Contested Electorates.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
Legislative Council ..	100,376	37,395	137,771	46,686	17,742	64,428	67.79	59.91	65.26
Legislative Assembly ..	152,997	156,591	309,588	110,127	104,611	214,738	80.64	74.31	77.43

The first session of the 26th Parliament began on 17th May, 1927.

§ 6. Legislation during 1926.

9. Western Australia (p. 104).—(i) *Federal Aid Roads Agreement*. Agreement with the Commonwealth is ratified.

(ii.) *Soldier Land Settlement*. Agreement with the Commonwealth is ratified.

(iii.) *Land Tax and Income Tax*. Rates for 1926-27 are declared.

(iv.) *Guardianship of Infants*. Sets out the principle on which questions relating to custody, upbringing, guardianship, &c., of infants are to be decided.

(v.) *Wire Netting*. Supply to settlers of wire and wire netting is authorized.

(vi.) *Dairy Cattle Compensation*. Compensation is payable to owners of registered dairy cattle destroyed because of disease.

(vii.) *University Colleges*. Residential university colleges may be established and endowed.

(viii.) *Dried Fruits*. Provision is made for the marketing of dried fruits. A Board of five members is constituted, and registration of powers is enacted; dried fruits may be compulsorily acquired.

(ix.) *Timber Industry Regulation*. Inspection and regulation of the industry is provided for.

CHAPTER VI.

OVERSEA TRADE.

§ 4. Oversea Trade.

1. Total Oversea Trade, p. 216.—The following particulars have been compiled from preliminary returns relating to the Oversea Trade of Australia during the year 1926-27 :—

OVERSEA TRADE.—AUSTRALIA.

Period.	Recorded Value.			Value per Inhabitant.			Percentage of Exports on Imports.
	Imports.	Exports.	Total.	Imports.	Exports.	Total.	
1926-27	£1,000. 164,745	£1,000. 144,776	£1,000. 309,521	£ s. d. 26 19 3	£ s. d. 23 13 10	£ s. d. 50 13 1	% 87.9

CHAPTER VII. TRANSPORT AND COMMUNICATION.

E. MOTOR VEHICLES.

5. Motor Vehicles Registered, p. 320.—Motor Vehicles registered at 30th June, 1927, were as follows—

MOTOR VEHICLES REGISTERED AT 30th JUNE, 1927.

State or Territory.	Motor Cars.	Commercial Vehicles.	Motor Cycles.	Total all Vehicles.
New South Wales	119,164	30,016	27,092	176,272
Victoria	110,950	(e) 174	23,011	134,135
Queensland	(b) 58,385	(c) 2,492	7,941	68,818
South Australia	48,054	9,795	12,962	70,811
Western Australia (a) ..	20,000	6,051	6,000	32,051
Tasmania	8,356	1,230	3,516	13,102
Northern and Central Australia (d)	140	42	35	217
Federal Capital Territory ..	631	197	110	938
 Australia	 365,680	 49,997	 80,667	 496,344

(a) Partly estimated.
(d) Estimated.

(b) Pneumatic tyred vehicles.
(e) Motor buses, trucks, vans, &c., included with motor cars.

(c) Solid tyred vehicles.

CHAPTER VIII.

FINANCE.

A. COMMONWEALTH FINANCE.

§ 2. Consolidated Revenue Fund.

Division II.—Revenue.

1. Total, p. 351.—Revenue for year 1926–27 amounted to £78,168,235.
2. Revenue per Head, p. 351.—The revenue per head of population for 1926–27 was £12 15s. 10d.

Division III.—Expenditure.

2. Total Expenditure, p. 357.—For the year 1926–27 the total expenditure was £75,532,638, and the expenditure per head of population £12 7s. 3d.

§ 4. Commonwealth Loan Funds and Public Debt.

7. Commonwealth Public Debt.—(ii) *Place of Flotation*, p. 369. At the 30th June, 1927, the debt stood as follows:—

	£
Payable in London	152,853,126
Payable in New York	15,365,663
Payable in Australia	281,813,406
Value of Transferred Properties	11,035,547
 Total	 461,067,742

- (iv) *Amount of Interest Payable*, p. 370. At the 30th June, 1927, the annual interest payable on the debt amounted to £24,163,970, of which £7,737,679 was payable in London, £768,283 in New York, and £15,658,008 in Australia.

B. STATE FINANCE

§ 1. General.

3. *Inter-relation of Commonwealth and State Finance*, p. 380.—Further conferences of Premiers were opened in Melbourne on 15th June, and in Sydney on 22nd July, 1927, to discuss proposals submitted by the Commonwealth Government. After discussion an agreement was reached, a brief outline of which follows.

The Commonwealth shall take over on 1st July, 1929, all State debts existing on 30th June, 1927, and shall contribute £7,584,912 a year for 58 years towards the interest charges thereon.

The Commonwealth shall contribute 2s. 6d. per cent. per year and the States 5s. per cent. per year towards a sinking fund to extinguish existing debts in 58 years.

The Commonwealth shall contribute 5s. per cent. per year and the States 5s. per cent. per year towards a sinking fund to extinguish all future State debts raised after 1st July, 1927, within 53 years.

The Commonwealth shall arrange all future borrowing on behalf of Commonwealth and States according to the decisions of the Loan Council, which shall be composed of representatives of Commonwealth and all State Governments.

The Commonwealth, in full payment for transferred properties, shall take over State debts bearing interest at 5 per cent. to the value of £11,036,000.

Steps are now being taken to have the agreement ratified by the Commonwealth and State Parliaments.

A temporary agreement embodying the above features will be made between the Commonwealth and States for the period 1st July, 1927, to 30th June, 1929.

4. Child Endowment.—At the above mentioned conferences the subject of child endowment was discussed. It was estimated that the number of adult salary and wage earners in the Commonwealth was 1,470,000, and that they had 1,125,000 children less than fourteen years of age dependent upon them. The children less than fourteen years of age of employers and other non-employees numbered 700,000. It was also computed that to endow at 5s. per week each child aged less than fourteen years of persons earning £300 or less per annum would cost of £22,000,000 a year.

No definite scheme was accepted, but it was decided to appoint a Royal Commission to inquire into and report upon the following:—

The general question of the institution of a system of child endowment or family allowances in Australia with particular reference to its social and economic effects, and, if the institution of such a system is recommended—

The methods by which a system could be established.

The relation of such a system to wage fixation, having regard to the interests of the wage earner, of industry generally, and of the community.

The application of a system of child endowment or family allowances to persons whose wages are not regulated by law or who are not engaged in industry as wage earners.

The limit of income, if any, subject to which payments by way of child endowment or family allowances should be made.

The methods of financing and giving effect to a system of child endowment or family allowances, with particular reference to the practicability and desirability of providing the necessary funds from public revenue, from industry, or from both sources, and in what proportions, and upon what principle.

The methods of administering such a system.

The cost of such a system, including administrative expenses and reserves, if thought necessary.

The legal methods of giving effect to any system recommended, with particular reference to the distribution of Commonwealth and State powers.

Any matters of public interest which may arise as the result of the institution of a system of child endowment or family allowances.

The personnel of the Commission was announced on 6th September, 1927.

A scheme of child endowment has, however, been introduced in the State of New South Wales. Legislation has been passed providing: (a) for the declaration of a basic wage for a man and wife; and (b) the payment of an allowance of 5s. per week in respect of each dependent child, subject to the provision that child allowance shall only be paid to the extent by which a worker's total earnings fall short of the sum represented by the basic wage plus child allowance at the rate of 5s. per week for each child. Thus a worker with three dependent children receiving £5 by way of salary would not be entitled to the allowance, but would receive it in respect of a fourth child. These payments commenced on 1st September, 1927.

The fund from which these payments are being made was created by a levy of 3 per cent. on the wages bill of employers with a rebate of 10 per cent. in respect of workers employed under Federal awards.

The basic wage was declared at £4 5s. per week for adult males, and £2 6s. per week for adult females, and at £4 4s. for rural employees.

CHAPTER XVII.

AGRICULTURAL PRODUCTION.

§ 4. Wheat.

7. **Voluntary Wheat Pools, p. 651.**—(i) *General.* Voluntary wheat pools again operated in the States of New South Wales, Victoria, South Australia, and Western Australia during the 1926–27 season. The system adopted in these States is somewhat similar, and is a co-operative one controlled by committees appointed by the growers, the whole of the proceeds, less administrative expenses, being distributed amongst contributors of wheat to the pool. The trading names of these organizations in the various States are as follows :—

New South Wales.—The Wheat-growers' Pooling and Marketing Co. Ltd.

Victoria.—Victorian Wheat-growers' Corporation Ltd.

South Australia.—The Co-operative Wheat Pool of South Australia.

Western Australia.—The Co-operative Wheat Pool of Western Australia.

The marketing of wheat in Queensland was conducted on the compulsory basis by the State Wheat Board, consisting of five representatives of the growers with a Government appointee as Chairman.

(ii) *Delivery of Wheat to Pools.* The quantities of wheat received by the different pools, together with the percentage thereof on the total marketable wheat during 1926–27, were as follows :—

WHEAT RECEIVED BY VOLUNTARY POOLS, 1926–27.

Particulars.	Unit.	N.S.W.	Victoria.	S. Aust.	W. Aust.
Wheat received	Bushel	8,848,900	a 20,000,000	8,951,024	17,933,863
Percentage on Total Marketable Wheat	%	25	a 50	30	65

(a) Estimate.

(iii) *Finance.* The requisite financial accommodation in New South Wales and Victoria was furnished by the Commonwealth and Associated Banks supported by guarantees by the State Governments. In South and Western Australia funds were made available by the Co-operative Wholesale Society Ltd. of Great Britain. Initial advances were made available to growers on the delivery of their wheat at country stations, and further advances have been made in all the States, the payments to August, 1927, being as follows :—

WHEAT POOLS ADVANCES(a) PER BUSHEL MADE TO AUGUST, 1927.

Particulars.	New South Wales.	Victoria.	South Australia.	Western Australia.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1st Payment	0 3 6	0 3 8	0 3 6	0 3 6
2nd Payment	0 1 0	0 0 10½	0 0 9	0 0 6
3rd Payment .. ..	..	..	0 0 6	0 0 9
4th Payment .. ..	..	..	..	0 0 3

(a) Less Rail Freight.

The disposal of the remaining stocks will make available further small sums for distribution among the wheat-growers.

In Queensland the Commonwealth and Associated Banks provide the financial assistance necessary to make advances on wheat delivered, the State Government guaranteeing the Wheat Board's accounts with the banks.

The wheat crop in Queensland was generally a failure in 1926-27, but the Pool Board continued to function mainly for the purpose of distributing seed to growers. Owing to the necessity for holding the greater portion of last season's crop for replanting the Board has not been able to make a final advance as early as would otherwise have been possible. So far it has paid out a first advance of 3s. 4d. and a second of 1s. 3d., making together 4s. 7d. per bushel net to grower at nearest railway siding. The stock of wheat on hand at date of balance nearest to 30th June, 1927, was 31,238 bushels.

CHAPTER XXI. MINERAL INDUSTRY.

§ 1. The Mineral Wealth of Australia.

3. Value of Production during 1926, p. 725.—The following table gives the value of Australian mineral production for the year 1926 :—

MINERAL PRODUCTION.—VALUE, 1926.

Minerals.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N. Ter.	Total.
	£	£	£	£	£	£	£	£
Gold ..	82,551	208,471	38,595	3,220	1,857,715	17,694	593	2,208,839
Silver and Lead	4,399,953	307	147,724	865	85,604	296,143	329	4,930,925
Copper ..	22,473	..	73,591	14,681	84	449,352	..	560,181
Iron ..	580,563	..	3,914	671,307	..	..	..	1,255,784
Tin ..	326,474	5,075	174,147	..	10,450	297,974	11,686	825,806
Zinc ..	1,359,588	..	6,827	..	..	96,070	..	1,462,485
Zinc ..	9,436,520	846,697	1,098,927	..	394,400	76,417	..	11,852,961
Coal ..	123,931	21,456	59,617	342,301	23,610	281,431	1,964	854,310
Total ..	16,332,053	1,082,006	1,603,342	1,032,374	2,371,863	1,515,081	14,572	23,951,291

§ 12. Oil Shale, &c., page 761.

In October, 1927, a small but definite flow of oil associated with a great pressure of petroliferous gas was recorded from the Roma district in Queensland, and cores from the bore at Lakes Entrance in Victoria proved on analysis to contain petroleum, while petroliferous gas was also present. The reports from Queensland were responsible for considerable activity in dealings in oil shares. At the time of going to press, however, sufficient information was not available to enable a definite statement to be made in regard to commercial possibilities in either locality.

CHAPTER XXIV. POPULATION.

§ 3. Distribution and Fluctuation of Population.

1. Present Number, p. 854.—The estimated population at the 30th June, 1927, was 6,167,429, distributed as follows :—

AUSTRALIA.—ESTIMATED POPULATION, 30th JUNE, 1927.

States and Territories.	Males.	Females.	Persons.
New South Wales	1,207,902	1,162,721	2,370,623
Victoria	859,369	867,076	1,726,445
Queensland	472,740	421,704	894,444
South Australia	295,449	275,451	570,900
Western Australia	207,205	177,838	385,043
Tasmania	103,389	104,790	208,179
Northern Territory	3,050	1,210	4,260
Federal Capital Territory	5,017	2,518	7,535
Total, Australia	3,154,121	3,013,308	6,167,429

The corresponding figures for Australia for the year ended 30th June, 1926, were 3,087,642 males and 2,956,282 females, or a total of 6,043,924 persons. There was thus a total increase during the year ended 30th June, 1927, of 123,505, made up of 75,442 males and 48,063 females.

GENERAL INDEX.

[NOTE.—This index is followed by a list of maps, graphs, and diagrams, also a list of special articles, etc., in previous issues of the Official Year Book.]

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