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The
Official Year Book
of
New South Wales.

1918.

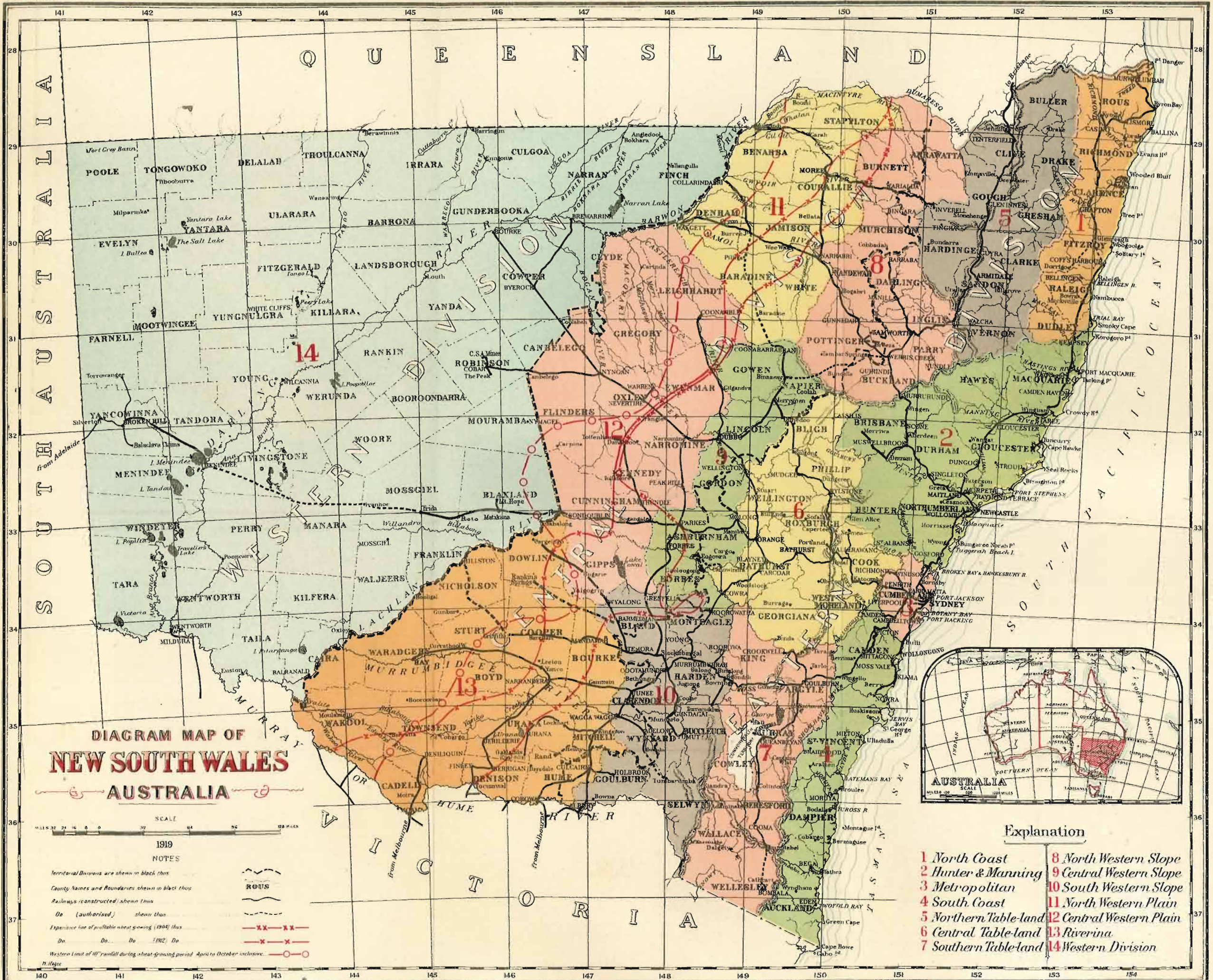


H. A. SMITH,
Government Statistician.

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THE
OFFICIAL YEAR BOOK
OF
NEW SOUTH WALES.
1918.



H. A. SMITH, F.S.S.,
GOVERNMENT STATISTICIAN.

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OF NEW SOUTH WALES.

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PREFACE.

THIS is the twenty-sixth issue of the Official Year Book, which up to 1904 was known as the "Wealth and Progress of New South Wales."

The contents have been published already in eighteen parts, which were issued as they became available from the printer, in order to render them of immediate service. The information was brought up to the latest date available at time of publication.

A diagram map of New South Wales is published with the volume to show the railways, county and territorial divisions, and area of the State suitable for profitable cultivation of wheat.

Every care has been taken to keep the work free from errors, but if any are noticed, it would be deemed a favor if their nature were indicated.

I have to express my thanks to the responsible officers of the various State and Commonwealth Departments, and to others who have kindly supplied all desired information, often at considerable trouble.

The "Statistical Register of New South Wales" is published annually from this Bureau; and as it contains in full detail the results of the collected and compiled statistics of the State, it will prove of great service if studied in conjunction with this Year Book.

H. A. SMITH,
Government Statistician.

Bureau of Statistics,
Sydney, 31st January, 1920.

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Event.	Year.	Event.	Year.
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Tasmania ...	1798–9	Site selected ...	1908
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King, Coast ...	1817	Simultaneous Australian ...	1881
Port Essington ...	1818	Church... ..	1793
Lawson—Blue Mountains ...	1813	Coinage, Copper ...	1801
Leichhardt ...	1844, 1848	Constitution ...	1823
Map of Australia, first ...	1791	Representative ...	1843
Meehan—Goulburn District... ..	1817	Court, Arbitration ...	1902
		Circuit ...	1829
		Criminal ...	1788
		District ...	1844
		Divorce ...	1873
		Supreme of N.S.W. ...	1823

Event.	Year.	Event.	Year.
First Criminal Trial by Jury ...	1824	First Ship-building—Boat ...	1789
Customs Duty ...	1800	Steamer ...	1831
Divine Service ...	1788	Foreign trading ...	1792
Election, Parliamentary ...	1843	Immigrant ...	1831
Engine, Steam ...	1815	Steam ...	1831
Executive Council Meeting ...	1824	On Murray River ...	1853
Export, Excess of Annual ...	1844	Statue, public... ..	1842
Wool ...	1807	Store (brick) ...	1790
Fleet ...	1788	Sugar manufacture ...	1824
Free immigrants ...	1793	Telegraph ...	1851
Friendly Society ...	1834	Wireless Station ...	1911
Gold Dredge ...	1899	Telephone ...	1880
Register ...	1857	Long distance ...	1898
Gunpowder Manufacture ...	1829	Theatre ...	1796
Harvest ...	1789	Tobacco manufacture ...	1822
Industries, whaling and seal-		Town Clock ...	1798
ing ...	1791	Tramway (horse-drawn) ...	1861
Jury, criminal trial by ...	1824	Electric ...	1890
Land grant to Settlers ...	1791	Steam ...	1879
Regulations ...	1824	Treasurer, Colonial ...	1824
Loan, Public ...	1841	Trial by Jury, Criminal ...	1824
Mail Contract ...	1831	Tweed manufacture ...	1843
Overland, Sydney-Adelaide	1847	Volunteer Defence Force ...	1800
Steamer, P. and O. Com-		Water Police ...	1830
pany ...	1852	Wheat harvest ...	1789
Maize surplus sold to Govern-		Surplus ...	1898
ment ...	1793	Wireless Telegraph Station ...	1911
Manufacture, blankets ...	1801	Wool export ...	1807
gunpowder ...	1829	Sample sent abroad ...	1803
linen... ..	1801	Fish Industry Commission ...	1894
sugar ...	1824	Investigation ship "Endea-	
tobacco ...	1822	vour" lost ...	1914
tweed ...	1843	State trawling ...	1915
Map of Australia, Exploration	1791	Fisher Library ...	1909
Military Force of Volunteers	1800	Fitzroy Dock commenced	1854
Encampment ...	1873	completed ...	1857
Ministry, Responsible ...	1856	Governor ...	1846-55
Mounted Police ...	1825	Iron works ...	1847
Muster, Census ...	1801	Fleet, First ...	1788
Naval Vessels, Australian ...	1910	Second ...	1790
Gunboat ...	1855	Third ...	1791
New South Wales Settlement	1788	Flinders' Chart of Bass Strait and	
Newspaper ...	1803	Tasmania ...	1800
Observatory ...	1788	Circumnavigation of Australia	1803
Offenders' Probation Act ...	1894	Explorations ...	1796-99
Parliament Act ...	1824	Floods, Gundagai ...	1852
Election ...	1843	Flour Mills, Darling, Parramatta ..	1826
Post Office ...	1809	Lachlan, Botany ...	1820
Postage Stamped covers ...	1838	Food Act, Pure ...	1909
Printing press... ..	1795	Commission, Supplies and	
Races, horse ...	1810	Prices ...	1911
Railway commenced ...	1850	Uniform Standards ...	1913
Contract ...	1851	Forestry Act ...	1916
Opened ...	1855	Conservation ...	1882
Religious Service ...	1788	Interstate Conference, first ...	1911
Savings Bank ...	1819	Regulations ...	1878
School ...	1796	Reserves ...	1871
Open-air ...	1913	Franchise, Parliamentary, Man-	
Settlement, New South Wales	1788	hood ...	1858
Queensland ...	1824	One Man one Vote ...	1893
South Australia ...	1836	Police ...	1896
Tasmania ...	1803	Women's ...	1902
Victoria ...	1803	Freetrade Association ...	1864
Western Australia ...	1826	Interstate ...	1901
Sewerage ...	1853	Tariff ...	1895
Sheep (Merinos) imported ...	1797	Friendly Societies Act ...	1873, 1899
		Subventions ...	1908

Event.	Year.	Event.	Year.
Funafuti Island Scientific Expeditions ...	1896-98	Governor Hunter ...	1795-1800
Gallery, National Art ...	1871	Jersey ...	1891-93
Gaols (<i>see</i> Prisons).		King ...	1800-06
Garden Palace Exhibition ...	1879	Loftus ...	1879-85
Fire ...	1882	Macquarie ...	1810-21
Suburb, Dacey ...	1912	Phillip ...	1788-92
Gardens, Botanic, formed ...	1816	Rawson ...	1902-09
Opened to Public ...	1838	Robinson ...	1872-79
Zoological ...	1879, 1916	Strickland ...	1913-17
Gas Act ...	1912	Young ...	1861-67
Australian Company ...	1837	Governor, Lieutenant, Grose	1792-94
Employees strike ...	1913, 1917	Paterson ...	1794-95
Sydney lit with ...	1841	Governor's censorship of press	ceased ... 1824
<i>Gazette, Government</i> ...	1832	Governors' Court ...	1812
Sydney, first newspaper ...	1803	Granary at Sydney completed ...	1797
Geological Survey ...	1851	Grape-vines imported ...	1817, 1832
George, Lake, discovered ...	1817	planted ...	1801
Gipps, Governor ...	1838-46	Viticulture established ...	1840
Glebe Abattoirs ...	1860	Griffiths (Norton) Contract for	
Gold Commissioner appointed ...	1851	Public Works ...	1915
Discovery—Clarke ...	1841	Cancelled ...	1917
Hargraves ...	1851	Grose, Lieutenant-Governor	1792-94
McBrien ...	1823	Gundagai floods ...	1852
Strzelecki ...	1839	Gunpowder first made ...	1829
Dredge, first ...	1899	Habitual Criminals Act ...	1905
Fields—Anti-Chinese riots ...	1861	Half-holiday, Saturday ...	1910
Commission ...	1870	Hall, Mrs. W., charitable bequest,	
Control scheme ...	1855	£1,000,000 ...	1912
Exodus to California ...	1849	Hampden, Governor ...	1895-99
Great activity ...	1873	Harbour Trust, Sydney ...	1901
Kiandra ...	1860	Hargraves' gold discovery ...	1851
Lambing Flat ...	1861	Hastings River discovered ...	1818
Riots ...	1861	Hawkesbury College established ...	1896
Mount Boppy ...	1901	River discovered ...	1788
Mount Drysdale ...	1893	Explored ...	1789
Regulations ...	1857	Settlement ...	1794
Temora ...	1880	Health, Public, Act ...	1902
Wyalong ...	1893	Board ...	1881
Proclaimed Crown property ...	1851	Department ...	1914
Register, first ...	1857	High Court of Australia ...	1903
Revenue allocated to Legislature ...	1852	Holey Dollar and Dump Currency	1813-29
Goulburn Plains discovered ...	1817	Homebush Abattoirs ...	1915
Government (<i>see</i> Constitution).		Homes, State Advances ...	1914
<i>Gazette</i> ...	1832	Hops, first crop ...	1812
Industrial undertakings (<i>see</i> State).		Horses, first races ...	1810
Marketing—Wheat ...	1915	Shipped to India ...	1830
Wool ...	1916	Hospitals Act, Private ...	1908
Savings Bank (<i>see</i> Bank).		Prince Alfred ...	1878
Statistician's Office ...	1886	Saturday Fund ...	1895
Tourist Bureau ...	1906	School, Travelling ...	1914
Governor Beauchamp ...	1899-1901	State Convalescent ...	1914
Belmore ...	1868-72	Sydney, founded ...	1811
Bligh ...	1806-08	Opened ...	1816
Bourke ...	1831-37	United Dental ...	1905
Brisbane ...	1821-25	Hotels Closing Hour, Referendum	1916
Carrington ...	1885-90	Hovell overland expedition to	
Chelmsford ...	1909 13	South ...	1824
Darling ...	1825-3	Hume explorations ...	1814, 1817
Davidson ...	1918	New route to Bathurst ...	1827
Denison ...	1855-61	Overland expedition to South	1824
Duff ...	1893-95	Hunter District Water Supply and	
Fitzroy ...	1846-55	Sewerage Board ...	1892
Gipps ...	1838-46	Governor ...	1795-1800
Hampden ...	1895-99	River coal discovered ...	1797
		Mines ...	1801

Event.	Year.	Event.	Year.
Hyde Park Barracks	1817	Iron Industry Commission ...	1911
Illawarra settlement	1826	works, Eskbank	1869
Immigration, assistance by State	1832-85	Fitzroy	1847
resumed	1905	Lithgow blast furnace ...	1907
Chinese	1848	Newcastle	1915
Intercolonial Conference ...	1888	Irrigation, Burrinjuck Dam author-	
Restriction Act ... 1861, 1881,		ised	1906
Bill defeated	1888	Commission	1913
Riots against	1858	Murrumbidgee Trust... ..	1911
Committee	1861	Jersey, Governor	1891-93
First ship	1841	Jervis Bay Naval College ...	1915
Free, first	1831	Judge (Bent) first	1814-16
Sought by Governor Phillip	1793	Judges Retirement Act	1918
Suspended	1788	Juries, Military, ceased ...	1839
German proposed	1818	trial by, civil cases	1829
Lang's Scotch mechanics ...	1847	Criminal Sessions	1824
Pacific Islanders	1830	Justice Charter	1814, 1824
prohibited	1847	Kennedy's explorations ...	1845, 1848
Proposed to relieve labour	1901	Kiandra Goldfield	1860
shortage	1830	King, Governor	1800-06
Public Funds appropriated		discovered Port Essington ...	1818
Loan	1832, 1840	explorations	1817
Imperial Act, Constitution of New	1841	King George's Sound Settlement	1826
South Wales	1851	Kuring-gai Chase	1894
Defence	1888	Kurnell reserve	1905
Conference	1909, 1911	Labour Scarcity	1830
Purchase, Meat	1915	Shortage Commission	1911
Wheat	1916	Lachlan River discovered	1799
Wool	1916	explored	1815
Troops withdrawn	1870	Lake Bathurst discovered	1817
Import Duties, first	1800	George discovered	1817
Exceeded by exports	1844	Lambing Flat Goldfield ...	1861
Income Tax, Commonwealth ...	1915	Riots	1861
State	1895, 1912	Land Advances to Settlers ...	1899
Industrial Arbitration Act	1899, 1901,	Board	1826
1912, 1916, 1918,		Local	1885
Board of Trade	1918	Division, Territorial	1885
Court, first sitting... ..	1902	Grants	1791
Cost of living inquiry	1913	Abolished	1831
Council of Conciliation	1892	Church and School Corpor-	
Disputes Act	1908	ation	1829
Legislation Referendum	1911	Legislation—	
Schools	1867	Auction Sales restriction ...	1884
Wages Boards	1908	Closer Settlement	1901
Industries, first whaling and seal-		Conversions	1908
ing	1791	Dummying restricted	1875
Inebriates Act	1900	Leases	1847
Infant Protection Act	1904	Pastoral Lessees tenure ...	1884
Maintenance by Confinees ...	1913	Real Property (Torrens') ...	1862
Infectious Diseases Supervision		Returned Soldiers Settlement	1916
Act	1881	Sales... ..	1842
Influx of Criminals Prevention Act	1903	Selection before Survey	
Inquiry Commission—Food Supply		(Robertson's)	1861
and Prices	1911	Squatting Act	1839
New South Wales (Bigge's) ...	1819	Imperial	1846
House of Commons	1812	Valuation	1916
Insolvency Law	1842	Western	1901
Inspection of Children, Medical ...	1907	Orphan School Estates, vested	
Intercolonial Conference 1873, 1874, 1888		in Trustees of Church and	
International Exhibition	1872, 1879	School Lands	1826
Interstate Commission	1913	Port Phillip, land sale in	
Invalidity Pensions	1907	Sydney	1838
Commonwealth	1910	Regulations	1824, 1840
		Auction Sales (Ripon)	1831
		Selection, free... ..	1862
		Conference	1877

Event.	Year.	Event.	Year.
Land (<i>continued</i>)—		Macarthur Sheep farm, Camden...	1805
Sydney Common designated ..	1811	Flocks dispersed ...	1858
Tax, Commonwealth ...	1910	Wool sample taken to Eng-	
State	1895	land	1803
Volunteer orders ...	1867-74	Macquarie, Governor ...	1810-21
Lang, J. D., arrived ...	1823	Tour of Settlements ...	1811
Australian College ...	1831	Lighthouse founded ...	1816
Scotch mechanics ...	1830	River discovered ...	1813
La Pérouse, arrived at Botany Bay	1788	Oxley's exploration ...	1818
Monument	1825	Mail, Aerial, Melbourne-Sydney	1914
Law (<i>see</i> Courts).		Contract, first... ..	1831
Charter of Justice ...	1814, 1824	Inland, regular services ...	1827
English Criminal adopted ...	1828	Sydney-Adelaide ...	1847
First Colonial attorney ...	1822	Sydney-Melbourne, fort-	
important civil action ...	1795	nightly	1837
Inquiry, Bigge's ...	1819	Oversea, English contract ...	1849
Insolvency	1842	Weekly	1888
Matrimonial Causes Act ...	1873	Orient Co.	1878
Lawson crossed Blue Mountains ...	1813	Contract	1910
Legitimation of Children Act ...	1902	Messageries Maritimes ...	1882
Leichhardt explorations ...	1844, 1848	Norddeutscher-Lloyd ...	1886-1914
Letter telegrams	1914	Panama	1866-68
Letters of Denization ...	1828	Peninsular and Oriental ...	1852
Week-end Cable	1913	Suspended	1854-56, 1917
Library, Australian Subscription	1826	San Francisco 1869-71, 1873-1900	
Converted into Free Public	1869	Oceanic Co.	1900-07, 1912
Fisher	1909	Union Co.	1911
Free Public	1869	Vancouver	1893
Mitchell	1910	Maize, first surplus sold to Govern-	
Municipal, Sydney ...	1909	ment	1793
Music	1913	Manhood suffrage	1858
Public	1869	Manning River discovered ...	1818
incorporated	1899	Manufacture, blankets and linen,	
Lieutenant-Governor (<i>see</i> Govern-		first	1801
nor).		Encouragement Act ...	1908
Lighthouses, Commonwealth Ad-		Gunpowder	1829
ministration	1915	Rolling stock	1869
Macquarie, founded ...	1816	Sugar, first	1824
Solitary Island, opened ...	1880	Tobacco, first	1822
Liquor Legislation ...	1830, 1882, 1905	Tweed	1843
Licenses	1825	Maori War contingent ...	1860
Referendum	1916	Maritime strike	1890
Lithgow Iron and Steel Works,		Markets, Belmore	1869
blast furnace	1907	Queen Victoria	1898
Small Arms Factory ...	1912	Regulations	1810
Liverpool Plains exploration—		Sydney Municipal, Fish	1910
Mitchell	1831	Fruit	1911
Oxley	1818	Marriages, Civil Registration ...	1856
Living Wage, Industrial Court		Married Women's Property Act ...	1893
Inquiry	1913	Maternity Allowances, Common-	
Local Government Act ...	1906	wealth	1912
Incorporation of Towns ...	1843	Matrimonial Causes Act ...	1873
Shires Act	1905	Mawson Antarctic Expedition	1911-14
Sydney Municipal Corpora-		McBrien gold discoveries ...	1823
tion	1842-53	Meat Act	1902
Revived	1857	Imperial uses	1915
Lockyer established King George's		Export to England	1830
Sound Settlement ...	1826	Trade Inquiry	1914
Loftus, Governor	1879-85	Industry Board	1912, 1916
Long Bay Penitentiary ...	1909	Preserving Industry ...	1846
Lord Howe Island discovered ...	1788	Sydney Co. Works... ..	1872
Loyal Association Volunteer Corps	1801	Mechanics School of Arts, Sydney	1833
Macarthur arrived	1790	Technical College	1878
Departure to England ...	1809	Scotch immigrants	1830
Imported grape vines ...	1817	Medical Congress, Australasian ...	1911
Returned after banishment ...	1817	Inspection of school children	1907

Event.	Year.	Event.	Year.
Meehan explorations ...	1817	Museum, Australian, founded ...	1836
Melbourne founded ...	1835	Incorporated ...	1853
Melville Island settlement ...	1824	Technological ...	1879
Messageries Maritimes Mail Service ...	1882	Music, Conservatorium ...	1915
Metropolitan Cattle Saleyards ...	1882	Muster, First Census ...	1801
Traffic Act ...	1900	National Art Gallery ...	1871
Military (see Defence).		Park ...	1879
College, Duntroon ...	1911	School Boards ...	1848-66
Juries ceased ...	1839	Navy (see Defence).	
Mills, Flour, Darling, Parramatta ...	1826	College, Jervis Bay ...	1915
Lachlan, Botany ...	1820	Control of Customs, super-	
Mineralogical Survey (Stutebury) ...	1851	seded ...	1827
Minimum Wage Act ...	1908	Necessary Commodities Control	
Mining, Accident Relief Fund ...	1900	Commission ...	1914
Broken Hill (see Silver).		Nepean River discovered ...	1789
Coal (see Coal).		New Caledonia Cable ...	1893
Copper ...	1848	New South Wales ...	1788
Department created ...	1874	Bank ...	1817
Diamond discoveries ...	1867, 1883	Boundary extended ...	1827
Gold (see Gold).		Colony proclaimed ...	1788
Mineralogical Survey ...	1851	Crown ...	1824
Opal, Rocky Bridge ...	1877	Self-supporting ...	1827
White Cliffs ...	1889	Corps arrived ...	1790
Silver (see Silver).		Inquiry, Bigge's ...	1819
Strikes, Coal 1873, 1883, 1888, 1908		House of Commons, Com-	
1909, 1913, 1914, 1916, 1917		mittee ...	1812
Silver ...	1890, 1892, 1909	New Zealand Colonisation attempted	1825
Tin ...	1851, 1872	Proclaimed dependency of	
Ministry, First Federal ...	1900	New South Wales ...	1814
First Labour (State) ...	1910	Separate Colony ...	1841
Mint, Sydney ...	1855	Newcastle coal discovered ...	1796
Bronze issue ...	1868	Iron and Steel Works ...	1915
Silver issue ...	1879	Settlement ...	1804
Mitchell explorations—		Newspapers (see Press.)	
Barcoo ...	1845	Norfolk Island	
Darling ...	1832	Control—Commonwealth ...	1914
Northern ...	1831	New South Wales ...	1788
Southern ...	1836	Governor... ..	1856
Mitchell Library ...	1910	Tasmania ...	1844
Monaro Plains discovered ...	1823	Convicts finally deported ...	1853
Money-lenders and Infants' Loans		Discovery ...	1774
Act ...	1905	Northern Territory annexed to	
Money Order system ...	1863	South Australia ...	1863
Monopolies, Federal Referendum	1911	Norton Griffiths contract ...	1915
Moreton Bay (see Queensland).		Notes (Currency) Australian, Act	1910
Mount Boppy mine ...	1901	First ...	1911
Drysdale Goldfield ...	1893	Postal ...	1893
Kembla Colliery disaster ...	1902	Observatory, Dawes Point ...	1788
Municipal Library, Sydney ...	1909	Parramatta ...	1822-47
Markets, Fish ...	1910	Sydney ...	1856
Fruit ...	1911	Old-age Pensions, Commonwealth	1909
Municipalities Acts 1858, 1867, 1897		State ...	1900
City and Suburban ...	1843	One Man one Vote ...	1893
Country ...	1858	Opal discovered, Rocky Bridge ...	1877
Murray discovered Port Phillip ...	1802	White Cliffs ...	1889
Murray River discovered ...	1829	Orient Co. Mail Service ...	1878
First steamer on ...	1853	Oxley's explorations ...	1817-18
Railway Bridge ...	1883	Tweed and Brisbane Rivers	
Waters Act ...	1915	discovered ...	1823
Agreement ...	1912	Pacific Cable ...	1902
Premiers' Conference ...	1914	Conference, Sydney ...	1896
Murrumbidgee Irrigation Area ...	1912	Islanders introduced ...	1847
Burrinjuck Dam authorised	1906	prohibited ...	1901
Trust ...	1911	Park, Centennial ...	1888
River discovered ...	1820	Kuring-gai Chase ...	1894
Navigated to Gundagai ...	1858	Kurnell ...	1905
		National ...	1879

Event.	Year.	Event.	Year
Parkes, Sir Henry, Emigration Commissioner ...	1861	Port (<i>continued</i>)—	
Parliament, Commonwealth, first New South Wales—	1901	Phillip (<i>see</i> Victoria).	
Act, First ...	1824	Stephens coal discovered ...	1796
Ballot voting ...	1858	Postal Act ...	1825
Elections, First General ...	1843	Australasian Colonies join	
Second Ballot Act ...	1910	Union ...	1891
Electoral Act ...	1880	Cards ...	1875
Distribution Commission	1911	Commonwealth control ...	1901
Redistribution ...	1904	First office ...	1809
Rolls printed ...	1857	General communication established ...	1828
Executive Council, first ...	1824	Iron pillar-letter receivers in Sydney ...	1856
Franchise, Manhood ...	1858	Mail Services (<i>see</i> Mails).	
One Man one Vote ...	1893	Money Order system ...	1863
Police ...	1896	Newspaper Postage Repeal Act ...	1873
Women ...	1902	Notes ...	1893
Legislative Assembly Continuance Act ...	1916	Parcels, inland ...	1893
Members, Payment ...	1889	Foreign ...	1886
Reduction ...	1904	Rates fixed ...	1828
Referendum ...	1903	Penny, Australia ...	1910
Representation petition ...	1827, 1835	British Empire ...	1911
Responsible Government	1856	Twopenny ...	1849
Triennial Parliaments Act	1874	Stamped Covers ...	1838
Parramatta, first settlement ...	1788	Stamps ...	1850
Governor's establishment removed from ...	1853	Commonwealth issue ...	1913
Pastoral Association ...	1844	War Postage ...	1918
Patents, Commonwealth Administration ...	1904	Pounds, public ...	1811
Investigation Board ...	1916	Press, first newspaper ...	1803
Paterson, Lieutenant-Governor ...	1794	freed ...	1824
Peninsular and Oriental Mail Service ...	1852	Governor's censorship ceased	1824
Suspended ...	1854-56, 1917	Legal proceedings reported ...	1832
Penny Postage, Australia... ..	1910	Legislative Chambers, admission ...	1838
British Empire ...	1911	Libel law applied ...	1828
Pensions, Invalidity and Accident Commonwealth ...	1910	Subsidised Cable Service ...	1910
Old-age ...	1900	<i>Sydney Gazette</i> , first newspaper issued daily ...	1803
Commonwealth ...	1909	Prevention, Influx of Criminals Act ...	1827
War ...	1914	Prices, Food Commission Interstate Commission Inquiry ...	1903
Pharmacy Act ...	1897	Necessary Commodities Control Commission ...	1911
Phillip, Governor ...	1788-92	Regulation Board (Commonwealth) ...	1917
Arrival with First Fleet ...	1788	Printing first book... ..	1914
Proclamation of Colony ...	1788	First press ...	1802
Return to England ...	1792	Prison, Darlinghurst ...	1795
Statue unveiled ...	1897	Emu Plains ...	1841-1914
Port (<i>see</i> Victoria).		Long Bay ...	1914
discovered ...	1802	Prisoners' Detention Act ...	1909
Philosophical (Royal) Society ...	1821	Private Hospitals Act ...	1908
Pitcairn Islanders placed on Norfolk Island ...	1856	Privy Council appellate jurisdiction ...	1833
Pittwater discovered ...	1788	Probation Act, First Offenders ...	1894
Polding, First Bishop (R.C.) ...	1835	Property Act, Married Women's... ..	1893
Police enfranchised ...	1896	Real (Torrens) ...	1862
Mounted ...	1825	Protection Act, Children's Infant ...	1892
Water ...	1830	Public Funds, Cash basis of accounts ...	1904
Population (<i>see</i> Census).		Gold Revenue allocated to Colonial legislatures ...	1852
Exodus to California Gold-fields ...	1849	Health (<i>see</i> Health).	
Port Essington discovered ...	1818		
Hacking explored ...	1796		
Jackson ...	1788		
Macquarie Settlement ...	1821		

Event.	Year.
Public (<i>continued</i>)—	
Library (<i>see</i> Library).	
Loan, first	1841
Pounds	1811
Schools (<i>see</i> Education).	
Trust Office	1914
Works, Norton Griffiths con- tract	1915
Pure Food Act	1909
Quarantine Commonwealth Ad- ministration	1909
Quarter Sessions, first Court ...	1824
Queen Victoria celebrations, Jubi- lee	1887, 1897
Markets	1898
Queensland (Moreton Bay)—	
Founded	1824
Legislative representation granted	1843
Separation	1859
Agitation for	1851
Settlement proclaimed	1842
Rabbit destruction compulsory ...	1883
Danysz's experiments	1906
Races, first horse	1810
Railway Automatic signalling ...	1913
Baldwin Locomotive Inquiry ...	1892
Bridge, Hawkesbury River ...	1889
Murray River	1883
Brisbane-Adelaide	1889
City and Suburban Electric Railways Act	1915
Commissioners	1848, 1888
Employees' strike	1917
First commenced	1850
Contract signed	1851
Opened	1855
Queensland system, con- nection with	1888
Rolling Stock, Australian Manufacture	1869
Superannuation Fund	1910
Sydney Central Station	1906
Melbourne Line	1883
Tram and Rail Company... ..	1846
Transcontinental commenced ...	1912
Opened	1917
Rawson, Governor... ..	1902-09
Real Property (Torrens) Act ...	1862
Referenda, Commonwealth, Feder- ation Enabling	1899
Finance agreement	1910
Industrial legislation	1911
Military Service	1916-17
Monopolies	1911
Postponement	1915
State Debts Transfer	1910
Reduction of Members	1903
State, Liquor	1916
Registration, Births, Deaths, and Marriages	1856
Firms	1903
Relief Board, State Children War (<i>see</i> War).	1881
Religion, Church Act	1839
and School Corporation	1826-32
First land grant	1829

Event.	Year.
Religion (<i>continued</i>)—	
Church of England—	
Bishop (Broughton), first... ..	1836
Bishopric of Australia	1836
First Church	1793
burned	1798
place of Public Worship	1793
St. Andrew's Cathedral (Sydney) founded	1819, 1837
opened	1868
St. James', Sydney, com- menced	1819
opened	1822
St. John's, Parramatta	1798
St. Phillip's, Sydney	1798
Equality established	1839
Jewish regular services	1828
Synagogue, Sydney, York- street	1844
Elizabeth-street	1878
Methodist, First Wesleyan Minister	1815
Union of Churches... ..	1902
Roman Catholic, First Bishop (Polding)	1835
Service	1803
St. Mary's Cathedral (Sydney) burned	1865
dedicated	1836
foundation	1821
Salvation Army	1881
Service, first	1788
State Aid to Ministers	1836-62
Rents Court, Fair	1916
Requests, Court	1824
Responsible Government	1855
Richmond River discovered ...	1828
Roads, Cox's Emu Plains-Bathurst ...	1815
Hunter River	1830
Illawarra	1835
Liverpool	1814
Mitchell's, over Blue Moun- tains	1834
Obelisk erected in Macquarie- place, Sydney	1818
Richmond-West Maitland	1822
Tollgates	1810-77
Robertson, Sir John, Land Act ...	1861
Robinson, Governor	1872-79
Rocky Bridge Creek opal dis- covery	1877
Rosehill packet boat service ...	1818
Rous discovered Richmond River ...	1828
Rum currency forbidden	1807
Rumker, first Government Astron- omer	1826
Russell, P. N., bequest to Univer- sity (Engineering)	1896, 1904
Russian exploration ships	1820
San Francisco Mail Service (<i>see</i> Mails).	
Saturday Half Holiday	1910
Hospital Fund	1895
Savings Banks (<i>see</i> Banks).	
Schools (<i>see</i> Education).	

Event.	Year.	Event.	Year.
Socien Advancement Association,		Silver coinage (<i>see</i> Currency).	
Australasian	1888	Broken Hill field discovered...	1883
Congress	1911	Miners' strikes 1890, 1892, 1909	1885
British, Congress	1914	Mines	1885
Expeditions (<i>see</i> Expeditions).		"Sirius" lost at Norfolk Island ...	1790
Research, Commonwealth Ad-		Small Arms Factory, Lithgow ...	1912
visory Council	1916	Smelting furnaces, Sunny Corner	
Scott, Antarctic Expedition	1910-12	and Silverton	1884
Sealing, first industry	1791	Society, Agricultural	1822
Second Fleet	1790	Benevolent	1818
Second-hand Dealers and Col-		Friendly, Act	1873, 1899
lectors Act	1906	First... ..	1834
Settlement, Closer	1901	Subventions	1908
First	1788	Geographical	1884
Centenary Celebration	1888	Zoological	1879
Hawkesbury River	1794	Soldiers (<i>see</i> Defence and War).	
Illawarra	1826	Repatriation Fund	1916
Moreton Bay (Queensland) ...	1824	Soudan Contingent	1885
Port Macquarie	1821	South African War Contingents ...	1899
Phillip (Victoria)	1803	South Australia, permanent settle-	
Prospect Hill	1791	ment	1836
South Australia	1836	Squatting Act	1839
Tasmania	1803	Imperial	1846
The Ponds	1791	Commenced	1823
Twofold Bay	1834	Formally recognised	1863
Wellington Valley	1822	Stamp Duties	1865, 1914
Western Australia	1829	Postage (<i>see</i> Postal).	
Settlers, Advances	1899	State Advances, Homes	1914
Savings Bank	1907	Settlers	1899
Free, encouraged	1823	Bakery	1914
Sewerage Board, Metropolitan	1888	Brickworks	1911, 1912
Hunter District	1892	Children Relief Board	1881
Country Towns Act	1880	Coal Mines Act	1912
Works, first	1853	Convalescent Hospitals	1914
Shackleton Antarctic Expedition		Debts Referendum	1910
1908-09, 1914-16		Joinery Works	1912
Sheep, Alpacas introduced ...	1858	Lime Works	1912
Boiling-down, first	1843	Monier Pipe Works	1914
Macarthur's Camden Farm ...	1805	Quarry, Metal	1911
flocks dispersed	1858	Timber Works	1912
Merinos Importation—		Trawling	1915
Cape of Good Hope	1797	Statistician's Office, Government	1886
Spanish (George III)	1804	Statue, Captain Cook	1879
Shearers' strike	1890, 1894	Governor Bourke	1842
Wool, Botany combing works	1909	Phillip	1897
Clip, Imperial Govt. pur-		Steel Industry Commission ...	1911
chase	1916	Lithgow blast furnace	
First export	1807	rails for transcontinental	
Sample	1803	line	1913
Government marketing ...	1916	Newcastle Works	1915
Prices highest on record ...	1916	Stephen, Sir Alfred, Judge,	
Shipping, Australian Steam Con-		Supreme Court	1839
veyance Company	1831	Stirling's expedition to Western	
Navigation Company	1833	Australia	1827
Commonwealth cargo steamers		Street regulations	1809
purchased	1916	Wood-paving, Sydney	1880
First colonial built boat ...	1789	Strickland, Governor	1913-17
steamer	1831	Strike, Butchers	1914, 1917
on Murray River	1853	Ferry employees'	1913
Navy (<i>see</i> Defence).		Gas employees'	1913, 1917
Ocean Services (<i>see</i> Mail).		Maritime	1890
Rosehill packet service	1818	Miners, coal 1873, 1883, 1888, 1908,	
Signal Station, Port Jackson..	1790	1909, 1913, 1914, 1916, 1917	
Strike, Maritime	1890	Silver	1890, 1892, 1909
Seamen's	1878, 1917	Railway employees	1917
Shires Act	1905	Seamen	1878, 1917
Shops, Early Closing	1899	Shearers	1890, 1894
Regulations	1896	Tramway employees	1908, 1917
Saturday half-holiday	1910		

Event.	Year.
Strzelecki expedition to Western Port	1840
Gold discovery	1839
Sturt, explorations, Darling and Murray River	1829
Overland southward	1830
Subsidised Press Cable Service	1910
Suburban Municipalities	1843
Suffrage, Manhood	1858
Police	1896
Women	1902
Sugar Bounty	1903-12
Manufacture, first	1824
Mill, Richmond River	1881
Sunday closing of shops	1812
Trading (Refreshment Rooms) Act	1916
Superannuation Act	1916
Supreme Court (<i>see</i> Court).	
Sutherland Graving Dock	1890
Sydney, Australian Cruiser, destroyed "Emden"	1914
Common land, designated	1811
Communication with North Sydney Commission	1890
Corporation	1842-53, 1857
Cove, formal possession	1788
Exchange	1857
Gazette, first newspaper	1803
issued daily	1827
Harbour Trust	1901
Improvement Commission	1908
Meat Preserving Co.'s Works	1872
Mechanics' School of Arts	1833
Mint (<i>see</i> Currency).	
Municipal Library	1909
Markets, Fish	1910
Fruit	1911
Observatory	1856
Railway Station, Central	1906
Underground commenced	1916
Town Clock	1798
Hall founded	1868, 1883
Opened	1875, 1889
University (<i>see</i> University).	
Taronga Park, Zoological Gardens	1916
Tasmania (Van Diemen's Land)—	
Bass-Flinders explorations	1798-9
Cable	1869
Flinders' chart	1800
Norfolk Island annexed	1844
Separation	1825
Settlement, first	1803
Teachers' College	1905
Technical Education (<i>see</i> Education).	
Technological Museum	1879
Telegraph (<i>see</i> also Cable).	
First	1851
Letter telegrams	1914

Event.	Year.
Telegraph (<i>continued</i>)—	
Sydney-Adelaide	1858
Brisbane	1861
Melbourne	1858
Wireless, Naval control	1915
Station, first	1911
Randwick, Purchased by Commonwealth	1916
Sydney (Pennant Hills)	1912
Telephones	1880
Charges, toll system	1907, 1910
Sydney-Adelaide	1914
Melbourne	1907
Newcastle	1898
Temora Goldfield	1880
Testator's Family Maintenance Act	1916
Theatre, first	1796
Sydney	1832
Theatres and Public Halls Act	1908
Throsby's explorations	1821
Timber (<i>see</i> Forestry).	
Time, Standard	1895
Daylight Saving Act	1916
Tin discovery	1851
Fields opened	1872
Tobacco, first manufacture	1822
Successful cultivation	1806
Toll-gates	1810-77
Torrens' Real Property Act	1862
Tourist Bureau, Government	1906
Town Clock, Sydney	1798
Hall, Sydney, Opened	1889
Trade, First excess annual exports	1844
First export wool	1807
First Foreign ship	1792
Interstate Commission	1913
N.S.W. Board	1918
Marks, Commonwealth Administration	1904
Unions Act	1881
Conference	1885
Eight-hour celebration inaugurated	1871
Traffic Act, Metropolitan	1900
Tramways, Electrification	1899
First horse drawn	1861
Steam	1879
Transcontinental Railway commenced	1912
Opened	1917
Trawling, State undertaking	1915
Treasurer, first Colonial	1824
Trial by jury (<i>see</i> Courts).	
Triennial Parliaments Act	1874
Trust Office, Public	1914
Tuberculin Dispensary	1912
Tuggerah Lake discovered	1797
Tweed, first manufacture,	1843
River, discovered	1823
Twofold Bay discovered	1797
Settlement	1834
Umberumberka Dam, Broken Hill	1914
Unions (<i>see</i> Trade Unions).	

Event.	Year.	Event.	Year.
University of Sydney—		Water (<i>continued</i>)—	
Affiliated Colleges	1854	Supply (<i>continued</i>)—	
Women's	1892	Hunter District Board	1892
Extension Lectures	1886	Metropolitan Board	1888
Fisher Library	1909	Botany swamps scheme. .	1827
Incorporation	1850		1837
Opening	1852	Cataract Dam	1908
Royal Charter	1858	Umberumberka Dam	
Russell, P. N., bequest	1896, 1904	(Broken Hill)	1914
Senate, first elective	1913	Watering Places Act, Public	1884
Women students admitted	1881	Wellington Valley Settlement	1822
Unlawful Associations Act	1916	Wentworth, William Charles,	
Van Diemen's Land (<i>see</i> Tasmania).		crossed Blue Mountains	1813
Vehicles (public) numbered and		Died	1872
named	1813	Published account of Aus-	
Victoria (Port Phillip) discovered	1802	tralia	1820
Land sale in Sydney	1838	Western Australia, possession	
Melbourne Founded	1835	taken	1828
Proclaimed part of New		Settlement	1829
South Wales	1835	King George's Sound	1826
Separated	1851	Stirling's expedition	1827
Viticulture industry established	1840	Western Lands Act	1901
vines imported	1817	Port discovered by Bass	1798
Volunteers (<i>see</i> Defence).		Strzelecki's expedition	1840
Voting (<i>see</i> Parliament).		Whaling, first industry	1791
Wages, Industrial Boards	1908	Wheat Acquisition Act	1914
Living, Inquiry	1913	Bulk-handling investigation... ..	1913
Minimum Act	1908	First cultivation	1788
War (<i>see also</i> Defence).		Harvest	1789
Battleplanes, collections for... ..	1916	Import from Tasmania	1815
Census	1915	Surplus for export	1898
Commonwealth Powers Act	1915	Imperial purchase	1916
Contingents China	1900-1	Marketed by Government	1915
European	1914	White Cliffs Opal-field	1889
Maori	1860	Wills and Burke expedition	1860
Soudan	1885	Wilson discovered Lachlan River..	1799
South African	1899	Wireless Telegraphy (<i>see</i> Tele-	
European, Australian Forces,		graphs).	
Egypt	1915	Women Employment State Agency	1914
France	1916	Farm School	1916
Gallipoli	1915	Franchise	1902
Pacific	1914	Police	1915
German Pacific Possessions		Property Act, Married	1893
captured	1914	University College	1892
Gunboat "Komet" cap-		Students	1881
tured	1914	Wool (<i>see</i> Sheep).	
Navy transferred to Im-		Woolwich Graving Dock	1901
perial control	1914	Workmen's Compensation Act, 1910, 1916	
"Sydney" destroyed		Wrecks—"Catherine Adamson"	1857
"Emden"	1914	"Corangamite"	1886
Loan	1915, 1916,	"Cumberland"	1917
Pensions Act	1914	"Dunbar"	1857
Postage	1918	"Helen Nicol"	1886
Precautions Act	1914	"Keilawarra"	1886
Relief Funds, Belgian Grant	1914	"Ly-ec-Moon"	1886
Soldiers' Repatriation	1916	Wyalong Gold-field	1893
Special collections	1915	Wylde, Judge-Advocate, arrived... ..	1816
Scare, Russian	1854	Yarra River discovered	1803
Water, Artesian, first bore	1879	Yass-Canberra Capital Site (<i>see</i>	
Interstate Conference	1912	Canberra).	
Wells Act	1897	Young, Governor	1861-67
Conservation Commissioner... ..	1913	Zoological Gardens, Moore Park	1879-1916
Police	1830	Taronga Park	1916
River Murray Act	1915	Society	1879
Supply, Country Towns Act... ..	1880		

GEOGRAPHY AND CLIMATE.

GEOGRAPHY.

AREA OF NEW SOUTH WALES.

THE area of New South Wales, including Lord Howe Island and the Federal Capital Territory, is estimated at 310,372 square miles, or 198,638,080 acres, representing rather more than one-tenth of the total area of the Commonwealth of Australia. There was a formal surrender to the Commonwealth Government, on 1st January, 1911, of about 900 square miles at Yass-Canberra as Territory for the Federal Capital, and subsequently an area of about 28 square miles at Jervis Bay was surrendered to the Federal Government for naval purposes.

The length of the State, measuring directly from Point Danger on the north to Cape Howe on the south, is 683 miles. From east to west, along the 29th parallel, the breadth is 756 miles, while diagonally from the south-west corner, where the River Murray passes into South Australia, to Point Danger, the distance is 850 miles.

Lord Howe Island, the dependency of New South Wales, is 7 miles in length, by a width ranging from half-a-mile to $1\frac{3}{4}$ miles, and has an area of 5 square miles.

The area of New South Wales in relation to the total area of the Commonwealth is shown in the following statement :—

State or Territory.	Area.	Per cent. of total area.
	sq. miles.	
New South Wales	309,444	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	·88
Northern Territory	523,620	17·60
Federal Capital Territory	900*	} ·03
„ Area at Jervis Bay	28	
Total Commonwealth	2,974,581	100·00

* Approximate.

New South Wales is three and a half times as large as Victoria, nearly twelve times as large as Tasmania, and somewhat smaller than South Australia; related to the larger States, it is half the size of Queensland and one-third that of Western Australia.

BOUNDARIES OF NEW SOUTH WALES.

New South Wales lies in the temperate zone, and almost entirely between the 29th and 36th parallels of south latitude and the 141st and 154th meridians of east longitude; the southern boundary dips from the 34th parallel on the west to the 37th parallel on the east. The State is bordered on the north, west, and south respectively by the States of Queensland, South

Australia, and Victoria, and on the east by the South Pacific Ocean. The total length of coast line is 700 miles, representing 1 mile of coast to 443 square miles of its area, as against an average of 1 in 261 for the continent of Australia. New South Wales has, of all the Australian States, excepting the Northern Territory, the greatest proportion of territory to coast line.

GEOGRAPHICAL FEATURES.

In the 1914 issue of this Year Book an account was given of the important geographical features of New South Wales.

Lord Howe Island.

Lord Howe Island is a dependency of New South Wales and included in the King division of Sydney electorate; it is situated about 300 miles east of Port Macquarie, and 436 miles north-east from Sydney, in latitude $31^{\circ} 33' 4''$ S., longitude $159^{\circ} 4' 26''$ E. The island was discovered in 1788; it is of volcanic origin, and Mount Gower, the highest point, reaches a height of 2,840 feet. The climate and soil are favourable for the growth of subtropical products; but on account of the rocky formation of the greater part of the surface of 3,220 acres, only about 300 acres are suitable for cultivation. The land has not been alienated, but is occupied rent free on sufferance, and utilised for the production of Kentia palm seed. A Board of Control manages the affairs of the island and supervises the palm seed industry. At the Census of 1911 the population numbered 105 persons.

The Surface of New South Wales.

The surface of New South Wales is divided naturally into five well-defined divisions—the Coast District, the Tablelands, the Western Slopes, the Inland Rivers Districts, and the Western Plains. The tablelands occupy the summit of the Great Dividing Range, which traverses the State from north to south and marks the division between the coastal district and the hinterland.

The coastal strip is undulating and well watered. The average width is about 30 miles; at Clifton the tableland abuts on the ocean, and the widest part (150 miles) is in the valley of the Hunter River, where the relatively soft rocks of the coal basin have offered least obstruction to river erosion. The Great Coal Basin (extending from beyond Gunnedah on the north to Ulladulla on the south), underlies the central portion of the coastal region; the seam emerges to the surface at Newcastle and Bulli, and at Sydney lies about 3,000 feet below the surface. Coal seams are found in the Clarence River district, but for the most part the northern and southern sections of the Coast District are devoted to dairy farming and the cultivation of such crops as maize, lucerne, and, in the extreme north, sugar-cane, and the forests yield a great variety of valuable timbers.

There are three tablelands—the northern, the central, and the southern—comprising an extensive plateau region, furrowed in many parts by deep, rugged valleys. Generally they present on the eastern side a steep escarpment towards the coast, while on the west they slope gradually towards the plains. The tablelands vary in width from 30 to 100 miles. The northern tableland commences in Queensland and terminates on the northern side of the Peel River Valley; its average height is 2,500 feet. The central tableland is bounded by the Warrumbungle and Liverpool Ranges on the north, and by the valleys of the Lachlan, Crookwell and Wollondilly Rivers on the south. The southern tableland extends northward from

the Victorian border, and slopes gradually to the Crookwell River on the north-west and to the spurs of the Cullarin Range on the north-east. Its average height is slightly less than the northern tableland, although the Kosciusko Plateau, the most elevated portion of the State, is within its limits. Level upland plains occur throughout the Tableland Division.

The Western Slopes sweep with greater or less abruptness from the western limits of the tablelands to the head-waters of successive systems of inland rivers.

The inland rivers constitute a well-defined area, distinct in character from the Western Plains. The northern division comprises the Gwydir and the Namoi River systems; the central division, the Castlereagh, the Macquarie, and the Bogan; and the southern, specifically designated the Riverina, the Lachlan, the Murrumbidgee, the Edwards and the Murray.

The Great Plain district stretches from the river-courses of the Barwon, the Bogan, and the Lachlan, to the western boundary of the State. The plains are not quite horizontal, but slope very gently from the bed of the Darling eastward towards the Great Dividing Range and westward towards the South Australian border. Only a few trifling elevations occur, and the plains are for the most part devoid of timber. They are watered by the rivers of the Murray-Darling system. The Darling and its tributaries are liable to considerable shrinkage in periods of dry weather, but in wet seasons they overflow their banks and flood the surrounding country for miles, rendering it extremely fertile.

The surface of the plains consists of rich red and black soils, the former being particularly rich in plant-food. The black soil formations represent the silted-up channels of old rivers which, when flooded, spread a fertile silt over the surrounding district. The black soil plains occupy large areas along the middle courses of the Castlereagh, the Namoi, and the Gwydir Rivers.

Geological Formation.

The sedimentary rock formations found in New South Wales are classified as follows:—

CAINOZOIC.	Post-Tertiary ...	...	Recent; auriferous and stanniferous soils, and alluvial deposits in the beds of existing rivers.
	Tertiary ...	...	Pleistocene; alluvial leads containing gold, tin, and gem-stones. Pliocene; alluvial leads, frequently covered by basalt, and containing gold, tin, and gem-stones. Miocene; quartzites with plant remains at Dalton, near Gunning.
MESOZOIC.	Cretaceous ...	...	Eocene; marine limestones and calcareous sandstones of the Lower Darling; plant beds of the New England district. Upper Cretaceous (Desert Sandstone); contains deposits of precious opal.
	Jurassic ...	...	Middle Cretaceous; auriferous alluvial leads at Mount Brown. Lower Cretaceous; Rolling Downs formation of Queensland.
	Trias-Jura ...	...	Talbragar fish-bearing shales.
			The Ipswich Coal Measures and the Clarence Coal Measures
			Hawkesbury Series ...
			Form the base of the artesian water-bearing basin. These Measures contain thin coal-seams, not at present worked in New South Wales.
			Wianamatta Shales; contain fireclays.
			Hawkesbury Sandstones; building stone.
			Narrabeen Shales.

PALÆOZOIC.	Permo-Carboniferous ...	1. Upper or Newcastle Coal Measures ...	The productive coal-seams of New South Wales occur in these measures.
		2. Dempsey Series ...	
		3. Middle or Tomago Coal Measures ...	
		4. Upper Marine Series ...	
		5. Greta Coal Measures ...	
		6. Lower Marine Series ...	
	Carboniferous ...	Rhacopteris Beds and Associated Marine Beds ...	All the metalliferous lodes and reefs occur in these formations, or in such igneous rocks as granites, quartz-porphyrries, felsites, diorites, &c.
		Marine beds of Dungog and Clarence Town areas, and New England District, equivalent in part to the Star Beds of Queensland. ...	
	Devonian ...	Upper Devonian ...	
		Lower Devonian ...	
	Silurian ...	Limestones and slates at Yass, Molong, Wellington, Quindong, Portland, &c. ...	
		Slates and Tuffs at Mandurama, Cadia, Tomingley, Berridale, and in the counties of Auckland and Wellesley, on the Victorian border, Talwong, Tallong, Chatsbury, and in the Monaro-Albury district. ...	
	Ordovician ...	... ..
	Cambrian ...	Limestones, schists, and glacial beds of Torrowangee.	

Post-Tertiary and Tertiary deposits cover approximately one-third of the area of New South Wales, embracing practically the valleys of the western river systems, except for a broad belt of pre-Silurian, Silurian, and Devonian rocks between the Bogan River and the Barrier Range. Tertiary and Post-Tertiary fluviatile deposits constitute the chief sources of alluvial gold, stream tin, and gem-stones. The Cretaceous formation was the source of supply of the first artesian water struck. Lower Cretaceous rocks occupy the greater part of the basin of the Upper Darling and its tributaries, overlying a considerable area of Trias-Jura water-bearing formation. The Upper Cretaceous formation is opal-bearing, rich deposits being worked at White Cliffs and Lightning Ridge. Rocks of Jurassic age are limited in occurrence to the locality of Gulgong. Triassic and Trias-Jura rocks extend over a large part of the coastal district, the Trias-Jura having a great development as conglomerates, sandstones, and shales in the Clarence River District. Wianamatta shales, Hawkesbury sandstone, and Narrabeen shales, constitute the Hawkesbury series of Triassic age. The Hawkesbury sandstone overlies the Narrabeen shales, and extends from Sydney on all sides for some 70 miles embracing practically the whole Hawkesbury River Valley. This formation extends also continuously from Sydney to the head of the Goulburn River, and has an important development in the Macquarie and Castlereagh River basins. The Wianamatta shales cover a large area in County Cumberland and outcrop in the Blue Mountains.

The Permo-Carboniferous formation extends along the coast between the Clyde and Hunter River districts and westward to the mountains and in the Central-Western Division. This formation is described in detail in the chapter relating to the Mining Industry. Carboniferous strata are developed in the Hunter and Manning River districts, and thence in a north-north-westerly direction to Warialda. They are of marine and fresh-water origin, interbedded with tuffs and lavas and intersected by metalliferous lodes, but contain no workable coal seams.

Rocks of Devonian age are developed within the Blue Mountain area and in isolated localities, as in the Yass-Goulburn district, and in the Western and New England Division; they are traversed by metalliferous lodes and quartz reefs.

Upper Silurian beds occur generally west of the tablelands, on the upper courses of the Murrumbidgee and Lachlan Rivers, and extend northwards. They are developed also in the basins of the Clyde and Upper Shoalhaven, and probably in the basins of the Upper Namoi and Macleay Rivers. In certain districts of the State sediments of this age contain commercial deposits of gold, silver, tin, copper, lead, and antimony; the limestone beds in which the Jenolan, Wellington, Yarrangobilly, and Wombeyan Caves occur are of this age.

Ordovician rocks have been located on the Victorian-New South Wales boundary line, and at the localities mentioned in the table of formations. Their area is not defined. Sediments of this age contain important deposits of gold, silver, and copper. Rocks of Cambrian age contain the Broken Hill lode, and probably occur in the Cooma-Albury districts.

Capital City of New South Wales.

Sydney, the capital city of New South Wales, and the seat of Government, is situated on the shores of Port Jackson. It is the oldest and largest of the Australian towns, and is the main commercial and industrial centre of New South Wales. The great bulk of the sea trade of the State passes through Sydney, where all the main railways converge and numerous large manufacturing establishments are conducted.

FEDERAL CAPITAL TERRITORY.

The Federal Capital Territory, formerly part of the State of New South Wales, is situated in the upper basin of the Murrumbidgee River, being watered by its tributaries, Molonglo and Cotter. Canberra, the site chosen for the capital city, is 5 miles distant from Queanbeyan, with which it is connected by rail. A trial survey has been made of the route for a railway about 135 miles in length to give access to the Federal Port at Jervis Bay.

TOURIST DISTRICTS.

The tourist districts of New South Wales are situated in the coastal and tableland divisions, and are not yet extended to the Great Western Plain, with its rich mineral areas and fine pastoral lands, watered in many places by artesian bores, nor to fertile Riverina, in the south, where the Murrumbidgee Irrigation Area will prove a source of material interest to visitors from other lands.

The main tourist districts are:—

Sydney and its surroundings.	Southern Highlands.
Illawarra and South Coast districts.	Hawkesbury River.
Blue Mountains and Central Tableland.	Northern Lakes.
Jenolan and other Caves.	New England Highlands.
Kosciusko and the Alpine snowfields.	North Coast district.

The Government Tourist Bureau of New South Wales was established for the purpose of advertising the scenic and health resorts of the State, to supply information to tourists, and to improve transport facilities and accommodation in tourist districts. Information is supplied at the Bureau free of charge, itineraries are prepared, guide books published, and tours organised, with the object of unfolding the natural beauties and displaying the advantages of all parts of the State to the inquiring traveller and prospective citizen.

The Tourist Bureau co-operates with similar offices in the adjacent States in furnishing particulars regarding other places of interest in Australia.

CLIMATE.

Meteorological Bureau.

Meteorological observations in New South Wales are directed from Sydney as the centre of a subdivision of Australia, which includes the greater part of New South Wales; a special climatological station is maintained also at Dubbo, and there are many reporting stations throughout the State. Bulletins and weather charts are issued daily by the Meteorological Bureau, and rain maps and isobaric charts are prepared.

Signals are displayed in Sydney to give storm warnings and to indicate fair weather, rain, and cold or heat waves; forecasts are telegraphed daily to towns in country districts, and the city forecasts are published in the early editions of the press.

SYDNEY OBSERVATORY.

Sydney Observatory, lat. $33^{\circ} 51' 41.1''$ south, long. $151^{\circ} 12' 23.1''$ east, established in the year 1856, is a State institution. Since the creation of a Federal weather bureau in 1907 the work of the Observatory has been of an astronomical character. The principal instruments are the transit circle, astrograph, equatorial, and seismograph. Owing to the unsuitableness of the atmosphere in Sydney the astrograph has been removed to Pennant Hills. The principal scientific work is the determination of the position, distribution, and movement of stars in the region allotted to Sydney (viz., 52° to 65° south declination) in the great international scheme. In addition, occasional observations, such as those of comets, are made with the equatorial, and systematic records of earth tremors are sent to the Earthquake Committee of the British Association for the Advancement of Science. Practical and popular work embraces the determination and notification of the standard time of the State; correspondence of an educational character on astronomical matters, and day and evening reception of visitors interested in astronomy. The Observatory is open to the public for inspection on Monday afternoons, and by appointment on certain evenings. The Government Astronomer is also the Professor of Astronomy in the Sydney University, and delivers a regular course of lectures to students and undergraduates in Arts and Science.

WEATHER.

The weather is determined chiefly by anticyclones, or areas of high barometric pressure, with their attendant tropical and antarctic depressions, in which the winds blow spirally outward from the centre or maximum. These anticyclones pass almost continuously across the face of the continent of Australia from west to east, and the explanation of the existence of such high-pressure belts lies probably in the fact that this area is within the zone in which polar and equatorial currents meet and for some time circulate before flowing north and south. The easterly movement depends on the revolution of the earth.

A general surging movement occasionally takes place in the atmosphere, sometimes towards, and sometimes from, the equator. The movement causes sudden changes in the weather—heat when the surge is to the south, and very cold weather when it moves towards the equator. Probably, these

sudden displacements of the air systems are due to thermal action, resulting in expansion or contraction in the atmospheric belts to the north and south of Australia.

New South Wales is peculiarly free from cyclonic disturbances, although occasionally a cyclone may reach the State from the north-east tropics or from the Antarctic low pressure belt which lies to the south of Australia, or may result from monsoonal disturbances.

THE SEASONS.

The seasons occur as follows:—Summer—December, January, and February; autumn—March, April, and May; winter—June, July, and August; spring—September, October, and November.

January is the hottest and July the coldest month, and the temperatures of autumn and spring are approximately the mean of the whole year.

WINDS.

In the summer months the prevailing winds blow from the north on the coast of New South Wales, with an easterly tendency which extends to, and in parts beyond, the highlands; in the western districts the winds usually have a westerly tendency. Southerly winds, which are characteristic of the summer weather on the coast, occur most frequently during the months from September to February, and between 7 p.m. and midnight. These winds, which are deflected sea breezes, cause a rapid fall in temperature, and are sometimes accompanied by thunderstorms.

During winter, the prevailing direction of the wind is westerly. In the southern areas of the State the winds are almost due west, but proceeding northwards there is a southerly tendency, while on reaching latitudes north of Sydney the direction is almost due south. When they reach the north-eastern parts of the State, these winds are deflected in a westerly direction, and are merged in the south-east trade winds north of latitude 30°. During the cold months of the year, Australia lies directly in the great high-pressure stream referred to previously, and the high pressure when passing over the continent tends to break up into individual anti-cyclonic circulations.

RAINFALL.

Generally, the wet season extends over the first six months of the year, although occasionally the most serviceable rains come in the spring. The coastal districts are subject to the heaviest falls, ranging from 30 inches in the south to 70 inches in the north. Despite their proximity to the sea, the mountain chains are not of sufficient elevation to cause any great condensation; so that, with slight irregularities, the average rainfall gradually diminishes towards the western limits of the State, the figures ranging from a mean of about 50 inches on the seaboard to 10 or 20 inches on the Western Plains.

A classification of areas in New South Wales in accordance with the annual rainfall shows the following distribution:—

Annual Rainfall.		Area.	
Inches.		Sq. Miles.	
Over 70	...	668	
60 to 70	...	1,765	
50 „ 60	...	4,329	
40 „ 50	...	15,804	
30 „ 40	...	30,700	
20 „ 30	...	77,202	
		Total	...
			310,372

The distribution of rainfall is dependent on three factors—(1) the energy present in the atmospheric systems, (2) the rate of movement of the atmospheric stream, and (3) the prevailing latitudes in which the anticyclones are moving.

The chief agencies for precipitating rainfall are Antarctic depressions, monsoonal depressions, and anticyclonic systems. Antarctic depressions are the main cause of the good winter rains in the Riverina and on the South-western Slope. A seasonal prevalence of this type of weather would cause a low rainfall on the coast and tablelands, and over that portion of the inland district north of the Lachlan River. A monsoonal prevalence ensures a good season inland north of the Lachlan, but not necessarily in eastern and southern areas. An anticyclonic prevalence results in good rains over coastal and tableland districts, but causes dryness west of the mountains.

Generally, June is the wettest month in all southern districts west of the highlands; in other parts of the interior the month of greatest humidity is January, February, or March. On the Northern Tablelands, the Central Western Slope, and Central Western Plains, the highest monthly average is recorded in January. February is the wettest month on the North-western Plains and over the country to the north of the Darling and east of the Paroo; and March in the far north-west quarter and over the central Darling country between Tilpa and Pooncarie. In the coastal districts, every month, except November, is represented in some part as the wettest.

CLIMATIC DIVISIONS.

The territory of New South Wales may be divided into four climatic divisions—the Coast, the Tablelands, the Western Slopes of the Dividing Range, and the Western Plains.

Coast.

In the Coastal division, which lies between the Pacific Ocean and the Great Dividing Range, the rainfall average is comparatively high.

Sydney is situated half-way between the extreme northern and southern limits of the State. Its mean annual temperature is 63° Fahrenheit. The range is only 17°, calculated over a period of fifty-eight years, the mean summer temperature being about 71°, and the mean winter temperature 54°.

The following table shows the average meteorological conditions of Sydney based on the experience of the fifty-nine (59) years ended 1917:—

Month.	Hourly Average Reading of Standard Barometer, corrected to 32° Fah.; Standard Gravity and Mean Sea Level.	Temperature (in shade).			Rainfall.			
		Mean Standard.	Average Reading of Maximum Thermometer.	Average Reading of Minimum Thermometer.	Average.	Greatest.	Least.	Average number of days' Rain
January ...	29-900	71·7	78·5	64·9	3·437	15·257	0·419	14·0
February ..	29-944	71·2	77·4	64·9	4·536	18·556	0·344	14·2
March ...	30-010	69·3	75·5	63·0	5·157	18·700	0·419	15·0
April ...	30-071	64·6	71·0	57·9	5·476	24·492	0·060	13·2
May ...	30-031	58·5	65·0	52·0	4·983	20·868	0·214	15·1
June ...	30-060	54·4	60·5	48·2	5·123	16·296	0·190	12·9
July ...	30-076	52·5	59·0	45·8	4·817	13·208	0·120	12·6
August ...	30-068	55·0	62·3	47·6	3·126	14·886	0·040	11·4
September ...	30-003	59·0	66·6	51·5	2·907	14·045	0·083	12·0
October ...	29-971	63·5	71·1	55·9	2·976	11·135	0·209	12·7
November ...	29-936	67·0	74·4	59·6	2·907	9·877	0·070	12·5
December ...	29-882	70·1	77·2	62·9	2·641	8·469	0·225	12·9

The North Coast districts are favoured with a warm, moist climate, the rainfall being from 40 to 70 inches annually. The mean temperature for the year is from 66° to 69°, the summer mean being 75° to 78°, and the winter mean 56° to 59°. On the South Coast the rainfall varies from 30 to 60 inches, and the mean temperature ranges between 57° and 63°, the summer mean being from 66° at the foot of the ranges to 70° on the sea coast, and the winter from 48° to 54° over the same area.

Coastal rains come from the sea with both south-east and north-east winds, being further augmented in the latter part of the year by thunderstorms from the north-west. The principal precipitating agencies are the Antarctic depressions, the anticyclones when travelling in high latitudes, and in the extreme north-east reliable rains are precipitated by the south-east trades.

The following table shows the meteorological conditions of the principal stations in the Coastal Division, arranged in the order of their latitude. These stations are representative of the whole division, and the figures are the average of a large number of years:—

Station.	Least Distance from East Coast.	Altitude.	Temperature (in Shade).						Rainfall— Mean Annual.
			Mean Annual.	Mean Summer.	Mean Winter.	Mean Daily Range.	Highest.	Lowest.	
	miles.	feet.	°	°	°	°	°	°	inches.
Casino	28	82	67·8	76·2	57·8	23·7	116·4	21·0	43·42
Lismore	13	52	67·2	75·4	57·0	22·5	116·2	23·0	50·85
Clarence Heads ...	0	99	67·8	74·7	59·5	14·9	110·0	36·4	55·38
Grafton	22	40	67·6	76·3	57·4	25·9	114·0	24·9	38·44
Port Macquarie ...	0	44	63·6	71·0	55·0	16·7	105·5	24·8	60·48
Singleton	40	135	64·1	76·1	52·1	20·3	113·9	22·0	29·00
Morpeth	15	20	63·8	73·9	54·3	18·1	108·7	26·0	38·70
West Maitland ...	18	40	64·2	74·7	53·0	21·1	114·0	28·0	34·01
Port Stephens ...	0	30	64·1	72·6	53·1	20·8	111·2	30·2	55·72
Newcastle	1	112	64·6	72·3	55·4	15·1	110·5	31·0	46·95
Pitt Town	26	40	64·0	76·1	52·6	20·0	113·0	27·2	31·23
Emu	36	87	62·7	73·2	50·4	16·2	107·6	26·8	29·88
Sydney	5	146	63·1	71·0	54·0	13·7	108·5	35·9	48·02
Wollongong	0	33	63·0	70·1	54·8	16·8	113·4	31·9	43·72
Nowra	6	30	62·8	71·1	54·0	19·9	109·5	32·6	38·09
Point Perpendicular ...	0	257	62·0	68·4	54·7	11·9	105·2	25·5	55·41
Moruya Heads ...	0	55	61·0	68·1	53·0	19·1	114·8	26·3	36·45
Bodalla	7	40	59·6	67·9	50·9	21·4	104·0	27·5	36·84
Bega	0	50	60·3	69·6	50·0	26·6	109·0	20·0	32·83
Eden	0	107	60·0	67·7	51·8	14·2	106·0	29·3	34·16

Taking the coast as a whole, the difference between the mean summer and mean winter temperature is about 17°—a range so small as to be rarely found in other countries.

Tablelands.

On the Northern Tableland the rainfall is consistent, ranging from 30 inches in the western parts to 40 inches in the eastern. The temperature is cool and bracing, the average for the year being between 54° and 60°; the mean summer temperature lies between 65° and 70°, and the mean winter between 43° and 45°. The Southern Tableland is the coldest part of the State, the mean annual temperature being about 56°. In summer the mean ranges from 57° to 68°, and in winter from 34° to 44°. At Kiandra, the elevation of which is 4,640 feet, the mean annual temperature is 44·4°. Near the southern extremity of the tableland, on the Snowy and Muniong Ranges, the snow is present generally throughout the year.

The statement below shows, for the Tablelands, similar particulars to those already given for the Coastal Division:—

Station.	Least Distance from East Coast.	Altitude.	Temperature (in Shade).						Rainfall— Mean Annual.
			Mean Annual.	Mean Summer.	Mean Winter.	Mean Daily Range.	Highest.	Lowest.	
	miles.	feet.	°	°	°	°	°	°	inches.
Tenterfield ...	80	2,827	53·8	69·0	47·2	24·4	107·1	11·9	32·48
Inverell ..	124	1,980	60·0	71·8	47·3	29·2	110·6	13·4	30·40
Glen Innes ...	90	3,518	56·4	67·2	44·1	25·3	107·3	14·4	31·81
Bundarra ...	113	2,000	60·8	72·3	48·8	25·2	101·0	17·5	30·50
Armidale ...	81	3,333	56·3	67·5	44·1	24·4	105·2	11·2	32·58
Walcha ...	83	3,386	54·5	66·3	47·4	23·4	104·1	10·0	31·57
Murrurundi ...	94	1,545	60·9	73·7	49·7	19·8	107·3	19·0	31·37
Cassilis ...	120	1,500	60·2	72·2	47·3	24·8	109·5	19·0	23·74
Scone ...	78	680	63·3	74·8	50·6	28·8	114·4	19·0	24·05
Muswellbrook ...	68	475	63·8	75·2	49·4	25·4	117·6	19·0	23·70
Mudgee ...	121	1,635	60·0	72·6	46·8	30·3	114·9	15·0	25·65
Bathurst ...	96	2,206	57·1	69·8	44·2	28·0	112·9	13·0	23·88
Kurrajong Heights ...	35	1,870	53·3	61·7	43·9	13·3	99·5	25·5	50·46
Mount Victoria ...	61	3,490	54·0	64·1	42·9	17·3	97·0	24·5	37·41
Katoomba ...	53	3,349	53·6	63·0	43·2	15·4	100·0	25·9	55·97
Carcoar ...	111	2,380	58·5	72·0	44·5	25·6	105·0	15·4	30·29
Springwood ...	42	1,216	61·1	70·8	47·2	17·4	104·8	32·5	40·88
Cowra ...	126	987	61·6	76·0	47·9	27·5	113·0	22·5	23·94
Picton ...	22	549	61·3	72·3	50·1	26·6	114·0	19·7	30·62
Crookwell ...	81	2,000	52·0	64·7	39·4	23·7	100·8	12·1	32·42
Moss Vale ...	31	2,205	55·5	65·8	44·6	21·6	106·0	18·9	38·51
Goulburn ...	54	2,097	56·1	67·7	44·1	24·0	111·0	13·0	24·97
Yass ...	92	1,616	57·2	70·3	44·7	24·3	108·0	21·0	24·58
Queanbeyan ...	60	1,899	56·0	68·5	43·9	25·3	109·4	15·8	22·50
Kiandra ...	88	4,640	44·4	55·3	32·6	20·7	91·0	⁴ below zero	64·53
Cooma ...	52	2,617	54·2	66·0	41·9	27·7	112·0	11·0	19·07
Bombala ...	37	3,000	53·0	64·0	42·1	24·7	98·5	17·0	22·76

Western Slopes.

On the Western Slopes the rainfall is distributed uniformly, varying from 20 inches in the western parts to 30 inches in the eastern; the greater part of the wheat-growing area of the State is situated on these slopes, where the average rainfall is about 25 inches. The mean annual temperature ranges from 69° in the north to 60° in the south; in the summer from 81° to 74°, and in the winter from 53° to 47°.

North of the Lachlan River, good rains are expected from the monsoonal disturbances during February and March, although these may come as late as May, and incidentally during the remainder of the year. These monsoonal or seasonal rains are caused by radiation in the interior of Australia during the summer months, when the heat suspends the moisture accumulated chiefly from the Southern Ocean.

In the Riverina district, south of the Murrumbidgee generally, and on the South-western Slopes, fairly reliable rains, light but frequent, are experienced during the winter and spring months.

The next statement gives, for the principal stations on the Western Slopes, information similar to that shown for Coast and Tablelands:—

Station.	Least Distance from East Coast.	Altitude.	Temperature (in Shade).						Rainfall—Mean Annual.
			Mean Annual.	Mean Summer.	Mean Winter.	Mean Daily Range.	Highest.	Lowest.	
	miles.	feet.	°	°	°	°	°	°	inches.
Moree	204	680	67·5	80·4	53·2	30·2	117·3	18·0	23·48
Warialda	162	1,106	61·6	73·9	47·9	34·0	111·0	18·0	28·40
Bingara	153	1,200	64·4	77·3	50·3	28·9	112·5	16·0	31·58
Narrabri	193	697	66·8	80·7	51·9	28·5	119·9	18·4	25·98
Gunnedah	156	874	65·6	79·1	50·9	28·8	114·0	24·0	24·51
Coonabarabran ...	185	1,673	60·0	73·0	46·4	32·3	111·9	11·4	28·76
Quirindi	115	1,278	63·9	76·5	48·5	27·1	113·6	17·0	37·92
Dubbo	177	870	63·6	77·5	49·5	27·9	115·4	16·9	22·40
Forbes	176	781	63·6	77·6	49·7	24·5	118·4	24·0	19·96
Young	140	1,416	59·4	73·6	45·8	26·2	113·9	20·3	25·42
Marsden	187	700	63·0	78·2	47·4	26·6	114·0	23·0	20·15
Murrumburrah ...	126	1,268	60·4	74·0	47·5	27·5	114·9	19·0	24·25
Wagga Wagga ...	158	612	62·2	76·2	48·7	25·3	119·0	18·4	21·51
Urana	213	400	62·3	76·2	48·1	22·6	117·0	18·4	17·18
Albury	175	542	60·8	74·3	47·7	27·3	117·3	19·9	27·94

Western Plains.

The Western District consists of a vast plain, the continuity of which is broken only by the Grey and Barrier Ranges. Owing to the absence of mountains in the interior, the annual rainfall over a great part of this division, which lies in the zone of perpetual high pressure, does not exceed 10 inches. It increases from 8 inches on the western boundary to 10 and 15 inches along the Darling River, and 20 inches on the eastern limits. The mean annual temperature ranges from 69° in the north to 62° in the south; in the summer from 83° to 74°, and in the winter from 53° to 45°.

Although the summer readings of the thermometer in this district may be from 10° to 20° higher than those on the coast, the heat is not distressing. Excessive heat is experienced occasionally, and with many summers intervening, its occurrence being in all probability due to a temporary stagnation in the easterly atmospheric drift. Under normal conditions, air entering Western Australia with a temperature of 70° or 80° would accumulate only 20° to 25° by contact with the radiation from the soil during its passage across the continent.

Where there is stagnation, however, the air resting over the sandy soils of the interior of Australia becomes superheated, and on reaching the western districts of the eastern States shows a temperature sometimes as much as 40° above the normal. Extensive bush fires also cause a local rise in temperature, and this is due, not only to the actual heat generated, but also to the liberation of combustible matter into the atmosphere; and it has further been affirmed that the presence of a small excess of carbonic acid gas above the normal quantity in air raises the temperature several degrees. The winter, with an average temperature over 50°, accompanied by clear skies and an absence of snow, leaves little to be desired from the standpoint of health; while, also owing chiefly to the dryness of the climate, these inland regions produce the best merino wool in the world.

The meteorological conditions of the Western Plains will be seen from the following statement, corresponding to those given already for the other divisions of the State:—

Station.	Least Distance from East Coast.	Altitude.	Temperature (in Shade).						Rainfall—Mean Annual.
			Mean Annual.	Mean Summer.	Mean Winter.	Mean Daily Range.	Highest.	Lowest.	
	miles.	feet.	°	°	°	°	°	°	inches.
Brewarrina ...	345	430	68·7	82·8	54·1	26·4	120·0	28·0	15·51
Walgett... ..	286	436	68·0	82·1	52·9	25·7	122·2	23·2	18·66
Bourke	386	361	69·2	83·7	54·1	27·6	127·0	25·0	14·21
Wilcannia	473	267	66·4	80·3	52·2	26·1	120·8	21·8	10·33
Cobar	345	821	67·0	81·1	52·4	24·0	118·7	25·0	14·44
Broken Hill	555	1,001	64·7	77·8	51·2	23·6	115·9	28·5	9·89
Mount Hope	296	600	64·8	78·9	50·4	22·1	123·6	24·6	15·28
Condobolin	227	700	65·4	79·0	51·3	27·1	122·2	20·0	17·40
Wentworth	478	126	63·6	76·3	51·4	25·7	119·0	21·0	12·19
Hay	309	310	63·2	76·2	50·3	27·4	117·3	22·9	14·18
Euston	422	188	62·6	75·3	50·2	26·4	124·8	17·1	12·37
Deniliquin	287	312	62·0	74·8	49·5	25·3	121·1	18·0	16·23

TIDES.

A self-recording tide-gauge was set up at Fort Denison, in Port Jackson, in 1867. The average range of ordinary tides is 3 feet 4½ inches; of spring tides the average is 5 feet 1½ inches. In June, 1915, in January, 1912, and in December, 1910, the tide-gauge at Fort Denison recorded 6 feet 9 inches, which is practically the highest tide registered. The Sydney Harbour Trust, in 1911, installed a tide-gauge of the most modern type at Fort Denison, at Watson's Bay, and at Spectacle Island.

At Port Hunter, the average rise and fall of ordinary tides is 3 feet 4 ⁷/₁₂ inches, and of spring tides 5 feet 5 ¹/₂ inches; the greatest range being 6 feet 6½ inches. The highest tide registered was 7 feet 4 inches in May, 1898.

For the coast the average rise of spring tides may be taken as 5 feet 6 inches.

CONSTITUTION, GOVERNMENT, AND DEFENCE.

DEVELOPMENT OF REPRESENTATIVE GOVERNMENT.

EARLY CONSTITUTIONS OF NEW SOUTH WALES.

ON the foundation of New South Wales as a British Colony the Governor was empowered, under his Commission and Letters Patent, to make ordinances for the government of the settlement; subsequently he was authorised to impose a limited taxation by customs duties, and during the first thirty-five years of the colony's existence was possessed of virtually absolute administrative power.

In 1823 an Act was passed in the Imperial Parliament, providing "for the better administration of justice in New South Wales and Van Diemen's Land" by the creation of a Legislative Council, with a minimum of five and a maximum of seven members, nominated by the Governor. This Council acted as an advisory body to the Governor, with authority to assist him in making laws and ordinances. Five members were appointed under His Majesty's warrant of 1st December, 1823, viz.:—Wm. Stewart, Lieutenant-Governor; Francis Forbes, Chief Justice; Frederic Goulburn, Colonial Secretary; James Bowman, Principal Surgeon; John Oxley, Surveyor-General.

All laws or ordinances had to be submitted to a summoned meeting of this Council, and any action of the Governor contrary to the advice of the Council was referable to England for decision. The first meeting of the Council was held on 25th August, 1824. Practically coincident with the institution of this Legislative Council, which embodied the first form of constitutional government, a new Charter of Justice was proclaimed, and the system of trial by jury inaugurated.

The Legislative Council, as constituted in 1823, was subsequently increased in 1828 to fifteen members, and its functions were extended; but twenty years of its existence demonstrated the inefficacy of such a limited measure of constitutional government in the face of the expanding commercial and agricultural interests of a rapidly developing population.

REPRESENTATIVE GOVERNMENT.

In 1843 a measure of direct representation in the Legislative Council was given to the people of the Colony by means of an Imperial enactment of the previous year which, while defining the functions of the Council and the conditions under which Royal Assent was to be accorded to bills passed by it, extended its membership to thirty-six, namely, twelve nominees of the Crown and twenty-four members elected by the people.

Eight years' experience of partly representative government proved the necessity for extension of popular representation. In 1851 the Australian Colonies Government Act of the Imperial Parliament gave authority to the existing Legislative Council to prepare a democratic Constitution for the colonies. At the same time, provision was made for the establishment of Port Phillip District as a separate colony. In 1853 a select committee of the Council, which then numbered fifty-four (thirty-six elective and eighteen nominee members), adopted a draft Constitution for a Legislature of two Houses, which, with minor amendments, was accepted by the Imperial Parliament in 1855. The New South Wales Constitution Act, 1855,

conferred a fully responsible system of government, entire control of Crown lands devolving upon the New South Wales Parliament, which was empowered also, subject to the provisions of the Act, to make laws amending its Constitution.

The first elective Parliament was opened by Governor Denison, on 22nd May, 1856. Subsequently the Constitution was amended by Acts passed in 1857, 1884, and 1890, which were consolidated in the Constitution Act, 1902. Further amendments were made in 1908, 1914, and 1916, but the essential form of the original Legislature remains intact, though its functions have from time to time been enlarged by Imperial enactments, such as those which empowered the State Parliament to deal with matters relating to coinage, copyright, extradition, naturalisation, shipping, &c. Since 1901, when the Commonwealth of Australia was inaugurated, legislative functions have been divided between the Parliaments of the Commonwealth and of the State.

INAUGURATION OF THE COMMONWEALTH.

The question of establishing a Federal Legislature, to deal with the common interests of the colonies, was considered when arrangements were being made for the separation of Victoria and New South Wales and for the self-government of the Australian colonies in 1850; and for forty years the problems of federation were discussed at conferences and in Parliamentary Committees, but the most practical and definite step towards the achievement of federation was taken in 1890, when a conference of representatives from the seven Australasian colonies was held in Melbourne; arrangements were then made for a Federal Convention of members, appointed by the various Parliaments, to draft an adequate scheme for a Federal Constitution. The Draft Bill produced by this Convention in 1891 was intended for discussion in the State Parliaments, but lapsed for lack of popular enthusiasm. In the financial and commercial depression of succeeding years the necessity for federation was felt keenly, and another conference was held in Hobart in 1895; as a result a Constitution was drawn up by elected representatives of New South Wales, Victoria, South Australia, Western Australia, and Tasmania, and submitted to the electors by means of a referendum in 1898. The Bill was accepted in Victoria, South Australia, and Tasmania; in New South Wales the majority of votes secured was insufficient; in Western Australia the referendum was deferred, as the Enabling Bill of that State made the acceptance of the Constitution by New South Wales a necessary condition. Queensland did not join the federal movement until the following year.

The Constitution Bill was subsequently accepted by each of the six States of Australia, and received the Royal Assent; the formal inauguration of the Commonwealth took place on 1st January, 1901, the first day of the twentieth century, and the first Parliament was opened on 9th May, 1901, by H.R.H. the Duke of Cornwall and York.

FUNCTIONS.

Under the Commonwealth of Australia Constitution Act, the Parliament of the Commonwealth is empowered to make laws on matters affecting the peace, order, and good government of the Commonwealth, particularly with respect to the following:—Trade and commerce with other countries and among States, taxation, bounties on production, borrowing money on public credit, postal, telegraphic and telephonic services, defence, lighthouses, astronomical and meteorological observations, quarantine, fisheries, census and statistics, currency, banking, insurance, weights and measures, bills of exchange, and

promissory notes, bankruptcy, copyright, patents and trade marks, naturalisation and aliens, foreign corporations and trading, or financial corporations formed within the Commonwealth, marriage, divorce, invalid and old-age pensions, migration, external affairs, railway control in relation to defence and railway acquisition or construction, subject to the consent of the State, conciliation and arbitration in regard to disputes extending beyond the limits of one State.

To alter the Constitution, the law for the proposed alteration must be submitted to a referendum of electors not less than two nor more than six months after its passage through both Houses of Parliament, and must be approved by a majority of electors voting, in a majority of the States, as well as in the whole Commonwealth. The Constitution has been altered by the Constitution Alteration (Senate Elections) Act, 1906, and the Constitution Alteration (State Debts) Act, 1909.

The Parliament of the Commonwealth is empowered specifically to legislate on any matter referred to it by the Parliament or Parliaments of any State or States, but so that the law made shall extend only to the States which are parties to the reference.

Outside the specific functions of the Commonwealth the Constitution of each State continues as at the establishment of the Commonwealth, and the Parliament of New South Wales has legislative power in all matters not specifically within the functions of the Commonwealth.

EXECUTIVE GOVERNMENT.

In both Commonwealth and State the executive government rests with a Governor representing the Crown, who acts on the advice of an Executive Council responsible to Parliament.

Commonwealth Executive Government.

The Crown is represented by the Governor-General of Australia, who is appointed by the King. The Senate and the House of Representatives are elective Chambers. As representative of the King, the Governor-General is Commander-in-Chief of the Naval and Military Forces. His office carries a salary of £10,000 per annum, and the amount is not alterable during his occupancy of office. The present Governor-General and Commander-in-Chief is the Right Hon. Sir Ronald Craufurd Munro Ferguson, P.C., G.C.M.G.

The Governor-General's powers and functions are assigned to him under his Commission, subject to the Constitution; as head of the Legislature he appoints the times for holding sessions of Parliament, prorogues Parliament, and dissolves the House of Representatives. In his Executive Government he is advised by the Executive Council, which is composed of members summoned by the Governor-General, being Ministers of the Crown administering Commonwealth Departments. Under the provisions of the Constitution Act the Ministry numbered seven, the maximum amount specified for their salaries was £12,000 per annum, until the enactment of the Ministers of State Act in July, 1915, by which the number of Ministers was increased to eight and the amount appropriated for their salaries to £13,650. In 1917 provision was made for increasing the number to nine and the maximum amount of salaries to £15,300.

The State Executive Government.

The Governor is the representative of the British Sovereign; he is appointed by the King, and his functions and powers are defined by his Commission and the Royal Instructions accompanying it. He assents to

Bills as passed by Parliament, or he may withhold his assent pending reference of a Bill to the Imperial Government, bills of certain classes being reserved for Royal Assent. In his Executive capacity, the Governor summons, and acts under advice of the Executive Council, of which the members are Ministers of the Crown controlling administrative departments of the State. The Governor appoints Ministers and members of the Legislative Council, Judges, Justices of the Peace, Commissioners, and other officers, and he may summon, prorogue, or dissolve any Parliament. In the exercise of these functions, he is in general guided by the advice of the Executive Council, but in special circumstances acts at his own discretion, especially with regard to dissolution of Parliament. The prerogative of mercy vested in him is exercised only with the advice of the Executive Council.

The term of office for which the Governor is appointed is five years, and his salary (£5,000 per annum), with certain allowances for his staff, is provided by the Constitution out of the revenues of the State.

PARLIAMENTS.

THE COMMONWEALTH.

The Senate.

A session of the Parliament must be held once at least in every year, with a maximum interval of twelve months between sessions.

The Senate consists of thirty-six members, six of whom are elected for each State, the people in each State voting as in one electorate. The term of service of a Senator is six years; but, in accordance with the Constitution Act, the seats of half the number chosen at an election of a new Senate become vacant at the expiration of three years. An election is held triennially to fill the vacancies then occurring by effluxion of time.

House of Representatives.

The House of Representatives, as far as practicable, contains twice as many members as the Senate, the number elected for the several States being in proportion to the respective populations, but with a specified minimum of five each. There are seventy-five members in this House, the number from New South Wales being twenty-seven.

The House of Representatives is liable to dissolution at the discretion of the Governor-General if the Ministry loses its majority, otherwise it exists for three years. In the event of the failure of the Senate and House of Representatives to agree on the subject of any proposed law, the Governor-General may dissolve both Chambers simultaneously, and if the new Houses disagree, the Governor-General may convene a joint sitting of the members of the Houses to deliberate and vote upon the proposed law, when resolutions, to be effective, must be carried by an absolute majority of all the members. This furnishes the first example within the British Empire of a provision for joint session to overcome a deadlock.

The qualifications of members of the Commonwealth Parliament are the same for both Houses; candidates for election must be adult British subjects natural born or naturalised for five years, resident within the Commonwealth for at least three years and entitled to vote. The allowance attaching to the office of member was originally £400 per annum, but was raised by Parliament in 1907 to £600 per annum. The seat of a member becomes vacant if he is absent without leave for two consecutive months of any session.

The qualifications of electors are the same for both Federal Houses, Electors must be adult British subjects, who have lived in Australia for six months continuously. Aboriginal natives of Australia, Asiatics, Africans, and Pacific Islanders, except natives of New Zealand, are disqualified unless entitled to vote at the election of a State Legislative Assembly. Naturalised British subjects of enemy origin are disqualified during the period of the war.

Members of Expeditionary Forces and munition and other workers engaged under agreement with the Commonwealth Government, are entitled to vote while on service abroad, and during the war period and for three years thereafter they may qualify as electors in Australia even if under the age of 21 years.

The Commonwealth Electoral Act, 1918, makes provision for the introduction of a system of preferential voting at elections for the House of Representatives.

FEDERAL ELECTIONS.

Senate.

The following table shows the votes polled at the Senate Elections in the State of New South Wales. The last Federal Elections took place on 5th May, 1917.

Election.	Electors Enrolled.		Electors to whom Ballot Papers were issued.		Informal Ballot Papers.	Percentage of Electors Enrolled to whom Ballot Papers were issued.		
	Men.	Women.	Men.	Women.		Men.	Women.	Total.
1901	329,093	...	220,573	...	38,674	67·02	...	67·02
1903	360,285	326,764	189,877	134,487	15,796	52·70	41·16	47·21
1906	392,077	345,522	229,654	151,682	28,016	58·57	43·90	51·70
1910	444,269	390,393	301,167	211,635	24,213	67·79	54·21	61·44
1913	554,028	482,159	405,152	312,703	48,195	73·13	64·85	69·28
1914	576,309	506,820	407,464	294,939	34,984	70·70	58·19	64·85
1917	566,345	528,489	430,514	343,143	29,625	76·02	64·93	70·66

House of Representatives.

The votes recorded in the State of New South Wales at the elections of members of the House of Representatives were as follow:—

Election.	Electors Enrolled (Contested Divisions only).		Electors to whom Ballot Papers were issued.		Informal Ballot Papers.	Percentage of Electors Enrolled to whom Ballot Papers were issued.		
	Men.	Women.	Men.	Women.		Men.	Women.	Total.
1901	315,962	...	215,105	...	4,070	68·08	...	68·08
1903	303,254	274,763	164,133	118,381	7,834	54·12	43·08	48·88
1906	363,723	314,777	216,150	141,227	11,705	59·43	44·87	52·67
1910	431,702	379,927	294,049	207,868	8,002	68·11	54·71	61·84
1913	554,028	482,159	405,152	312,703	22,262	73·13	64·85	69·28
1914	491,086	429,906	351,172	257,581	14,816	71·51	59·92	66·10
1917	484,854	447,437	370,618	292,925	19,874	76·44	65·47	71·17

The percentage of voters increased steadily at the elections during the period 1903-1913; the improvement was not continued in 1914, when the contest was modified in consequence of the outbreak of war in Europe, but in 1917 the percentage was the highest since the inauguration of the Commonwealth Parliament.

FEDERAL MINISTRIES.

In the following statement is shown the various Ministries which have held office since the inauguration of the Commonwealth, also the date of occupancy and duration of each Ministry:—

Ministry.		From—	To—	Duration.
Number.	Name.			
1	Barton	1 Jan., 1901 ...	23 Sept., 1903...	days, 996
2	Deakin	23 Sept., 1903...	26 April, 1904...	216
3	Watson	26 April, 1904...	17 Aug., 1904 ...	113
4	Reid-McLean	17 Aug., 1904 ...	4 July, 1905 ...	321
5	Deakin	4 July, 1905 ...	12 Nov., 1908 ...	1,227
6	Fisher	12 Nov., 1908 ...	2 June, 1909 ...	201
7	Deakin	2 June, 1909 ...	29 April, 1910...	331
8	Fisher	29 April, 1910...	20 June, 1913 ...	1,148
9	Cook	20 June, 1913 ...	17 Sept., 1914...	454
10	Fisher	17 Sept., 1914...	27 Oct., 1915 ...	405
11	Hughes	27 Oct., 1915 ...	14 Nov., 1916 ...	384
12	Hughes	14 Nov., 1916 ...	17 Feb., 1917 ...	95
13	Hughes	17 Feb., 1917 ..	8 Jan., 1918 ...	325
14	Hughes	10 Jan., 1918 ...	Still in Office.	.....

FEDERAL REFERENDA.

The Referendum (Constitution Alterations) Act, 1906-10, provides the necessary machinery for the submission to the electors of any proposed law for the alteration of the Constitution.

The following statement shows the votes recorded in the State of New South Wales and in the Commonwealth at the various referenda which have been taken in relation to the Federal Constitution:—

Date.	Referendum.	State of New South Wales.			Commonwealth of Australia.			
		For.	Against.	Majority.	For.	Against.	Result.	Majority.
1898	Federation	71,595	66,228	5,367	219,712	108,363	...	111,349
1899	Federation	107,420	82,741	24,679	422,788	161,077	A	261,711
1906	Constitution Alteration (Senate Elections) ...	286,888	55,261	231,627	774,011	162,470	A	611,541
1910	Financial Agreement ...	227,650	253,107	25,457	645,514	670,838	R	25,324
1910	State Debts	159,277	318,412	159,135	715,053	586,271	A	128,782
1911	Legislative Powers ...	135,968	230,605	104,637	433,356	742,704	R	259,348
1911	Monopolies	138,237	238,177	99,940	488,668	736,392	R	247,724
1913	Trade and Commerce ...	317,848	359,418	41,570	958,419	982,615	R	24,195
1913	Corporations	317,668	361,255	43,587	960,711	986,824	R	26,113
1913	Industrial Matters ...	318,622	361,644	42,422	961,601	987,611	R	26,010
1913	Railway Disputes ...	316,928	361,743	44,815	956,358	990,046	R	33,688
1913	Trusts	319,160	358,155	39,005	967,331	975,943	R	8,612
1913	Nationalisation of Monopolies	301,192	341,724	40,532	917,165	941,947	R	24,782
1914	Military Service ...	356,805	474,544	117,739	1,087,557	1,160,033	R	72,476
1917	Military Service...	341,256	487,774	146,518	1,015,159	1,181,747	R	166,588
		A. Accepted.			R. Rejected.			

In 1898 the question of federation was put to the people in the States of New South Wales, Victoria, South Australia, and Tasmania. In the last-named three it was passed; but in New South Wales although it had a majority it failed to obtain the minimum number of 80,000 votes in the affirmative as required by the Enabling Act of 1897. At the second referendum for federation, in 1899, the vote was taken in Queensland, in addition to the States concerned in the 1898 referendum, and the figures for Australia shown above included the votes in Western Australia, where the referendum did not take place until 1900.

The referendum in 1906 related to the extension to 30th June, 1910, of the services of Senators whose places would have become vacant in December, 1909, and proposed that the term of service of a Senator should begin on the first day of July. The fact of this referendum being taken on the same day as the Commonwealth General Election no doubt accounts for the large number of votes recorded.

Two proposals for altering the Constitution, referred in 1910, relate to financial arrangements between the States and the Commonwealth; the one, to give effect to an agreement regarding the amount of revenue which should be returned to the States, was rejected, and the other, to enable the Commonwealth to take over all the debts of the States, was passed by a majority in the Commonwealth as a whole, and in all the States except New South Wales. Previous to this alteration the Commonwealth was empowered to take over only such debts as had been incurred prior to federation.

The referenda of 1911 were for the purpose of (1) extending the legislative powers of the Federal Government regarding trade and commerce, corporations, industrial matters, and trusts and monopolies; and (2) to empower the Commonwealth to take control of industries subject to monopolies. These proposals were rejected in each State except Western Australia, and consequently in the Commonwealth as a whole.

At the general elections in 1913, these proposed alterations were submitted again to the electors with an additional proposal to enable the Commonwealth to legislate regarding conditions of employment and the settlement of disputes relating thereto in the State railway services. All the proposals were rejected, as the majority of voters in three States only—Queensland, South Australia, and Western Australia—approved of the alterations, the majority in the other States, and in the Commonwealth as a whole, being against the proposals. In 1915, Bills were introduced into the Commonwealth Parliament embodying similar alterations, and arrangements were made to submit the proposals to the electors. Subsequently the referendum was postponed during the currency of the war in consequence of an agreement between the State Premiers and the Prime Minister of the Commonwealth, by which the former agreed to bring forward in their respective Parliaments legislation for referring to the Commonwealth Parliament, for the term of the war and twelve months after the conclusion of peace, the powers embodied in the proposed alterations. The Commonwealth Powers (War) Act was passed in the New South Wales Parliament in December, 1915.

At the Military Service Referenda, in 1916 and 1917, the majority voted against a proposal that the Government be empowered to compel citizens to serve with the military forces outside the Commonwealth. In 1916 the proposal was rejected in New South Wales, Queensland, and South Australia, and in 1917 by all the States except Western Australia and Tasmania.

SEAT OF FEDERAL GOVERNMENT—ORDINANCE.

The agreement under section 125 of the Commonwealth Constitution Act, between the State of New South Wales and the Commonwealth, for the

surrender and acceptance of territory in the Canberra district for the seat of Federal Government has been ratified, and an ordinance issued on 22nd December, 1910, for the Provisional Government of the Territory. On 12th March, 1913, the official ceremony took place in connection with the establishment of the seat of Government and the selection of Canberra as the name of the Capital City announced. All laws hitherto in force in the Territory (except those imposing duties on estates of deceased persons) remain in force, and continue to be administered by the State authorities. All revenue belongs to the Commonwealth. The authority of State magistrates, gaolers, and police continues, and all offenders are tried in the Courts of the State. Licenses to sell intoxicating liquors are not granted, and existing licenses may be renewed for the same premises only.

THE STATE PARLIAMENT.

The Legislative Council.

Under the Constitution Act, 1902, the Governor may summon to the Legislative Council any person he thinks fit, provided such person is of the full age of 21 years, and is a natural-born or naturalised subject of His Majesty in Great Britain or in New South Wales; naturalised British subjects of enemy origin are excluded from membership of the Council during the present war, in terms of the Naturalised Subjects Franchise Act, 1916. At least four-fifths of the members summoned to this Council must be persons not holding any office of emolument under the Crown. The members have a life tenure of office, subject to certain qualifications, but are not entitled to remuneration for their services; as a matter of privilege, they are allowed to travel free on the State railways and tramways. The presence of one-fourth of the members, exclusive of the President, is necessary to form a quorum for the despatch of business. The Constitution Act contains no proviso as to the number of members; in December, 1918, there were 70. The President receives an annual salary of £750, and the Chairman of Committees £470.

The Legislative Assembly.

The Legislative Assembly consists of ninety elected members, each being an adult male British subject, and entitled to a vote at the Parliamentary elections. Members of the Federal Legislature and of the Legislative Council, persons holding non-political offices of profit under the Crown—except in the navy or army, and (during the period of the present war and for six months thereafter) naturalised British subjects of enemy origin, are disqualified for membership. Under the provisions of the Constitution Amendment Act of 1916 any officer of the public service of New South Wales may be nominated and elected to the Legislative Assembly, but if elected must forthwith resign his position in the service. The Women's Legal Status Act, 1918, which received assent on 21st December, 1918, provides that a person shall not by reason of sex be deemed to be under any disability or subject to any disqualification to be elected and to act as a member of the Legislative Assembly.

Each member receives the sum of £500 per annum by way of reimbursement for expenses incurred in the discharge of Parliamentary duties, is allowed to travel free on the State railways and tramways, and has free transmission of correspondence.

The seat of a member becomes vacant if the member be absent without permission for a whole session of the Legislature, becomes bankrupt, a subject of a foreign power, or convicted of a crime. The Speaker of the Legislative Assembly receives a salary of £1,000 per annum, and the Chairman of

Committees £740 per annum. The Leader of the Opposition receives £250 per annum in addition to his remuneration as a Member of Parliament.

Parliament may be dissolved at the discretion of the Governor, if the Government is defeated in the Assembly, otherwise it exists for three years; before the passing of the Triennial Parliaments Act, 1874, the limit of duration was five years.

The Legislative Assembly Continuance Act, 1916, which received assent in November, 1916, extended the duration of the Legislative Assembly then sitting for a maximum period of one year; it was dissolved, however, in February, 1917.

The Constitution Act makes no distinction between the powers and privileges of the two Houses of Parliament, but it is tacitly agreed that the procedure in each House shall be conducted according to that of its prototype in the Imperial Parliament.

STATE ELECTIONS.

The first Legislative Assembly of New South Wales met in 1856, and consisted of 54 members elected under the Constitution Act. Votes were allowed to all male adult British subjects, who, at the time of registration of electors and for six months previously to that date, owned freehold estate valued at £100, or occupied building or lodging, or land under lease for three years, valued at £10 per annum. Holders of Government pastoral licenses and persons who had a yearly salary of £100, or paid £40 per annum for board and lodging, were also entitled to vote. Electors were allowed a vote in each electorate in which they possessed the necessary qualifications.

In 1859 the membership of the Assembly was increased to 72, and the franchise was given to every male adult British subject who for six months previously to the collection of the rolls had resided in the district and held property of the clear value of £100 or annual value of £10, or occupied a building valued at £10 per annum, or held Crown lease or license for pastoral purposes. Holders of miners' rights were allowed to vote in "gold-fields" electorates. Officers of military or police services were disqualified, as well as persons in receipt of public charity.

The Electoral Act, 1880, by which 108 members were elected for 72 electorates, provided for automatically increased representation, so that the number of members in 1891 had increased to 141, elected for 74 districts.

Under the Parliamentary Electorates and Elections Act, 1893, an important change was made in the system of Parliamentary representation, the State being then divided into 125 electorates, each represented by one member. The franchise was remodelled by the introduction of universal manhood suffrage, and the rights of citizenship were equalised by the principle of allowing each elector to vote in one electorate only. A vote was given to every male adult who had resided continuously for one year in the State, provided that he was a British subject and became enrolled in the electoral district in which he had resided for three months prior to the election. The disqualification of the police was removed in 1896, and in 1902 the franchise was extended to women, thus establishing adult suffrage.

By the Electorates Redistribution Act, 1904, the number of electorates and of representatives elected was reduced to 90, which number was determined by referendum of electors, to whom the question of reduction was submitted by an Act passed in 1903.

The Parliamentary Elections Act, 1911, provides for a residential qualification of six months in the Commonwealth, three months in the State, and one month in the electoral district, and for the extension of the franchise to the military and naval services. The hours of polling are specified as from 8 a.m. to 7 p.m., the polling-day being a public holiday from

12 o'clock noon, and, under the Liquor Amendment Act, 1905, hotels are closed during the hours of polling. The introduction of the absent voter principle enables electors absent from their districts on making a declaration to record a vote for the electorate for which they are enrolled at any polling-place within the State. Provision is made also for an annual collection and revision of rolls, the occupiers of dwelling-houses being required to prepare schedules showing the persons living in the houses.

The Parliamentary Elections (Second Ballot) Act, 1910, provides that the elected candidate must receive an absolute majority—that is, more than half the number of valid votes recorded. If, as a result of the ballot, a candidate has not received an absolute majority, a second ballot must be taken between the first two candidates on the list. This principle was introduced at the general election in October, 1910, and second ballots were taken in three electorates; in 1913 second ballots were held in twelve electorates, and in 1917 in eight electorates.

The enactments relating to Parliamentary elections were consolidated by the Parliamentary Electorates and Elections Act of 1912.

Under the provisions of the Naturalised Subjects Franchise Act, 1916, naturalised British subjects of enemy origin are not permitted to vote at an election during the continuance of the present war, and for a period of six months after its conclusion.

A Commission has been appointed under the Parliamentary Elections (Amendment) Act, 1918, to redistribute the electoral districts for the purposes of proportional representation. The number of Members of Parliament will continue to be ninety, but instead of each member representing an electoral district, the districts are to be so arranged that each one within the metropolitan and adjacent areas, and that containing the city of Newcastle, shall be represented by five, and each of the remaining districts by three members. Voting by post is to be permitted, under stringent regulations, if the elector is not within 15 miles of a polling-booth, or if the elector is travelling under conditions which preclude attendance at any polling-booth, or if illness or infirmity prevents attendance.

The following table shows the voting at the elections held in New South Wales since plural voting was abolished; in districts in which second ballots were taken the votes recorded at the first ballots have been excluded:—

Year of Election.	Voters on Roll.	Electors per Member.	Total Members returned.	Members unopposed.	Contested Electorates.					
					Electors on Roll.	Votes recorded.	Percentage of Votes recorded.	Informal Votes.	Percentage of Informal Votes.	
1894	298,817	2,390	125	1	254,105	204,246	80·38	3,310	1·62	
1895	267,458	2,139	125	8	238,233	153,034	64·24	1,354	·88	
1898	324,339	2,595	125	3	294,481	178,717	60·69	1,638	·92	
1901	346,184	2,769	125	13	270,861	195,359	72·13	1,534	·79	
1904 { Males	363,062	7,661	90	2	304,396	226,057	74·26	3,973	·59	
{ Females	326,428				262,433	174,538	66·51			
1907 { Males	392,845	8,288	90	5	370,715	267,301	72·10	13,543	2·87	
{ Females	353,055				336,680	204,650	60·78			
1910 { Males	458,626	9,641	90	3	444,242	322,199	72·53	10,393	1·78	
{ Females	409,069				400,139	262,154	65·52			
1913 { Males	553,633	11,533	90	3	534,379	385,838	72·20	14,439	2·10	
{ Females	484,366				468,437	302,389	64·55			
1917 { Males	574,308	12,331	90	8	525,681	328,030	62·40	5,844	·94	
{ Females	535,522				487,585	295,354	60·57			

Making due allowance for obstacles to voting, especially in sparsely-settled districts, the figures quoted indicate abstention on the part of a large percentage of the electors, particularly in the case of the women. At the first election after enfranchisement, 66·5 per cent. of women recorded their votes; in 1907, 60·8 per cent.; at the elections of 1910 and 1913 about 65 per cent.; and in 1917 only 60·6 per cent. voted.

In the case of men, the highest proportion of votes, 80·4 per cent., was recorded at the first election shown in the table above, when popular interest was excited by a strenuous contest on the question of fiscal reform; at the next two elections there was no definite issue at stake, as negotiations were in progress with the other States for federation. At subsequent elections the percentage of votes increased; the proportion at the three elections in 1907-13 being about 72 per cent. of men enrolled. In 1917 many of the electors were absent on war service, and the percentage of voters was low, viz., 62·4.

The number of informal votes was high at the election in 1907, being 3 per cent. of the total votes recorded; at the 1910 election a change made in the method of marking the ballot-papers no doubt accounted for the percentage of informal votes being reduced to 1·78 per cent. The percentage rose to 2·1 in 1913; this was the first election at which the absent voting was in operation, and many informalities occurred through the non-compliance by election-officers with the special conditions regarding the issue of ballot-papers to electors outside the districts in which they were enrolled. In 1917 there were 5,844 informal votes, representing ·94 per cent. of the total votes recorded.

DISTRIBUTION OF ELECTORATES.

After federation of the Australian States the question of reducing the membership of the Legislative Assembly of New South Wales was submitted by a referendum to the electors in 1904, and, as a result, the number of representatives was reduced to 90. The following table shows the average number of persons represented by each member of the Assembly, and the proportion of the population enrolled on the electoral lists at various dates on which the membership or franchise has been altered since the opening of the first Parliament and at each year of election since 1901:—

Year of Election.	Number of Members.	Population per Member.	Percentage of Population Enrolled.
1856	54	5,200	15·8
1858	72	4,500	22·3
1880	108	6,900	25·2
1885	122	7,800	24·5
1891	141	8,100	26·7
1894	125	9,800	24·3
1901	125	10,900	25·3
1904	90	15,900	48·3
1907	90	17,000	48·8
1910	90	18,200	53·0
1913	90	20,400	56·6
1917	90	20,800	59·2

The number of distinct electors cannot be ascertained for any period prior to the year 1894, and the figures in the last column have been calculated on the total number of votes to which the electors on the roll were entitled; they are, therefore, somewhat in excess of the actual proportions. At the census of 1901 the percentage of adult males in the total population was about 28, and of adults, males and females, 52. At the election in 1901 the proportion of the population enrolled was 25 per cent., and after the Women's Franchise Act, 1902, was passed it rose to 48 per cent. In 1910 the proportion was 53 per cent.; while at the Census date, 2nd April, 1911, the adult population represented 55·8 per cent. of the total. In March, 1917, the electors on the roll represented 59·2 per cent. of the total population.

A list of the Parliaments since Responsible Government was established is shown below:—

Number of Parliament.	Opened.		Dissolved.		Duration.			No. of Sessions.
					yrs.	mths.	dys.	
1	22 May	1856	...	19 Dec. 1857	...	1	6 28	2
2	23 March	1858	...	11 April 1859	...	1	0 19	2
3	30 Aug.	1859	...	10 Nov. 1860	...	1	2 11	2
4	10 Jan.	1861	...	10 Nov. 1864	...	3	10 0	5
5	24 Jan.	1865	...	15 Nov. 1869	...	4	9 22	6
6	27 Jan.	1870	...	3 Feb. 1872	...	2	0 7	3
7	30 April	1872	...	28 Nov. 1874	...	2	6 29	4
8	27 Jan.	1875	...	12 Oct. 1877	...	2	8 15	3
9	27 Nov.	1877	...	9 Nov. 1880	...	2	11 13	3
10	15 Dec.	1880	...	23 Nov. 1882	...	1	11 8	3
11	3 Jan.	1883	...	7 Oct. 1885	...	2	9 4	6
12	17 Nov.	1885	...	26 Jan. 1887	...	1	2 9	2
13	8 March	1887	...	19 Jan. 1889	...	1	10 11	3
14	27 Feb.	1889	...	6 June 1891	...	2	3 10	4
15	14 July	1891	...	25 June 1894	...	2	11 11	4
16	7 Aug.	1894	...	5 July 1895	...	0	10 28	1
17	13 Aug.	1895	...	8 July 1898	...	2	10 25	4
18	16 Aug.	1898	...	11 June 1901	...	2	9 26	5
19	23 July	1901	...	16 July 1904	...	2	11 23	4
20	23 Aug.	1904	...	12 July 1907	...	2	10 19	4
21	2 Oct.	1907	...	14 Sept. 1910	...	2	11 12	5
22	15 Nov.	1910	...	6 Nov. 1913	...	2	11 22	5
23	23 Dec.	1913	...	21 Feb. 1917	...	3	1 30	5
24	17 April	1917	...	Still sitting.	.....	.....	.....	.....

STATE MINISTRIES.

The various Ministries which have held office since the establishment of Responsible Government, together with the duration in office of each, are shown below:—

Ministry.		From—	To—	Duration.	
Number.	Name.			months.	days.
1	Donaldson	6 June 1856	25 Aug. 1856	2	20
2	Cowper	26 Aug. 1856	2 Oct. 1856	1	7
3	Parker	3 Oct. 1856	6 Sept. 1857	11	4
4	Cowper	7 Sept. 1857	26 Oct. 1859	25	20
5	Forster	27 Oct. 1859	8 Mar. 1860	4	11
6	Robertson	9 Mar. 1860	9 Jan. 1861	10	1
7	Cowper	10 Jan. 1861	15 Oct. 1863	33	6
8	Martin	16 Oct. 1863	2 Feb. 1865	15	18
9	Cowper	3 Feb. 1865	21 Jan. 1866	11	19
10	Martin	22 Jan. 1866	26 Oct. 1868	33	5
11	Robertson	27 Oct. 1868	12 Jan. 1870	14	17
12	Cowper	13 Jan. 1870	15 Dec. 1870	11	3
13	Martin	16 Dec. 1870	13 May 1872	16	28
14	Parkes	14 May 1872	8 Feb. 1875	32	26
15	Robertson	9 Feb. 1875	21 Mar. 1877	25	13
16	Parkes	22 Mar. 1877	16 Aug. 1877	4	26
17	Robertson	17 Aug. 1877	17 Dec. 1877	4	1
18	Farnell	18 Dec. 1877	20 Dec. 1878	12	3
19	Parkes	21 Dec. 1878	4 Jan. 1883	48	15
20	Stuart	5 Jan. 1883	6 Oct. 1885	33	2
21	Dibbs	7 Oct. 1885	21 Dec. 1885	2	15
22	Robertson	22 Dec. 1885	25 Feb. 1886	2	4
23	Jennings	26 Feb. 1886	19 Jan. 1887	10	25
24	Parkes	20 Jan. 1887	16 Jan. 1889	23	28
25	Dibbs	17 Jan. 1889	7 Mar. 1889	1	19
26	Parkes	8 Mar. 1889	22 Oct. 1891	31	15
27	Dibbs	23 Oct. 1891	2 Aug. 1894	33	11
28	Reid	3 Aug. 1894	13 Sept. 1899	61	11
29	Lyne	14 Sept. 1899	27 Mar. 1901	18	14
30	See	28 Mar. 1901	14 June 1904	38	18
31	Waddell	15 June 1904	29 Aug. 1904	2	15
32	Caruthers	30 Aug. 1904	1 Oct. 1907	37	2
33	Wade	2 Oct. 1907	20 Oct. 1910	36	19
34	McGowen	21 Oct. 1910	29 June 1913	32	9
35	Holman	30 June, 1913	15 Nov. 1916	40	16
36	Holman	16 Nov. 1916	Still in office.	.....

The Holman Ministry, which is in office, consists of the following members:—

Premier	Hon. W. A. HOLMAN, M.L.A.
Colonial Secretary	Hon. G. W. FULLER, M.L.A.
Attorney-General	Hon. D. R. HALL, M.L.A.
Solicitor-General and Minister of Justice	Hon. J. GARLAND, K.C., M.L.C.
Vice-President of the Executive Council and Minister of Public Health and for Local Government.	Hon. J. D. FITZGERALD, M.L.C.
Secretary for Lands and Minister for Forests	Hon. W. G. ASHFORD, M.L.A.
Secretary for Public Works & Minister for Railways	Hon. R. T. BALL, M.L.A.
Colonial Treasurer and Secretary for Mines	Hon. J. C. L. FITZPATRICK, M.L.A.
Minister for Agriculture	Hon. W. C. GRAHAME, M.L.A.
Minister for Labour and Industry	Hon. G. S. BEEBY, M.L.A.
Minister of Public Instruction	Hon. A. G. F. JAMES, M.L.A.
Member of the Executive Council (without portfolio)	Hon. D. STOREY, M.L.A.

Under the provisions of the Ministers' Salaries Act of 1908, the following annual payments from the Consolidated Revenue Fund are authorised:—

	£
The Premier (in addition to his salary as Minister of the Crown)	500
The Attorney-General	1,520
Six Ministers of the Crown, £1,370 each	8,220
The Vice-President of the Executive Council	800
Total	£11,040

The Constitution Act of 1902 authorises the payment of £1,000 per annum as salary for the office of Solicitor-General.

COST OF PARLIAMENT—NEW SOUTH WALES.

The following statement shows the cost of Parliamentary Government in New South Wales during the five financial years 1914–1918:—

Head of Expenditure.	1914.	1915.	1916.	1917.	1918.
Governor—	£	£	£	£	£
Governor's salary	5,000	5,000	5,000	5,000	5,000
Official Secretary	400	400	400	400	400
Private Secretary	350	350	350	350	.....
Aide-de-Camp	350	350	350	290	.....
Orderlies	883	912	796	85	210
Additions, Repairs and maintenance of Residences	1,266	4,845	1,655	1,399	886
Miscellaneous	2,285	1,053	1,547	2,570	2,780
Total	£ 10,534	12,910	10,096	10,694	9,276
Executive Council—					
Salaries of Officers... ..	...	...	...	145	115
Other Expenses ... ..	...	...	...	...	.....
Total ... ..	£ ...	...	...	145	115
Ministry—					
Salaries of Ministers	11,040	11,038	11,040	11,040	11,040
Other expenses	1,150	1,219	1,298	988	2,291
Total	£ 12,190	12,257	12,338	12,028	13,331
Parliament—					
The Legislative Council—					
Railway passes	£ 5,883	5,903	6,070	6,929	8,432
The Legislative Assembly—					
Allowances to Members	37,354	40,541	40,335	37,681	40,607
Railway passes	10,382	10,723	10,387	11,262	10,841
Other expenses (Postage Stamps, &c.)	1,732	2,539	1,770	1,753	5,455
	£ 49,468	53,803	52,492	50,696	56,903
Miscellaneous—					
Fees and expenses of Parliamentary Standing Committee on Public Works	3,310	6,894	6,225	3,833	4
Salaries of Officers and Staff	22,652	22,073	21,454	21,339	22,656
Printing	12,005	9,646	14,967	17,158	13,110
Hansard (including Salaries)	6,775	6,540	7,121	6,969	6,925
Library	567	675	677	544	565
Water, power, light, and heat	561	740	575	462	552
Postage, stores, and stationery	1,002	340	947	596	2,606
Refreshment Rooms	208	329	3,339	2,489	1,329
Miscellaneous	2,461	2,756			
	£ 49,544	49,993	55,305	53,390	47,747
Total Parliament	£ 104,895	109,699	113,867	111,015	113,082
Electoral Office and Elections—					
Salaries	813	875	1,123	1,832	1,307
Elections, Printing of Electoral Rolls, expenses of Electoral Registrars, and contingencies	53,040	24,112	*56,491	50,047	20,995
Total	£ 53,853	24,987	57,614	51,879	22,302
Royal Commissions and Select Committees					
Fees, &c.	4,578	4,231	} 4,114	6,171	2,872
Miscellaneous	840	1,275			
Total	£ 5,418	5,506	4,114	6,171	3,872
GRAND TOTAL	£ 186,890	165,359	198,029	191,332	161,978

* Includes £50,211 for liquidators' remuneration.

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS.

As soon as practicable after the commencement of the first session of every Parliament, a joint committee of members of the Legislative Council and Legislative Assembly, called the Parliamentary Standing Committee on Public Works, is appointed by ballot. This Committee consists of three members of the Legislative Council, and four members of the Legislative Assembly and has power, under the Public Works Act, to prosecute inquiries, to summon witnesses, and to compel the production of books, &c.

The Chairman receives by way of remuneration £3 3s. for each sitting of the Committee, and every other member £2 2s.

Proposals for public works of an estimated cost exceeding £20,000 must be submitted and explained by a Minister in the Legislative Assembly, and then referred to the Public Works Committee for report.

Commissions and Trusts.

In addition to the Ministerial Departments, various public services are administered by Commissions, Boards and Trusts; the more important of these are—

- Chief Commissioner for Railways and Tramways.
- Metropolitan Board of Water Supply and Sewerage.
- Hunter District Water Supply and Sewerage Board.
- Sydney Harbour Trust Commissioners.
- Water Conservation and Irrigation Commission.
- Housing Board.
- Commissioners of the Government Savings Bank of New South Wales.
- Board of Fire Commissioners of New South Wales.
- Metropolitan Meat Industry Board.
- Forestry Commission.

In each case the authority controls a specific service, and administers the statute law in relation to it.

DEFENCE.

DEFENCE LEGISLATION.

Upon the inauguration of the Commonwealth the duty of providing for the defence of Australia devolved upon the Federal Government.

Under the Constitution the Parliament of the Commonwealth may legislate for the naval and military defence of Australia, and for the control of the forces to execute and maintain the Federal laws. The Governor-General, as Commander-in-Chief, authorised the transfer of the defence arrangements of each State to the Commonwealth in March, 1901. Statutes in relation to defence were enacted in 1903 and subsequent years, particular provision in regard to naval defence being contained in the Naval Agreement Act, 1903-1912, and in the Naval Defence Act, 1910-1912. The earlier enactments of the Federal Government in regard to defence provided machinery to systematise the defence forces, and to secure efficient administration. The divisions of militia and volunteers were retained, the permanent forces consisting of persons bound for a term of continuous service, and the citizen forces being at the call of the Commander-in-Chief in time of war. In 1909 an innovation was made, in that universal obligation to military and naval training was imposed, and arrangements were made for registration and enrolment for training; in 1910 the period of compulsory training was extended from two to seven years.

Administration.

A Council of Defence has been constituted to deal with matters of policy, its functions being chiefly to establish and maintain continuity in defence policy, to act as advisors to Parliament and Minister, to secure standard of efficiency, and to ensure a measure of decentralisation. A Military and a Naval Board supervise the administration of the Military and Naval Forces respectively.

LIABILITY FOR SERVICE IN TIME OF WAR.

The Defence Acts, 1903-1918, provide that all male persons—unless specifically exempted—who have resided in Australia for six months, and who are British subjects between the ages 18 and 60 years, may be called upon to serve in the Citizen forces in time of war. The order in which they may be called upon is as follows:—

1. From 18 to 35 years of age—All unmarried men or widowers without children.
2. From 35 to 45 years of age—All unmarried men or widowers without children.
3. From 18 to 35 years of age—All married men or widowers with children.
4. From 35 to 45 years of age—All married men or widowers with children.
5. All men aged 45 to 60 years.

The specific exemptions are as follows:—(a) Persons reported unfit by medical authorities; (b) Members and officers of Parliament; (c) Judges and police, stipendiary or special magistrates; (d) Ministers of religion; (e) Police or prison employees; (f) Persons employed in lighthouses; (g) Medical practitioners or nurses in public hospitals; (h) Persons not substantially of European origin or descent; (i) Persons whose conscientious beliefs do not allow them to bear arms; (j) Persons engaged in any employment specified by regulations or by proclamation. As regards persons in the classes (g), (h), and (i), the exemptions do not extend to duties of a non-combatant nature.

UNIVERSAL TRAINING.

Universal training, as established by the Defence Act, came into operation on 1st January, 1911; persons who reached the age of 18 years in or before the year 1911 were exempted from this obligation.

The prescribed annual training is as follows:—

Rank.	Age.	Service.	Training.
	years.	years.	
Junior Cadets	12-14	2	90 hours each year.
Senior Cadets	14-18	4	40 drills each year—4 whole days, (four hours), 12 half-days (two hours), and 24 night drills (one hour). Minimum service, 64 hours per annum.
Citizen Forces—			
Naval Forces, Artillery and Engineer Arms, and Army Service Corps.	18-25	7	Drills equivalent to 25 whole days (six hours) of which, at least, 17 days must be in camps of continuous training.
Other	18-25	7	Drills equivalent to 16 whole days (six hours), of which, at least, 8 days must be in camps of continuous training.
Citizen Forces	25-26	1	One registration or one muster parade.

Members of Senior Cadets and Citizen Forces who have not attained a required standard of efficiency during each annual training must attend an equivalent additional training for each year in which they failed to qualify as efficient.

Exemptions from training in time of peace include persons medically unfit, school-teachers who have qualified as instructors or officers of the Junior or Senior Cadets, members of Permanent Naval or Military Forces, or of police or prison services, and persons whose *bona fide* residence is not within 5 miles of the nearest training place. Persons not substantially of European origin are exempt except from duties of a non-combatant nature. Exemptions may be granted to persons whose attendance at the prescribed training would impose great hardship upon them, their parents or dependents; to persons employed in a factory established in pursuance of the Defence Act or in a civil capacity in connection with the Defence Forces and to persons who have served on war service.

Trainees may not be imprisoned in default of payment of pecuniary penalties for offences against the universal training provisions, but may be committed to the custody of a prescribed authority. Offences against the Defence Act committed by cadets under 16 years of age must be tried, as far as practicable, in Children's Courts.

MILITARY ORGANISATION.

The Commonwealth is organised for Defence purposes into six military districts, corresponding as far as practicable with the political divisions into States. The second military district represents the State of New South Wales, excepting the North Coast district, the Barrier district, and the Riverina, which are attached to Queensland, South Australia, and Victoria respectively.

MILITARY FORCES.

Permanent military forces are organised for Administrative and Instructional Staffs, also for Expeditionary Forces in time of war. The Active Citizen Military Forces consist of militia and volunteers, trainees from 18 to 26 years of age, and officers on the unattached list; the Military Reserve Forces include officers on Reserve of Officers' list, members of Rifle Clubs who are allotted to the Military Reserve Forces, and all persons liable to serve in the Commonwealth in time of war who are not included in the active forces.

The military forces are not liable to serve beyond the Commonwealth unless they voluntarily agree to do so. The Citizen Forces may be called out for active service in time of war or for the protection of a State from domestic violence, but may not be utilised in connection with an industrial dispute.

The subjoined table contains information regarding the military forces of the Commonwealth on 31st December, 1917; the figures do not include the members of overseas Expeditionary forces.

Classification.	Military District.						
	1st. Queens- land.	2nd. New South Wales.	3rd. Victoria.	4th. South Australia.	5th. Western Australia.	6th. Tasmania.	Total.
Permanently employed	444	1,478	915	232	314	163	3,923*
Citizen Soldiers ...	10,900	27,204	28,124	9,479	4,365	3,721	83,793
Engineer and Railway Staff Corps ...	10	9	8	5	8	5	51†
Army Nursing Service	32	26	8	16	180	104	366
Area Officers ...	29	66	76	35	15	14	235
Rifle Clubs ...	18,182	32,258	24,350	10,458	10,691	5,795	101,734
Senior Cadets ...	11,495	33,009	27,560	8,942	5,535	3,201	89,742
Unattached list of Officers ...	44	69	55	22	17	21	228
Reserve of Officers	272	280	511	216	187	88	1,554
Chaplains ...	52	79	74	43	37	31	316
Total ...	41,460	94,478	81,681	29,448	21,349	13,143	281,942

* Includes 377 headquarters staff and cadets at Duntroon Military College.

† Includes 6 headquarters staff.

JUNIOR CADETS.

The training of Junior Cadets embraces physical training, elementary marching drill, and the attainment of a certain standard of efficiency in not less than one of the following subjects:—Miniature rifle shooting, swimming, running in organised games, first aid. In schools in the naval training areas instruction is given also in mariners' compass and elementary signalling. The training is commenced on 1st July of the year in which the cadet reaches the age of 12 years and is conducted by school teachers, who are instructed for this purpose by a staff of instructors maintained by the Defence Department.

Junior Cadets are not required to register, but are examined medically. Particulars regarding the medical examinations during the year ended 31st December, 1917, are given in the subjoined table:—

Military District.	Boys medically examined.			Percentage of total examined.	
	Total.	Medically fit.	Unfit and temporarily unfit.	Medically fit.	Unfit and temporarily unfit
1st—Queensland ...	6,870	6,658	212	96.9	3.1
2nd—New South Wales ...	21,106	20,691	415	98.0	2.0
3rd—Victoria ...	15,574	15,318	256	98.5	1.5
4th—South Australia ...	5,250	5,135	115	97.8	2.2
5th—Western Australia ...	4,397	4,322	75	98.3	1.7
6th—Tasmania ...	1,764	1,693	71	96.0	4.0
Commonwealth ...	51,961	53,817	1,144	97.9	2.1

SENIOR CADETS.

Boys are required to register for military training as Senior Cadets in January and February, and to commence training on 1st July of the year in which they reach the age of 14 years. After medical examination they are organised in naval or military units and trained in elementary exercises

or in musketry on open ranges, but are not required to attend camp. The minimum efficient service of Senior Cadets is 64 hours per annum, of which 36 hours is performed in the employer's time, the remainder in the leisure time of the cadet. The following return shows the registrations and medical examinations of Senior Cadets during the year ended 31st December, 1917 :—

Military District.	Total Registrations.	Medically examined.	Medically fit.		Exemptions granted.*	Number actually in Training.
			Number.	Percentage of medically examined.		
1st—Queensland	14,110	14,029	12,158	86·7	1,900	11,872
2nd—New South Wales ...	37,720	36,965	33,370	90·3	4,172	32,384
3rd—Victoria	31,266	31,156	28,020	89·9	3,204	27,458
4th—South Australia ...	10,103	10,085	9,175	91·0	933	9,132
5th—Western Australia ...	6,344	6,342	5,885	92·7	457	5,771
6th—Tasmania	4,183	3,958	3,471	87·7	695	3,440
Commonwealth	103,731	102,535	92,079	89·8	11,361	90,057

* Chiefly on account of distance from training places.

It will be seen that only a very small percentage failed to pass the medical examination, and that percentage would be further reduced by the exclusion of lads deemed only temporarily unfit.

CITIZEN FORCES.

On 1st July of the year in which the Senior Cadets reach the age of 18 years they are transferred, after medical examination, to the Citizen Forces, and serve for eight years. Except in the last year of this service (when only one muster parade is necessary) the continuous training is 25 days per annum for specialist and technical corps, and 16 days per annum for other corps. In the allotment to the various arms the wishes of the individuals are considered as far as practicable; only specially selected men are accepted for service with the Artillery, Engineers, and Army Service and Medical Corps. Service in the Light Horse is voluntary, the recruit being required to provide his own horse. In other arms voluntary enlistment ceased on 1st July, 1912, when the first batch of trainees completed their term as Senior Cadets; volunteers serving on that date were allowed to continue their service until the expiration of their period of enlistment, officers and non-commissioned officers only being eligible to re-enlist for further periods. With regard to persons who have served on war service, however, special provision for their voluntary enlistment in the Citizen Forces was made in the Defence Act of 1917.

On completion of their period of compulsory service, men may be enrolled in the Reserve Forces. Pay is given to all members of the militia. Trainees under the compulsory system receive 3s. per day during the first year, and 4s. per day during subsequent years. Light Horse trainees receive in addition £4 per annum for keep of horse. Higher rates are paid to the higher ranks, and mounted officers receive also horse allowance.

Reserves—Rifle Clubs.

Members of Rifle Clubs constitute the reserves for the militia. A course of musketry is held annually, and the clubs are subsidised by the Defence Department. On 30th June, 1917, there were 32,253 members of rifle clubs in the New South Wales Military District.

The Australian Army Reserve was formed in 1916 by voluntary enlistment of officers and men who have been engaged on active service, or who have served in the permanent military forces.

Military College.

At the Royal Military College, Duntroon, officers are trained for the permanent forces. Admission is by open competitive examinations. Instruction during the college course of four years covers both educational and military work.

NAVAL DEFENCE.

In 1885 Australia, previously attached to the China and East Indies Naval Station, was constituted as a separate naval command. As an Imperial Naval base, New South Wales was accorded a large measure of naval protection, and prior to the Federation of the Australian Colonies, supplemented the Imperial Naval Forces by local organisations, such as the Naval Brigade and Naval Artillery Volunteers. Under agreement between the Australian Colonies and the Imperial Government, in 1891 and subsequent years, the Imperial vessels on the Australian Naval Station were reinforced by an auxiliary squadron of five third-class cruisers and two torpedo gunboats to assure protection to trade in Australasian waters. The agreement was renewed by the Commonwealth Government, in 1903, for a period of ten years, and by a subsequent arrangement it was agreed that the squadron provided by the Imperial Government for the Australian Station should consist of one first-class armoured cruiser, three second-class, and five third-class cruisers. The Australian Government contributed—to a maximum of £200,000 per annum—five-twelfths of the annual cost of maintenance, and the Government of New Zealand paid one-twelfth up to a maximum of £40,000 per annum.

Though connected immediately with the ports of Australia and New Zealand, the sphere of operations of this fleet extended to the Australian, China, and East Indies stations. One ship was kept in reserve, and three others, partly manned, were used as drill ships for training the Royal Naval Reserve, the remainder being kept in commission fully manned. The drill ships and one other vessel were manned by Australians and New Zealanders, paid at special rates, and controlled by officers of the Royal Navy and Royal Naval Reserve.

In 1908 the Federal Government decided to raise an Australian naval force, to build submarines and torpedo-boat destroyers, and to replace the squadron of Imperial vessels maintained under the Naval Agreement; in pursuance of this policy contracts were made for the construction of three destroyers. Subsequently, at the Imperial Defence Conference in 1909, the Australian Government undertook to provide a fleet unit consisting of one armoured cruiser, three second-class protected cruisers, six destroyers, and two submarines.

In 1911 Admiral Sir Reginald Henderson visited Australia to advise the Federal Government in the matter of naval defence. His recommendations involve the gradual acquisition of a fleet of fifty-two vessels, requiring a complement of some 15,000 men; the construction of docks; and the establishment of six naval bases and eleven sub-bases.

Towards the end of 1913, the advice of Sir Maurice Fitzmaurice, an engineering expert, was obtained regarding the construction of naval bases.

Australian Naval Station.

The boundaries of the Australian Naval Station are :—On the north from 95° E. longitude by the parallel of 13° S. latitude to 120° E. longitude; thence north to 11° S. latitude; thence to the boundary with Dutch New Guinea on the south coast in about longitude 141° E.; thence along the coast of Papua to 8° S. latitude; thence east to 155° E. longitude; on the east by the meridian of 155° E. longitude to 15° S. latitude; thence to 28° S. latitude on the meridian of 170° E. longitude; thence south to 32° S. latitude; thence west to the meridian of 160° E. longitude; thence south; on the south, by the Antarctic Circle; on the west, by the meridian of 95° E. longitude.

The Imperial naval establishments at Sydney were transferred to the Commonwealth on 1st July, 1913, and after the arrival in Sydney of the battle cruiser "Australia," on 4th October, 1913, the Imperial war vessels on the Australian Station were transferred to New Zealand.

Classification of Naval Forces.

The naval forces of Australia consist of the Permanent and the Citizen naval forces. The Permanent forces are those who engage for continuous naval service; the Citizen include the partially-paid naval reserves, previously the naval militia, and the trainees under the universal training system.

The naval forces may be required to serve for training or other service beyond the limits of the Commonwealth; the permanent are liable at all times to be employed on any naval service; the citizen forces are not liable to continuous service in time of peace, and may be called out for active service by proclamation only.

The Defence Act provides that a proportion of the trainees under the universal training system is allotted to the naval forces, the navy having first choice in selection. The senior naval cadets in New South Wales are drawn chiefly from the maritime districts in the neighbourhood of Sydney and Newcastle.

The number of naval trainees in New South Wales under the universal training system at 1st July, 1912-18, is shown below :—

Year (1st July).	Sydney.		Newcastle.	
	Adults.	Cadets.	Adults.	Cadets.
1912	158	780	37	204
1913	322	698	77	241
1914	399	692	112	257
1915	460	785	140	298
1916	433	778	161	314
1917	484	788	167	293
1918	531	802	233	361

Naval College.

At the Royal Australian Naval College, Jervis Bay, officers for the Navy are trained. A boy commences his career as a cadet-midshipman at the age of 13 to 14 years, after a selective examination.

In September, 1918, there were 119 cadet-midshipmen at the college.

Naval Training Ship.

The naval training ship "Tingira" was commissioned in June, 1912, when 100 boys, selected from the several States of the Commonwealth, commenced training. The ship is moored in Rose Bay, Port Jackson, and has accommodation for 300 boys. On the completion of their course on the "Tingira," which lasts about a year, the trainees are drafted into the permanent naval forces. The age of entry is $14\frac{1}{2}$ to 16 years, and trainees engage to serve until they reach the age of 25 years.

UNIFORM AND EQUIPMENT.

In order to render Australia self-contained in the matter of uniform and equipment for defence purposes, factories have been established throughout the Commonwealth for the manufacture of small arms, cordite, harness, saddlery, and leather accoutrements, and clothing.

The small arms factory, which was opened on 8th June, 1912, is situated at Lithgow, New South Wales; the factory site contains about 123 acres, and the buildings have a floor-space of nearly 2 acres.

ROYAL NAVAL HOUSE.

The Royal Naval House, erected in Sydney exclusively for the accommodation of the men of the British Navy, was built in 1889, at a total cost inclusive of land, of £25,000, contributed by citizens and by the Government of New South Wales. A new wing was added, in 1908, at a cost of £8,600. The House contains large reading, smoking, dining, and billiard rooms, besides a gymnasium, and other accessories. Sleeping accommodation is available for 450 men. The institution is self-supporting, and is controlled by a Superintendent, a Committee elected by the Trustees from among their number, and a few Naval Officers, with an Honorary Secretary and Treasurer. An annual grant from the Government of New South Wales is devoted to maintaining the House during the absence of the Fleet from Sydney. It is now used by the petty officers and men of the Australian Navy.

SOLDIERS' CLUB.

The first Soldiers' Club to be established in the State was opened on 3rd June, 1915, at Sydney, in a large building centrally situated in the city.

The rooms are now freely used by soldiers of the Australian Imperial Force, the building being maintained by public subscriptions.

WAR CONTINGENTS.

Although service in the military forces beyond Commonwealth territory is not obligatory, in time of war contingents of volunteers have been sent from Australia to co-operate with the Imperial Forces. The first contingent was despatched from New South Wales to the Soudan Campaign in 1885; large numbers of troops were sent from all the Australian States to the South African war, which commenced in 1899, and a naval contingent proceeded to China at the time of the Boxer rebellion in 1900.

EUROPEAN WAR.

Naval and Military Operations.

Upon the outbreak of war in August, 1914, the control of the Australian Navy was transferred to the British Admiralty, and an offer to despatch and maintain a fully equipped expeditionary force for service abroad was accepted by the Imperial Government, the local forces being immediately mobilised for home defence.

The first expedition, consisting of military and naval forces, sailed from Australia on 19th August, 1914, to seize and occupy German possessions in the Pacific; German New Guinea and neighbouring islands were occupied and have since been garrisoned by a special force organised for service in the tropics.

The Australian Imperial Expeditionary Forces were despatched to Egypt where the first convoy landed in December, 1914; in February, 1915, the Australians assisted in the defence of Egypt against the Turkish invasion, and from April to December were actively engaged in the Dardanelles. Since 1916 the Australian Force has been operating in the defence of Egypt, on the Western front in Europe, and in Mesopotamia and Palestine.

From the outbreak of war in August, 1914, to October, 1918, the total enlistments of soldiers for the Australian Imperial Force were 415,685, and the total embarkations were 328,612. Of the men on active service 55,554 have died; other casualties (gross) number 256,576. The number of soldiers returned to Australia up to 31st October, 1918, was 79,984.

Immediately after the declaration of war the Australian war vessels were actively employed in the destruction of German Pacific wireless stations and in search for enemy warships known to be cruising in the Pacific. The search was suspended in order to assist in the convoy of the New Zealand Expedition to Samoa and to take part in the Australian expedition against German New Guinea. During the latter operations the submarine AE1 was lost whilst engaged on patrol work; the cause of the disaster being unknown. The German gunboat "Komet," and the Government yacht "Nusa," with other prizes were captured; the "Komet," having been renamed "Una," is now attached to the Australian navy.

Whilst the Australian war vessels were escorting the first Australian and New Zealand Imperial Expeditionary Forces to Egypt, news was received of the presence of the German cruiser "Emden" at Cocos Island; the H.M.A.S "Sydney" proceeded to Cocos Island, and after a short engagement, on the 9th November, 1914, completely disabled the "Emden," which was driven ashore on North Keeling Island and became a total wreck.

The battle cruiser "Australia" joined the Grand Fleet in the North Sea during 1915, and was made flag ship of a battle cruiser division.

The submarine AE2 was lost in May, 1915, whilst operating in the Sea of Marmora.

WAR LEGISLATION.

A brief review is appended of the special legislation enacted in the Parliaments of New South Wales and of the Commonwealth in order to cope with emergencies arising from the state of war, and to organise the national resources for war purposes.

STATE ACTS.

Shortly after the declaration of war, the Postponement of Debts Act, 1914, was passed to empower the Governor to postpone, by proclamation, the payment of debts; the interest chargeable in respect of a postponed debt will be continued, but not payable during postponement. The Act will continue in force until six months after the war. There has been no necessity, so far for the issue of any proclamation.

The Commissioners of the Government Savings Bank were empowered under the Government Savings Bank Amendment Act, 1914, to prescribe conditions and periods of notice to be given in respect to withdrawals.

The following Acts provide for imposing and collecting additional taxes upon motor vehicles, incomes, racing clubs and associations, bookmakers and betting tickets :—the Motor Tax Management Acts, 1914 and 1916, the Motor Vehicle (Taxation) Act, 1916, the Finance (Taxation) Acts, 1914, 1915 and 1917, the Finance Taxation Management Acts, 1915 and 1917, the Income Tax Acts, 1916 and 1918, and the Bookmakers (Taxation) Act, 1917. Under the Totalizator Act, 1916, the Consolidated Revenue Fund receives a commission on all moneys paid into totalizators on racecourses. The Navigation (Amendment) Act, 1917, provides for an increase in pilotage rates.

The Commonwealth War Loan (Investment Enabling) Act, 1915, and the Commonwealth Loans (Investment Enabling) Act, 1915, authorise trustees and others to invest in Stock, Treasury Bills, and Bonds of the Commonwealth any property which they are not expressly forbidden to invest in Government Stock or securities.

A number of Acts were passed for the benefit of persons engaged on war service, viz. :—The Constitution Amendment Act, which enables members of the State Parliament to serve in the military or naval forces without incurring disqualification by reason of accepting an office of profit under the Crown; the Apprentices Amendment Act, 1915, which protects the interests of apprentices who enlist for war service; the Probate Duties War Exemption Act, 1915, which exempts from stamp and probate duties the estates of persons dying on active service, or as the result of injuries or diseases contracted on active service, with the Commonwealth or other British forces; also any estates the subject of settlement, trust, disposition, conveyance, transfer, vesting, purchase, investment, or gift made by persons so dying. The provisions of the Life, Fire, and Marine Insurance (Amendment) Act, 1917, protect the policies of persons who have died on war service.

The Medical Practitioners Amendment Act, 1915, was passed to permit medical students at the Sydney University who desire to volunteer for war service to complete their course in a shorter period of time than five years, the minimum fixed by the Medical Practitioners Act of 1912. Graduates of German and Austrian Universities and Medical Schools, and German and Austrian subjects are excluded from registration as medical practitioners in New South Wales.

The University Amendment (Exhibitioners' Fees) Act, 1918, authorises the Senate of the Sydney University to defray from the Statutory Endowment the fees at educational institutions abroad of persons holding public exhibitions at the Sydney University who have been engaged on war service.

The University (Senate) Amendment Act, 1918, was passed to obviate the necessity for holding a Senate election during the absence of a large number of graduates on war service. The present Senate will continue to hold office until a day to be proclaimed by the Governor.

Under the Trustees Delegation of Powers Act, 1915, trustees, executors, and administrators temporarily absent, or about to depart, from the State, are authorised to delegate their powers for a maximum term of two years.

The Execution of Trusts (War Facilities) Act, 1917, authorises the delegation of trusts by trustees who are engaged on war service, or who, being out of New South Wales, are, for any reason connected with the present war, unable to return. Rights of entry or distress and rights to commence any action or proceeding possessed by persons on active service are preserved during the period of service and for twelve months thereafter.

Under the Returned Soldiers Settlement Acts, 1916 and 1917, land may be set apart for the settlement of members of the Commonwealth Naval and Military Forces, or residents of Australia joining the forces of Great Britain, who return to New South Wales after service abroad. Special tenures are created for these settlers, financial and other assistance may be granted to them, and training farms or settlements may be established for their benefit.

The Voluntary Workers (Soldiers' Holdings) Act, 1917, provides for the issue of Crown Grants of lands for the purpose of providing homes for disabled members of the Commonwealth Naval and Military Forces or the dependents of those who have died, and authorises the Public Trustee to advance money to Voluntary Workers' Associations to purchase materials for constructing buildings on such land.

The National Relief Fund Act, 1914, provides for the amalgamation of funds instituted for purposes of relief in connection with certain mining disasters and the South African War. The fund so formed may be applied for the relief of persons injured, and the dependents of persons killed or injured in war or in public disaster.

Under the Destitute Children's Society (Vesting) Act, 1916, land and buildings held by the Society at Randwick are vested in the Crown for use as a hospital home for invalided soldiers and sailors, or for such other purpose as the Governor may determine. The moneys and securities held by the Society are vested in the Public Trustee, to be used for the care of defective children.

With regard to food supplies, important enactments were passed, viz., the Necessary Commodities Control Act, 1914, which provided for the control of prices of articles used for ordinary food consumption, and of coal, firewood, gas, and other fuel; the fixing of prices was taken over by the Federal Government in July, 1916, and the operations of the State body were suspended; the Wheat Acquisition Acts, 1914 and 1915, which enabled the State Government to compulsorily acquire the wheat harvest of 1914-15; and the Meat Supply for Imperial Uses Act, 1915, to secure supplies of meat for the use of the Imperial Government during the war.

The Munitions Act, 1915, authorises the Chief Commissioner for Railways to manufacture and supply arms and munitions of war.

The Commonwealth Powers (War) Act.—The Federal Government had made arrangements for submitting to the vote of the electors in December, 1915, certain proposals for extending the powers of the Federal Parliament, but in the preceding month an agreement was made between the State Premiers and the Prime Minister of the Commonwealth that the Premiers would bring forward in their respective Parliaments legislation for referring these powers to the Federal Parliament, and that the Federal Government would postpone the referendum during the currency of the war. The New South Wales Act will operate during the war and for twelve months after the declaration of peace.

Under this Act the following matters are referred to the Commonwealth:—

- (i) Trade and Commerce.
- (ii) Corporations, including the creation, dissolution, regulation and control of corporations (State and Foreign), exclusive of municipalities, and religious, charitable, scientific, or artistic societies.
- (iii) Employment and unemployment; strikes and lock-outs; maintenance of Industrial peace; settlement of Industrial disputes.
- (iv) Conciliation and Arbitration for the prevention and settlement of Industrial disputes relating to State Railways.

- (v) Trusts, combinations, monopolies, and arrangements relating to the production, manufacture or supply of goods, or the supply of services, including ownership of means of production, manufacture, or supply.
- (vi) The conduct, by or under the control of the Commonwealth, of any industry or business of producing, manufacturing or supplying specified goods or services, which have been declared to be subjects of monopolies, and the acquisition of properties connected with such industries. This does not apply to undertakings carried on by State Governments, nor to State Railways; and the rates and fares charged by Railway authorities cannot be altered.

The Liquor Referendum Act, 1916, submitted to a referendum the question of the hour at which premises licensed for the sale of intoxicating liquors should be closed during the currency of the war. It was brought forward in response to a popular demand for the restriction of the consumption of alcoholic liquors by closing licensed houses earlier than 11 p.m., the statutory closing hour. As the result of the referendum the closing hour was altered to 6 p.m., and the Liquor Amendment Act, 1916, and the Liquor (Refund of Rent) Act, 1918, provided for the abatement and refund of rents of licensed premises, the reduction of license fees, the postponement of payment of mortgages, &c., the closing of bars during prohibited hours, and the suspension of the taking of the local option vote at the general election of the State Parliament in 1917.

The Enemy Contracts Annulment Act, 1915, provides for the annulment or termination of contracts with or for the benefit of enemy subjects. The Naturalised Subjects Franchise Act, 1916, suspends from certain privileges naturalised British Subjects of enemy origin, *i.e.*, persons who at the time of naturalisation were subjects of any country with which the British Empire is at war. During the continuance of the war no such person may participate, as candidate or elector, in the elections of the State Parliament, or municipal or shire councils, nor sit in such assemblies, nor officiate as justice of the peace, coroner, member of licensing bench, or juror, nor obtain a license or renewal of license under the Liquor Act. No person convicted under the Commonwealth War Precautions Act under circumstances which indicate disloyalty will be allowed to vote at Parliamentary, municipal, or shire elections.

The Legislative Assembly Continuance Act, 1916, extended for a maximum period of one year the duration of the Legislative Assembly of New South Wales, which would have expired by effluxion of time in December, 1916. The Crimes Prevention Act, 1916, was passed to provide an effective method of dealing with the offence of inciting to the commission of crime.

The Use of Trust Lands for War Purposes Act, 1918, validates the use for naval and military purposes during the war period of lands devoted to charitable, public, religious, and other similar purposes.

The Crown Lands Leases Withdrawal Act, 1918, provides that during the war and for a certain period not exceeding twelve months thereafter, the compensation payable for improvements on land withdrawn under the Crown Lands Act shall not exceed a certain amount.

The Trade Unions Re-registration Act, 1918, was passed with the object of promoting co-operation amongst the various sections of the community in a united effort to secure adequate reinforcements under the voluntary system of enlistment to maintain the strength of the Australian Expeditionary Forces. It provided for the reinstatement of certain industrial unions which had suffered cancellation of their registration for participating in the general strike of 1917.

FEDERAL ACTS.

In the Federal Parliament the following legislation was passed to enable the Government to make adequate provision for the safety and defence of the Commonwealth :—

The War Precautions Act, 1914, and two amendments in 1915, empower the Governor-General to make regulations and orders for the safety of the Commonwealth, in particular with a view to prevent persons communicating with the enemy in order to jeopardise the operations of His Majesty's forces, or to assist the enemy ; to prevent the transmission abroad, except through the post, of any letter, newspaper, &c. ; to secure the safety of means of communication, railways, docks, harbours, and public works ; to prevent the spread of reports likely to cause disaffection or alarm ; to secure the navigation of vessels in accordance with the direction of the naval authorities ; to prevent assistance to the enemy ; to secure the successful prosecution of the war ; and to cause the detention of any person in military custody. The Minister for Defence may take possession of any factory or of its output for the production of war supplies, and authority is given for the supervision and detention of aliens, for the application to naturalised persons of regulations relating to aliens, and for the prevention of the exportation of money or goods.

The War Precautions Amendment Act, 1916, authorises regulations regarding the possession and ownership of the property of alien enemies and persons having enemy associations or connections, their trade or business, civil rights and obligations ; also the disposal, use or requisitioning of property or goods of any kind.

The Rules Publication Act, 1916, repealed the clause of the Rules Publication Act, 1903, requiring that 60 days' notice be given of any proposal to make statutory rules.

The War Census Acts of 1915 and 1916 enable the Government to take a census to obtain information regarding the national resources.

The Defence Acts of 1914, 1915, 1917, and 1918, amend the defence laws in view of special conditions arising from the state of war and from the despatch of expeditionary forces abroad.

The Defence (Civil Employment) Act, 1918, provides that from a proclaimed date all public service offices in the Department of Defence shall cease to be subject to the Commonwealth Public Service Act, and shall be governed for the duration of the war, and for twelve months thereafter, by the regulations for the civilian staff under the Defence Act.

The Customs Act, 1914, gives the Governor-General authority to prohibit the exportation of any goods in time of war.

The Patents, Trade Marks, and Designs Acts, 1914 and 1915, provide for the avoidance or suspension of any patent or licence or registration of trade mark or design for the benefit of a person who is the subject of any State at war with the King, and for the transfer of such rights to other persons.

The Patents (Partial Suspension) Act, 1916, suspends during the continuance of the war, and for six months thereafter, the section of the Patents law, which prescribes that a patent may be voided if it is not worked to an adequate extent in the Commonwealth.

The Trading with the Enemy Acts, 1914, prohibit trade with or for the benefit of the enemy. Persons acting in contravention of these statutes may be prosecuted either summarily or upon indictment ; the authorities are empowered to conduct searches of premises, books, &c., and the High Court, on the application of the Minister, may appoint a controller of a firm or company trading with the enemy, or so affected by the state of war as to

prejudice the effective continuance of its trade or business. The Comptroller-General of Customs may receive and hold in trust, till after the termination of the war, moneys for the discharge of debts due to enemy subjects.

Under the Trading with the Enemy Act, 1916, provision is made for the appointment of a Public Trustee to act as custodian of the property of persons of enemy nationality or associations to supervise the payment of debts due by enemy subjects, and the winding up of enemy companies; assignment of debts and transfers of shares by enemy subjects are invalidated. Restrictions on dealings with enemy subjects may continue beyond the period of the war until such time as they are removed by the Governor-General.

The Enemy Contracts Annulment Act, 1915, provides for the annulment of contracts with or for the benefit of the enemy, and for the termination of contracts suspended during or on account of the war.

Important amendments to the law governing the naturalization of aliens are contained in the Naturalization Act, 1917. The applicant is required to satisfy additional requirements, and before a certificate of naturalization may be issued, he must renounce his allegiance to the country of which he was a subject.

The Judiciary Acts of 1914 and 1915 conferred on the High Court of Australia, original jurisdiction in matters of Admiralty or Maritime Jurisdiction, and extended its powers during the war and for six months after, to include trials of indictable offences against the laws of the Commonwealth. The High Court Procedure Act, 1915, determines the procedure in trials of these offences.

The Crimes Act, 1914, and its amendment of 1915, relate to offences against the Commonwealth, such as treason, mutiny, offences against the administration of justice, or relating to coinage, forging, breach of official secrecy, conspiracy, &c.

The Unlawful Associations Act, 1916-1917, was enacted for the suppression of the practices of advocating or inciting to the crimes of taking or endangering of human life, and the destruction or injury of property. Any person who fails to satisfy the Attorney-General that he is a natural-born British subject born in Australia is liable to deportation upon conviction for these offences. The Industrial Workers of the World and any Association, which by its constitution or propaganda incites to crime, were declared unlawful associations. The Act will continue in force until six months after the conclusion of the war.

The Commonwealth Inscribed Stock Acts, 1915 and 1918, amend the principal Acts, 1911-13, to facilitate the raising of war loans.

The War Loan Acts, 1914, (No. 2), 1915, and (United Kingdom), (No. 1) 1916, authorised the Federal Government to borrow money from the Imperial Government; and the War Loans Acts (No. 1 and No. 3), 1915, 1916, 1917 and 1918, authorised the raising of loans for war purposes. The War Loan Act (United Kingdom, No. 2), 1916 and 1917, provide that moneys raised by war loans be paid into a special loan fund to be used for war purposes only.

The War Securities Repurchase Act, 1918, provides the Treasurer with moneys out of war loan funds to purchase war loan securities in the open market in order to keep up the market price.

The Loans Sinking Fund Act, 1918, requires the Treasurer to establish a sinking fund for the redemption of all Commonwealth loans, including loans from the Imperial Government for war purposes.

The States Loan Acts, 1916 and 1917, authorised the Federal Government to borrow moneys to be lent to the States of Victoria, Queensland, South Australia, Western Australia, and Tasmania.

The Treasury Bills Act, 1914, authorises the issue of Treasury Bills, and the Treasury Bills Act, 1915, authorises the Treasurer to borrow money from the Australian Notes' Account without issuing Treasury bills.

The Sugar Purchase Acts, 1915 and 1917, and the Freight Arrangements Acts, 1915 and 1917, authorise the Government to borrow money from the Commonwealth Bank, the former for the purchase of sugar and the payment of Customs duty on sugar imported to supply the local shortage, and the latter to obtain freight to carry the wheat crop to oversea markets.

The Wheat Storage Act, 1917, provides for the appointment of a Wheat Commission to make arrangements with the State Governments for the erection of silos and other structures to protect wheat stored in Australia awaiting shipment abroad. The Commonwealth may advance a sum not exceeding £2,850,000 to the States for the erection of the silos.

In order to assist apple growers, whose trade had declined owing to shortage of freight during the war, the Apple Bounty Act, 1918, provided for the payment of a bounty upon evaporated apples exported and sold to the Imperial Government for delivery between 1st April and 31st August, 1918.

The Commonwealth Bank Act, 1914, amends the Act of 1911, and makes provision for increasing the capital of the bank, and for the establishment of branches and agencies in other parts of the British Empire.

The Australian Notes Act, 1914, repealed the clause of the principal Act, 1910-1911, which prescribed that Australian notes should bear date of issue from the Treasury.

Additional taxes were imposed by a number of statutes, viz., the Estate Duty Assessment Act, 1914-16, and the Estate Duty Act, 1914, to impose duties upon the estates of deceased persons, exemptions being granted in the case of persons dying during the war or within one year after its termination, on active service, or as the result of injuries or disease contracted on active service. The Land Tax Acts of 1914 and 1918 and Land Tax Assessment Act, 1914, increased the amount of tax upon land.

The Income Tax Assessment and the Income Tax Acts, 1915, imposed a tax upon incomes which was increased under the Income Tax and the Income Tax Assessment Acts of 1916; further increases were imposed in terms of the Income Tax Act, 1917, viz., a tax of £5, or 5 per cent. of taxable income, whichever is the greater, upon the incomes of unmarried men and widowers without children and a tax of 10 per cent. on cash prizes in lotteries. The Income Tax Assessment Act, 1918, provides that the Commonwealth may make arrangements to collect income tax on behalf of the States; various amending clauses facilitate the administration of the Acts relating to Income Tax.

The Entertainments Tax Assessment Act, 1916, and the Entertainments Tax Acts, 1916 and 1918, provide for the collection of a tax upon payments for admission to entertainments. The War-time Profits Tax Assessment and the War-time Profits Tax Act, 1917, relate to the imposition, assessment, and collection of a tax upon profits from any business arising during the period from 1st July, 1915, to 30th June next after the declaration of peace. By The Post and Telegraph Rates Act, 1918, the postal charges were increased.

In connection with the administrative arrangements of the Federal Government, the Ministers of State Act, 1915, increased the number of Ministers from seven to eight, thus making provision for the appointment of the Minister for the Navy. This Act was repealed by the Ministers of State Act, 1917, which fixed nine as the maximum number of Ministers, in order that a Minister for Repatriation might be appointed. The Wireless Telegraphy Act, 1915, authorised the transfer of control from the Postmaster-General to the Minister for the Navy.

The Belgian Grant Act, 1914, authorised the appropriation of £100,000 out of Consolidated Revenue in aid of the Government of Belgium.

The War Pensions Acts of 1914-16 make provision for pensions for soldiers and their dependents; details are shown elsewhere in this publication.

The Officers Compensation Act, 1915, provides for compensation to the widow of Major-General Sir W. T. Bridges, K.C.B., C.M.G., who lost his life on active service in Gallipoli.

The Australian Soldiers' Repatriation Fund Act, 1916, provided for the administration of a fund raised by public subscription for assisting soldiers and sailors and their dependents. The fund was vested in trustees under the presidency of the Prime Minister of the Commonwealth, but was transferred subsequently to the Repatriation Commission. The Australian Soldiers' Repatriation Acts, 1917 and 1918, authorise the Repatriation Commission to make recommendations for regulating the granting of assistance and benefits to soldiers upon discharge, and to soldiers' dependents, and provide for the appointment of a State Repatriation Board for each State and of local committees to raise and control district funds.

The Commonwealth Public Service Acts, 1915 and 1917, provide, *inter alia*, for preference in appointments to members of expeditionary forces who have served with satisfactory record; for leave of absence, without pay, to Commonwealth Public Service officers joining the expeditionary forces or called up for service under the Defence Acts; for raising the maximum age for entrance to the clerical division, and for the preservation of eligibility of members of the Forces for appointment.

The Invalid and Old-age Pensions Act, 1917, provides that the rates of invalid and old-age pensions shall not be decreased by reason of war pensions granted to dependents of members of Expeditionary Forces, or of allotments of soldiers' and sailors' pay.

The Quarantine Act, 1915, extends the power of the Government in relation to infectious diseases, which became necessary in consequence of the opening of the Panama Canal and the inauguration of a new trade route through an area infected with yellow fever, and in view of the possibility of the introduction of infectious diseases by soldiers returning from service abroad.

The Referendum (Constitution Alteration) Acts, 1915, relate to the submission of certain proposed laws to the electors; its postponement is noted above; the Compulsory Voting Act, 1915, was passed to provide for compulsory voting at this referendum.

The Military Service Referendum Act, 1916, made provision to submit to a referendum the question of compulsory military service abroad. Details are shown elsewhere in this chapter.

The Commonwealth Electoral (War-time) Act, 1917, enables members of Expeditionary Forces serving abroad to vote at elections for the Senate and at general elections for the House of Representatives. With certain exceptions, naturalized British subjects born in enemy countries are disqualified from voting during the period of the war.

The Daylight Saving Act, 1916, promoted the earlier use of daylight by prescribing that Australian clock time be one hour in advance of the standard time from the last Sunday in September of each year to the last Sunday in March of the following year. The Act commenced on the 1st January, 1917, but was repealed in the following September, public opinion being unfavourable to it.

EDUCATION.

DIFFUSION OF EDUCATION.

SOME idea of the diffusion of education among the people of New South Wales may be gathered from the following figures, derived from the Census of 1911 :—

		Males.	Females.	Total.
English Language—				
Read and write	...	696,258	645,022	1,341,280
Read only	...	2,565	3,140	5,705
Foreign Language only—				
Read and write	...	5,889	650	6,539
Read only	...	497	61	558
Cannot read	...	134,215	123,808	258,023
Not stated	...	18,274	16,355	34,629
Total	...	857,698	789,036	1,646,734

As regards those who cannot read, classification according to age at the Census of 1911, was as follows :—

Ages.	Males.	Females.	Total.
Years.			
0—4	102,003	98,863	200,866
5—9	16,612	14,944	31,556
10—14	605	440	1,045
15—19	641	338	979
20 and upwards	13,934	8,922	22,856
Unspecified	420	301	721
Total	134,215	123,808	258,023

Persons of the age of 5 years and over who could not read, in proportion to the total population, were :—Males, 3·7 per cent. ; females, 3·1 per cent. These figures included immigrants and persons who had not come under the operation of the Public Instruction Act of New South Wales.

The following figures represent the proportion of the total population over 5 years of age, in two groups, 5-14 years and 15 years and over, who could read and write, or read only, in English or in a foreign language, and the proportions unable to read at the last three Census periods:—

	1891.		1901.		1911.	
	Males.	Females.	Males.	Females.	Males.	Females.
Read and write—	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.
Ages 5-14 years	73.1	74.3	76.2	77.1	88.9	89.8
15 and over	92.4	92.2	94.0	95.3	97.0	97.7
Total, 5 and over	87.5	86.8	89.3	90.0	95.3	95.9
Read only—						
Ages 5-14 years	8.4	7.7	5.0	4.7	.3	.3
15 and over	2.4	3.7	1.4	1.8	.4	.5
Total, 5 and over	4.0	4.9	2.3	2.7	.4	.5
Unable to read—						
Ages 5-14 years	18.5	18.0	18.8	18.2	10.8	9.9
15 and over	5.2	4.1	4.6	2.9	2.6	1.8
Total, 5 and over	8.5	8.3	8.4	7.3	4.3	3.6

The increase in the proportion of those who can read and write indicates the extension of educational facilities.

Under the Public Instruction Act, attendance at a school is obligatory upon children between the ages of 7 and 14 years; but this period of seven years does not cover the full school age, which is extended frequently by kindergarten training on the one hand and by continuation or secondary school work on the other; so that the full school age may fairly be taken as from ages 5 to 18 inclusive.

THE STATE SYSTEM OF EDUCATION.

Public Schools Act, 1866.

The Public Schools Act, 1866, which was operative from January, 1867, to 30th April, 1880, was devised as a measure "to make better provision for public education." A Council of Education of five members was constituted, in which were vested all the lands, moneys, securities, and personal property of the Board of National Education, all lands and school buildings held by trustees under the regulation and inspection of the Denominational School Board as well as all personalty of the latter Board. The new Council was empowered to disburse all moneys appropriated by Parliament for elementary instruction, to establish and maintain public schools, to grant aid to certified denominational schools, and, subject to regulations, to define the course of secular instruction generally.

Four classes of schools were recognised, viz., Public, Denominational, Provisional, and Half-time; while, for sparsely settled districts, itinerant teachers might be appointed, or private schools assisted, provided they were subject to inspection as prescribed by the Council. The Council was empowered to authorise a scale of fees to be charged in the public and in the certified denominational schools, but inability to pay such fees did not constitute a valid reason for excluding children from the schools.

Training schools for teachers were authorised; Public School Boards were appointed to exercise local supervision; four hours per school-day were reserved for secular instruction exclusively, and a maximum period of one

hour per school-day was available for visiting religious teachers to impart religious instruction ; all existing national schools, vested and non-vested, were declared public schools.

On its establishment in 1867 the Council of Education assumed control over 259 national and 310 denominational schools. From 1875 the entire cost of building and maintaining public schools was defrayed from the public funds, and the number of schools increased so rapidly that in 1880, when the Department of Public Instruction was created, there were 1,220 schools under control, viz., public, 705 ; provisional, 313 ; half-time, 97 ; and denominational, 105 ; and a degree of standardisation had been attained.

Public Instruction Act of 1880 and Amendments.

The Public Instruction Act, 1880, marked a new era. Under it the powers and authority of the Council of Education were vested in a responsible Minister of the Crown, with power to disburse all moneys appropriated by Parliament for public instruction. The subsidies to certified denominational schools ceased, after due notice, on 31st December, 1882 ; an undenominational system of education was established as a public service, and attendance at school for a minimum period of 70 days in each half-year was declared obligatory, failing just cause of exemption, on all children between the ages of 6 and 14 years. The classes of schools to be established and maintained were defined as follows:—Public schools, primary and superior ; evening public schools ; and high schools for girls and for boys ; and the conditions in regard to provisional schools and itinerant teachers, as contained in the Public Schools Act, 1866, were retained but in amplified form, also other features of that Act, such as the allocation of hours of instruction, &c.

The Public Instruction Act, 1880, remains the basis of the educational system of the present day, though it was amended by the Free Education Act, 1906, and by the Public Instruction (Amendment) Acts, 1916 and 1917.

The Free Education Act provides that instruction in primary and superior public schools shall be free. Previously, the maximum fee chargeable in public primary schools was 3d. per week per child, with a limitation of 1s. per week for all the children of one family. Fees chargeable in higher schools were determined by regulation ; and, following the lead of the Free Education Act, 1906, amended regulations were issued making instruction in high schools also free from 1st January, 1911.

The Public Instruction (Amendment) Act, 1916, contains important provisions regarding compulsory school attendance, the certification of private schools, and the inspection of school premises. The clauses of the Principal Act relating to compulsory attendance were repealed, and the statutory school age reduced by the exclusion of children between the ages of 6 and 7 years. Parents and guardians of children between 7 and 14 years must cause them to attend regularly at a State or certified school ; if a child has been absent without sufficient cause for more than six half-days during three months, the parent becomes liable to prosecution. Exemptions may be granted to children receiving efficient instruction at home on at least 85 days in each half-year, and the onus of proof lies upon the parent or guardian ; also to those over 13 years of age, who are certified as being educated to the standard required by the Principal Act, and to those residing in places where there is not adequate school accommodation within reasonable distance. Children, who habitually disobey the orders of parents and guardians to attend school, may be sent to an institution for the detention of truants.

Under the Public Instruction (Amendment) Act, 1917, the subsidised schools under the provisions of the principal Act were constituted places at which the attendance of children may be enforced.

At the direction of the Minister of Public Instruction, parents and guardians are required to furnish returns with regard to children of ages of 7 to 14 years.

Development of Public School System.

In the period during which the Public Instruction Act, 1880, has been operative, numerous adjustments in organisation and procedure have been made to admit of educational development in consonance with changing ideals. In New South Wales a considerable proportion of the population is located in sparsely settled districts, and in virtual detachment from community life. On the other hand, an urban population is concentrated at a few points only. These two entirely diverse conditions of settlement complicate the difficulties of administering a general educational policy, by making the higher standards designed by the law unattainable except in large centres of population, and necessitating special adjustments of standards for isolated areas and pioneer settlements.

In these circumstances school accommodation has extended steadily, the immediate needs being supplied by the establishment of primary schools to which superior departments have been added as occasion arose, while high schools have been established in the more populous district.

Realisation of the importance of thorough education led to a conference in 1902 of representatives of different interests in educational matters in New South Wales. In April of that year a Royal Commission of two members was appointed to proceed to Europe and America to inquire into existing methods of instruction in connection with primary, secondary, technical, and other branches of education, and to recommend for adoption whatever improvements might be introduced with advantage in New South Wales.

Extensive recommendations were made by the Commission, and a further Conference was held in 1904 to consider the question of State Education from every point of view. The plan of action embodied in the resolutions of this Conference involved the cessation of the pupil-teacher system, which had been operative in the public schools since 1852; the introduction of specially trained teachers, and for this purpose the equipment and maintenance of a Normal School, with a Practice School attached; the formation of a Kindergarten Training College, and of local training schools for country-school teachers. The establishment of a Chair of Pedagogy at the University of Sydney, of truant schools, and of schools for the feeble-minded was urged, and other resolutions involving alterations in matters of procedure in the public (primary) schools were adopted.

To accord with the new policy, a Syllabus of Instruction for Primary School Work was issued in 1905, with the grouping of subjects as follows:—

English.—Correct speech, reading, writing, spelling, composition, recitation, grammar.

Mathematics.—Arithmetic, mensuration, algebra, geometry.

Nature Knowledge.—Geography, object lessons, elementary science.

Civics and Morals.—History, Scripture, moral duties, citizenship.

Art Manual Work.—Drawing, brushwork, kindergarten exercises, modelling, woodwork, needlework.

Musical and Physical Education.

Since 1905 steady progress has been made in the co-ordination of educational effort in all stages. The regular school work has been extended, to include more manual and vocational training for boys, and better opportunities in domestic science for girls, emphasising the application of school work to the daily life of the citizen by means of special courses; progress has been made in school buildings; the question of playgrounds has received attention; medical inspection is conducted over extensive areas; and the increase of high school facilities expresses a desire to provide a higher standard of education.

The secondary school system has been extended greatly and a new syllabus, introduced in 1911, adopted in State High Schools, and in all the private schools registered under the Bursary Endowment Act. A system of examinations has been established to mark the completion of each stage of school work, and an Employment Bureau has been opened in the Department of Education for boys who continue their education beyond the primary stage.

Important statutory provisions affecting educational matters are contained in the Bursary Endowment Act, 1912, and in the University Amendment Act, 1912, concerning which details are given on a later page.

The years 1913 and 1914 were marked by a wide extension of the scheme of medical school inspection; by the reorganisation of technical education upon a Trades School basis; and by the expansion of secondary education in the State Schools. During 1915 the syllabus of each type of school was revised, and new courses were commenced in the schools at the beginning of 1916. In 1917 a special school was commenced to prepare soldiers for appointment to the Public Service; and another school was established to educate messengers for positions in the postal service.

STATE EXPENDITURE ON EDUCATION.

The expenditure by the State on education has increased materially, and includes grants and subsidies to Educational and Scientific institutions, cost of maintenance of industrial schools and reformatories, as well as expenditure on premises, equipment, and maintenance of public schools.

In the following statement, the expenditure on buildings, equipment, sites &c., representing capital expenditure, has been distinguished as far as practicable from expenditure for maintenance, including grants and subsidies, all of which constitute annual running costs:—

Year ended 30th June.	Expenditure.			Cost per head of population.	
	Capital.	Annual.	Total.		
	£	£	£	s.	d.
1914	258,836	1,640,679	1,899,515	20	9
1915	258,044	1,691,348	1,949,392	20	11
1916	221,561	1,716,864	1,938,365	20	9
1917	294,270	1,873,926	2,168,196	23	3
1918	216,755	1,997,605	2,214,360	23	5

These figures are exclusive of amounts spent by the State on the colleges experiment farms, and societies for the promotion of agriculture and allied interests, concerning which reference should be made to the chapter relating to Agriculture. The following statement gives in more detail the expenditure for 1917-18:—

Object.	Expenditure.	
	Capital. £	Annual. £
Education Department, Schools, &c.	182,564	1,858,312
Educational Institutions, Schools of Arts, &c.	427	4,667
University, and Affiliated Colleges ... ..	.....	75,070
Sydney Grammar School ... ..	.....	1,500
Industrial Schools ... ..	.....	10,785
Public Library ... ..	.....	12,623
Australian Museum ... ..	.....	10,363
Conservatorium of Music ... ..	.....	11,111
National Art Gallery ... ..	.....	5,830
Observatory ... ..	.....	4,176
Zoological Gardens, Taronga Park	33,764	.....
Grants and Subsidies to various Societies ... ..	.....	3,168
Total	£216,755	1,997,605

The University of Sydney, though a publicly endowed institution, was free from any measure of Governmental supervision until 1912, when the University Amendment Act was passed, under which the Government is represented on the Senate. Grants and subsidies to institutions, schools, and societies represent annual payments conditional upon satisfactory fulfilment of functions.

SCHOOLS AND TEACHING STAFFS.

The total number of public and private schools in operation at the end of each of the past five years, and the aggregate teaching staff in each group, are shown in the following table:—

Year.	Schools.			Teaching Staffs.		
	Public.	Private.	Total.	In Public Schools.	In Private Schools.	Total.
1913	3,285	733	4,018	7,261	3,593	10,854
1914	3,258	717	3,975	7,404	3,674	11,078
1915	3,254	718	3,972	7,890	3,682	11,572
1916	3,188	701	3,889	8,369	3,678	12,047
1917	3,221	659	3,880	8,759	3,707	12,466

These figures are exclusive of Technical Schools, the Sydney Grammar School, the Ragged, and Free Kindergarten Schools, the New South Wales Institution for the Deaf and Dumb and the Blind, Institutional schools under denominational control, Shorthand and Business Colleges, Agricultural Schools, &c. In 1913 there was, on the average, one school to 416 persons; and in 1917 one to 487 persons in the population of the State.

The Teaching Staff per school was much greater for the Private Schools than for the Public, but the staffs of the Private Schools include a number of visiting teachers who teach special subjects only, and do not devote their whole time to one school.

ENROLMENT.

A comparative review of the enrolment of children at Public and Private Schools is restricted to the last quarter in each year, as the figures collected in regard to Private Schools relate only to that period. The following statement shows the recorded enrolment during the December quarter of each of the last five years:—

Year.	Enrolment (December Quarter).			Proportion of Total Children Enrolled.	
	In Public Schools.	In Private Schools.	Total.	In Public Schools.	In Private Schools.
				per cent.	per cent.
1913	241,784	64,591	306,375	78·9	21·1
1914	252,697	64,577	317,274	79·6	20·4
1915	258,017	64,863	322,880	79·9	20·1
1916	264,713	67,704	332,417	79·6	20·4
1917	277,874	68,516	346,390	80·2	19·8

The figures relating to enrolment are exclusive of the Evening Continuation Schools, the Sydney Grammar School for Boys, Business and Shorthand Schools, the School held in connection with the Deaf and Dumb and Blind Institution, the Ragged Schools, and Free Kindergarten Schools, Institutional Schools under denominational control, Agricultural and Technical Schools, &c.

AVERAGE ATTENDANCE.

The following comparison is based on the enrolment during the December quarter, and on the average daily attendance during the whole year :—

Year.	Public Schools.			Private Schools.		
	Enrolment, December Quarter.	Average Attendance during the year.	Ratio of Attendance to enrolment.	Enrolment, December Quarter.	Average Attendance during the year.	Ratio of Attendance to enrolment.
			per cent.			per cent.
1913	241,784	178,028	73·6	64,591	54,305	84·1
1914	232,697	190,194	75·2	64,577	55,431	85·8
1915	253,017	194,244	75·3	64,863	55,163	85·0
1916	264,713	200,695	75·8	67,704	56,318	83·2
1917	277,874	221,945	79·9	68,516	55,425	80·9

The quarterly enrolment, as the standard for comparison of children under tuition, and, by means of the average attendance, of the degree of constancy in the education of children, is an unsatisfactory test.

The weekly roll is clearly a better test, inasmuch as it more nearly approaches the basis (daily) on which the average attendance is computed ; but preferably the average attendance of scholars should be compared with the total children who can be regarded as in need of education. Such comparison may be seen in the following statement which shows, for the last five years, the average attendance at Public and Private Schools in comparison with the estimated number of children requiring education. The figures for attendance are exclusive of Technical schools, Sydney Grammar School, charitable schools, and shorthand and business schools and colleges, &c.:—

Year.	Estimated children of school age.	Other Children under and over school age on roll.	Total Children requiring educa- tion.	Average Attendance Public and Private Schools.	Proportion per cent. attending school.
1913	271,300	45,293	316,593	232,333	73·4
1914	278,200	46,356	324,556	245,625	75·7
1915	286,200	46,689	332,889	249,407	74·9
1916	293,500	47,550	341,050	257,013	75·4
1917	260,600	81,878	342,478	277,370	81·0

In the above table the figures represent the school age as that between 6 and 14 years for the period 1913 to 1916, and as between 7 and 14 years for 1917. Consequently there was a decrease in the number of children of school age in 1917 and an increase in the number on the roll who were under the statutory age. Owing to the amendment of the law relating to compulsory attendance there was an appreciable increase in 1917 in the proportion of children attending school. The improvement, however, was somewhat less than the table indicates, as the basis of comparison was

changed in that year by the exclusion of the children aged 6 years who were not enrolled; previously all children of this age were considered as requiring education as they were of statutory school age.

AGE DISTRIBUTION OF PUPILS.

The age distribution of pupils enrolled at schools during the last five years is shown in the following table. The figures represent the December quarter enrolment and are exclusive of Evening Continuation Schools:—

Year.	Public Schools.				Private Schools.			
	Under 6 years.	6 years and under 14.	14 years and over.	Total.	Under 6 years.	6 years and under 14.	14 years and over.	Total.
1913	10,663	211,742	19,379	241,784	5,706	49,340	9,545	64,591
1914	11,165	221,046	20,486	252,697	5,344	49,872	9,361	64,577
1915	11,120	226,222	20,675	258,017	5,498	49,969	9,396	64,863
1916	11,834	232,408	20,471	264,713	5,280	52,459	9,965	67,704
1917	37,218*	218,995†	21,661	277,874	13,755*	45,517†	9,244	68,516

* Under 7 years. † 7 years and under 14.

RELIGIONS.

A comparative view of the aggregate enrolment in all schools (public and private) for the December quarter during the last five years, is given hereunder, and the figures, being on the same planes of comparison for each year, may be accepted as illustrative of the progression of each type of school during the period:—

Year.	Public Schools— Denomination of Children.					Private Schools— Denomination of Schools.			Total Enrolment all Schools.
	Church of England.	Roman Catholic.	Presby- terian.	Methodist.	Other.	Church of England	Roman Catholic.	Other.	
1913	131,052	32,553	28,601	33,499	16,079	3,533	49,580	11,478	306,375
1914	136,812	33,628	29,783	35,678	16,796	3,644	50,434	10,499	317,274
1915	139,317	33,953	30,357	36,807	17,578	3,619	51,369	9,875	322,880
1916	143,757	33,648	31,478	37,883	17,947	3,638	54,124	9,942	332,417
1917	151,866	34,438	33,091	39,795	18,684	3,841	55,337	9,338	346,390

PER CENT. OF TOTAL ENROLMENT.

1913	42·8	10·6	9·3	10·9	5·2	1·2	16·2	3·8	100
1914	43·1	10·6	9·4	11·2	5·3	1·2	15·9	3·3	100
1915	43·2	10·5	9·4	11·4	5·4	1·1	15·9	3·1	100
1916	43·2	10·1	9·5	11·4	5·4	1·1	16·3	3·0	100
1917	43·8	9·9	9·6	11·5	5·4	1·1	16·0	2·7	100

It will be noticed that in the public school figures the column headings indicate the denomination of the children, and in the private school figures the denomination of the schools. In the former case the denomination of the child is ascertained, but not in the latter; and the pupil, although attending a school of stated denomination, is not necessarily to be considered of that denomination.

Religious Instruction in State Schools.

A provision of the Public Instruction Act, 1880, retained from the Public Schools Act, 1866, reserves a maximum period of one hour in each school day, during which religious instruction may be given to scholars in State schools by visiting ministers and teachers of religious bodies; and the following table indicates the number of lessons in special religious instruction during the past five years:—

Denomination.	Number of Lessons.				
	1913.	1914.	1915.	1916.	1917.
Church of England	30,958	35,573	35,342	33,600	34,349
Roman Catholic	833	1,086	1,358	1,460	1,584
Presbyterian	7,922	8,313	8,485	7,517	8,411
Methodist	10,914	12,455	12,353	12,591	12,368
Other Denominations	6,694	7,472	7,326	6,908	7,334
Total	57,321	64,699	64,864	62,076	65,046

THE STATE SCHOOLS.

Annual Expenditure.

The following statement shows the expenditure by the Department of Education in each calendar year since 1913, for maintenance, administration, and school premises, on account of primary and secondary public day schools and technical schools:—

Year	Primary and Secondary Schools.				Technical Education.	
	Maintenance and Administration.			School Premises.	Maintenance and Administration.	Land and Building, including Repairs.
	Maintenance and Salaries.	Administration and Training.	Total.			
	£	£	£	£	£	£
1913	1,211,920	106,405	1,318,325	367,830	53,932	63,803
1914	1,269,835	179,979	1,449,814	271,627	54,303	5,686
1915	1,283,919	183,052	1,466,971	219,911	57,900	7,630
1916	1,378,619	168,346	1,546,965	313,553	69,934	21,480
1917	1,476,659	180,291	1,656,950	242,383	80,808	20,163

The figures given above represent the annual normal expenditure. To estimate the total cost of State school education during any year would necessitate investigation of the capital value of buildings and equipment, the rate of depreciation to be allowed, &c. At the present time the Department of Education has not the necessary data to give an exact valuation, but the latest approximate estimated value of these properties, including the sites, is £2,400,000.

The relative cost per child enrolled is shown in the following table:—

Year.	Maintenance and Administration.	School Premises.	Total Expenditure.	Per Child—Mean Quarterly Enrolment.		
				Maintenance and Administration	School Premises.	Total Expenditure.
	£	£	£	£ s. d.	£ s. d.	£ s. d.
1913	1,318,325	367,830	1,686,155	5 7 3	1 9 11	6 17 2
1914	1,449,814	271,627	1,721,441	5 12 2	1 1 0	6 13 2
1915	1,466,971	219,911	1,686,882	5 10 6	0 16 7	6 7 1
1916	1,546,965	313,553	1,860,518	5 13 8	1 3 1	6 16 9
1917	1,656,950	242,383	1,899,333	5 17 2	0 17 2	6 14 4

Distribution of Expenditure.

The following statement shows, in comparative form, the distribution of expenditure in connection with primary and secondary schools under the Department of Education in 1916 and 1917 :—

	1916.	1917.
	£	£
School premises, buildings, repairs, rates	313,553	242,383
Maintenance of Schools—		
Teachers' salaries and allowances	1,241,155	1,321,794
Travelling expenses	12,855	16,687
Forage allowances	3,618	3,641
School fuel allowances	2,174	2,213
Cleaning allowances	42,068	46,302
Materials	43,782	62,374
Miscellaneous expenses	32,967	23,648
Training of teachers	49,216	44,205
Bursary Endowment Board	25,093	31,302
Administration—		
General management	44,775	51,845
Inspection	32,784	34,587
Chief Medical Officer's Branch	16,478	18,352
Total	1,860,518	1,899,333

STATE PRIMARY AND SECONDARY SCHOOLS.

The number of schools open at any time during the year does not coincide with the number open at the end of that year, as with variations in population, new schools are established or existing schools closed, and changes are being made constantly in the classification of schools opened.

The following table affords a comparison between the number of State schools in operation in 1881, the first full year in which the Department of Education was under immediate ministerial control, and the numbers open at later periods; the figures represent the gross number of schools in operation during the year :—

Type of School.	Schools in operation during year.					
	1881.	1891.	1901.	1911.	1916.	1917.
High ... ..	...	5	4	8	19	21
Public	1,100	1,697	2,049	1,945	2,009	2,012
Provisional	246	349	428	514	510	507
Half-time	93	300	276	303	205	174
House-to-house and Travelling ... ..	...	92	20	6	4	4
Subsidised ... ..	...	...	...	494	668	646
Evening, Primary	57	14	41	24	...	...
„ Continuation ... ..	...	...	...	18	47	46
Industrial and Reformatory	2	3	4	3	2	2
Total	1,498	2,460	2,822	3,315	3,464	3,412

Consolidation of Small Schools.

In 1904 the consolidation of small schools was initiated, the Department of Education granting a subsidy for the conveyance, to central schools, of children attending various small schools. The advantages of this system are that better buildings and equipment, as well as a larger teaching staff, can be provided, and a wider range of instruction imparted. During the year 1917, children were conveyed to 490 central schools at a cost of £12,547.

PRIMARY SCHOOLS.

Primary work in its various stages is undertaken in schools classified broadly in two groups—(a) Primary and Superior Schools in more or less populous centres, and (b) schools in isolated and sparsely settled districts, viz., Provisional, Half-time, House-to-house, and Subsidised Schools.

House-to-house teaching is restricted generally to English and mathematics.

In Half-time schools, one teacher divides his time between two schools, so arranging that homework and preparatory study will occupy the time of the pupils in the absence of the teacher. The course of instruction follows that of full-time schools.

Classification of Primary Schools.

Public primary schools are classified according to average attendance, and in the largest schools there are separate departments for infants (up to about age 8), for boys, and for girls.

In the classification of schools, made in January of each year, the schools were graded as follows, each pair of Half-time schools being counted as one :—

Class.	Average Attendance.	Schools.				
		1914.	1915.	1916.	1917.	1918.
I	600 and over	74	79	77	80	86
II	400-599	34	32	34	36	49
III	200-399	91	98	92	96	91
IV	50-199	412	418	395	398	398
V	30-49	555	559	355	365	397
VI	20-29	533	540	530	497	529
VII	Under 20	861	828	1,050	1,014	980

Subsidised Schools.

For the education of children resident in places remote from any State schools, the Subsidised School was instituted in 1903. The conditions upon which aid is granted are that two or more families must combine to engage a private teacher, who, after approval of the Minister as to qualifications, receives, in the Eastern portion of the State, a subsidy at the rate of £5 per pupil per annum, the maximum amount being £50 per school; and in the Western portion, a subsidy of £6 per pupil per annum, the maximum per school being £60. A subsidy may be granted to any family, with not less than four children of school age, living in complete isolation. Subject to certain conditions, subsidy at the stipulated rates may be paid as an aid towards boarding children in a township for the purpose of attending a public school. The teachers of subsidised schools in the December quarter of 1917 numbered 531, of whom 23 were men; there were 2,481 boys and 2,370 girls on the roll, and the average daily attendance was 3,947 or 81.3 per cent. of enrolment. The amount paid towards salaries of teachers of subsidised schools during the year 1917 was £19,674.

During 1912, regulations and arrangements were made whereby subsidised school teachers could be examined, certified, and registered on passing the examination, the Department furnishing the names of such registered teachers to parents requiring their services.

Travelling Schools.

In order to supply means of education for families so isolated that even two could not readily combine to form a Subsidised School, Travelling Schools have been established. The first commenced operations in 1908;

the teacher was provided with a vehicle to carry school requisites, and a tent for use as a schoolroom, in which to teach for a week at a time at each centre in his circuit. There are now three travelling schools in operation.

Correspondence School.

At the beginning of 1916, further efforts were made by means of a correspondence school to extend educational facilities to children in remote localities; fifty students were enrolled during 1917.

SECONDARY EDUCATION IN STATE SCHOOLS.

Provision is made in State Schools for education beyond the primary stage in Superior or Continuation, District, and High Schools, and in Technical Schools and Colleges. The number of pupils who received secondary education in 1916 and 1917 is shown below; the figures are exclusive of those in the schools of the Technical Education Branch, which are discussed on a later page:—

Schools.	1916.			1917.		
	Schools.	Total Enrolment.	Average Attendance.	Schools.	Total Enrolment.	Average Attendance.
High	19	5,228	4,301	21	6,088	5,011
Intermediate High ...	3	660	530	3	692	545
District	20	2,293	1,621	18	2,043	1,466
Superior Public (Day Continuation)—						
Commercial	27	2,020	1,146	26	2,068	1,248
Junior Technical ...	22	1,379	789	24	1,637	958
Domestic	42	2,381	1,347	43	3,119	1,783
Total... ..	133	13,961	9,734	135	15,647	11,011

In addition to the above Superior Public (Day Continuation) Schools, there are other Public Schools in which the course of study for certain subjects is the same as for the first and second year's course in the High School Syllabus, but no statistics of enrolment nor of attendance are available.

Superior and Day Continuation Schools.

Any Public School may be declared a Superior School if there is in one department a minimum attendance of 20 pupils who have completed the primary course.

Until 1912 the Superior Schools continued the work of the primary syllabus with such additional subjects as would enable pupils to compete at public examinations, but it was found desirable to reorganise these schools upon a vocational basis, and many of them have been converted into Day Continuation Schools.

In the Day Continuation Schools a two-years' course is provided for pupils who do not remain at school long enough to complete the High School course, but who desire special instruction to fit them for industrial or commercial pursuits. The schools are organised as (1) Junior Technical (boys), which supply preliminary groundwork for industrial careers, the course of study being fundamental to that of the Trades Schools of the Technical Education system; (2) Commercial for boys and girls, where the curriculum includes shorthand, book-keeping, business principles, &c.; (3) Domestic for girls, the special subjects being those relating to home management.

In the Superior Schools which have not been organised as Day Continuation, the course of instruction is similar to that of the first and second year of the High School. A proposal is under consideration to consolidate many of the Day Continuation Schools in the metropolitan and Newcastle districts by the establishment of central schools.

Evening Continuation Schools.

Prior to the year 1910 Evening Schools were maintained, to afford instruction to those who had not had the full advantage of primary education. But in order to satisfy the imperative demand for an Evening School system for pupils who had completed their primary school work, and were engaged in wage-earning processes during the day, it became necessary to modify and adjust the Evening School organisation. Consequently, the Evening Schools now supply two distinct types of training:—(a) the Primary Schools, to complete elementary education, (b) the Continuation Schools, to provide instruction on special lines for persons engaged in daily employment.

In January, 1911, the Director of Education was entrusted with a commission to inquire into the working of Continuation Schools in Great Britain and Europe, and to recommend for adoption whatever improvements might be of advantage in New South Wales. Following his report, issued in 1911, Evening Continuation Schools were organised, and Evening Primary Schools were converted into Continuation Schools.

The latter schools are classified as Junior Technical, Commercial, or Domestic; for those pupils who are not qualified to enter upon the two years' courses, preparatory courses of one year's instruction in primary-school subjects may be established in each school.

The fee charged is 6d. per week; but on completion of a satisfactory attendance in each year, the amount paid may be returned to the student. The average age of pupils attending the Preparatory Schools was 16 years, and for the other Evening Continuation Schools, 18 years.

The following is the record of these Evening Continuation Schools for the years 1916 and 1917:—

Classification.	1916.			1917.		
	Schools.	Average Weekly Enrolment.	Average Weekly Attendance.	Schools.	Average Weekly Enrolment.	Average Weekly Attendance.
Junior Technical (boys)...	16	951	698	16	926	694
Commercial (boys) ...	17	1,334	991	17	1,252	926
Preparatory ...	1	28	21	1	27	19
Domestic (girls) ...	10	435	298	9	367	265
Total ...	41	2,748	2,008	43	2,572	1,904

In connection with the Continuation School system the question of compulsory attendance has been the subject of much discussion.

HIGH SCHOOLS.

The High Schools provide a four years' course of advanced education for pupils who have completed the primary course. No fees are charged, and, since the beginning of 1916, text books and materials have been provided free. To gain admission pupils must complete the primary course, and the parents are required to give an undertaking that the pupils will remain at school till the completion of the whole course. A new syllabus was introduced into the

High Schools at the beginning of 1911 ; in addition to a general course leading to professional studies at higher institutions, the Technical High School gives preparation for engineering and building professions, and the Agricultural High School accommodates students for pastoral pursuits and for admission to the Agricultural College. The Intermediate Certificate, which marks the completion of the first two years' course in these schools, must be obtained before the pupil is allowed to proceed with the work of the third year; the Leaving Certificate is awarded at the termination of the course. At the Intermediate High Schools an abbreviated course of advanced study leading to the Intermediate Certificate is provided.

The following particulars relate to High Schools and Intermediate High Schools during the last five years :—

Year.	High Schools.	Inter- mediate Schools.	Teachers.			Pupils.			Holders of—		Cost per head of enrolment
			M.	F.	Total.	Enrolment.		Attendance. Daily average	Bursar- ies.	Scholar- ships.	
						Total.	Average Quarterly.				
1913	15	5	154	97	251	4,714	4,178	3,623	499	821	£ s. d. 14 13 4
1914	16	5	159	112	271	5,220	4,685	4,170	552	1,029	15 11 0
1915	17	4	165	134	299	5,919	5,334	4,740	636	1,733	16 9 5
1916	19	3	195	146	341	5,888	5,330	4,780	748	1,165	21 8 0
1917	21	3	172	170	342	6,780	6,236	5,555	861	693	14 12 11

Since the reorganisation of the secondary course the number of High Schools has increased from 5 in 1910 to 24, including 3 Intermediate in 1917 ; the average quarterly enrolment has risen from 894 to 6,236 ; the number of pupils holding bursaries and scholarships from 408 to 1,554, and the cost per scholar from £7 13s. 3d. to £14 12s. 11d. This development may be attributed to the abolition of fees, dating from 1st January, 1911, and to the extension of scholarships and bursaries, as described below.

DISTRICT SCHOOLS.

In country centres where the enrolment of secondary pupils is not sufficient to warrant the establishment of a separate High School, "District" Schools have been established as a "top" to the local Primary School. These schools have special staffs, and the higher classes undertake the secondary course of instruction as followed in High Schools. At the close of 1917, eighteen of these schools were in operation, the average weekly enrolment of secondary pupils being 901 boys and 728 girls, and the average attendance was 811 boys and 656 girls.

STATE SCHOOL TEACHERS.

Training.

The ordinary course at the Teachers' College extends over two years, and qualifies for teaching in the various classes of primary and infant schools, and on its completion students may qualify for second-class certificates. Those who elect to withdraw at the end of the first year are eligible for third-class certificates. A period of practical work must be accomplished satisfactorily before classification is awarded. Third-year and special courses are arranged with reference to the departmental requirements and capabilities of individual students.

The first-year courses include terms in the College and in the University for matriculated students who take also the professional parts of the College course, and professional work for students who have graduated before entering the College. The second-year courses are (1) the ordinary College, (2) Kindergarten and Infants'-school, to meet the requirements of teachers of young children, (3) Domestic Science, (4) University for students who have matriculated in their first and second College year, (5) Hawkesbury College for students preparing for work in rural schools. The last-mentioned students reside at the Hawkesbury Agricultural College and use the Public School at Richmond as a practice school; during the winter vacation they attend short terms of lectures at the Teachers' College. Evening Extension Courses in Kindergarten and Infant Teaching are provided, and these require attendance at the College on three evenings each week.

To obviate the necessity of admitting untrained teachers into the Service, short courses of training have been established for rural school teachers and assistants at Hereford House School, which was opened in 1911 as an adjunct to the Teachers' College. This training extends over twelve months, and about 360 teachers attend in each year.

The fees for training courses are as follows: One, two, and three year courses, £15 per annum for those taking both general and professional subjects; fees are returned to students who enter the service of the Department of Education. For Evening Courses the fee is £3.

Professional training is conducted at three Demonstration Schools—Blackfriars, North Newtown, and Darlington—and departments have been secured in several other schools for practical work in connection with the Teachers' College.

The minimum age of admission to the College is 17 years, so that intending students must remain at school for three years beyond the primary school age, and provision has been made for their admission as probationary students to a preparatory course in District or High Schools in the principal centres throughout the State.

In addition to the teachers trained by the Department of Education qualified teachers are admitted from outside the Service; those appointed to primary schools are placed on probation for six months, and those appointed to secondary schools, if requiring additional professional training, must take the University course leading to the Diploma in Education.

A portion of land within the Sydney University having been acquired as a site for the Teachers' College, the erection of the building was commenced in 1914. When the new College is completed, it will provide training for teachers for private secondary and primary schools, as well as for the State service.

In 1917, 814 students were enrolled at the Teachers' College.

Students.	Men.	Women.	Total.	Number holding Scholarships.
First year	63	147	207	207
Second year	31	119	150	150
Third year	6	28	34	33
Fourth year	1	11	12	12
Fifth year	2	...	2	2
Special Travelling	1	...	1	1
Short course	59	296	355	355
Evening students ... ..	...	47	47	...
Cookery ... ..	...	6	6	6
Total	160	654	814	766

Particulars of scholarships tenable by students of the Teachers' College are shown on a later page.

The staff of the College consists of a Principal, Vice-Principal, 30 lecturers, 7 visiting lecturers, and 7 supervisors of Practice teaching, a warden of women students, and 5 clerical and library assistants. Members of the teaching staff are afforded opportunities to study abroad, and leave of absence, on full pay, may be granted for this purpose.

Conditions of Service.

Prior to 1908 the salaries paid to classified teachers in charge of schools depended entirely on the classification of their schools, as determined by average attendance. Under the present system arrangements have been made by which the teachers' promotion depends, not only on the progression of their schools, but also on the improvement of their qualifications. To qualify for a higher grade the teachers must pass a series of examinations, but to obtain promotion they must show also the requisite degree of efficiency in practical work.

The salaries paid to High School teachers are as follows:—

Teachers.			Men.		Women.	
Principal—			£	£	£	£
Boys' or Girls' School	...	...	400	to 600	300	to 450
Mixed school	...	...	350	„ 450	...	...
Master and Mistress of Department	...	...	300	„ 400	200	to 300
Assistant	...	...	200	„ 300	180	„ 250
Junior staff	...	...	168	to 228	144	„ 180

The deputy headmaster receives from £25 to £40, and the deputy head-mistress from £15 to £30, in addition to other salary.

The following statement shows the range of salaries paid to teachers in Primary Schools classified according to the average attendance:—

Average Attendance.	Salary of Principal.	Average Attendance.	Salaries.				
			Principal.	Mistress of Department.		First Assistant.	
				Girls'.	Infants'.	Men.	Women.
	£		£	£	£	£	£
Under 20	156-186	200-399	306-366	204-216	192-210	198-240	...
20-29	186-222	400-599	390-408	216-252	198-216	198-264	162-168
30-49	216-234	600 and over	450	252-288	216-252	246-288	180-210
50-199	253-324						

If the average attendance in a boys' department exceeds 500, the principal receives £500, and the first assistant £312; if over 400, the salaries are £475 and £300 respectively; and if the average exceeds 300, the principal teacher receives £465. Similarly, if a girls' department exceeds 400, the mistress receives £312, and the first assistant £222, or £192. Headmasters of practice schools (Primary) receive £475 per annum.

Assistants.—The salaries of ordinary assistants are:—Men, £168 to £228; women, £150-£174; unclassified—men, £132-£156; women, £132-£144; junior assistants under 21 years, men and women, £72. Teachers are eligible for a minimum salary of £156 per annum on attainment of age 21; and extended leave is allowed after twenty years' service.

In addition to these rates, special allowances are made to teachers of Intermediate, High, District and Evening Continuation Schools and to teachers of special subjects, such as Science, Manual Training, Cookery, &c. Married teachers in charge of schools are granted residences at

an assessed rental, and extra allowances may be granted to teachers stationed in remote localities, where the cost of living is high. Teachers of half-time schools and of house-to-house schools are paid at the same rates as those in public schools of corresponding classification. Subsidised teachers receive £5 per head of average attendance, with a maximum of £50 per annum; in the western districts the subsidy is £6, and the maximum £60 per annum. Amended Regulations, giving material increases in the above salaries, are expected to come into force early in the year 1919.

Classification and Improvement.

State school teachers are graded and obtain promotion after passing a series of examinations, framed to test their progress in scholastic attainments as well as their skill in imparting knowledge, and consideration is given for meritorious service.

A comparative statement of the teaching staff of the State schools for the years 1910 and 1917 is shown below; those in the Technical Education Branch are not included:—

Teachers.	1910.			1917.		
	Men.	Women.	Total.	Men.	Women.	Total.
Teachers and Assistants—						
First Class	257	71	328	280	94	374
Second Class	713	545	1,258	1,085	811	1,896
Third Class	1,310	698	2,008	1,431	1,163	2,594
Unclassified	791	1,019	1,810	553	1,675	2,228
Training Students	154	149	303	118	454	572
Pupil Teachers	8	28	36	...	...	...
Cookery Teachers ... ..	...	...	...	...	60	60
Sewing Mistresses... ..	...	109	109	...	126	126
High School Teachers	29	19	48	208	170	378
Subsidised School Teachers	38	324	362	23	508	531
Total	3,300	2,962	6,262	3,698	5,061	8,759

There is a high number unclassified because there are included in this category ex-students of the College whose classification is deferred until they have proved their practical skill during a period of service as assistants; also in 1917, 128 men and 383 women who had completed the short-course of training at Hereford House.

Associations are established in the inspection districts to keep the teachers in touch with modern educational methods. Meetings are held at frequent intervals for the discussion of educational topics; addresses are delivered, and demonstration and practical lessons are given on subjects of professional interest. Circulating libraries have been established by a large number of these associations.

In isolated districts, where the teachers are unable to be present at these meetings, they are allowed to attend for a short period, from time to time, at larger schools, also summer schools and schools of instruction are held regularly.

During 1917, 436 teachers were enrolled as students in the University of Sydney, 183 attending in the evening; 228 were attending the Arts course, 141 Science, 49 Economics and Commerce, and 7 Agriculture; and 11 the post-graduate course in Education.

Supervision.

A staff of Inspectors has been organised to exercise supervision over Public Schools; and in 1917 the inspectors for Primary and Superior Schools numbered 39, together with two Inspectors of Secondary Schools, and an Inspector of Evening Continuation Schools. Under the Bursary Endowment Act, inspection is provided for such private Secondary Schools as apply for registration.

Methods of inspection were radically altered in 1904. Detailed examination of school-pupils was replaced by a more general inspection of the work and management of the school, to enable the Inspector to devote his attention to the improvement of the condition of the school and of the efficiency of the teachers. The Inspector is required to meet the teachers of his district during each year; the meetings being devoted to lectures, essays, and the discussion of educational topics.

Although the whole administration of schools is reserved to the Minister, Public School Boards are appointed to visit schools, to induce parents to send their children regularly, and to carry out other duties either to support the teachers, or to check misconduct. These Boards are restricted in supervision to the schools in their respective districts, which are defined by proclamation.

During recent years many Parents and Citizens' Associations have been formed, and their growth testifies to a widespread desire to aid in educational work. These associations are constituted under Regulations made under the Public Instruction Act, but they have no authority in the internal management of the schools nor in the expenditure of public moneys.

PRIVATE SCHOOLS.

Until the recent reorganisation of the State Secondary School system there were only five Public High Schools with an average quarterly enrolment of less than 900 pupils, so that instruction beyond the primary stage of the Public Superior Schools was supplied to a large extent by private establishments. None of the private schools are subsidised, except the Sydney Grammar School; the majority are conducted under the auspices of the religious denominations, and those of the Roman Catholic denomination show a substantial increase, in contrast to the marked diminution of other private schools.

The fees vary in accordance with the type of school, many of the Secondary Schools being residential, and in the denominational primary schools the payment of fees is to a large extent voluntary. Scholarships and bursaries have been provided by private subscription for the assistance of deserving students.

Up to the end of 1916 the Department of Education exercised no supervision over the private schools except those registered under the Bursary Endowment Act, but in order to comply with the compulsory attendance clauses of the Public Instruction (Amendment) Act, 1916, children between the ages of 7 and 14 years must attend schools certified as efficient by the Minister for Public Instruction. Applications for registration of schools may be made to the Minister, and provisional registration granted pending inspection by Government officers. Appeals against the refusal or cancellation of certificates may be made to the Bursary Endowment Board. The Act authorises the inspection of all school premises, and proprietors may be required to bring the hygienic conditions of their schools up to the standard of State Schools similarly situated and circumstanced. Teachers and proprietors of certified schools will be required to furnish returns to the Minister.

A comparative statement relating to the private schools is shown below. Sufficient data are not available to permit the classification of these schools according to the standard of instruction supplied :—

Classification.	1907.				1917.			
	Schools.	Teachers.	Enrolment.	Average Attendance.	Schools.	Teachers.	Enrolment.	Average Attendance.
Undenominational ...	268	1,241	10,539	8,778	171	885	8,016	6,838
Roman Catholic ...	374	1,884	42,005	33,809	421	2,333	55,337	44,114
Church of England ...	54	299	3,434	2,829	51	371	3,841	3,309
Presbyterian ...	3	40	267	246	5	57	577	509
Methodist ...	2	38	358	288	2	48	431	407
Lutheran ...	1	1	26	20	3	3	65	45
Seventh Day Adventist	3	15	263	222	5	8	143	112
Salvation Army ...	...	...	...	...	1	2	106	91
Hebrew... ...	1	6	548	505	...	...	...	...
Total ...	806	3,524	57,440	46,697	659	3,707	68,516	55,425

Included in the number of teachers as shown in the table are those who visit the schools to give tuition in special subjects only, the figures for 1917 being 2,642 permanently attached to the teaching staffs of the schools and 1,065 visiting teachers as compared with 2,580 staff teachers and 944 visiting teachers in 1907.

Sydney Grammar School.

The Sydney Grammar School was incorporated by an Act of Parliament in 1854, and opened in 1857; the Act authorised the payment of £20,000 for the erection of school buildings, and an annual endowment of £1,500.

The following is the record for the last five years of the numbers of teachers and students in the Sydney Grammar School, which since its foundation has been conducted exclusively for boys :—

Year.	Teachers.			Students.				
	Holding University Degrees.	Not Holding University Degrees.	Total.	Enrolment.		Attendance.	Age Groups.	
				Total.	Quarterly Average.	Daily Average.	December Enrolment.	
							6 to 14 years.	Over 14 years.
1913	18	8	26	695	606	566	132	463
1914	18	8	26	686	571	537	63	487
1915	18	8	26	638	567	545	93	468
1916	20	8	28	723	601	562	109	487
1917	21	7	28	684	624	587	111	499

The income of the Sydney Grammar School for the year 1917 amounted to £13,433, including statutory endowment £1,500, school fees £11,618, and special prizes, &c., £315; the expenditure amounted to £13,066.

TECHNICAL EDUCATION.

The Technical College is under the direct control of the Department of Education, and technical education is administered by a superintendent, with financial and general procedure independent of other branches of the State Primary and Secondary education system.

Branch Technical Colleges have been established in suburban and country centres, and classes were instituted in numerous other places ; but technical classes at Public Schools are part of the ordinary Public School course.

Two main courses of technical instruction have been established—(a) Trades Courses, concurrent with the period of apprenticeship ; (b) Higher Courses, embracing the technology of the various trades and technical professions. Important features of the new scheme are: (1) that intending students are required to furnish evidence that they possess sufficient preparatory knowledge to take profitable advantage of the training ; (2) that no student is admitted to a course unless actually engaged in the specific trade to which the course relates. Special provision is made that journeymen who desire to improve their knowledge may be admitted without preliminary test to any part of the courses relating to their trades.

The Trades Courses are divided into two parts, viz., the lower courses, covering a period of three years in the Trades Schools ; and the higher, which last for two years, in the Technical Colleges. The day classes in the workshops of the College have been abolished, and students are expected to attend on three evenings per week, to receive instruction in trade mathematics, drawing and trade exercises, which include trade principles and practical work likely to be missed by the apprentice at his daily work.

An Advisory Committee, consisting of representatives of both employers and employees, has been appointed for each trade or group of trades to give advice and assistance regarding practical courses, equipment, and teaching. These committees are specially valuable in giving publicity to the aims of the Technical Department, and thereby stimulating interest in this important branch of education.

The instruction of apprentices in the Trades Courses is strictly supplemental to their workshop training, and in granting certificates of trade competency, the experience and training of each apprentice in the workshop of his employer is taken into account as well as the results of his studies at the Trades Schools. By this method the trade certificate awarded on the satisfactory completion of the course is a guarantee of proper training at actual work as well as in the courses of technical instruction.

The Higher Technical, or Diploma Courses, were commenced in 1915 ; the qualifications as to preparatory knowledge and trade occupation are prescribed as in the case of the Trades Courses, except that the Diploma Course in Science is open to students irrespective of occupation. Holders of Trade or High School Leaving Certificates, or of similar certificates of recognised educational institutions, may be admitted without further examination to the Diploma Courses, which are given in the Technical College. Students who pass successfully through the Diploma Courses in science and engineering may be exempted from attendance during the first year's courses which lead to a degree in science and mechanical engineering at the Sydney University. A comprehensive scheme of scholarships has been established, to encourage students from the Primary Schools to pass through the study courses of the technical system, and thence to the University.

Instruction is given under the technical education system in Domestic Science (which includes cookery and laundry work), Window-dressing, and Tailor's Cutting ; these subjects are not included in the trade or diploma classes.

In 1917 there were three Technical Colleges, in the main industrial centres, viz., Sydney, Newcastle, and Broken Hill, and ten Trades Schools in suburban and country districts ; classes for elementary technical instruction were held in various smaller localities. Special courses of instruction in Sanitary Science and in Printing (composing) were carried on by means of correspondence.

The following table shows the number of classes and teachers and the enrolments at the Technical College and Trades Schools during the last five years; the figures do not include the technical classes in Public schools:—

Year.	Classes.	Lecturers and Teachers.	Total Enrolments.*	Individual Students.	Average Weekly Attendance.	Fees Received.
1913	582	286	16,218	11,620	12,214	£ 13,760
1914	513	289	13,687	9,032	11,523	10,779
1915	519	298	13,000	7,219	9,257	9,831
1916	529	321	14,188	7,720	10,077	9,968
1917	544	343	15,065	8,401	11,072	9,354

* Includes students who have joined more than one class.

The immediate effect of the reorganisation of the Technical system at the beginning of 1914 was to reduce the enrolment, a number of classes with no direct bearing upon any trade being discontinued; the entrance tests and the regulations as to occupation also caused a reduction in the number of students. The enlistment of students for military service has affected the attendance since the outbreak of the war.

The enrolment of students in the various departments during 1917 is shown below:—

Departments.	1917.	Departments.	1917.
Agriculture	105	Printing	213
Architecture	1,303	Sanitation	796
Biology	102	Sheep and Wool... ..	323
Chemistry and Metallurgy ...	683	Women's Handicrafts ...	1,606
Domestic Science... ..	337	Art	1,693
Electrical Engineering ...	682	Commercial	787
Geology	368	Other (separate classes) ...	181
Mathematics	2,788		
Mechanical Engineering ...	3,093	Total	15,065

The teaching staff in connection with technical education consists of 10 lecturers in charge of departments, of whom 2 are women, 14 resident masters in charge of branch schools, and 278 men and 41 women as salaried teachers and assistants.

KINDERGARTEN.

Kindergarten methods have been adopted as far as practicable in the Infant Schools under the Department of Education, and in various parts of Sydney and suburbs Kindergarten classes are conducted for the purpose of bringing young children under refining influences. During the year 1917 classes were in operation in 91 Public Schools; 14 were separate Infant Schools, and the remainder were Primary Schools with Kindergarten departments attached; the number of pupils enrolled for Kindergarten instruction was 5,048, the average attendance being 3,758.

These classes were conducted under Froebelian methods until 1912, when the Montessori system also was introduced, with very satisfactory results, into many of the Infant Schools. The underlying principle of the Montessori system is individual liberty, and its main benefits are independent work, more rapid progress, and a pleasure in work for both teacher and children.

Private Kindergarten Schools.

Free Kindergarten schools are conducted by the Kindergarten Union of New South Wales, which is assisted by a grant from the Government, amounting in 1917-18 to £1,000. In 1917 there were 9 Free Kindergarten schools with 42 teachers; the number of scholars on the roll during the December quarter was 652, of whom 592 were under 6 years of age, and 60 between 6 and 14 years. The average daily attendance was 627, and the gross enrolment for the year, 752.

At some of the ordinary private schools there are departments for Kindergarten work.

In connection with Kindergarten teaching a private institution supplies training in Froebelian methods, and the Free Kindergartens provide observation and practice schools.

COMMERCIAL EDUCATION.

Preparatory education for commercial life has been provided in the State primary schools, where the course of instruction, especially in the Commercial Continuation Schools, includes elementary training in many commercial subjects; economics and business principles and practice are included in the curriculum of the High Schools. Many private schools and colleges also afford facilities for commercial training, both by day and evening classes.

A complete return of the number of pupils taught in these special subjects is not available, but statistics of the State Commercial Continuation Schools have been supplied on a previous page, and the following statement shows particulars of Business and Shorthand Schools under private management, in which many persons who have passed the school age receive instruction. Book-keeping, business methods, shorthand, and typewriting are the main subjects taught:—

Year.	Schools.	Teachers.		Enrolment.			Average Attendance.			Total Fees Received.
		M.	F.	M.	F.	Total.	M.	F.	Total.	
1913	17	72	35	2,112	4,526	6,638	1,105	2,096	3,201	25,104
1914	18	58	40	2,511	4,068	6,579	1,152	1,423	2,575	25,389
1915	17	50	35	2,031	6,062	8,093	918	1,322	2,240	22,337
1916	17	53	59	2,336	4,907	7,243	1,059	1,685	2,744	30,521
1917	17	58	65	2,567	5,190	7,757	1,021	1,853	2,874	34,899

In addition to the above, there are many students to whom instruction is being imparted by means of correspondence.

Evening classes are conducted by various institutions, such as the Young Men's Christian Association, and the Railway and Tramway Institute.

At the latter institution, lectures of a technical and scientific character are arranged, in addition to the regular class work, in subjects ranging from ordinary English and commercial subjects to engine-driving, electrical physics, safe railway working, goods and coaching accounts, &c. The Institute has succeeded also in accumulating a choice collection of New South Wales timbers.

Advanced preparation for commercial life has been provided in the University evening lectures for the diploma in Economics and Commerce. This section of the University teaching was promoted originally by the Sydney Chamber of Commerce in the form of brief lecture courses available to the general public, and in examinations conducted for senior and junior commercial certificates issued by that body. The diploma course

was converted in 1913 into a full degree course; separate Chairs for applied chemistry and for economics have been provided, and it is hoped that means will be given for practical research work which will be of great benefit to Australian industries.

A special grant is paid from the Public Revenue to the University to assist in the teaching of languages serviceable to the development of commercial relations between Australia and other countries. By this means a lectureship in Japanese language and literature has been established.

DOMESTIC TRAINING.

In the reorganisation of Superior Public Schools provision has been made for the establishment of Domestic Superior Public Schools for girls. The syllabus came into operation at the beginning of 1913, and the course includes household accounts, cookery, laundry work, dressmaking, millinery, garden, art of home decoration, music, and social exercises, morals and civics, physical training, as well as a course in English, designed to encourage a taste for wholesome reading.

Three hours per week are devoted to cooking and laundry, the course being practical and diversified. Personal hygiene, nursing of sick, and care of infants receive considerable attention.

Botany and gardening are taught, and while the course is designed primarily to train girls to manage a home, provision is also made for a training in commercial horticulture, and an alternative course of business lessons in the second year is intended to fit girls to take up work in the commercial houses in the city.

During 1917 sixty-one schools for practical cookery were in operation, the enrolment being 5,008; in addition, demonstrations in cooking were given to 5,500 pupils of fifth-classes. The Technical College provides more advanced courses. Sixty teachers of cookery were employed in 1917.

AGRICULTURAL AND RURAL TRAINING.

Education in subjects pertaining to rural industries commences in the primary schools with the teaching of the elementary principles of agriculture, both practical and theoretical. School gardens and experiment plots are adjuncts to many State schools, and grants are made of farm, vegetable, and flower seeds.

Rural camp schools have been held periodically, with the object of familiarising city lads with the important rural industries of the State, and of fostering an inclination for rural pursuits. Metropolitan school-boys were accommodated for a short period, while they visited dairies, farms, &c., under suitable guidance, and were instructed by direct illustration. The operations of the rural camp school have been suspended.

Instruction in general farm work is given at the Farm Schools at Gosford and Mittagong, conducted by the State Children's Relief Department.

A special Agricultural High School is established at Hurlstone Park. The grounds, covering 26 acres, are used for teaching practical operations and for experimental work in the growth of crops, action of fertilisers, &c. The course at this school extends over two years, and covers a general English education in addition to science with laboratory practice, and agriculture with field work. During 1917 there were 99 students on the roll, and at the end of the year there were two bursars and six scholarship holders. For resident students the fee is £6 6s. per quarter; for day students no fees are charged.

The training at Hurlstone Agricultural High School forms a preparatory course to the more advanced work at Hawkesbury Agricultural College.

At the Central Technical College at Ultimo, a diploma course covering two years is available for evening students.

Supplementing the training given to pupils under the Department of Education, a graduated scheme of agricultural instruction is organised in connection with the development of rural industries, by the Department of Agriculture of New South Wales. This scheme provides for Apprentice and Farm Schools, Experiment and Demonstration Farms, Orchards and Horticultural Nurseries, and the Hawkesbury Agricultural College, which supplies higher agricultural education; at some of these establishments provision is made for the training of women. Full particulars regarding students and curricula will be shown in the chapter relating to agriculture.

The Diploma course at the Hawkesbury Agricultural College covers three years' work, but certificates may be obtained for shorter courses. Students holding the Diploma of the College may be permitted to complete the course for the degree of Bachelor of Science in Agriculture at the University in three years instead of four.

The final stages of agricultural education and training are reached at the University, where, in the beginning of 1910, a Department of Agriculture was instituted as a branch of the Faculty of Science. A four-years course leads to the degree of Bachelor of Agricultural Science; and, in providing a higher training ground for teachers and experts, completes the whole system of preparation for rural industries. The Experiment Farms are available for the practical and experimental work in connection with the degree course.

SCHOOL SAVINGS BANKS.

A system of school savings banks in connection with the State schools was initiated in the year 1887, and by this means £611,599 have been received in deposits, and £133,223 transferred to the Government Savings Bank as Children's Individual Accounts. The object of these banks is to inculcate principles of thrift during the impressionable ages.

In 1917 these banks numbered 808; the deposits amounted to £49,048, and withdrawals, £46,186; 6,098, representing individual sums of £1 and upwards, were transferred to the Government Savings Bank, leaving £16,036 as credit balances in the school banks.

DELINQUENT, DEFECTIVE AND DEPENDENT CHILDREN.

Special provision has been made for delinquent, defective and dependent children in several reformatories and industrial schools maintained by the State and in private charitable institutions.

The State Institutions are the Girls' Industrial School and Training Home at Parramatta and the Farm Home for Boys at Gosford, and the Cottage Homes established by the State Children's Relief Board; particulars regarding their operations will be shown in a later chapter of this Year Book.

Education of deaf and dumb and blind children is undertaken at a school in connection with the Institution for the Deaf and Dumb and the Blind. This institution receives periodical grants from the Government, and the school fees are remitted in cases where the parents are unable to pay. In 1917 the total income of the institution was £8,628. The expenditure for the year was £7,799, including £7,508 for maintenance, salaries and wages, and £291 for buildings and repairs. The number of teachers employed was 17, of whom 7 were men. The gross enrolment during the year was 73 boys and 51 girls; the average daily attendance was 115. The December enrolment was 120, and of these, 82 were under and 38 were over 14 years of age.

Ragged Schools have been conducted since 1860 in Sydney, to provide education and attention for neglected children, meals and clothing being supplied when necessary. The operations of these schools have decreased in recent years, with the enactment of free education in State schools. During 1917, 5 schools were open, 5 women were employed as teachers, the gross enrolment was 282, and the average daily attendance 211. There were 228 children on the roll during the December quarter; 98 were under 6 years, and 130 from 6 to 14 years.

At charitable institutions in 1917 there were 13 schools with 51 teachers and a gross enrolment of 1,314. In December quarter the enrolment of 1,058 consisted of 60 under 6 years of age, 887 between 6 and 14 years, and 111 over 14. These were denominational institutions conducted by the Roman Catholic Church and the Church of England.

MEDICAL INSPECTION OF CHILDREN.

In 1907, arrangements were made for the medical inspection of children in the State schools in the populous centres of Sydney and Newcastle; in 1911 it was extended to the South Coast district and to a number of inland towns.

During 1913 the medical inspection was reorganised to include the pupils of all State Schools, and the majority of those attending the private schools; and arrangements were made to examine each child every three years, thus ensuring two medical examinations during school-life. To provide for the treatment of physically-defective children a travelling school hospital, a travelling ophthalmic clinic and six travelling dental clinics have been established, also a metropolitan dental clinic. During 1917 a general clinic was established in Sydney for the treatment of eye, ear, throat, nose, skin, and medical cases; but this treatment was discontinued on the understanding that special facilities for school children would be provided at some of the metropolitan hospitals. During the short period of its existence 610 children were treated at the clinic. Details regarding the medical inspection of school children and the school clinics will be given in a later chapter of the Year Book.

The work of the medical officers of the Department of Education includes the investigation of epidemics of infectious diseases affecting school children; the inspection of school buildings; systematic courses of lectures at the Teachers' College; lectures to senior girls in all metropolitan schools on the care of babies, personal cleanliness, home hygiene, sick nursing, &c.; lectures to parents; examination of candidates for admission to the Teaching Service; first treatment of ophthalmia in the back-country schools; the following up of untreated cases by visits of school nurses to parents in order to secure the medical treatment of children.

A series of lectures given by a member of the School Medical Staff to the women students at the Teachers' College forms part of the Infant Teachers' course of instruction, the students being trained to observe children and to diagnose simple ailments.

PHYSICAL TRAINING OF BOYS AS CADETS.

The scientific physical training of boys under the universal defence training system commences when they reach the age of 12 years and become junior cadets. Information as to the number of medical examinations of all junior cadets has been given previously, in the chapter on Defence. During the year 1917, junior cadets were trained at 2,142 State schools, and 23,619 were passed as efficient.

UNIVERSITY EXAMINATIONS.

From 1867 to 1916, the University conducted annual Public Examinations, Junior and Senior, open to candidates from any school, on payment of a fee. These examinations ranked as tests of the soundness of instruction imparted in the public and private schools of the State, until they were superseded by those conducted by the Department of Education as described below. The last Senior Examination was held in 1915, and the last Junior in 1916.

Education Department's Certificate Examinations.

Prior to 1911 students from public schools, superior and high, were successful competitors at public examinations conducted by the University. Since the introduction of a co-ordinated system of secondary education, designed to furnish adequate preparation for various types of vocation, and to institute State bursaries, the necessity for competing at such examinations has vanished with the acceptance, by the University, of the certificates of the Department of Education, as indicating the attainment of satisfactory standards of education.

The regulations provide for three certificates to mark definite stages in the progress of school pupils, the examinations being open to students of State and private schools. The Qualifying Certificate indicates that the holder has completed the primary course, and is fitted to enter upon a secondary course; this standard is a condition precedent to admission to higher schools. The Intermediate Certificate marks the completion of the higher primary stage constituting the first two years of the secondary course. The Leaving Certificate is obtainable on graduation from the full four-years course of the High Schools, and is accepted as indicative of adequate preparation for the University, if it shows a pass in matriculation subjects.

The first examination for the Qualifying Certificate was held in December, 1911, at 600 centres in New South Wales. The following are particulars regarding the examinations held during the year 1911 to 1917, the candidates being pupils of Public and Private Primary Schools:—

Year.	Candidates.	Passes.	Scholarships awarded.		Bursaries awarded.	
			Boys.	Girls.	Boys.	Girls.
1911	10,708	7,092	297	240	186	116
1912	14,978	8,464	330	184	193	102
1913	15,348	7,934	418	213	218	85
1914	16,684	11,137	1,255	745	195	106
1915	17,489	11,761	5	...	291	129
1916	18,963	12,159	5	...	268	129
1917	22,965	15,262	...	...	217	136

In allotment of the certificates on this examination, which also determines the allocation of Scholarships to Secondary Schools, the teachers' reports and the record of school attendance are taken into account. The granting of Scholarships at State Schools was discontinued in 1915, arrangements having been made for supplying text-books free of charge to all pupils; 5 Scholarships tenable at the Sydney Grammar School are awarded.

The Examining Board in connection with the Intermediate and Leaving Certificates consists of the Director of Education, the Chief Inspector, the Principal of the Teachers' College, the Inspector of Secondary Schools, and four delegates appointed by the University.

The results of the Intermediate Certificate Examinations are shown below. The low percentage of passes in 1912 is due to the fact that in the initial year the full course had not been covered before the examination. In 1917, of 3,004 candidates, 67 per cent. were successful :—

Year.	Candidates.	Passes.	Scholarships awarded.		Bursaries awarded	
			Boys.	Girls.	Boys.	Girls.
1912	1,571	645	43	2	56	62
1913	1,573	912	19	5	63	181
1914	2,334	1,563	3	...	74	210
1915	2,435	1,604	55	40	...	...
1916	2,781	2,014	60	4	...	...
1917	3,004	2,019	...	...	5	7

The first Leaving Certificate Examination was held in November, 1913, and of 156 candidates, 123, or 79 per cent., were successful. In 1917 the percentage of passes was 78 :—

Year.	Candidates.	Passes.	Scholarships awarded.	University bursaries awarded.	
			Boys.	Boys.	Girls.
1913	153	123	...	20	4
1914	337	280	...	20	9
1915	572	447	14	23	7
1916	846	690	22	27	3
1917	928	727	19	23	16

On the results of this examination, the University bursaries, and the exhibitions instituted under the University Amendment Act are awarded, also scholarships for the Diploma Courses at the Technical College.

The Intermediate and Leaving Certificate Examinations have been adopted as standards for the admission of persons to the public services of the State.

The first examination for Superior Public School Certificates was held in December, 1914; 566 candidates who had completed the two years' course sat for examination, and 469 passed; in 1917 the candidates numbered 1,017 and the passes 930, viz.:—Commercial, 345 candidates and 310 passes; Junior Technical, 233 candidates and 200 passes; Domestic, 439 candidates and 420 passes.

Certificates of proficiency are awarded to pupils of Evening Continuation Schools whose attendance and work have been satisfactory throughout the course. In 1917 there were 349 candidates at the examination for certificates, and 233 passed; in the previous year 186 passed out of 285 candidates.

TECHNICAL EDUCATION EXAMINATIONS.

The following are particulars of examinations conducted in the Technical Branch during the last five years :—

Particulars.	1913.	1914.	1915.	1916.	1917.
Number examined	4,811	3,684	4,334	5,956	6,407
Number of passes	3,577	3,095	3,558	4,464	5,444
Percentage of passes	74.3	84.0	82.0	74.9	84.9
Number obtaining honours ...	502	466	675	850	512

STATE SCHOLARSHIPS AND BURSARIES.

It has been the policy of the State to assist promising students, especially to the High Schools and to the University, by means of scholarships and bursaries.

High School scholarships, awarded to pupils under 14 years of age, upon the result of the Qualifying Certificate Examinations, are tenable for a period of four years; and entitle the holders to free education with a grant of text-books and other school material to the value of £1 10s. per annum; under specified conditions an allowance in aid of maintenance or travelling may be granted.

As stated above the granting of these scholarships tenable at State Schools was discontinued in 1915, when arrangements were made for the free supply of school material.

Three scholarships are awarded annually to students of the Agricultural High School, entitling the holders to free education for two years at the Hawkesbury Agricultural College, with monetary allowance and text-books. The holders commence on the second year's course at the College.

Probationary students who intend to become teachers may gain two-year scholarships at District Schools. Text-books are supplied and an allowance is granted during the second year.

Scholarships, admitting to courses of technical instruction, are provided to assist students to pass from the Day and Evening Junior Technical Schools to the Trades and Science Schools, from Lower to Higher Trades Courses, and from Trades to Diploma Courses. Students holding Leaving Certificates may obtain entrance by Scholarship to the Diploma Courses; and those who have gained the Intermediate Certificate at the Technical High School may obtain scholarships enabling them to enter the Higher Trades Courses. These technical scholarships carry a grant of text-books and appliances and exemption from fees, and holders must be engaged in the trade or profession for which the course has been established.

Early in the year 1916 the Sydney Municipal Council decided to award annually a travelling scholarship to an employee in their Electric Light Department who should have completed his apprenticeship and the Electrical Trades course at the Technical College.

Students who pass through the Diploma Course with distinction are enabled to continue their education at the University by means of scholarships valued at £100 per annum. Two scholarships each will be granted in the Departments of Science, Engineering, and in Architecture at a later stage.

The Falkiner Scholarship, established by private benefaction, is open for competition at the Leaving Certificate examination to boys attending the Hay District School; it entitles the holder to free University education and text books for four years, and to a grant for maintenance. As the Falkiner Scholarship is available only once in every four years the Department of Education has supplemented the award by a scholarship similar in value, to be known as the Riverina Scholarship, which will be open for competition in alternate years; it was first awarded as from the beginning of 1914.

Scholarships tenable at the Teachers' College, consisting of a money allowance, text-books, and exemption from college tuition fees, are awarded annually. For first and second year students the allowance is £30 per annum, with an additional grant of £20 to holders who have to board away from home; third and fourth year students receive £50 per annum, with an additional grant of £20 if obliged to board away from home; and for the short course the allowance is £25. Three scholarships are awarded annually in the longer course at the College, for competition amongst

those who have completed the short course at Hereford House. Scholarships are awarded also in the training course for cookery. Travelling scholarships have been instituted in connection with the Teachers' College; former students of two or more years' standing are eligible for these scholarships, which are of the annual value of £200, and are tenable, at the discretion of the Director of Education, for one or two years. Holders of Travelling Scholarships are required to pursue a definite line of study or research into some branch of the theory, practice, or administration of education. The Women's College of the Sydney University awards three scholarships annually to women students of the Teachers' College who are matriculated students of the University.

In connection with the wheat industry, the Government Farrer Scholarship and the Farrer Research Scholarship are tenable at the Hawkesbury Agricultural College, and the Daily Telegraph Farrer Scholarship is awarded to the best wheat student at the Bathurst or Wagga Experiment Farm School; details of these scholarships are given in the chapter relating to Agriculture.

Bursary Endowment.

In 1912 the Bursary Endowment Act was passed by Parliament providing public moneys for bursaries, tenable in public or private secondary schools and in the University of Sydney. This fund is administered by a specially constituted board, consisting of two representatives each of the University of Sydney, of the Department of Education and of the Secondary schools registered under the Act. A representative of the Department of Education is chairman.

Schools desiring to benefit under the Act must register; and such registration, which is effective for two years, is conditional upon the suitability of school premises, the organisation and equipment of the school, the method and range of instruction, efficiency of the teaching staff, and the general conduct of the school. The inspection is conducted by the Inspector of Secondary schools under the Department of Education.

Under the general conditions attached to registration a school must be capable of providing a four-year course of instruction beyond the primary stage, to a standard not lower than that of the Leaving Certificate. As at 30th June, 1918, sixty-seven schools were registered under the Bursary Endowment Act.

Bursaries admitting to a course of secondary instruction are awarded to pupils between the ages of 12 and 14 years, whose parents' income is less than £200 per annum, or not more than a quota of £50 per annum for each member of the family, exclusive of children earning 10s. or more weekly. One-third of the bursaries are available for pupils of metropolitan and suburban schools. Their award is determined upon the results of the Qualifying Certificate examination; the candidates are classified in two groups, viz., those from schools with less, or with more than 100 pupils in enrolment. Competition is restricted within the groups, and the bursaries are divided in approximate ratio to the number of candidates from the two groups of schools who pass the Qualifying Certificate examination. The number of bursaries is determined by the Board in accordance with the amount available in the current account of the Endowment Fund.

Each bursary comprises a grant of text-books not exceeding £1 10s. per annum, and a monetary allowance of £30 for the first and second years, and £40 for the third and fourth years, to holders who live away from home in order to attend school, the allowance being reduced in the case of those who reside at home. The bursaries are tenable usually for a period of four years, but, under certain conditions, may be extended for a fifth year.

Bursaries tenable at the University of Sydney may be awarded to candidates at the Leaving Certificate examination who are under 19 years of age and whose parents' means are unequal to the expense of the University education. A full Bursary entitles the holder to a grant for text-books not exceeding £5 per annum, and to free education. An allowance not exceeding £20 per annum is given to those who need not board away from home, in order to attend the University, and not exceeding £50 per annum to those who must do so. A Bursar who wins and elects to hold a Scholarship or Exhibition offered by the Senate of the University is entitled to receive from the two sources conjointly an allowance not exceeding £100 per annum.

Bursaries are awarded upon the results of the Intermediate Certificate Examination. These bursaries are of the value of third and fourth year bursaries, and are tenable for two or three years.

The bursaries made available by the Bursary Endowment Board during 1917 were as follows :—

Classification.	Tenable at—	Number awarded, 1917.		
		Boys.	Girls.	Total.
Bursaries	Metropolitan High Schools	98	60	158
	Country High and District Schools	82	51	133
	Registered Secondary Schools	37	25	62
		217	136	353
Intermediate Bursaries	{ Metropolitan High Schools	3	3	6
	{ Country High Schools	1	2	3
	{ Registered Secondary Schools ... ..	...	2	2
	{ Hawkesbury Agricultural College	1	...	1
		5	7	12
University Bursaries ...	Sydney University	24	9	33

At 30th June, 1918, excluding 76 holders of war bursaries, there were 1,450 pupils holding bursaries under the Bursary Endowment Act; 1,351 were attending courses of secondary instruction, and 99 were attending University lectures. The annual monetary allowances paid were as follow :—

Allowances.	Pupils.	Allowances.	Pupils.
£		£	
10	440	40	254
15	146	50	49
20	187		
30	374	Total ...	1,450

War Bursaries are provided by the Bursary Endowment Board for children of incapacitated and fallen soldiers; and may be awarded to assist holders during primary, secondary or University courses, or in technical trade or agricultural instruction; they may be applied also to augment the wages of apprentices. Up to 30th June, 1918, war bursaries had been awarded in 85 cases; the number in operation at that date was 76, and the expenditure for the year amounted to £625.

In addition to the bursaries made available by the Bursary Endowment Board, three bursaries, tenable for three years, may be awarded at the Hawkesbury Agricultural College; three, tenable for two years, at each of the Farm Schools at Bathurst and Wagga Experiment Farms; and one tenable for one year, at the Apprentice School at Wollongbar Experiment Farm.

University Exhibitions.

The University Amendment Act, 1912, provides for the allotment of Exhibitions by the Senate to students desirous of entering the University. The Exhibitions are awarded on the results of the Leaving Certificate Examinations, and exempt the holders from payment of matriculation, tuition, and degree fees; they are tenable in all faculties and departments. The number awarded yearly is at the rate of one for every 500 persons in the State between the ages of 17 and 20 years, as shown by the latest census records. The exhibitions are open for competition to students of State High Schools and registered schools who have completed the secondary course. A small number of exhibitions, not exceeding 5 per cent. of the total number awarded, are open to competitors other than school students, provided they have been residents of New South Wales for three years.

As a result of the Leaving Certificate Examination, held in November, 1917, the Senate allotted 200 exhibitions in the following faculties:—Arts, 46; Medicine, 85; Science, 20; Engineering, 25; Law, 6; Economics, 8; Dentistry, 6; Architecture, 2; other, 2. One hundred and fourteen were allotted to the State schools, and eighty-six to the registered secondary schools.

THE UNIVERSITY OF SYDNEY.

An Act to incorporate and endow the University of Sydney was passed by the Parliament of New South Wales on 1st October, 1850.

By the Act of foundation, the University is required to be undenominational, religious tests for admission to any privilege being prohibited expressly; degrees in Theology or Divinity are not conferable. Authority was given to examine, and to grant degrees in Law and Medicine as well as in Arts.

Since the passing of the original Act various amendments have been made. In 1884 the Senate's powers as regards teaching and degrees were extended to provide instruction and to grant degrees or certificates in all branches of knowledge, other than Theology or Divinity, subject to a proviso that no student should be compelled to attend lectures or to pass examinations in Ethics, Metaphysics, or Modern History; and the benefits and advantages of the University in all respects were extended to women equally with men. In 1900 the various enactments were consolidated by means of the University and University Colleges Act, and amending Acts were passed in 1902, 1912, 1916, and 1918.

The University Amendment Act, 1912, made radical alterations in the Constitution of the Senate, which now consists of 24 members, viz.:—

- 4 Fellows appointed by the Governor.
- 1 Fellow elected by the Legislative Council.
- 1 " " " Assembly.
- 5 Fellows representing the Teaching Staff of the University, *i.e.*, one elected by the Professorial Board, and one each by the four Faculties.
- 10 " elected by Graduates.
- 3 " " the aforesaid Fellows.

Special provision was made in the Act for the retention of the members who were then Chancellor and Vice-Chancellor as additional Fellows for their lifetime; otherwise the maximum term of office is five years. Authority was given for the establishment and maintenance of evening

tutorial classes; the State endowment was increased to £20,000 per annum, with the proviso that when any census is taken it will be further increased at the rate of £1 for each 15 persons between ages 17-20, added to the population of the State. Public exhibitions covering cost of matriculation, tuition, and degree fees were authorised in the proportion of one for every 500 persons between ages 17-20 in the population of the State as shown by Census records.

Under the provisions of the Amending Act of 1916, the statutory endowment will be increased by £10,000 per annum in order to meet the cost of the public exhibitions, and by an additional allowance of £2,000 per annum for the establishment and maintenance of a Chair of Architecture.

The University (Senate) Amendment Act, 1918, provides that the members of the present Senate of the University shall continue to hold office until a day to be proclaimed by the Governor.

Under the University Amendment (Exhibitioners' Fees) Act, 1918, the Senate of the University of Sydney is authorised to defray from the statutory endowment the fees, at Universities and Educational Institutions abroad, for or on behalf of any person holding a public exhibition at the University of Sydney who has been engaged on war service.

The establishment of colleges of residence in connection with religious denominations for the association of students in the cultivation of secular knowledge was authorised by an Act passed in 1854. Under this provision four colleges have been established adjacent to the University, namely, St. Paul's (Church of England), St. John's (Roman Catholic), St. Andrew's (Presbyterian), and Wesley (Methodist). A college of residence for women was established in 1892, on a strictly undenominational basis. The colleges provide tutorial assistance to students in preparing for the University lectures and examinations, and each is subsidised by the Government to the extent of £500 per annum for the principal's salary.

For the purpose of establishing a college the Government may subsidise the building fund by sums corresponding to the amounts expended for building by the college, out of its subscribed funds, up to a maximum of £20,000.

Within the University there are four Faculties, viz., Arts, Law, Medicine, and Science, and in addition there are six Departments. A Dean for each Faculty is appointed for a period of two years. The Professors, with the Chancellor and Vice-Chancellor, form the Professorial Board which superintends matters relating to study and discipline.

Endowment.

During the year 1917 the University received from the Government of New South Wales, a statutory endowment of £29,000, including £1,500 for a Chair of Architecture. The total amount of State aid received during the year was £61,654, including the following sums for the services mentioned:—

	£		£
Scientific apparatus	2,500	Science Research Scholarships ...	500
Evening Lectures	2,450	Chair of Astronomy	200
Loss by reduction of Lecture Fees	2,500	Retiring allowances	800
Extensions of existing departments	1,500	Organic and Applied Chemistry ...	2,500
Chair of Agriculture	2,500	Chair of Mechanical Engineering ...	500
Veterinary Science	3,500	Tutorial Classes and University	
Chair of Botany	2,000	Extension	6,555
„ Economics and Commerce	2,503	Modern Languages	1,000

Private Benefactions.

Many benefactions have been bestowed on the University by private persons. Among the first were gifts of £1,000 each from Mr. Thomas Barker, Sir Daniel Cooper, and Sir Edward Deas-Thomson, represented by lands which have multiplied in value. The sum of £445 given in 1862 by Mr. William Charles Wentworth for the foundation of a travelling scholarship had, in December, 1917, accumulated to £4,434. Some prizes have been exhausted by award, but by careful investment, increases in value, unawarded scholarships, and other causes, these private foundations showed at 31st December, 1917, credit balances to the extent of £579,521.

These endowments include a sum of £30,000, bequeathed by Mr. Thomas Fisher, for a library, and £6,000 given in 1888 by Sir William Macleay for a Curatorship of the Natural History Museum, the collection contained in the Museum having been presented by him to the University, and for which the Government erected a suitable building. The Hovell bequest—made in 1877—of properties for the endowment of a Professorship in Geology and Physical Geography, is valued at £6,000; and Mr. John Henry Challis, in 1880, bequeathed his residuary real and personal estate, subject to certain annuities, to the University, “to be applied for the benefit of that Institution in such manner as the governing body thereof shall direct.” In December, 1890, the trustees of the Challis Estate handed over to the University the major part of the Australian portion of the estate, approximating to £200,000 in investments, together with a cash balance. The balance, bringing the capital of the fund to £276,856, was transferred to the University in 1905 upon the termination of the last annuity. Under the bequest the Senate has created Chairs in Law, Modern Literature, History, Logic and Mental Philosophy, Anatomy, Engineering, and Zoology, four Lectureships in Law, Readers in Law, and a Lectureship in Military Science.

During 1896 Sir Peter Nicol Russell (formerly of Sydney) presented £50,000 for the purpose of endowing the Department of Engineering as the Peter Nicol Russell School of Engineering, and this gift was supplemented by a further grant of £50,000 in 1904, with the stipulations that efficient teaching in electrical engineering be provided and additional scholarships founded, and that the Government should expend £25,000 upon buildings. Through this endowment, seven Lectureships in Engineering have been established, in addition to Assistant Lectureships, and Instructors and Demonstrators are provided. The deeds of gift stipulate practical and theoretical teaching in Mechanical and Electrical Engineering, Surveying, Mining, Metallurgy, Architecture, and other instruction as the Senate deems necessary. The income of the Fund is applicable to the maintenance of the School, but is not chargeable with the costs for existing buildings, service of attendants, Professorships of Mathematics, Chemistry, Physics, Geology, nor for the Challis Professorship of Engineering. Three Scholarships in Mechanical Engineering, each of the annual value of £75, and tenable for four years, are provided out of the fund.

In 1909 the sum of £7,050 was given by Mr. Hugh Dixson to enable the University to purchase the Aldridge Collection of Minerals from the Barrier District of New South Wales.

University Receipts and Disbursements.

The following statement shows the amounts derived by the University from each of the principal sources of revenue, and the total expenditure,

during each of the last five years. Under the items are included sums received for special expenditure and amounts from benefactors to establish new benefactions :—

Year.	Receipts.					Disbursements.	Private Endowments Credit Balances.
	Government Aid.	Fees.	Challis Fund and other Private Foundations.	Other Sources.	Total.		
	£	£	£	£	£	£	£
1913	44,966	20,637	24,219	1,134	90,956	87,951	547,386
1914	41,533	20,151	25,643	3,356	90,683	88,870	556,450
1915	44,675	19,181	29,597	1,028	94,481	83,688	563,062
1916	54,592	13,707	29,961	1,380	99,640	98,233	572,882
1917	61,654	13,489	27,409	1,090	103,642	98,944	579,521

The Government aid received during the year 1917 included £300 for additions, repairs, and furniture, and £800 for Retiring Allowances Account. The receipts from private foundations, £27,409, included £532 for annual prizes and new foundations; fees amounted to £13,489, and other receipts to £1,090, including £321 interest on investment of Retiring Allowances Account. The credit balances of private endowments amounted to £579,521, viz., Private Foundations £256,071, Challis Fund £315,993, Retiring Allowances Account, £7,457.

The principal item of disbursements in each year is for salaries. In 1916 and 1917 the total expenditure was distributed as follows :—

Classification.	Amount.		Percentage of Total.	
	1916.	1917.	1916.	1917.
	£	£		
Salaries	63,192	66,705	64.4	67.4
Maintenance, Apparatus, &c...	19,246	16,612	19.6	16.8
Buildings and Grounds	6,909	4,948	7.0	5.0
Scholarships and Bursaries	3,550	3,622	3.6	3.7
Other	5,336	7,057	5.4	7.1
Total	98,233	98,944	100.0	100.0

Lectures and Lectureships.

Non-matriculated students are admitted to lecture and laboratory practice but are not eligible for degrees. Lectures are given during the daytime in all subjects necessary for the degrees and diplomas quoted above, and evening lectures are provided in the subjects of the Arts course, including elementary science. The Government Astronomer of New South Wales is Professor of Astronomy in the University, and lectures are given in connection with this subject.

In 1917, the Teaching Staff included 24 professors, 6 assistant professors, and 135 lecturers and demonstrators; there were, in addition, 10 honorary lecturers and demonstrators. Professors and most of the lecturers are paid fixed salaries, and the remainder receive fees. Provision is made for a pension scheme for professors appointed since 1898; the benefit will commence after twenty years' service, and after attaining the age of 50 years.

The University has no power to confer honorary degrees, but may admit *ad eundem gradum* graduates of approved Universities, viz., Oxford, Cambridge, London, Durham, Victoria, St. Andrew's, Edinburgh, Glasgow, Aberdeen, and Dublin, Queen's of Ireland, Royal of Ireland, Melbourne, New Zealand, and Adelaide, and of such other Universities as the Senate may determine.

The number of students attending lectures during 1917 was 1,752, viz., 1,178 men and 574 women; 1,355 were matriculated and 397 non-matriculated.

Scholarships, Bursaries, and Fellowships.

Scholarships, exhibitions, and bursaries have been founded as rewards for proficiency and to place the advantages of a University education within the reach of students in straitened circumstances. They are awarded only when the examinations disclose a satisfactory degree of proficiency, and no student may hold more than two scholarships.

Candidates for bursaries are required to show that they do not possess sufficient means to attend the University. Bursaries to the number of nineteen are provided by the Senate; they are tenable only in the Faculties of Arts or Science (not including Engineering), and are supplemented, on the part of the Senate, with exemption from fees. In the case of the Struth Exhibition and the Henry Wait Bursary, awarded to students proceeding from the first year in the Arts course to the Faculty of Medicine, no exemption from payment of lecture fees is granted. In addition, bursaries are provided annually by the Government for pupils of State schools, and for those registered under the Bursary Endowment Act.

A Rhodes Scholarship of the value of £300 per annum, tenable for three years at the University of Oxford, is awarded annually to students of Sydney University; also a commission in the British Army is offered every year.

The number of students who attended University Lectures as non-paying students during 1917 was 1,059, including 497 public exhibitioners, 444 students of the Teachers' College and teachers in schools, and 100 State and University bursars.

Since 1912 Parliament has made an annual grant for Scientific Research Scholarships.

Fellowships available to graduates in Science of the University include four annually under the Macleay bequest of £35,000 made in 1904 to the Linnean Society of New South Wales. These fellowships are intended to encourage research in Natural Science, by means of post graduate work; each is of the annual value of £400.

The Walter and Eliza Hall Engineering Fellowship, awarded annually to a graduate in Engineering of the University of Sydney of not more than four years' standing, is of the annual value of £300 for a maximum period of three years. Similar Fellowships were also founded for graduates in Agriculture, Veterinary Science, and Medicine.

The University enjoys the privilege, bestowed through the Orient Steam Navigation Co. (Ltd.), of allotting three first-class return passages to Europe to graduates desiring to continue studies abroad.

Clinics.

The Royal Prince Alfred Hospital for the sick, General Hospital and Medical School for the instruction of University students, and for the training of nurses, is open for students for certificates of hospital practice necessary for admission to final degree examination in medicine and surgery, and clinical lectures are delivered in accordance with the University curriculum. All appointments to the Medical and Surgical Staff of the Hospital are made conjointly by the Senate of the University and the Directors of the Hospital.

Sydney Hospital, founded in 1811, also provides a Clinical School under the direction of a Board of Medical Studies, and all appointments of clinical lecturers and tutors are subject to the approval of the Senate.

Other hospitals recognised as places where studies may be undertaken in connection with the Faculty of Medicine, are:—The Royal Hospital for Women, Royal Alexandra Hospital for Children, St. Vincent's Hospital, the Gladesville and Callan Park Mental Hospitals, the Women's Hospital, the Renwick Hospital for Infants, and the South Sydney Hospital for Women.

In connection with the Department of Dental Studies, the United Dental Hospital of Sydney was established in 1901, and provides facilities for instruction of students. It was amalgamated with the Dental Hospital of Sydney in 1905. The University lecturers in Surgical and Mechanical Dentistry are, *ex officio*, honorary dental surgeons of the Hospital.

Extension Lectures.

University Extension Lectures were inaugurated in 1886, and have been conducted since that date under the direction of a University Extension Board of eighteen members appointed annually by the Senate, and including at least four members of that body, and four of the teaching staff. Courses of Lectures are given in various centres upon topics of literary, historical, and scientific interest. At the conclusion of a course, which consists of a minimum of three lectures, an examination may be held and certificates awarded to successful candidates.

Tutorial Classes.

In accordance with the provisions of the University Amendment Act of 1912, the Senate has made arrangements for the establishment of evening Tutorial classes, which are open to unmatriculated as well as to matriculated students; diplomas may be issued to persons who have studied in these classes for at least one year in any one subject. Tutorial classes, which may be established in particular branches of study upon specific requisition by intending students, have been formed in suburban and country centres as well as at the University.

University Buildings.

The University buildings consist of the main building, containing the great hall, lecture rooms, and offices, all built of Pyrmont sandstone; the Medical School, which is in the same style; the Fisher Library, adjacent to the main building, and designed to form part of the main quadrangle, is of modern design, with bookstacks of steel and glass for 200,000 volumes, and with ample reading-room accommodation for students.

Separate buildings for the Departments of Chemistry, Physics, Geology, Biology, Veterinary Science, Agricultural Science, and the Macleay Museum are distributed over the grounds, which, including lands vested by the Senate in the Affiliated Colleges, &c., cover an area of 126 acres. The Peter Nicol Russell School of Engineering has a separate building, provided by the State at a cost of £25,000. A building for the Teachers' College is in course of erection.

MEDICAL AND LEGAL PROFESSIONS.

In New South Wales the majority of professional workers are connected with a society or association peculiar to their particular profession, and in most cases, excluding of course those professions for which the University of Sydney supplies training, such associations direct the educational work for entrance to the profession, mainly by conducting examinations and issuing certificates. Physicians, dentists, and pharmacists are bound by

statute to register with the Medical, Dental, or Pharmacy Board before they can proceed to practise, and barristers and solicitors must be formally admitted to their profession.

For the medical and legal professions and in various branches of science the University provides the requisite training. The practice of medicine is restricted to persons registered by the New South Wales Medical Board under the Medical Practitioners Act. To become a legally qualified medical practitioner an applicant must prove to the satisfaction of the Board (a) that he is a doctor or bachelor of medicine of some University, or a physician or surgeon licensed or admitted as such by a college of physicians or surgeons in Great Britain or Ireland; (b) that he has completed a medical course of a University or equivalent college, and has received after examination a diploma, degree, or license entitling him to practise medicine; (c) or he is a member of the Company of Apothecaries of London, or a member or licentiate of Apothecaries' Hall, Dublin. Medical officers duly appointed in His Majesty's sea or land service are eligible for registration.

During the last five years the average registrations of medical practitioners have been 112 per annum, and at 31st December, 1917, there were 2,150 registrations in force. Holders of degrees of M.D., M.B., and Ch.M., conferred by the University of Sydney, are entitled to registration and recognition in the United Kingdom in the same way as holders of similar degrees conferred by a British University are recognised in New South Wales.

To qualify before the Dental Board of New South Wales, in terms of the Dentists Act, dentists must hold a recognised certificate; or have been engaged for not less than four years in acquiring a professional knowledge of dentistry, and passed an examination; or produce a diploma or degree in dentistry from an Australian University. Unregistered persons in actual practice, or preparing for the profession at time of passing of the Dentists (Amendment) Act, 1916, may obtain registration upon the fulfilment of prescribed conditions. At 31st December, 1917, there were 1,547 registrations in force.

During 1917 sixteen students attended the School of Dentistry established in connection with the United Dental Hospital of Sydney.

Pharmacists are registered under the Pharmacy Board appointed under the Pharmacy Act. To qualify for registration, evidence must be adduced of three years' apprenticeship in the business of a pharmacist keeping open shop; or of holding a certificate of competency from a recognised College or Board; or of registration under the Sale and Use of Poisons Act; or of having passed a preliminary examination before the Board, or the usual examinations of a recognised college or university.

The Board is charged with the publication, in January of each year, of a list of all registered pharmacists. At the end of 1917 the registrations in force numbered 1,237. In addition to qualified pharmacists, other dealers in poisons must be registered before the Pharmacy Board and obtain annual licenses; 397 such licenses for sale of poison were in force at 31st December, 1917.

Members of the nursing profession are registered and certificated by the Australasian Trained Nurses' Association, which was established in New South Wales in 1899, and has branches in the other States. For the year ended 30th June, 1918, the number of nurses on the register in New South Wales was as follows:—General, 2,108; Obstetric, 1,178; Medical Members, 93; Mental Nurses, 40; Honorary Members, 26.

Barristers and solicitors may proceed through the courses provided in the Law School at the University, or they may qualify for admission by the Bar

examinations. Barristers practising in New South Wales at the end of 1918 numbered 169; solicitors at the same date numbered 1,058, viz., 429 in the country, and 629 in Sydney.

Men desirous of entering into articles of clerkship with Attorneys, and who have not taken a University Degree, nor passed the preliminary examination required in England, Scotland, and Ireland, are required to pass a preliminary examination conducted by the University. The standard of the law matriculation examination is the University matriculation examination, lower division. Clerks are also required to pass three subsequent examinations in Legal History and Law before application for admission as solicitors. The examinations are conducted by a Board appointed by the Supreme Court. During 1917, 30 candidates were examined and 13 passed; the figures for the previous year were: 54 examined and 23 passed.

Public Accountants, Clerks, etc.

The profession of public accountant has not been regulated by law in New South Wales; there are, however, a number of accountants' societies which conduct examinations for the admission of members. The results of the examinations in 1917 are shown below:—

Institution.	Candi- dates.	Passes.					Mem- bers at end of year.
		Prelimi- nary.	Intermediate.		Final.		
			Account- ancy.	Legal.	Account- ancy.	Legal.	
Association of Accountants of Australia (incorporated)	13	...	2	3	1	1	70
Australasian Corporation of Public Accountants	112	50	25	18	13	6	211
The Institute of Public Accountants of Australasia	16	...	2	8	2	1	103
Incorporated Institute of Accountants, Victoria (N.S.W. Branch)	174	...	52	52	27	16	177
Institute of Incorporated Accountants of N.S.W.	110	14	20	15	6	9	149
Society of Incorporated Accountants and Auditors, England	1	...	1	1	...	...	15
Federal Institute of Accountants, Incorporated (N.S.W. Division)	88	...	71	57	56	72	87

A Select Committee appointed by Parliament in December, 1914, to report upon matters relating to accountancy, recommended that the profession should be given legal status under a controlling board.

Examinations for bank clerks are conducted by the Institute of Bankers; 225 candidates were examined during 1917, and 110 passed.

Persons desirous of acting as clerks, auditors, engineers, and overseers, in connection with the Local Government Services are required to furnish evidence of their efficiency, in accordance with the provisions of the Local Government Acts.

Examinations for admission of junior clerks and draftsmen to the Public Service of New South Wales have been conducted under the supervision of the Public Service Board. During 1917 there were 496 candidates for 130 vacancies for junior clerks, 214 were successful; for 21 vacancies for cadet draftsmen there were 99 candidates, of whom 35 attained the requisite standard. The Public Service Board has recently adopted the certificate examinations of the Education Department for admission of persons to the service.

EDUCATIONAL AND SCIENTIFIC SOCIETIES.

Various organisations exist which have for their objective the encouragement of professional interests, the advancement of Science, Art, and Literature, and the promotion of the social well-being of the members. The Commonwealth Government has afforded a measure of recognition to the efforts of Australian men of letters by establishing in 1908 a Commonwealth Literary Fund to provide pensions and allowances to literary men and their families.

As far back as the year 1821 a scientific society, under the title of the Philosophical Society of Australasia, was founded in Sydney, and after many vicissitudes of fortune was merged, in 1866, into the Royal Society of New South Wales. Its objects are the advancement of science in Australia, and the encouragement of original research in all subjects of scientific, artistic, and philosophic interest, which may further the development of the resources of Australia, draw attention to its productions, or illustrate its natural history.

The study of the botany and natural history of Australia has attracted many enthusiastic students, and the Linnean Society of New South Wales was established for the special purpose of furthering the advancement of these particular sciences. The Society has been richly endowed, and possesses a commodious building at Elizabeth Bay, Sydney, attached to which are a library and museum. The proceedings are published at regular intervals, and contain many valuable papers, with excellent illustrations of natural history.

Other important scientific societies are the Royal Zoological Society of New South Wales, inaugurated in 1879; a branch of the British Medical Association, founded in 1881; a branch of the British Astronomical Association; the Australian Association for the Advancement of Science; the Royal Geographical Society; the University Science Society; Australian Historical Society; and the Naturalists Society of New South Wales.

All the learned professions are represented by associations or societies.

The Royal Art Society holds an annual exhibition of artists' work at Sydney; and of the many musical societies, mention may be made of the Royal Sydney Apollo Society, and the Royal Sydney Philharmonic Society.

MUSEUMS, LIBRARIES, AND ART GALLERIES.

Recognising that Museums, Libraries, and Art Galleries are powerful factors in promoting the intellectual well-being of the people, the Government of New South Wales has been active in founding and maintaining such establishments.

The expenditure by the State on buildings for Museums, Libraries, and Art Galleries during the year ended 30th June, 1918, amounted to £6,523.

Museums.

The Australian Museum, the oldest institution of its kind in Australia, was founded in Sydney in 1836 as a Museum of Natural History; it contains fine specimens of the principal objects of natural history, and a valuable collection of zoological and ethnological specimens of distinctly Australian character. The specimens acquired during 1917 numbered 11,653, of which 4,929 were purchased, and the remainder collected, exchanged, or donated. A fine library is attached to the institution, containing many valuable publications, the volumes numbering about 22,500. Lectures and gallery demonstrations are given in the Museum, and are open to the public. During the year 1917, visitors to the Museum numbered 179,018. On Mondays students and artists only are admitted.

In 1853 the Museum, till then managed by a committee, was incorporated under control of trustees, with a State endowment, which is now supplemented by annual Parliamentary appropriations. The expenditure during the year 1917 amounted to £9,121.

A Technological Museum was instituted in Sydney at the close of 1879 under the administration of a committee of management appointed by the trustees of the Australian Museum. The whole original collection of some 9,000 specimens was destroyed in 1882 by fire. Efforts were at once made to replace the lost collection, and in December, 1883, the Museum was again opened to the public. In 1890 it was transferred to the Department of Education, as an adjunct to the Technical College, and now contains a valuable series of specimens illustrative of various stages of manufacturing, and an excellent collection of natural products acquired by purchase, gift, loan, and exchange. Technological Museums are established also at Goulburn, Bathurst, West Maitland, Newcastle, and Albury.

Research work is conducted by the scientific staff of the Technological Museum in connection with the development of the natural vegetable resources of Australia, particularly in respect of the pines and eucalypts.

The functions of the Mining and Geological Museum include the preparation of collections of minerals to be used as teaching aids in schools and in other institutions.

The Agricultural and Forestry Museum is an adjunct of the Department of Agriculture.

The public have access to the "Nicholson" Museum of Antiquities, the "Macleay" Museum of Natural History, the Museum of Normal and Morbid Anatomy, attached to the Sydney University, and the National Herbarium and Botanical Museum at the Botanic Gardens. Housed in the Macleay Museum is the Aldridge collection of Broken Hill minerals.

PUBLIC LIBRARY OF NEW SOUTH WALES.

The Public Library of New South Wales was established, under the designation of the Free Public Library, on 1st October, 1869, when the building and books of the Australian Subscription Library, founded in 1826, were purchased by the Government. The books thus acquired formed the nucleus of the present Library. In 1890 the Library was incorporated with a statutory endowment of £2,000 per annum for the purchase of books.

The scope of the Public Library, which is essentially a reference institution, is extended by a loan system, under which books are forwarded to country libraries, schools of arts, progress associations, lighthouses, individual students in the country, and to Public School Teachers' Associations, and branches of the Agricultural Bureau.

In 1917 the Reference Department of the Public Library contained 212,778 volumes, including volumes for country libraries under the lending system. The attendance of visitors during 1917 numbered 151,790.

In 1899 Mr. David Scott Mitchell donated to the trustees of the Public Library a collection of 10,024 volumes, together with 50 valuable pictures, and at his death, in 1907, bequeathed to the State the balance of a unique collection, principally of books and manuscripts relating to Australasia, and containing over 60,000 volumes, and 300 framed paintings of local historic interest, valued at £100,000. He also endowed the Library with an amount of £70,000, from which the income amounting to about £2,750 per annum is expended on books and manuscripts. In 1917 there were 96,202 volumes in the Mitchell Library, which is located in a separate building, opened in March, 1910. There were 17,236 visitors during the year.

The total cost to the State of the public library buildings was £28,957, and of the Mitchell Library £43,118.

The following statement shows the expenditure of the Public Library, including the Mitchell Library, during the last five years:—

Year.	Salaries.			Books, &c., and Binding.	Miscel- laneous.	Mitchell Library Endowment Account.	Total.
	Reference.	Mitchell.	Country Libraries.				
	£	£	£	£	£	£	£
1913	4,534	2,521	200	2,409	2,306	2,084	14,054
1914	4,641	2,421	200	1,920	2,235	5,209	16,626
1915	4,897	2,438	229	2,826	2,181	2,025	14,596
1916	4,895	2,494	347	3,350	1,500	2,035	14,621
1917	4,961	2,650	584	2,124	1,837	2,705	14,861

SYDNEY MUNICIPAL LIBRARY.

The Sydney Municipal Library was formed by the transfer to the City Council in 1908-9 of the lending branch of the Public Library. An "open access" system was introduced, and a new classification adopted.

Maintenance costs during 1917 amounted to £5,740, made up as follows:—Salaries, &c., £3,864; books, periodicals, binding, and electric lighting, £1,876.

OTHER LIBRARIES.

Local libraries established in the principal population centres throughout the State, may be classed broadly under two heads—Schools of Arts, receiving an annual subvention in proportion to the amount of monetary support accorded by the public; and Free Libraries, established in connection with municipalities. Under the provisions of the Local Government Act, any shire or municipality may establish a public library, art gallery, or museum.

The library of the Australian Museum, though intended primarily as a scientific library for staff use, is accessible to students, and about 22,500 volumes may be found on the shelves.

On 31st December, 1917, the library in connection with the Technological Museum, at the Central Technical College, and its branches, contained 8,219 text-books, &c.

The Parliamentary Library contains over 52,000 books, and large numbers of volumes are at the libraries of the Law Courts and Government Offices.

The Bush Book Club, a private foundation, is intended to provide books to people in localities not served usually by Schools of Art, &c., and in sparsely settled districts.

Private circulating libraries, the subscribers to which are charged comparatively small fees, are used extensively.

NATIONAL ART GALLERY OF NEW SOUTH WALES.

The National Art Gallery contains a good collection of paintings and statuary, including some works of prominent modern artists, and some valuable gifts from private persons; there is also a fine collection of water colours.

The present value of the contents of the Gallery is £152,000, and the cost of the building to 30th June, 1918, was £94,437.

The number of paintings, &c., in the Gallery at the end of year 1917 was 2,117, and the total amount expended in purchasing works of art during that year was £1,021 distributed as shown below:—

Classification.	Paintings, &c., in Gallery.	Expenditure during year.
	No.	£
Oil Paintings	443	841
Water Colours	413	40
Black and White Works	653	110
Statuary, Casts, and Bronzes	168	...
Various Art Works in Metals, Ivory, Ceramics, Glass, Mosaic, &c.	440	30
Total	2,117	1,021

The attendance at the National Art Gallery during 1917 was, on week-days, 139,170, and on Sundays 90,253.

Art students, under certain regulations, may copy any of the various works, and enjoy the benefit of a collection of books of reference on art subjects. In 1894 a system of loan exchanges between Sydney, Melbourne, and Adelaide was introduced, by which pictures are sent from Sydney to Melbourne and Adelaide and reciprocally, with results most beneficial to the interests of art. Since 1895 the distribution of loan collections of pictures to the principal country towns is permitted for temporary exhibition; during 1917, 137 pictures were so distributed among eight country towns.

The total disbursements in connection with the National Art Gallery during the year 1917 were £4,405, inclusive of £1,021 on account of works of art.

The Gallery has received but small support from private endowments, and, consequent upon its limited funds, is restricted mainly to the collection of specimens of contemporary art.

The Wynne Art Prize was instituted in 1897, and consists of the interest on approximately £1,000, which is awarded annually to the Australian artist producing the best landscape painting of Australian scenery in oils or water colours, or the best production of figure sculpture executed by an Australian sculptor.

CONSERVATORIUM OF MUSIC.

At the close of the year 1917 there were 940 students at the State Conservatorium of Music. Concert and lecture-concerts are open to the public, and a Library of Music attached to the Conservatorium contains many valuable works which are available for the use of recognised musical societies and organisations.

POPULATION.

EARLY ENUMERATIONS.

THE first census of New South Wales was taken during the month of November in the year 1828, the result being a total of 36,598 persons, of whom 27,611 were males and 8,987 were females, showing a large preponderance of the male sex.

After 1828 there was a rapid increase in population, induced by the steady development which resulted from the progressive public policy inaugurated during the governorship of Sir Richard Bourke, and from the expansion of settlement which followed the opening of the country by exploration. A system of assisted immigration was introduced on a scale of annually increasing dimensions, and attained definite strength in the year 1832, so that at the census of 1833 the population had increased to 60,794, being an advance of over 24,000 on the number in 1828, or of 66 per cent. during the period of five years.

The enumerations shown below are those for the Colony of New South Wales within the boundaries existing at the time of taking the census.

Date of Census.	Males.	Females.	Total.	Increase.	
				Number.	Per cent.
1828, November ...	27,611	8,987	36,598	...	...
1833, September 2 ...	44,644	16,150	60,794	24,196	66·1
1836, September 2 ...	55,539	21,557	77,096	16,302	26·8
1841, March 2 ...	87,298	43,558	130,856	53,760	69·7
1846, March 2 ...	114,769	74,840	189,609	58,753	44·9
1851, March 1 {	Incl. Victoria } 155,845	112,499	268,344	78,735	41·5
	Excl. Victoria } 109,643	81,356	190,999	...	...
1856, March 1 ...	150,488	119,234	269,722	78,723	41·2

With the rapid expansion of settlement a great demand for labour was created, and the high rates of wages attracted a large influx of unassisted immigrants. The most powerful factor in promoting the development of Australia was, however, the discovery of rich goldfields in 1851.

Victoria was founded in July, 1851, by the separation of the District of Port Phillip, with a population of 77,345, from New South Wales. For purposes of comparison, the population at the census of 1851 has been shown in the above table, both inclusive and exclusive of Victoria.

After the census year of 1856 there was yet another reduction in the territory of New South Wales, when in 1859 Queensland, with a population of 16,907, was separated.

A further, though comparatively small, reduction in area and in population took place on the 1st January, 1911, when the Federal Capital Territory was transferred to the Commonwealth.

CENSUS ENUMERATIONS, 1861-1911.

At the census taken in New South Wales on the 7th April, 1861, the ascertained population was 350,860. Thereafter the numbers were determined decennially, and the last census was taken on the 3rd April, 1911, when the population had increased to 1,648,746. This number does not include the population of the Federal Capital Territory, which at the census of 1911 numbered 997 males and 727 females, or 1,724 persons, of whom 10 were aborigines. The population of New South Wales at each census period from 1861 to 1911 is stated below, and the estimated population as at 31st December, 1917. Aboriginal natives are included, except in 1861, when they were not enumerated; their number in 1911 was 2,012 (1,152 males and 860 females).

Year.	Males.	Females.	Total.	Increase since Previous Census.
1861	198,488	152,372	350,860	...
1871	275,551	228,430	503,981	153,121
1881	411,149	340,319	751,468	247,487
1891	612,562	519,672	1,132,234	380,766
1901	712,456	646,677	1,359,133	226,899
1911	858,850	789,896	1,648,746	289,613
1917	934,252	954,877	1,889,129	240,383

The relative increase from census to census may be measured according to the several methods shown in the following statement. In the first column the population in 1861 is taken as a basis.

Year.	Index Number of Population.	Increase since previous Census		Persons per Square Mile.
		During Period.	Average Annual Rate.	
1861	100	per cent. ...	per cent. ...	1.12
1871	144	43.64	3.69	1.61
1881	214	49.11	4.08	2.41
1891	323	50.67	4.19	3.64
1901	387	20.04	1.84	4.38
1911	470	21.31	1.95	5.32
1917	538	14.58	2.04	6.09

The following statement shows the population of each State of the Commonwealth at the last census, in comparison with the estimated population as at the 31st December, 1917, and the average annual rate of increase during the period. The figures are exclusive of aborigines of full-blood.

State.	Census Population, 1911.	Estimated Population, December, 1917.	Proportion in Each State.		Average Annual Rate of Increase since Census, 1911.
			1911.	1917.	
New South Wales	1,646,734	1,889,129	per cent. 36·96	per cent. 38·29	per cent. 2·66
Victoria	1,315,551	1,411,004	29·53	28·60	1·04
Queensland	605,813	677,827	13·60	13·74	1·67
South Australia	408,558	436,214	9·17	8·84	0·98
Western Australia	282,114	309,423	6·33	6·27	1·38
Tasmania	191,211	203,177	4·29	4·12	0·90
Northern Territory	3,310	4,908	0·08	0·10	6·01
Federal Capital Territory	1,714	2,104	0·04	0·04	3·08
Commonwealth	4,455,095	4,933,786	100·00	100·00	1·52

SEX DISTRIBUTION.

Prior to the outbreak of war in 1914, and the consequent enlistment of eligible men for service, the number of males in New South Wales had always exceeded the number of females. In the early days the disparity was very marked, but there has been a gradual tendency towards an equal sex distribution. The distribution of the sexes at each census since 1861 and at the end of 1917 was as follows:—

Year.	Proportion of Males.	Proportion of Females.	Males per 100 Females.
	per cent.	per cent.	No.
1861	56·57	43·43	130
1871	54·67	45·33	121
1881	54·86	45·14	121
1891	54·14	45·86	118
1901	52·42	47·58	110
1911	52·09	47·91	109
1917	49·45	50·55	98

From 1871 to 1881 the proportion of males remained constant at about 55 per cent., but immigration was checked towards the end of the next decade, and in 1891 the proportion of males had decreased slightly. During the following period there was very little immigration, and in 1901 the difference between the sexes had become less than at any previous period,

the proportion of males being 52·42 per cent., or 110 males to every 100 females. At the census of 1911 the percentages were—males 52·09, females 47·91, or 109 males to every 100 females. At the end of the year 1917 it was estimated that there were 93 males per 100 females, a ratio brought about by successive embarkations of males of military age for service abroad.

ESTIMATES OF POPULATION.

Reliable estimates of the population are required during the intercensal periods for many purposes affecting the welfare of the community. Apart from its value as the standard by which other statistics are measured, the population is used as the basis of important political and financial arrangements between the Government of the Commonwealth and the individual States, as, for instance, in the distribution amongst the States of representation in the Federal Parliament, and in the determination of the amount of revenue to be paid back to each State by the Commonwealth.

The elements of increase of the population are the excess of births over deaths, which is termed "natural increase," and the excess of immigration over emigration. The registers of births and deaths ensure a reliable return of the natural increase, but it is unfortunate that the records of arrivals and departures are defective, as in a young and progressive country the element of migration is extremely variable.

The records of overland migration are not perfect, but they give with approximate accuracy the gain or loss to the State across its borders. In the case of the sea traffic, however, the returns are less reliable, as there are persons whose departure is not recorded. The usual practice has been to assume that arrivals as recorded are correct, and to add to the recorded departures, as an allowance for the unrecorded, a certain percentage of those departures based on the experience of the preceding intercensal period. This method is not altogether satisfactory, as when the census is taken it is found that the estimate differs more or less from the census figure, and it becomes necessary to adjust the estimates for all the years between census enumerations, so that they may not appear incompatible with census results.

At different periods Conferences of the Statisticians of the several States of the Commonwealth have been held for the purpose of devising a uniform method of estimating population.

The estimated population of New South Wales, including aborigines, at the end of each of the last ten years, was as follows:—

Year.	Estimated Population at End of Year.			Annual Increase.		Mean Population.
	Males.	Females.	Total.	Numerical.	Per cent.	
1908	809,240	750,786	1,560,026	28,046	1·83	1,545,700
1909	829,329	767,356	1,596,685	36,659	2·35	1,577,200
1910	852,680	785,540	1,638,220	41,535	2·60	1,616,200
1911	889,391	809,345	*1,698,736	62,240	3·80	1,664,500
1912	935,979	842,983	1,778,962	80,226	4·72	1,738,600
1913	962,749	869,707	1,832,456	53,494	3·01	1,809,400
1914	967,033	894,995	1,862,028	29,572	1·59	1,853,400
1915	953,162	917,253	1,870,415	8,387	0·45	1,868,200
1916	923,113	934,807	1,857,920	(—)12,495	(—)0·67	1,866,300
1917	934,252	954,877	1,889,129	31,209	1·68	1,874,400

* Exclusive of 1,724 persons, the population of the Federal Capital Territory, which has been excluded in all subsequent years. (—) Denotes a decrease of population.

THE SOURCES OF INCREASE.

The following statement shows the extent to which each source contributed to the growth of the population during the census periods from 1861; in calculating the increase from 1901 to 1911, the population of the Federal Capital Territory has been taken into consideration, and aborigines have been included.

Period.	Increase.			Average Annual Rate of Increase.		
	By Excess of Births over Deaths.	By Excess of Immigration over Emigration.	Total Increase.	By Excess of Births over Deaths.	By Excess of Immigration over Emigration.	Total.
				per cent.	per cent.	per cent.
1861-71	106,077	47,044	153,121	2.68	1.27	3.69
1871-81	140,382	107,105	247,487	2.49	1.95	4.08
1881-91	211,301	169,465	380,766	2.51	2.05	4.19
1891-1901	226,676	223	226,899	1.84	...	1.84
1901-11	247,865	43,472	291,337	1.69	0.32	1.96
1911-17 *	223,264	19,131	242,395	1.60	0.17	2.05

* Six years and nine months.

The rate of natural increase fell steadily throughout each intercensal period, and reached its lowest point in 1903, when it was only half the average annual rate during the period 1861-71. The fall was caused by the declining birth-rate, as the death-rate had shown constant improvement. Since 1903, however, the rate of natural increase has risen. During the period 1911-17 (six years and nine months) the excess of births over deaths reached 1.90 per cent. During individual years of the period 1911-17 the rate has fluctuated greatly. In 1916 the excess of births over deaths fell to 1.72 per cent., the lowest point touched since 1908, when it was 1.68 per cent., a result no doubt largely owing to the withdrawal from the community for service of a considerable number of married and prospective married men of military age. In 1917 there was a marked improvement, the excess of births over deaths rising to 1.86 per cent.

In the year 1891 immigration ceased, and during the next decade the population progressed solely by reason of the natural increase, as the excess of arrivals was only 223. The balance of migration was, moreover, affected by the rush of men to Western Australia after the discovery of gold in 1894, and by the departure of over 5,000 troops to the war in South Africa, from 1899 to 1901. After that war the troops returned to New South Wales, and in 1905 State assistance to immigrants was restored, so that the experience of 1901-11 was an improvement on that of the ten years prior to 1901.

MIGRATION.

The following table shows the arrivals in and departures from New South Wales by sea and by land during the last ten years, allowance being made for those unrecorded.

Year.	Arrivals.			Departures.		
	By Sea.	By Land.	Total.	By Sea.	By Land.	Total.
1908	101,589	143,570	245,159	93,521	150,027	243,548
1909	106,310	144,199	250,509	92,504	149,275	241,779
1910	111,525	163,691	275,216	96,514	166,509	263,023
1911	141,667	198,458	340,125	111,295	197,088	308,383
1912	163,788	221,609	385,397	125,010	213,268	338,278
1913	146,749	234,441	381,190	125,184	234,914	360,098
1914	143,143	257,016	400,159	145,937	259,488	405,425
1915	110,098	275,955	386,053	141,194	269,747	410,941
1916	95,111	303,030	398,141	149,121	293,736	442,857
1917	75,158	234,673	309,831	89,091	224,029	313,120

The large movement of population each year can hardly be described as immigration or emigration in the strict sense in which those terms are used, as it is due largely to the arrival and departure of tourists and business men. Of the total movement, 80 per cent. is with the other Australian States, and one-third of the movement with countries outside Australia is with New Zealand.

The War had a marked effect on the increase of population. During the four years 1914-17 the net loss of population to various countries amounted to 78,173. New South Wales gained during this period 41,906 persons from the other Australian States, 1,828 from New Zealand, 1,256 from the United Kingdom, 361 from India, 205 from other countries; and lost by emigration to British Possessions other than Australia and New Zealand, and to foreign countries, 123,715, but 0,911 of these were soldiers. The gain by immigration from the United Kingdom in 1914 amounted to 4,510, and in 1915 to 793; but during 1916 and 1917 there was a net loss of 801 and 3,246 respectively. During 1917 there were 1,666 persons withdrawn from the community as crews; and the excess of departures to various countries over arrivals amounted to 3,289, including 3,246 to the United Kingdom, 100 to Canada, 275 to other British Possessions, and 309 to the United States of America.

After the revival of the assisted immigration policy in 1905 there had been a steadily increasing excess of arrivals from the United Kingdom, amounting in 1912 to 25,278. Owing to great improvement in labour conditions in Great Britain, and keener competition among Oversea Dominions for British emigrants, the gain from the United Kingdom in 1913 was less than in 1912. During 1914, in consequence of the War, the addition to the population from this source numbered only 4,510; in 1915 the number of assisted immigrants had dwindled to 1,695, and practically ceased at the end of the year.

STATE-ASSISTED IMMIGRATION.

Recognising the need of a more rapid increase in population, in order to develop the vast resources and latent wealth of the country, the State Government, prior to the outbreak of the Great War, made arrangements for the systematic advertisement in the United Kingdom of the advantages offered to immigrants. The cost of the passage to desirable settlers was partly paid by Government; and residents of New South Wales were enabled to arrange, by nomination, assisted passages for relatives and friends.

Under an agreement with the States, the Federal Government co-operated in the scheme by undertaking the advertisement of the resources of Australia, while the selection of immigrants was conducted by the representatives of the individual States, which also arranged the assisted passages.

The number of persons assisted to immigrate during the ten years 1908-17 is shown hereunder.

Year.	Total Assisted Immigrants.			Nominated by Relatives or Friends in New South Wales (Included in Preceding).		
	Males.	Females.	Total.	Males.	Females.	Total.
1908	...	...	3,048	...	...	1,237
1909	...	...	4,308	...	...	1,979
1910	3,039	2,019	5,058	1,406	1,530	2,936
1911	5,880	4,042	9,922	3,647	3,279	6,926
1912	8,361	6,595	14,956	5,278	5,545	10,823
1913	4,181	5,682	9,863	3,336	4,909	8,335
1914	2,463	3,161	5,624	1,574	2,440	4,014
1915	535	1,161	1,696	495	825	1,320
1916	185	470	655	184	395	579
1917	68	188	256	63	167	230
1918	31	167	198	31	167	198

Full details relating to assisted immigration are shown in the chapter on Employment and Industrial Arbitration in this Year Book.

THE DISTRIBUTION OF POPULATION.

The distribution of population estimated as at the 31st December, 1917, together with the proportion in each Division and the average population per square mile, is shown in the subjoined table.

Division.	Area.	Estimated Population, 1917.		
		Total.	Proportion in Each Division.	
	sq. miles.		per cent.	per sq. mile.
Sydney	5	106,000	5.6	21,200.0
Suburbs	180	671,300	35.6	3,729.4
Metropolis	185	777,300	41.2	4,201.6
Country Municipalities	2,853	453,800	24.0	159.1
*Shires	180,531	644,060	34.1	3.6
Western Division (Part unincorporated).	125,893	13,856	0.7	0.1
Lord Howe Island	5	113	0.0	22.6
Total, New South Wales ...	309,467	1,889,129	100.0	6.1

* The Ku-ring-gai Shire, area 36 sq. miles, population 14,820, is included with the suburbs of the metropolis.

The population of the metropolis represents more than two-fifths of the total population; less than one-quarter resides in the country municipalities, and over one-third in the other incorporated areas.

The area of the Federal Capital Territory, transferred to the Commonwealth, is about 900 square miles. At the 31st December, 1917, its estimated population was 2,104.

THE POPULATION OF THE METROPOLIS.

The metropolis includes Sydney, the forty municipalities which surround it, and the Ku-ring-gai Shire, as well as the islands of Port Jackson, and embraces an area of 185 square miles. The boundaries may be described roughly as follow: On the east, the sea-coast; on the south, the waters of Botany Bay and George's River; on the west, the western boundaries of Hurstville, Canterbury, Enfield, Strathfield, Homebush, Concord, and Ryde; on the north, the northern boundaries of Eastwood and Ryde, the western and eastern boundaries of Ku-ring-gai Shire, the north-eastern boundary of Willoughby, and the northern boundary of Manly. The habitations within these limits are fairly continuous.

The following statement shows the population of each municipality of the metropolis, and of Ku-ring-gai Shire, at the census of 1911, and as at the 31st December, 1917:—

Municipality.	Population.		Municipality.	Population.	
	Census, April, 1911.	Estimated, 31st Dec., 1917.		Census, April, 1911.	Estimated, 31st Dec., 1917.
City of Sydney*...	119,771	106,000	Manly	10,465	14,110
Alexandria ...	10,123	11,450	Marrickville ...	30,653	37,810
Annandale ...	11,240	12,480	Mascot	5,836	8,920
Asbfield ...	20,431	23,440	Mosman	13,243	17,260
Balmain ...	32,038	33,380	Newtown	26,498	27,890
Bexley	6,517	11,100	North Sydney ...	34,646	41,330
Botany	4,409	5,750	Paddington ...	24,317	25,880
Burwood ...	9,380	12,990	Petersham ...	21,712	23,980
Canterbury ...	11,335	26,580	Randwick	19,463	34,200
Concord ...	4,076	6,820	Redfern	24,427	25,020
Darlington ...	3,816	3,840	Rockdale	14,095	20,440
Drummoyne ...	8,678	13,990	Ryde	5,281	9,870
Eastwood ...	968	1,480	St. Peter's ...	8,410	10,730
Enfield	3,444	5,980	Strathfield ...	4,046	5,760
Erskineville ...	7,299	7,670	Vaucluse	1,672	2,640
Glebe	21,943	22,710	Waterloo	10,072	11,220
Homebush ...	676	1,120	Waverley	19,831	28,390
Hunter's Hill ...	5,013	5,890	Willoughby ...	13,036	21,550
Hurstville ...	6,533	10,920	Woollahra	16,989	20,700
Kogarah	6,953	13,050	Ku-ring-gai Shire	9,458	14,820
Lane Cove ...	3,306	5,160			
Leichhardt ...	24,254	27,980	Total	636,353	777,300

* Includes shipping and the islands of Port Jackson.

The metropolitan population is unevenly distributed. At the census of 1911 two-fifths of the inhabitants resided within an area of less than 7,000 acres, having a density from 30 to 90 per acre, one-third occupied about 24,000 acres, with an average density of 10, and the remainder were scattered over about 88,000 acres, having a density of a little over 1 per acre.

The population of the metropolis at census periods and on the 31st December, 1917, is shown in the following table, together with the proportion which the metropolitan population bears to that of the whole State.

Year.	Census Population.			Males per 100 Females.	Percentage of Population of Whole State.
	Males.	Females.	Total.		
1871	68,266	70,913	139,179	96·21	27·62
1881	114,936	112,230	227,166	102·41	30·23
1891	197,550	189,884	387,434	104·04	34·22
1901	241,700	246,232	487,932	98·16	35·90
1911	312,074	324,279	636,353	96·24	38·55
1917	...	...	*777,300	...	41·15

* Estimated, 31st December.

A comparison of the population of the chief cities (including suburbs) of each State of the Commonwealth is shown herewith.

Metropolis.	Census, 1911.			Estimated Population, 31st Dec., 1917.	Proportion of Population of Whole State.
	Males.	Females.	Total.		
Sydney	305,728	323,775	629,503	777,300	41·15
Melbourne	277,956	311,015	588,971	708,240	50·19
Brisbane	67,628	71,852	139,480	173,504	25·60
Adelaide	90,578	99,068	189,646	225,317	51·65
Perth	53,231	53,561	106,792	130,000	42·01
Hobart	18,487	21,450	39,937	40,352	19·86

The census populations given above are exclusive of shipping, and for this reason the population of Sydney differs from that shown in the previous table.

THE COUNTRY DISTRICTS OF NEW SOUTH WALES.

In the opening stages of the history of New South Wales settlement followed the main roads, but with the establishment of the railway the population settled within reach of the railway lines. In the coastal area, where the bulk of the people dwells, the development of the towns has more than kept pace with the general population. Thus, in the Valley of the Hunter, with its large agricultural and mining industries, population has made rapid strides. Newcastle and suburbs, for instance, increased from 7,810 in 1861 to 54,991 in 1901, and the estimated population in 1917 was 59,600. Though Wollongong has increased considerably in population, the Illawarra District as a whole, notwithstanding its rich deposits of coal and the fertility of its pasture-lands, has stagnated, if not declined; whilst the dairy, maize, and sugar-growing districts of the Clarence and Richmond Rivers have increased generally in their urban population. A number of industrial works have been established around Lithgow, which has become an important centre of the western coalfields, and the site of a small-arms and munitions factory. On the 31st December, 1917, the country districts contained 1,111,829 inhabitants, or 58·8 per cent. of the total estimated population.

The following statement shows the population of the country municipalities of New South Wales containing more than 2,000 inhabitants as at the census of 1911, and at the 31st December, 1917.

Municipality.	Census, 1911.	Estimated, Dec., 1917.	Municipality.	Census, 1911.	Estimated, Dec., 1917.
Albury	6,300	6,400	Lismore	7,331	8,350
Armidale	4,738	5,150	Lithgow	8,196	10,400
Auburn	5,559	11,050	Liverpool	3,933	3,930
Ballina	2,061	2,600	† Maitland	11,313	11,700
Bankstown	2,039	5,750	Morée	2,331	3,100
Bathurst	8,575	8,450	Mudgee	2,942	2,900
Broken Hill	30,972	27,000	Murrumburrah	2,136	2,300
Casino	3,420	4,350	Murwillumbah	2,506	3,500
Cobar	4,430	3,100	‡ Narrabri	3,330	3,300
Cooma	2,063	2,000	Narrandera	2,374	2,400
Coonamble	2,262	2,500	Newcastle, includ- ing Suburbs.	55,380	59,600
Cootamundra	2,967	3,150	Orange	6,721	7,000
Corowa	2,063	2,100	Parkes	2,935	3,200
Cowra	3,271	3,900	Parramatta	12,465	12,250
Cudgegong	2,678	2,500	Penrith	3,682	3,700
Deniliquin	2,494	2,400	Prospect and Sher- wood.	3,332	5,350
Dubbo	4,452	4,700	Quirindi	2,240	2,550
Forbes	4,436	5,100	Singleton	2,996	2,950
Glen Innes	4,080	4,450	Smithfield and Fair- field.	2,226	3,250
Goulburn	10,023	10,000	Tamworth	7,145	7,750
* Grafton	5,888	6,350	Temora	2,784	3,250
Granville	7,231	11,350	Tenterfield	2,792	2,800
Gunnedah	3,005	3,400	Wagga Wagga	6,419	7,000
Hay	2,461	2,100	Wellington	3,958	4,250
Illawarra, Central ..	5,000	5,300	Windsor	3,463	3,400
Illawarra, North ...	5,157	5,600	Wollongong	4,660	5,350
Inverell	4,549	5,250	Yass	2,136	2,000
Junee	2,531	2,650	Young	3,139	3,400
Katoomba	4,923	6,600			
Kempsey	2,862	3,100			
Lidcombe	5,418	8,100			

* Includes South Grafton.

† East and West.

‡ Includes West Narrabri.

PERSONS OF NON-EUROPEAN RACES.

Legislative measures to restrict the influx of coloured aliens were passed in New South Wales in the early days of self-government. Public feeling was first aroused by the entry of large numbers of Chinese, and the enactments imposed limitations on the immigration of this race only. Subsequently, however, these restrictive powers were extended to regulate the influx of all coloured aliens.

At the establishment of the Commonwealth the control of the conditions relating to immigration was transferred to the Federal Parliament. The Federal legislation relating to the restriction of immigration does not aim at the exclusion of the people of any particular race or colour, but of undesirable immigrants generally. Under its provisions no person is allowed to land who fails to pass a dictation test in any European language chosen by the Customs Officers. This test has not been applied to any desirable immigrant of European nationality. Paupers, criminals, lunatics, and other persons likely to be a source of danger to public health or morals, are excluded.

Provision is made also to prevent the immigration of labourers under contract to perform manual labour if their arrival has any connection with an industrial dispute, or if the contract-rate of wages is less than that current in the district where the work is to be performed.

At the census of 1911 the number of persons of non-European races, other than aborigines, residing in New South Wales was 13,140, and was representative of the very small proportion of 8 per 1,000 of the total population. The most numerous were the Chinese, who constituted 70 per cent. of the coloured aliens, Hindus and Syrians following in the order given.

The Chinese.

The Chinese were first attracted to this State by the gold discoveries. At the census of 1861 they numbered 12,988, exclusive of half-castes, who were not enumerated until 1891. From 1861 to 1871 the number declined, probably on account of the diminution in the gold-yield and the discovery of richer goldfields in the neighbouring States; but in 1878 there was a steady increase in the arrivals from China, and this lasted until about 1888, when an effective check was given to their immigration by the Chinese Restriction and Regulation Act.

The following table shows the number of Chinese (including half-castes) in Australia at each census since 1891.

State.	1891.	1901.	1911.
New South Wales (including Federal Capital Territory) ...	14,156	11,263	9,358
Victoria	9,377	6,956	5,601
Queensland	8,574	9,313	6,714
South Australia (including Northern Territory)	3,997	3,455	1,698
Western Australia... ..	917	1,569	1,872
Tasmania	1,056	609	529
Total, Commonwealth	38,077	33,165	25,772

At the census of 1911 there were 3 Chinese in the Federal Capital area, and 1,339 in the Northern Territory.

THE ABORIGINES.

It is difficult to form a correct estimate of the number of aborigines; but though there is reason to believe that they were formerly numerous, they have decreased rapidly before the advance of settlement and systematised occupation.

Governor Phillip estimated the aboriginal population, about the year 1790, at 1,000,000, of which number about 3,000 lived between Broken and Botany Bays. The latter estimate was very likely correct, but the first Governor doubtless based his calculation on the assumption that the resources of the unlocked Continent were as great as those of the strip of settlement immediately under his notice.

The aborigines were never properly counted until the census of 1891, when they were classed as full-blood and half-caste. In 1901 the full-blood and nomadic half-caste only were counted. In reckoning the quota to determine the number of Members to which the State is entitled in the House of Representatives (in accordance with the provisions of the Commonwealth Constitution Act), aboriginal natives of Australia are not included. It has been decided that only full-bloods are aborigines within the meaning of the Act, and consequently in 1901 and 1911 half-castes were included in the

general population. The number shown in the following table for the census of 1911 represents only those who were employed by whites, or who were living in the vicinity of white settlements at the date of the census. In 1861 aborigines were not enumerated; in 1871 and 1881 the wandering tribes were passed over, and those only who were civilised, or who were in contact with Europeans, were enumerated and included in the general population. The number of full-blood aborigines in New South Wales at each census is shown below; the figures for 1911 are exclusive of the Federal Capital Territory, in which were enumerated 10 aborigines—5 males and 5 females.

Census.	Males.	Females.	Total.
1871	709	274	983
1881	938	705	1,643
1891	4,559	3,721	8,280
1901	2,451	1,836	4,287
1911	1,152	860	2,012

In 1891 the number of half-castes was 1,663 males and 1,520 females. In 1901 the number of both full-bloods and half-castes was 4,093 males and 3,341 females, and of these 509 were nomads—259 males and 250 females. In addition to the 2,012 full-bloods at the census of 1911, half-castes were enumerated numbering 4,512; of which total 2,335 were males and 2,177 were females.

The Board for the Protection of Aborigines many years ago was constituted to safeguard the interests of the aboriginal population, and reserves were dedicated in different parts of the State, dwellings erected, and the means of livelihood organised. The residents on these reservations are encouraged in the tillage of the soil, and supplied with tools and seeds, and their children are educated. Under an Act passed in 1909 the control of the reserves was vested in the Board, and its powers of administration were considerably amplified with a view to the amelioration of the conditions of the aborigines. Information relating to the work of the Board will be found in a later chapter of this Year Book.

NATURALISATION.

Under the Commonwealth Naturalisation Act, which came into operation on 1st January, 1904, the issue of naturalisation certificates became a function of the Commonwealth Government.

Since 1849 certificates have been granted in New South Wales to 17,236 persons. Germans numbered 6,684; Swedes, 1,752; Russians, 1,108; Danes, 1,143; Italians, 968; and French, 796. Only two Chinese have been naturalised in New South Wales since 1887, but prior to that year 908 had obtained certificates.

Records of the occupations of persons naturalised show that labourers, seamen, cooks, carpenters, farmers, miners, fruiterers, engineers, and firemen were the most numerous, in the order given.

VITAL STATISTICS.

REGISTRATION OF BIRTHS, DEATHS, AND MARRIAGES.

Civil registration of births, deaths, and marriages was inaugurated in New South Wales in March, 1856, when a general registry was established, and a Registrar-General appointed by the Governor. The laws relating to registration were consolidated by the Registration of Births, Deaths, and Marriages Act, 1899, and the Acts relating to marriage by the Marriage Act, 1899.

New South Wales has been divided into 213 registry districts, in each of which a District Registrar has been appointed.

All births must be registered by the parent within sixty days. After the expiration of sixty days no birth may be registered unless, within six months, a declaration is furnished by the parent, or by some person present at the birth. Within six months of the arrival in New South Wales of a child under the age of 18 months, born outside the State, the birth may be registered upon declaration by the parent, if the parents intend to reside in New South Wales. Still-births are not registered.

Notice of the death of any person must be supplied to the District Registrar by a relation of the deceased, or by the householder or tenant of the house or place in which the death occurs.

Marriages may be celebrated only by District Registrars or by ministers of religion registered for that purpose by the Registrar-General. In the former case, the parties to be married must sign, before the Registrar of the district in which the intended wife ordinarily resides, a declaration that they conscientiously object to be married by a minister of religion, or that there is no minister available for the purpose of performing the marriage.

Marriage with a deceased wife's sister is valid in New South Wales.

MARRIAGES.

The number of marriages celebrated in New South Wales during 1917 was 13,261, corresponding to a rate of 7·07 per 1,000 of the population. This showed a marked decline on the record of 1915, when the number of marriages was 18,129, and the rate was 9·70.

The following table shows the average annual number of marriages and the rates per 1,000 of the population during each quinquennium since 1870.

Period.	Average Number of Marriages.	Rate per 1,000 of Population.	Period.	Average Number of Marriages.	Rate per 1,000 of Population.
1870-74	4,091	7·77	1900-04	10,240	7·37
1875-79	4,987	7·88	1905-09	12,080	7·97
1880-84	6,738	8·39	1910-14	15,978	9·20
1885-89	7,679	7·67	1915	18,129	9·70
1890-94	7,954	6·80	1916	16,320	8·74
1895-99	8,700	6·74	1917	13,261	7·07

Until the year 1891 the increase in the number of marriages was remarkably steady, but in 1892 there was a decline, which continued until

1895, when the figures again took an upward movement, though the proportion married per 1,000 of the population did not reach the 1891 level until 1900. In 1901 the rate was the highest since 1886, but in the next two years it declined again considerably. From 1904 to 1912 there was a constant improvement. Compared with the rates of the quinquennium 1905-09, the marriage rate of 1914 disclosed an advance of over 17 per cent. It is probable that the high rate for 1915 was due to a number of marriages contracted by soldiers prior to their departure for the war, and the decline in 1916 and 1917 to the withdrawal of marriageable men from the total population.

Of the bachelors marrying in New South Wales only $4\frac{1}{4}$ per cent. are outside the ages 20-44, and of the spinsters less than $1\frac{1}{2}$ per cent. are outside the ages 15-39. Adopting these therefore as the marriageable ages of the sexes, the following table shows, at the census years 1871 to 1911, the proportion of bachelors and of spinsters married per 1,000 unmarried males and females within the specified groups.

Year.	Proportion of Bachelors Married per 1,000 Unmarried Males Aged 20 to 44.	Proportion of Spinsters Married per 1,000 Unmarried Females Aged 15 to 39.
1871	65.60	87.07
1881	65.21	82.32
1891	57.85	71.28
1901	65.92	62.69
1911	79.11	74.96

Up to 1891 the female rate was the higher, but since that year the male rate has exceeded the female, as a result of the increase in the proportion of females in the population.

The marriage rate is an intimate reflex of the comparative prosperity of a country, and a high marriage rate is an obvious proof of the existence of a considerable proportion of marriageable persons in the community. From each point of view the facts in respect to New South Wales are satisfactory.

The following statement shows the marriage rate per 1,000 of the population in each State of the Commonwealth of Australia and in New Zealand in 1917, and in a number of other countries in 1914.

State.	1917.	Country.	1914.
South Australia ...	7.52	Roumania ...	8.5
Queensland ...	7.16	England and Wales ...	8.0
New South Wales ...	7.07	Italy ...	7.5
Victoria ...	6.76	Scotland ...	7.4
New Zealand ...	5.84	Denmark ...	6.9
Tasmania ...	5.72	Netherlands ...	6.7
Western Australia ...	5.25	Spain ...	6.5
		Norway ...	6.5
		Sweden ...	5.8
		Ireland ...	5.4
		France ...	5.1

A comparison of the marriage rates of various countries may be misleading, on account of the different conditions of life and the varying number of marriageable persons.

MARK SIGNATURES IN MARRIAGE REGISTERS.

The number of persons who signed the marriage register with marks in the year 1917 was 122, equal to 4·60 per 1,000 persons married.

In 1870 the proportion of signatures made with marks was as high as 18·23 per cent. of the whole, and this significant decrease in illiteracy is emphatic evidence of the efficiency of the State system of public instruction.

MARRIAGES ACCORDING TO DENOMINATIONAL RITES.

Of every hundred marriages performed in New South Wales, about ninety-seven are celebrated by ministers of religion licensed under the authority of the Registrar-General. The number of marriages at which clergymen officiated during the year 1917 was 12,802, and of those contracted before District Registrars 459, or a proportion respectively of 96·5 and 3·5 per cent.

As compared with the previous quinquennial period, the returns relating to marriages solemnised by the Church of England and the Roman Catholic denominations showed increased rates for the year 1917. The following table gives the number and proportion per cent. of marriages registered by the several denominations during 1917, in comparison with the preceding quinquennium.

Denomination.	Marriages, 1912-1916.	Proportion per cent.	Marriages, 1917.	Proportion per cent.
Church of England	36,010	42·47	5,763	43·46
Roman Catholic	15,549	18·34	2,830	21·34
Presbyterian	11,614	13·70	1,683	12·69
Methodist	11,589	13·69	1,583	11·94
Congregational	3,581	4·22	294	2·22
Baptist	1,536	1·81	187	1·41
Hebrew	247	0·29	49	0·37
All Other Sects	2,599	3·06	413	3·11
District Registrars	2,052	2·42	459	3·46
Total Marriages	84,777	100·00	13,261	100·00

CONDITION BEFORE MARRIAGE.

During the year 1917, of the males married, 12,260 were bachelors, 851 were widowers, and 150 were divorced. Of the females, 12,289 were spinsters, 784 were widows, and 188 were divorced. The proportion of males re-married was 7·55 per cent., and of females 7·33 per cent.

The following table shows at quinquennial intervals since 1881 the proportion of first marriages and of re-marriages, per 10,000 married.

Period.	Bachelors.	Widowers and Divorced Men.	Spinsters.	Widows and Divorced Women.
1881	9,087	913	9,044	956
1886	9,137	863	9,156	844
1891	9,229	771	9,216	784
1896	9,184	816	9,172	828
1901	9,270	730	9,268	732
1906	9,262	738	9,352	648
1911	9,407	593	9,456	544
1916	9,377	623	9,362	638
1917	9,245	755	9,267	733

The foregoing figures emphasize the fact of a growth, in widowers no less than in widows, of a disinclination for re-marriage. In the case of both sexes this aversion to a re-entry into the condition of wedlock increased by about 33 per cent. from the earliest period given in the table, widows displaying a slightly greater aversion to the contraction of a second union. The rise in the proportion during the interval 1901-6 was followed by an increased declension during the succeeding quinquennium.

AGE AT MARRIAGE.

Of the 13,261 couples married in 1917, the ages of 13,257 bridegrooms and 13,259 brides were recorded. In 73·4 per cent. of the marriages the man was older than the woman, in 9·1 per cent their ages were the same, and in the remaining 17·5 per cent. the bride was older than the bridegroom.

The following statement shows the average age at marriage both of bridegrooms and of brides for each of the last ten years. The difference between the ages at marriage of males and females is now about 3½ years, the males being the older.

Year.	Average Age of—		Average Age of—		Year.	Average Age of—		Average Age of—	
	All Bridegrooms.	Bachelors.	All Brides.	Spinsters.		All Bridegrooms.	Bachelors.	All Brides.	Spinsters.
	years.	years.	years.	years.		years.	years.	years.	years.
1908	29·0	28·0	25·7	24·6	1913	28·8	27·8	25·5	24·7
1909	29·1	28·1	25·3	24·7	1914	28·8	27·9	25·6	25·0
1910	29·0	28·2	25·3	24·6	1915	28·7	28·0	25·5	25·0
1911	28·8	28·0	25·3	24·7	1916	29·1	28·4	26·1	25·2
1912	28·9	28·4	25·3	25·0	1917	29·7	28·5	26·0	25·0

The average age at marriage, of both bridegrooms and brides, has remained practically constant during the last ten years, although there is now a tendency to a slightly higher average on the part of both sexes.

The foregoing figures relate to all persons marrying during the year, and to those contracting unions for the first time. During 1917 the average marrying age of bachelors was about fifteen months lower than of all bridegrooms, and of spinsters, thirteen months lower than in the case of all brides.

THE MARRIAGES OF MINORS.

The number of persons under 21 years of age who were married during 1917 was 3,335, or 12·6 per cent. of the total. The proportion of bridegrooms who were minors was 4·0 per cent., and of brides 21·1 per cent. The following are the figures at decennial intervals since 1881.

Year.	Minors.		Percentage of—	
	Bridegrooms.	Brides.	Bridegrooms.	Brides.
1881	149	1,660	2·37	26·42
1891	177	2,085	2·09	24·65
1901	351	2,546	3·33	24·15
1911	701	3,499	4·59	22·92
1917	535	2,799	4·04	21·11

Compared with the early years the proportion of minors increased among bridegrooms up to the year 1912, when it gradually decreased, but it decreased continuously, with infrequent fluctuations, among brides.

BIRTHS.

The number of births registered during 1917 was 52,467, equal to a rate of 27·99 per 1,000 of the population, but 3·1 per cent. below the average for the last quinquennium. The number registered during 1915, namely 52,885, was the highest recorded in New South Wales for any single year. The birth-rate fell away sharply after 1888, and declined continuously till 1903, but since that year there has been an improvement, and the rate in 1912 was the highest since 1895.

The following table shows the average annual number of births and the birth-rate per 1,000 of the total population in quinquennial periods since 1870.

Year.	Average Births.	Birth-rate per 1,000 of Population.	Year.	Average Births.	Birth-rate per 1,000 of Population.
1870-74	20,733	39·36	1900-04	37,498	26·99
1875-79	24,388	38·51	1905-09	41,788	27·56
1880-84	30,417	37·89	1910-14	50,190	28·90
1885-89	36,877	36·85	1915	52,885	28·31
1890-94	39,550	33·80	1916	52,075	27·90
1895-99	37,042	28·68	1917	52,467	27·99

The rates shown in this table are calculated by the usual crude method of relating the births to the total population. It is unsatisfactory, for several reasons, so to measure the birth-rate. A preferable method for purposes of strict analysis is to relate the mothers of various ages to the total number of women at corresponding ages, or to relate the births to the number of women of child-bearing ages.

These methods can be followed with exactitude only at census dates since at any other time it is very difficult to make a reliable estimate of the number living at various ages, on account of migration and other influences.

The birth-rate per 1,000 of the population of each State of the Commonwealth, of New Zealand, and of a number of countries, according to the latest information, is given in the following table.

State.	1917.	Country.	1914.
Queensland	29·05	Roumania	42·5
New South Wales	27·99	Italy	31·7
Tasmania	27·03	Spain	29·8
South Australia	26·21	Prussia (1913)	28·2
New Zealand	25·67	Netherlands	28·2
Western Australia	25·54	Scotland	26·1
Victoria	23·50	Denmark	25·6
		Norway	25·2
		United States (Registration area)	24·9
		England and Wales	23·8
		Switzerland (1913)	23·1
		Sweden	22·9
		Ireland	22·6
		France	18·0

The Australian birth-rates are lower than in several of the countries of the Old World, but as will be shown subsequently this is more than counter-balanced by a much lower death-rate.

BIRTH-RATES—METROPOLIS AND REMAINDER OF THE STATE.

During the year 1917 the births recorded in the metropolitan district of New South Wales numbered 20,278, and in the remainder of the State 32,189, or 26·30 and 29·17 per 1,000 of the population respectively. Prior to the year 1893 the metropolitan birth-rate was the higher, but since then, with the exception of the year 1913, the country has consistently shown a higher rate.

Period.	Number of Births.			Births per 1,000 of Population.		
	Metropolis.	Remainder of State.	New South Wales.	Metropolis.	Remainder of State.	New South Wales.
1880-84	49,058	103,026	152,084	40·15	36·90	37·89
1885-89	65,866	118,517	184,383	41·50	34·69	36·85
1890-94	68,754	128,998	197,752	34·11	33·63	33·80
1895-99	61,224	123,986	185,210	26·73	29·75	28·68
1900-04	63,694	123,795	187,489	25·16	28·05	26·99
1905-09	72,409	136,529	208,938	25·50	28·80	27·56
1910-14	95,529	155,423	250,952	28·26	29·32	28·90
1915	20,871	32,014	52,885	27·55	28·83	28·31
1916	20,856	31,219	52,075	27·31	28·32	27·90
1917	20,278	32,189	52,467	26·30	29·17	27·99

THE SEXES OF CHILDREN.

Of the 52,467 children born during the year (exclusive of those still-born), 26,988 were males and 25,479 were females, the proportion being 106 males to 100 females. In no year, as far as observation extends, have the female births exceeded in number those of males, although the difference has sometimes been very small. The preponderance of births of male children in New South Wales during a number of years is shown in the following table.

Year.	Males.	Females.	Total.	Year.	Males.	Females.	Total.
1870-74	10,577	10,156	20,733	1900-04	19,134	18,364	37,498
1875-79	12,477	11,911	24,388	1905-09	21,406	20,382	41,788
1880-84	15,567	14,850	30,417	1910-14	25,728	24,462	50,190
1885-89	18,898	17,979	36,877	1915	27,105	25,780	52,885
1890-94	20,324	19,226	39,550	1916	26,599	25,476	52,075
1895-99	18,979	18,063	37,042	1917	26,988	25,479	52,467

The excess of males over females born during the past fifty-eight years has ranged from 2 per cent. in 1875, 1876, and 1901, to about 8·7 per cent. in 1864, the average being 5 per cent.

It is noteworthy that in the case of illegitimate births, the rate for males has always maintained the ascendancy, save in the quinquennial period 1885-89 and in the year 1915, when the rate for females predominated slightly.

The following table shows the number of males born to every 100 females, both in legitimate and illegitimate births, during the last forty-eight years.

Year.	Legitimate Births.	Illegitimate Births.	All Births.	Year.	Legitimate Births.	Illegitimate Births.	All Births.
1870-74	104·3	101·0	104·1	1900-04	104·3	102·8	104·2
1875-79	104·6	108·8	104·8	1905-09	105·0	104·9	105·0
1880-84	104·9	103·9	104·8	1910-14	105·2	105·1	105·2
1885-89	105·4	98·8	105·1	1915	105·4	99·8	105·1
1890-94	105·7	105·4	105·7	1916	104·4	103·7	104·4
1895-99	105·0	105·4	105·1	1917	106·0	104·6	105·9

The proportion of males born during the war years was very little different from that in the pre-war years.

ILLEGITIMACY.

The number of illegitimate births in 1917 was 2,533, equal to 4·83 per cent. of the total births. A statement of the illegitimate births in New South Wales, distinguishing between the metropolis and the remainder of the State, is given here with.

Year.	Number of Illegitimate Births.			Ratio per cent. to Total Births.		
	Metropolis.	Remainder of State	New South Wales.	Metropolis.	Remainder of State.	New South Wales.
1880	561	665	1,226	6·72	3·36	4·35
1890	1,056	995	2,051	7·81	3·91	5·26
1900	1,222	1,383	2,605	10·08	5·53	7·01
1905	1,530	1,382	2,912	11·11	5·37	7·37
1910	1,530	1,370	2,900	9·44	4·67	6·37
1915	1,480	1,201	2,681	7·09	3·75	5·07
1916	1,334	1,167	2,501	6·40	3·74	4·80
1917	1,383	1,150	2,533	6·82	3·57	4·83

The proportion of illegitimate to total births increased steadily from 1880 to 1905, since which year there has been an appreciable decline.

The smaller proportion of illegitimate births in the extra-metropolitan area is doubtless partly due to the fact that prospective mothers journey to the metropolis, not only for the sake of the advantages of lying-in at one of the public maternity hospitals, but to avoid the publicity of their unfortunate condition.

THE LEGITIMATION ACT OF 1902.

In 1902 an Act was passed to legitimise children born before the marriage of their parents, provided that no legal impediment to the marriage existed at the time of birth. On registration in accordance with the provisions of the Legitimation Act, any child who comes within the scope of its intentions, born before or after the passing thereof, is deemed to be legitimised from birth by the post-natal union of its parents, and entitled to the status of offspring born in wedlock. Since the passing of the Act there have been 4,159 registrations. The number in each of the last ten years is shown in the following table.

Year.	Registrations.	Year.	Registrations.
1908	238	1913	298
1909	267	1914	393
1910	288	1915	416
1911	394	1916	420
1912	405	1917	390

PLURAL BIRTHS.

During the year 1917 there were 630 cases of plural births. The children thus born numbered 1,263 (exclusive of five still-births), and included 622 cases of twins (616 males and 623 females), and eight cases of triplets (18 males and 6 females). Of these 630 cases, 30 were classified as illegitimate. The number of children born at plural births formed 2·41 per cent. of the total births.

The following table shows the number of cases of twins, triplets, and quadruplets born in New South Wales during the last ten years, excluding those still-born, and distinguishing legitimate and illegitimate.

Cases of—	Legitimate.	Illegitimate.	Total.
Twins	5,062	236	5,298
Triplets	46	4	50
Quadruplets ...	1	...	1

The total number of confinements recorded during the ten years was 489,460; hence the rates per million confinements were :—10,824 cases of twins, 102 of triplets, and 2 of quadruplets; otherwise stated, there were 109 plural births in every 10,000 confinements.

NATURAL INCREASE.

In the year 1917 the excess of births over deaths, or as it is termed the "natural increase," was 34,498, which exceeded that of the year 1916 by 2,277, but was below that of some previous years.

The following table shows the natural increase of population during the ten years, 1908 to 1917, for the metropolis, for the remainder of the State, and for the whole of New South Wales.

Year.	Natural Increase.					Increase per cent. of Population at end of previous Year.
	Metropolis.	Remainder of State.	Whole of State.			
			Males.	Females.	Total.	
1908	8,825	17,610	12,320	14,115	26,435	1·73
1909	9,312	18,617	13,297	14,632	27,929	1·79
1910	9,839	19,503	14,094	15,248	29,342	1·84
1911	10,856	19,642	14,504	15,994	30,498	1·86
1912	12,459	20,648	15,526	17,581	33,107	1·95
1913	12,597	19,805	15,091	17,311	32,402	1·82
1914	13,218	21,620	16,433	18,405	34,838	1·90
1915	12,682	20,593	15,648	17,627	33,275	1·79
1916	12,700	19,521	15,114	17,107	32,221	1·72
1917	12,760	21,738	16,529	17,969	34,498	1·86

On account of the more favourable death rates, the rate of natural increase has improved during the last twenty years, and in 1917 it was higher than in any year from 1896 to 1910.

Although male births are more numerous than those of females, the increase of population from the excess of births over deaths is greatly in favour of the latter. The male population certainly exceeds the female, but there is a correspondingly larger number of deaths among males. There is also a greater mortality among male than among female children, a cause from which alone the natural excess of male births is almost neutralised. During the ten years which closed with 1917, the number of females added to the community by excess of births exceeded the males by 17,433, or 11·7 per cent

The rate of natural increase in New South Wales is not exceeded in any country outside Australasia, as will be seen from the following table. The figures represent the birth and the death rates, and the difference between them (the natural increase) per 1,000 of mean population in each country—for the Australian States and the Dominion of New Zealand for 1917, and for the majority of other countries for 1914.

Country.	Birth-rate.	Death-rate.	Natural Increase.	Country.	Birth-rate.	Death-rate.	Natural Increase.
Queensland ...	29.1	9.6	19.5	Hungary (1912) ...	36.3	23.3	13.0
Roumania ...	42.5	23.8	18.7	Norway ...	25.2	13.5	11.7
New South Wales ...	28.0	9.6	18.4	Finland (1913) ...	27.1	16.1	11.0
Tasmania ...	27.0	8.9	18.1	*United States (1915) ...	24.9	14.0	10.9
Jamaica ...	38.9	21.4	17.5	Austria (1912) ...	31.3	20.5	10.8
Servia (1912) ...	38.0	21.1	16.9	Scotland ...	26.1	15.5	10.6
Western Australia ...	25.5	9.0	16.5	England and Wales ...	23.8	14.0	9.8
New Zealand ...	25.7	9.6	16.1	Chile... ..	37.0	27.8	9.2
South Australia ...	26.2	10.1	16.1	Sweden ...	22.9	13.8	9.1
Netherlands ...	28.2	12.4	15.8	Switzerland (1913)...	23.1	14.3	8.8
Japan (1911)...	34.1	20.4	13.7	Belgium (1912) ...	22.6	14.8	7.8
Prussia (1913) ...	28.2	14.9	13.3	Spain ...	29.8	22.1	7.7
Italy ...	31.1	17.9	13.2	Ireland ...	22.6	16.3	6.3
Victoria ...	23.5	10.4	13.1	Ceylon ...	38.1	32.2	5.9
Denmark ...	25.6	12.6	13.0	France ...	18.0	19.6	(-)-1.6

* Registration Area.

From the foregoing figures it may be seen readily that the countries with the highest birth-rate have not necessarily the highest rate of natural increase; the increase in population depends also upon the death-rate, which is influenced to a considerable extent by the birth-rate.

DEATHS.

During the year 1917 the deaths numbered 17,969, equal to a rate of 9.59 per 1,000 of the population, which is 9.9 per cent. below that for the year 1916, and lower than any rate previously experienced. The total included 10,459 male and 7,510 female deaths, or a ratio for the former of 11.28, and for the latter of 7.93 per 1,000 living of each of the sexes. The average annual number of deaths from 1870 with the rate per 1,000, in quinquennial periods, was as follows:—

Period.	Average Annual Number of Deaths.			Death-rate per 1,000 of Total Population.		
	Males.	Females.	Total.	Males.	Females.	Total.
1870-74	4,391	2,948	7,339	15.58	12.32	13.93
1875-79	6,199	4,360	10,559	17.99	15.10	16.67
1880-84	7,286	5,124	12,410	16.55	14.14	15.46
1885-89	8,461	6,043	14,504	15.43	13.36	14.49
1890-94	8,877	6,344	15,221	14.06	11.77	13.01
1895-99	9,002	6,514	15,516	13.11	10.77	12.01
1900-04	9,195	6,733	15,928	12.65	10.17	11.47
1905-09	9,076	6,583	15,659	11.52	9.04	10.33
1910-14	10,598	7,555	18,153	11.66	9.13	10.45
1915	11,457	8,153	19,610	11.92	8.99	10.50
1916	11,485	8,369	19,854	12.22	9.04	10.64
1917	10,459	7,510	17,969	11.28	7.93	9.59

The death-rate has fallen continuously for both sexes, but slightly more for males than for females. The death-rate for males is, however, about one-fourth higher than for females, the reason being that males are exposed to more and greater risks than females, and that male infants are the more delicate. It will be noticed that the death-rate has declined markedly since the period 1885-89, coincidently with the decline in the birth-rate. The falling birth-rate has influenced the death-rate, inasmuch as it has affected the age-constitution of the population by reducing the proportion living at the first five years, at which the mortality is high, and at the same time increasing the proportion living at ages from 5 upward, at which the mortality is low.

A table of the death-rates per 1,000 for each of the Australian States, and for New Zealand, for 1917, and for a number of other countries, for 1914, is given herewith for purposes of comparison.

State.	1917.	Country.	1914.
Victoria	10·36	Roumania	23·8
South Australia	10·10	Spain	22·1
Queensland	9·64	France	19·6
<i>New South Wales</i>	9·59	Italy	18·7
New Zealand	9·58	Ireland	16·3
Western Australia	8·97	Scotland... ..	15·5
Tasmania	8·89	Prussia (1913)	14·9
		Switzerland (1913)	14·3
		England and Wales	14·0
		Sweden	13·8
		United States (Regis- tration area).	13·6
		Norway	13·5
		Denmark	12·6
		Netherlands	12·4

The comparatively favourable health conditions of Australasia will be manifest from an inspection of these rates. New South Wales occupied the fourth place in the list for 1917, with a rate of 9·59, as against the higher rates of Victoria, South Australia, and Queensland; though the parent State does not compare quite so well with Tasmania, Western Australia, and New Zealand.

It might have been expected that the rates of European countries in any case would be higher than those of New South Wales, on account of the larger proportion of old persons in their populations.

DEATHS—METROPOLIS AND REMAINDER OF THE STATE.

It is not possible to show the exact difference between urban and rural mortality in New South Wales, but an approximate idea may be obtained from a comparison of the experience of the metropolis with that of the remainder of the State, which is, of course, not absolutely rural, as a few large towns are contained therein. Separating the State, however, into these two broad divisions, during the year 1917 the record of deaths for the metropolis was 7,518, and for the remainder of the State 10,451, equivalent respectively

to rates of 9.75 and 9.47 per 1,000 of the living. The average annual number of deaths and the rate per 1,000 in each of these divisions since 1880, in five-year periods, is given in the subjoined table.

Period.	Metropolis.		Remainder of the State.		New South Wales.	
	Average Number of Deaths.	Ratio per 1,000 Living.	Average Number of Deaths.	Ratio per 1,000 Living.	Average Number of Deaths.	Ratio per 1,000 Living.
1880-84	5,033	20.60	7,377	13.21	12,410	15.46
1885-89	6,181	19.47	8,323	12.18	14,504	14.49
1890-94	5,979	14.83	9,242	12.05	15,221	13.01
1895-99	5,634	12.30	9,882	11.86	15,516	12.01
1900-04	5,845	11.54	10,083	11.42	15,923	11.47
1905-09	5,979	10.53	9,680	10.21	15,659	10.33
1910-14	7,312	10.81	10,841	10.23	18,153	10.45
1915	8,189	10.81	11,421	10.29	19,610	10.50
1916	8,156	10.68	11,698	10.61	19,854	10.64
1917	7,518	9.75	10,451	9.47	17,969	9.59

The death-rate has improved steadily both in the metropolis and in the remainder of the State, but notably so in the former, where it is now very little higher than in the latter, whereas thirty years ago it was 50 per cent. in advance. The improvement dates from the quinquennium beginning with the year 1890, and is coincident with the installation of the modern system of sewage and the enforcement of the provisions of the Dairies Supervision Act of 1886. The marked decline in the rates for each Division and for the State as a whole is evident from the fact that the metropolitan rate for the period 1885-9 was 19.5 per 1,000, and for the year 1917 it was 9.75, or a difference of 50 per cent.; for the same dates the rates for the remainder of the State were respectively 12.2 and 9.5, or a difference of 22 per cent.; and for the whole State, 14.5 and 9.6, or a difference of 34 per cent.

THE MORTALITY OF INFANTS AND YOUNG CHILDREN.

A further measure of the mortality rates for the metropolis and for the remainder of the State, which affords a most sensitive test, is obtained by a comparison of the death-rates of infants in each Division.

Children under 1 Year.

During the year 1917 the children who died before completing the first year of life numbered 3,016, equivalent to a rate of 57.5 per 1,000 births. This rate, which is the lowest on record, is 22 per cent. below the average for the last decade, which included several years of exceptionally low infantile mortality. To the total the metropolis contributed 1,212 deaths, or 59.8 per 1,000 births, and the remainder of the State 1,804, or 56.0 per 1,000 births.

The following table shows the average annual number of deaths of children under 1 year, in the metropolis and in the remainder of the State, and the proportion per 1,000 births in quinquennial periods since the year 1880.

Period.	Metropolis.		Remainder of State.		New South Wales.	
	Deaths under 1.	Rate per 1,000 Births.	Deaths under 1.	Rate per 1,000 Births.	Deaths under 1.	Rate per 1,000 Births.
1880-84	1,707	174·0	1,956	94·9	3,663	120·4
1885-89	2,168	164·6	2,256	95·2	4,424	120·0
1890-94	1,908	138·8	2,471	95·8	4,379	110·7
1895-99	1,646	134·4	2,572	103·7	4,218	113·9
1900-04	1,416	111·2	2,399	96·9	3,815	101·7
1905-09	1,255	86·7	2,035	74·5	3,290	78·7
1910-14	1,437	75·2	2,211	71·1	3,648	72·7
1915	1,516	72·6	2,087	65·2	3,603	68·1
1916	1,428	68·5	2,105	67·4	3,533	67·8
1917	1,212	59·8	1,804	56·0	3,016	57·5

The remarkable improvement in the infantile mortality rate in the metropolis is partly due to the measures adopted to combat preventable diseases. A scheme for the preservation of infant health was formulated by the Sydney Municipal Council in 1903, and instructional pamphlets were circulated for the guidance of mothers in the care and feeding of young children. In the following year trained women inspectors were appointed to visit mothers in the populous parts of the city and in the surrounding suburbs. Further efforts to reduce infantile mortality led to the establishment of Baby Clinics in Sydney and Newcastle in 1914, and subsequently in Broken Hill. The Notification of Births Act, 1915, enables the health authorities to obtain early knowledge of the birth of a child, and empowers them to bring infants under their supervision immediately after birth, when measures for the prevention of illness are most efficacious. Details regarding the Baby Clinics will be found in a later chapter.

The death-rate is higher for male infants than for females, the rates in 1917 being 64·8 and 49·7 per 1,000 births respectively. The rates for each sex are shown in the following table in quinquennial periods since 1880.

Period.	Males.		Females.	
	Deaths under 1.	Rate per 1,000 Births.	Deaths under 1.	Rate per 1,000 Births.
1880-84	1,992	127·9	1,671	112·5
1885-89	2,405	127·2	2,019	112·3
1890-94	2,413	118·7	1,966	102·3
1895-99	2,304	121·4	1,914	105·9
1900-04	2,077	108·5	1,738	94·6
1905-09	1,832	85·6	1,458	71·5
1910-14	2,037	79·2	1,611	65·8
1915	2,023	74·6	1,580	61·3
1916	1,966	73·9	1,567	61·5
1917	1,750	64·8	1,266	49·7

The death-rate of female infants has improved more than the male rate, having declined from 112·5 per 1,000 births in 1880-84 to 49·7 in 1917, or by 55·8 per cent., while the male rate has decreased from 127·9 per 1,000 births to 61·8, or by 49·3 per cent.

During the period reviewed the excess of the male infantile deaths fluctuated from 16·4 per 1,000 births in the quinquennium 1890-94 to 12·4 in 1916. The excess is illustrated also in a later table which shows that out of 10,000 children of each sex born alive, 9,193 boys and 9,327 girls will survive the first year after birth.

Reference to the table on page 145 shows that the death-rate for male infants is higher than for female infants in regard to all the causes to which the majority of infantile deaths are attributed, *i.e.*, premature birth, infantile debility, diarrhœa and enteritis.

Of the total number of deaths of infants under 1 year of age about one-third die within a week of birth; at the end of the first month the proportion is over two-fifths; and at the end of three months, three-fifths. Approximately, one child in every 45 born dies within a week of birth. The following statement shows for 1917, in comparison with the average of the preceding quinquennium, the deaths per 1,000 births during each of the first four weeks after birth, and then for each successive month. The experience in the metropolis is distinguished from that in the remainder of the State, the sexes are taken together, and for the year 1917 the illegitimate children are distinguished from the legitimate for the State as a whole.

Age.	Metropolis.		Remainder of State.		New South Wales.			
					1912-16.	1917.		
	1912-16.	1917.	1912-16.	1917.		Legitimate.	Illegitimate.	Total.
Under 1 week	23·6	22·1	23·1	23·4	23·3	22·0	40·3	22·9
1 week	3·9	3·5	3·9	3·6	3·9	3·6	4·0	3·6
2 weeks	2·4	1·9	2·6	2·4	2·5	2·1	4·7	2·2
3 „	2·0	1·4	2·1	1·7	2·1	1·4	4·3	1·6
Total under 1 month	31·9	28·9	31·7	31·1	31·8	29·1	53·3	30·3
1 month	6·1	4·8	6·6	5·1	6·0	4·7	10·7	5·0
2 months	4·9	4·0	4·2	3·2	4·5	3·2	9·1	3·5
3 „	5·1	3·7	3·7	2·3	4·3	2·5	9·9	2·9
4 „	4·1	3·4	4·1	1·9	4·1	2·2	7·5	2·5
5 „	3·5	2·7	3·3	1·9	3·4	2·0	6·7	2·2
6 „	3·6	2·1	3·3	1·9	3·4	1·8	5·1	2·0
7 „	3·3	2·0	2·9	2·1	3·1	2·0	2·8	2·0
8 „	2·6	2·5	3·0	1·7	2·8	1·9	4·7	2·0
9 „	2·7	2·0	2·7	1·7	2·7	1·7	3·9	1·8
10 „	2·5	1·8	2·5	1·8	2·5	1·7	3·5	1·8
11 „	2·7	1·9	2·4	1·3	2·5	1·5	2·4	1·5
Total under 1 year ...	73·0	59·8	69·8	56·0	71·1	54·3	119·6	57·5

In the first week of life the mortality is six times as great as in the second, and in the second about twice as great as in the fourth. During the second month the mortality falls rapidly, and thereafter gradually. Comparing the mortality in the metropolis and in the remainder of the State, the usual experience is that at every stage of life more children die in the former. In 1917 the rate per 1,000 births was 59·8 in the metropolis, and 56·0 in the remainder of the State. During the previous quinquennial period the metropolitan rate was 6 per cent. higher than that for the remainder of the State.

The table shows a great waste of life among illegitimate children, the mortality under 1 year being 119·6 per 1,000, as compared with 54·3 among legitimate children. The largest proportional excess is not immediately after birth, but about three months later. During the first week the mortality of illegitimates exceeds that of legitimates by 83 per cent.; thereafter it increases until, in the third month, the excess is 207 per cent.; after this it drops irregularly, until in the eleventh month it amounts to 60 per cent.

The following statement furnishes a comparison of the rates of infantile mortality in the Australian States, in New Zealand, and in various other countries. The rates indicate the deaths under one year per 1,000 births.

State.	1917.	Country.	1914.
<i>New South Wales</i>	59·8	Chile	286
<i>Western Australia</i>	57·1	Ceylon	213
<i>Victoria</i>	56·8	Roumania	187
<i>Queensland</i>	53·9	Italy (1913)	137
<i>South Australia</i>	53·1	Finland (1913)	113
<i>Tasmania</i>	52·3	Scotland	111
<i>New Zealand</i>	48·2	England and Wales	105
		Ontario, Canada	103
		*United States (1915)	100
		Denmark	98
		Netherlands	95
		Ireland	87

* Registration Area.

Of the rates shown in the foregoing table, that for New Zealand is the best; but the rates for Australasia generally are greatly superior to those prevailing in the other countries for which records are available.

Children under 5 Years.

There has been a great improvement in the death-rate of children under 5 years—an improvement which is most marked in the metropolis, where the rate has declined by 65 per cent. since 1890, as compared with 49 per cent. in the remainder of the State. At every period shown in the subjoined table the metropolitan rate, however, was the higher, being in some cases over 50, and never below 7 per cent. in excess until 1917, when the excess was only 1·5 per cent.

The following table shows the mortality in each Division, in periods of five years since 1890, of children under 5 years of age.

Period.	Metropolis.		Remainder of State.		New South Wales.	
	Average Annual Number.	Rate per 1,000 Living.	Average Annual Number.	Rate per 1,000 Living.	Average Annual Number.	Rate per 1,000 Living.
1890-94	2,674	48.45	3,546	32.06	6,220	37.52
1895-99	2,206	40.77	3,487	30.97	5,693	34.15
1900-04	1,846	35.17	3,210	29.64	5,056	31.44
1905-09	1,612	27.61	2,723	23.39	4,335	24.80
1910-14	1,895	25.47	2,986	21.77	4,881	23.07
1915	2,187	24.60	2,977	19.95	5,164	21.69
1916	2,019	21.84	3,052	20.17	5,071	20.80
1917	1,576	16.73	2,499	16.49	4,075	16.58

The improvement in the metropolis has been greater than in the remainder of the State, the rate having decreased since 1890 by 65 per cent. in the former, and in the latter by 49 per cent. Outside the metropolis the rate did not vary to any significant extent until 1904, when there was a marked decline, which has been continuous. Compared with the mortality rate of a quarter of a century ago, during the year 1917 there was a saving of 32 lives in every 1,000 children under 5 years of age in the metropolis, and of 16 in the remainder of the State.

The following table shows for 1917, and for the quinquennial period preceding, the death-rates of illegitimate children under one year and under five years of age, as compared with those of legitimate children of like ages.

Age.	Legitimate.		Illegitimate		Total.	
	Deaths.	Rate per 1,000 Living.	Deaths.	Rate per 1,000 Living.	Deaths.	Rate per 1,000 Living.
Under 1 year—						
1912-16	16,552	66.47	2,113	154.28	18,665	71.05
1917	2,713	54.33	303	119.62	3,016	57.48
Under 5 years—						
1912-16	23,258	21.45	2,502	42.80	25,760	22.54
1917	3,712	15.83	363	32.27	4,075	16.58

The foregoing figures show the poor chance of survival afforded to the illegitimate as compared with that of the legitimate infant, since at each of the ages specified the death-rate of the former was twice that of the latter; and it is a fact of the utmost gravity that in the year 1917 one-eighth of the children illegitimately born, died before completing the first year of existence.

CHILDREN SURVIVING AT THE AGE OF FIVE YEARS.

The tables just given show the death-rates of children under one and under 5. In the next statement will be found, out of 10,000 children born alive, of both sexes, the number living at each period up to five years of age.

The table, which is unadjusted, is based on the experience of the ten years 1906-15, and it appears that out of 10,000 boys born 1,039 die before reaching 5 years of age, and out of 10,000 girls 906 die. Of these, 249 boys and 199 girls die within the first week of birth, and 327 boys and 260 girls within the first month. At the end of the first year there will be 9,193 boys and 9,327 girls surviving.

NUMBER OF CHILDREN LIVING AT EACH AGE OUT OF 10,000 BORN ALIVE.

Age.			Boys.	Girls.	Age.			Boys.	Girls.
0 week	...	...	10,000	10,000	7 months	...	...	9,333	9,455
1 "	...	...	9,751	9,901	8 "	...	...	9,298	9,426
2 weeks	...	...	9,705	9,765	9 "	...	...	9,268	9,400
3 "	...	...	9,673	9,740	10 "	...	...	9,241	9,372
1 month	...	...	9,648	9,720	11 "	...	...	9,217	9,349
2 months	...	...	9,573	9,660	1 year	...	...	9,193	9,327
3 "	...	...	9,515	9,615	2 years	...	...	9,059	9,188
4 "	...	...	9,464	9,567	3 "	...	...	8,999	9,130
5 "	...	...	9,416	9,523	4 "	...	...	8,961	9,094
6 "	...	...	9,375	9,487					

THE INDEX OF MORTALITY.

In order to compare the death-rates of New South Wales with those of the other Commonwealth States on a uniform basis, allowance must be made for the age-constitution of the populations, and the death-rate (index of mortality) of each has been calculated on the basis that its population contained the same proportion at each of five age-groups (under 1, 1-19, 20-39, 40-59, and 60 and over) as was contained in the population of Australia as a whole at the census of 1911. Similarly, in obtaining the index of mortality of each capital city, the population of those ages of all the capital cities at the census of 1911 was taken as a basis.

The indices of mortality during 1917 were as follow, the crude rates also being shown for purposes of comparison :—

State.			Index of Mortality.	Crude Death-rate.	City.			Index of Mortality.	Crude Death-rate.
Victoria	...	...	12·51	10·36	Hobart	...	...	12·50	13·95
Queensland	...	...	12·43	9·63	Brisbane	...	...	11·27	11·48
South Australia	...	...	12·39	10·10	Melbourne	...	...	11·01	11·48
Western Australia	...	...	12·18	8·97	Adelaide	...	...	10·97	11·57
New South Wales	...	...	11·99	9·59	Sydney	...	...	9·88	9·75
Tasmania	...	...	10·98	8·89	Perth	...	...	*	*

* Not available.

Sydney has the best index of mortality of all the capitals, and New South Wales holds second place among the States.

THE CAUSES OF DEATH.

The system of classification adopted in this most important section of vital statistics is that employed by the Registrar-General in England, which is in accordance with the International List of Causes of Death, based on the second decennial revision by the International Commission at Paris in 1909.

In the following table will be found the principal causes of death arranged in order of fatality, together with the average number of deaths from similar causes during the previous quinquennium, due allowance having been made for the increase in population.

Causes of Death.	Number, 1917.	Average Number, 1912-16.	Increase (+) or Decrease (-) in 1917.	Causes of Death.	Number, 1917.	Average Number, 1912-16.	Increase (+) or Decrease (-) in 1917.
			per cent.				per cent.
Organic Diseases of the Heart ...	2,056	1,722	+ 19.40	Insanity ...	155	164	- 5.49
Endocarditis ...	86	109	- 21.10	Intestinal Obstruc- tion ...	154	172	- 10.47
Cancer ...	1,491	1,411	+ 5.67	Appendicitis ...	135	148	- 8.78
Senility ...	1,109	1,294	- 14.30	Cirrhosis of the Liver ...	129	140	- 7.86
Pneumonia ...	1,063	1,257	- 15.43	Embolism, Throm- bosis ...	125	106	+ 17.92
Tuberculosis— Lungs ...	1,017	1,177	- 13.59	Meningitis ...	115	152	- 24.34
Diarrhœa and En- teritis (under 2)	741	1,327	- 44.16	Convulsions— Infants ...	112	164	- 31.71
„ (over 2)...	268	363	- 26.17	Typhoid Fever ...	104	236	- 55.93
Bright's Disease— Acute and Chronic	987	984	+ 0.30	Gastritis ...	104	116	- 10.34
Accident ...	973	1,073	- 9.32	Cerebro-spinal Meningitis ...	98	66	+ 48.49
Premature Birth...	813	922	- 11.82	Influenza ...	89	126	- 29.37
Hæmorrhage, etc., of the Brain ...	710	766	- 7.31	Epilepsy ...	79	89	- 11.24
Bronchitis ...	477	567	- 15.87	Acute Rheumatism	70	99	- 29.29
Congenital De- bility ...	389	410	- 5.12	Simple Peritonitis	57	54	+ 5.56
Puerperal Condi- tion ...	327	307	+ 6.51	Syphilis ...	56	53	+ 5.66
Diphtheria, and Croup ...	250	295	- 15.25	Alcoholism— Acute and Chronic	53	76	- 30.26
Diabetes ...	216	186	+ 16.13	Measles ...	30	172	- 82.56
Congenital Mal- formations ...	210	189	+ 11.11	Scarlet Fever ...	30	53	- 43.40
Leucæmia, Anæ- mia, Chlorosis...	178	160	+ 11.25	Other Diseases ...	2,567	2,708	- 5.21
Suicide ...	173	261	- 33.72				
Whooping-cough ..	173	178	- 2.81	All Causes ...	17,969	19,852	- 9.49

The number of deaths during 1917 was lower by 1,883, or 9.5 per cent., than the average mortality of the previous quinquennium; and compared with that period of five years one only of the ten numerically highest fatal causes showed any marked increase, namely, diseases of the heart.

TYPHOID FEVER.

The number of deaths from typhoid fever during the year 1917 was 104, equivalent to 0.55 per 10,000 living, which is the lowest rate on record, being 56 per cent. lower than the rate for the period of the previous five years. This

is essentially a preventable disease, and does not obtain a foothold where a proper system of sanitation has been installed and ordinary health precautions have been taken; a great improvement has been attained during the three past decades.

The number of deaths from typhoid fever, and their correlative rates since 1884, are stated below.

Period.	Males.		Females.		Total.	
	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.
1884-88	1,356	5.12	1,115	5.13	2,471	5.13
1889-93	959	3.11	714	2.74	1,673	2.94
1894-98	1,107	3.27	731	2.46	1,838	2.89
1899-1903	1,054	2.93	733	2.25	1,787	2.61
1904-08	748	1.93	507	1.42	1,255	1.69
1909-13	773	1.76	464	1.56	1,237	1.47
1914	169	1.74	81	0.92	250	1.35
1915	141	1.47	78	0.86	219	1.17
1916	115	1.22	94	1.02	209	1.12
1917	71	0.77	33	0.35	104	0.55

The decrease between 1888 and 1893 was very marked, and may be traced to the operation of the provisions of the Dairies Supervision Act, which became law in 1889. From that year until 1903 the rate was fairly even, and did not greatly decline, but during the next quinquennium there was considerable decrease in both the number and the rate of deaths from typhoid.

The following statement shows the rate for the metropolis and for the remainder of the State during the last twenty-four years. Owing to a superior system of sewage, and to greater attention to sanitary inspection, the rate of the metropolis has always been lower than that of the remainder of the State.

Period.	Metropolis.		Remainder of State.	
	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.
1894-98	507	2.26	1,331	3.24
1899-1903	426	1.72	1,361	3.12
1904-08	334	1.21	921	1.97
1909-13	363	1.12	874	1.69
1914	80	1.08	170	1.53
1915	83	1.09	136	1.23
1916	71	0.93	138	1.25
1917	30	0.39	74	0.67

The greater number of deaths from typhoid occur in the summer and autumn. In 1917 there were 43 deaths during the summer months of December, January, and February; and 28 during the autumn months of March, April, and May.

SMALLPOX.

After a considerable period of immunity, smallpox, of the mildest type, became epidemic in Sydney during the year 1913. In the absence of severe symptoms, the disease escaped detection until it had become distributed throughout the metropolitan area, and thence, in a few instances, to other parts of the State. The total number of cases notified during the outbreak, was 2,398, of which 119 occurred in 1917, the last case being notified in October of that year. Five patients died, but in each case death was probably due to some other cause.

Vaccination.

Vaccination is not compulsory in New South Wales, and a very small proportion of the people submit voluntarily to the operation unless an epidemic threatens. This cavalier attitude towards the dread scourge of smallpox may be attributed to a general feeling of security from infection on account of the distance from those countries in which the disease is more or less endemic. The duration of voyages from such places has been considerably diminished, and consequently the risk of sufferers from smallpox entering the State or the Commonwealth undetected by the inspectors of the Quarantine Department has been greatly increased.

During the year 1913, in consequence of an outbreak of smallpox (practically restricted to Sydney), a popular demand for vaccination became insistent, a number of dépôts were opened, and about 425,000 persons were vaccinated by Government medical officers and by private medical practitioners.

MEASLES.

During the year 1917 the deaths due to measles amounted to 30, a number equal to a rate of 0·16 per 10,000 living. The rate for males was 0·15 and for females 0·17. The following statement shows the deaths from this cause, and the rate per 10,000 living, for each sex, arranged in quinquennial periods since 1884.

Period.	Males.		Females.		Total.	
	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.
1884-8	166	0·63	165	0·76	331	0·69
1889-93	393	1·28	369	1·41	762	1·34
1894-98	338	1·00	324	1·09	662	1·04
1899-1903	160	0·44	219	0·67	379	0·55
1904-08	82	0·21	107	0·30	189	0·25
1909-13	309	0·71	267	0·67	576	0·69
1914	5	0·05	14	0·16	19	0·10
1915	194	2·02	130	1·43	324	1·73
1916	44	0·47	29	0·31	73	0·39
1917	14	0·15	16	0·17	30	0·16

The rate in 1917 shows a decrease of 83 per cent. as compared with that of the preceding quinquennium. The high rates during the second and third quinquennial periods, and in the year 1915, were due to severe outbreaks in 1893, 1898, and 1915.

Measles is a disease chiefly affecting children, and is periodically epidemic. It was epidemic in 1898-9, when 719 deaths were recorded; in 1912, when there were 371 fatal cases; and in 1915, when there were 324. Of the number first cited, 233 were deaths of children under 5 years of age, and 54 were those of children under 1 year of age. During the year 1917 deaths from measles of children under 1 year of age numbered 6, and bore the proportion of ·011 per 1,000 births for New South Wales, the proportions for the metropolis and the remainder of the State being respectively ·015 and ·009. In the same year, deaths from the same cause of children under 5 years of age numbered 19, and bore the proportion of ·08 per 1,000 children living of the same age-group for New South Wales. The proportions for the metropolis and the remainder of the State were respectively ·13 and ·04.

SCARLET FEVER.

In 1917 the number of deaths from this disease was 30, equivalent to a rate of 0·16 per 10,000 of the population. The number of deaths in the metropolis was 9, and in the remainder of the State 21—showing respectively rates of 0·12 and 0·19 per 10,000. The rate for 1917 of deaths from this cause was 43 per cent. below the rate for the preceding quinquennium. Since 1884 the deaths from scarlet fever and the rates for each sex have been as follow :—

Period.	Males.		Females.		Total.	
	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.
1884-88	287	1·08	312	1·57	629	1·30
1889-93	185	0·60	236	0·90	421	0·74
1894-98	162	0·48	218	0·73	380	0·60
1899-1903	84	0·23	114	0·35	198	0·29
1904-08	88	0·23	91	0·26	179	0·24
1909-13	41	0·09	57	0·14	98	0·12
1914	5	0·05	16	0·18	21	0·11
1915	40	0·42	57	0·63	97	0·52
1916	43	0·46	65	0·70	108	0·58
1917	14	0·15	16	0·17	30	0·16

Like measles, scarlet fever is an epidemic disease which mainly affects children, the rate generally being somewhat higher for females than for males. Though not nearly so fatal as formerly, its sporadic recrudescence is stimulative of constant vigilance on the part of the authorities responsible for the health of the State. The death-rate from this cause of mortality has fluctuated since the years 1893 and 1894, when it was very heavy, ranging from 0·06 in 1912 to 0·63 in 1898.

WHOOPIING-COUGH.

Whooping-cough is another disease which mainly affects children, and to which, like scarlet fever, females are more susceptible than males. During the year 1917 the deaths from this cause numbered 173, of which 85 were of boys and 88 of girls. The rate was 0·92 per 10,000 living, or 3 per cent. below the average of the preceding quinquennium. The deaths and rates for each sex since 1884 are given below.

Period.	Males.		Females.		Total.	
	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.
1884-88	327	1·24	472	2·17	799	1·66
1889-93	495	1·61	666	2·55	1,161	2·04
1894-98	343	1·01	502	1·69	845	1·33
1899-1903	573	1·59	726	2·23	1,299	1·90
1904-08	369	0·95	445	1·25	814	1·10
1909-13	377	0·86	436	1·09	813	0·97
1914	67	0·69	88	1·00	155	0·84
1915	31	0·32	32	0·35	63	0·34
1916	86	0·91	104	1·12	190	1·02
1917	85	0·92	88	0·93	173	0·92

Whooping-cough may justly be regarded as a permanent menace and a constantly recurring ailment of infancy and childhood, for the table shows only spasms of declension, followed by increases in the death-rate, which is maintained by epidemic outbreaks, one such occurring in 1907, when 594 cases proved fatal, and the rate was the highest since 1878. Of the children who died in 1917, 110 were under 1 year, and 169 were under 5 years of age.

DIPHTHERIA AND CROUP.

Diphtheria, under which heading membranous croup is included, was the cause of 246 deaths in 1917, while croup, so defined, caused 4. The rate for the total (250) was 1.33 per 10,000 living, or 15 per cent. below the rate for the preceding quinquennium. Metropolitan deaths from these diseases numbered 79, and those in the remainder of the State 171, the respective corresponding rates per 10,000 living in each division being 1.02 and 1.55. The following table shows the number of deaths and the rates in quinquennial periods since 1884.

Period.	Males.		Females.		Total.	
	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.
1884-88	1,069	4.04	980	4.51	2,049	4.25
1889-93	1,433	4.65	1,399	5.36	2,832	4.98
1894-98	712	2.10	710	2.39	1,422	2.24
1899-1903	310	0.86	299	0.92	609	0.89
1904-08	367	0.95	338	0.95	705	0.95
1909-13	604	1.38	640	1.59	1,244	1.48
1914	121	1.24	138	1.57	259	1.39
1915	139	1.46	133	1.47	272	1.45
1916	163	1.73	158	1.68	321	1.73
1917	124	1.34	126	1.33	250	1.33

In the early years the rate was high, and showed little improvement until 1893, since which year it has declined markedly; so much so, that in 1908 it was less than one-fourth of the rate eight years before. During the next quinquennium it tended upwards, the rate for 1913 being the highest for fourteen years. Ninety-three per cent. of the persons who died from diphtheria during 1917 were under 10, and about 70 per cent. were under 5 years of age.

INFLUENZA.

During the year 1917 there were recorded as due to influenza 89 deaths, equal to a rate of 0.47 per 10,000, or 29 per cent. below the average of the preceding quinquennium, the rate for males being 0.53 and for females 0.42 on a similar basis of comparison. This disease was little known, and few deaths were recorded as being caused by its agency, prior to 1891; but in that year it made its appearance in a severely epidemic form, and it has since been continuously more or less prevalent. About half the deaths from influenza usually occur in the four months extending from July to October.

TUBERCULOUS DISEASES.

Of the total deaths in New South Wales during the year 1917 the number ascribed to the several classified forms of tuberculous disease was 1,170, or 6·5 per cent. of the actual bill of mortality for the State, and equal to 6·24 per 10,000 living—a rate of 15 per cent. below the average for the preceding quinquennium.

Tuberculosis of the Lungs.

Tuberculosis of the lungs, or phthisis, was the cause of 1,017 deaths, or 87 per cent. of the number due to tuberculosis during the year 1917, and it stands fifth in the order of the fatal diseases of the State. The general mortality rate per 10,000 living was 5·43, the male rate being 6·80, and the female rate, 4·08. For the decade 1876–85, the rate increased from 9·30 in the second to 11·63 in the last year of the series; but in 1886 a decline, slightly interrupted during individual years, set in, and in 1917 the rate was the lowest on record, being 53 per cent. below that of 1885, and 14 per cent. below the average for the quinquennium preceding. The improvement in the death-rate of the victims of phthisis may be ascribed to increased stringency in the admission of immigrants and visitors; to the application under official supervision of regulations minimising the dangers of phthisic infection attending certain industries; and to the extension of the precautionary and curative methods which have been introduced as results of the modern school of research and experiment.

The following table shows the deaths from tuberculosis of the lungs and the rates for each sex since 1884.

Period.	Males.		Females.		Total.	
	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.
1884–88	3,132	11·83	2,022	9·30	5,154	10·69
1889–93	3,269	10·61	1,925	7·38	5,194	9·13
1894–98	3,191	9·43	1,983	6·68	5,174	8·15
1899–1903	3,322	9·24	2,304	7·08	5,626	8·21
1904–08	2,985	7·72	2,184	6·13	5,169	6·96
1909–13	3,203	7·29	2,281	5·68	5,484	6·52
1914	752	7·75	426	4·83	1,178	6·36
1915	665	6·92	457	5·04	1,122	6·01
1916	675	7·18	482	5·20	1,157	6·20
1917	631	6·80	386	4·08	1,017	5·43

In 1912 an advisory board was appointed to assist the Government in its efforts to combat the national menace of tuberculosis. Particulars relating to the operations of this board and to matters dealing generally with the treatment, cure, and prevention of the disease will be given in a later chapter. The decrease in the number of deaths from phthisis and other forms of tuberculosis may to a large extent be ascribed to the effect of the Acts relating to the supervision of dairies (1886), of diseased animals and meat (1892), the maintenance of public health (1896), and the inspection of foods sold for human consumption (1908). The Board of Health was empowered thereby to supervise dairies and dairy products,

and to prohibit the sale of tuberculous meat. The powers conferred by the Pure Food Act of 1908 made the finding of a diseased cow in a dairy herd *prima facie* evidence that her milk had been sold for food, and provided for prosecution for selling diseased milk.

The following table shows the deaths and the rates of phthisis mortality for the metropolis and the remainder of the State. In the quinquennial period 1894-98 the rate for the former was 47 per cent. higher than that for the latter division; but since that period the extra-metropolitan rate has fluctuated but little, while owing to the progressive establishment of hospitals for the treatment of consumptive patients that of the metropolis itself has markedly improved, the decline amounting to 51 per cent.

Period.	Metropolis.		Remainder of State.	
	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.
1894-98	2,302	10·26	2,872	6·99
1899-1903	2,490	10·03	3,136	7·18
1904-08	2,184	7·89	2,985	6·40
1909-1913	2,171	6·70	3,335	6·45
1914	432	5·83	746	6·71
1915	401	5·29	721	6·49
1916	423	5·54	734	6·70
1917	366	4·75	651	5·90

Pulmonary tuberculosis is a notifiable disease within the City of Sydney, in the area controlled by the Hunter District Water Supply and Sewerage Board, and in the Katoomba Municipality and Blue Mountain Shire. The compulsory observance of health regulations, the ventilation of business and residential buildings and places of amusement, the destruction in recent years of very many unhealthy tenements, the abolition of congested areas, the re-alignment of streets on a more generous scale, and the creation of broad new thoroughfares, have resulted in the disappearance of a number of those urban conditions favourable to the culture of a disease like phthisis.

A comparison of death-rates from phthisis in various countries is given below. The rates are stated per 1,000 of the total population, and do not take account either of age or sex, which are material factors. This omission makes the comparison more favourable to New South Wales and to other Australian States, because the proportion of aged persons in the Commonwealth is smaller than in the countries of the Old World. There is possibly also a variation in the methods of classification of deaths in the various countries cited.

Country.	Death-rate per 1,000 of Total Population.	State.	Death-rate per 1,000 of Total Population.
	1914.		1917.
Scotland	1·04	Queensland	0·46
England and Wales	1·05	Tasmania	0·47
Netherlands	1·07	New Zealand	0·54
Spain	1·23	New South Wales	0·54
United States (Registration area)	1·28	Victoria	0·65
Switzerland (1913)	1·41	Western Australia	0·69
Jamaica	1·47	South Australia	0·79
Ireland	1·63		
Norway (1913)	1·71		

New South Wales, which stands in a mid-position with regard to the States of the Commonwealth, shares with them the advantage of showing a rate lower than that of any of the other countries given.

Tuberculosis of Meninges.

During the year 1917 tuberculosis of meninges caused 67 deaths, which is equal to a rate of 0·35 per 10,000 living. Nearly all the victims were children, 55 per cent. being under the age of 5 years.

Abdominal Tuberculosis.

Included under this heading are deaths due to tabes mesenterica, and in 1917 the number recorded was 40, of which 19 were those of females. The rate shown was 0·21 per 10,000 living. The disease is confined chiefly to children, and of those who died during the year, 12, or 30 per cent., were under 5 years of age. There were 41 deaths in 1914, and of these 19, or 46 per cent., were of children under 5 years of age; of 35 deaths in 1915, those of children under 5 numbered 13, or 37 per cent., and of 33 deaths in 1916, those of children under 5 numbered 11, or 33 per cent.

Other Tuberculous Diseases.

To tuberculous diseases other than those above specified were due 46 deaths, equivalent to a rate of 0·25 per 10,000 living.

CANCER.

In 1917 the deaths from cancer numbered 1,491, equal to a rate of 7·95 per 10,000 living, and 5·7 per cent. above the average of the quinquennial period preceding. The total included 774 males and 717 females, the rates being 8·35 and 7·57 per 10,000 living of each sex respectively.

The following table shows the deaths and rates per 10,000 living of each sex since 1884.

Period.	Males.		Females.		Total.	
	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.
1884-88	859	3·25	732	3·37	1,591	3·30
1889-93	1,262	4·10	1,038	3·98	2,300	4·04
1894-98	1,719	5·09	1,387	4·68	3,106	4·89
1899-1903	2,295	6·38	1,877	5·77	4,172	6·09
1904-08	2,671	6·91	2,418	6·78	5,089	6·85
1909-13	3,362	7·66	2,860	7·12	6,222	7·40
1914	732	7·54	658	7·46	1,390	7·50
1915	720	7·49	665	7·33	1,385	7·41
1916	779	8·29	689	7·44	1,468	7·87
1917	774	8·35	717	7·57	1,491	7·95

In New South Wales the male rate is usually the higher, which is contrary to the experience of the United Kingdom.

The ages of the 1,491 persons who died from cancer during 1917 ranged from 3 to 99 years, but the disease is essentially one of advanced age, 95 per cent. being 35 years and over.

Cancer is probably the most feared of all diseases, inasmuch as no specific remedy is known, and in all countries for which records are kept the death-rate is increasing. Only a few years ago it was hoped that treatment by violet rays, by radium, and by other chemical means, would abate this scourge of modern civilization; but all these hopes have been disappointed in the test of experience, and the most sanguine expectations have been abandoned.

In the following table the rates, based on the whole population, are given for certain countries. The comparison is uncorrected for age-incidence, and is therefore somewhat crude, but it apparently favours the Australian States.

Country.	Death-rate per 1,000 of Total Population.	State.	Death-rate per 1,000 of Total Population.
	1914.		1917.
Jamaica	0.18	Victoria	0.93
Spain	0.56	South Australia ...	0.88
Italy (1913)	0.67	New Zealand	0.87
United States (Registra- tion Area)	0.79	<i>New South Wales</i> ...	0.79
Prussia (1913)	0.83	Tasmania	0.79
Ireland	0.87	Queensland	0.74
Norway (1913)	0.97	Western Australia ...	0.66
England and Wales ...	1.07		
Netherlands	1.07		
Scotland... ..	1.13		
Switzerland (1913) ...	1.27		

DIABETES.

The deaths due to diabetes in 1917 numbered 216, equal to a rate of 1.15 per 10,000 living, which is above the average for the preceding quinquennium. The rate for males was 1.01 and for females 1.29 per 10,000 living of each sex. Most of the deaths occurred after middle life, 155 being those of persons over 45 years of age.

MENINGITIS.

Inflammation of the brain or of its membranes caused 213 deaths, equal to a rate of 1.14 per 10,000 living, and 7 per cent. below the average rate for the preceding quinquennial period. The disease is principally one of childhood, and 87, or 41 per cent., of those who died during 1917 were under 5 years of age. Included in the above total were 93 deaths from cerebro-spinal meningitis.

HÆMORRHAGE OF THE BRAIN.

To cerebral hæmorrhage and apoplexy, during the year 1917, were due 594 deaths, of which 320 were those of males and 274 those of females. The rate was 3.17 per 10,000 living, or 3.45 for males and 2.89 for females. For each sex the rate was below the average.

The following table shows the number of deaths and the rates for both sexes from the diseases of cerebral hæmorrhage and apoplexy in quinquennial periods since 1884.

Period.	Males.		Females.		Total.	
	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.
1884-88	778	2.97	467	2.15	1,245	2.58
1889-93	796	2.58	618	2.37	1,414	2.48
1894-98	943	2.79	710	2.39	1,653	2.60
1899-1903	1,050	2.92	788	2.42	1,838	2.68
1904-08	1,303	3.31	1,039	2.91	2,342	3.15
1909-13	1,627	3.71	1,439	3.58	3,066	3.65
1914	345	3.55	297	3.37	642	3.46
1915	343	3.57	268	2.96	611	3.27
1916	339	3.61	291	3.14	630	3.38
1917	320	3.45	274	2.89	594	3.17

CONVULSIONS OF CHILDREN.

Convulsions of children (under 5 years of age) caused 112 deaths during 1917, or 0·60 per 10,000 living at all ages, which is 32 per cent. below the average for the previous quinquennium.

Appended is a table showing the deaths and the rates for both sexes for every fifth year since 1875.

Year.	Males.		Females.		Total.	
	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.
1875	297	9·34	205	7·69	502	8·59
1880	388	9·75	297	8·98	685	9·40
1885	428	8·38	392	9·41	820	8·84
1890	328	5·47	274	5·45	602	5·46
1895	280	4·19	243	4·17	523	4·18
1900	203	2·84	168	2·63	371	2·74
1905	119	1·57	92	1·32	211	1·45
1910	103	1·23	71	0·91	174	1·08
1915	91	0·95	67	0·74	158	0·85
1916	96	1·02	65	0·70	161	0·86
1917	63	0·68	49	0·52	112	0·60

This disease is essentially infantile, being limited to children of ages under five years, and the rates would therefore be better stated proportionately to that age-period. Compared on this basis, the deaths during the year 1917 showed a rate of 0·46 per 1,000 living, as compared with 0·70, the average of the preceding quinquennium. The continuous decline in this cause of infantile mortality is indicative of increased definite and exhaustive diagnoses of the diseases of children.

INSANITY.

Insanity is classed as a distinct disease of the nervous system, but of the total number of deaths of insane persons in 1917 only 155 appeared in the tables as due to that cause (which included general paralysis of the insane), the remainder being assigned to the immediately determining factor in the patient's particular case.

The death-rate per 10,000 living, of persons dying from insanity, including general paralysis of the insane, was 1·26 for males and 0·40 for females.

Practically all the persons in New South Wales coming within this classification are under treatment in the various mental hospitals. At the end of 1917 there were 7,340 persons under official control and receiving treatment—a proportion per 1,000 of the population of 3·89, or slightly in advance of the average for the preceding quinquennium, which was 3·73.

The percentage of deaths of insane persons in New South Wales is comparatively light. The following table has been computed on the basis of the average number of patients resident in mental hospitals.

Period.	Males.		Females.		Total.	
	Deaths in Hospitals for Insane.	Proportion of Average Number Resident.	Deaths in Hospitals for Insane.	Proportion of Average Number Resident.	Deaths in Hospitals for Insane.	Proportion of Average Number Resident.
		per cent.		per cent.		per cent.
1894-98	782	6·86	366	5·18	1,148	6·21
1899-1903	1,021	7·77	465	5·54	1,486	6·91
1904-1908	1,280	8·24	613	6·00	1,893	7·35
1909-1913	1,540	8·56	741	6·24	2,281	7·64
1914	301	7·72	168	6·44	469	7·21
1915	310	7·81	179	6·27	489	7·30
1916	396	9·70	214	7·82	610	8·94
1917	363	8·82	171	6·15	534	7·74

DISEASES OF THE HEART.

Diseases of the heart were the cause of 2,204 deaths, showing a rate of 11·76 per 10,000 living, which was 16 per cent. above the average for the preceding quinquennium. Of the total deaths, 1,336 were of males and 868 were of females, the rates being 14·41 and 9·16 per 10,000 living respectively. The deaths and the death-rates for each sex since 1884 are shown below.

Period.	Males.		Females.		Total.	
	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.
1884-88	2,149	8·12	1,390	6·39	3,539	7·34
1889-93	2,250	7·30	1,357	5·20	3,607	6·34
1894-98	2,434	7·19	1,478	4·98	3,912	6·16
1899-1903	2,917	8·11	1,932	5·94	4,849	7·08
1904-1908	3,791	9·81	2,727	7·65	6,518	8·77
1909-1913	5,054	11·51	3,633	9·05	8,687	10·33
1914	988	10·18	682	7·73	1,670	9·01
1915	1,041	10·83	783	8·63	1,824	9·76
1916	1,238	13·17	856	9·24	2,094	11·22
1917	1,336	14·41	868	9·16	2,204	11·76

The ages of the persons who died during 1917 ranged up to 97 years, and the great majority of deaths occurred after middle age, 1,889 being those of persons over 45 years of age.

The classified causes of the total number of deaths include pericarditis, endocarditis, organic diseases of the heart, and angina pectoris. The apparent increase in mortality due to diseases of the heart is probably the result of more specialised biological knowledge, and of the greater attention given to pathological diagnoses. Many deaths formerly recorded as being caused by senile decay would now doubtlessly be assigned to some cardiac trouble.

The rate for the two years 1911 and 1912 was 10·82 per 10,000 persons living. It declined to 9·77 for 1913, and to 9·01 for 1914; and it increased to 9·76 for 1915, to 11·22 for 1916, and to 11·76 for 1917.

BRONCHITIS.

During the year 1917 bronchitis caused 477 deaths, equal to a rate of 2·54 per 10,000 living, which is 16 per cent. below the mean rate of the preceding quinquennium.

The rate for males was 2·95, and that for females 2·14. Of the total, 166 deaths were due to acute, and 311 to chronic, forms of the disease. Bronchitis affects chiefly the extremes of life; those under the age of 5 years, who died from this cause in 1917 numbered 100, or 21 per cent., and 329, or 69 per cent., were over the age of 65.

PNEUMONIA.

The total number of deaths from pneumonia during 1917 was 1,063, equal to a rate of 5·67 per 10,000 living. This total included 348 deaths which were classified as due to broncho-pneumonia. The male rate was 7·03, and the female 4·34 per 10,000 living of each sex respectively. The rate per 10,000 living, calculated for 1917, was 15 per cent. below the average for the preceding quinquennium. Pneumonia is more fatal to males than to females, and is most destructive in its attacks on young children and on adults in the decline of life. The following table gives deaths and rates, according to sex, since the year 1884.

Period.	Males.		Females.		Total.	
	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.
1884-88	2,032	7·68	1,301	5·98	3,333	6·91
1889-93	2,158	7·00	1,373	5·26	3,531	6·21
1894-98	2,514	7·43	1,528	5·15	4,042	6·37
1899-1903	3,191	8·87	2,000	6·15	5,191	7·58
1904-1908	2,816	7·28	1,824	5·12	4,640	6·24
1909-1913	2,983	6·79	1,931	4·81	4,914	5·85
1914	640	6·59	444	5·03	1,084	5·85
1915	896	9·32	527	5·81	1,423	7·62
1916	864	9·19	553	5·97	1,417	7·59
1917	632	7·03	411	4·34	1,063	5·67

The greatest mortality from pneumonia occurs in the cold weather, and in 1917 there were from this cause 505 deaths, or 48 per cent. of the total number in the four months ranging from June to September.

There has been little reduction in the mortality for some years. There was a drop after 1888, but the rate subsequently increased, with a few fluctuations, to the highest point on record, 9.73 per 10,000 living in 1902. The general rate since the year cited has been much lower, that for 1917, being 42 per cent. below.

DISEASES OF THE DIGESTIVE SYSTEM.

In 1917 the deaths due to these diseases numbered 1,833, equal to a rate of 9.78 per 10,000 living, the male rate being 11.04 and the female 8.54, as compared with the quinquennial rates of 14.72 and 12.60 respectively. Deaths resulting from diseases of the digestive system were caused in the main by diarrhoea and enteritis, but gastritis accounted for 104, including those of 58 children under 5 years of age, and there were also 35 cases of death from gastric ulcer.

DIARRHŒA AND ENTERITIS.

In 1917 these two diseases were the cause of 1,009 deaths, or 5.38 per 10,000 living, the rates for males being 6.22 and for females 4.57. The general rate was 40 per cent. below the average for the preceding quinquennium. The following table gives the deaths and the rates of males and females since 1884.

Period.	Males.		Females.		Total.	
	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.
1884-88	3,412	12.89	3,048	14.02	6,460	13.40
1889-93	3,451	11.20	2,851	10.92	6,302	11.07
1894-98	4,042	11.94	3,638	12.26	7,680	12.09
1899-1903	4,422	12.29	3,901	11.99	8,323	12.15
1904-1908	3,714	9.61	3,000	8.41	6,714	9.03
1909-1913	4,257	9.90	3,471	8.65	7,728	9.21
1914	891	9.18	756	8.56	1,647	8.89
1915	887	9.23	735	8.10	1,622	8.68
1916	759	8.07	639	6.90	1,398	7.49
1917	577	6.22	432	4.57	1,009	5.38

There was a considerable drop in the rate after 1888, due probably to the beneficial operations of the Dairies Supervision Act. During the next fifteen years there was a gradual increase, followed by a marked improvement in 1904, an improvement which has been consistently maintained.

According to the classification, deaths from these diseases are divided into two groups, one including children under 2 years of age, and the other all persons 2 years of age and over. In the first group there were 741, or 73 per cent. of the total number of mortality cases, and in the second 268.

Of the total deaths from diarrhoea and enteritis 478, or 47 per cent., occurred in the three summer months of January, February, and December; and 228, or 22 per cent., in the autumn months of March, April, and May. As a rule, about 50 per cent. of the deaths occur in the summer quarter of the year; in 1917, however, 232, or 23 per cent. of the total, occurred during the month of January.

APPENDICITIS.

To this cause 135 deaths were ascribed in 1917, the rate being 0.72 per 10,000 living, which is 9 per cent. below the average of the preceding quinquennium. Appendicitis is much more fatal to males than to females, the rate for the former in 1917 being 0.84, and for the latter 0.60 per 10,000 living.

CIRRHOSIS OF THE LIVER.

In 1917 the deaths from cirrhosis of the liver numbered 129, the rate being 0.69 per 10,000 living—8 per cent. below the average for the previous quinquennial period. This disease is more prevalent among males than females—the rate for the former in 1917 being 0.96, and for the latter 0.42 per 10,000 living in each sex.

BRIGHT'S DISEASE.

During the year 1917 there were 1,285 deaths due to diseases of the genito-urinary system, of which number 892 were caused by chronic nephritis, or Bright's disease, and 95 by acute nephritis. Taking these two diseases together, the rate was 5.27 per 10,000 living, or for males 6.73 and for females 3.83, the general rate being 0.4 per cent. above the mean of the previous quinquennial period. The changes in the rates of Bright's disease and of acute nephritis are shown below.

Period.	Males.		Females.		Total.	
	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.
1884-88	626	2.37	386	1.78	1,012	2.10
1889-93	907	2.94	570	2.18	1,477	2.60
1894-98	1,291	3.81	821	2.77	2,112	3.33
1899-1903	1,659	4.61	996	3.06	2,655	3.88
1904-1908	2,056	5.32	1,109	3.36	3,255	4.38
1909-1913	2,649	6.03	1,539	3.84	4,188	4.98
1914	610	6.28	347	3.93	957	5.16
1915	647	6.73	312	3.44	959	5.13
1916	636	6.76	340	3.67	976	5.23
1917	624	6.73	363	3.83	987	5.27

During the whole period covered by the foregoing table the rate both for males and for females has more than doubled. The male rate is about half as high again as the female. Not many persons under 35 die from nephritis, the proportions for 1917 being 14 per cent. for those under 35, and 86 for those over that age.

DEATHS IN CHILDBIRTH.

In 1917 the number of deaths of women from the diseases of childbed was 327, or a rate of 6·2 per 1,000 births. Of these, 101 were due to puerperal septicæmia, 34 to accidents of pregnancy, and 192 to other puerperal accidents. The deaths resulting from various diseases and casualties incident to childbirth were approximately 6·2 per 1,000 births, or 1 death to every 161 births. During the ten years ended 1917 the deaths were as follows :—

Cause of Death.	1908-1917.	
	Total Deaths.	Proportion due to Each Cause.
		per cent.
Accidents of Pregnancy	335	11·46
Puerperal Hæmorrhage	332	11·36
Puerperal Septicæmia	1,086	37·17
Albuminuria and Eclampsia	522	17·87
Other Casualties of Childbirth	647	22·14
Total	2,922	100·00

Of the 2,922 women who died from diseases of childbirth during the ten years 1908-1917, the married numbered 2,661 and the single 261, and as there were during this period 461,663 legitimate and 27,646 illegitimate births, reckoning twins and triplets as single births, it follows that the average number of fatal cases for married women was 5·8 per 1,000 births, or 1 in 173, and for single women 9·4 per 1,000, or 1 in 106.

THE CAUSES OF INFANTILE MORTALITY.

The mortality of infants in New South Wales has been exceptionally low since 1904. An upward movement in 1907, when the rate was higher than in any of the three preceding years, was followed by a decline in the following year, a decline that was continued until 1911. In 1912 there was a slight increase as compared with the year before, but the rate was considerably lower than the average for the preceding quinquennium, notwithstanding the fact that it was a period of low mortality. In 1913 the rate was 78·3, being 2 per cent. above the average of the previous ten years, and the highest since 1907. In 1914 the rate again declined, and in 1917 it was 57·5 per 1,000 births, the lowest rate recorded, and 22 per cent. below the average for the last decennium.

Children are susceptible to the attacks of disease at the earliest age-periods of life, and about 1,000 children out of every 10,000 born in New South Wales die before reaching their fifth year, but the rates for preventable diseases are highest. There is, therefore, no doubt that many children succumb through parental ignorance of the proper food or treatment required.

The following statement shows the principal causes of the deaths of children—under 1 per 1,000 births and under 5 per 1,000 living—in 1917 and in the five years 1912–16, distinguishing deaths in the metropolis from those in the remainder of the State :—

Cause of Death.	Deaths Under 1 per 1,000 Births.						Deaths Under 5 per 1,000 Living.					
	Metropolis.		Remainder of State.		New South Wales.		Metropolis.		Remainder of State.		New South Wales.	
	1912-1916.	1917.	1912-1916.	1917.	1912-1916.	1917.	1912-1916.	1917.	1912-1916.	1917.	1912-1916.	1917.
Measles	0·6	0·2	0·5	0·1	0·6	0·1	0·8	0·1	0·4	0·1	0·5	0·1
Scarlet Fever	0·1	..	0·0	..	0·0	..	0·1	0·0	0·1	0·1	0·1	0·0
Whooping-cough	2·1	0·9	2·1	2·8	2·1	2·1	0·8	0·3	0·7	0·9	0·7	0·7
Diphtheria and Croup ..	0·6	0·7	0·3	0·3	0·4	0·5	0·9	0·6	0·7	0·8	0·8	0·7
Tuberculosis—Meninges..	0·4	0·3	0·2	0·1	0·3	0·2	0·3	0·2	0·2	0·1	0·2	0·2
„ Peritoneum	0·1	..	0·2	0·2	0·2	0·1	0·1	0·0	0·1	0·1	0·1	0·0
„ Other Organs	0·2	..	0·1	0·2	0·2	0·1	0·1	0·1	0·1	0·1	0·1	0·1
Syphilis	0·3	0·9	0·3	0·2	0·5	0·5	0·2	0·2	0·1	0·0	0·1	0·1
Meningitis	1·0	0·6	1·0	0·5	1·0	0·5	0·6	0·3	0·4	0·4	0·5	0·4
Convulsions	1·6	1·3	2·9	2·1	2·4	1·8	0·5	0·3	0·8	0·5	0·7	0·5
Bronchitis	1·5	1·1	2·3	1·8	1·9	1·5	0·5	0·2	0·7	0·5	0·6	0·4
Broncho-pneumonia ..	3·5	3·3	2·8	2·0	3·1	2·5	1·5	1·0	1·1	0·7	1·2	0·8
Pneumonia	1·5	1·4	1·6	1·6	1·6	1·5	0·9	0·5	0·7	0·6	0·8	0·6
Diarrhoea and Enteritis ..	21·7	13·8	18·2	8·9	19·6	10·8	6·8	3·9	5·5	2·8	6·0	3·2
Congenital Malformations	3·5	4·0	3·0	3·6	3·2	3·8	0·9	0·9	0·7	0·8	0·8	0·8
Infantile Debility	8·8	8·2	9·3	6·9	9·1	7·4	2·2	1·8	2·0	1·5	2·1	1·6
Premature Birth	18·0	15·1	16·6	15·7	17·1	15·5	4·4	3·3	3·6	3·3	3·9	3·3
All Others	7·0	8·0	8·4	9·0	7·8	8·6	3·0	2·9	3·4	3·2	3·3	3·1
Total	73·0	59·8	69·3	56·0	71·1	57·5	24·6	16·7	21·3	16·5	22·5	16·6

The high mortality of infants is due to the deaths of children who are incapacitated, even at birth, either from immaturity or inherited debility, for the struggle for existence. Of children under 1, the deaths from these causes in 1917 were equal to 26·7 per 1,000 births, or nearly 46 per cent. of the total deaths of children at that age. A table already given shows that the mortality during the first month of life is over two-fifths of the total mortality during the whole of the first year, and over 72 per cent. of this two-fifths proportion of the year's total mortality was due in 1917 to deaths from congenital debility or defects.

Among children under one year, diarrhoea and enteritis were responsible for 10·8 deaths per 1,000 births, and infectious diseases for 2·7, of whooping-cough alone caused 2·1. Respiratory diseases afflict children with fatal results, bronchitis in 1917 causing 1·5, broncho-pneumonia 2·5, and pneumonia 1·7 deaths per 1,000 births. The death-rate for these

respiratory diseases. was normal in 1917. Convulsions had a death-rate of 1·8, tuberculous diseases of 0·4, and meningitis (not tuberculous) of 0·5 per 1,000 births.

The greater number of fatal cases of children under 5 years of age is due to diarrhoea and enteritis, infantile debility, broncho-pneumonia, congenital malformations, whooping-cough, diphtheria and croup, pneumonia, convulsions, meningitis, tuberculosis, measles, and syphilis, in the order given.

The Deaths of Illegitimate Children.

The following table shows the causes of death of illegitimate as compared with those of legitimate children. The figures represent the deaths of children under 1 year per 1,000 births in New South Wales during the year 1917.

Cause of Death.	Deaths Under 1 per 1,000 Births.				
	Legitimate.	Illegitimate.	Males.	Females.	Total.
Measles	0·1	0·4	0·1	0·1	0·1
Scarlet Fever ... ..	...	...	...	...	...
Whooping-cough	2·0	3·1	2·1	2·1	2·1
Diphtheria and Croup	0·5	0·4	0·6	0·3	0·5
Tuberculosis—Meninges	0·2	0·4	0·1	0·2	0·2
„ Peritoneum	0·1	0·4	0·1	0·1	0·1
„ Other Organs	0·1	...	0·1	0·1	0·1
Syphilis	0·3	2·8	0·6	0·3	0·5
Meningitis	0·6	...	0·7	0·4	0·5
Convulsions	1·8	2·4	2·1	1·5	1·8
Bronchitis	1·5	2·0	1·8	1·3	1·5
Broncho-pneumonia	2·4	4·7	3·1	1·9	2·5
Pneumonia	1·5	2·0	1·7	1·3	1·5
Diarrhoea and Enteritis	9·6	33·9	12·3	9·2	10·8
Congenital Malformations	3·8	1·6	4·2	3·2	3·8
Infantile Debility	6·7	21·3	8·8	6·0	7·4
Premature Birth	15·1	24·1	16·8	14·1	15·5
All Others	8·0	20·1	9·6	7·6	8·6
Total	54·3	119·6	64·8	49·7	57·5

A greater mortality is characteristic of illegitimate than of legitimate children, because the former are the victims of their resented intrusion into life. Exclusive of diseases inherited from contaminated parents, systematic neglect and lack of care are largely responsible for these higher death-rates of the unwanted. Infantile debility, including congenital malformations and premature birth, showed 47·0 deaths per 1,000 births as against the legitimate rate of 25·6, diarrhoea and enteritis 33·9 as compared with 9·6, respiratory diseases 8·7 as compared with 5·4, and syphilis 2·8 as compared with 0·3. No great difference was, however, exhibited between the legitimate and the illegitimate rates for epidemic diseases.

A comparison of the rates for each sex shows that the male rates were the higher for all causes of death, except measles and whooping-cough, for which the rates were equal, and tuberculous diseases, for which the female rates were the greater.

This fact explains the excess of the male infantile mortality as compared with the female, which has been shown in a previous table.

THE SEASONAL PREVALENCE OF DISEASES.

The following tabulation shows the principal diseases and the seasons of the year during which their effects are most fatal to their victims. The figures are based on the experience of the ten years 1908-17, and show the proportion of deaths per 1,000 from the diseases specified for each of the twelve months of a typical year. In order to make the results of the computation comparable, the returns have been adjusted so as to correct the inequality of the number of days in each month.

Month.	Typhoid Fever.	In- fluenza.	Diph- theria and Croup.	Whoop- ing- cough.	Phthisis.	Pneu- monia.	Bron- chitis.	Diarrhœa, Enteritis, and Dysentery.	Bright's Disease.
January ...	147	42	69	127	80	53	47	145	76
February ..	147	28	73	81	74	45	43	128	73
March ...	137	25	89	62	76	48	46	111	70
April ...	124	39	107	64	80	60	57	102	72
May ...	91	67	121	55	85	74	82	68	85
June ...	72	90	109	43	86	100	116	42	92
July ..	43	119	160	51	87	118	143	30	98
August ...	32	143	75	68	94	131	144	26	98
September.	31	162	78	90	88	128	121	27	93
October ...	28	132	58	114	84	95	86	47	79
November.	53	97	63	108	83	81	66	121	85
December..	95	56	58	137	83	67	49	153	79
	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000

The chief features of the above table are exhibited in the contrast between the figures relating to typhoid fever, diarrhœa and enteritis on the one hand, and to influenza, pneumonia, and bronchitis on the other. In the first group the influence of the hot weather is the controlling factor; in the second, the cold. The warmest months in the year are January, February, and December; the coldest, June, July, and August. Phthisis varies little throughout the year, but the rates show that it is more fatal in the colder months. Bright's disease shows likewise a higher mortality during the cold weather.

DEATHS FROM VIOLENCE.

The persons dying during the year 1917 numbered 17,969, and of these 1,236, or 6.88 per cent., met with violent deaths. The rate, 6.6 per 10,000, was, however, 15.3 per cent. lower than the mean rate for the preceding quinquennium. The mortality rate from violence for males was more than three times as great as that for females.

In the year 1917 the males thus dying numbered 947, or 10·21 per 10,000 living, and the females 289, or 3·05 per 10,000 living.

DEATHS FROM SUICIDE.

The number of persons who took their own lives in 1917 was 173, or a rate of 0·92 per 10,000 living, and about 34 per cent. below the average for the preceding quinquennium. The number of male suicides was 134, or a rate of 1·45 per 10,000 living, and of female 39, or a rate of 0·41 per 10,000 living—the male rate thus being three and a half times that of the female.

The number of deaths from suicide and the rates per 10,000 living since 1884 are shown in the following table.

Period.	Males.		Females.		Total.	
	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.
1884-88	428	1·62	96	0·44	524	1·09
1889-93	519	1·68	110	0·42	629	1·11
1894-98	679	2·01	169	0·57	848	1·34
1899-1903	651	1·81	142	0·44	793	1·16
1904-1908	719	1·86	160	0·49	879	1·18
1909-1913	857	1·95	238	0·59	1,095	1·30
1914	210	2·16	58	0·66	268	1·45
1915	208	2·16	50	0·55	258	1·38
1916	170	1·81	42	0·45	212	1·14
1917	134	1·45	39	0·41	173	0·92

The means usually adopted for self-destruction by men are shooting, poisoning, cutting, and hanging. Women, as a general rule, avoid weapons and have resort mostly to poison. Of every 100 cases of suicide that were consummated during the last quinquennial period 31 were by the agency of poison, 29 by shooting, 16 by cutting, 14 by hanging, and 7 by drowning.

Experience shows that the suicidal tendency is largely influenced by the seasons, as the conduct of male victims clearly exhibits, for they are more prone to self-destruction in the first and the last quarters of the year. During the ten years ended 1917 the proportion of male suicides per 1,000 was, during the first quarter of the year, 268, during the last 257, during the third 247, and during the second 228. January, February, and December, the three hot months of the year, have usually the largest record of suicides.

Female suicides, quarter-annually classified for the same period, show the highest proportion during the third quarter of the year, the figures being 285 per 1,000 for the third quarter, 248 for the first, 236 for the second, and 231 for the fourth.

DEATHS FROM ACCIDENT.

During the year 1917 the number of fatal accidents was 973, viz., 750 of males and 223 of females, or equal to rates of 8·09 and 2·35 per 10,000 living of each sex, and the general rate was 5·19 per 10,000 living. Accidental deaths have always been numerically greater in the extra-metropolitan area. Of

those registered during 1917, deaths from accident in the metropolis numbered 321, and in the remainder of the State 652. As a general rule, about three-fourths of the accidents occur in the latter division, which contains about five-eighths of the total population.

The number of deaths from accident and the rates per 10,000 since 1884 are shown in the table below.

Period.	Males.		Females.		Total.	
	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.
1884-88	3,550	13·41	944	4·34	4,494	9·32
1889-93	3,666	11·90	966	3·70	4,632	8·14
1894-98	3,498	10·33	1,095	3·69	4,593	5·23
1899-1903	3,432	9·54	1,103	3·39	4,535	6·62
1904-1908	3,143	8·13	1,055	2·96	4,198	5·65
1909-1913	3,891	8·86	1,114	2·77	5,005	5·95
1914	903	9·30	216	2·45	1,119	6·04
1915	712	7·41	225	2·48	937	5·02
1916	779	8·29	211	2·28	990	5·30
1917	750	8·09	223	2·35	973	5·19

Although the death-rate from accidents is still high compared with that of more settled countries, it has decreased, the decline for males being more rapid than for females. For the years prior to 1894 the rates were really slightly lower than those shown in the table, because certain causes formerly classed as accidents now fall into different categories.

The experience of the past quinquennium shows that out of every 1,000 accidents 190 are due to vehicles and horses, 139 to drowning, 132 to burns or scalds, 117 to falls, 114 to railways and tramways, 46 to mines and quarries, and 40 to weather agencies, *i.e.*, excessive cold or heat, and lightning. Among males the greatest number of deaths are due to vehicles and horses, and among females to burns and scalds.

MINING INDUSTRY.

SUPERVISION AND REGULATION OF MINING, &c.

The Department of Mines in New South Wales, created in 1874, is controlled by a Minister of the Crown. The functions of the Department include the general supervision of the mining industry, geological and mining surveys and assays, the examination of coal-fields, the inspection of collieries and mines, the administration of the Prospecting Vote, and of legal enactments relating to mining.

Miners' Rights and Business Licenses.

Authority must be obtained for all operations for the mining of gold or other minerals. A miner's right, for which a fee of 5s. per annum is charged, entitles the holder to occupy Crown land for the purpose of mining for gold or other minerals, to construct works for mining purposes, to conserve water or obtain timber in connection with mining, except within exempted areas, and for residence. A business license, the fee for which is 20s. per annum, entitles the holder to occupy one-quarter of an acre of Crown land in a town or one acre outside town boundaries.

During the year 1917 there were 13,342 miner's rights and 736 business licenses issued, the fees received amounting to £2,227 and £477 respectively.

Leases of Crown Lands.

The annual rent for mining leases is 1s. per acre. A royalty of 1 per cent. of the gross value of gold and other minerals, except coal and shale, won from the land leased, and a royalty of 6d. per ton on all coal and shale, is payable to the Crown. No royalty is payable, except on coal and shale, unless the gross value exceeds £500 during the year.

Mining on Private Lands.

Upon payment of a fee, and under certain conditions, holders of miners' rights may obtain authority to enter upon any private land to prospect for minerals and may apply for a lease for the whole or any part of the land.

Dredging.

Leases of Crown or of private land may be granted for the purpose of mining for gold or any mineral by dredging, sluicing, or other method.

Labour Conditions.

The minimum of area conditions per man employed are as follow :—

For gold : 5 acres for the first year, and thereafter 2 acres. For minerals other than gold, coal, or shale : 20 acres for the first year, and thereafter 10 acres. For coal or shale : 320 acres for two men.

The Mining Act provides for the suspension of the labour conditions under certain circumstances.

Examinations for Mine Managers, &c.

Certificates of competency are issued by the Minister upon the report of the examining boards to managers, under-managers, engine-drivers, and electricians.

In 1917 certificates were issued under the Coal Mines Regulation Act to 1 manager, 7 under-managers, 32 deputies, and 8 mine electricians. Under the Mines Inspection Act 9 certificates were issued to managers, and 11 permits to act as managers, also 282 engine-drivers' certificates, and 12 licenses to test and examine boilers.

AREA UNDER MINING OCCUPATION.

The area under mining occupation in New South Wales at 31st December, 1917, was approximately 301,318 acres, made up as follows :—

	Acres.
Crown Lands under lease	232,656
" " " application for lease	8,146
" " " " races, machine sites, &c. ...	568
Reserved Lands under authority to mine	2,199
Private Lands under application for lease	791
" " " " races, machine sites, &c. ...	93
" " " authority to enter	11,331
" " " agreement, Mining on Private Lands Act ...	13,206
" " " agreement, Mining Laws Amendment Act ...	4
" " " agreement, Mining Act, 1906	8,301
" " " permit to remove minerals	2,725
Dredging Lands under application for lease	2,039
Miner's Right and Business License	8,059
Authority to Prospect	40
Under application for Authority to Prospect	11,160
Total	301,318

The total number of applications received during 1917 by the Department of Mines for leases and authorities to prospect was 1,838 relating to 115,748 acres. Of these, 796 applications, covering 97,976 acres, related to Crown lands, and 1,042 applications, covering 17,772 acres, related to private lands.

The applications approved during 1917 under the Mining Act were as follows :—

Classification.	Appli- cations.	Aggregate Area.	Classification.	Appli- cations.	Aggregate Area.
Crown & Reserved Lands—	No.	Acres.	Crown, Private, and Re- served Lands—	No.	Acres.
Gold Leases	135	926	Dredging Leases ...	17	384
Mineral Leases coal and shale	23	7,757	Private Lands—		
Other	252	5,082	Leases to Mine for coal and shale	9	1,418
Sites for dams, &c., mining purposes ...	28	207	Other minerals ...	135	1,671
Authorities to prospect coal and shale ...	1	920	Leases for dam sites, machinery areas, &c.	15	67
Other	16	57,058		159	3,154
	455	71,950	Total	631	75,488

The following is a statement of the expenditure by the State from the Consolidated Revenue Fund on account of services in connection with mining during the years ended 30th June, 1914-18.

Head of Service.	1914.	1915.	1916.	1917.	1918.
	£	£	£	£	£
Department of Mines	53,516	51,292	50,011	49,490	50,187
State Colliery, Lithgow ... ..	.....	.....	.....	942	325
Geological Survey Laboratory	122	108	181	196	124
Miners' Accident Relief Branch	1,192	1,298	1,303	1,521	1,389
Administration of the Act for Regulation of Coal Mines and Collieries	567	622	575	415	321
To promote prospecting for gold and other minerals*	10,084	11,541	8,093	7,162	8,328
To acquire, erect, work, and maintain and to assist in the erection of crushing batteries†	1,520	358	265	231	5
Bores to prove coal seams under Reserves	.....	1,942	684	52	.....
Detonators and explosives ... ..	.....	.....	10,306	2,096	554
Miscellaneous	331	2,649	1,795	319	115
	67,332	69,810	73,213	62,424	61,348
Endowment Miners' Accident Relief Act	15,108	11,973	11,613	11,561	3,275
State Coal Mines Act ... ..	.....	.....	.....	825	.....
Total	82,440	81,783	84,826	74,810	64,623

* These amounts are to be refunded if, in the opinion of the Prospecting Board, minerals are won in payable quantities, or if the mines otherwise prove profitable to the prospectors.

† To be repaid in accordance with agreements.

PROSPECTING.

Subsidies are granted by the Government to encourage prospecting for minerals. The Prospecting Board, consisting of the Under Secretary for Mines, as Chairman, the Government Geologist, the Chief Inspector of Mines, and three Inspectors, the Chief Mining Surveyor, and a Geological Surveyor, deals with all applications for aid, and miners desiring a grant from the Prospecting Vote must satisfy the Board that the locality to be prospected is likely to yield the mineral sought, and that the mode of operation is suitable for its discovery. Miners assisted from the vote are not entitled to claim any reward that may be offered for the discovery of a new gold or mineral field.

Under the regulations governing the distribution of the vote, the amount advanced must be refunded in the event of the discovery of payable mineral by means of the aid granted.

The following statement summarises the amounts allotted to prospectors for the various minerals ; the figures are for calendar years from 1887,

when the information is readily available, to 1895 and thereafter for the years ended 30th June :—

Period.	Amounts allotted to Prospectors for—						
	Gold.	Silver and Lead.	Copper.	Tin.	Coal.	Other Minerals.	Total.
	£	£	£	£	£	£	£
1887-1889	26,332	886	138	34	338	283	28,011
1890-1894	111,878	7,254	1,367	1,261	3,752	3,283	128,795
1895-1900	107,581	4,886	7,762	3,389	.....	4,021	127,639
1901-1905	80,636	5,108	10,136	7,828	40	1,430	105,178
1906-1910	38,822	7,986	20,765	3,146	310	871	71,900
1911-1915	50,209	7,557	8,939	5,870	.....	4,837	77,412
1916	5,548	481	1,148	705	.....	1,395	9,277
1917	9,152	890	1,869	944	.....	667	13,522
1918	8,172	1,061	2,542	869	.....	1,126	13,770
Total— 1887-1918	438,330	36,109	54,666	24,046	4,440	17,913	575,504

No large payable field has yet been discovered through the agency of the Prospecting Vote, but several rich mines have been opened with the aid granted, notably the Mount Boppy Gold-mine.

In addition to the employment of labour, the proving of a lode or reef invariably leads to the development of large areas of adjoining land under the Mining Act, from which increased revenue is derived by the State.

EMPLOYMENT IN MINES.

The extent to which mining industries provide employment is indicated in the following statement of the approximate number of men employed as at 31st December, 1913-1917 :—

Year.	Metalliferous.						Coal and Shale.	Total number of men employed.
	Gold.	Silver, Lead, and Zinc.	Copper.	Tin.	Other.	Total.		
1913	3,570	9,357	2,629	2,362	1,996	19,914	18,966	38,880
1914	3,443	8,242	1,357	2,168	2,283	17,493	18,974	36,467
1915	2,888	5,564	914	1,648	2,176	13,190	18,221	31,411
1916	2,317	6,461	1,661	1,938	2,035	14,412	16,892	31,304
1917	1,823	7,619	2,074	1,779	2,184	15,479	17,338	32,817

These figures do not include persons employed in works manufacturing lime, cement, or coke. The war conditions account for the decrease in the numbers employed since 1913. Comparing the figures for 1917 with those of the previous year, there was an increase of 1,513 in the total number employed, though there were decreases in gold and tin miners.

Coal and shale mines are subject to supervision under the Coal Mines Regulation Act, and during the year 1917 there were 120 coal-mines and 9 shale-mines, a total of 129 working under the provisions of this statute. The employees in 1917 numbered 17,338 of whom 12,815 were below ground.

The employment of boys under 14 years of age or of women and girls in or about a mine is prohibited, and restrictions are placed upon the employ-

ment of youths. In 1917 the total number of boys between 14 and 16 years of age employed in coal and shale mines was 608, of whom 373 were below ground, and 235 on the surface.

WAGES OF COAL-MINERS.

The employees in the coal-mines in New South Wales work under Agreements or Awards. The rate paid to miners varies according to the selling price of coal per ton ruling at the time, and according to the conditions of the seams or places where the coal is mined.

The average rates at 30th June, 1918, were as follows:—

Northern District.		Wages.	Southern District.		Wages.
Miners per ton		s. d. s. d. 3 5½ to 5 2½	Miners per ton		s. d. £ s. £ s.
Coal-cutting machines per day		13 11 15 6 s. d. 10 11	Overmen (underground) per week		5 0 to 6 10 £ s. d.
„ assistants ..		s. d. s. d. 16 0 to 16 6	Deputy overmen		4 17 6 s. d.
Deputies		15 0 15 6	Shot-firers per day		15 0 s. d.
Shot-firers		15 0 15 6	Onsetters		12 6 s. d.
Waste-examiners		15 0 15 6	Banksmen		12 2½ s. d.
Engine-drivers— Winding and loco- motive engines		s. d. 14 5	Shiftmen		14 1 s. d.
Other engines		s. d. s. d. 12 0 to 14 5	Screenmen		10 11 s. d.
Shiftmen per shift		10 11 15 6	Mechanics		12 7½ to 15 4 s. d.
Wheelers		10 6 11 8 s. d.	Engineers		14 4 19 s. d.
Flatters		10 11	Engine-drivers— Winding and loco. ..		14 5 s. d.
Water-bailers		10 11	Haulage		13 2 s. d.
Hand-pumpers		10 11	Stokers and firemen		10 11 to 12 0 s. d.
Set-riders		s. d. s. d. 10 11 to 11 5	Platelayers		10 11 s. d.
Rolleyway men		10 11	Furnacemen		10 11 s. d.
Roadlayers		s. d. s. d. 11 4 13 2	Harness-makers		11 6 s. d.
Waggon packers		10 11	Wheelers		12 0 s. d.
Banksmen		12 7	Water-bailers		12 0 s. d.
Shunters		10 11	Stablemen		10 11 s. d.
Screenmen		10 11	Labourers		10 11 s. d.
Labourers		s. d. s. d. 10 11 to 11 5	Flatters		12 0 s. d.
Boys		4 4 10 8	Trappers		4 4 s. d.
			Boys		5 4 s. d.

MINERAL PRODUCTION.

The statistics of production are incomplete, and in many instances the export trade is taken as the measure of the output. Comparison of the output of the several minerals is difficult also, as regards quantity, by reason of the variety of the units of measurement employed in the different branches of the mining industry, and, as regards value, by the difference in the stages of production at which the values are assessed. For instance, the value of the tin output represents the values of ingots and of ore, and with other metals, the export, which is accepted as representing the production, is mainly in ore.

Measured by the aggregate output, coal is the most valuable mineral in New South Wales, followed by silver and gold.

The summary given below shows the output and the value of the production during the year 1917 and to the end of 1917 :—

Minerals.	During 1917.		To the end of 1917.	
	Quantity.	Value.	Quantity.	Value.
<i>Metals.</i>				
Gold—domestic ores ...	oz. fine. 82,171	£ 349,038	oz. fine. 14,595,753	£ 61,998,778
Silver*—	oz. 1,782,004	328,241	oz. 39,081,875	} 75,680,595
Silver Ingots and Matte ...	tons. ....	.....	tons. 562,976	
Sulphide and Silver-lead ...	.....	.....	8,374,818	
Lead ore, Concentrates, &c. ...	234,881	4,165,324	264,323	4,842,361
Lead*—Pig, &c. ...	20,817	616,531	4,199,876	12,623,515
Zinc*—Spelter and Concentrates	113,531	441,486	251,861	14,292,224
Copper*—Ingots, Matte, and Ore	6,576	814,154	116,871	10,963,004
Tin*—Ingots and Ore ...	2,072	373,696	.....	.....
Iron—	.....	.....	.....	.....
Pig-iron—from domestic ore...	45,025	247,637	480,916	1,849,987
Iron oxide* ...	1,431	1,267	36,230	47,631
Ironstone flux ...	4,482	3,498	112,871	86,199
Tungsten—	.....	.....	.....	.....
Wolfram* ...	118	21,682	1,974	217,868
Scheelite* ...	127	23,419	1,472	152,299
Platinum ...	oz. 259	2,072	oz. 14,073	37,509
Molybdenite* ...	tons. 70	31,008	tons. 600	124,900
Antimony*—Metal and Ore ...	301	3,738	18,262	335,686
Bismuth*—Metal and Ore ...	20	9,391	633	152,421
Chrome* ...	587	1,468	32,571	104,085
Cobalt* ...	.....	.....	885	8,065
Manganese* ...	3,721	2,791	6,221	5,896
Quicksilver ...	lb. ....	.....	lb. 2,970	541
<i>Non-metals.</i>				
Fuels—	tons. ....	.....	tons. ....	.....
Coal ...	8,292,867	4,422,740	228,269,803	87,779,613
Coke ...	455,587	541,093	4,926,423	3,802,630
Shale (oil) ...	31,661	36,565	1,783,023	2,424,770
Structural Materials—	.....	.....	.....	.....
Limestone—flux ...	74,440	25,746	1,430,275	787,251
Stone, building* ...	.....	.....	.....	26,458
Marble ...	.....	770	.....	32,817
Slates* ...	.....	52	.....	2,053
Alunite* ...	1,788	10,728	47,843	159,031
Gem Stones—	.....	.....	.....	.....
Noble Opal ...	.....	12,522	.....	1,426,432
Diamonds ...	cts. 2,991	2,006	cts. 191,855	131,077
Grindstones* ...	.....	.....	.....	3,301
Other Minerals and Ores*	.....	48,877	.....	216,884
Total value ...	.....	12,538,140	.....	280,315,881
<i>Other—</i>				
Iron made from scrap ...	.....	.....	.....	1,416,030
Portland Cement ...	.....	347,381	.....	3,843,825
Lime ...	tons. 26,090	40,865	tons. 462,195	488,634
Sulphuric acid ...	7,366	26,333	14,866	42,433

* Exports only.

The value of the mineral production in quinquennial periods since 1856 is shown in the following table; the figures are exclusive of iron made from scrap, Portland cement, lime, and sulphuric acid, which are included in the production of the manufacturing industry:—

Period.	Value of Production.	Period.	Value of Production.
	£		£
1856-60	6,069,118	1891-95	26,324,780
1861-65	9,980,397	1896-1900	26,159,491
1866-70	7,001,454	1901-05	29,880,914
1871-75	10,768,230	1906-10	42,450,535
1876-80	9,184,015	1911-15	51,930,852
1881-85	12,381,842	1916	10,499,756
1886-90	18,681,548	1917	12,538,140

VALUE OF MACHINERY.

The following statement shows the estimated value of the plant and machinery used in mining during the years 1914 to 1917:—

Classification.	1914.	1915.	1916.	1917.
	£	£	£	£
Coal and Shale	3,409,000	3,526,000	3,673,000	3,719,000
Gold	653,363	630,138	458,921	441,624
Silver, Lead, and Zinc...	2,045,439	1,994,339	1,971,613	1,238,072
Copper	705,654	565,942	702,899	579,332
Tin	206,666	251,675	180,022	273,789
Other Minerals	524,004	551,007	563,203	592,034
Total	7,544,126	7,519,101	7,549,658	6,843,851

The value of plant and machinery used in connection with coal and shale mines includes the value of plant used for conveying coal and shale from the mines to wharf or railway station; the amount in 1917 was £1,508,000.

QUARRIES.

The quantities and values of building stone, except stone exported, do not appear in the statements of mineral production, but are given hereunder in the return of quarries for the year 1917-18:—

Description of Quarry.	Quantity of Stone raised.	Value of Stone raised.	Description of Quarry.	Quantity of Stone raised.	Value of Stone raised.
Building Stone—	tons.	£	Macadam, Ballast, &c.—	tons.	£
Sandstone	61,510	29,929	(continued).		
Granite	500	1,500	Gravel	51,509	9,517
Syenite (Trachyte)	1,167	3,695	Sand	6,182	980
Marble	488	1,500	Ironstone	98,139	11,367
Limestone	508	71	Shale and Clay	70,789	6,635
Other	8,083	9,796	Quartzite	30,545	6,674
Macadam, Ballast, &c.—			Limestone, crude	210,763	46,841
Sandstone	298,130	58,702	Magnesite	1,863	1,000
Bluestone, Basalt, &c... ..	586,529	112,264	Clays—		
Limestone	50,020	10,122	Kaolin	450	292
			Fireclay	566	230

PRICES OF MINERALS.

In the case of the minerals which contribute any considerable value to the production, the prices of all are regulated by the world's production in relation to the world's demands, as, with the exception of coal, the local demand is small.

The quotations in the following table for silver, lead, copper, and tin are the average f.o.b. prices, Sydney, based on the London prices. In the case of zinc, the averages are those quoted by the Department of Mines in connection with the Broken Hill field :—

Year.	Silver.	Lead.	Zinc.	Copper.	Tin.
	per oz. s. d.	per ton. £ s. d.	per ton. £ s. d.	per ton. £ s. d.	per ton. £ s. d.
1913	2 3 $\frac{3}{4}$	18 15 0	22 13 6	68 13 4	202 5 0
1914	2 1 $\frac{1}{4}$	19 1 8	21 0 0	60 16 8	153 0 0
1915	1 11 $\frac{1}{2}$	22 19 2	68 19 7	73 0 0	164 17 1
1916	2 7 $\frac{1}{2}$ ⁵ / ₈	31 1 8	71 18 6	115 15 0	181 15 0
1917	3 4 $\frac{1}{4}$	30 10 0	54 0 0	125 3 4	237 16 8

In regard to coal, average prices are quoted in connection with the values of production elsewhere in this Chapter.

GOLD.

Amongst the metals which occur in the State, gold occupies an important place, both on account of the quantity which has been raised and of the influence of its discovery on the settlement of the country.

The following table shows the quantity and value of the gold produced during each decennial period since 1851 :—

Period.	Quantity.	Equivalent in oz. fine.	Value.
	oz. crude.	oz. fine.	£
1851-1860	3,280,963	2,714,531	11,530,583
1861-1870	3,542,912	3,219,628	13,676,102
1871-1880	2,253,259	2,019,116	8,576,655
1881-1890	1,173,885	1,013,846	4,306,541
1891-1900	2,867,337	2,432,387	10,332,120
1901-1910	2,669,670	2,252,851	9,569,492
1911-1916	1,036,761	861,223	3,658,247
1917	85,954	82,171	349,038
Total ..	16,910,741	14,595,753	61,998,778

Prospecting for gold has been neglected in recent years owing to the remunerative employment to be obtained in connection with other branches of the mining industries. New South Wales gold which was received at the Sydney Mint for coinage in 1917 amounted to 83,818 oz., of the gross value of £326,895.

GOLD AND TIN DREDGING.

Dredging is in operation on practically all the rivers of New South Wales which drain auriferous country. In addition, alluvial tin deposits are exploited, and the value of stream-tin won annually exceeds the value of gold recovered by dredging.

In 1917 there were 67 dredges, of a total value of £317,349; 13 bucket dredges and 3 pumping plants were employed in the recovery of gold, and 3 bucket dredges and 48 pumping plants in the winning of stream-tin.

The following table demonstrates the value of the metals recovered by dredging since its inauguration in this State :—

Period.	Area under Lease at end of period.	Gold Dredged.		Stream-tin Dredged.		Total Value.
		Quantity.	Value.	Quantity.	Value.	
	acres.	oz. crude.	oz. fine.	£	tons.	£
1900	6,943	8,882	7,924	33,660	.....	33,660
1901-05	52,852	144,028	129,850	551,568	1,254	109,026
1906-10	75,900	185,140	168,566	716,025	7,570	732,134
1911-15	8,210	120,082	110,284	468,459	7,551	907,582
1916	7,878	20,165	18,797	79,846	1,272	146,880
1917	.....	27,364	25,349	107,674	1,207	183,156

SILVER, LEAD AND ZINC.

The output of lead and zinc in New South Wales is obtained principally from the silver-lead mines of the Broken Hill district, and for that reason the mining of these metals is discussed conjointly.

Assessment of the total output and value of production of silver-lead ores mined in New South Wales is hampered by the fact that the process of extracting the metallic contents has been conducted for the most part outside the boundaries of the State, a proportion being treated within the Commonwealth, while large quantities of concentrates are exported to Europe for treatment. For this reason the value of the output credited to New South Wales does not represent the value of the finished product, but the estimated net value of the ore, concentrates, bullion, &c., as declared by the several companies to the Customs Department at the date of export from the State.

Calculated on this basis the quantity and value of New South Wales silver and silver-lead ore exported to the end of 1917 are shown in the following table :—

Period.	Silver.		Silver-sulphide, Silver-lead, Ore, &c.			Total Value Exported.
	Quantity.	Value.	Quantity.		Value.	
			Ore Concentrates, &c.	Metal.		
	oz.	£	tons.	tons.	£	£
To 1885	1,730,297	382,884	7,073	191	237,810	620,694
1886-1890	2,481,253	464,081	165,756	94,002	6,478,515	6,942,596
1891-1895	3,009,187	445,873	663,754	231,847	12,615,432	13,061,305
1896-1900	2,352,092	269,663	1,771,983	86,005	9,592,856	9,862,519
1901-1905	4,154,020	445,051	1,877,515	108,353	8,910,586	9,355,637
1906-1910	8,310,962	892,414	1,709,173	42,578	11,561,794	12,454,208
1911-1915	12,460,553	1,302,510	1,694,834	.....	14,302,570	15,605,080
1916	2,801,507	349,367	249,849	.....	2,935,624	3,284,991
1917	1,782,004	328,241	234,881	.....	4,165,324	4,493,565
Total	... 39,081,875	4,880,084	8,374,818	562,976	70,800,511	75,680,595

Similar information regarding the export of lead (pig, in matte, also lead-carbonate and lead-chloride), the product of New South Wales, is shown below; for 1907 and subsequent years the quantity as recorded represents the contents, based on average assays, of bullion produced within the State :—

Period.	Lead—Pig, in matte, &c.		Period.	Lead—Pig, in matte, &c.	
	Quantity.	Value.		Quantity.	Value.
	tons.	£		tons.	£
1889-1890	648	8,298	1911-15	114,375	1,899,601
1891-1895	739	7,413	1916	25,466	799,632
1896-1900	13,293	258,874	1917	20,817	610,531
1901-1905	17,550	255,366	Total ...	264,323	4,842,361
1906-1910	71,435	996,646			

The following statement shows the quantity and value of zinc (spelter and concentrates), the product of domestic ores, exported since 1889. These exports represent practically the total production :—

Period.	Zinc (Spelter and Concentrates).		Period.	Zinc (Spelter and Concentrates)	
	Quantity.	Value.		Quantity.	Value.
	tons.	£		tons.	£
1889-1890	307	3,366	1911-1915	2,093,783	6,861,489
1891-1895	663	7,677	1916	209,741	961,849
1896-1900	137,931	146,023	1917	113,531	441,486
1901-1905	183,782	440,402	Total ...	4,199,876	12,623,515
1906-1910	1,460,138	3,761,223			

The production of silver, lead, and zinc is seen in the following summary of the values during the last five years :—

Year.	Silver, Silver-lead, Concentrates, Ores, &c.	Lead (Pig, &c.)	Zinc (Spelter and Concentrates).	Total Production.
	£	£	£	£
1913	3,808,125	365,742	1,547,987	5,721,854
1914	3,241,263	370,106	1,020,711	4,632,080
1915	2,631,662	689,439	1,111,569	4,432,670
1916	3,284,991	799,632	961,849	5,046,472
1917	4,493,565	616,531	441,486	5,551,582

In 1913 the value of production was the highest on record owing to the favourable metal market and to the settled industrial conditions which prevailed throughout the year, but the rate of production was not maintained on account of the stoppage of exportation to Europe. In 1916 and 1917 there were considerable increases in the value of the production.

As previously stated, the bulk of the ores produced in the silver-lead mines are exported for treatment outside the State and the figures shown in the preceding tables do not convey an adequate idea of the importance of the

mines of New South Wales. The Department of Mines has collected independent records from the various mining and smelting companies and ore-buyers with the object of ascertaining the actual value accruing to the Commonwealth from the silver-lead mines of this State. Thus particulars have been obtained regarding the quantity and value of the silver, lead, and zinc extracted within the Commonwealth, and the gross metallic contents of concentrates exported overseas have been estimated on the basis of average assays as follows :—

Year.	Metal obtained within Commonwealth from ores raised in New South Wales.				Concentrates exported.						Total Value of Production from Silver-lead Ores of New South Wales.
	Silver.	Lead.	Spelter.	Aggregate Value.	Quantity.	Contents by average assay.			Assessed Value.		
						Silver.	Lead.	Zinc.			
1913	oz. fine.	tons.	tons.	£	tons.	oz. fine.	tons.	tons.	£	£	
1913	5,908,688	106,432	4,121	2,709,867	547,388	8,596,251	117,903	184,149	3,759,691	6,469,558	
1914	5,481,286	99,925	5,014	2,592,322	431,965	7,879,240	88,173	146,400	3,004,248	5,596,570	
1915	5,302,199	101,090	5,308	3,267,736	316,284	5,222,927	89,455	90,232	3,176,434	6,444,170	
1916	6,382,518	128,438	5,277	5,238,276	370,160	6,107,280	115,606	98,843	3,861,018	9,099,294	
1917	7,562,286	138,006	4,694	5,765,094	403,937	7,581,129	129,820	78,722	5,052,237	10,817,331	

In connection with the above figures, although the metallic contents are based on average assays, it is impossible to give the proportion of the bulk quantities which was recovered. In the case of the lead and zinc contents, the quantities have been estimated only when payment was allowed for them.

It is estimated that the quantity of silver yielded by the mines of New South Wales to the end of 1917 amounted to 346,444,874 oz. fine, valued at £51,535,709.

	oz. fine.	£
Metal obtained in Commonwealth ...	153,566,476	22,334,446
Contained in concentrates, &c., exported ...	192,878,398	29,201,263
Total ...	346,444,874	51,535,709

Broken Hill Field.

The mines on the Broken Hill field are the chief contributors to the silver and silver-lead and zinc output of Australia. The argentiferous lead ores of the Barrier Ranges and Broken Hill districts were discovered in 1883. The field extends over 2,500 square miles of country, and has developed into one of the principal mining centres of the world. It is situated in western New South Wales, beyond the River Darling, and on the confines of South Australia.

The Broken Hill lode is the largest yet discovered; it varies in width from 10 feet to 200 feet, and may be traced for several miles, the country having been taken up all along the line of lode, and subdivided into numerous leases, held by mining companies and syndicates.

During 1917 the output of ore from the Broken Hill mines amounted to 1,031,359 tons, viz., 30,580 tons of oxidised and 1,000,779 tons of sulphide ore; and 113,531 tons of zinc (spelter and concentrates), valued at £441,486, were exported.

The total value of the mineral output of the Barrier district during 1917 was estimated at £5,148,316, as compared with £4,479,514 in 1916. In addition, the treatment of zinc tailings in 1917 yielded an output valued at £569,694, and returned to shareholders £331,001, bringing the total production of the Broken Hill field to £5,718,010 for the year; the amount distributed to shareholders was £1,438,042.

To the end of the year 1917 the value of production by the mines on the Broken Hill field from the inception of operations was nearly 96½ millions sterling, and the dividends and bonuses paid amounted to £22,266,320.

Yerranderie Division.

Next in importance to the Broken Hill field is the Burragorang in the Yerranderie Division. In this field rich galena occurs in bunches, but the deposits are very variable in width and composition. Owing to the excessive cost of transport, only high-grade ore is sent away, and a considerable quantity of second-grade is left in the mines or dumped at the surface for future treatment. During 1917, 3,484 tons of ore were raised and sold; the metallic contents were gold 429 oz., silver 276,034 oz., and lead 1,054 tons; the net value received was £77,365.

Other Fields.

The other fields which contributed to the output of silver-lead ores include the Kangiara mines, in the Yass Division, where the treatment of 1,017 tons of ore and concentrates in 1917 resulted in the production of 9,528 oz. silver, valued at £1,667; 122 tons of lead, valued at £3,660; 70 tons of copper, valued at £8,540; and 153 oz. of gold, worth £612.

The Cobar copper-mines, of which details are given in connection with copper-mining, yield large quantities of silver and lead.

COPPER.

Ores of copper are worked chiefly in the central part of the State, the Macquarie, Bogan, and Darling Rivers. Deposits occur also in the New England and Southern districts, as well as at Broken Hill, thus showing a wide distribution.

The copper lodes of New South Wales contain ores of a high grade as compared with those of many well-known mines worked in other parts of the world; and, given a fair price and transportation facilities, are capable of yielding satisfactory returns. The net export of copper ingots, matte, regulus, and ore, is taken as the production of the State. The quantities and values are shown below from the year 1858:—

Period.	Quantity.		Value.
	Ingots, Matte, and Regulus.	Ore.	
	tons.	tons.	£
1858-1879	14,877	2,102	1,067,670
1880-1884	23,715	19	1,554,326
1885-1889	15,160	537	778,804
1890-1894	10,195	1,738	454,765
1895-1899	25,408	852	1,286,094
1900-1904	32,173	8,791	2,014,040
1905-1909	41,425	3,057	2,972,253
1910-1914	42,277	9,815	2,529,554
1915	2,463	4,510	234,437
1916	5,617	554	586,127
1917	6,576	.....	814,154
Total ...	219,886	31,975	14,292,224

During 1917 the metals produced at the works of the Electrolytic Refining and Smelting Company of Australia, Ltd., Port Kembla, included 26,043

tons of copper, valued at £3,198,080, obtained principally from imported blister copper; from domestic ores, 5,604 tons of copper, valued at £706,104, were obtained.

Cobar Field.

The Cobar mines constitute the chief centre of the copper-mining industry. From the point of view of combined output, the gold-copper mines worked in the Cobar district rank next, in value of production, to the silver-lead mines of the Broken Hill field.

The output during 1917 was valued at £608,084, and comprised the following:—Gold, valued at £89,601; silver, 55,923 oz., valued at £8,567; copper, metal and ore, 4,584 tons, valued at £509,916.

TIN.

Tin, unlike copper, is restricted in its geographical and petrological range, and is the rarest of the common metals in commerce.

In addition to alluvial deposits, tin ore occurs *in situ* in granite and adjacent contact rocks, usually occupying fissures or penetrating walls; the majority of the tin lodes discovered in the State are on a small scale, but the lodes, developed or undeveloped, are very numerous. The maximum depth attained in the tin lodes of New South Wales is about 360 feet.

Tin ore occurs in the extreme Northern, Southern, and Western divisions, but the proved area of workable quantities is limited practically to the western fall of the New England Tableland, with Emmaville and Tingha as the chief centres. It has been discovered also in small quantities in the Barrier district, at Poolamacca and Euriowie; near Bombala, in the Monaro district; at Gundle, near Kempsey; at Jingellie and Dora Dora, on the Upper Murray; in the valley of the Lachlan; and in fine particles in beach sands along the coast, in association with gold, platinum, and monazite.

Output of Tin.

Since 1902 the activity which has characterised tin-mining on the various fields throughout the State, owing to the satisfactory prices obtained, has resulted in a steadily increased value of output, so that tin has contributed in a very considerable degree to the total production of the mineral wealth of the State, its aggregate yield, in point of value, standing in the sixth place, after coal, silver, gold, copper, and zinc.

The output and the value of production of tin since 1872 have been as follows:—

Period.	Ingots.	Ore.	Aggregate Value.
	tons.	tons.	£
1872-1879	18,364	12,995	2,015,407
1880-1884	22,842	2,700	2,194,533
1885-1889	12,974	1,635	1,415,374
1890-1894	7,196	1,040	677,392
1895-1899	4,608	197	342,503
1900-1904	4,220	1,222	617,446
1905-1909	5,567	3,712	1,191,635
1910-1914	4,258	6,952	1,561,741
1915	857	1,331	266,780
1916	909	1,220	306,497
1917	1,109	963	373,696
Total ...	82,904	33,967	10,963,004

In 1917 the value of ingots was £240,410, and of ore £133,286, making the total as above, £373,696.

IRON AND IRON ORES.

Iron is known to occur throughout New South Wales, principally in the form of magnetite, hematite or goethite, limonite, and bog-iron; deposits of chrome iron also are found.

Hematite or goethite occurs in very extensive deposits in the Blue Mountains and Macquarie Ranges, the principal centres explored being situated at Mittagong, Picton, Berrima, Cadia, Lithgow Valley, Wallerawang; in the Rylstone and Mudgee districts; and in the vicinity of Port Stephens. The result of a number of analyses of this kind of ore denote that it is very rich in metallic iron.

Limonite—a variety of brown hematite—occurs principally at Lithgow, Eskbank, and Bowenfels, in the Blue Mountains; in several parts of the Hunter River coal-field; and at Bulli, in the Illawarra district.

Iron and steel works have been established in the Lithgow and Newcastle districts.

Ironstone Flux.

Varying quantities of iron ore have been despatched from the different producing centres to the smelting and iron works for use as flux, the gold contents of the ore helping to defray the cost of railway carriage. The estimated quantity and value of ironstone flux raised during the years 1899 to 1917 was 112,871 tons, valued at £86,199.

Owing to suitable ores having been obtained, the requirements of the smelting companies decreased steadily, and during the years 1913–15 no ironstone flux was raised for fluxing purposes; but in 1916 1,472 tons, valued at £1,083, were raised, and in the following year 4,482 tons, valued at £3,498.

Iron Oxide.

Parcels of iron oxide are sent from the Port Macquarie, Mittagong, and Goulburn districts to various gas-works for use in purifying gas, the output of iron oxide during 1917 being 1,431 tons, valued at £1,267.

The total recorded output to the end of 1917 was 36,230 tons, valued at £47,631.

Production of Iron and Steel, and Bounty paid.

Under the Manufactures Encouragement Act, 1908, the Commonwealth Government provided a bounty, to a total amount of £150,000, on all pig-iron from Australian ore, and on puddled bar-iron and steel made from Australian pig-iron within the Commonwealth, from 1st January, 1909, to 30th June, 1914; the bounty was payable at the rate of 12s. per ton produced, and the maximum amount payable in any year was £30,000. This bounty rate was extended until 30th June, 1915, but was subsequently replaced by a bounty of 8s. per ton on pig-iron manufactured between 30th June, 1914, and 31st December, 1916. The following table shows the production and bounty paid during the years 1909–17 :—

Year.	Pig-iron.		Puddled Bar-iron.		Steel.	
	Production.	Bounty Paid.	Production.	Bounty Paid.	Production.	Bounty Paid.
	tons.	£	tons.	£	tons.	£
1909	23,180	13,908	1,939	1,163	1,855	1,113
1910	40,326	24,196	3,384	2,036	3,410	2,046
1911	24,658	14,795	1,789	1,073	2,633	1,580
1912	31,104	18,663	549	329	.....	.....
1913	40,490	24,294	.....	.....	1,088	653
1914	58,528	35,117	.....	.....	14,929	8,957
1915	75,000	30,000	.....	.....	.....	.....
1916	68,512	27,405	.....	.....	.....	.....
1917	21,284	8,514	.....	.....	.....	.....

The output and value of finished iron, pig-iron, &c., for the last ten years are shown in the following statement :—

Year.	Quantity.	Value.	Year.	Quantity.	Value.
	tons.	£		tons.	£
1908	40,207	118,224	1913	46,563	186,252
1909	29,762	106,357	1914	75,150	254,257
1910	40,487	161,948	1915	76,318	267,000
1911	36,354	145,416	1916	52,556	197,085
1912	32,677	130,708	1917	45,025	247,637

The recorded output of pig-iron, &c., to the end of 1917 was 633,057 tons, valued at £3,266,017. The bulk was made from scrap-iron until 1907, when the smelting of iron ore was resumed, and the figures given above include the following production from ores mined in the State :—

Year.	Minerals Used.			Pig-iron.		Steel Ingots.
	Iron Ore.	Coke.	Limestone.	Production.	Value.	
	tons.	tons.	tons.	tons.	£	tons.
1912	55,170	51,102	20,399	32,677	130,708	.....
1913	71,577	60,854	26,251	46,563	186,252	13,608
1914	135,316	97,224	45,938	75,150	254,257	24,420
1915	134,684	96,316	42,379	76,318	267,000	25,040
1916	90,182	79,518	37,565	52,556	197,085	20,762
1917	91,927	77,871	35,377	45,025	247,637	19,667

OTHER METALS.

Platinum.—Platinum occurs in several districts of New South Wales, but platinum mining, in comparison with other branches of mining, and for less valuable ores, is unimportant. The quantity produced to the end of 1917 amounted to 14,073 oz., valued at £37,509, of which 259 oz., valued at £2,072, were obtained during 1917.

Chromite.—Chromite, or chromic iron ore, is the only commercially important ore of chromium which is an accessory constituent of a variety of minerals; it has been found usually associated with serpentine in the northern portion of New South Wales. The quantity exported to the end of 1917 was 32,571 tons, valued at £104,085; the yield recorded in 1917 was 587 tons, valued at £1,468.

Cobalt and Nickel.—Cobalt and nickel are usually associated in the same minerals, and traces of both metals have been found in several districts in New South Wales, but workable quantities have been located in very few places. The value of the total production of cobalt to the end of 1917 was £8,065, representing 885 tons of ore. No production of nickel is recorded.

Tungsten ores.—These ores are generally associated in New South Wales with tinstone (cassiterite), bismuth, and molybdenite. The quantity of scheelite exported during 1917 amounted to 127 tons, valued at £23,419, and of wolfram, 118 tons, valued at £21,682. From the year 1903 the exports of scheelite were 1,472 tons, valued at £152,299, and wolfram, 1,974 tons, valued at £217,868.

Antimony.—The principal source of supplies is at Hillgrove. For the whole State in 1917 there were 301 tons raised, the value being £3,738. The total output to the end of the year 1917 was 18,262 tons, valued at £335,686.

Manganese.—Manganese ores have been discovered in various places but generally in localities lacking transport facilities. During the year 1917 the quantity obtained was 3,721 tons, valued at £2,791.

Bismuth.—Bismuth has been found associated with molybdenite, tin, and gold, in quartz veins, chiefly in the neighbourhood of Glen Innes, and in other districts bismuth is associated with molybdenite and wolfram ores. The total quantity exported in 1917 was 20 tons, valued at £9,391, the quantity exported to the end of 1917 being 633 tons of ore, valued at £152,421.

Molybdenum.—The quantity of molybdenite, the principal ore of molybdenum, produced in New South Wales during 1917 was 70 tons, valued at £31,608. From 1902 the quantity was 600 tons, valued at £124,900.

Mercury.—Cinnabar, the most important ore of mercury, occurs in numerous localities but it has not been discovered in a sufficiently concentrated form to enable it to be profitably wrought. No production of quicksilver was recorded in the year 1917, but the total production to the end of 1917 is stated to be 2,970 lb., valued at £541.

COAL.

The coal-fields of New South Wales are of much greater importance as to area and as to quality of the coal than in any other part of Australia.

The main coal basin extends along the coast from Port Stephens on the north, to Ulladulla on the south, and thus has a seaboard of 200 miles, which enhances the value of the deposits by conducing to easy shipment and the development of oversea trade. From Ulladulla the basin trends inland to the west, and north-west as far as Rylstone, whence the boundary line extends northward beyond Gunnedah, and then runs in a south-easterly direction to Port Stephens. The widest part of this area is between Rylstone and Newcastle—100 miles; the basin is deepest in the neighbourhood of Sydney, where the uppermost seam is nearly 3,000 feet below the surface.

From Sydney the measures rise gradually in all directions, and emerge to the surface at Newcastle on the north, at Bulli in the Illawarra district to the south, and at Lithgow, in the Blue Mountain region, to the west.

The upper or Newcastle coal measures show the greatest surface development. Their seams outcrop at Newcastle, Bulli, and Lithgow, and extend continuously under Sydney, the deepest portion of the basin.

In the northern coal-field twelve seams have been discovered in these measures, five being worked; in the southern, five distinct seams are known, but two only have been worked; of the seven seams traced in the western field three only have proved of commercial value. After many unsuccessful boring operations, the uppermost seam of the Newcastle measures was located under Sydney Harbour in 1891, and is now worked at a depth of nearly 3,000 feet.

The coal obtained at Newcastle is specially suitable for gas making and for household use; the coal from Bulli and Lithgow is essentially steam coal—the southern produces a strong coke, specially suitable for smelting purposes by reason of its capacity for sustaining the weight of the ore burden in a blast furnace, and it contains less ash than the western. The coal obtained at the Sydney Harbour Colliery is also a good steam coal, and may be loaded direct into oversea steamers from a wharf near the pit's mouth.

In the western and southern fields the upper coal measures contain deposits of kerosene shale, a variety of torbanite, cannel coal, or boghead mineral.

It is used extensively for the manufacture of kerosene oil, and for the production of gas. Deposits of kerosene shale, though much less extensive, occur in the upper and Greta measures of the northern coal-field.

The middle coal measures outcrop near East Maitland, but do not appear in the western field; their occurrence in the southern field has not been definitely proved.

The lower or Greta measures outcrop over an irregular area in the neighbourhood of Maitland, and have been traced with intervening breaks as far north as Wingen; they occur as an isolated belt to the north of Inverell, and extend through Ashford, almost to the Queensland border. These measures have been located in the Clyde Valley, in the extreme southern portion of the Illawarra field, but do not occur in the western. The coal of the Greta measures is contained in two seams, and is the purest and generally the most useful obtained in the State, being of a good quality, hard, and economical as regards working. The Greta seams are worked extensively between West Maitland and Cessnock, in the most important coal-mining district in Australia. There were 126 coal-mines and 3 shale-mines working under the provisions of the Coal and Shale Mines Regulation Act during the year 1917.

Production of Coal.

The following table shows the quantity and value of coal raised in New South Wales from the earliest record to the close of 1917, the total production being 228,269,803 tons, valued at £87,779,613.

The figures are exclusive of coal used in the manufacture of coke, particulars as to which are quoted elsewhere in this Chapter :—

Period.	Quantity.	Value at Pit's Mouth.	Average per ton.
	tons.	£	s. d.
Prior to 1890	46,803,983	22,787,156	9 9
1890-4	17,830,177	6,811,568	7 8
1895-9	21,334,976	6,048,281	5 8
1900-4	29,792,589	10,369,050	7 0
1905-9	39,083,328	13,234,796	6 9
1910-4	47,555,714	17,344,973	7 4
1915	9,449,008	3,424,630	7 3
1916	8,127,161	3,336,419	8 2
1917	8,292,867	4,422,740	10 8
Total	228,269,803	87,779,613	7 8

Owing to war conditions the export of coal during the last three years was restricted; moreover, during 1916 and 1917 general strikes of coal-miners, caused a diminution in the output.

The bulk of production is obtained from the northern coal-fields. The output of each district during 1917 was :—Northern, 5,380,957 tons, valued at £3,074,966; Southern, 1,841,869 tons, £920,107; Western, 1,070,041 tons, £427,667.

The following statement shows the quantity of New South Wales coal consumed in Australia and New Zealand, including bunker coal taken by interstate vessels, and the overseas exports, during the last ten years :—

Year.	Domestic Consumption	Sent to other Australian States and New Zealand.	Total.	Exported to Oversea Countries, excluding New Zealand.	Total Production.
	tons.	tons.	tons.	tons.	tons.
1908	3,048,349	2,715,310	5,763,659	3,383,366	9,147,025
1909	2,626,276	2,200,769	4,827,045	2,192,834	7,019,879
1910	3,483,075	2,478,497	5,961,572	2,211,936	8,173,508
1911	3,667,524	2,525,776	6,193,300	2,493,304	8,691,604
1912	3,832,697	3,096,179	6,928,876	2,956,939	9,885,815
1913	4,182,441	3,465,787	7,648,228	2,765,937	10,414,165
1914	4,522,589	3,221,783	7,744,372	2,646,250	10,390,622
1915	4,780,614	2,601,070	7,381,684	2,067,324	9,449,008
1916	4,693,063	2,203,659	6,896,722	1,230,439	8,127,161
1917	5,029,070	2,225,228	7,254,298	1,038,569	8,292,867

* The figures from the year 1917 are for the Australian States only.

† Including New Zealand from the year 1917.

The variation in the proportion of the total production used for domestic consumption is shown in the following percentages :—

Year.	Proportion of Output.		
	Used for Domestic Consumption.	Sent to other Australian States and New Zealand.	Exported to other Countries.
	Per cent.	Per cent.	Per cent.
1908	33·32	29·69	36·99
1909	37·42	31·34	31·24
1910	42·62	30·32	27·06
1911	42·20	29·06	28·74
1912	38·77	31·32	29·91
1913	40·16	33·28	26·56
1914	43·52	24·85	31·63
1915	50·60	27·52	21·88
1916	57·74	27·12	15·14
1917	60·65	*26·83	†12·52

* Australian States only.

† Including New Zealand.

Calculated on the total value of the production during the decade, the average quantity of 666 tons extracted yearly by each person employed underground represents a value of £257. In 1917 the average value of production was £348 for each person employed below ground :—

Year.	Persons employed.		Quantity of Coal raised.		Value of Coal raised.		
	Above and below ground.	Below ground.	Total.	Per person employed below ground.	Total value.	Average value per ton.	Average value per person employed below ground.
	No.	No.	tons.	tons.	£	s. d.	£
1908	17,734	13,664	9,147,025	669	3,353,093	7 4	245
1909	18,168	13,915	7,019,879	504	2,618,596	7 5	186
1910	17,618	13,290	8,173,508	615	3,009,657	7 4	226
1911	17,375	12,679	8,691,604	686	3,167,165	7 3	250
1912	17,795	13,089	9,885,815	755	3,660,015	7 5	280
1913	18,843	14,164	10,414,165	735	3,770,375	7 3	266
1914	19,758	15,007	10,390,622	692	3,737,761	7 2	250
1915	17,959	13,476	9,449,008	701	3,424,630	7 3	254
1916	16,764	12,443	8,127,161	653	3,336,419	8 2	268
1917	17,197	12,701	8,292,867	653	4,422,740	10 8	348

Coal-cutting by Machinery.

Of the machines in use, 94 were classed as percussive, and 179 as chain-breast; 179 were driven by electricity, and 94 by compressed air.

The quantity of coal obtained during 1917 by machines driven by electricity was 1,822,897 tons, and that by machines driven by compressed air 486,289 tons, the total 2,309,186 tons representing 28 per cent. of the total output.

State Coal-mines.

The State Coal-mines Act, 1912, empowers the Government to purchase or resume coal-bearing lands or coal-mines and to open and work coal-mines upon Crown land or private land containing coal reserved to the Crown. The coal obtained from a State mine is to be used only by the State Departments.

A State coal mine was opened at Lithgow, in the Western district, in September, 1916; the area of Crown coal amounts to about 40,200 acres, and the available supply is estimated at 240,000,000 tons. Work at this mine has been entirely suspended since 10th July, 1917.

Prices of Coal.

The average price of coal per ton in the various districts for the last ten years is shown below; in the average for New South Wales allowance has been made for the quantity raised in each district.

District.	1903.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Northern ...	8 0	8 3	8 1	8 0	8 1	7 10	7 8	7 7	9 1	11 5
Southern ...	5 11	6 0	6 2	6 2	6 1	6 1	6 4	6 11	7 2	10 0
Western ...	4 6	4 9	5 6	5 1	5 0	5 2	5 6	5 6	5 7	8 0
New South Wales	7 4	7 5	7 4	7 3	7 5	7 3	7 2	7 3	8 2	10 8

COKE.

Coke-making is carried on in each of the three coal-mining districts of the State, but the bulk of the output comes from the southern district, where it is manufactured from coal drawn from the mines in the locality of Wollongong.

All the coke produced is suitable for use in blast furnaces, but the products of the northern and southern districts are harder, better able to carry a load in the furnace, and contain less ash than the coke of the western district. The plants in the southern district, being closer to Sydney, have advantage in railway transit of a lower transport cost than the plants in the northern and western districts.

The quantities of coke manufactured in New South Wales during the last five years were as follows:—

Year.	Quantity.				Total Value at Ovens.	Average Value per ton
	Northern District.	Southern District.	Western District.	Total.		
	tons.	tons.	tons.	tons.	£	s. d.
1913	29,659	239,183	29,770	298,612	208,989	14 0
1914	28,264	252,409	24,127	304,800	213,069	13 11
1915	84,134	305,584	28,035	417,753	313,241	15 0
1916	101,662	288,911	47,014	437,587	387,571	17 9
1917	111,803	297,904	45,880	455,587	541,093	23 9

The various districts contributed as follows to the total value of coke manufactured during the year 1917:—Northern, £149,509; Southern, £346,075; Western, £45,509.

The average values per ton at the ovens were:—Northern, 26s. 9d.; Southern, 23s. 3d.; Western, 19s. 10d.

The following statement shows the number of coke ovens and the persons engaged in the manufacture of coke in each district during 1917:—

District.	Coke Ovens.				Persons engaged in manufacture of coke.
	Working.	Not Working.	In course of Building.	Total.	
Northern	181	130	78	389	176
Southern	561	3	25	589	414
Western	102	153	.....	255	68
Total	844	286	103	1,233	658

OIL SHALE.

The production of oil shale, from the opening of the mines in 1865 to the end of 1917, is shown in the following table:—

Period.	Quantity.	Total Value at Mines.	Average Price per ton at Mines.	Year.	Quantity.	Total Value at Mines.	Average Price per ton at Mines.
	tons.	£	£ s. d.		tons.	£	£ s. d.
1865-84	370,217	828,194	2 4 9	1910-14	296,449	140,358	0 9 6
1885-89	186,465	406,255	2 3 7	1915	15,474	12,890	0 16 8
1890-94	247,387	451,344	1 16 6	1916	17,425	17,772	1 0 5
1895-99	191,763	222,690	1 3 3	1917	31,661	36,565	1 3 1
1900-04	213,163	177,246	0 16 8				
1905-09	213,024	131,456	0 12 4	Total ...	1,783,028	2,424,770	1 7 2

In 1917 the output was obtained from the mines in the western district.

The Shale Oils Bounties Act, passed by the Commonwealth Government during 1910, to make provision for the payment of bounties on the manufacture of kerosene and paraffin wax from Australian shale, expired on 30th June, 1913, and no further bounty was payable until 1917, when a bounty on crude shale oil produced in Australia from mined kerosene shale was provided for a period of four years dating from 1st September, 1917. The maximum amount payable in any one year is £67,500, the rate per gallon to each producer being as follows:—3,500,000 gallons and under, 2½d.; 3,500,000 to 5,000,000, 2d.; 5,000,000 to 8,000,000, 1½d.; each additional gallon, 1½d.

Large quantities of oil manufactured at Hartley Vale have been supplied to the Australian warships.

DIAMONDS.

Diamonds and other gem-stones in New South Wales were noted as early as 1851 by both Hargraves and Stutchbury, and have since been found to be widely distributed, but no extensive industry has yet been developed, mining operations being restricted to very few localities. The finest of the New South Wales diamonds are harder and whiter than the South Africa diamonds, and are classified as on a par with the best Brazilian gems.

The following table, compiled from the available information, is believed to understate considerably the actual output of diamonds in New South

Wales. The majority of the diamonds have been obtained from the mines in the Bingara and Copeton districts; in recent years the whole output has been from the latter district :—

Period.	Carats.	Value.	Period.	Carats.	Value.
		£			£
1867-1885	2,856	2,952	1906-1910	16,651	12,574
1886-1890	8,120	6,390	1911-1915	16,003	13,353
1891-1895	19,743	18,245	1916	1,901	1,375
1896-1900	69,384	27,948	1917	2,991	2,006
1901-1905	54,206	46,434			

The closing of the market consequent on the War has had a serious effect on the industry.

OPAL.

Common opals occur in many parts of New South Wales, and particularly in the locality of Orange. The precious or noble opal has been found in two geological formations in New South Wales, viz., in vesicular basalt and in sedimentary rocks of the Upper Cretaceous age. Only from the latter formation have gems in quantity and value been obtained hitherto, the finest opal known being located in the Upper Cretaceous formation at White Cliffs, near Wilcannia. Black opal, remarkable for colour, fire, and brilliancy, is obtained at Lightning Ridge, near the Queensland border.

The following table shows the estimated value of precious opal won in New South Wales to the end of 1917 :—

Period.	Value.	Period.	Value.
	£		£
1890	15,600	1911-1915	154,738
1891-1895	25,999	1916	21,273
1896-1900	415,000	1917	12,522
1901-1905	476,000		
1906-1910	305,300	Total	1,426,432

ALUNITE.

Alunite, or alumstone, occurs at Bullahdelah, about 35 miles from Port Stephens, in a narrow mountain range which for more than a mile of its length is composed almost entirely of alunite, of greater or less purity.

Four varieties of alunite are recognised at the mines, but working is confined mainly to the light-pink ore, the yield averaging about 80 per cent. of alum.

During 1910 and 1911, prospecting by means of diamond-drilling was carried on at Bullahdelah, with a view to locating further bodies of alunite of payable grade, so as to maintain the export trade; as a result there was a large increase in the quantity exported. In 1917 the production was 1,788 tons, valued at £10,728, and since the year 1890 the quantity and value of

alunite, the produce of New South Wales, exported have been 47,843 tons, value £159,031. Particulars are not available as to the amount of alum of local production used within the State.

OTHER MINERALS.

Marble.—Beds of marble of great variety of colouring, and with highly ornamental markings, are located in many districts of New South Wales. Much of the marble is eminently suitable for decorative work, and in recent years has won the favour of builders. During 1917 marble valued at £770 was obtained.

Limestone.—The quantity of limestone raised for flux in 1917 was 74,440 tons, valued at £25,746.

Fireclays.—Fireclays of good quality are found in the Wianamatta shales and in the Permo-carboniferous measures, and excellent clays for brick-making purposes may be obtained in all parts of the State.

Kaolin.—Kaolin or China clay derived from the decomposition of the felspars in granite, is found in many granitic districts.

Magnesite.—Magnesite is found at Fifield and a large quantity is procurable easily.

Diatomaceous earth occurs in large deposits in several localities.

Other Mineral Deposits.—Other mineral deposits known to exist but not worked extensively include asbestos, barytes, fluorspar, fuller's earth, ochre, graphite, slate and mica. The production of the minerals as recorded in 1917 was as follows :—

Mineral.	Quantity.	Value.	Mineral.	Quantity.	Value.
	tons.	£		tons.	£
Asbestos	10	35	Kaolin	1,519	2,032
Barytes	318	598	Limestone for Flux ...	74,440	25,746
Clays	11,936	10,001	Magnesite	9,190	9,992
Diatomaceous Earth ...	140	440	Marble ... ..	...	770
Dolomite	1,724	1,034	Ochres	217	231
Felspar	46	155	Pottery clay	200	130
Fireclay	520	260	Silicate	5,000	16,000
Fluorspar	1,306	3,165	Slates ... ..	..	52
Graphite	70	70	Steatite	234	234

MINING ACCIDENTS.

The number of fatalities during the last five years in the more important branches of mining, and the rates per 1,000 employees are shown below :—

Year.	Metalliferous Mines.						Coal and Shale Mines.	Total.
	Gold.	Silver, Lead, and Zinc.	Copper.	Tin.	Other.	Total Metalliferous		
<i>Number of Fatalities.</i>								
1913	6	30	7	1	1	45	18	63
1914	6	16	3	1	...	26	17	43
1915	...	9	3	2	...	14	23	37
1916	1	14	5	1	...	21	13	34
1917	...	7	4	2	...	13	24	37

Per 1,000 Employees.

1913	1·68	3·21	2·66	·42	·50	2·26	·95	1·62
1914	1·74	1·94	2·21	·46	...	1·49	·85	1·18
1915	...	1·62	3·28	1·21	...	1·06	1·26	1·18
1916	·43	2·17	3·01	·52	...	1·46	·77	1·09
1917	...	·92	1·93	1·12	...	·84	1·38	1·13

During 1917 there were 24 fatalities in coal and shale mines. In proportion to the number of persons employed the rates were highest in copper and coal and shale mines.

The number of persons seriously injured in mining operations during the last five years, and the ratio per 1,000 persons employed, are shown in the following statement :—

Year.	Metalliferous Mines.					Coal and Shale Mines.	Total.	Ratio per 1,000 persons employed.	
	Gold.	Silver, Lead and Zinc.	Copper.	Tin.	Other.				Total Metalliferous
<i>Number of Persons Seriously Injured.</i>									
1913	1	29	5	1	1	37	74	111	2·86
1914	3	34	1	...	1	39	73	112	3·07
1915	1	29	...	3	2	35	49	84	2·67
1916	1	24	1	2	3	31	55	86	2·75
1917	...	31	3	1	2	37	55	92	2·80

Many of these accidents and fatalities occurring on the surface can scarcely be regarded as true mining accidents. The following table shows the number of surface and under-surface accidents in connection with metalliferous mining :—

Metalliferous Mines.				Under-surface Accidents.		Surface Accidents.	
				Fatal.	Serious.	Fatal.	Serious.
Silver, Lead, and Zinc	...	...	...	4	15	3	16
Copper	...	...	...	3	1	1	2
Tin	...	...	...	...	1	2	...
Molybdenite	...	...	...	...	1	...	...
Manganese	...	...	...	...	1	...	...
Total	...	...	...	7	19	6	18

The number of persons killed and seriously injured in the coal and shale mines of New South Wales, during the last five years, with the proportion of miners and the quantity of mineral raised, is given below :—

Year.	Coal and Shale Mines.					
	Number of persons.		Number of employees per person—		Quantity of Mineral raised to each person—	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
1913	18	74	1,953	256	tons. 579,508	tons. 140,961
1914	17	73	1,116	260	614,157	143,023
1915	23	49	792	372	411,882	193,153
1916	13	55	1,299	307	626,507	148,083
1917	24	55	722	315	346,855	151,355

During 1917 no accidents resulted from explosion of fire-damp or coal dust.

The experience of coal-mining in this State with respect to accidents bears very favourable comparison with that of other countries.

A recent estimate shows that 48·5 per cent. of the total output of coal in New South Wales is obtained from collieries where miners use safety-lamps; and as the workings get deeper this proportion is likely to increase since with greater depth there is more likelihood of fire-damp.

Considerable improvements have been made in portable electric safety-lamps during late years, and their use for underground purposes has been much increased.

Ambulance classes are trained and corps exist in New South Wales for the purpose of promoting among miners a knowledge of first-aid principles. From 1897-1917, 142 classes were enrolled, the minimum membership being 10. The classes formed during 1917 numbered 8.

Interesting information regarding the sickness experience of Friendly Societies in mining districts is given in a chapter of this Year Book.

PRIVATE FINANCE.

CURRENCY AND COINAGE.

The coins current in New South Wales in 1909, when the Commonwealth Coinage Act was passed, corresponded with those of the monetary system of the United Kingdom, and were issued by the Royal Mint of England through its Sydney Branch.

The Commonwealth Treasurer was given power under that Act to issue silver and bronze coin of specified denominations. A nickel coinage was also authorised, but has not been issued.

A tender of payment made in British or Australian gold coins is legal for any amount, in silver coins for a maximum amount of forty shillings, and in bronze for a maximum amount of one shilling.

The principal variation of the Australian from the British system is the elimination of the half-crown from the silver coinage of the Commonwealth.

For gold coins the standard fineness is $\frac{11}{12}$ fine gold, $\frac{1}{12}$ alloy, or millesimal fineness 916.6; for silver coins, $\frac{37}{40}$ fine silver, $\frac{3}{40}$ alloy, or millesimal fineness 925; bronze coins are of mixed metal—copper, tin, and zinc.

Standard or sovereign gold of 22 carats fineness is worth £3 17s. 10½d. per oz.; pure or 24-carat gold is worth £4 4s. 11½d. per oz., but the gold contained in deposits sent to the Sydney Branch of the Royal Mint for melting, assaying, and coining, is valued at the rate of £3 17s. 10½d. per oz. standard or sovereign gold, and there is thus no premium on the metal.

The nominal value of one ounce of silver coined into eleven sixpences is 5s. 6d., and of one pound (avoirdupois) of bronze coined into pence 4s., and into halfpence or farthings 3s. 4d.

MINTING.

The Royal Mint of England has three branches in Australia, viz., one each at Sydney, Melbourne, and Perth. The earliest branch, at Sydney, was opened on the 14th May, 1855.

Only gold coins are struck at the Sydney Mint; silver and bronze Australian coins are struck at the London Mint and forwarded to the Sydney Branch, for distribution at the order of the Commonwealth Treasurer.

The total weight of gold sent for coinage to the Sydney Mint in the period from its foundation to the 31st December, 1917, was 38,221,624 oz., valued at £141,408,628. Of this quantity New South Wales produced 12,036,648 oz., of the value of £44,512,830. The value of gold coin and bullion issued up to the end of 1917 was £141,170,018, of which £134,415,500 represented coin, the value of sovereigns being £129,634,500 and of half-sovereigns £4,781,000. Coins of the latter denomination were not minted during 1917.

The gold bullion issued from the Mint includes pure gold in small quantities for industrial use but the bulk consists of bars of fine gold issued to local banks. The amount of gold bullion issued during 1917 was valued at £72,679, the total from 1855 to the end of 1917 being 1,636,520 oz., valued at £6,754,518.

The first issue of bronze coin from the Sydney Mint took place in 1868, and of silver in 1879, the value of each to the end of the year 1910 being bronze £106,459, and silver £1,239,400. The issue of British silver and bronze coin in the Commonwealth ceased in 1910, and Australian coins were first issued in that year.

Australian silver and bronze coins issued to the end of 1917 from the Sydney Mint were valued at £1,358,840. The values of the several coins issued in 1917 were—Florins, £165,000; shillings, £95,000; sixpences, £17,300; threepences, £11,800; pence, £5,630; and half-pence, £3,500; the total value of the year's issue being £298,230.

The coinage or nominal value of silver per standard ounce is 5s. 6d., and the average London market price per ounce during 1917 was 3s. 4-93d., the difference, 2s. 1-07d. representing the seigniorage, or gross profit. After allowing for mint expenses, the net profit accrues to the Commonwealth Government, which received £330,987 and £16,864 respectively as net profits from Australian silver and bronze coinage in 1917.

Light gold coins in parcels of not less than £50 nominal value are received and recoined free of charge, but depositors are required to bear the loss by abrasion. The nominal value of the gold coin withdrawn from circulation during 1915 was £663, and for the whole period since the opening of the Mint £1,084,327. The influence of the War on the currency of the British Empire is evidenced in the fact that no gold coins were withdrawn from circulation during the years 1916 and 1917.

Worn British silver coin of the value of £8,305 was withdrawn from circulation through the Sydney Mint during 1916, and the aggregate value withdrawn to the end of that year was £455,572. No Australian silver coins have yet been withdrawn from circulation.

Mint Receipts and Expenditure.

The receipts of the Mint are paid into the Consolidated Revenue of New South Wales, and represent charges for coining gold, fees for assays, &c., and profits on the sale of silver. The Mint retains all silver contained in deposits, but payment is made for all silver in excess of 8 per cent. of the gross weight at a rate fixed by the Deputy Master. The price paid from the 12th May, 1902, to the 31st July, 1917, was 1s. 6d., and from the 1st August, 1917, 2s. 6d. per oz. fine.

For assaying and coining gold the charge is 1d. per ounce standard, and a charge is made for melting and refining gold insufficiently treated for direct conversion into coin, the maximum being at the rate of 3d. per oz. gross, and the minimum 1d., with an additional 1s. per oz. on deposits containing more than 5 per cent. of base metal. The minimum charge on any one deposit is 6s., except in the case of deposits containing more than 5 per cent. of base metal, when the minimum charge is 10s. 6d.

The cost of maintenance of the Sydney Branch of the Royal Mint is borne by the State Government, £17,000 being set apart annually for that purpose. Special additional votes for construction, repairs, and furniture have also been made. The expenditure from Consolidated Revenue during 1917 amounted to £15,345, and the total receipts from the Royal Mint amounted to £5,686, showing a net loss to the State of £9,659 on the year's transactions.

PAPER CURRENCY.

Bank Notes.

Prior to 1910 the control of paper currency was vested in private banking institutions which had used their right to issue bank notes. In New South Wales the note currency was subject to a tax at the rate of 2 per cent. per annum, but this has been replaced by a 10 per cent. Commonwealth tax, with the result of practically forcing the notes of the trading banks out of circulation.

The total liability in notes and bills of banking institutions operating in New South Wales at various periods prior to the issue of Australian notes in 1910, and at intervals since 1910, is shown in the following table, the figures being given as recorded for the quarter ended the 31st December of each year :—

Year.	Circulation in—		Total.
	Notes.	Bills.	
	£	£	£
1860	949,849	62,505	1,012,354
1870	695,306	50,515	745,881
1880	1,260,772	51,698	1,312,470
1890	1,557,805	127,442	1,685,247
1900	1,447,641	209,905	1,657,546
1910	2,243,128	370,199	2,613,327
1911	400,784	411,792	812,576
1915	91,559	426,597	518,156
1916	84,702	575,248	659,950
1917	76,355	646,332	722,687

The original purpose of the note issue was to obviate the necessity for keeping gold reserves in branch banks, the circulation being confined practically to country districts.

Australian Notes.

As a consequence of the Australian Notes Act passed in 1910 by the Federal Parliament, the Commonwealth Treasurer was authorized to issue notes, which are legal tender throughout the Commonwealth, and are redeemable in gold at the seat of the Federal Government. These notes are at present issued in the following denominations:—10s., £1, £5, and £10, and any multiple of £10; against this liability the Treasurer is bound to hold in gold coin a reserve of not less than 25 per cent. against all issues.

The value of the Australian notes in circulation on the 30th June, 1918, was £52,535,959, and the gold reserve held against this note issue was £17,659,754, representing 33·61 per cent. of the circulation. Of this amount the Commonwealth Bank holds on behalf of the Federal Treasurer gold coin and bullion to the amount of £10,102,075.

MONEY ORDERS AND POSTAL NOTES.

Exchange by means of money orders and postal notes is conducted by the Post and Telegraph Department of the Commonwealth. Remittances may be forwarded by money order from the principal post offices of New South Wales to other parts of the world, either direct to the place of payment if within the Commonwealth, or through intermediary agencies to places outside Australia. The money-order and postal-note systems are both effective with regard to small remittances within the State; but as public convenience is met by the postal note, the money-order system is confined almost entirely to amounts exceeding £1.

Money Orders.

The money-order system was initiated in January, 1863. In that year there were 3 orders issued for every hundred persons in New South Wales, and the total value of the orders was £53,832. During the year ended the

30th June, 1918, the total number of orders issued was 951,715, or 50 for every one hundred persons, and the total value £4,574,803, as shown in the sub-joined statement.

Where Payable.	Issued in New South Wales.		Where Issued.	Paid in New South Wales.	
	No.	Value.		No.	Value.
In New South Wales	785,321	£ 3,830,238	In New South Wales	705,886	£ 3,835,268
In other States ..	111,145	554,149	In other States ...	98,135	454,258
Beyond the Commonwealth.	55,249	190,421	Beyond the Commonwealth.	100,072	365,863
Total ...	951,715	4,574,803	Total ...	904,093	4,595,389

The following comparative table distinguishes money orders drawn on New South Wales from those drawn on other countries. The value of the orders issued and paid in the State at intervals since 1895 was as follows:—

Year.	Issued in New South Wales.			Paid in New South Wales.		
	Payable in New South Wales.	Payable elsewhere.	Total.	Issued in New South Wales.	Issued elsewhere.	Total.
	£	£	£	£	£	£
1895	985,771	283,429	1,269,200	984,509	262,726	1,247,235
1900	1,182,554	325,413	1,507,967	1,178,713	362,822	1,541,535
1905	1,746,866	329,280	2,076,146	1,757,229	425,400	2,182,629
1910	2,311,711	494,314	2,806,025	2,308,056	571,334	2,879,390
*1916	4,505,492	777,064	5,282,556	4,522,359	675,141	5,197,500
*1917	3,715,016	812,541	4,527,557	3,715,122	674,822	4,389,944
*1918	3,833,268	760,121	4,595,389	3,830,238	744,570	4,574,803

* Year ended 30th June.

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Postal Notes.

Postal notes were first issued in New South Wales on the 1st October, 1893. The transactions for subsequent periods were as follow:—

Year.	New South Wales Postal Notes.			Postal Notes of Other Australian States Paid in New South Wales.
	Paid in New South Wales.	Paid in Other Australian States.	Total Value.	
	£	£	£	£
1895	243,188	16,369	259,557	13,362
1900	462,087	26,396	488,483	25,362
1905	637,465	85,703	723,168	87,203
1910	910,136	182,000	1,092,136	129,304
*1916	1,155,445	266,770	1,422,215	123,057
*1917	1,125,817	317,296	1,443,113	120,372
*1918	1,090,582	307,054	1,397,636	122,419

* Year ended 30th June.

The total number of postal notes issued in New South Wales during the year ended the 30th June, 1918, was 4,174,583, of which 2,988,237 were for payment in the State, and 340,240 notes issued in other States were cashed in New South Wales.

The poundage collected on postal-note issues in New South Wales during the year ended 30th June, 1918, was £27,702.

TRADING BANKS.

There are sixteen banking institutions, including the Commonwealth Bank of Australia, which transact ordinary business within the State.

Institutions which transact banking business are required under the Banks and Bank Holidays Act, 1912, to furnish in a prescribed form quarterly statements of their assets and liabilities, from which returns, and from the periodical balance-sheets issued by the banking companies, the information contained in the following tables has been prepared.

Although the returns furnished comply with the requirements of the law, they are unsuited to modern banking methods, and cannot be accepted as fairly disclosing the stability or otherwise of these institutions. For instance, in the Profit and Loss Accounts of some of the banks, the net profit is shown after deducting the interest on deposits and all other expenses. The details relating to management, such as salaries, directors' fees, printing and stationery, rent and repairs, taxes, depreciation, rebate on bills, and other expenses, are not disclosed. The balance-sheets also are incomplete, as in the liabilities the capital is not divided into the number of shares and into the amount called up, showing the particulars of ordinary and preferential shares separately. With regard to the assets, the value of coin, bullion, and cash balances in some cases is grouped under one item, while the amounts of Government securities, advances to customers, overdrafts, and other sums due to the bank are included under a similar general heading.

The classification, both of assets and of liabilities, required by the schedule to the Act, is too general to admit the detailed analysis; thus, under the term "deposits not bearing interest," most of the banks are accustomed to return interest accrued and all debts due by them other than deposits at interest, notes, and bills, and no dissection is made in the assets of the various classes of advances.

The following tables deal with the returns of fifteen banks; but one of these, the Colonial Bank of Australasia, Limited, was, on the 5th September, 1918, amalgamated with the National Bank of Australasia, Limited, the new institution retaining the name of the latter. The City Bank of Sydney no longer appears in the list of financial institutions of New South Wales. It was amalgamated with the Australian Bank of Commerce during the year 1917, and the combined business is now conducted under the name of the latter. During the early part of 1919, the Bank of Adelaide opened a branch in Sydney.

BANKING INSTITUTIONS AND CAPITAL.

The paid-up capital of the banks doing business in New South Wales on the 30th June, 1918, exclusive of the Commonwealth Bank of Australia, the Comptoir National d'Escompte de Paris, and the Yokohama Specie Bank, was £19,360,499, of which £2,061,743 carried a preferential claim on the profits of the companies.

The following table shows the ordinary and preferential capital of the fourteen banks at the dates given, with the amount of the reserve fund of each institution. The three institutions mentioned in the previous paragraph are excluded from the table.

Bank.	Offices in Australia (including Head Office.)	Date of Balance-sheet.	Capital Paid Up.			Reserve Fund.
			Ordinary.	Preferential.	Total.	
HEAD OFFICE, SYDNEY.						
Bank of New South Wales	No. 335	Mar., 1918	£ 3,904,860	£ ..	£ 3,904,860	£ 2,950,000
Commercial Banking Co. of Sydney ..	208	June, 1918	2,000,000	..	2,000,000	2,040,000
Australian Bank of Commerce	137	June, 1918	1,198,679	..	1,198,679	126,000
HEAD OFFICE, MELBOURNE.						
Commercial Bank of Australia	307	June, 1918	1,600,349	..	1,600,349	..
Royal Bank of Australia	9	Mar., 1918	300,000	..	300,000	300,000
National Bank of Australasia	213	Mar., 1918	1,192,440	305,780	1,498,220	700,000
Colonial Bank of Australasia	110	Mar., 1918	138,236	304,044	439,280	300,000
HEAD OFFICE, BRISBANE.						
Queensland National Bank	99	June, 1918	480,000	..	480,000	222,000
Bank of Queensland	45	July, 1918	450,000	..	450,000	..
HEAD OFFICE, WELLINGTON.						
Bank of New Zealand	203	Mar., 1918	1,000,000	1,279,989	2,279,989	2,200,000
HEAD OFFICE, LONDON.						
Bank of Australasia	199	Oct., 1917	2,000,000	..	2,000,000	2,905,000
Union Bank of Australia	194	Feb., 1918	2,000,000	..	2,000,000	2,025,000
London Bank of Australia	96	Dec., 1917	497,755	171,930	669,685	385,000
English, Scottish, and Australian Bank	170	June, 1917	539,437	..	539,437	500,000
Total	2,325	....	17,298,756	2,061,743	19,360,499	14,657,000

The column headed "reserve fund" in the foregoing table excludes balances of profit and loss. With respect to the Commercial Bank of Australia, the paid-up capital was £2,213,009, but the net actual capital on the 30th June, 1918, was £1,600,349, the sum of £612,660 having been deducted to meet the estimated deficiency in connection with the Special Assets Trust Company, Limited. The ordinary capital of the London Bank of Australia (£497,755) includes the sum of £6,825 prepaid by the trustees in respect of reserve liability.

The following table shows the amount of the paid-up capital and reserve funds of the fourteen banks at intervals since 1895. The paid-up capital represents the amount contributed to each bank operating in New South Wales, irrespective of the countries in which it was subscribed.

Year.	Banks.	Capital Paid up.		Total.	Reserve Funds.
		Ordinary.	Preferential.		
	No.	£	£	£	£
1895	13	14,610,177	5,094,780	19,704,957	4,175,912
1900	13	12,212,129	4,594,940	16,807,069	4,529,109
1905	13	9,870,871	4,095,060	13,965,931	5,474,199
1910	15	13,911,796	2,281,754	16,193,550	8,462,235
1915	15	16,892,013	2,061,743	18,953,756	13,614,142
1916	15	17,623,861	2,061,743	19,685,604	14,082,000
1917	14	17,298,756	2,061,743	19,360,499	14,657,000

The decrease in the year 1905 was due to the writing down of the capital of certain banks. During the next period the capital was materially increased by additional calls on shares, and by the commencement of operations in the State by the Colonial Bank of Australasia and the Royal Bank of Australia. Against these increases must be placed the estimated deficiency in connection with the Special Assets Trust Company of the Commercial Bank of Australia. The increase from 1910 to 1917 was due to further calls on shares of several banks.

LIABILITIES AND ASSETS OF BANKS.

The aggregate liabilities to the public, in New South Wales and elsewhere, of the fourteen foregoing institutions, together with the Commonwealth Bank, were £318,738,228, against which were assets representing £355,411,650. The following table shows the liability of each institution, notes in circulation and deposits being separated from other liabilities.

Bank.	Notes in Circulation.	Deposits.	Other Liabilities.	Total.
	£	£	£	£
Commonwealth Bank of Australia	67,167,115	1,919,379	69,086,494	
Bank of New South Wales	610,107	43,126,762	10,379,920	54,116,789
Commercial Banking Co. of Sydney	11,830	27,109,805	1,262,746	28,384,381
Australian Bank of Commerce	7,679,907	694,810	8,374,717	
Colonial Bank of Australasia	18,092	4,768,879	208,449	4,990,420
Commercial Bank of Australia	69,861	10,251,479	885,579	11,206,919
National Bank of Australasia	32,575	13,973,858	1,330,335	15,336,768
Royal Bank of Australia	872	2,933,512	660,217	3,594,601
Queensland National Bank	11,681,865	498,511	12,180,376	
Bank of Queensland	2,928,451	236,962	3,165,413	
Bank of New Zealand	3,312,995	30,437,937	2,329,559	36,080,491
Bank of Australasia	350,819	20,891,101	3,021,534	24,863,454
Union Bank of Australia	432,599	24,975,570	2,032,495	27,440,664
London Bank of Australia	5,625	6,344,838	889,257	7,232,720
English, Scottish, and Australian Bank	1,742	11,683,286	993,993	12,684,021
Total	£ 5,447,117	285,949,365	27,341,746	318,738,228

The assets in New South Wales and elsewhere of each bank shown in the previous table are stated below. The amount of coin and bullion excludes £10,102,075 held by the Commonwealth Bank of Australia for the Treasurer, and the Australian notes include in some cases those of Fijian and Samoan issue.

Bank.	Coin, Bullion, Cash Balances, etc.	Common- wealth Notes.	Advances.	Other Assets.	Total.
	£	£	£	£	£
Commonwealth Bank of Australia	5,798,979	13,840,685	11,898,554	38,624,302	70,162,520
Bank of New South Wales	10,207,886	4,937,285	27,531,491	18,520,337	61,196,999
Commercial Banking Co. of Sydney	7,629,134	16,204,998	8,747,492	32,581,624	
Australian Bank of Commerce	717,558	694,173	6,454,674	1,886,025	9,752,430
Colonial Bank of Australasia	1,343,612	3,369,839	1,042,085	5,755,536	
Commercial Bank of Australia	2,159,794	7,976,215	2,724,092	12,860,101	
National Bank of Australasia	3,948,293	10,133,870	3,528,565	17,610,728	
Royal Bank of Australia	954,663	2,189,227	1,064,429	4,208,319	
Queensland National Bank	983,445	2,350,747	6,865,141	2,736,113	12,935,446
Bank of Queensland	715,155	234,526	2,236,694	452,355	3,638,730
Bank of New Zealand	5,737,566	292,724	17,786,755	17,021,647	40,838,682
Bank of Australasia	6,426,727	20,219,096	3,415,940	30,061,763	
Union Bank of Australia	6,152,031	18,007,447	7,520,479	31,679,957	
London Bank of Australia	1,841,232	4,721,602	1,772,297	8,335,131	
English, Scottish, and Australian Bank	1,904,709	6,086,711	5,802,264	13,793,684	
Total	£ 56,520,774	22,350,140	161,682,314	114,858,422	355,411,650

The difference between the assets and liabilities shown in the foregoing tables amounts to £36,673,422, and consists of the paid-up capital and reserves (£35,523,317) and the dividends paid (£1,150,105).

LOCAL BUSINESS OF BANKS.

In order to institute a comparison between the figures of the various banks, necessary adjustments have been made by excluding from the assets the balances due from branches and agencies outside New South Wales. The following table shows the assets and the liabilities, together with the surplus assets of the banks, at intervals since 1890, the figures representing the average for the quarter ended the 31st December in each year.

Year.	Assets within the State.	Liabilities within the State.	Surplus Assets.
	£	£	£
1890	51,679,795	36,828,633	14,851,162
1900	43,036,427	33,969,731	9,066,696
1905	43,694,137	38,861,062	4,831,075
1910	58,276,278	54,667,088	3,609,190
1915	82,111,359	74,227,052	7,884,307
1916	92,477,264	84,278,180	8,199,084
1917	92,524,027	79,702,135	12,821,892

Coin and bullion together represent only 12·8 per cent. of the average assets of the banks within New South Wales, and advances represent in the aggregate 71·6 per cent. of the total assets held by the banks against their liabilities.

Deposits represent 97 per cent. of the liabilities (exclusive of those due to shareholders), while advances comprise nearly 72 per cent. of the assets. A clear realisation of these facts will show the extent to which banking business depends upon these factors.

The following statement shows the average liabilities within New South Wales (exclusive of those to shareholders), during the quarter ended 31st December, in each year. Interest-bearing deposits in the last three years include savings banks deposits in the Commonwealth Bank of Australia.

Year.	Notes.	Deposits.			Other Liabilities.	Total Liabilities.
		At Interest.	Without Interest.	Total Deposits.		
	£	£	£	£.	£	£
1890	1,503,404	25,114,127	9,932,310	35,046,437	278,792	36,828,633
1895	1,223,864	20,406,822	10,222,437	30,629,259	183,929	32,037,052
1900	1,447,641	20,909,081	12,224,510	32,233,591	288,499	33,969,731
1905	1,430,335	22,211,627	14,859,427	37,071,054	353,673	38,860,062
1910	2,243,128	27,824,972	24,068,552	51,893,524	530,436	54,667,088
1915	91,559	35,464,943	36,584,540	72,049,483	2,086,010	74,227,052
1916	84,702	36,542,334	45,418,484	81,960,818	2,232,660	84,278,180
1917	76,355	38,763,384	38,652,032	77,415,416	2,210,364	79,702,135

The value of notes in circulation decreased to £400,784 in 1911, and steadily declined during subsequent years, a result due to the issue of the paper currency of the Commonwealth, and the consequent calling in of that issued by trading banks.

The following table shows the average assets within New South Wales, Australian notes being included with "other assets" since the year 1910 :—

Year.	Coin and Bullion.	Advances.	Landed Property.	Other Assets.	Total Assets.
	£	£	£	£	£
1890	5,659,057	41,623,049	1,601,589	2,796,100	51,679,795
1895	7,516,278	35,707,153	1,919,017	479,881	45,622,329
1900	6,126,126	34,385,388	1,874,099	650,814	43,036,427
1905	8,823,260	32,447,659	1,799,231	623,987	43,691,137
1910	13,724,285	40,854,690	1,822,997	1,874,306	58,276,278
1915	12,065,902	54,398,106	2,174,225	13,473,126	82,111,359
1916	12,798,819	62,951,707	2,373,297	14,353,441	92,477,264
1917	11,875,018	66,291,077	2,421,896	11,936,036	92,524,027

METALLIC RESERVES OF BANKS.

The proportion of metallic reserves which banking institutions should keep constantly in stock is not fixed by any enactment, and consequently the amount of coin and bullion varies considerably. The following figures represent the weekly average amounts during the quarter ended the 31st December of the years mentioned :—

Year.	Coin.	Bullion.	Total.	Proportion of Metallic Reserves—	
				To Total Liabilities.	To Deposits at Call and Note Circulation.
	£	£	£	per cent.	per cent.
1890	5,575,058	83,999	5,659,057	15·4	49·5
1900	5,933,076	193,050	6,126,126	18·0	44·8
1910	13,527,019	197,266	13,724,285	25·1	52·2
1915	11,967,582	98,320	12,065,902	16·3	32·9
1916	12,629,973	168,846	12,798,819	15·2	28·1
1917	11,392,585	482,433	11,875,018	14·9	30·7

ADVANCES BY BANKS.

Under the head of advances are included notes and bills discounted, and all other debts due to the banks. The bulk of the advances are secured by the mortgage of real estate, or by the deposit of deeds over which the lending institutions acquire a lien, but the extent to which trade bills are discounted is not disclosed. The following table supplies a summary of these transactions at various dates from 1890.

Year.	Advances.	Ratio of Advances to Deposits.	Advances per cent. of Total Assets.	Amount of Advances per Inhabitant.
	£	per cent.		£ s. d.
1890	41,623,049	118·8	80·5	37 2 0
1900	34,385,388	101·2	79·9	25 4 0
1910	40,854,690	78·7	70·1	24 18 9
1915	54,398,106	75·5	66·2	29 2 3
1916	62,951,707	76·8	68·1	33 17 8
1917	66,291,077	85·6	71·6	35 1 0

DEPOSITS IN BANKS.

The total amount of money deposited with the banks operating in New South Wales during 1917 was approximately £415,521,663, of which sum £77,415,416 was received locally. The following statement shows the average amount of money deposited within the boundaries of the State at various periods commencing with 1890.

Year.	Deposits Within New South Wales.			Proportion of Deposits Not Bearing Interest to Total Deposits.	Proportion of Deposits to Liability (to Public).
	Bearing Interest.	Not Bearing Interest.	Total.		
	£	£	£	per cent.	per cent.
1890	25,114,127	9,932,310	35,046,437	28·4	95·1
1900	20,009,081	12,224,510	32,233,591	37·9	94·9
1910	27,824,972	24,068,552	51,893,524	46·4	94·9
1915	35,464,943	36,584,540	72,049,483	50·7	93·0
1916	36,542,334	45,418,484	81,960,818	55·4	97·3
1917	38,763,384	38,652,032	77,415,416	49·9	97·1

The deposits reached their highest level in December, 1916, when there was entrusted to the banks an average total of £81,960,818.

Interest-bearing deposits in the years 1915, 1916, and 1917 include those of the Savings Department in the Commonwealth Bank of Australia.

From the preceding tables it is apparent that deposits in banks have increased very rapidly, while advances, though larger from year to year, have not increased consistently in a similar proportion.

INTEREST, DISCOUNT, AND EXCHANGE RATES.

The interest on fixed deposits is $2\frac{1}{2}$ per cent. for sums deposited for six months, for twelve months' deposits the rate is 4 per cent., and for two years, $4\frac{1}{2}$ per cent. The rates quoted are low, and the strength of the deposits shows that money equal to requirements is freely subscribed.

Under normal conditions the annual rate of interest paid on fixed deposits is uniform for all banks, and discount and overdraft rates should correlate with the interest rates paid to depositors.

The interest rates allowed on deposits for twelve months, and charged on overdrafts, also the discount rates at intervals from 1890 to 1917 were as follow :—

Year.	Bank Rates of Interest.		Bank Discount Rates.	
	Allowed on Deposits for Twelve Months.	Charged on Overdrafts.	Bills at Three Months.	Bills over Three Months.
	per cent.	per cent.	per cent.	per cent.
1890	$4\frac{1}{2}$	9	7	8
1900	3	6 to 7	5 to $5\frac{1}{2}$	$5\frac{1}{2}$ to $6\frac{1}{2}$
1910	3	6 „ $7\frac{1}{2}$	5 „ 6	6 „ 7
1915	$3\frac{1}{2}$ to 4	6 „ 8	5 „ 6	6 „ 7
1916	4	6 „ 8	5 „ 6	6 „ 7
1917	4	6 „ 8	5 „ 6	6 „ 7

The bank exchange rate on London, at sixty days' sight, is on the average about 1 per cent., but it is subject to some fluctuation. In May, 1893, it was $3\frac{1}{2}$ per cent., the banks at that date requiring all their available assets. The rates from 1890 to 1917 were:—

Year.	Exchange Rate on London at 60 Days' Sight.	
	Buying.	Selling.
	per cent.	per cent.
1890	99 $\frac{3}{4}$ to 100	100 $\frac{3}{4}$ to 101 $\frac{3}{4}$
1895	99 $\frac{1}{2}$ „ 99 $\frac{3}{4}$	100 $\frac{3}{4}$ „ 100 $\frac{3}{4}$
1900	98 $\frac{3}{4}$ „ 99 $\frac{1}{2}$	100 $\frac{1}{2}$ „ 100 $\frac{3}{4}$
1910	98 $\frac{3}{4}$ „ 99	99 $\frac{3}{4}$ „ 99 $\frac{3}{4}$
1915	98 $\frac{3}{4}$ „ 99 $\frac{1}{2}$	100 $\frac{1}{2}$ „ 100 $\frac{3}{4}$
1916	98 $\frac{3}{4}$ „ 99 $\frac{1}{2}$	100 $\frac{1}{2}$ „ 100 $\frac{3}{4}$
1917	98 $\frac{3}{4}$ „ 99 $\frac{1}{2}$	99 $\frac{3}{4}$ „ 100 $\frac{3}{4}$

The average rates of exchange for bank bills in 1917 are given herewith. Bills drawn on the States of the Commonwealth and on New Zealand are negotiable at sight.

London	... ..	1s. 8d.	per cent. discount.
Victoria	... ..	2s. 6d. to 5s.	„ „ premium.
Queensland	... ..	5s. to 10s.	„ „ „
South Australia	... ..	2s. 6d. to 5s.	„ „ „
Western Australia	... ..	5s. to 10s.	„ „ „
Tasmania	... ..	2s. 6d. to 5s.	„ „ „
New Zealand	... ..	5s. to 10s.	„ „ „

PROFITS OF BANKS.

The results of the transactions of each bank for the latest period for which information is available are given hereunder. With the exception of the Bank of New Zealand, the London Bank of Australia, and the English, Scottish and Australian Bank, for which the figures relate to yearly operations, the amounts given cover a period of six months. The dates of the balance-sheets have already been given.

Bank.	Balance Brought Forward.	Net Profits for Half-year.	Total.	Half-yearly Dividend.		Amount Transferred to Reserve Fund, etc.	Amount Carried Forward.
				Rate per Cent. per Annum.	Amount.		
	£	£	£		£	£	£
Commonwealth Bank of Australia	....	317,075	317,075	..	..	317,075	....
Bank of New South Wales	119,187	278,785	397,972	10	195,243	75,000	127,729
Commercial Banking Company of Sydney	50,254	146,989	197,243	10	100,000	40,000	57,243
Australian Bank of Commerce	16,835	47,199	64,034	5	29,967	15,000	19,067
Colonial Bank of Australasia	7,584	28,252	35,836	7	15,375	11,000	9,461
Commercial Bank of Australia	6,435	76,398	82,833	4	42,347	30,000	10,486
National Bank of Australasia	15,746	81,994	100,740	7	52,438	30,000	18,302
Royal Bank of Australia	8,462	25,256	33,718	8	12,000	20,000	1,718
Queensland National Bank	....	53,070	53,070	..	51,506	....	1,564
Bank of Queensland	6,019	17,297	23,316	6	14,175	....	9,141
Bank of New Zealand	111,596	386,607	498,203	4 and 6 Bonus, 3	237,500	115,000	145,703
Bank of Australasia	122,869	200,440	323,309	Div'd. 14 Bonus, 3	170,000	30,000	123,309
Union Bank of Australia	73,504	165,789	239,293	Div'd. 10 Bonus, 2	140,000	25,000	74,293
London Bank of Australia	20,650	83,245	103,925	7	46,399	33,000	24,526
English, Scottish, and Australian Bank	33,884	110,419	144,303	4	43,155	66,885	34,263

BANKS' EXCHANGE SETTLEMENT.

The Banks' Exchange Settlement Office, which was established in Sydney on the 18th January, 1894, is not a clearing-house in the accepted meaning of the term, since the exchanges are effected daily at the banks by the staff of each institution. The results of these operations are notified to the Secretary of the Banks' Exchange Settlement, who establishes the daily credit of each bank with the "pool," which is under the control of three trustees, and consists of £750,000 in gold. This money is deposited in the vaults of three of the banks, and may not be circulated or distributed. The contributions to the "pool" are graduated according to the volume of the operations of the individual bank. The secretary notifies each institution daily of the amount of its credit with the "pool," and it is not permissible for any balance to remain below 25 per cent. of the fixed contribution. In the event of it reaching this margin, the bank is required to make up the deficiency with gold. The payment, however, is not made to the "pool," but to such other banks as may happen to have to their credit with the "pool" a larger sum than is required by the agreement. This arrangement retains the "pool" intact.

The growth in the volume of exchanges is shown in the following table:--

Year.	Amount of Exchanges.	Year.	Amount of Exchanges.
	£		£
1895	108,509,860	1913	348,741,175
1900	144,080,314	1914	353,068,040
1910	274,343,666	1915	357,803,425
1911	304,488,435	1916	422,371,972
1912	330,621,122	1917	444,532,930

The transactions of this office have grown steadily since its establishment, and the large annual increases during the last seven years indicate a remarkable activity in trade, and afford an accurate commentary on the growth of the general prosperity of the State.

COMMONWEALTH BANK OF AUSTRALIA.

During 1911 the Federal Parliament passed an Act to provide for the establishment of a Government Bank, to be called the Commonwealth Bank of Australia. The Act confers on the Bank authority to carry on general banking business, but in accordance with the policy of conserving the control of the Australian note issue in the hands of the Federal Treasurer, the bank cannot issue notes. In every other respect it has the functions of an ordinary bank of issue.

The capital of the bank is fixed at £10,000,000, to be raised by the issue and sale of debentures. In addition to ordinary banking, a department for the transaction of savings bank business has been established.

The bank was inaugurated on the 15th July, 1912, by the opening of a postal savings bank department, but the ordinary banking business was not commenced until the 20th January, 1913.

The head office of the Commonwealth Bank is at Sydney but the bank has offices and agencies throughout the States and Papua, as well as in New Zealand, London, and Rabaul. Savings bank business is conducted at all the branches, and at agencies and post offices throughout the Commonwealth, Papua, and New Zealand.

SAVINGS BANKS.

Two Savings banks were in operation in New South Wales prior to the 1st May, 1914, namely, the Savings Bank of New South Wales and the Government Savings Bank of New South Wales. On that date those banks were amalgamated under the latter designation.

A notable change in the administration of the Government Savings Bank was made on the 1st January, 1907, when the bank was detached from the direct control of the Colonial Treasurer, and three commissioners were appointed to conduct the business, which included also the arrangement of loans to landholders, previously administered by the Advances to Settlers Board.

An agreement exists between the various savings banks in Australia for the transfer of the money of depositors, and similar arrangements are in existence with the United Kingdom.

On the 30th June, 1918, there were 132 branches and 497 agencies of the Government Savings Bank open; the number of accounts being 783,915; the balance at the credit of depositors, £38,566,993; and the interest paid to depositors during the year, £1,308,896. Nearly one-fourth of the amount held to the credit of depositors represented deposits under £100, deposits between £100 and £500 about six-tenths, and sums over £500 about one-seventh. The rate of interest paid since the 1st October, 1915, by the State Savings Bank has been 3½ per cent. on sums up to £500 for all accounts, and 3 per cent. on sums over £500 deposited by friendly and kindred societies without limitation.

Deposits in Savings Banks.

The following statement shows the particulars of deposits in the savings banks in New South Wales at the end of each year of the decennium ended the 30th June, 1918. The returns of the savings department of the Commonwealth Bank are included in the figures for the last five years.

At 30th June.	Number of Depositors.	Amount of Deposits.		
		Total.	Per Depositor.	Per head of Population.
		£	£ s. d.	£ s. d.
1909	444,930	19,022,151	42 15 1	12 1 6
1910	478,006	20,823,764	43 11 3	12 18 0
1911	522,251	23,381,014	44 15 4	14 1 5
1912	577,232	26,539,640	45 19 6	15 5 3
1913	647,124	29,568,282	45 13 10	16 6 10
1914	717,737	33,167,523	46 4 3	17 17 2
1915	755,835	35,562,649	47 1 0	19 0 7
1916	806,882	37,363,272	46 6 1	20 2 7
1917	872,351	40,836,747	46 16 3	21 17 4
1918	920,337	43,039,012	46 15 3	22 12 2

The deposits compare favourably with those of other States as the following table shows :—

State.	Depositors, 30th June, 1918.	Amount of Deposits in all Savings Banks.	Average Amount.	
			Per Depositor.	Per Inhabitant.
	No.	£	£ s. d.	£ s. d.
New South Wales	920,337	43,039,012	46 15 3	22 12 2
Victoria	933,875	34,598,186	37 0 11	24 8 4
Queensland	313,248	16,501,325	52 13 7	23 16 9
South Australia	337,709	12,899,036	38 3 11	29 7 3
Western Australia	179,985	6,176,030	34 6 3	19 17 0
Tasmania	95,154	3,037,805	31 18 6	14 19 6
Total	2,780,308	116,251,394	41 16 3	23 7 4

In addition to the deposit branch there is an advance department, to provide financial aid to settlers and others. The New South Wales Advances to Settlers Board had charge of the business relating to loans prior to the 1st January, 1907; but the administration was transferred at that date to the Savings Bank Commissioners. There are three departments controlled by the Commissioners, viz., Irrigation Farms, Homes, and Closer Settlement promotion, and the total amount which can be advanced each year is £500,000 for the Home's Department, the limit for the other branches being left to the discretion of the Commissioner.

According to the published balance sheet, the various departments have been, on the whole, conducted profitably. The Closer Settlement Branch, at the 30th June, 1918, had liabilities due to the Advances and Savings Bank Departments amounting to £2,426,474, and assets valued at £2,435,776, the difference, £9,302, being reserves and amounts held in trust. The Advances for Homes Account shows a small loss on the transactions of the year, viz., £817. The item shown as "Other Liabilities," £15,221, consists of sundries held in trust, £448, amount for borrowers' special repayments, £13,136, and reserve fund, £1,637. The loss on the business of the Irrigation Farms Branch was only £64 for the same period, and if the balances brought forward and carried to the next year were to be excluded, a clear gain would be shown on the transactions of the Government enterprise amounting to £81.

The figures relating to the profit and loss accounts and balance-sheets as at the 30th June, 1918, are shown in the following table :—

GOVERNMENT SAVINGS BANK DEPARTMENT.

PROFIT AND LOSS ACCOUNT, 30TH JUNE, 1918.

Department.	Receipts.			Expenditure.			
	Gross Earnings.	Balance Carried Forward.	Total.	Balance Brought Forward.	Interest Paid and Accrued.	Management, Valuation, etc.	Total.
	£	£	£	£	£	£	£
Irrigation Farms ..	906	64	970	145	754	71	970
Advances for Homes ..	45,303	....	45,303	1,026	35,890	8,387	45,303
Closer Settlement ..	94,954	3,340	98,294	....	97,100	1,194	98,294

BALANCE SHEET, 30TH JUNE, 1918.

Department.	Liabilities.				Assets.			
	Advance Department.	Savings Bank Department.	Other (Reserves, Sundry Creditors, etc.).	Total.	Advances Including Interest.	Bank Balance, Sundry Debtors, etc.	Profit and Loss Account.	Total.
	£	£	£	£	£	£	£	£
Irrigation Farms ..	16,847	106	....	16,953	16,280	609	64	16,953
Advances for Homes ..	969,846	2,163	15,221	987,230	986,413	....	817	987,230
Closer Settlement ..	2,425,246	1,223	9,302	2,435,776	2,434,549	1,227	....	2,435,776

The particulars of the total transactions of the Advance Department as at the 30th June, 1918, were as follow :—

	No.	Amount. £
Advances made	15,442	4,514,157
Advances repaid, including those written off... ..	9,340	1,970,102
Total outstanding	6,102	2,544,055

REGISTRATION OF FIRMS.

The Registration of Firms Act requires that every company or association of individuals carrying on business, or having any place of business in New South Wales, under a firm-name which does not consist of the full or the usual names of all the partners without any addition, and every person carrying on business or having any place of business in New South Wales under any firm-name consisting of, or containing, any name or addition other than the full or the usual name of that person, must register the name under which the business is conducted.

The following return shows the transactions under the Act during the last five years.

Transactions.	1913.	1914.	1915.	1916.	1917.
Statements	1,736	1,858	1,779	1,582	2,552
Declarations and Powers of Attorney ...	19	24	29	23	58
Certified Copies and Certificates	25	37	34	28	31
Inspections	4,332	4,678	4,468	3,745	3,608
Inquiries	12	15	17	16	8
Total Fees £	660	712	682	594	834

INCORPORATED COMPANIES.

The legislation relating to incorporated companies in New South Wales is contained principally in the Companies Act, 1899, the amending Acts of 1900, 1906, and 1907, and the Companies (Death Duties) Act, 1901. These enactments follow the general provisions of Imperial Acts relating to companies up to 1877, with deviations embodying the results of local experience. To prepare the way for co-ordination of the law relating to the formation, management, and winding-up of joint stock companies throughout the Empire, and to secure a basis for uniformity, the question of company law was considered at Imperial Conferences held in London in 1907 and 1911, and it was resolved that uniformity should co-exist throughout the Empire in the law relating to companies, copyrights, patents, and trade marks.

Under the Companies Act, 1899, of New South Wales, the liability of members of limited companies may be fixed either by shares, or by guarantee; unlimited companies are those in which no limitation is placed on the liability of members. A special feature of the Act is the embodiment of provisions for the formation and registration of companies in connection with the mining industry under the "No-Liability System," as previously defined in the No-Liability Mining Companies Act, 1896. Societies formed for the mutual benefit and advantage of the members only are registered under the Building and Co-operative Societies Act, 1901. Under the Companies Act, 1899, the formation of a company, association, or partnership of more than ten persons in a banking business, or of twenty in other businesses trading for profit, is prohibited, unless such company, association, or partnership is registered under the Act, or incorporated under some other enactment, by royal charter, or by letters patent. Special provision is made for associations formed to promote commerce, art, science, religion, charity, or other useful or beneficial objects.

The following particulars relating to companies are recorded for the past five years.

Year.	Limited Companies.			No-Liability Mining Companies.		
	New Companies.	Nominal Capital.	Total Fees received.	New Companies.	Nominal Capital.	Total Fees received.
		£	£		£	£
1913	444	12,336,737	5,790	26	568,910	84
1914	354	7,382,472	4,625	15	190,650	59
1915	286	7,074,617	4,153	15	170,450	57
1916	156	4,187,075	3,068	7	125,000	40
1917	159	5,918,267	2,785	8	77,500	39

Twelve of the limited companies now carry on bank deposit business in addition to their ordinary business. The liabilities, assets, and paid-up capital for the quarter ended 30th June, 1918, were as follows :—

Companies.	Number.	Liabilities (Excluding Shareholders).			Assets.			Paid-up Capital.
		Deposits.	Other Liabilities.	Total.	Landed Property.	Other Assets.	Total.	
		£	£	£	£	£	£	£
Investment	10	1,199,344	11,323,773	13,003,117	293,719	13,915,441	14,209,160	968,819
Trading	2	30,042	4,259,071	4,289,113	565,778	7,561,290	8,127,068	3,350,000
Total	12	1,229,386	16,082,844	17,312,230	859,497	21,476,731	22,336,228	4,318,19

CO-OPERATIVE TRADING SOCIETIES.

The transactions of the co-operative societies during the last five years are given in the following table :—

	1913.	1914.	1915.	1916.	1917.
Number of Societies	40	45	46	46	44
Number of Members	30,586	33,854	36,568	38,370	40,791
Liabilities—	£	£	£	£	£
Share Capital	199,174	234,846	253,185	274,409	310,776
Reserves and Net Profits ..	140,794	153,314	151,492	156,468	171,542
Other Liabilities	104,797	101,972	119,675	168,254	166,256
Total Liabilities £	444,765	490,132	524,352	599,131	648,574
Assets—					
Freehold, Plant, etc.	142,108	155,298	168,217	188,518	202,880
Stock	188,757	197,090	225,448	281,746	313,826
Other Assets	113,900	137,744	130,687	159,867	131,868
Total Assets £	444,765	490,132	524,352	599,131	648,574

Considering the small amount of capital invested, the results are satisfactory, and afford inducement for the further development of these institutions. The majority of existing societies are engaged in the sale of groceries, provisions, boots, and clothing, or in the manufacture and supply of general commodities. Societies established outside the metropolitan and suburban districts are mostly in the mining districts.

During the year 1917 the sales amounted to £1,888,925, and the expenses, including interest and depreciation, to £268,671, equal to 14·2 per cent. on the amount of sales. The balances of profit amounted to £166,679, but in three cases there were losses amounting to £230. The profit on sales was at the rate of 8·8 per cent.

BENEFIT BUILDING AND INVESTMENT SOCIETIES.

Under the existing law any number of persons may form a benefit building and investment society to enable members to erect or purchase dwellings, etc., by loans secured to the society by mortgage until the amount of the shares has been fully paid. These institutions, which may be registered as permanent building societies or as Starr-Bowkett societies, are established solely for the benefit of the subscribing members, and their receipts are confined, as a rule, to the subscriptions.

The aggregate liabilities, assets, etc., of permanent building societies for the years 1913-17 are shown in the following return.

	1913.	1914.	1915.	1916.	1917.
Number of Societies ...	9	8	8	8	8
Liabilities—	£	£	£	£	£
Deposits... ..	462,294	480,592	504,493	488,051	485,139
Share Capital	258,501	274,585	272,958	287,502	291,375
Reserves... ..	91,918	103,896	133,986	146,469	143,125
Other Liabilities	36,389	47,584	23,915	34,362	43,791
Balance of Profit	61,576	53,113	33,390	27,465	31,557
Total	910,678	959,770	968,742	983,849	994,987
Assets—					
Advances	694,429	741,831	731,227	739,809	733,582
Other Assets	216,249	217,939	237,515	244,040	261,405
Total	910,678	959,770	968,742	983,849	994,987

The income of the eight societies operating in 1917 was £83,977, while the expenditure during the year amounted to £78,943.

Particulars relating to Starr-Bowkett Societies for the years 1913 to 1917 are shown herewith.

	1913.	1914.	1915.	1916.	1917.
Number of Societies ...	100	108	109	109	106
Liabilities—	£	£	£	£	£
Members' Subscriptions...	744,256	855,272	995,749	1,076,112	1,221,961
Other Liabilities	15,529	28,617	36,892	37,210	42,127
Balance	63,493	75,996	94,752	115,009	130,624
Total	823,280	959,885	1,127,393	1,228,331	1,394,712
Assets—					
Advances	735,018	879,319	1,036,019	1,127,296	1,290,341
Other Assets	88,262	80,566	91,374	101,035	104,371
Total	823,280	959,885	1,127,393	1,228,331	1,394,712

FRIENDLY SOCIETIES.

The particulars relating to the membership, the sickness, and the mortality of Friendly Societies will be found in the chapter of this volume relating to Social Condition. The following pages will, therefore, deal with these societies from a financial standpoint only.

Receipts and Expenditure.

The receipts and expenditure of Friendly Societies for the ten years ended the 31st December, 1917, are shown in the following statement.

Year.	Receipts.				Expenditure.					
	Contributions.	Interest.	Other.	Total.	Sick Pay.	Funeral Donations.	Medical Attendance and Medicine	Expenses of Management.	Other.	Total.
	£	£	£	£	£	£	£	£	£	£
1908	345,313	45,908	44,205	435,421	101,989	29,819	116,888	47,714	50,033	346,443
1909	352,569	50,500	52,552	455,621	105,832	27,151	122,327	49,846	74,472	379,628
1910	372,220	59,312	32,561	464,093	124,789	30,051	128,627	54,184	46,672	384,323
1911	413,027	64,261	38,043	515,331	148,576	38,359	143,040	59,154	45,989	435,118
1912	456,097	69,599	32,493	558,189	166,270	40,828	157,821	66,435	42,654	474,058
1913	489,698	75,038	37,365	602,101	173,451	45,952	170,594	69,226	41,914	501,137
1914	496,961	80,707	34,915	612,583	172,796	44,446	182,308	87,358	39,463	526,371
1915	491,928	87,591	34,597	614,116	177,198	50,131	182,705	88,419	23,767	522,220
1916	508,033	95,103	28,645	631,781	172,497	61,566	178,926	89,630	35,718	538,357
1917	524,341	100,947	53,433	678,726	168,986	69,371	178,789	96,830	40,349	554,325

In 1908 rates of contributions were reduced in the majority of societies in consequence of the favourable position disclosed in the first quinquennial valuation, and of the assistance rendered to the societies generally under the Subvention Act.

The total amount disbursed in 1917 on account of benefits amounted to £417,146. The figures afford convincing evidence of the importance of the societies and of their immense value to the community.

The apparent increase in the expenses of management for the four years 1914 to 1917, is due to the fact that the figures for those years include certain items of expenditure classified previously under the heading "Other."

Accumulated Funds.

The following comparative table shows the accumulated assets of all funds at the close of each of the last ten years.

Year.	Sickness Fund.	Funeral Fund.	Medical and Management Fund.	Other Funds.	Total.
	£	£	£	£	£
1908	693,751	454,310	75,174	35,177	1,258,412
1909	731,315	488,759	71,711	44,045	1,335,830
1910	757,548	539,469	75,048	48,080	1,420,145
1911	783,434	595,288	78,264	49,852	1,506,838
1912	808,046	655,456	82,538	51,715	1,597,755
1913	839,689	719,413	87,446	52,171	1,698,719
1914	876,121	765,583	88,256	54,971	1,784,931
1915	908,655	826,203	89,421	52,548	1,876,827
1916	1,820,708		101,092	48,471	1,970,271
1917	1,916,846		122,759	55,067	2,094,672

According to the last quinquennial valuation, dated the 31st December, 1914, the total funds of the Friendly Societies amounted to £1,784,931, and were invested as follow:—

Mode of Investment.	Sickness Fund.	Funeral Fund.	Medical and Management Fund.	Other Funds.	Total Funds	
					Amount.	Per Cent.
Mortgage	£ 697,173	£ 555,356	£ 14,241	£ 26,517	£ 1,293,287	72·5
Public Funds	2,806	3,631	645	.....	7,082	0·4
Banks bearing Interest	79,746	68,746	33,077	14,857	199,426	11·2
Buildings and Freehold Property.	78,249	91,544	28,096	2,460	200,349	11·2
Other Investments ...	4,096	1,625	4,222	3,512	13,553	0·7
Uninvested	25,936	22,552	17,540	7,581	73,542	4·1
In use by other Funds...	7,393	22,503	2,702	923	33,490	1·9
Total	895,399	765,957	103,523	55,850	1,820,729	102·0
Overdraft	19,278	374	15,267	879	35,798	2·0
Total Funds ..	876,121	765,583	88,256	54,971	1,784,931	100·0

Stating these figures as a total of all funds it is found that long-dated or permanent investments, comprising mortgages, buildings, freeholds, etc., form 84·4 per cent. of the total—short-call investments, *i.e.*, money in savings banks, other banks, and public funds, form 11·6 per cent., while cash represents 4·1 per cent. Overdrafts in the year under review represented 2 per cent., but the greater portion of these were provided from other funds, and the actual overdraft obtained from outside sources represented only 0·1 per cent. of the total assets.

To state the case more concisely, ready money equal to 4 per cent. of the assets is sufficient to carry on business, with an additional 11 per cent. available for easy realisation, and for the remainder more permanent investment is sought.

The adoption of the principle of consolidation of funds by vesting the control in central executive bodies has reduced the amount necessary to be kept at hand by branches, as the executive bodies make advances to meet any special contingencies that may arise. Thus the amount at short call has fallen from 35·5 per cent. in 1907 to 11·6 per cent. in 1914; and conversely the investments on mortgage have risen from 42·8 per cent. to 72·5 per cent. in the same period.

For the quinquennium 1910-14 the average interest earned by all societies in the sickness funds was 4·7 per cent., and in the funeral funds 4·6 per cent., the rates for the previous quinquennium being 3·9 per cent. and 4·2 per cent. respectively.

LIFE AND GENERAL ASSURANCE.

The Life, Fire, and Marine Insurance Act of 1902 consolidated previous Acts relating to insurance. The section relating to marine insurance was superseded by the Commonwealth Marine Insurance Act of 1909, and the amount of assurance payable on the death of children was limited by a Commonwealth Act passed in 1905.

Particulars relating to life assurance institutions are obtained from the reports published by the companies and from official returns. During 1918 there were nineteen institutions operating in the State. Of these, nine

were local, five had their head offices in Victoria, one in New Zealand, one in the United Kingdom, and three in the United States of America. As the operations of the American companies are confined to the collection of renewal premiums and a small amount of new business, the figures relating thereto have been excluded from the following tables, unless where otherwise specified. Several companies, uniting life with other classes of insurance, have local branches or agencies, but their transactions in life risks in this State are unimportant.

Ordinary Branch—Total Business.

The following table shows the total business in force in the ordinary branch in detail, for each society, exclusive of American companies. All the institutions do not close their transactions on the same date, and the figures relate to business existing at various periods between 30th September, 1917, and 31st August, 1918. In the table the Australasian business only of the Liverpool and London and Globe Insurance Company is given, but the bonus additions of this institution are not available.

Institution.	Policies in Force, Exclusive of Annuities.	Amount Assured, Exclusive of Bonuses and Re-assurances.	Bonus Additions	Total.	Annual Premium Income.
<i>Head Office in New South Wales.</i>					
Assurance and Thrift	No. 1,411	£ 259,463	£ 1,371	£ 252,334	£ 11,926
Australian Metropolitan	4,047	423,927	15,954	439,881	18,795
Australian Mutual Provident	322,930	92,705,378	18,710,538	111,415,916	2,906,059
Australian Provincial	10,639	1,523,940	1,267	1,925,307	80,376
City Mutual	27,206	4,687,056	336,272	5,023,328	194,321
Co-operative	712	168,223	....	168,223	7,433
Mutual Life and Citizens'	118,544	22,704,051	2,768,334	25,592,385	764,068
People's Prudential	4,720	342,687	8,880	351,517	17,911
<i>Head Office in Victoria.</i>					
Australasian Temperance and General..	53,464	6,193,283	290,566	6,492,789	245,292
Australian Alliance	256	87,772	7,374	95,146	1,876
Colonial Mutual	62,626	14,018,938	759,149	14,778,087	524,637
Life Insurance of Australia	3,652	678,613	....	678,613	27,185
National Mutual	126,435	32,805,981	3,462,446	36,268,427	1,205,072
<i>Head Office in New Zealand.</i>					
Provident Life	3,941	565,656	4,255	569,911	17,546
<i>Head Office in United Kingdom.</i>					
Liverpool and London and Globe ..	288	113,141	*	113,141	3,225
Total	740,871	177,759,169	26,405,896	204,165,065	6,025,722

* Not available.

The above business included 238,174 whole-life policies, assuring an amount of £90,169,718, exclusive of re-assurances and of bonus additions amounting to £19,075,904, and upon which the annual premium income was £2,623,958. Endowment assurance policies numbering 446,785 were also included, the amount assured thereunder being £80,686,084, exclusive of re-assurances and of bonus additions amounting to £7,125,943, and the annual premium income was £3,116,181.

In addition there were 55,912 endowment policies on which the total amount assured was £6,903,307, exclusive of re-assurances and of bonus additions amounting to £204,049, and the annual premium income was £285,583.

Ordinary Branch—New South Wales Business.

The business in force for the year 1917 in New South Wales only, under headings similar to those of the preceding table, is given herewith. The American companies have been included, in order to show the total assurances for the State.

Institution.	Policies in Force, Exclusive of Annuities.	Amount Assured, Exclusive of Bonuses and Reassurances	Bonus Additions.	Total.	Annual Premium Income.
	No.	£	£	£	£
Assurance and Thrift ...	1,271	230,150	1,871	232,021	10,593
Australasian Temperance and General.	11,413	1,321,871	60,555	1,382,726	51,689
Australian Metropolitan...	1,913	199,439	7,038	206,477	8,739
Australian Mutual Provident.	88,798	26,427,172	5,446,972	31,874,144	864,147
Australian Provincial ..	4,957	892,674	907	893,581	36,425
City Mutual ...	9,357	1,744,586	125,200	1,869,786	72,300
Colonial Mutual ...	11,260	2,172,504	85,162	2,257,666	82,759
Co-operative ...	559	119,116	...	119,116	5,305
Equitable of the United States.	1,162	422,488	9,201	431,689	17,447
Life Insurance of Australia	1,107	240,250	...	240,250	10,698
Liverpool and London and Globe.	137	50,261	*...	50,261	1,602
Mutual Life and Citizens'.	33,308	6,870,582	815,843	7,686,425	232,413
Mutual of New York ..	1,778	783,445	67,293	850,738	19,561
National Mutual ...	18,636	4,725,352	...	4,725,352	173,780
New York ...	2,162	1,048,150	...	1,048,150	37,584
People's Prudential ...	4,720	342,687	8,830	351,517	17,911
Provident Life ...	424	45,580	247	45,827	1,739
Total ...	192,962*	47,636,307	6,629,419	54,265,726	1,644,692

* Not available.

The above business included 79,989 whole-life policies, assuring an amount of £28,872,963, exclusive of re-assurances and of bonus additions amounting to £4,779,557, and upon which the annual premium income was £919,338. Endowment assurance policies numbering 99,838 were also included, the amount assured thereunder being £17,275,216, exclusive of re-assurances and of bonus additions amounting to £1,816,515, and the annual premium income was £662,650.

In addition there were 13,135 endowment policies on which the total amount assured was £1,488,128, exclusive of re-assurances and of bonus additions amounting to £33,347, and the annual premium income was £62,704.

Industrial Branch—Total Business.

In addition to the ordinary transactions in life assurance, a large industrial business has grown up during recent years. The policies in this class are usually for small amounts, and the premiums in most cases are payable weekly or monthly.

Nine of the Australasian companies combine industrial with ordinary business, while one limits its operations to industrial and medical benefit

transactions. The total industrial business of the ten companies cited, in force in Australasia, during the year 1917 is shown in the following table :—

Institution.	Policies in Force, Exclusive of Annuities.	Amount Assured, Exclusive of Bonuses.	Bonus Additions.	Total.	Annual Premium Income.
	No.	£	£	£	£
Australasian Temperance and General	231,124	5,291,732	61,660	5,353,392	436,480
Australian Metropolitan	32,246	854,650	1,249	855,299	50,641
Australian Mutual Provident	173,172	6,482,655	43,071	6,525,726	392,293
Colonial Mutual	79,957	2,017,499	..	2,017,499	135,586
Co-operative	3,864	101,178	..	101,128	6,861
Life Insurance of Australia	3,494	86,740	..	86,740	5,387
Mutual Life and Citizens'	236,899	5,511,941	..	5,511,941	310,633
People's Prudential	5,259	126,064	..	126,064	8,706
Phoenix Mutual Provident	1,103	41,988	..	41,988	3,752
Provident Life	39,255	1,094,007	..	1,094,007	62,553
Total	856,369	21,637,804	105,980	21,743,784	1,412,892

The above business included 207,819 whole life policies, assuring an amount of £4,261,972, exclusive of re-assurances and of bonus additions amounting to £39,914, and upon which the annual premium income was £229,079. Endowment assurance policies numbering 596,024 were also included, the amount assured thereunder being £16,103,271, exclusive of re-assurances and of bonus additions amounting to £66,066, and the annual premium income was £1,095,644.

In addition there were 52,526 endowment policies on which the total amount assured was £1,272,561, exclusive of re-assurances. The annual premium income was £88,169, and there were no bonus additions.

Industrial Branch—New South Wales Business.

The following table shows the industrial business in force in New South Wales during 1917.

Institution.	Policies in Force, Exclusive of Annuities.	Amount Assured, Exclusive of Bonuses.	Bonus Additions	Total.	Annual Premium Income.
	No.	£	£	£	£
Australasian Temperance and General	41,159	913,226	..	913,223	75,046
Australian Metropolitan	18,748	528,855	584	529,439	29,655
Australian Mutual Provident	56,340	2,033,760	..	2,033,760	128,144
Colonial Mutual	24,666	596,678	..	596,678	39,907
Co-operative	3,864	101,128	..	101,123	6,861
Life Insurance of Australia	701	15,467	..	15,467	904
Mutual Life and Citizens'	83,923	1,734,833	..	1,734,833	101,337
People's Prudential	5,259	126,064	..	126,064	8,706
Phoenix Mutual Provident	1,106	41,988	..	41,988	3,752
Provident Life	7,268	206,107	..	206,107	11,124
Total	248,037	6,298,106	584	6,298,690	404,836

There is only one entry in the column assigned to bonus additions in the foregoing table, because in some instances particulars under this heading are not available. The returns relating to the People's Prudential Company in this and succeeding tables are exclusive of medical insurances.

The above business included 70,620 whole life policies, assuring an amount of £1,534,095, exclusive of re-assurances and of bonus additions amounting to £39, and upon which the annual premium income was £85,452. Endowment assurance policies numbering 165,111 were also included, the amount assured thereunder being £4,484,312, exclusive of re-assurances and of bonus additions amounting to £545, and the annual premium income was £299,175.

In addition there were 12,306 endowment policies on which the total amount assured was £279,699, exclusive of re-assurances. The annual premium income was £20,209, and there were no bonus additions.

Summary—Ordinary and Industrial Business.

A summary of the ordinary and industrial local business in comparison with the total business of the institutions operating in the State, exclusive of the American companies, is shown in the following table.

Branch.	Total Business.			New South Wales Business.		
	Policies.	Amount Assured (Excluding Bonuses).	Annual Premium Income.	Policies.	Amount Assured. (Excluding Bonuses).	Annual Premium Income.
	No.	£	£	No.	£	£
Ordinary ..	740,871	177,759,109	6,025,722	187,860	45,382,224	1,570,100
Industrial ...	856,369	21,637,804	1,412,892	248,036	6,298,106	404,836
Total ...	1,597,240	199,396,913	7,438,614	435,896	51,680,330	1,974,936

In the ordinary branch the New South Wales business represents about 25 per cent., and the industrial branch about 29 per cent.

New South Wales Business.

The next statement shows the ordinary and industrial business in force in New South Wales in each of the last ten years.

Year.	Ordinary Branch.			Industrial Branch.		
	Policies.	Amount Assured.	Annual Premium Income.	Policies.	Amount Assured.	Annual Premium Income.
	No.	£	£	No.	£	£
1908	137,852	32,993,481	1,080,236	125,476	2,881,417	155,260
1909	147,632	34,446,756	1,166,697	129,180	2,782,868	160,348
1910	155,531	35,972,590	1,164,948	143,209	3,123,666	184,607
1911	159,928	37,591,311	1,212,409	156,194	3,411,133	205,886
1912	167,399	39,652,665	1,274,797	173,941	3,918,060	238,800
1913	173,834	41,432,591	1,382,162	191,333	4,413,289	273,997
1914	178,483	42,602,910	1,432,261	202,439	4,712,117	296,597
1915	181,671	43,520,335	1,465,347	211,881	5,000,021	318,306
1916	187,514	45,460,331	1,550,311	229,723	5,599,819	358,126
1917	192,962	47,436,307	1,644,692	248,037	6,298,106	404,836

A feature of this table is the large increase in industrial insurance; since 1908 the increase in the number of these policies has amounted to 97·7 per cent., and in the amount assured to 118·6 per cent.

The number of ordinary and industrial policies per 1,000 of the population for 1917 was approximately 233, as compared with 169 in 1908, and the total sum assured rose from £22 19s. 11d. to £23 11s. 0d. per head of the population as will be seen from the figures shown hereunder.

Year.	Policies per 1,000 of Population.	Amount Assured per Head of Population.	Year.	Policies per 1,000 of Population.	Amount Assured per Head of Population.
	No.	£ s. d.		No.	£ s. d.
1908	169	22 19 11	1913	199	25 0 5
1909	173	23 6 4	1914	204	25 8 2
1910	182	23 17 4	1915	210	25 18 10
1911	186	24 2 9	1916	224	27 9 8
1912	192	24 9 10	1917	233	28 11 0

New Assurance Business in New South Wales.

The new business, ordinary and industrial, effected in New South Wales during the last two years is compared in the following table, in which the Australian Alliance, and the Liverpool and London and Globe Companies are not represented.

Ordinary Branch.

Institution.	1916.			1917.		
	Policies.	Amount Assured	Annual Pre-miums.	Policies.	Amount Assured.	Annual Pre-miums.
	No.	£	£	No.	£	£
Assurance and Thrift	325	57,230	2,634	315	55,280	2,592
Australasian Temperance and General..	2,227	278,539	11,402	1,716	281,388	11,174
Australian Metropolitan	328	33,591	1,397	283	27,919	1,221
Australian Mutual Provident.. .. .	4,981	1,742,186	72,503	4,765	1,733,792	62,302
Australian Provincial	1,428	243,175	9,817	3,151	582,644	23,278
City Mutual	1,003	288,250	11,082	1,062	356,635	14,614
Colonial Mutual.. .. .	1,720	344,602	13,556	1,836	472,581	18,745
Co-operative	89	16,050	730	212	55,804	2,411
Equitable of the United States .. .. .	..	..	..	2	250	8
Life Insurance of Australia	432	88,785	3,023	580	100,420	4,470
Mutual Life and Citizens'	1,403	439,485	16,355	1,639	536,215	22,715
Mutual of New York	9	7,115	461	4	2,277	82
National Mutual	1,043	363,132	14,564	1,215	527,232	20,431
New York	100	114,904	3,399	79	81,254	3,177
People's Prudential	1,196	73,400	3,843	1,154	84,975	4,464
Provident Life	88	7,440	305	147	16,150	624
Total	16,372	4,100,923	166,301	18,010	4,914,896	192,308

Industrial Branch.

Institution.	1916.			1917.		
	Policies.	Amount Assured.	Annual Pre-miums.	Policies.	Amount Assured.	Annual Pre-miums.
	No.	£	£	No.	£	£
Australasian Temperance and General	13,816	348,615	31,304	12,470	324,310	30,458
Australian Metropolitan	6,332	209,682	10,573	5,931	220,893	10,648
Australian Mutual Provident	8,318	363,424	20,589	10,521	433,289	27,144
Colonial Mutual.. .. .	6,356	154,753	12,506	5,797	182,497	11,906
Co-operative	1,527	46,777	2,766	1,976	60,165	3,446
Life Insurance of Australia	81	1,757	125	22	369	28
Mutual Life and Citizens'	7,046	183,719	12,072	8,511	235,427	15,298
People's Prudential	4,298	113,435	7,829	3,924	130,435	8,443
Phoenix Mutual Provident	75	1,200	125	302	10,929	994
Provident Life	2,800	82,156	4,779	3,987	122,476	7,373
Total	50,649	1,516,518	102,668	53,491	1,720,790	115,738

The following statement exhibits a comparison of the new business in New South Wales during the last five years.

Year.	Ordinary Branch.			Industrial Branch.		
	Number of Policies.	Amount Assured.	Annual Premiums.	Number of Policies.	Amount Assured.	Annual Premiums.
		£	£		£	£
1913	19,847	4,414,664	156,078	55,384	1,506,470	102,016
1914	17,217	3,914,935	142,792	48,267	1,332,966	91,427
1915	15,976	3,784,103	147,554	45,188	1,258,683	86,959
1916	16,372	4,100,923	166,301	50,649	1,516,518	102,668
1917	18,010	4,914,896	192,308	53,491	1,720,790	115,738

The decrease during the three years 1914-16 was due to the War. However, the average insurance per policy and annual premium per £100 have been well maintained.

There was a noteworthy recovery in new business in 1917, which was due also to the incidence of the War. Numbers of men who were prepared to enlist, in order to keep up the strength of the military force overseas by continuous reinforcements, were deterred by the claims of dependents. To meet their case a number of business firms and patriotic citizens subscribed the necessary funds to insure the lives of volunteers, the average policy being valued at £200 on the mortality risk of each soldier enlisting under this scheme; and, as a consequence, new insurance business proportionately benefited. In 1917, for the ordinary branch the average policy was £272 18s. 0d., and the average annual premium per £100 was £3 18s. 3d.; and in the industrial department the average amount per policy was approximately £32 3s. 4d., and the average weekly premium 2s. 7d. per £100.

Receipts and Expenditure—Australasian Societies.

The receipts of the societies are represented chiefly by the collections from premiums on policies, and by interest arising from investments. Payments on account of death claims, policies matured and surrendered, cash bonuses, and the expenses of management constitute the bulk of the disbursements, the excess of receipts over expenditure representing the additions to the funds.

The general direction of the total business of the Australasian societies is shown in the following table, which includes both ordinary and industrial departments.

Year.	Societies.	Policies in Force.	Receipts.	Expenditure.	Addition to Funds.
	No.	No.	£	£	£
1895	10	268,242	3,392,423	2,334,481	1,057,942
1900	11	331,868	4,093,376	2,648,303	1,445,073
1905	14	756,585	5,437,589	3,834,272	1,603,317
1910	11	1,056,173	7,131,250	4,619,440	2,511,810
1913	14	1,312,696	8,572,977	5,358,192	3,214,785
1914	15	1,375,633	9,069,130	5,757,737	3,311,393
1915	15	1,424,548	9,474,126	6,084,562	3,389,564
1916	17	1,510,418	10,185,839	6,614,124	3,571,715
1917	16	1,597,240	10,916,726	7,742,300	3,174,426

The following table shows the aggregate receipts and disbursements of the Australasian institutions during 1917 for both classes of business, though in the case of two companies (the Co-operative and the People's Prudential), which did not keep the accounts of each department separately, the figures relating to the industrial have been included in those of the ordinary branch.

	Ordinary Branch.	Industrial Branch.	Total.
Receipts—			
Premiums—	£	£	£
New	711,224	5,027	716,251
Renewal	5,451,566	1,353,545	6,805,111
Consideration for Annuities...	54,459	...	54,459
Interest	3,004,424	192,247	3,196,671
Other (Rents, etc.)	131,440	12,794	144,234
Total Receipts	9,353,113	1,563,613	10,916,726
Expenditure—			
Claims	4,801,247	274,726	5,075,973
Surrenders	631,944	20,551	652,495
Annuities	121,098	295	121,393
Cash Bonuses and Dividends	201,071	60,406	261,477
Expenses	1,022,088	539,038	1,561,126
Amount written off to Depreciation, Reserves, etc.	68,754	1,082	69,836
Total Expenditure	6,846,202	896,098	7,742,300

The following table shows the revenue and expenditure of the New South Wales business during the year 1917. The particulars relating to the ordinary and industrial departments are separated (with the exceptions mentioned above), and the transactions of the American companies have been included in order to give the total for the State.

	Ordinary Branch.	Industrial Branch.	Total.
Receipts—			
Premiums—	£	£	£
New	208,774	2,175	210,949
Renewal	1,429,846	400,554	1,830,400
Consideration for Annuities...	24,838	...	24,838
Interest	1,075,629	67,239	1,142,868
Other (Rents, etc.)	79,324	5,279	84,603
Total Receipts	2,818,411	475,247	3,293,658
Expenditure—			
Claims	1,293,384	73,447	1,366,831
Surrenders	181,792	4,489	186,281
Annuities	31,780	295	32,075
Cash Bonuses and Dividends	110,903	18,846	129,749
Expenses	276,522	162,956	439,478
Amount written off to Depreciation, Reserves, etc.	16,885	3,801	20,686
Total Expenditure	1,911,266	263,834	2,175,100

Accumulated Funds—Australasian Societies.

The annual additions to the funds have shown a considerable increase, as will be seen from the following table, which shows the yearly increment, total amounts, and interest thereon, with the average rate realised on investments. The figures relate to the total business, and include both ordinary and industrial branches.

Year.	Accumulated Funds. Including Paid-up Capital.		Interest.	
	Additions During the Year.	Total Amount at end of Year.	Amount Received.	Average Rate Realised on Mean Funds.
	£	£	£	per cent.
1890	1,404,215	14,580,210	827,909	5·97
1895	1,057,942	20,438,224	1,037,477	5·21
1900	1,445,673	26,491,025	1,161,696	4·51
1905	1,603,317	34,915,842	1,527,690	4·48
1910	2,511,810	45,668,204	1,963,425	4·42
1915	3,389,564	61,572,309	2,762,577	4·62
1916	3,571,715	65,165,116	3,011,586	4·75
1917	3,174,426	68,017,812	3,196,671	4·81

The increase in earning power has been gradual since the year 1910, but the most recent rate is lower than that of 1895. Since 1900 it has been fairly constant at about $4\frac{1}{2}$ per cent., though in 1915 it rose to 4·62 per cent., in 1916 to 4·75, and in 1917 to 4·81. A comparison with the bank rate of interest on fixed deposits, given on a previous page, shows that diminished rates were general until the year 1912, when a slight increase took place, and continued during following years, and the interest earned by the insurance companies has held a correlation to the general tendency.

Invested Funds and Interest.

In the next statement, the principal details of the total business of each company during the year 1917 are shown, the information regarding industrial business being distinguished as far as possible.

In-titulation.	Funds.		Interest.		Expenses of Management.		
	Additions During Year.	Total at End of Year.	Amount Received.	Average Rate on Mean Fund.	Amount.	Proportion to— P-e- rcentage Receipts.	G-r- o-s-s R-e- c-e-i- p-t-s.
ORDINARY BRANCH.							
	£	£	£	per cent.	£	per cent.	per cent.
Assurance and Thrift ...	6,195	50,098	2,551	5·46	5,205	45·57	36·35
Australasian Temperance and General.	286,946	2,536,728	97,639	4·08	50,181	19·74	15·41
Australian Metropolitan ...	20,751	161,508	3,886	2·57	4,128	22·26	18·81
Australian Mutual Provid- ent.	1,229,533	37,641,531	1,838,911	4·97	432,486	14·09	8·89
Australian Provincial ...	15,982	100,970	1,688	1·82	57,088	74·84	73·22
City Mutual ...	100,731	1,026,774	52,335	5·36	41,864	22·26	14·54
Colonial Mutual ...	254,003	4,376,492	176,016	4·12	117,154	23·58	16·79
Co-operative ...	1,938	75,431	1,648	2·47	5,578	80·80	69·54
Life Insurance of Australia	10,025	92,022	1,621	2·38	17,183	58·83	54·19
Mutual Life and Citizens' ...	466,813	10,809,974	518,864	4·91	101,271	12·78	8·22
National Mutual ...	741,428	10,869,002	489,561	4·66	180,390	14·37	10·19
Provident Life ...	29,447	197,323	8,527	4·67	3,364	18·68	15·97
Total ...	3,163,797	67,937,653	3,193,247	4·81	1,015,892	16·34	10·86

Institution.	Funds.		Interest.		Expenses of Management.		
	Additions During Year.	Total at End of Year.	Amount Received.	Average Rate on Mean Fund.	Amount.	Proportion to— Pre- mium Receipts.	Gross Receipts.
INDUSTRIAL BRANCH.							
Australasian Temperance and General.	£	£	£	per cent.	£	per cent.	per cent.
Australian Mutual Provident.					157,454	39·30	35·31
Mutual Life and Citizens'...	(Included in Ordinary Branch.)				124,775	33·72	28·88
Colonial Mutual ...					106,640	33·06	27·85
Provident Life ...					48,336	36·68	34·86
Australian Metropolitan ...					31,810	52·70	48·03
Co-operative ...					25,430	52·05	50·05
Life Insurance of Australia					5,826	91·33	84·02
*People's Prudential ...	10,331	78,425	3,346	4·57	5,331	97·57	92·65
Phoenix Mutual Provident.	298	1,734	78	4·90	11,471	41·28	36·84
Total ...	10,629	80,159	3,424	4·58	2,277	72·77	70·39
	10,629	80,159	3,424	4·58	519,350	38·23	33·21

* Includes Ordinary Branch.

Expenses of Management—Australasian Societies.

The expenses of management of the ordinary business in 1917 represent in the aggregate 10·86 per cent. of the total receipts, and 16·34 per cent. of the premium income, and the industrial branch, 33·21 and 38·23 per cent. respectively. The ratio between management expenses and premium income must necessarily vary with the volume of new business transacted and the age of the society, quite apart from the intensity of competition for new business. The following figures show the cost of management, including commission, and the proportion of premium income and gross receipts, ordinary and industrial departments being included.

Year.	Management Expenses.	Premium Income.	Gross Receipts.	Management Expenses.	
				Per cent. of—	
				Premium Income	Gross Receipts.
	£	£	£		
1895	438,524	2,380,167	3,392,423	18·42	12·93
1900	565,380	2,799,512	4,093,376	20·19	13·81
1905	858,741	3,500,448	5,437,589	24·53	15·79
1910	1,016,153	5,074,204	7,131,250	20·03	14·25
1915	1,252,438	6,591,572	9,474,126	19·00	13·22
1916	1,364,058	7,138,291	10,185,839	19·11	13·39
1917	1,535,242	7,575,821	10,916,726	20·26	14·06

The management expenses of the ordinary and industrial branches can be stated separately for the four years 1914 to 1917, and the proportions are shown in the following table.

Year.	Ordinary Branch.		Industrial Branch.	
	Proportion of Management Expenses to—			
	Premium Income.	Total Receipts.	Premium Income.	Total Receipts.
	per cent.	per cent.	per cent.	per cent.
1914	16·35	11·09	41·85	37·30
1915	15·39	10·32	38·86	34·12
1916	15·45	10·28	33·82	33·82
1917	16·34	10·86	38·23	33·21

The expenses of the industrial branch are necessarily very high in proportion to the receipts, on account of the house-to-house method of collection, which is an essential feature of the system.

Liabilities and Assets—Australasian Societies.

The following table gives a summary of the liabilities and assets of the Australasian societies for the year 1917.

Liabilities.		Assets.	
Assurance Funds—	£	Loans—	£
Participating in Profits ...	65,312,702	On Mortgage ...	24,232,030
Non-participating in Profits ...	904,464	„ Municipal and Other	...
Claims Investment Fund ...	23,217	„ Local Rates ...	10,687,557
Other Assurance Funds ...	1,340,009	„ Reversionary, Life, and	...
		„ Other Interests ...	616,510
Total ...	67,580,392	„ Policies ...	8,063,766
		„ Personal Security ...	11,385
		„ Government Securities..	55,384
		„ Other Debentures and	...
		Bonds ...	471,545
		„ Miscellaneous Loans ...	54,539
		Total ...	44,192,716
Fidelity Guarantee and Contin-		Government Securities—	
gency Funds ...	71,505	British Stocks including	
Investment Fluctuation Fund	178,463	War Loans ...	658,958
Claims admitted but not paid		New South Wales Stocks ...	2,148,195
(including Annuities) ...	1,640,034	Other Commonwealth	
Outstanding Accounts... ..	1,762,407	Stocks ...	13,249,005
Other Liabilities—		New Zealand Stocks ...	2,770,213
Paid-up Capital ...	437,420	Other Government Securities	
Reserve Funds ...	101,605	including War Loans ...	1,793,919
Miscellaneous—including		Total ...	20,620,290
Deposits ...	252,135		
		Real Estate—	
		Office Premises—	
		New South Wales ...	807,254
		Other Australian States	1,248,243
		Elsewhere ...	635,173
		Properties acquired by Fore-	
		closure and Other Real	
		Estate ...	520,464
		Total Real Estate..	3,241,134
		Other Assets—	
		Outstanding and Deferred	
		Premiums ...	760,373
		Accrued and Outstanding	
		Interest... ..	785,503
		Cash in Banks and in Hand	1,320,132
		Sundries ...	1,103,810
		Total ...	3,969,818
Total Liabilities...	£72,023,958	Total Assets ...	£72,023,958

The aggregate liabilities and assets for the period 1895 to 1917 are shown in the following table. The accounts of three companies have not been included, as the balance-sheets do not disclose the particulars of the life business, which is small, as compared with the total operations.

Year.	Societies.	Liabilities.			Assets.		
		Paid-up Capital and Accumulated Funds.	Other Liabilities.	Total.	Loans on Mortgages, Policies, etc.	Securities, Freehold Property, etc.	Total.
	No.	£	£	£	£	£	£
1895	10	21,497,059	...	21,497,059	15,600,229	5,896,830	21,497,059
1900	11	27,471,223	...	27,471,223	19,013,579	8,457,644	27,471,223
1905	11	35,867,362	...	35,867,362	22,072,061	13,795,301	35,867,362
1910	11	45,668,204	775,785	46,443,989	30,625,778	15,818,211	46,443,989
1914	13	57,775,670	1,112,766	58,888,436	42,525,480	16,362,956	58,888,436
1915	14	61,259,104	1,932,233	63,191,337	45,535,992	17,655,345	63,191,337
1916	15	64,866,998	3,209,131	68,076,129	45,029,299	23,046,840	68,076,129
1917	14	68,369,382	3,654,576	72,023,958	44,192,716	27,831,242	72,023,958

Loans on mortgage, municipal rates, the policies of the societies, etc., represent over 61 per cent. of the total assets. In former years insurance companies sought only these forms of investment, but recently attention has been given to Government securities and investments in shares, and considerable sums are deposited with banks, or invested in freehold and leasehold property, and during the years 1915 to 1918 large sums were subscribed to the various War Loans. Investments on personal security are unusual, advances being generally combined with life policies, and the total amount invested under this heading for the year 1917 was only £11,385. In some of the States, companies are obliged by law to deposit certain sums with the Treasury as a guarantee of good faith, and these amounts are included in their balance-sheets under the head of Government securities or of deposits. The ratio of loans on mortgages, policies, &c., to total assets for the years quoted in the previous table varies as follows:—

Year.	per cent.	Year.	per cent.
1895 ...	72.57	1914 ...	72.25
1900 ...	69.21	1915 ...	72.06
1905 ...	61.54	1916 ...	66.15
1910 ...	65.94	1917 ...	61.36

FIRE, MARINE, AND GENERAL INSURANCE.

The Fire Brigades Act, 1909, embraces a wider area than the earlier Act, which covered only the metropolitan division of Sydney, though it was permissible to extend the provisions thereof to any borough or municipal district of New South Wales. The later Act applied to the City of Sydney, 126 suburban and country municipalities and 14 shires. An amendment to the Act rescinded the distinction between municipalities and shires, and renamed the areas under the administration of the Commissioners fire districts, of which there are at present 78. The equipment for fighting fire includes 34 permanent and 28 volunteer stations and brigades in the metropolitan area (of which 6 permanent stations and brigades are within the boundaries of the City of Sydney), and 94 brigades in the country or extra-metropolitan division of New South Wales. By proclamation the provisions of the Act may be extended to other areas.

BOARD OF FIRE COMMISSIONERS.

The Board of Fire Commissioners of New South Wales, representing the city and suburban area, the country area, the volunteer brigades, and the insurance companies, with a president appointed by the Government, exercises control in regard to fire prevention in declared districts, and may recover charges for attendance at fires outside such districts. On the passing of the Fire Brigades Act, 1909, all existing fire brigades boards were dissolved, and their property was vested in the Board of Fire Commissioners, subject to any trusts and liabilities attaching to such property. The Board is charged with the establishment and maintenance of permanent fire brigades, and the authorisation and subsidising of volunteer bodies, for which purpose the funds are raised by contributions of one-third individually of the estimated requirements for each district, by insurance companies, by municipalities, and by the Government; and a *pro rata* contribution is charged against each owner of property assured in any company, as defined, which is not registered within the State. To ensure efficient operation of these provisions periodical returns are required by the Board from municipalities, insurance companies and property owners.

The following table shows the revenue account and balance-sheet of the Fire Commission Board for the year ended the 31st December, 1917.

Revenue Account, 1917.

Revenue.		Expenditure.	
	£		£
Balance from 1916	11,676	Administration	6,566
Subsidy from Government ...	47,581	Salaries—Permanent	74,295
Subsidy from Municipalities and Shires	47,581	Salaries—Volunteer	9,672
Subsidy from Fire Insurance Com- panies and Firms	47,581	Buildings, Repairs and Alterations	6,651
Other Sources—		Rent and Rates	6,795
Services Rendered £3,135		Clothing	5,946
Sale of Materials and		Electrical Work, Telephones, Fire	
Horses	3,065	Alarms and Appliances, Tools,	
	6,200	&c.	2,963
		Lighting and Fuel	1,715
		Life Assurance and Fire Insurance	1,364
		Equipment and Property Charges,	
		and Reserve	18,233
		Horses, Fodder, Shoeing, Harness,	
		&c.	4,145
		Travelling, Cartage, and Freight..	1,799
		Hose, and Sundry Materials ...	4,549
		Miscellaneous	1,500
		Balance	14,426
Total	160,619	Total	160,619

Balance-Sheet, 1917.

Liabilities.		Assets.	
	£		£
Fund Account	67,351	Land and Buildings	142,990
Reserves, and Trust Accounts ...	2,891	Plant Account and Fire Appliances	78,111
Debentures and Accrued Interest	101,500	Stocks on Hand	16,901
Revenue and Expenditure Account	14,426	Bank Balance and Cash Account..	10,579
Property and Equipment Fund ...	60,876		
Administration Account	1,537		
Total	248,581	Total	248,581

The estimates of revenue adopted by the Board for 1918 amounted to £142,743, being £102,693 for the Sydney Fire District, and £40,050 for the seventy-five Country Fire Districts. The ratio of municipal contributions to the Assessed Annual Value in Sydney, suburbs, and shires included in the Sydney Fire District was 7s. per £100 in 1914, 5s. 9d. per £100 in 1915, 5s. 5d. in 1916, 6s. 1d. in 1917, and 5s. 10d. in 1918.

Under the Act the contributions payable by insurance companies are proportionate to the premiums received by or due to the companies during the year; for 1917 contributions amounting to £46,836 were received from 84 insurance companies, and in addition contributions amounting to £745 were received from 90 individual firms who insured goods with companies not registered in New South Wales. The contributions in the Sydney Fire District in 1917 represent £6 2s. per £100 of premium, and in the remaining districts the percentage ranged from £2 2s. 3d. to £18 12s. 7d.

GENERAL INSURANCE—NEW SOUTH WALES BUSINESS.

There were 84 companies transacting general insurance (as distinct from life assurance) business in New South Wales during 1917, and the nature of the insurance effected during the year ended 30th June, 1918, is shown in the following table.

Nature of Insurance.	Revenue in New South Wales.	Expenditure in New South Wales.						
		Losses, less Re-insurances.	Expenses of Management.		Total.	Proportion of Premium Income.		
			Commission and Agents' Charges.	Other.		Losses.	Commission and Agents' Charges.	Other Management Expenses.
	£	£	£	£	£	percent.	percent.	percent.
Fire	1,117,849	415,707	153,373	314,918	883,998	37.19	13.72	28.17
Marine	411,965	153,883	23,558	31,552	263,493	37.35	6.80	19.89
Accident	53,616	22,706	9,313	16,722	48,741	42.35	17.37	31.19
Employers' Liability and Workman's Compensation ..	203,448	77,104	23,237	58,270	158,611	37.35	11.25	28.22
Public Risk, Third Party ..	15,269	2,113	1,987	4,077	8,177	13.90	13.08	26.80
Plate-glass	18,284	9,009	2,905	5,028	16,942	49.27	15.88	27.50
Motor Car and Motor Cycle ..	43,366	18,024	5,640	12,935	36,598	37.26	11.66	26.74
Hailstone	86,594	52,637	13,083	23,973	89,718	60.81	15.11	27.68
Boiler Explosion	7,278	1,549	634	4,227	6,610	21.28	8.71	60.83
Live Stock	25,038	11,184	3,913	6,686	21,783	44.67	15.67	26.70
Burglary	7,331	1,915	947	1,435	4,797	26.12	12.92	26.39
Guarantee	9,163	2,500	1,266	2,501	6,267	27.27	13.80	27.28
Loss of Profits	25,331	168	2,767	5,621	8,556	0.66	10.90	22.15
Elevator	432	..	99	73	172	..	22.92	16.90
Driver's Indemnity	269	5	63	109	177	18.59	23.42	40.52
Sprinkler	837	113	32	155	350	13.50	9.80	18.52
Other	1,112	179	129	1,460	1,768	16.10	11.60	131.30
Total Premiums	2,035,177	..	..	..	..	..	..	..
Total Interest	63,148	..	..	..	..	..	..	..
Total	2,100,325	768,815	247,501	540,442	1,556,758	37.77	12.16	26.55

The total premiums amounted to £2,035,177, and the losses to £768,815, the latter being 37.77 per cent. of the premiums. The expenses for commission and agents' charges were £247,501, and for general management £540,442, making a total of £787,943, being 38.71 per cent. of the premium income, or 37.52 of the gross revenue.

According to the local statements, fire business comprises about 55 per cent. of the total general insurances. The premiums received for fire risks during 1917-18 were £1,117,849, and the losses amounted to £415,707, or 37.19 per cent.

Of all classes of general insurance against risk, the highest proportionate loss was sustained by companies who undertook to furnish indemnities in

the event of destruction by hailstones, damage to plate glass, losses of live stock, incapacitation by accident, loss by marine misadventure, employers' liabilities in compensating injured workmen, and motor car and motor cycle disaster, in the order named; and all these took precedence in proportionate relation to insurance revenue, of loss by fire, which, in 1917-18, was only 37·19 per cent., as against 56·35 per cent. in 1916-17.

The succeeding table shows the total revenue and expenditure during the last four years. The transactions of the fire branch have been shown separately, as they comprised considerably more than half of the total business. The interest receipts could not be distributed under the various headings, and have been included in one item.

Year ended 30th June.	Revenue.			Expenditure.			
	Premiums.	Interest.	Total.	Losses.	Management.		Total Expendi- ture.
					Commis- sion and Agents' Charges.	Other Manage- ment Ex- penses.	
	£	£	£	£	£	£	£
1915 { Fire ...	856,003	54,308	1,492,131	{ 662,381	120,503	247,423	1,030,312
Other ...	581,814			{ 224,650	59,820	135,590	420,060
Total ...	1,437,823			{ 887,031	180,328	383,013	1,450,372
1916 { Fire ...	973,134	49,600	1,718,737	{ 452,549	137,556	262,099	852,244
Other ...	696,003			{ 287,515	71,671	147,785	506,971
Total ...	1,669,137			{ 740,064	209,267	409,884	1,359,215
1917 { Fire ...	1,043,871	53,616	1,815,784	{ 583,194	132,309	301,877	1,022,380
Other ...	718,297			{ 516,060	76,100	168,857	761,017
Total ...	1,762,168			{ 1,104,254	208,400	470,734	1,783,397
1918 { Fire ...	1,117,849	65,148	2,100,325	{ 415,707	153,373	314,918	883,998
Other ...	917,328			{ 853,108	94,128	225,524	672,760
Total ...	2,035,177			{ 768,815	247,501	540,442	1,556,758

The following statement shows the proportion of expenditure to premium income for the same years.

Year ended 30th June.	Losses.	Management.		Total Expenditure.
		Commission and Agents' Charges.	Other Management Expenses.	
	per cent.	per cent.	per cent.	per cent.
1915 { Fire ...	77·38	14·03	28·90	120·36
Other ...	38·60	10·28	23·30	72·18
Total ...	61·69	12·54	26·64	100·87
1916 { Fire ...	46·50	14·14	26·93	87·57
Other ...	41·31	10·29	21·23	72·83
Total ...	44·34	12·54	24·56	81·44
1917 { Fire ...	56·35	12·67	28·93	97·95
Other ...	71·84	10·60	23·51	105·95
Total ...	62·66	11·83	26·71	101·20
1918 { Fire ...	37·19	13·72	28·17	79·08
Other ...	38·49	10·26	24·58	73·33
Total ...	37·77	12·16	26·55	76·43

BANKRUPTCY.

Transactions in insolvency were conducted by the Chief Commissioner of Insolvent Estates prior to 1888, but under the Bankruptcy Act of 1887 and subsequent amending Acts, which were consolidated under the Act of 1898, the law is now administered by a Supreme Court Judge in Bankruptcy. The following statement shows the number of bankruptcy petitions for each of the last five years.

Year.	Petitions in Bankruptcy.			Petitions Withdrawn, Refused, etc.	Sequestration Orders Granted.
	Voluntary.	Compulsory.	Total.		
1913	238	113	351	31	320
1914	282	123	405	30	375
1915	301	147	448	43	405
1916	248	145	393	43	350
1917	178	123	301	34	267

The estates freed from sequestration during the currency of the Act number 3,352, being only 16·5 per cent. of the total sequestrations. Occasionally applications for certificates are refused, and, taking these into consideration, it would appear that out of 100 bankrupts 83 are unable, or too indifferent, to take the necessary steps to free themselves from bankruptcy.

The property of an uncertificated bankrupt, even if acquired subsequently to sequestration, is liable to seizure on behalf of unsatisfied creditors. The number of sequestrations during the years the Act has been in force is 20,314, and of these 16,962 remain uncertificated.

During 1917, of a total of 301 sequestrations, the liabilities, according to the bankrupts' schedules, amounted to £227,663, and the assets to £208,093. The qualification "according to the bankrupts' schedules" is necessary, as the assets and liabilities established after investigation by the Court differ widely from those furnished.

The following statement shows the number of bankruptcies and the nominal liabilities and assets from 1888 to 1917.

Period.	Sequestrations.	Nominal—		
		Liabilities.	Assets.	Ratio of Asset per £1 of Liability.
	No.	£	£	s. d.
1888-1892	5,730	5,682,689	2,644,382	9 4
1893-1897	6,235	5,760,282	3,406,148	11 10
1898-1902	2,864	2,159,659	994,803	9 3
1903-1907	2,084	1,359,121	781,108	11 6
1908-1912	1,674	986,970	590,470	12 0
1913	320	208,755	144,038	13 10
1914	375	323,111	141,068	8 9
1915	405	428,700	166,748	7 10
1916	350	383,448	303,893	15 10
1917	267	227,663	208,093	18 3

TRANSACTIONS IN REAL ESTATE.

The Real Property Act, commonly known as the "Torrens" Act, passed in 1862 to regulate the procedure in regard to land transfers, was modelled on the lines of similar legislation in South Australia, adopted at the instance of Sir R. R. Torrens. This Act and its amendments were consolidated in 1900, and its main features are the transfer of real property by registration of title instead of by deeds, the absolute indefeasibility of the title when registered, and the protection afforded to owners against possessory claims—as a title issued under the Act stands good, notwithstanding any length of adverse possession. All lands sold by the Crown since the passage of that measure, have been conveyed to purchasers under its provisions, the transactions under the old law being restricted to grants issued prior to 1862, and governed by the Deeds Registration Act. The area for which such grants were issued amounted to 7,478,794 acres; 2,340,391 acres have since been brought under the provisions of the "Torrens" Act, hence 5,138,403 acres still remain under the old tenure.

Lands may be placed under the Real Property or the "Torrens" Act only when the titles are unexceptional, and as thousands of acres are brought under the Act every year, it is merely a question of time when the whole of the lands of the State will be held by a uniform system. The area of conveyed Crown lands and of private estates brought under the Real Property Act during the decade ended 1917 was as follows:—

Year.	Area.			Value.		
	Crown Lands.	Private Lands.	Total.	Crown Lands.	Private Lands.	Total.
	acres.	acres.	acres.	£	£	£
1908	1,604,062	85,917	1,689,979	1,502,640	1,173,042	2,675,682
1909	1,227,312	54,903	1,282,215	1,147,768	1,093,796	2,241,564
1910	864,857	74,986	939,843	775,211	1,300,661	2,075,872
1911	820,728	79,778	900,506	769,723	1,488,238	2,257,961
1912	749,076	60,541	809,617	725,011	1,771,354	2,496,365
1913	458,651	64,297	522,948	438,243	1,338,091	1,776,334
1914	424,617	46,391	471,008	397,855	1,199,817	1,597,672
1915	354,268	36,188	390,456	317,208	948,820	1,266,028
1916	423,303	23,552	446,655	393,749	674,678	1,068,427
1917	400,978	21,878	422,856	371,549	855,073	1,226,622

For the whole period during which the "Torrens" system has been in operation, 36,324,240 acres, valued at £36,010,693, have been conveyed under its provisions; and 2,340,391 acres, valued at £41,979,830, have been brought under it, the deeds under the old Act thus being automatically cancelled.

The transfers and conveyances of private lands which take place during ordinary years show approximately the condition of business in real estate.

The following table exhibits for each year of the past decade the amount paid as money consideration on sales of private lands, estates sold on long terms being excluded.

Year.	Conveyances or Transfers (000 omitted).			Year.	Conveyances or Transfers (000 omitted).		
	Under Deeds Registration Act.	Under Real Property (Torrens) Act.	Total.		Under Deeds Registration Act.	Under Real Property (Torrens) Act.	Total.
	£	£	£		£	£	£
1908	2,880	9,850	12,760	1913	4,726	16,079	20,805
1909	2,312	9,417	11,729	1914	3,613	16,555	20,198
1910	4,058	11,959	16,017	1915	3,153	11,850	15,003
1911	4,602	16,426	21,028	1916	3,370	12,189	15,559
1912	5,502	18,380	23,882	1917	3,979	11,619	15,598

As already mentioned, the Real Property Act provides that on the issue of a certificate the title of the person named on the certificate is indefeasible. Provision is made, however, for error in transfer, by which persons might be deprived of their property; as, should the transfer be made to the wrong person, the holder of the certificate cannot be dispossessed of his property unless he has acted fraudulently. To enable the Government to compensate persons who, through error, may have been deprived of their properties, an assurance fund was created by means of a contribution of one halfpenny in the pound on the declared capital value of property when first brought under the Act, and upon transmission of titles of estates of deceased proprietors.

It is a sterling testimony of the value of the Act, and of the facility and accuracy of its working, that payments from the assurance fund to the 31st December, 1907, in respect of titles improperly granted, amounted only to £16,326. In 1907 this fund, as a separate account, was closed, and the amount at credit, £255,059, was transferred to the Closer Settlement Account, in accordance with the provisions of section 6 of the Public Works and Closer Settlement Funds Act, 1906, and all assurance contributions under section 119 of the Real Property Act, 1900, and all claims for compensation, are now dealt with under the Closer Settlement Act.

The estimated unimproved capital value of land in the State in the year 1917 was £203,985,000, and the improved value was £509,365,000. The total area alienated (exclusive of Federal Capital transactions) amounted on the 30th June, 1917, to 41,561,731 acres, of which, as already stated, 38,664,631 acres are held under the Real Property or "Torrens" Act. The total alienated area of 41,561,731 acres is subject to all the operations of lien and mortgage, to State municipal rating, and to State and Federal taxation.

MORTGAGES.

All mortgages, except those regulated by the Bills of Sale Act of 1898 and the Merchant Shipping Act of 1894, are registered at the Registrar-General's office, and it is a fair assumption that the number recorded represents the bulk of the mortgages effected. Where more than one mortgage has been effected on the same property, the mortgages take priority according to the time of registration, instead of the respective dates of the instruments.

The amount of consideration for which a mortgage stands as security is not always stated in the deeds, the words "valuable consideration" or "cash credit" being inserted, instead of a specific sum, in many of the transactions of banks, and of other loan institutions, in cases where the advances are liable to fluctuation; and, as this frequently occurs when the property mortgaged is of great value, an exact statement of the total advances against mortgages cannot be made.

The figures in the tables given herewith relate only to cases in which a specific amount is stated in the deeds, whether that amount be the sum actually advanced or not. The same remark applies also to discharges, the amount of which, as shown in the tables, is still further reduced by the exclusion of mortgages which have been satisfied by foreclosure or seizure, a record of which is not available. Many mortgages appear in the official records as current, although the property which they represent has passed away from the mortgagor.

MORTGAGES OF REAL ESTATE.

Mortgages of land are registered under either the Deeds Registration Act or the Real Property Act, according to the title of the property at the date of mortgage. The mortgages registered for each of the five years ended 1917 were as follow :—

Year.	Mortgage.			Consideration.		
	Under Deeds Registration Act.	Under Real Property Act.	Total.	Under Deeds Registration Act.	Under Real Property Act.	Total.
	No.	No.	No.	£	£	£
1913	7,112	16,939	24,051	8,243,929	14,964,433	23,208,362
1914	7,107	17,834	24,941	4,769,337	15,905,411	20,674,748
1915	6,350	16,524	22,874	3,466,295	12,583,455	16,049,750
1916	5,381	15,638	21,019	5,084,000	11,991,878	17,075,878
1917	4,421	14,590	19,011	4,926,909	10,802,276	15,729,185

The consideration given generally represents the principal owing; in some cases, however, it stands for the limit within which clients of banks and of other loan institutions are entitled to draw.

The amount of mortgages discharged has always been much less than the amount registered, since the discharges do not include foreclosures, which, if not formally registered as discharges, are nevertheless mortgages cancelled. The volume of the releases is also reduced by mortgages paid off in instalments, as the discharges may be given for the last sum paid, which might happen to bear a very small proportion to the total sum borrowed; and further, the total of the discharges is reduced owing to the practice, now largely followed, of allowing mortgages maturing on fixed dates to be extended for an indefinite period.

MORTGAGES ON LIVE STOCK, WOOL, AND CROPS.

Liens on wool, mortgages on live stock, and liens on growing crops are registered under special Acts. Mortgages on live stock are current till discharge, and liens on wool mature at the end of each season, terminating without formal discharge. The duration of liens on agricultural and horticultural produce may not exceed one year. Such advances do not usually

reach large sums, either individually or in the total, as there is an element of uncertainty in the security offered. Mortgages are valid without delivery of the stock or the crops to the mortgagees.

The figures relating to live stock throw considerable light on the condition of the pastoral industry of the country. They must, however, be taken with this qualification, that the amount stated represents in many cases merely nominal indebtedness. It must, moreover, be noted that liens on wool are sometimes effected on sheep carrying a mortgage. In 1917 the amount secured by the mortgage of sheep was £144,960, and it is included in the £845,567 shown in the following table as liens on the wool from a prospective clip of 1,808,034 sheep, and as a portion of the £1,959,337 raised by mortgage on 1,857,941 sheep among other live stock, hence the net amount lent on lien was £700,607. In addition to the figures for 1917 in the table given herewith there were registered 12 discharges of wool liens, representing £13,275.

Classification.				1913.	1914.	1915.	1916.	1917.
Wool—								
Liens ...	...	No.		1,387	1,134	895	774	809
Sheep ...	...	„		2,850,894	2,433,986	3,052,642	1,578,608	1,808,034
Consideration	...	£		801,551	620,600	498,449	327,871	845,567
Growing Crops—								
Liens ...	...	No.		1,438	1,270	4,464	2,492	1,641
Consideration	...	£		233,665	204,020	609,067	451,750	369,018
Live Stock—								
Mortgages	...	No.		2,749	3,205	3,074	2,689	3,410
Sheep ...	...	„		2,313,922	3,711,843	2,389,029	1,211,986	1,857,941
Cattle ...	...	„		81,016	73,682	59,085	72,853	73,399
Horses	...	„		19,282	26,617	26,564	100,986	17,493
Consideration	...	£		1,313,171	1,418,298	1,112,655	1,053,477	1,959,337

Discharges of Mortgages on Live Stock.

The number of registered discharges amounted to 26.25 per cent. of the number of mortgages of live stock registered during 1917. The apparent disproportion is partly due to the fact that in many cases one discharge covers several mortgages. The figures for the ten years ended 1917 were:—

Year.	Dis- charges.	Amount.	Year.	Dis- charges.	Amount.
	No.	£		No.	£
1908	873	838,609	1913	940	641,037
1909	912	684,714	1914	961	228,410
1910	1,038	1,232,079	1915	780	482,216
1911	1,091	1,144,461	1916	847	454,466
1912	1,064	623,539	1917	635	619,060

MORTGAGES ON SHIPS.

Mortgages of registered British vessels are arranged under the Imperial Merchant Shipping Act of 1894. Transactions of this nature are divided into two classes, one in which the vessel is the sole security, and the other in which the advances are made on the security of the "account current," which may consist of ships, wharfage appliances, land, and other properties. The deed of mortgage is generally executed for the full amount of the advance. Registrations are effected at the two ports of registry, Sydney and Newcastle, and the combined return are given in the following statement.

Year ended 30th June.	Mortgage on Ships only.				Mortgage on Account Current.			
	Sailing Vessels.		Steam and Motor Vessels.		Sailing Vessels.		Steam and Motor Vessels.	
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.
1915	...	£ ...	8	14,113	..	...	2	£ 126
1916	1	100	8	6,291	1	1	7	2,655
1917	2	1,600	4	15,300	...	...	2	1,091
1918	1	200	10	187,762	...	...	16	14,012

BILLS OF SALE.

All mortgages on personalty other than ships and shipping appliances, wool, live stock, and growing crops, are filed at the Supreme Court under the Bills of Sale Act, 1855, and its amendments as consolidated by the Bills of Sale Act, 1898, which was further amended in 1903 to secure that a bill of sale shall be ineffective as to certain household furniture unless the consent of the wife or the husband of the maker or the giver of the bill is endorsed thereon. The Act provides that each document shall be filed within thirty days after it is made or given, otherwise the transaction is void as against execution creditors, and against the official assignee or the trustee of a bankrupt estate; also that the registration shall be renewed every twelve months; and to prevent fraud and imposition the records are open to the inspection of the public. The total amount of advances made annually on the bills of sale is not readily available, but according to the number of bills filed the sum must be considerable. No complete record is made of bills terminated voluntarily, or by seizure, the official records showing only those discharged in the ordinary way. There are frequent seizures of the security given, which consists generally of household furniture and stock-in-trade, and it is regrettable that no record is kept of them; but, as previously noted, neglect of registration of foreclosures is a weakness in procedure under all Acts regulating mortgage transactions. The bills filed and the discharges registered for the five years ended 1917 were as follow :—

Year.	Registrations.		Renewals Under Bills of Sale Act of 1898.
	Filed in Supreme Court.	Satisfied, or Orders for Discharge Made.	
1913	3,058	385	2,015
1914	3,194	402	2,179
1915	2,931	302	2,482
1916	2,511	365	2,478
1917	2,513	275	2,506

REGISTRATION OF MONEY-LENDERS.

Under the Money-lenders and Infants Loans Act, 1905, money-lenders must be registered at the Registrar-General's Office; and they may conduct their business only under their own or their firm names, and at their registered offices. The term "money-lender" includes every person or company the business of whom or which is that of money-lending, but it excludes licensed pawnbrokers, registered friendly societies, institutions incorporated by special Act of Parliament to lend money, and banking and insurance companies. The number of registrations and renewals during the year 1917 was 40.

ESTATES OF DECEASED PERSONS.

The following table shows the number of estates and the amount on which stamp duty was paid during the ten years ended the 30th June, 1918. The figures for the three years ended June, 1911, are exclusive of properties administered by the Curator of Intestate Estates, for which particulars are not available.

Year ended 30th June.	Estates.	Amount.	Year ended 30th June.	Estates.	Amount.
	No.	£		No.	£
1909	3,239	7,215,018	1914	4,631	10,439,256
1910	3,187	10,417,169	1915	4,438	9,997,615
1911	3,363	7,827,275	1916	5,107	10,783,406
1912	4,372	13,445,639	1917	5,309	11,554,726
1913	4,749	8,509,070	1918	6,476	11,859,375

According to the foregoing figures, stamp duty was paid during the ten years ended the 30th June, 1918, on 44,811 estates, valued at £102,048,549, representing an average value per estate of £2,277.

The next table shows in various age-groups the number and value of the estates of deceased persons of each sex in respect of which probate was granted during the six years 1911-16, the values given being the net values for stamp duty purposes.

Age Group.	Males.			Females.		
	Estates.	Value of Estates.	Average Value of Each Estate.	Estates.	Value of Estates.	Average Value of Each Estate.
	No.	£	£	No.	£	£
Under 15	31	6,914	223	19	6,053	319
15-20	119	29,816	251	30	10,844	361
21-29	947	377,284	398	233	86,861	373
30-39	1,428	1,139,281	798	559	369,029	660
40-49	2,287	3,076,999	1,345	801	599,885	749
50-59	3,313	6,243,506	1,885	1,205	1,023,351	849
60-69	3,625	9,017,881	2,488	1,522	2,566,467	1,686
70-79	3,751	14,092,086	3,757	1,693	2,318,521	1,369
80-89	1,715	8,086,533	4,715	849	2,244,053	2,643
90 and over	162	337,120	2,081	121	254,475	2,103
Not stated	669	1,387,863	2,075	167	765,933	4,586
Absentees	946	6,495,231	6,806	334	1,166,833	3,494
Naval and Military Forces	588	518,729	882	...	...	...
Total ...	19,581	50,809,243	2,595	7,533	11,412,305	1,515

Analysis of the returns for the six years ended the 31st December, 1916, shows that 92 per cent. of the estates represented persons domiciled in the State, leaving only 8 per cent. as absentees, that is, persons leaving property in New South Wales who died outside the State, including soldiers on service abroad. In the six years 1911-16, the number of estates of male absentees was 1,534, and the average value £4,572, and there were 334 estates of female absentees of an average value of £3,494.

Of the males who died in the State during the period under review, 29 per cent. left property, and of the females 16 per cent. Taking only the adults, of the males who died 42 per cent. left property, and of the females 24 per cent. Of the persons leaving property, the estates of the males were valued on the average at £2,595, and of the females at £1,515.

The following table affords a comparison of the proportion of persons dying possessed of property per hundred of the total deaths in each quinquennium since the year 1880. The figures shown in this, and in the succeeding tables for the years prior to 1911, are exclusive of properties administered by the Curator of Intestate Estates.

Period.	Proportion of Deceased Persons with Estates per 100 Deaths.	Period.	Proportion of Deceased Persons with Estates per 100 Deaths.
1880-84	11.0	1905-09	19.1
1885-89	11.6	1910-14	22.9
1890-94	13.2	1915	22.7
1895-99	14.9	1916	25.4
1900-04	17.0	1917	29.5

The preceding figures indicate a widely diffused condition of prosperity, but a more convincing illustration of the wide distribution of property in New South Wales is afforded by the next table, which shows the proportion of estates per 100 deaths of adult males, and per 100 deaths of adult males and females. The latter method of comparison is frequently neglected, but it is worthy of consideration, as large numbers of females are possessors of valuable property in their own right. The following figures are given for quinquennial periods, commencing with the year 1880.

Period.	Ratio of Estates per 100 Deaths of Adult Males.	Ratio of Estates per 100 Deaths of Adult Males and Females.
1880-84	34.6	22.3
1885-89	37.5	23.8
1890-94	41.2	25.8
1895-99	42.7	26.2
1900-04	46.0	27.8
1905-09	48.8	29.2
1910-14	56.6	34.0
1915	56.1	33.6
1916	62.5	37.2

Information regarding the ages of persons leaving property was not ascertained until 1911, and therefore it was not possible to exclude from the above calculations the estates of persons under 21 years of age in the earlier years.

Since 1911, however, the necessary particulars have been made available, and are shown in the following table.

Year.	Ratio of Adult Males Leaving Property, to Total Deaths of Adult Males.	Ratio of Adult Females Leaving Property, to Total Deaths of Adult Females.
	per cent.	per cent.
1911	37·6	23·4
1912	42·9	23·4
1913	41·9	23·3
1914	38·8	24·6
1915	39·8	24·0
1916	45·4	24·3

The statement regarding the wide distribution of property in New South Wales must be taken relatively, and the following table, which shows the number of persons dying in possession of estates during the ten years ended June, 1918, affords a basis for testing the extent of its application.

Category.	Number of Deceased Persons Leaving Property.	Proportion in Each Group.	Value of Estates of Deceased Persons.	Proportion in Each Group.
		per cent.	£	per cent.
£50,000 and over ..	220	0·49	33,660,554	32·98
£25,000 to £50,000 ...	360	0·80	12,266,138	12·02
£12,500 to £25,000 ...	681	1·52	11,876,133	11·64
£5,000 to £12,500 ...	1,992	4·45	15,301,367	14·99
£200 to £5,000 ...	25,931	57·87	27,623,593	27·07
Under £200 ...	15,627	34·87	1,320,764	1·30
Total ...	44,811	100·00	102,048,549	100·00

THE WEALTH OF THE STATE.

An approximation of the wealth of the State may be ascertained crudely from the results of the War Census of 1915, though it must be borne in mind that in the tables in which the aggregate returns were presented, the allocation to States and Territories was based on the locality of residence of the owner or representative, and not on the locality in which the income was earned, or in which the assets were situated.

The Commonwealth War Census Act (No. 20 of 1915) was passed for operation during the continuance of the War, and no longer, and its object was to ascertain the aggregate wealth of the people of the Commonwealth expressed in terms of income and assets.

The investigation into the nature and value of property owned by individuals, or as members of trusts, companies, or associations, was comprehensive and exhaustive; and the furnishing of returns was compulsory upon all persons aged 18 and upwards, who were possessed of property, or who held property on trust, or who were in receipt of income.

Details were required relating to the unimproved value of land, and of the value of all improvements, inclusive of houses and other buildings thereon, and similar information relating to leasehold estates; to the specification and estimated value of machinery and plant, inclusive of implements, vehicles, and tools of all kinds, the enumeration and value of live stock, the value of share of assets held as a partner in any business or trading concern as per last balance-sheet, the amount of interest as a beneficiary in trust estate, the amount of debentures or other stocks and shares held, the amount of bank deposits (fixed or at current account) and cash in hand, the amount of debts (secured and unsecured) due to the

person furnishing the return outstanding at the close of the preceding year, the value of stock-in-trade, the value of furniture and personal and household effects, and of all other property, exclusive of life assurance policies.

Inquiries regarding other sources of income were no less searching and exhaustive. Details were required as to the amount of stipend, salary, or wages; the income accruing from the exercise of a profession, trade, business, or industry; the amount of fees, commission, or bonus; the amount of pension (other than Commonwealth old-age or invalid pension), superannuation, or retiring allowance received; as to allowance of quarters, board, etc., by an employer; money received as rent, as interest, and dividends, or as annuities, royalties, tributes, licenses, etc.; amount of income received as beneficiary from trust estate, and from all other sources; and it was required that 5 per cent. should be added to the capital value of land and improvements personally owned and used by the person making the return for the purpose of residence or enjoyment.

In calculating individual income, deductions were allowed for the amount actually paid by the person making the return for fidelity guarantee on self, for interest actually paid on borrowed money, for actual payments on repairs and maintenance of property, and of life, fire, and other insurance premiums, of contributions to pension or superannuation fund, or to friendly societies, and of rent, rates and taxes relating to business premises, offices, etc.

Every person who was the trustee of more than one estate was required to furnish particulars on a separate form in respect of each estate of which he was trustee.

In the following figures, which relate to New South Wales, the wealth represented was held by individuals, or by their agents, living in the State, irrespective of the geographical situation of the locality from which that wealth was derived. In respect of Australian partnerships, incomes have been allocated to returns of individual partners under the head of "Individuals." Income from trust funds has in the main been included in the "individual" returns of the beneficiaries; that shown below as from "trust funds" consists mainly of the net revenues of assurance and friendly societies, and of certain other cases where allocation to individual beneficiaries had not been made. The income of companies shown hereunder was the aggregate net profit in the case of absentee companies, plus the undistributed profits for the year in the case of Australian companies.

The number of wealth and income returns for individuals for the year ended the 30th June, 1915, was in the State of New South Wales as follows:—

	Males.	Females.	Total.
Returns relating to Residents of Australia ...	524,047	268,509	792,556
„ „ „ Non-residents ...	550	651	1,201
	524,597	269,160	793,757

The aggregate net income of individuals for the year ended the 30th June, 1915, recorded in respect of New South Wales was as follows:—

	Males.	Females.	Total.
	£	£	£
Residents of Australia	80,408,696	14,129,441	94,538,137
Non-residents „	196,351	306,958	503,309
Total	80,605,047	14,436,399	95,041,446

Exclusive of the value of (i) interests in trust estates, (ii) assurance and annuity policies, (iii) prospective benefits from friendly societies and trade-unions (three items which were included in bulk under "trust funds"), the aggregate net assets of individuals for the year ended the 30th June, 1915, recorded in respect of New South Wales were as follow:—

	Males.		Females.	Total.
	£		£	£
Residents of Australia	362,193,858	106,750,464	468,944,322	
Non-residents „	2,252,941	2,180,745	4,433,686	
Total	364,446,799	108,931,209	473,378,008	

The following statement shows the aggregate net income and net assets accruing to individuals or their agents, or controlled by them, resident within the boundaries of the State; but these are not necessarily correlative with the wealth produced from the State. In the figures given hereunder the assets of Australian partnerships have been allocated to returns of individual partners under the head of "Individuals." Under the heading "Trust Funds" the most important items in the group are (i) the total value of Australian trust estates, and (ii) the Australian funds of life assurance societies, friendly societies, and trade-unions operating in Australia. The item "Companies" represents (i) the net assets of Australian companies less the aggregate shown on individual and other returns as "shares and debentures in companies," and (ii) the net assets held in Australia by absentee companies. The net assets of "Individuals" are exclusive of the items already detailed.

Division.	Net Income.	Net Assets.
	£	£
Individuals	95,041,446	473,378,008
Non-resident Partnerships	51,030	592,034
Trust Funds	1,923,204	114,245,620
Companies	4,141,696	48,052,445
Institutions	224,990	9,430,961
Total	101,382,366	645,699,068

Excluding non-residents from the returns collected through the machinery of the War Census, the net incomes of persons resident in New South Wales on 30th June, 1915, arranged in categories, were as follows:—

Category.	Persons.	Aggregate Income.
	No.	£
Deficit and Nil	95,978	...
Under £50	143,454	3,518,631
£50 and under £100	179,243	13,000,632
£100 „ £150	199,499	24,496,025
£150 „ £156	20,883	3,183,318
£156 „ £200	68,665	11,881,549
£200 „ £300	46,684	11,084,030
£300 „ £500	22,536	8,452,334
£500 „ £750	7,603	4,603,801
£750 „ £1,000	3,028	2,547,837
£1,000 „ £1,500	2,369	2,864,103
£1,500 „ £2,000	999	1,725,181
£2,000 „ £3,000	779	1,896,895
£3,000 „ £4,000	305	1,040,299
£4,000 „ £5,000	171	768,731
£5,000 and over	354	3,474,771
Total	792,556	94,538,137

The total number of persons in receipt of incomes of the taxable limit of £156 and upwards was 153,499, and their aggregate incomes amounted to £50,339,531.

Of the persons shown in the preceding table, 524,047 were males and 268,509 were females, whose incomes were as follows :—

Category.	Males.		Females.	
	No.	Aggregate Income.	No.	Aggregate Income.
		£		£
Deficit and Nil	17,940	...	78,038	...
Under £50	46,239	1,346,629	97,215	2,172,002
£50 and under £100	121,505	9,056,099	57,738	3,944,533
£100 „ £150	179,483	22,138,778	20,016	2,357,247
£150 „ £156	19,377	2,952,944	1,506	230,374
£156 „ £200	63,797	11,033,838	4,868	847,711
£200 „ £300	42,337	10,033,534	4,347	1,050,496
£300 „ £500	20,005	7,499,992	2,531	952,342
£500 „ £750	6,576	3,982,406	1,033	621,395
£750 „ £1,000	2,541	2,133,023	487	414,814
£1,000 „ £1,500	1,989	2,405,447	380	458,656
£1,500 „ £2,000	846	1,463,144	153	262,037
£2,000 „ £3,000	683	1,660,607	96	236,288
£3,000 „ £4,000	262	885,838	43	154,461
£4,000 „ £5,000	153	688,736	18	79,995
£5,000 and over	314	3,127,681	40	347,090
Total	524,047	80,408,696	268,509	14,129,441

Exclusive of the value of (i) interests in trust estates, (ii) assurance and annuity policies, and (iii) prospective benefits from friendly societies and trade unions, the net assets of persons resident in New South Wales on 30th June, 1915, arranged in categories were as follows :—

Category.	Persons.	Aggregate Assets.
	No.	£
Deficit and Nil	135,809	.....
Under £100	339,658	10,412,151
£100 and under £250	111,480	17,814,900
£250 „ £500	72,297	25,546,241
£500 „ £750	34,489	20,982,898
£750 „ £1,000	19,912	17,219,622
£1,000 „ £2,500	44,517	69,612,302
£2,500 „ £5,000	18,741	64,996,702
£5,000 „ £10,000	9,125	63,075,571
£10,000 „ £15,000	2,807	33,896,198
£15,000 „ £20,000	1,238	21,340,764
£20,000 „ £25,000	687	15,427,892
£25,000 „ £50,000	1,156	33,423,067
£50,000 „ £75,000	329	20,114,398
£75,000 „ £100,000	113	9,753,426
£100,000 and upwards	198	39,328,190
Total	792,556	468,944,322

As evidence of the wide diffusion of wealth in New South Wales it is worthy of remark that 133,312 residents of the State possessed on the 30th June, 1915, assets of an aggregate total of £415,171,030, the individual amounts of which were £500 and upwards.

About 77 per cent. of the total assets were possessed by males and 23 per cent. by females. The net assets of males and females are given in the following table :—

Category.	Males.		Females.	
	No.	Aggregate Assets.	No.	Aggregate Assets.
		£		£
Deficit and Nil	97,731	...	38,078	...
Under £100... ..	209,892	6,778,032	129,766	3,634,119
£100 and under £250	73,986	11,847,614	37,494	5,967,286
£250 „ £500	48,037	17,013,903	24,260	8,532,338
£500 „ £750	22,860	13,960,232	11,629	7,022,666
£750 „ £1,000	13,595	11,763,474	6,317	5,456,148
£1,000 „ £2,500	31,148	49,016,305	13,369	20,595,997
£2,500 „ £5,000	14,172	49,304,480	4,569	15,692,222
£5,000 „ £10,000	7,233	50,189,620	1,892	12,885,951
£10,000 „ £15,000	2,248	27,111,542	559	6,784,656
£15,000 „ £20,000	1,008	17,223,116	230	4,017,648
£20,000 „ £25,000	572	12,900,114	115	2,527,778
£25,000 „ £50,000	989	33,767,772	167	5,655,295
£50,000 „ £75,000	295	18,034,840	34	2,079,558
£75,000 „ £100,000	108	9,312,967	5	440,459
£100,000 and upwards	173	33,869,847	25	5,458,343
Total... ..	524,047	362,193,858	268,500	106,750,464

EMPLOYMENT AND INDUSTRIAL ARBITRATION.

EMPLOYMENT.

For complete information regarding occupations and ages of breadwinners at the Census of 1911, readers are referred to previous issues of the Year Book.

ANNUAL RECORDS OF PRIMARY AND MANUFACTURING INDUSTRIES.

Statistics relating to the occupations of the people are, for intervals between the decennial census dates, restricted to persons engaged in the primary industries and the workers in industries administered under the Factories and Shops Act, concerning both of which groups annual returns are collected. The majority of women and girls engaged in agriculture (inclusive of poultry, pig, and bee farming) and in dairying are only partly so employed, in conjunction with, or in addition to, their usual domestic duties. The number of persons permanently employed in the principal industries of the State in 1911 and subsequent years is shown in the following table, manufacturing establishments employing fewer than four persons being excluded unless machinery is used :—

Year.	Agricultural.		Dairying.		Pastoral.	Mining.		Manufacturing.	
	Males.	Females.	Males.	Females.		Metal.	Coal and Shale.	Males.	Females.
						Males.	Males.		
1911	58,299	5,782	27,488	19,422	43,387	19,360	17,657	82,083	26,541
1912	58,984	5,779	26,537	18,439	41,893	19,807	18,051	88,178	27,383
1913	61,525	6,950	25,961	18,478	40,543	19,914	18,966	93,036	27,364
1915*	59,944	7,875	23,435	15,917	39,131	13,190	18,221	90,409	26,202
1916*	59,256	8,743	21,979	15,404	38,042	14,412	16,892	87,724	28,677
1917*	55,122	9,433	22,363	16,644	38,607	15,479	17,338	88,910	29,087
1918*	50,490	8,161	21,071	15,938	43,793†	16,737	16,926	90,025	30,529

* Figures relate to year ended 30th June, except mining, which are for 31st December.

† Includes 2,805 females.

During the war period the number of men engaged in the agricultural industry declined in each year, from 61,525 in 1913 to 50,490 in 1918, while the number of women increased up to 1917, but declined in the following year; in the dairying industry there was a decrease of 4,890 men and 2,540 women; in the pastoral industry there was a slight increase in the number of men, and in 1918 for the first time the records show that women, numbering 2,805, were engaged. In the rural industries, as a whole, there has been a decrease of 15,480 men and an increase of 1,476 women since 1913. After a marked decline in the years 1915-17, employment in the manufacturing industry rose in 1918 to the pre-war level, a decrease since 1913 of 3,011 men being compensated by increased employment of women.

Grouping the figures shown above in Primary and Secondary Industries, the following results are obtained:—

Year.	Primary.			Secondary.— Manufacturing.	All Industries.		
	Rural.	Mining.	Total.		Males.	Females.	Total.
1911	154,378	37,017	191,395	108,624	248,274	51,745	300,019
1912	151,632	37,858	189,490	115,561	253,450	51,601	305,051
1913	153,457	38,880	192,337	120,400	259,945	52,792	312,737
1915*	146,302	31,411	177,713	116,611	244,330	49,994	294,324
1916*	143,424	31,304	174,728	116,401	238,305	52,824	291,129
1917*	142,169	32,817	174,986	117,997	237,819	55,164	292,983
1918*	139,453	33,663	173,116	120,554	236,237	57,433	293,670

* Figures relate to year ended 30th June, except mining, which are for 31st December.

IMMIGRATION.

Under the Imperial Act constituting the Australian Commonwealth, power to legislate with regard to immigration and emigration is conferred upon the Federal Parliament, and the legislation under this section is contained in the Immigration Act, 1901–1912, the Pacific Island Labourers Act, 1901–1906, the Contract Immigrants Act, 1905, and the Emigration Act, 1910. The enactments relating to immigration operate in the direction of restricting the right of entry of persons to the Commonwealth. They define the classes of persons who come under the heading of prohibited immigrants, including persons who fail to pass prescribed dictation tests or do not possess the prescribed certificate of health, criminals, and immoral persons, or persons otherwise undesirable.

Persons suffering from serious transmissible or communicable diseases are debarred specifically; also idiots, imbeciles, feeble-minded or epileptic persons; and the Immigration Act, 1912, makes special provision for the establishment of medical bureaux at places outside the Commonwealth, and for the appointment of medical referees in the Commonwealth or outside it to conduct the medical examination of immigrants or intending immigrants. The onus of the introduction of prohibited immigrants lies chiefly upon the masters, owners, agents, or charterers of vessels, a penalty of £100 attaching in respect of each such entrant or stowaway, as well as the liability for maintenance and deportation.

Exemption from the general provisions of the Acts may be claimed by persons holding exemption certificates, by persons accredited by any Government, by members of the King's regular sea and land forces, and by masters and crews of public vessels of any Government, and of vessels trading to Commonwealth ports, providing, in regard to the vessels last mentioned, that if any of the crew be missing when the vessel clears the port, such person may be declared a prohibited immigrant, and the master be held responsible. The prescribed dictation test may be imposed at any time up to two years after the admission of an immigrant. Provision is made for the conditional entry of prohibited immigrants for a limited period.

Contract Immigrants.

The Contract Immigrants Act, 1905, regulates the admission of immigrants under contract to perform manual labour. Contracts in this connection must be in writing, made by or on behalf of some person named and resident in Australia. They are subject to Ministerial approval, which may

be withheld if the fulfilment of the contract is likely to be prejudicial to the public welfare, either as affecting an industrial dispute, or as to the conditions of, and standards prevailing in, local industry. It may be withheld, also, if there is insufficient evidence of difficulty in obtaining a worker of equal skill and ability within the Commonwealth. This latter provision is not applicable to contract immigrants who are British subjects, born in the United Kingdom or descended from a British subject there born; nor does the Act apply to domestic servants and personal attendants accompanying their employers.

For the nine years, 1908-16, the number of contract immigrants admitted to Australia was 916, and of these the contracts of 240 related to New South Wales. Of the total number, 803 were described as British and 113 as non-British. In 1916, the last year during which contract immigrants were admitted, owing to the incidence of the Great War, 38 persons, of whom 3 only were British, landed in Australia, and of the total contracts 36 related to this State.

EMIGRATION.

The Emigration Act, 1910, operates in the direction of restricting the emigration of children and aboriginal natives from Australia, regulating contracts in relation thereto, and supervising the transportation or removal of prohibited immigrants.

ENCOURAGEMENT OF IMMIGRATION.

The Commonwealth.

During the war all activities for the encouragement of immigration were suspended by the Commonwealth, though previously its operations in this connection were confined to advertising the attractions of Australia generally, with a view to promoting voluntary immigration to the different States.

The State Policy.

State-assisted immigration was inaugurated in New South Wales in the year 1832, and was maintained until 1885, when it was discontinued except in respect of members of the family of persons already assisted to immigrate. After an interval of twenty years, the policy was resumed in 1905.

The following statement shows the expenditure on immigration by State grants, together with the resulting increase in population :—

Year ended 30th June.	Expenditure, exclusive of Administration.	Immigrants assisted.				
		Nominated.	Selected.	Total.		
				Males.	Females.	Total.
1832-1901	£ 2,515,687	...	...	104,106	107,866	211,972
1905-1909	44,924	6,144	2,713	...	...	8,857
1910-1914	221,601	32,406	12,444	23,816	21,034	44,850
1915	24,501	2,399	1,109	1,498	2,010	3,508
1916	13,570	888	152	354	6-6	1,040
1917	3,690	526	60	168	418	586
1918	1,367	193	1	26	168	194

With the outbreak of the war assisted immigration to New South Wales became limited mainly to domestic servants, but even this class of immigration had almost ceased before the end of 1918.

Prior to the war arrangements existed with various steamship companies for reductions in the ordinary rates for passages from the United Kingdom to £14 per adult, of which the Government paid from £4 to £8.

The following statement shows the proportion of British subjects, in comparison with foreign-born, among assisted immigrants, in the period 1910-1918 :—

Year ended 30th June	Immigrants from—						Total.		
	United Kingdom.		Other British Possessions.		Foreign Countries.				
	Nomin- ated.	Selected.	Nomin- ated.	Selected.	Nomin- ated.	Selected.	Nomin- ated.	Selected.	Total.
1910	2,210	1,958	20	12	22	11	2,252	1,981	4,233
1911	4,675	2,524	4	3	60	32	4,739	2,559	7,298
1912	8,781	3,958	1	...	99	17	8,881	3,975	12,856
1913	10,997	2,482	3	...	150	17	11,150	2,499	13,649
1914	5,197	1,396	23	8	164	26	5,384	1,430	6,814
1915	2,347	1,087	9	5	43	17	2,399	1,109	3,508
1916	869	145	7	...	12	7	888	152	1,040
1917	515	60	2	...	9	...	526	60	586
1918	191	1	...	...	2	...	193	1	194

Farmers and agricultural labourers under 45 years of age and of good general character, who are capable of furnishing proof of their suitability as settlers, are carried to New South Wales for a minimum net fare of £8, and Government aid of a similar description is given to their wives and families.

The Government guarantees employment for selected immigrants, and in January, 1919, the Immigration Office in Sydney was amalgamated with the State Labour Exchanges, so that after the war State aided immigration may be regulated in accordance with local industrial conditions.

The following statement shows the distribution of selected immigrants in their respective occupational classes in each financial year:—

Year ended 30th June.	Rural Workers.			Domestic Servants.	Other.	Families of foregoing.
	Farmers.	Farm Labourers.	Total.			
1910	11	1,428	1,439	434	...	108
1911	12	1,831	1,843	387	...	329
1912	11	2,472	2,483	520	205	767
1913	10	1,662	1,672	549	3	275
1914	13	529	542	567	...	321
1915	11	486	497	477	...	135
1916	1	7	8	126	...	18
1917	...	3	3	51	...	6
1918	...	...	...	1	...	1

Persons nominated for assisted passage by relatives in the State may be granted a reduction on each full fare, the lowest net fares to nominated accepted immigrants being £17 per adult for wives and families of farm workers, £19 for wives and families of other workers, and £21 for all other nominees.

Nominators are required to lodge the reduced steamer fare, and to guarantee that employment awaits nominees, or that adequate provision will be made for their maintenance.

Any immigrant who settles upon the land as owner, lessee, or labourer, within a reasonable time of his arrival, may be granted concessions in regard to railway fares and freight when travelling to the district in which he settles. These concessions may be granted also to nominated immigrants proceeding to the homes of their nominators, or travelling to take up farm work or domestic service.

TRADE UNIONS.

The Trade Union Act, 1881, defines a "trade union" as "any combination, whether temporary or permanent, for regulating the relations between workmen and employers, or between workmen and workmen, or between employers and employers, or for imposing restrictive conditions on the conduct of any trade or business, whether such combination would or would not, if this Act had not been passed, have been deemed to have been an unlawful combination by reason of some one or more of its purposes being in restraint of trade."

The Industrial Arbitration Acts provide for the incorporation of trade unions as industrial unions; and the Industrial Arbitration (Amendment) Act, 1918, extended their powers by authorising them to acquire, own, and deal with property, to sue members for payment of subscriptions, fines, &c., in accordance with their rules, and to apply money and property to the furtherance of political objects, provided that such payments be made out of a separate fund maintained by purely voluntary contributions. The Act also compels admission to membership of all persons of good character who are qualified by the nature of their occupation.

Incorporation and Dissolution.

In the thirty-seven years, 1882-1918, 570 unions were incorporated under the Trade Union Act, the maximum number of registrations in any year being 46 in 1902.

The following statement exhibits the number of new unions registered, and other particulars, for decennial periods from 1882 to 1911, and for succeeding years:—

Period.	Trade Unions Registered.	Registrations of each Period.	
		Since Cancelled.	Still Effective.
1882-1891	141	110	31
1892-1901	66	43	23
1902-1911	221	138	83
1912	26	17	9
1913	17	6	11
1914	13	7	6
1915	11	5	6
1916	13	6	7
1917	45	12	33
1918	17	1	16
Total to 31st Dec., 1918	} 570	345	225

The majority of unions are of comparatively recent formation, since 189 of those existent have been registered since the beginning of 1900. The number existent at the end of 1918 represents approximately 40 per cent. of the total unions formed under the Act. The average life of all extinct unions was about seven years.

Cancellations for the most part have been directly consequent upon non-compliance with the requirements of the law in regard to making returns as to the membership and funds, which default was usually attributable to the moribund condition of the union. A number have disappeared by amalgamation with kindred unions, and there is an increasing tendency towards this course.

Aggregate Funds and Membership.

The following statement shows the position of all Trade Unions (i.e., for employers and employees) for the five years 1913 to 1917, as regards finances and membership:—

Particulars.	1913.	1914.	1915.	1916.	1917.
Trade Unions No.	214	219	219	215	233
Total receipts £	209,478	297,314	267,060	248,072	259,416
Total expenditure £	183,304	271,570	257,297	256,909	296,114
Total funds £	193,520	186,568	205,020	205,398	152,377
Membership No.	218,005	240,798	230,603	234,308	235,392
Receipts per member	19s. 3d.	24s. 8d.	23s. 2d.	21s. 2d.	22s. 1d.
Expenditure per member	16s. 10d.	22s. 7d.	22s. 4d.	21s. 11d.	25s. 2d.
Amassed funds per member	17s. 9d.	15s. 6d.	17s. 9d.	17s. 6d.	13s. 0d.

The unions are classified in two groups according to their constitution, viz., of employers and of employees. The following table displays their relative positions as at 31st December, 1917.

Classification.	Trade Unions.	Membership.				Funds.	
		Males.	Females.	Total.	Per Union.	Aggregate.	Per Union.
Employers	15	2,910	203	3,113	208	£ 2,594	£ 173
Employees	218	216,533	15,726	232,279	1,066	149,783	687
Total	233	219,463	15,929	235,392	1,010	152,377	654

EMPLOYERS' UNIONS.

Fifteen associations of employers have formed trade unions; the total receipts at the end of the year 1917 amounted to £6,803; the total expenditure to £6,688; and the total funds to £2,594.

EMPLOYEES' UNIONS.

Development.

The conception of trade unionism has undergone radical revision in recent years, and the constitution of unions has been increasingly directed to centralisation. Until about 1890, separate unions were constituted for the various branches of industries, and for male and female workers in those branches. Since 1900, however, there has been a movement towards consolidation of allied interests, so that few local unions retain their absolute autonomy, and the sphere of influence of the majority has extended throughout the State, and even beyond it. Practically all unions, whether local, State, or federated, are affiliated with Central Councils in Sydney, Newcastle, or Broken Hill. The movement towards consolidation received an impetus during 1912 from the rearrangement of boards under the Industrial Arbitration Act, 1912, on the basis of craft unionism, which made allied interests subject to the oversight of one chairman; an alteration which was found to increase the tendency towards concentration.

The following statement exhibits receipts, expenditure, accumulated funds, and membership of trade unions for employees only, for the year 1917, as at the 31st December:—

Industrial Classification.	Receipts.	Expenditure.	Funds.	Membership (Employees' Unions).			Funds per member.
				Males.	Females.	Total.	
Unions of Employees—	£	£	£	No.	No.	No.	s. d.
Building	16,344	26,095	21,285	21,202	51	21,253	20 0
Clothing	4,923	4,447	8,257	3,932	4,805	8,737	18 11
Engineering and Metal Working	45,294	53,742	17,685	22,059	30	22,089	16 1
Food, Drink and Narcotics	13,107	13,698	9,396	13,994	3,405	17,399	10 10
Land Transport, exclusive of Railways and Tramways	7,149	10,178	1,622	6,300	...	6,300	5 2
Mining and Smelting ...	46,986	50,500	10,414	16,013	...	16,013	13 0
Pastoral	35,578	38,159	20,783	33,771	46	33,817	12 4
Printing, Bookbinding, &c.	6,961	7,924	12,264	3,694	852	4,546	54 0
Railways and Tramways ...	14,006	16,048	5,662	28,818	275	29,093	3 10
Shipping and Sea Transport	18,399	17,668	9,226	18,945	...	18,945	9 9
Manufacturing, n.e.i. ...	16,460	20,151	15,224	14,336	2,754	17,090	17 10
Miscellaneous—							
Labour Councils and Federations of Employees ...	2,137	2,070	530	...	...	...	...
Eight-hour Committees ...	1,093	1,282	5,304	...	...	...	...
Other Miscellaneous ...	24,176	27,464	12,131	33,489	3,508	36,997	6 7
Total Unions of Employees...	252,613	239,426	149,783	216,553	15,726	232,279	12 11

The strongest unions financially are those connected with the printing and bookbinding trades. Next in order of importance, measured by accumulated funds per member, are the building, the clothing, the manufacturing (n.e.i.), and the engineering and metal-working groups.

The numerical strength of employees' unions in 1917 is shown in the following statement :—

Membership.				Em- ployees' Unions.	Membership.				Em- ployees' Unions.
Less than 100	...	...	...	50	5,000 to 6,000	...	...	...	4
100 to 500	...	...	...	67	6,000 ,, 7,000	...	...	...	1
500 ,, 1,000	...	...	...	28	8,000 ,, 9,000	...	...	...	1
1,000 ,, 1,500	...	...	...	11	12,000 ,, 14,000	...	...	...	1
1,500 ,, 2,000	...	...	...	9	Over 30,000	...	...	...	1
2,000 ,, 3,000	...	...	...	11	Not stated	...	...	...	19
3,000 ,, 4,000	...	...	...	10					
4,000 ,, 5,000	...	...	...	5	Total	...	...	...	218

INDUSTRIAL ARBITRATION ACT, 1901.

The Industrial Arbitration Act, 1901, applied arbitration principles to the regulation of wages and working conditions generally, and extended the definition of industrial disputes so as to include consideration of conditions prevailing in industries in which no dispute existed technically.

On account of the large number of cases promptly cited before the Industrial Court, and the possibility of securing an injunction against the latter, there ensued a state of congestion which ultimately culminated in considerable industrial unrest, and in 1908 the Act was suspended, experience having proved that it was encumbered with technicalities.

INDUSTRIAL DISPUTES ACT, 1908.

Under the Act, 1908, no dispute being necessary to bring an industrial matter within the jurisdiction, provision was made for the constitution of wages boards to determine the conditions which should govern employment in specified industries.

The Industrial Court consisted of a judge, sitting when necessary with assessors. A board could be constituted for an industry on application to the Industrial Court by an employer or employers of not less than twenty employees in the same industry; by a registered trade union having a membership of not less than twenty employees in the same industry; by an industrial union, or by twenty or more employees in an industry.

Each board consisted of a chairman and one or two employers and an equal number of employees; and they were authorised to decide all disputes, the lowest prices for piece-work, the lowest rates of wages, hours, proportion of apprentices and improvers, and other industrial matters, and to rescind or vary any of their awards.

Under the Industrial Disputes (Amendment) Act, 1910, proceedings for the enforcement of awards and penalties were made referable to a Magistrate's Court, and in accordance with this proviso the Industrial Registrar's Court was constituted as a Court of Petty Sessions.

After some three years' experience adverse criticism was directed against this method of regulating industrial problems, the most serious objection being found in the multiplicity of boards and the danger of the overlapping of awards in the absence of co-ordinating provisions; and the Act was repealed in 1912.

Clerical Workers Act, 1910.

The Clerical Workers Act, 1910, was passed to provide a tribunal for the determination of a minimum wage for persons engaged in clerical work, but it was repealed in 1915, and the clerical occupation (other than articulated solicitors' or architects' clerks) was brought under the operation of the Industrial Arbitration Act.

INDUSTRIAL ARBITRATION ACTS, 1912 TO 1918.

The principal provisions of the Industrial Arbitration Act, 1912, since amended by the Industrial Arbitration Amendment Acts, 1916 and 1918, relate to the operations of Industrial Boards, &c. The powers of the Court and of its subsidiary tribunals were not limited to the relationships of employment. The range of industries and callings was defined by schedule, and boards might be constituted for any industry or calling or for division or combination in such industry or calling. In practice, old boards were re-established so far as was consistent with the conditions of the Act. Thus the material distinction between the Wages Board system as operative under the Industrial Disputes Acts, 1908-1910, and the Industrial Boards, provided under the Industrial Arbitration Act, 1912, lay more in the grouping of allied industries under one chairman, and in the arrangement of such boards upon a basis of craft or calling rather than of industry, the ultimate aim being the maintenance of some thirty-one subsidiary Arbitration Courts, each having power to deal with a group of allied industries, but subject to the general control of the Court of Industrial Arbitration, which, in its supreme direction, would co-ordinate the work of the minor courts.

Experience showed, however, that this system failed in its object of mitigating the delay in hearing and determination, or of preventing the overlapping of awards, and in 1916 the amending Act provided for the appointment of additional judges to transfer and control the work done by the boards. The schedules of the principal Act were repealed, and provision was made for the constitution of industrial boards for any industry or group of industries. The Court is empowered to codify into one award all those awards affecting an employer or a class of employers in any industry or group of industries, or the members of an industrial union employed by the same employer or class of employers.

The Industrial Arbitration (Amendment) Act, 1918, provided for further extension of the operations of the Court by the constitution of special and deputy Courts; and other important amendments were made, such as the establishment of a Board of Trade, with extensive powers in connection with industrial matters, and alterations in the powers and jurisdiction of the Industrial Boards and the Court.

Industrial Unions.

Provision is made in the Industrial Arbitration Acts for the registration of industrial unions of employers and employees, and for the cancellation of registration at the request of a union.

The Court may cancel the registration of a union for instigating to or aiding in a strike or lockout, also any award or industrial agreement relating to the union.

Unions of employees may make industrial agreements with employers, or with any other employees' union, such agreements, which are binding for a maximum period of five years, to be filed.

The Court of Industrial Arbitration.

The Court of Industrial Arbitration is a superior Court and a Court of Records, governed in procedure and decisions by the dictates of equity and

good conscience. Appeal from an award of a single judge lies to the Court constituted by three judges.

The Court may elect to sit with assessors representing the interests of each of the parties, and matters relating to any log of prices or other basis for payment may be committed for determination and report to the assessors, sitting without a judge.

In districts proclaimed by the Governor a deputy Court may be constituted by a judge, or by a chairman nominated by the Court, with or without assessors; and the Court must sit as a Special Court with assessors when hearing matters exclusively affecting the Crown as employer, or persons employed exclusively by the Crown, or by shire or municipal employees.

Industrial Boards.

An Industrial Board, consisting of a chairman and two or four other members equally representing the employers and employees, may be constituted for any industry or group of industries on the recommendation of the Court, and the Court may constitute special boards to determine questions of demarcation.

Where employers or employees in the industries or callings consist chiefly of women, members may be appointed who are not engaged in those industries or callings; otherwise the representative board members are men, for the most part intimately connected with the particular industry or calling.

JURISDICTION OF COURTS AND BOARDS.

In addition to jurisdiction and powers conferred by the Act, the Court may exercise the powers, jurisdictions, and functions of industrial boards, special boards for demarcation, chairmen of boards and conciliation committees, and of industrial registrar and industrial magistrates; and it may amend and codify into one award all awards affecting any employer or class of employers, or the members of an industrial union employed by the same employer or class of employers.

A Board may make an award—

- (a) fixing the lowest prices for work done by employees, and the lowest rates of wages payable to employees, other than aged, infirm, or slow workers: Provided that no award shall be made for persons occupying managerial positions except by the special Court for Crown matters, or for payment of any remuneration in excess of £10 per week;
- (b) fixing the number of hours and the times to be worked in order to entitle employees to the wages so fixed: Provided that after 1st October, 1919, the hours for cessation of employment in shops under the Early Closing Acts shall be the hours fixed by such Acts for closing such shops;
- (c) fixing the lowest rates for overtime and holidays and other special work, including allowances as compensation for overtime, holidays, or other special work;
- (d) fixing the number or proportionate number of apprentices and improvers and the lowest prices and rates payable to them;
- (e) determining any industrial matter;
- (f) rescinding or varying any award made in respect of any of the industries or callings for which it has been constituted;

(g) declaring that preference of employment shall be given to members of any trade or industrial union of employees upon such terms and conditions as the Court may prescribe, so long as the members thereof, after the passing of the Industrial Arbitration (Amendment) Act, 1918, shall not have taken part in, aided, or abetted an illegal strike. Where any declaration giving such preference of employment has been made in favour of an industrial or trade union of employees, such declaration shall be cancelled by the Court of Arbitration if at any time such union, or any substantial number of its members, takes part in a strike or instigates or aids any other persons in a strike; and if any lesser number takes part in a strike, or instigates or aids any other persons in a strike, such Court may suspend such declaration for such period as to it may seem just;

(h) declaring what deduction may be made from wages for board, residence, or customary privileges or payments in kind.

The Industrial Arbitration (Amendment) Act, 1918, provides that in prescribing minimum wages the Court may fix the quantity of work to be done; that whenever the minimum wage in relation to a skilled occupation is fixed at a higher rate than the living wage, the amount of excess shall be the same in the case of males and females doing the same class of work; and that as far as is consistent with the maintenance of industrial peace, the Court or a board shall deal only with wages and hours of employment, leaving all other matters to shop committees, conciliation committees, industrial councils or voluntary committees formed for the purpose of adjusting the industrial relationship of employer and employee. A judge or deputy judge of the Court may act as the chairman of any industrial council. All employees, including those engaged in rural industries, are entitled to be paid the living wage declared by the Board of Trade, but unless their conditions of employment have been regulated by award, they are not otherwise subject to the provisions of the Industrial Arbitration (Amendment) Act, 1918.

Where an institution, carried on wholly or partly for charitable purposes, provides for the food, clothing, lodging, or maintenance of any of its employees, or of any of its inmates who are deemed to be employees, the board must make due allowance in its award as to the wages of such persons. The Board may exempt such institution from any terms of the award, where the food, clothing, lodging, and maintenance provided by the institution, together with the money paid by the institution to such employees or inmates as wages, are at least equal in value to the value of their labour.

With regard to employees of the Government, the wages fixed must be not less than those paid to other employees doing substantially the same class of work; but the fact that the employment is permanent, and that additional privileges are allowed in the service of the Government may not of itself be regarded as a substantial difference.

Where the public interests are likely to be affected, the Crown may intervene in any proceedings before a Board or the Court, or may appeal from an award of a board.

Awards are binding on all persons engaged in the industries or callings and within the locality covered for the period not exceeding three years specified therein, and after such period until varied or rescinded. Appeal from an award of a board lies to the Court, but the pendency of an appeal does not suspend the operation of the award.

Proceedings before a board may be commenced by reference to the board by the Court or by the Minister; or by application to the board by employers or employees in the industries or callings for which the board has been constituted.

To induce agreement in case of an application or reference, the board will inquire expeditiously and carefully into the matter, and may enter, for inspection, premises used in the industry, conduct its proceedings in public or in private, and in respect of witnesses may compel attendance and evidence as under the Parliamentary Electorates and Elections Act. Advocates or agents appearing before the board must have been actually engaged in one of the industries or callings in respect of which proceedings are taken.

OPERATIONS OF INDUSTRIAL BOARDS.

During the year ended 30th June, 1918, 2 new Industrial Boards were constituted and 2 boards were dissolved. Between 18th April, 1912, when the Industrial Arbitration Act came into operation, and 30th June, 1918, 500 boards were appointed and 263 were dissolved; the number in existence at the end of the period was 237.

Under the provisions of the Industrial Arbitration (Amendment) Act, 1916, which came into operation in December, 1916, applications and references to the boards are dealt with by the Court, unless a direction to the contrary is given by the latter. In the year 1917-18, 127 applications for hearing were made to the boards; 110 were dealt with by the Court and 17 by the boards.

During the year ended 30th June, 1918, the boards made 18 principal awards and 15 awards of variation, and the Court made 75 principal awards and 116 variations. At the end of the year there were 277 awards in force.

The cost of Industrial Boards during the five years ended June, 1918, is shown in the following summary:—

Year ended 30th June.	Boards at end of Year.	Cost of Industrial Boards.				Average Cost.	
		Fees.	Allowances.	Other.	Total.	Per Award.	Per Board.
		£	£	£	£	£	£
1914	211	11,922	1,655	878	14,455	59	67
1915	219	7,978	737	439	9,154	43	41
1916	233	12,204	937	1,069	14,210	50	59
1917	237	11,415	868	617	12,900	44	55
1918	237	1,350	60	103	1,543	46	6

INDUSTRIAL AGREEMENTS.

Trade Unions were empowered under the Industrial Arbitration Act, 1901, to make written agreements with employers, and the practice of collective bargaining then first received statutory sanction. Agreements, and recissions and variations thereof, relating to any industrial matter could be made between industrial unions or with an employer, and when filed, were binding between the parties.

Between 1901 and 1903 twenty-eight such agreements were filed, of which eleven were subsequently extended as common rules of the industry concerned, but the High Court of Australia decided in December, 1904, that there should be in existence an award or other direction made by the Court of Arbitration precedent to its declaration of a common rule. In November, 1905, the Court of Arbitration declared that it had no power to make an award unless a dispute had been initiated for determination.

Under the Industrial Disputes Act, 1908, each agreement was made binding on the parties, and on every person while remaining a member of the contracting trade union or branch. Under the Industrial Arbitration

Act, 1912, the agreement might be enforced in the same manner as an award, and its maximum duration was fixed at five years, as against three years under the previous enactments.

The following statement shows the number of agreements filed in each year since 1902 :—

Year.	Agreements Filed.	Year.	Agreements Filed.	Year.	Agreements Filed.
1902	} 28	1908	12	1914	50
1903		1909	28	1915	33
1904	18	1910	21	1916	51
1905	6	1911	27	1917	53
1906	13	1912	44	1918	39
1907	11	1913	36		

In December, 1918, eighty-one agreements were in force.

ENFORCEMENT OF AWARDS AND INDUSTRIAL AGREEMENTS.

In May, 1911, an Investigation Officer was appointed to receive and record complaints as to breaches of awards and agreements, and as to failures to comply with obligations imposed under the Act, to review the reports of inspectors, and to direct prosecutions consequent thereon.

During the year ended 30th June, 1918, 961 complaints as to breaches of awards, etc., were received at the Investigation Office; 144 prosecutions were initiated; and 138 convictions were recorded. The penalties in fines amounted to £292.

Proceedings before the Court of Industrial Arbitration for the enforcement of the provisions of the Industrial Arbitration Act included 216 cases in respect of strikes during 1917–18, and 155 convictions were recorded.

Since 1901, breaches of awards and industrial agreements have constituted grounds for prosecution of offences in the Arbitration and lower Courts of the State, the penalties recoverable being subject to some limitations.

The following statement relates to cases under the Industrial Arbitration Acts, heard by the Industrial Magistrates during the two years ended 30th June, 1918:—

Classification.	1917.		1918.	
	Cases.	Con- victions.	Cases.	Con- victions.
Non-payment of wages awarded ...	112	41	95	30
Non-payment of fines and subscrip- tions to union	155	92	274	121
Breach of award or industrial agree- ment	412	325	168	135
Failure to keep time-sheets and pay- sheets of employees	115	104	44	39
Failure to exhibit copy of award ...	81	77	16	16
Obstructing inspector	6	4	...	...
Failure to give notice of change affecting employment	4	2	...	...

THE BOARD OF TRADE.

Under the terms of the Industrial Arbitration (Amendment) Act, 1918, a Board of Trade has been created, comprising a president (who is a judge of the Court), a deputy president, four commissioners, and four additional commissioners to represent rural industries. The last mentioned sit with

the Board only when matters directly affecting rural industries are under consideration. The Minister, as an associate commissioner, may take part in the deliberations of the Board, but may not vote in connection with its determinations.

The Board, after public inquiry as to the increase or decrease in the cost of living, will declare annually the rate of living wage for adult employees of each sex in any defined area of the State.

A separate public inquiry will be made into the cost of living of employees engaged in rural occupations, and a separate declaration as to living wage of such employees and deductions to be made therefrom for board and residence and any customary privileges or payments in kind conceded to such employees.

An industrial agreement or award may not be made for wages lower than the declared living wage, but aged, infirm, or slow workers who are unable to earn the living wages may obtain permits to work for less.

The Board of Trade has the administration of matters relating to apprenticeship, and the Act requires it—

- (a) To encourage and create councils of employers and employees for the purpose of encouraging the proper apprenticeship of all minors and provide for the welfare of juvenile labour.
- (b) To acquire and disseminate knowledge on all matters connected with industrial occupations, with a view to improving the industrial relationship between employers and workers, and to combat the evils of unemployment.
- (c) To collect and publish information relating to or affecting industrial conditions.
- (d) To propound schemes for welfare work, and report to the Governor on all matters relating to such work, and to the insurance of employees against loss or injury caused by unemployment, sickness, or accident, or industrial diseases.
- (e) To report on any matter referred to as to the prices of commodities, and as to whether or not monopolies or trade rings exist for the purpose of unfairly keeping up the prices of commodities.
- (f) To investigate and report on the existence of sweating in an industry.
- (g) To report upon the productivity of industries, the number of employees in any industry, and the effect or probable effect of the regulation of the conditions of any industry upon such productivity.
- (h) To consider and report upon the industrial efficiency of the community, the organisation of the labour market and opportunities of employment, and all questions relating to unemployment.
- (i) To collect and publish from time to time statistics of vital, social, and industrial matters, and on labour employment and unemployment in specific industries, and on other prescribed matters.
- (j) To encourage and assist in the establishment in different industries of mutual welfare committees and industrial councils, and of subsidiary shop committees for individual enterprises.
- (k) To encourage and assist schemes for mutual co-operation and profit sharing between employers and employees.
- (l) To encourage and assist in the establishment of hostels for women workers, and workmen's clubs and libraries.
- (m) To report and advise on schemes for the better housing of the people.
- (n) To consider and report upon any other matter referred to it by the Minister.

In its investigations the Board of Trade has all the powers of a Royal Commission.

The first declaration of the living wage was made in September, 1918, in reference to men employed in the metropolitan area, and in December the decision regarding the women's wage was announced; an investigation was commenced in relation to the prevalence of miners' phthisis and pneumoconiosis in certain industries, and an interim report was published. Other important matters under consideration are the extension of the living wage declarations to employees in country districts, the housing of employees in coal-mining districts, and the regulation of the conditions of apprenticeship.

CONCILIATION.

In October, 1911, an active policy of conciliatory intervention between industrial disputants was inaugurated, and concurrently with the procedure for the enforcement of awards, etc., the Investigating Officer was engaged in mediatory services wherever disputes or dislocations were known to be pending.

Statutory authority was given to this process of intervention with the initiation of the Industrial Arbitration Act, 1912, and the Investigation Officer was appointed a Special Commissioner on 1st July, 1912; but the range of his work was limited on account of a judgment delivered in the Industrial Court in March, 1914, to the effect that parties to a dispute could not be compelled to meet in conference when a strike or a lockout had actually occurred.

The Amendment Act, 1918, extends the Commissioner's power to cases where a strike has occurred, and provides for the notification by proclamation of industrial districts for which may be constituted conciliation committees, consisting of a chairman and two or four members equally representing employers and employees. The chairman of a conciliation committee may be a judge appointed by the Minister, or a person chosen by the unanimous agreement of the other members, or appointed by the Governor.

INDUSTRIAL DISLOCATIONS.

The Industrial Disputes Amendment Act, 1909, provided for a penalty of twelve months' imprisonment for any attempt to instigate or aid in anything in the nature of a strike or lock-out or discontinuance of work in any industry.

The Industrial Arbitration Act, 1912, repealing previous Acts, was intended to prevent strikes and lock-outs. The inefficiency of penal proceedings for all cases was postulated, and a strike or lock-out was regarded, not as criminal, but rather as an extravagant expedient, liable to penalisation extending to a charge on any moneys then or thereafter due to the person ordered to pay such penalty. The Court also was authorised to grant a writ of injunction to restrain any person from continuing to instigate or to aid in a lock-out or strike, the maximum penalty being imprisonment for six months.

The Industrial Arbitration Amendment Act, 1918, repealed the provisions of the 1912 Act regarding strikes and established the principle that, with certain exceptions, strikes may be recognised as lawful, the following, and no others, being illegal:—

- (a) Any strike by employees of the Government or its Departments, or of any city, shire, or municipal council, or by employees engaged in military or naval contracts.

- (b) Any strike by employees in an industry of which the conditions are regulated by award or industrial agreement: Provided that where an award has been in operation for at least twelve months a union of employees may decide to withdraw from its conditions by a majority vote taken at a secret ballot, in which not less than two-thirds of the members take part.
- (c) Any strike which has been commenced prior to the expiry of fourteen days' notice to the Minister.

When a strike is contemplated or at any time during the currency of a strike the Minister may direct that a secret ballot be taken of the members of any industrial or trade union, or of any association of employees, in order to ascertain whether the majority is or is not in favour of the strike.

Any trade union whose members are taking part or aiding or abetting an illegal strike may be fined £500, and a penalty not exceeding £50, or six months' imprisonment, may be imposed on any person aiding or instigating an illegal strike or obstructing a ballot. Penalties are imposed also for picketing in connection with an illegal strike or for inducing persons to refrain from handling any commodity during the currency of a strike.

The following statement shows, as far as can be ascertained, the number of workers involved, and the time lost by industrial dislocations, since July, 1908. Figures relating to 181 dislocations during the period 1908-13 have been excluded, as complete data were not available:—

Year.	Dislocations.			Workers involved.			Working days lost.		
	Mining.	Non-mining.	Total.	Mining.	Non-mining.	Total.	Mining.	Non-mining.	Total.
1908	130	51	181	30,243	13,550	43,793	130,746	106,683	237,429
1909	85	43	128	35,956	6,667	42,623	1,969,920	47,047	2,016,967
1910	39	42	81	7,032	7,204	14,236	61,508	39,262	100,770
1911	41	30	71	10,831	9,479	20,310	246,875	110,346	357,221
1912	75	35	110	27,389	3,775	31,164	67,869	28,100	95,969
1913	91	69	160	28,848	13,378	42,226	237,577	129,196	366,773
1914	220	93	313	56,372	18,884	75,256	573,641	174,096	747,737
1915	225	89	314	66,211	28,135	94,346	309,507	160,700	470,207
1916	209	135	344	129,920	27,182	157,102	649,292	246,046	895,338
1917	185	104	289	77,147	67,557	144,704	1,184,594	1,677,001	2,861,595
1918	106	46	152	30,246	8,406	38,652	101,990	84,354	186,344

The number of workers affected by dislocations lasting one day or less during 1918 was 21,451, and the loss of working days 21,059. Thus these brief dislocations accounted for approximately 47 per cent. of the total number, 55 per cent. of the workers involved and 11 per cent. of the working days lost.

More complete information is given in the following table regarding the duration of the dislocations in 1918:—

Duration in Days.				Dislocations.	Workers involved.	Working days lost.
Under 1 day	...	...	...	10	996	604
One day	...	...	...	62	20,455	20,455
Over 1 and not exceeding 7	...	...	...	57	11,975	34,859
" 7	"	"	14	11	1,861	17,618
" 14	"	"	21	1	20	320
" 21	"	"	28	5	1,402	31,866
" 28	"	"	35	1	120	3,600
" 35	"	"	49	4	1,804	75,996
" 49	"	"	56	1	19	1,026
Total				152	38,652	186,344

Causes of Dislocations.

An analysis of the causes, as set down by the participants, reveals that nearly one-third of the dislocations during 1918 were the result of disagreement as to wages. The following statement shows the causes, the workers affected, and the time lost :—

Cause.	Mining.			Non-Mining.			All Industries.		
	Dislocations.	Workers involved.	Working days lost.	Dislocations.	Workers involved.	Working days lost.	Dislocations.	Workers involved.	Working days lost.
Wages	23	6,528	35,342	26	3,122	30,439	49	9,650	65,781
Hours	12	4,256	10,876	1	11	22	13	4,267	10,898
Working conditions ..	30	6,562	15,703	2	1,022	46,188	32	7,584	61,891
Employment of persons or classes of persons.	17	4,889	22,079	11	701	3,184	28	5,590	25,263
Trade unionism	3	1,239	1,539	6	2,550	4,521	9	4,789	6,660
Sympathy	1	200	7,400	..	..	..	1	200	7,400
Miscellaneous	8	3,176	4,878	..	..	..	8	3,176	4,878
Not stated	12	3,396	4,173	..	..	..	12	3,396	4,173
Total.. .. .	106	30,246	101,990	46	8,406	84,354	152	38,652	186,344

Settlement of Dislocations.

Of the 152 dislocations during 1918, 137 were brought to a conclusion by direct negotiation between the parties; 4 were settled by arbitration, 7 by replacement, and 4 by other methods.

Results of Settlements.

Of the dislocations in 1918, 31 or 20 per cent., resulted in resumption of work with modified conditions, more or less in accordance with the workers' claims. In 89 or 59 per cent., no modifications were granted, while the results of the remaining 32 cases were not recorded.

The following statement shows, as far as can be ascertained, the workers involved and the time lost classified according to the results of the dislocations; complete information was not available in respect of a number of dislocations which occurred during the years 1908-13. In 1918, nearly 58 per cent. of the workers involved, and 81 per cent. of the time lost, was in respect of dislocations in which no modifications were granted.

Year.	Modification.			No Modification.		
	Dislocations.	Workers involved.	Working days lost.	Dislocations.	Workers involved.	Working days lost.
1908	104	27,703	194,778	40	8,566	23,317
1909	69	29,685	1,651,926	25	2,507	7,998
1910	38	9,696	96,250	26	2,793	5,043
1911	51	14,408	183,382	10	4,160	170,282
1912	65	16,092	69,012	28	9,297	18,359
1913	102	31,668	329,581	39	7,429	32,269
1914	120	23,822	286,308	158	40,205	613,465
1915	171	51,063	306,188	136	42,355	162,441
1916	152	49,708	621,017	156	99,050	244,234
1917	94	19,345	82,554	155	118,745	2,762,492
1918	31	7,889	17,251	89	22,431	151,574

COMMONWEALTH INDUSTRIAL ARBITRATION.

The legislation of the Commonwealth Parliament relating to arbitration is embodied in the Commonwealth Conciliation and Arbitration Act, 1904-18, and the Arbitration (Public Service) Act, 1911.

The main objects of the Conciliation and Arbitration Act are:—
 (a) To prevent lockouts and strikes in relation to industrial disputes;
 (b) to constitute a Court of Conciliation and Arbitration having jurisdiction for the prevention and settlement of industrial disputes;
 (c) to provide for the exercise of the jurisdiction of the Court by conciliation, with a view to amicable agreement between the parties; (d) in default of amicable agreement between the parties, to provide for the exercise of the jurisdiction of the Court by equitable award; (e) to enable States to refer industrial disputes to the Court, and to permit the working of the Court and of State industrial authorities in aid of each other; (f) to facilitate and encourage the organisation of representative bodies of employers and of employees, and the submission of industrial disputes to the Court by organisations, and to permit representative bodies of employers and of employees to be declared organisations for the purposes of this Act; (g) to provide for the making and enforcement of industrial agreements between employers and employees in relation to industrial disputes.

The Court of Conciliation and Arbitration consists of a President appointed from among the Justices of the High Court; any Justice of the High Court or Judge of the Supreme Court of a State may be appointed as deputy to the President.

The President is charged with the duty of endeavouring to reconcile the parties to industrial disputes, and to prevent and settle industrial disputes in all cases in which it appears to him that his mediation is desirable in the public interest. In the discharge of these duties he may convene compulsory conferences.

The Court has jurisdiction to prevent and settle industrial disputes certified by the Registrar as proper to be determined by it in the public interest, or submitted by an organisation by plaint or by a State industrial authority, or referred by the President after a compulsory conference at which no agreement has been reached. The Court endeavours to induce the settlement of disputes by amicable agreement, or, failing an agreement, determines the disputes by award. The awards are made for a specified period up to a maximum of five years, and after the expiration of the definite period they continue until a new award is made, unless the Court orders otherwise.

A State law or an award or order of a State industrial authority becomes invalid if inconsistent with an award or order of the Commonwealth Court of Conciliation and Arbitration.

An award of the Court may not be challenged or questioned, but in any proceeding before the Court the President may state a case for the opinion of the High Court upon a question of law.

The extensive powers conferred upon the Court include the power to hear and determine disputes, to make orders or awards, to impose penalties for breach or non-observance of orders, etc., and to grant a minimum rate of wages and preference for members of organisations.

Registration applies to organisations of employers or of employees, representing at least 100 employees. Registered organisations are entitled to submit disputes to the Court, and to be represented before the Court in the hearing of disputes.

Any organisation may make an industrial agreement with any other organisation or with any person for the prevention of disputes by conciliation and arbitration.

The Arbitration (Public Service) Act, 1911, extends the provisions of the Commonwealth Conciliation and Arbitration Act to organisations of employees in the Public Service of the Commonwealth; an association of less than 100 employees in any industry in the Public Service may be registered.

as an organisation, if its membership comprises at least three-fifths of all employees in that industry in the Public Service of the Commonwealth. Registered organisations may submit to the Court by plaint any claim relating to salaries, wages, rates of pay, or terms or conditions of service or employment of members.

At 30th June, 1918, there were 72 Commonwealth awards and 453 industrial agreements in force, of which 47 awards and 139 agreements applied in New South Wales.

A claim for preference to unionists has been included in nearly every dispute dealt with by the Commonwealth Court, but it is the usual practice to refuse to order preference in the cases of respondents who undertake not to discriminate against members or officials of the associations. No award, order, or agreement may operate to prevent the employment of returned soldiers or sailors.

WAGES.

After the inauguration of the Commonwealth of Australia in 1901 there was a decided impetus in developmental work, thus leading to increased production. At the close of the same year an Industrial Arbitration Act was passed by the State Parliament; and the operation of this Act, with the succeeding legislation in the direction of adjustment of wages and conditions of work, has assisted materially to improve the status of the workers.

Since 1908 the number of trades in which wages are regulated by awards has extended so rapidly that but few occupations remain without the jurisdiction of industrial tribunals; and the principle permeating the awards of boards, &c., is the stipulation of an adequate living wage. The question of the cost of living enters into the determination of a living wage, and judgments and awards tend more and more to embody all the factors determining effective wages, rather than to compromise between the standards of employer and employee.

Minimum Wage.

The Minimum Wage Act, 1908, which was consolidated with the Factories and Shops Act, 1912, provided for the whole State that the minimum wage should be not less than 4s. per week in respect of any person employed in preparing or manufacturing any article for trade or sale, or in any factory under the Factories and Shops Act, or working at any handicraft; or any shop-assistant as defined by the Early Closing Act.

The provisions do not apply where all persons employed as workmen and shop-assistants are members of the employer's family, related in the first or second degree by blood or first degree by marriage to the employer.

THE LIVING WAGE.

Prior to the establishment of the Board of Trade, the Court of Industrial Arbitration conducted investigations regarding the cost of living, in order to fix a standard wage for the guidance of Industrial Boards in making awards. The first inquiry was held in 1914, with the object of determining the cost of reasonable maintenance of a worker, his wife, and two children (the average dependent family). His house was to consist of three rooms and a kitchen, and the sustenance of his family was to be ample, but plain and not high-priced, and of a quality to ensure health and efficiency. The allowance in excess of these primal necessities was for a number of requisites to civilized existence not classifiable as food and shelter, namely, clothes, boots, fuel, furniture and utensils, sewing machine, mangle, school requisites, books and newspapers, and train and tram fares (which might be regarded as an

additional charge on house-rent). This third item of the minimum wage provided also for rates, life insurance, accident or benefit society, union subscription, religion and charity, sickness, death, unusual contingencies, loss of employment, amusements and holidays, tobacco, intoxicating liquors, and domestic help.

As a result of this inquiry, in February, 1914, the Court of Industrial Arbitration assessed the sum of £2 8s. per week as the standard living wage of adult males. In December, 1915, the amount was raised to £2 12s. 6d. per week, 8s. 9d. per day, or 1s. 1½d. per hour; on 18th August, 1916, to £2 15s. 6d. per week, 9s. 3d. per day, or 1s. 1¾d. per hour. On 6th September, 1918, it was fixed by the Board of Trade at £3 per week, 10s. per day, or 1s. 3d. per hour. These successive increases were determined by calculations of the augmented cost of living, owing to a synchronous rise in prices and the depreciation of the purchasing power of the sovereign. Of the sum of 48s. determined as the standard living wage in 1914, approximately 46 per cent. represented the cost of sustenance, 25 per cent. the cost of shelter, and 29 per cent. the cost of all the other essentials of a civilized existence. This proportion was maintained in subsequent determinations.

The first inquiry regarding the living wage for women was held by the Board of Trade in 1918, and the standard adopted was the minimum wage which would cover the cost of living of the adult female worker of the poorest class, but having no other responsibility and living away from home in lodgings. Accordingly the living wage for women workers in the metropolitan area was fixed in December, 1918, at 30s. a week, or 5s. a day, or 7½d. an hour.

The fixation of a living wage is a fundamental effort to maintain the effective value of wages. Upon this principle employees in receipt of a bare living wage are entitled to an increase relative to the increase in the cost of living. In accordance with the declarations of the Court in 1914 and 1915, existing awards were standardised with the declared rates, but when the Court raised the living wage to £2 15s. 6d. per week, the lower wages in current awards were brought up to £2 14s. only. Otherwise, declarations of the standard minimum wage apply only to subsequent awards.

The war was not considered as a factor, inasmuch as its incidence appeared to benefit any given industry, and it was directed that the wage-scale of that industry should be increased by the same amount as had been added to the living wage. Where, however, an industry had not so benefited, the amount of increase should diminish as the margin above the living wage increased. Industrial awards are usually made for two or three years, but they may be revised in the event of special circumstances arising. When labour is plentiful, the award rates become general; but with a scarcity of labour, competent employees command higher remuneration. The two years intervening between July, 1913, and July, 1915, record few changes in the wage-rates, owing to the combined effects of drought and the war which disturbed the normal conditions of industry; and the unions, therefore, except in special cases, refrained from pressing their claims; but the restrictions were gradually relaxed after the middle of 1915.

Aged, Infirm, and Slow Workers.

Under the Industrial Arbitration Acts permits may be granted to pay less than award rates to aged infirm, and slow workers. During the year 1918; 66 permits were granted and 54 were refused; the number in force at the end of the year was 558.

Rates of Wages.

The following table shows on a comparative basis for a number of occupations, the minimum rates of wages payable in the metropolitan area, under the industrial awards in the pre-war year 1913, and in subsequent years. The particulars for 1915 are not shown, as few variations were made during the first year of the war period:—

Occupation.	Minimum Rates of Wages, as at 31st July—																				
	1913.				1914.				1916.				1917.				1918.				
<i>Per Week.</i>	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.			
Baker	50	0	to	65	0	50	0	to	65	0	70	0	to	75	0	70	0	to	75	0	
Bookbinder			62	6			62	6			65	0			70	0			70	0	
Boot and shoe makers—female	25	6	to	32	6	25	6	to	32	6	31	0	to	38	6	31	0	to	42	0	
Butcher's shopman	52	6	to	60	0	60	0	to	65	0	65	0	to	72	6	65	0	to	77	6	
Cabinetmaker			60	0			60	0			67	0			67	0			67	0	
Compositor—hand			63	0			63	0			65	0			73	6			73	6	
Frenchpolisher			60	0			60	0			67	0			67	0			67	0	
Hairdresser			55	0			55	0			55	0			58	0			63	0	
Jam factory hand—male	45	0	to	50	0	48	0	to	50	0	54	0	to	57	0	54	0	to	57	0	
„ female	20	0	to	30	0	20	0	to	30	0	23	0	to	33	0	23	0	to	33	0	
Letterpress machinist	52	6	to	60	0	52	6	to	60	0	52	6	to	60	0	56	0	to	70	0	
Printing trades—female	23	0	to	25	0	23	0	to	25	0	26	0	to	35	0	26	0	to	37	0	
Sawyer	47	0	to	64	0	54	0	to	68	0	57	0	to	68	0	60	6	to	74	0	
Tailor	55	0	to	60	0			60	0			60	0			65	0	to	67	6	
Tailoress (coats)	21	0	to	35	0	25	0	to	35	0	25	0	to	35	0	29	6	to	38	0	
Upholsterer			60	0			60	0			67	0			67	0			67	0	
Wharf labourers (constant)	48	0	to	50	0			52	6			61	6			61	6			61	6
<i>Per Hour.</i>																					
Blacksmith			1	6			1	6			1	8			1	8			1	8	
Boilermaker			1	4½			1	4½			1	6			1	6			1	6	
Boot and shoe makers—male			1	1½			1	1½			1	4½			1	4½			1	6	
Brassfinisher (engineering)			1	5½			1	5½			1	7½			1	7½			1	7½	
Bricklayer			1	6			1	6			1	6			1	9			1	9	
Brickmaker—pitman			1	2			1	3½			1	3½			1	5			1	5	
Carpenter and joiner			1	4½			1	4½			1	6			1	8			1	8	
Coachsmith			1	3			1	3			1	3			1	4½			1	4½	
Coal lumper (day work)			1	7½			1	9			2	0			2	0			2	0	
Coppersmith			1	6			1	6			1	8			1	8			1	8	
Electrician—fitter			1	4½			1	6½			1	6½			1	8½			1	8½	
Engine-driver	1	2	to	1	6	1	2	to	1	6	1	3½	to	1	7	1	3½	to	1	7	
Fireman	1	1½	to	1	3	1	1½	to	1	3	1	2½	to	1	4½	1	2½	to	1	4½	
Fitter and turner (engineering)			1	5½			1	5½			1	7½			1	7½			1	7½	
Ironworker			1	3			1	3			1	4½			1	4½			1	5½	
Navy, pick and shovel men			1	2			1	2			1	2			1	3			1	4	
Painter (general)			1	4			1	4			1	5			1	6½			1	6½	
Patternmaker			1	6½			1	6½			1	8½			1	8½			1	8½	
Plasterer	1	4½	to	1	6			1	7½			1	7½			1	9			1	9
Plumber			1	4½			1	6			1	6			1	8			1	8	
Tinsmith			1	3			1	3			1	4½			1	4½			1	5½	
Wharf labourer			1	6			1	9			1	9			1	9			1	9	
Wheelwright			1	3			1	3			1	3			1	4½			1	4½	

In several important industries, *i.e.*, tobacco factories, for which particulars are not shown, the employees are paid piece-work rates according to a “log” annexed to the awards. The employees in the coal-mining industry work under agreements or awards; the rate paid to miners varies according to the selling price of coal, also according to the conditions of the seams or places where the coal is mined. The wage scale was advanced considerably as from the beginning of 1917. A comparative statement of the rates is shown below:—

Occupation.		Rates of Wages.														
		1913.				1914.				1916.		1917.		1918.		
		s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	
Miner ...	per ton	2	2½	to	4	2	2	3½	to	4	2	2	5	to	4	2
Wheeler ...	per day	8	0	to	10	0	8	0	to	10	0	8	0	to	10	6
Screenman ...	„	8	0	to	9	0	8	0	to	10	0	8	0	to	10	6
Engine-driver ...	„	10	0	to	12	0	10	0	to	12	0	10	0	to	12	0
Labourer ...	„	8	0	to	9	0	8	0	to	9	0	8	0	to	9	6
												10	11			

Conditions of employment of farm and station hands, except shearers, were not subject to regulation by industrial tribunals until June, 1917, when an award was made by the Commonwealth Court of Conciliation and Arbitration which fixed the rates of wages payable to the employees of the pastoralists, who were cited as respondents by the Court. The wages of domestic servants are not fixed by award, but they have increased considerably owing to shortage of labour. The following statement shows the average rates paid to farm and station hands and to domestic servants:—

Occupation.	Average Rates of Wages.															
	1913.			1914.			1916.		1917.		1918.					
	<i>Per week, with rations and lodging.</i>															
	s.	d.		s.	d.	s.	d.	s.	d.	s.	d.	s.	d.			
Boundary rider	20	0	to 25	0	20	0	to 25	0	20	0	to 25	0	35	0	to 42	0
Farm and orchard hand ...	20	0	to 25	0	20	0	to 25	0	20	0	to 25	0	20	0	to 40	0
Milker	20	0	to 25	0	20	0	to 25	0	20	0	to 30	0		36	0	0
Stockman	20	0	to 25	0	20	0	to 25	0	20	0	to 25	0	20	0	to 30	0
Harvest hand, per day...	20	0	to 25	0	20	0	to 25	0	20	0	to 25	0	30	0	to 48	0
Shearer, per 100 sheep (without rations)	6	0	to 7	0	7	0	to 9	0	7	0	to 9	0	7	0	to 12	0
	24	0			24	0		24	0		30	0		30	0	
	<i>Per week, with board and lodging.</i>															
Coachman, gardener, groom ...	20	0	to 27	6	25	0	to 30	0	25	0	to 30	0	25	0	to 35	0
Cook—female	25	0	to 30	0	25	0	to 35	0	25	0	to 40	0	25	0	to 63	0
General servant	10	0	to 17	6	12	6	to 20	0	15	0	to 25	0	20	0	to 25	0
House and parlour maid ...	14	0	to 17	6	15	0	to 20	0	20	0	to 25	0	20	0	to 25	0

HOURS OF WORK.

Eight Hours Act, 1916.

This Act, which is construed with the Industrial Arbitration Acts, regulates the hours of work and the payment of overtime, and must be observed by the Court of Industrial Arbitration, by the Industrial Boards in making awards, and by parties in making industrial agreements. The working hours are limited as follow:—

Mining Industries—workmen underground—Coal: Fireman, examiner, &c., 96 hours in 14 days; men engaged in handling and transit of coal, 48 hours in 6 days; others, 8 hours during 24. Metalliferous: 8 hours during 24 hours, or 88 hours in 14 days. In underground occupations a shift may not exceed 6 hours if, during 4 hours, the temperature is above 81 degrees Fahrenheit.

Other Industries.—(1) 8 hours per day on 6 days. (2) 48 hours per week, or (3) 96 hours in 14 days—as determined by agreement or award.

Overtime in excess of the above must be paid at prescribed rates, or it may be prohibited or restricted in any industry by the Court of Industrial Arbitration. The number of days or hours to be worked may be increased by award if the Court or Board consider that in the public interest an increase should be allowed. Subject to this provision the ordinary time of work in any industry or calling as fixed by agreement, award, or well-established practice, at the commencement of the Act, may not be exceeded in any future award or agreement.

The majority of industrial awards have declared 48 hours as a normal working week, but there are cases in which a shorter working week has been prescribed. The shortest week fixed is 36 hours; this applies to rock-choppers and sewer-miners, and to employees engaged on night-duty for the Metropolitan Board of Water Supply and Sewerage, and for the Sydney Municipal Council.

In several awards relating to transport services the hours are limited by fortnightly computation to ninety-six, but subject to a provision that such

hours are to be worked, as far as practicable, in twelve shifts of eight hours each.

Of the trades working more than forty-eight hours per week, the most prominent are those connected with transport services and food supplies.

Early Closing of Shops.

The Early Closing Act came into operation on 1st January, 1900. It was applicable to the Metropolitan and Newcastle districts and to all municipalities, while its operation might be extended to unincorporated areas. It provided for the closing of shops at 1 o'clock on either Wednesday or Saturday, and where this option was not taken Wednesday was deemed to be the day chosen.

Universal Half-holiday.

In August, 1910, the Saturday Half Holiday Act was passed.

Shops are permitted to remain open till 10 p.m. on Friday, 6 p.m. on other week nights, and 1 p.m. on Saturday.

Many factories complete the full week's work within five days, so leaving the Saturday a full holiday.

PREFERENCE TO UNIONISTS.

In the majority of industrial awards a clause has been inserted granting, unconditionally, preference to unionists, all other things being equal. In occasional cases preference has been made subject to restrictions providing that the existing employment of non-unionists should not be prejudiced, and that preference should not be extended to women.

In a few cases the preference clause is in the nature of a prohibition of discrimination against unionists, and recently a proviso has been added that there shall be no preference against returned soldiers. Preference may not be granted to members of a trade or industrial union who shall have taken part in, aided, or abetted an illegal strike after the passing of the Industrial Arbitration (Amendment) Act, 1918.

APPRENTICESHIP.

Under the Apprentices Act, 1901, any person resident and trading in New South Wales may take apprentices under certain conditions regulating the apprenticeship, *e.g.*, as to age limitation and probation before completion of indentures. The Act limits the working time of apprentices to forty-eight hours per week, with saving clauses as to rural industries and domestic service. An amendment of the Apprentices Act was made in 1915 to protect the interests of apprentices enlisting for active naval or military service.

The minimum age of apprentices is 14 years, and limitations upon the proportion of apprentices to adults are fixed in many cases in industrial awards. In the majority of awards the proportion of apprentices or improvers to adult workers is one to three, with a maximum, as in the printing trades, of seven apprentices in any institution or business. Information is not available as to the total number of persons now serving in this State under indentures of apprenticeship (which are three-party contracts binding the employer, the employee, and his guardian), nor as to the extent of instruction imparted, and premiums usually paid.

The Board of Trade is authorised, under the provisions of the Industrial Arbitration (Amendment) Act, 1918, to exercise the powers previously vested in the Industrial Arbitration Court in regard to apprenticeship, and the provisions of awards relating to such matters will cease to have effect upon the publication of regulations by the Board.

The functions of the Board of Trade regarding apprenticeship are as follow :—

- (a) To determine in what occupations and industries apprenticeship shall be a condition of employment.
- (b) To prescribe hours of employment, wages, and conditions of apprenticeship.
- (c) To determine whether and to what extent there shall be a limitation of the number of apprentices indentured in any trade or calling.
- (d) To determine to what extent technical education if procurable shall be obligatory upon apprentices and their masters.
- (e) To co-operate with the Department of Education in encouraging young persons to attend technical, trade, and continuation schools.
- (f) To establish and maintain an apprenticeship register and record therein all indentures or other contracts of apprenticeship, and protect the contracts and interests of apprentices and all workers of minor age who are learners, and ensure the attendance of apprentices and learners at technical or trade schools.
- (g) To prescribe standard forms of apprenticeship for different trades and callings, and the manner in which and the persons by whom the making, carrying out, and transfer of indentures or other contracts of apprenticeship shall be supervised.
- (h) To control and direct the conditions in all respects of apprenticeship in any industry.

RELIEF OF UNEMPLOYMENT.

Labour Exchanges.

The work of bringing together intending employers and persons seeking employment is conducted by State and private agencies. The State maintains Labour Exchanges in Sydney, and at Newcastle, Lithgow, Lismore, Tamworth, and Wagga Wagga. The State Labour Exchanges and the State Immigration Office were amalgamated as from 1st January, 1919. At the exchanges persons wanting work may register their requirements and capabilities; and employers may state what class of labour they desire, and employees are assisted to reach their employment. All these operations are conducted at the cost of the State, no fees being charged to employers nor to employees. Railway and steamer fares are issued on credit, terms for repayment being arranged according to circumstances.

The Women's Employment Agency in Sydney was opened in May, 1914; a former office for the registration of women workers was closed in January, 1906, after an existence of nearly four years.

In addition to the Labour Exchanges, a self-registration system has been introduced, by which persons seeking employment are enabled to register at the Department of Labour and Industry by transmitting post-free letter-cards; and post-free cards are provided for the use of employers requiring workers.

The operations of the State Labour Exchanges during the last five years are shown below :—

Year ended 30th June.	Registrations.			Persons sent to Employment.		
	Men.	Women.	Total.	Men.	Women.	Total.
1914	8,750	574	9,324	7,382	32	7,414
1915	11,977	3,583	15,560	8,808	1,979	10,787
1916	12,731	4,771	17,502	8,742	2,767	11,509
1917	20,513	4,972	25,485	11,931	3,578	15,509
1918	*	*	23,140	*	*	11,679

* Information not available.

The Industrial Arbitration (Amendment) Act, 1918, provides that persons carrying on private employment agencies must be licensed and must keep registers of persons applying for labour or employment, and of engagements made. The scale of fees chargeable shall be as prescribed, and where an applicant has paid a registration fee and does not obtain labour or employment within fourteen days, the fee must be repaid, less out-of-pocket expenses. Licensees are prohibited from sharing fees with employers, and from keeping as lodgers persons seeking employment.

From August to December, 1918, 85 applications for licenses were made, and 71 were granted.

State Labour Dépôt.

At the State Labour Dépôt, Randwick, where a pig, poultry, vegetable, and flower farm, and a State dairy have been established, destitute men unable to maintain themselves are given lodging, food, and a small money allowance in exchange for labour. Competent tradesmen, if employed at their trade, are paid extra. The period of residence must not exceed three months, nor recommence without a similar interval. A certain amount of training is given, and whenever possible trainees are sent to employment with private employers.

Insurance against Unemployment.

Under the provisions of the Industrial Arbitration (Amendment) Act, 1918, payments may be made from the Consolidated Revenue Fund to assist in the creation of funds for insurance against unemployment or loss of work due to adverse weather or sickness, or the casual nature of the employment offering in any industry. No fund may be assisted unless the Board of Trade certifies that contributions by employers and employees are in proper proportions, and that the fund is administered by a suitable committee representative of employers and employees.

FACTORY INSPECTION.

The provisions of the Factories and Shops Acts are applicable only in localities specifically proclaimed as factory districts. On 1st July, 1915, these provisions were applied to the whole of the State, and earlier proclamations relating to six factory districts were revoked.

Inspectors under the Factories Act, the Early Closing Act, and the Industrial Arbitration Act are under the control of the Department of Labour and Industry. The total number of inspectors is 32, of whom 6 are women; inspectors can be called upon to deal with complaints relating to any phase of industrial legislation. A legal officer is attached to the administrative staff for the purpose of advising and assisting the administrative officer in control of the inspectors.

Outworkers.

Under the Factories and Shops Act, 1912, occupiers of factories are required to keep, and to supply to the factory inspectors, full records regarding outworkers employed. Permission to engage outdoor workers is required by certain awards.

Shearers' Accommodation.

The Shearers' Accommodation Act, 1901, applies only to shearing sheds where at least six shearers are employed, and is administered in conjunction with the inspectorial work under the Factories and Shops Act, &c. During the year ended 31st March, 1918, 1,474 stations were visited, 1,909 huts inspected, of which 1,817 were regarded as satisfactory; the new huts built numbered 38.

INDUSTRIAL ACCIDENTS.

Factories.

In regard to the factory districts, accidents, fatal or otherwise, are reported from year to year, the responsibility resting upon factory inspectors of seeing that all dangerous portions of machinery are properly and securely fenced and guarded.

The following table shows in comparative form the accidents reported in factories during the years 1916-17, and the accident rate per 10,000 employees :—

Accidents.	Number.		Rate per 10,000 Employees.	
	1916.	1917.	1916.	1917.
Fatal	7	4	·75	·42
Partial disablement	107	89	11·55	9·34
Temporary incapacitation	407	427	43·93	44·83
Total	521	520	56·23	54·59

On the figures shown above, temporary incapacitation is the result of approximately 80 per cent. of the accidents; records are not available to show the time lost through these mishaps. The remaining 20 per cent. of accidents resulted in death or disablement.

Scaffolding and Lifts Act.

The Scaffolding and Lifts Act, 1912, which regulates the construction and use of scaffolding, lifts, cranes, hoists, and derricks, is administered by the Department of Labour and Industry. The Act operates in the Metropolitan Police District and in the Newcastle District. Eight fatal and 42 non-fatal accidents were reported during 1918 in connection with lifts, scaffolding and cranes. The following table shows the type and number of lifts used during the year 1918 :—

Type.	Number.	Type.	Number.
Passenger	618	Service	238
Goods	913	Whips, etc.	471
Passenger-Goods	126	Mill Hoists	4
		Total	2,370

The number of lifts in the metropolitan district was 2,313 and in Newcastle 54, while three were in unproclaimed districts. The total number, 2,370, includes 340 lifts owned by the Government. During 1918 certificates were issued to 378 persons to operate electric lifts, 57 for hydraulic lifts, and 72 for electric and hydraulic lifts, and to 41 persons for driving power-operated cranes and hoists.

Boiler Inspection.

Under the Factories and Shops Act, 1912, regulations have been made regarding precautions against the risk of accidents arising from or by the use of steam boilers and other pressure vessels in factories, and inspections are made by officers of the Department of Labour and Industry. No accidents were reported during 1918.

INDUSTRIAL DISEASES.

No reliable records relating to industrial diseases are available; but certain callings are, with good reason, regarded as unhealthy, and the

incidence of the conditions is being investigated under the supervision of the Board of Trade. In this connection, the use of white phosphorus in the manufacture of matches is prohibited by the White Phosphorus Matches Prohibition Act, 1915.

In the majority of unhealthy or noxious trades there are the compensating advantages of short hours and high wages. The Workmen's Compensation Act, 1916, makes provision with respect to certain industrial diseases.

WORKMEN'S INSURANCE.

State Legislation.

The Workmen's Compensation Act, 1916, relates to employers' liability, and came into operation on 1st July, 1917, the earlier enactments being repealed as from that date.

The Miners' Accident Relief (Repeal) Act, 1916, provided for the closing of the Miners' Accident Relief Fund on 1st July, 1917, when the Workmen's Compensation Act, 1916, came into operation.

The Employers' Liability Act, 1897, gave to a workman the common law rights of the ordinary citizen.

The Workmen's Compensation Act, 1910, provided for compensation to workmen for injuries suffered in the course of their work. This Act applied only to specified industries, viz., railways, tramways, factories, mines and quarries other than those provided for by the Miners' Accident Relief Act, wharves, vessels, engineering, building and wool stores.

The Workmen's Compensation Act, 1916, relates to all employees whose remuneration does not exceed £312 per annum, the exception being casual hands employed otherwise than for the purpose of the employer's trade or business, members of the Police force, outworkers, and members of the employer's family dwelling in his house.

It applies in respect of certain industrial diseases, as specified in a schedule, and in respect of accidents to seamen employed on ships whose first port of clearance and whose destination are in New South Wales, but seamen who claim compensation under this Act must agree not to proceed also under the Seamen's Compensation Act of the Commonwealth. The amount of compensation shall be :—

(a) Where death results from the injury—

- (i) if the workman leaves any dependents wholly dependent upon his earnings, a sum equal to his earnings in the employment of the same employer during the three years next preceding the injury, or the sum of £300, whichever of those sums is the larger, but not exceeding in any case £500: Provided that the amount of any weekly payments made under this Act and any lump sum paid in redemption thereof shall be deducted from such sum, and if the period of the workman's employment by the said employer has been less than the said three years, then the amount of his earnings during the said three years shall be deemed to be 156 times his average weekly earnings during the period of his actual employment under the said employer;
- (ii) if the workman does not leave any such dependents, but leaves any dependents in part dependent upon his earnings, such sum, not exceeding in any case the amount payable under the foregoing provisions as may be agreed upon, or, in default of agreement, may be determined, on arbitration under this Act, to be reasonable and proportionate to the injury to the said dependents; and
- (iii) if he leaves no dependents, the reasonable expenses of his medical attendance and burial not exceeding £20.

(b) Where total or partial incapacity for work results from the injury, a weekly payment during the incapacity not exceeding 50 per cent. of his average weekly earnings during the twelve months, if he has been so long employed, but if not, then for any less period during which he has been in the employment of the same employer, such weekly payment not to exceed £2, and the total liability in respect thereof shall not exceed £750.

Provided that as respects the weekly payments during total incapacity of a workman who is under 21 years of age at the date of the injury, and whose average weekly earnings are less than 20s., 100 per cent. shall be substituted for 50 per cent. of his average weekly earnings, but the weekly payment shall in no case exceed 15s.

The following statement shows particulars regarding compensation paid during the five years, 1913 to 1917 :—

Year.	Accidents.				Compensation.			
	Death.	Disablement compensated by—		Total.	Death.	Disablement compensated by—		Total.
		Lump Sum.	Weekly Payment.			Lump Sum.	Weekly Payment.	
1913	62	156	6,061	6,279	£ 14,797	£ 9,079	£ 30,275	£ 54,151
1914	65	136	6,250	6,451	15,256	8,043	30,159	53,458
1915	52	76	5,778	5,906	12,072	5,426	27,073	44,571
1916	52	123	5,154	5,329	12,431	10,036	29,635	52,102
1917	34	98	4,689	4,821	12,724	7,172	32,462	52,358

Commonwealth Legislation.

In addition to the general enactments of the State, specific enactments of the Commonwealth provide for compensation to men in a particular class of work which is subject to special risks, and to officers in the service of the Commonwealth Government. Particulars regarding war pensions in connection with military and naval services are shown in another chapter.

Seamen's Compensation.

The Seamen's Compensation Act, 1911, provides against injuries incurred in the course of employment. It is applicable to seamen (a) on ships in the service of the Commonwealth, other than naval or military service; (b) on ships trading with Australia or engaging in any occupation in Australian waters, and being in territorial waters of any territory which is part of the Commonwealth; and (c) on ships engaged in trade and commerce with other countries or among the States. In the case of ships not registered in Australia, the two last clauses apply only in relation to seamen shipped under articles of agreement entered into in Australia, and while the ships are subject to the law of the Commonwealth. Compensation is not payable in respect to any injury which does not disable the seaman for at least one week; in the case of death, the amount of compensation, when deceased leaves dependents, is the equivalent of three years' wages in the particular employment, or £200, to a maximum amount of £500.

The compensation is reducible with the measure of dependence, but the minimum for a seaman leaving no dependents is the cost of medical attendance and burial to the value of £30.

In the case of total or partial incapacity, a weekly payment during the incapacity not exceeding 50 per cent. of the average weekly earnings during the twelve months, or for any less period, previous to the injury.

PUBLIC FINANCE

REVENUE AND EXPENDITURE ACCOUNT.

The following table shows the revenue and expenditure of the State during the last ten years. The figures include advances made and repaid, and transfers in aid of the Public Works and the Closer Settlement Funds:—

Year ended 30th June.	Revenue.	Expenditure.	Excess of Revenue over Expenditure.	Excess of Expenditure over Revenue.
	£	£	£	£
1909	13,687,275	14,726,521	...	1,039,246
1910	14,582,415	14,230,386	352,029	...
1911	13,882,485	14,470,637	...	588,202
1912	15,797,136	16,137,279	...	340,143
1913	16,260,456	17,488,836	...	1,228,380
1914	18,438,229	18,065,190	373,039	...
1915	18,946,227	18,516,179	430,048	...
1916	19,703,518	19,553,927	149,591	...
1917	20,537,835	20,806,633	...	268,798
1918	21,577,229	21,553,405	23,824	...

GENERAL ACCOUNT.

The Audit Act provides that the Treasurer may arrange with any bank for the transaction of the general banking business of the State. The accounts are kept under the several headings detailed hereunder, and all amounts paid into any of the accounts mentioned are deemed to be "public moneys," and for interest purposes the several accounts are treated as one. The special accounts, which consist of "Supreme Court Moneys," are not controlled by the Audit Act, as they are operated on directly by the officers in charge of

the Departments interested. The position of the main divisions of the General Account on the 30th June, 1918, is shown below.

Head of Account.	Ledger Balances on 30th June, 1918.		
	Invested in Securities.	Balances.	Total.
Credit Balances—	£	£	£
Special Deposits Account—			
Government Savings Bank Deposits Account .. ..	....	2,997,514	2,997,514
" " Advances Deposit Account .. ..	....	320,700	320,700
State Debt Commissioners' Trust Accounts .. ..	....	152,131	152,131
" Deposit Account .. ..	....	104,693	104,693
Fixed Deposits Account .. ..	....	201,101	201,101
Sydney Municipal Council Sinking Funds .. ..	....	91,822	91,822
Industrial Undertakings .. ..	....	168,177	168,177
Railway Store Advance Account .. ..	....	256,863	256,863
Broken Hill Water Supply Administration .. ..	....	145,402	145,402
Treasury Fire Insurance Fund .. ..	....	110,751	110,751
Other	115,961	868,539	984,500
Total Special Deposits Account.. Cr. £	115,961	5,417,693	5,533,654
Railways Loan Account .. ..	....	238,707	238,707
Closer Settlement Account .. ..	....	240,722	240,722
Public Works Account .. ..	....	241,303	241,303
Special Accounts—			
Colonial Treasurer's Supreme Court Moneys .. ..	....	423,954	423,954
Miners' Accident Relief Account	296,000	....	296,000
Total Cr. £	411,961	6,562,379	6,974,340
Less Debit Balances—	£		
Consolidated Revenue Account.. .. 459,313			
General Loan Account 867,540			
Loans Expenditure Suspense Account .. 191,924			
Public Works Expenditure Suspense Account 19,415	....	1,999,972	1,999,972
Seed Wheat and Fodder Expenditure Suspense Account 47,051			
Coal Purchase Suspense Account 175,914			
London Remittance Account 238,815			
Net Credit Balance in Sydney Cr.	411,961	4,562,407	4,974,368
Add—London Accounts Cr.	....	238,815	238,815
Net Balance Cr.	411,961	4,801,222	5,213,183

DISTRIBUTION OF CASH BALANCE.

The distribution of the cash balance on the 30th June, 1918, is shown in the following table, the London accounts being shown to the latest date available before the closing of the Public Accounts for the financial year.

	£	£	£
Special Deposits Account—Bank of New South Wales ..	2,555,345		
“ “ “ Commercial Banking Company of Sydney (Ltd.) ..	2,862,348	5,417,693	
Closer Settlement Account - Commercial Banking Company of Sydney (Ltd.) ..	....	240,722	
Public Works Account—Bank of New South Wales ..	....	241,303	
Special Accounts—Bank of New South Wales ..	....	423,954	
Railways Loan Account—Bank of New South Wales ..	121,957		
“ “ “ Commercial Banking Company of Sydney (Ltd.) ..	116,750	238,767	6,562,379
Less Debit Balances—			
Consolidated Revenue Account—Bank of New South Wales .. Dr.	129,757		
“ “ “ Commercial Banking Company of Sydney (Ltd.) .. Dr.	354,556		
“ “ “ „ Cash in Hands of Receiver Cr.	25,000	459,313	
General Loan Account—Bank of New South Wales ..	450,306		
“ “ “ Commercial Banking Company of Sydney (Ltd.) ..	417,234	867,540	
Loans Expenditure Suspense Account—Bank of New South Wales ..	177,409		
“ “ “ “ Commercial Banking Company of Sydney (Ltd.) ..	14,515	191,924	
Public Works Expenditure Suspense Account—Bank of New South Wales ..	....	19,415	
Seed Wheat and Fodder Expenditure Suspense Account—Commercial Banking Company of Sydney (Ltd.) ..	....	47,051	
Coal Purchase Suspense Account—Bank of New South Wales ..	....	175,914	
London Remittances Account—Bank of New South Wales ..	161,725		
“ “ “ Commercial Banking Company of Sydney (Ltd.) ..	77,090	238,815	
Total Dr.	....	....	1,999,972
Total Balance in Sydney Cr.	....	....	4,562,407
Add—London Accounts Cr.	....	....	238,815
Net Cash Balance .. ..	....	....	4,801,222

THE CONSOLIDATED REVENUE FUND.

The State accounts are kept on a cash basis, and the financial position can be determined readily, but this involves a consideration of the Consolidated Revenue Account, the Loans Account, and of the various Trust Accounts which do not form part of the Consolidated Revenue Account.

The following table shows the accumulated deficiency on the Consolidated Revenue Account for each of the last ten years. The treasury bills issued to meet deficiencies have been included in the statement, as they became part

of the Consolidated Revenue Account proper. The last of these bills were redeemed in 1913.

Year ended 30th June.	Deficiency Bills Current at End of Year.	Cash Balance at 30th June.		Actual Accumulated Surplus (+) or Deficiency (-).
		Credit.	Overdraft.	
	£	£	£	£
1909	914,516	637,678	...	— 276,838
1910	659,337	989,707	...	+ 330,370
1911	414,516	401,505	...	— 13,011
1912	114,516	61,363	...	— 53,153
1913	...	...	1,167,017	— 1,167,017
1914	...	...	793,978	— 793,978
1915	...	...	363,931	— 363,931
1916	...	...	214,340	— 214,340
1917	...	...	483,138	— 483,138
1918	...	...	459,313	— 459,313

REVENUE AND EXPENDITURE.

The gross revenue and the net revenue and expenditure since 1909 have been as follow:—

Year ended 30th June.	Gross Revenue.	Refunds.	Net Revenue.		Net Expenditure.	
			Total.	Per Inhabitant.	Total.	Per Inhabitant.
	£	£	£	£ s. d.	£	£ s. d.
1909	13,906,846	219,571	13,687,275	8 15 5	14,726,521	9 8 9
1910	14,732,315	149,900	14,582,415	9 2 8	14,230,386	8 18 3
1911	14,021,123	138,638	13,882,485	8 9 5	14,470,687	8 16 7
1912	15,941,078	143,942	15,797,136	9 6 0	16,137,279	9 10 0
1913	16,486,890	226,434	16,260,456	9 2 9	17,488,836	9 16 7
1914	18,653,089	214,860	18,438,229	10 1 2	18,065,190	9 17 2
1915	19,125,984	179,757	18,946,227	10 3 4	18,516,179	9 18 8
1916	19,939,065	235,547	19,703,518	10 10 10	19,553,927	10 9 3
1917	20,712,146	174,311	20,537,835	11 0 5	20,806,633	11 3 4
1918	21,811,642	234,413	21,577,229	11 8 2	21,553,405	11 7 11

The revenue included the surplus revenue returned to the State by the Commonwealth up to 1910, under the Constitution Act, and from 1910 onwards, under the Commonwealth Surplus Revenue Act of 1910. Prior to that date the Commonwealth was obliged to pay not less than three-fourths of the net Customs and Excise revenue to each State on a proportional basis, but since then it has paid 25s. per head of the population.

HEADS OF REVENUE AND EXPENDITURE.

The following table shows the sources of revenue and the avenues of expenditure during the last five financial years, ending the 30th June.

	1914.	1915.	1916.	1917.	1918.
REVENUE.					
<i>Governmental.</i>					
Revenue Returned by Commonwealth	£ 2,248,241	£ 2,287,295	£ 2,297,872	£ 2,286,918	£ 2,317,783
Taxation—					
Stamp Duties—					
Probate, etc.	512,529	551,629	645,554	826,765	677,433
Other	377,707	552,762	522,992	550,211	616,180
Land Tax	4,692	3,346	3,190	3,215	2,921
Income Tax	1,290,370	1,653,923	1,707,403	1,973,477	2,182,117
Motor Tax . . . . .	..	45,055	54,868	67,044	79,169
Betting Taxes . . . . .	..	..	31,330	47,536	59,359
Totalizator Tax . . . . .	..	..	..	6,346	82,802
Licenses	144,707	148,955	151,884	154,806	160,520
Total Taxation	£ 2,300,005	£ 2,955,670	£ 3,117,221	£ 3,629,404	£ 3,860,501
Land Revenue—					
Alienation	982,885	906,785	1,057,711	972,657	1,068,676
Occupation	641,230	606,984	633,975	605,784	616,511
Miscellaneous	204,772	184,312	173,627	168,568	176,273
Total Land Revenue	£ 1,828,887	£ 1,698,081	£ 1,865,313	£ 1,747,009	£ 1,861,460
Services Rendered (Other than Business Undertakings)	453,016	408,390	414,671	417,345	406,390
General Miscellaneous	482,649	501,093	502,328	550,008	519,016
Industrial Undertakings	6,300	10,858	9,090	12,710	12,348
Total Governmental	£ 7,349,098	£ 7,920,887	£ 8,206,465	£ 8,613,389	£ 8,977,598
<i>Business Undertakings of the State.</i>					
Railways and Tramways	9,684,877	9,660,822	9,960,502	10,390,602	10,821,648
Sydney Harbour Trust	470,773	464,631	489,722	511,981	576,459
Metropolitan Board of Water Supply and Sewerage ..	713,056	796,338	844,664	866,313	953,306
Hunter District Board of Water Supply and Sewerage ..	80,945	85,823	98,089	99,448	104,822
Total Business Undertakings ..	£ 10,949,651	£ 11,007,664	£ 11,422,977	£ 11,868,344	£ 12,456,235
Advances Repaid	£ 139,480	£ 17,676	£ 74,076	£ 26,102	£ 143,396
Grand Total	£ 18,438,229	£ 18,946,227	£ 19,703,518	£ 20,537,835	£ 21,577,229
EXPENDITURE.					
<i>Governmental.</i>					
Interest on Public Debt and Funds in Temporary Possession of Government (Exclusive of Business Undertakings)	1,022,732	971,435	1,057,769	1,004,198	1,089,728
Reduction of Public Debt	5,632	5,688	6,504	6,868	6,819
Local Government—					
Endowments and Grants	258,352	281,243	344,022	308,336	325,145
Police and Prisons	655,189	653,282	652,119	694,514	736,192
Hospitals and Charities (Including Lunacy)	733,387	769,311	880,243	929,218	949,154
Departments—					
Premier	85,925	185,883	175,978	132,923	92,893
Chief Secretary and Public Health	122,666	132,955	126,539	135,172	143,235
Treasurer	624,716	593,396	594,751	735,911	825,903
Attorney-General and Justice	325,776	333,965	334,058	331,390	329,887
Lands	334,478	451,025	410,017	384,854	384,959
Public Works	418,225	441,523	444,698	459,035	429,393
Public Instruction	1,607,324	1,635,453	1,698,515	1,853,049	1,955,267
Labour and Industry	54,049	43,759	50,111	55,156	46,076
Mines	67,834	71,010	74,803	62,425	61,744
Agriculture	295,943	236,163	245,298	249,244	295,791
Local Government and Main Roads .. .. .	..	..	21,777	29,612	29,092
All Other Services	450,190	420,223	445,516	467,941	494,009
Total Governmental	£ 7,112,418	£ 7,226,854	£ 7,562,718	£ 7,839,841	£ 8,194,787
<i>Business Undertakings of the State.</i>					
Working Expenses—					
Railways and Tramways	7,123,569	6,928,379	7,233,151	7,605,045	7,580,342
Sydney Harbour Trust	132,017	133,156	144,972	140,616	151,017
Metrop. Board of Water Supply and Sewerage ..	249,814	279,813	287,508	320,782	345,680
Hunter District Board of Water Supply and Sewerage ..	29,687	31,079	32,164	37,089	41,828
Total	£ 7,535,087	£ 7,372,427	£ 7,697,885	£ 8,103,532	£ 8,121,867
Interest on Capital—					
Railways and Tramways	2,382,357	2,611,780	2,873,998	3,189,648	3,389,582
Sydney Harbour Trust	234,631	250,279	275,697	323,946	343,139
Metrop. Board of Water Supply and Sewerage ..	415,944	442,018	485,597	584,023	625,770
Hunter Dist. Board of Water Supply and Sewerage ..	30,486	32,389	35,919	42,909	49,135
Total	£ 3,063,468	£ 3,336,467	£ 3,671,211	£ 4,140,526	£ 4,412,626
Total Business Undertakings	£ 10,598,555	£ 10,708,894	£ 11,369,096	£ 12,244,061	£ 12,534,493
Transfers to Public Works and Closer Set. Funds ..	£ 330,541	£ 499,408	£ 589,815	£ 563,043	£ 619,781
Advances made	£ 17,676	£ 81,023	£ 32,295	£ 159,682	£ 204,344
Grand Total	£ 18,065,190	£ 18,516,179	£ 19,553,927	£ 20,806,633	£ 21,553,405

From these figures the following rates per head of population have been determined:—

REVENUE.	Per Inhabitant.				
	1914.	1915.	1916.	1917.	1918.
	£ s. d. 1 4 6	£ s. d. 1 4 6	£ s. d. 1 4 7	£ s. d. 1 4 7	£ s. d. 1 4 6
<i>Governmental.</i>					
Revenue Returned by Commonwealth					
<i>Taxation—</i>					
Stamp Duties—					
Probate, etc.	0 5 7	0 5 11	0 6 11	0 8 10	0 7 2
Other	0 4 1	0 6 0	0 5 7	0 5 11	0 6 6
Land Tax	0 0 1	..	..	..	..
Income Tax	0 14 1	0 17 9	0 18 3	1 1 2	1 3 1
Motor Tax . . . . .	..	0 0 6	0 0 7	0 0 9	0 1 8
Betting Taxes . . . . .	..	..	0 0 4	0 0 6	0 0 10
Totalizator Tax . . . . .	..	..	..	0 0 1	0 0 8
Licenses	0 1 7	0 1 7	0 1 8	0 1 8	0 0 11
Total Taxation	1 5 5	1 11 9	1 13 4	1 18 11	2 0 10
<i>Land Revenue—</i>					
Alienation	0 10 9	0 9 9	0 11 4	0 10 5	0 11 4
Occupation	0 7 0	0 6 6	0 6 9	0 6 6	0 6 6
Miscellaneous	0 2 2	0 2 0	0 1 10	0 1 10	0 1 10
Total	0 19 11	0 18 3	0 19 11	0 18 9	0 19 8
<i>Services Rendered (Other than Business Undertakings)</i>					
General Miscellaneous	0 5 3	0 4 5	0 5 5	0 4 6	0 4 3
Industrial Undertakings	0 0 1	0 0 1	0 0 1	0 0 2	0 0 2
Total Governmental	4 0 2	4 5 0	4 7 9	4 12 9	4 14 11
<i>Business Undertakings of the State.</i>					
Railways and Tramways	5 5 8	5 3 8	5 6 11	5 11 6	5 14 5
Sydney Harbour Trust	0 5 2	0 5 0	0 5 3	0 5 6	0 6 1
Metropolitan Board of Water Supply and Sewerage ..	0 7 9	0 8 7	0 9 0	0 9 4	0 10 1
Hunter District Board of Water Supply and Sewerage ..	0 0 11	0 0 11	0 1 1	0 1 1	0 1 2
Total Business Undertakings	5 19 6	5 18 2	6 2 3	6 7 5	6 11 9
Advances Repaid	6 1 6	0 0 2	0 0 10	0 0 3	0 1 6
Grand Total	10 1 2	10 3 4	10 10 10	11 0 5	11 8 2
<i>EXPENDITURE.</i>					
<i>Governmental.</i>					
Interest on Public Debt and Funds in Temporary Possession of Government (Exclusive of Business Undertakings)	0 11 2	0 10 5	0 11 4	0 10 9	0 11 6
Reduction of Public Debt	0 0 1	0 0 1	0 0 1	0 0 1	0 0 1
<i>Local Government—</i>					
Endowments and Grants	0 2 11	0 3 0	0 3 8	0 3 3	0 3 5
Police and Prisons	0 7 2	0 7 0	0 7 0	0 7 6	0 7 9
Hospitals and Charities (Including Lunacy)	0 8 0	0 8 3	0 9 5	0 10 0	0 10 0
<i>Departments—</i>					
Premier	0 0 11	0 2 0	0 1 11	0 1 5	0 1 0
Chief Secretary and Public Health	0 1 4	0 1 5	0 1 4	0 1 5	0 1 6
Treasurer	0 6 10	0 6 5	0 6 4	0 7 11	0 8 9
Attorney-General and Justice	0 3 6	0 3 7	0 3 7	0 3 7	0 3 6
Lands	0 4 2	0 4 10	0 4 5	0 4 2	0 4 1
Public Works	0 4 7	0 4 9	0 4 9	0 4 11	0 4 6
Public Instruction	0 17 6	0 17 6	0 18 2	0 19 11	1 0 8
Labour and Industry	0 0 7	0 0 6	0 0 6	0 0 7	0 0 6
Mines	0 0 9	0 0 9	0 0 10	0 0 8	0 0 8
Agriculture	0 3 3	0 2 7	0 2 7	0 2 8	0 3 2
Local Government and Main Roads . . . . .	..	..	0 0 3	0 0 4	0 0 4
All Other Services	0 4 11	0 4 6	0 4 9	0 5 0	0 5 3
Total Governmental	3 17 8	3 17 7	4 0 11	4 4 2	4 6 8
<i>Business Undertakings of the State.</i>					
<i>Working Expenses—</i>					
Railways and Tramways	3 17 9	3 14 4	3 17 5	4 1 8	4 0 2
Sydney Harbour Trust	0 1 5	0 1 5	0 1 6	0 1 6	0 1 7
Metrop. Board of Water Supply and Sewerage ..	0 2 9	0 3 0	0 3 1	0 3 5	0 3 8
Hunter Dis. Board of Water Supply and Sewerage ..	0 0 4	0 0 4	0 0 4	0 0 5	0 0 5
<i>Interest on Capital—</i>					
Railways and Tramways	1 6 0	1 8 1	1 10 9	1 14 3	1 15 10
Sydney Harbour Trust	0 2 7	0 2 8	0 2 11	0 3 6	0 3 8
Metrop. Board of Water Supply and Sewerage ..	0 4 6	0 4 9	0 5 3	0 6 3	0 6 7
Hunter Dis. Board of Water Supply and Sewerage ..	0 0 4	0 0 4	0 0 5	0 0 5	0 0 7
Total Business Undertakings	1 13 5	1 15 10	1 19 4	2 4 5	2 6 8
Total	5 15 8	5 14 11	6 1 8	6 11 5	6 12 6
Transfers to Public Works and Closer Set. Funds ..	0 3 8	0 5 4	0 6 4	0 6 0	0 6 7
Advances made	0 0 2	0 0 10	0 0 4	0 1 9	0 2 2
Grand Total	9 17 2	9 18 8	10 9 3	11 3 4	11 7 11

CLOSER SETTLEMENT ACCOUNT.

The Closer Settlement Account was established under Act No. 9 of 1906. It is not included in the operations of the Consolidated Revenue Fund, although grants from that fund have formed a considerable portion of its receipts.

The following statement shows the receipts and expenditure for the financial year ended the 30th June, 1918:—

RECEIPTS.

	£
Balance Brought Forward from Previous Year	154,517
Assurance Fees—Real Property Act	10,279
Repayments by Settlers	149,364
Repayments on Account of Improvement Leases... ..	1,841
Repayment to Credit of Votes (Previous Year)	5
	<hr/>
	£316,006

EXPENDITURE.

	£
Under Real Property Act	148
Purchase of Estates, Including Contingent Expenses... ..	23,736
Compensation for Improvement Leases, etc.	296
Interest on Purchase Money	1,201
Interest on Closer Settlement Debentures, Act No. 53, 1916	30,879
Recoup to Consolidated Revenue Fund	19,024
Balance, 30th June, 1918	240,722
	<hr/>
	£316,006

During the period of twelve years ended the 30th June, 1918, fifty-three estates had been purchased for closer settlement, exclusive of improvement leases, etc., resumed under Act 74 of 1912, the total area of all the estates being 1,479,838 acres. Receipts from all sources amounted to £985,863, and the expenditure was as follows:—Purchase money, £3,706,033; contingent expenses, £118,895; total, £3,824,928. On the 30th June, 1918, there were 550 purchasers with overdue instalments, the amounts outstanding being £90,264.

PUBLIC WORKS ACCOUNT.

The Public Works Account, like the Closer Settlement Account, does not form part of the Consolidated Revenue Fund. It was opened in the year 1906, under the authority of the same statute which provided for the Closer Settlement Fund, and receives two-thirds of the net proceeds of the sales of Crown lands, less 20 per cent. credited to the Consolidated Revenue Fund, besides the proceeds of land sales under the Public Instruction Act,

1880; and grants in aid have been voted from the Consolidated Revenue. The transactions for the year ended the 30th June, 1918, are shown herewith.

Receipts.	Amount.	Disbursements.	Amount.
	£		£
Repayments to Credit of Votes (previous years)	20,889	Premier—Aviation School	3,747
		Miscellaneous	260
			4,007
Two-thirds Net Proceeds of Sale of Crown Lands, Exclusive of Interest on Purchase Money—less 20 per cent. (under Act No. 9, 1906) ..	369,781	Colonial Secretary and Minister of Public Health—	
		Hospitals and Benevolent Asylums	36,119
Net Proceeds of Sale of Land, Under Section 4, Public Instruction Act of 1880	3,238	Treasurer — Government Printing	
Transfers from Consolidated Revenue Account	250,000	Office—Plant	380
		Explosives	1,107
		Sydney Harbour Trust	19,837
		Miscellaneous	73
			21,397
		Attorney-General and Justice	239
		Secretary for Lands —	
		Resumption of Parks, Foreshores, etc.	5,801
		Miscellaneous	6,814
			12,615
		Public Works — Harbours, Rivers,	
		Dredge Service, &c.	4,865
		Public Buildings	61,543
		Construction of Works Generally ..	19,545
		Water Supplies	2,002
		Metropolitan Board of Water Supply and Sewerage	18,876
		Hunter District Board of Water Supply and Sewerage	578
		Roads, Bridges, Pontoons, Ferries, &c. ..	9,411
		Main Roads Boards	5,444
		Grants to Shires and Municipalities	341
		Railways and Tramways	1,220
			123,825
		Public Instruction —	
		School Buildings, etc.	320,449
		Local Government —	
		To Assistance—Shires and Municipalities	7,079
		Agriculture—	
		Improvements to Parks, Gardens, etc.	67
		Veterinary Experimental Station ..	992
			1,059
		Forestry—	
		Afforestation, etc.	14,333
		Purchases of Saw-mills, etc.	12,300
			26,633
		Total Works, Services, etc.	553,422
Balance, 30th June, 1917,		Balance, 30th June, 1918	241,303
brought forward	150,817	Grand Total	794,725
Grand Total	£ 794,725		£ 794,725

EXPENDITURE ON PUBLIC WORKS.

The total expenditure on Public Works during each of the last five years is shown in the following table, distinguishing the amount disbursed from the Public Works Fund, the Consolidated Revenue Fund, and from Loans.

Year ended 30th June.	Public Works Fund.	Consolidated Revenue Fund.	Loans.	Total Expenditure.	Per Inhabitant.
	£	£	£	£	£ s. d.
1914	390,358	490,206	9,126,844	10,007,408	5 9 3
1915	583,541	533,932	6,996,107	8,113,580	4 7 2
1916	562,844	601,213	8,173,104	9,337,161	4 19 11
1917	626,918	570,652	6,862,179	8,059,749	4 6 6
1918	553,422	576,456	4,487,511	5,617,389	2 19 5

TAXATION.

License Fees, Land and Income Taxes, Stamp and Probate Duties, Motor Taxes, and Betting Taxes, represent the various forms of taxation in the State, and the following statement shows the revenue derived from each source during the year ended the 30th June, 1918.

Head of Revenue.	Gross Revenue.	Refunds.	Net Revenue.
	£	£	£
Collections from Licenses :—			
To Retail Fermented and Spirituous Liquors, including Colonial Wine, Cider, and Perry ...	89,129	1,728	160,520
Wholesale Spirit Dealers ...	4,780		
Billiard and Bagatelle ...	7,409		
Auctioneers ...	7,804		
Hawkers, Pedlars, and Pawnbrokers ...	2,663		
Sale of Tobacco, Cigars, and Cigarettes ...	3,946		
Explosives Act of 1905 ...	1,261		
Metropolitan Traffic Act ...	3,908		
Motor Traffic Act ...	31,955		
Gaming and Betting Act, 1906 ...	1,050		
Theatres and Public Halls Act, 1908 ...	3,056		
Sunday Trading Refreshment Act, 1916 ...	1,472		
Inflammable Liquid Act, 1915 ...	2,445		
All Other ...	1,370		
Total, Licenses ...	£ 162,248	1,728	160,520
Land Tax ...	2,921	...	2,921
Income Tax ...	2,274,783	92,666	2,182,117
Motor Tax ...	79,405	236	79,169
Stamp Duties :—			
Adhesive Stamps ...	116,602	11,928	1,293,613
Impressed Stamps—	£		
Deeds ...	218,613		
Debentures, Promissory Notes, and Bills of Exchange ...	22,423		
Coupons, Cheques, and Receipts ...	112,902		
Bills of Lading, Transfers of Shares, etc. ...	15,802		
	369,740		
<i>Less Commissions and Deductions</i>	<i>1,956</i>		
	367,784		
Bank-note Composition ...	1,556		
	£		
Probate Duties ...	673,711		
Settlement and Companies' Death Duties ...	3,722		
	677,433		
Betting Tickets ...	57,391		
Miscellaneous Receipts ...	71,087		
Paid direct to Treasury ...	13,688		
Total, Stamp Duties ...	£ 1,305,541	11,928	1,293,613
Betting Taxes—Racing Clubs and Associations ...	31,858	43	59,359
Bookmakers ...	27,544		
	59,402	43	59,359
Totalizator Tax ...	82,802	...	82,802
Revenue from Taxation ...	£ 3,967,102	106,601	3,860,501

The control of Customs and Excise passed to the Commonwealth Government on the 1st January, 1901, and the foregoing statement consequently

does not include any figures relating to taxation from those sources. It is desirable, however, that the actual amount to which the people of the State are subjected by way of taxation, whether direct or indirect, should be clearly set forth. The following statement shows in detail the taxation collected in New South Wales by the Commonwealth and State Governments, and the rates and charges levied by local bodies during the five years ended the 30th June, 1918.

Head of Taxation, or Charge.	1914.	1915.	1916.	1917.	1918.
COMMONWEALTH.	£	£	£	£	£
Customs Duties	5,389,065	5,393,560	6,225,832	5,705,757	4,682,456
Excise " " " " " "	1,274,007	1,430,301	1,763,900	1,718,516	1,934,809
Probate and Succession Duties ... ..	...	19,232	257,363	606,311	388,095
Land Tax	765,867	1,041,219	1,064,881	950,000	1,094,222
Income Tax ... ..	...	...	*1,551,653	*2,239,206	*2,969,932
War-time Profits Tax ... ..	...	...	...	...	148,250
Entertainment Tax ... ..	...	...	...	50,096	102,195
Total, Commonwealth Taxation ... £	7,428,939	7,884,312	10,863,569	11,269,886	11,319,959
STATE.					
Land Tax	4,692	3,346	3,190	3,215	2,921
Income Tax	1,290,370	1,653,923	1,707,403	1,973,477	2,182,117
Stamp and Probate Duties.					
Stamps	375,114	550,609	493,491	507,646	557,233
Bank-note Composition..	2,593	2,153	1,863	1,716	1,556
Betting Tickets..	...	...	27,638	40,849	57,391
Probate	494,660	543,459	642,445	814,813	673,711
Settlement and Companies' Death Duties ...	17,869	8,170	3,109	11,956	3,722
Total, Stamp Duties £	890,236	1,104,391	1,168,546	1,376,980	1,293,613
Motor Tax ... ..	...	45,055	54,868	67,044	79,169
Betting Taxes ... ..	...	...	31,330	47,536	59,359
Totalizator Tax ... ..	...	...	...	6,346	82,802
Licenses	144,707	148,955	151,884	154,806	160,520
Total, State Taxation ... £	2,330,005	2,955,670	3,117,221	3,629,404	3,860,501
LOCAL.					
Wharfage and Tonnage Rates	285,897	277,760	298,612	290,454	316,186
Fees for Registration of Dogs	17,079	17,075	16,851	16,692	17,114
Municipal Rates—					
City of Sydney	242,303	285,024	295,529	525,648	455,040
" " (Land Tax)	151,212	170,653	168,613		
Suburban and Country Municipalities ...	889,353	1,026,537	1,074,453	1,118,214	1,186,417
Shire Rates	572,924	625,501	626,514	651,437	691,593
Licenses (City Council)—					
Auctioneers, Hawkers, etc.	1,479	1,392	2,106	1,319	1,694
Water and Sewerage Rates—					
(Metropolitan and Hunter)	794,001	882,161	942,753	965,761	1,058,128
Total, Local Rates and Charges £	2,954,248	3,286,103	3,425,431	3,569,525	3,726,172
Grand Total £	12,713,192	14,126,085	17,406,221	18,468,815	18,906,632

*Partly estimated.

Customs and excise duties are gross and do not take into account interstate credits and debits, which are not now available. During 1909-10, the last year in which these details were recorded, the net interstate debit against New South Wales amounted to £242,955. The figures for municipal and shire rates and licenses relate to the year ended the 31st December preceding the close of the financial year in which they are included above.

TAXATION PER INHABITANT.

The previous figures would be incomplete without corresponding information respecting the rates per head of population, which are set forth hereunder.

Head of Taxation, or Charge.	1914.	1915.	1916.	1917.	1918.
COMMONWEALTH.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Customs Duties	2 18 9	2 17 10½	3 6 7½	3 1 3	2 9 6½
Excise "	0 13 11	0 15 4	0 18 10½	0 18 5½	1 0 5½
Land Tax	0 8 4	0 11 2½	0 11 4½	0 10 2½	0 11 6½
Income Tax ... ..	...	...	0 16 6½	1 4 0½	1 11 5
Probate and Succession Duties ...	...	0 0 2½	0 2 9	0 6 6	0 4 1½
Entertainment Tax ... ..	...	...	...	0 0 6½	0 1 1
War-time Profits Tax ... ..	...	...	...	...	0 1 6½
Total, Commonwealth Taxation ... £	4 1 0	4 4 7½	5 16 2½	6 0 11½	5 19 8½
STATE.					
Land Tax	0 0 1	0 0 0½	0 0 0½	0 0 0½	0 0 0½
Income Tax	0 14 1	0 17 8½	0 18 3½	1 1 2½	1 3 1
Stamp and Probate Duties—					
Stamps	0 4 1	0 5 10½	0 5 3½	0 5 5½	0 5 10½
Bank-note Composition	0 0 0½	0 0 0½	0 0 0½	0 0 0½	0 0 0½
Betting Tickets ... ..	...	...	0 0 3½	0 0 5½	0 0 7½
Probate	0 5 5	0 5 10	0 6 10½	0 8 8½	0 7 1½
Settlement and Companies' Death Duties	0 0 2½	0 0 1	0 0 0½	0 0 1½	0 0 0½
Total, Stamp Duties £	0 9 8½	0 11 10	0 12 6½	0 14 9½	0 13 8½
Motor Tax ... ..	...	0 0 6	0 0 7	0 0 8½	0 0 10
Betting Taxes ... ..	...	...	0 0 4	0 0 6½	0 0 7½
Totalizator Tax ... ..	...	...	...	0 0 0½	0 0 10½
Licenses	0 1 7	0 1 7	0 1 7½	0 1 8	0 1 8½
Total, State Taxation £	1 5 5½	1 11 8	1 13 4½	1 18 11½	2 0 10½
LOCAL.					
Wharfage and Tonnage Rates ...	0 3 2	0 3 0	0 3 2½	0 3 1½	0 3 4
Fees for Registration of Dogs ...	0 0 2½	0 0 2½	0 0 2½	0 0 2½	0 0 2½
Municipal Rates—					
City of Sydney	0 2 8	0 3 0½	0 3 2	0 5 7½	0 4 9½
" (Land Tax)	0 1 8	0 1 10	0 1 9½	...	...
Suburban and Country Municipalities	0 9 8	0 11 0½	0 11 6	0 12 0	0 12 6½
Shire Rates	0 6 3	0 6 8½	0 6 8½	0 7 0	0 7 3½
Licenses (City Council)—					
Auctioneers, Hawkers, etc. ...	0 0 0½	0 0 0½	0 0 0½	0 0 0½	...
Water and Sewerage Rates— (Metropolitan and Hunter) ...	0 8 8	0 9 5½	0 10 1	0 10 4½	0 11 2½
Total, Local Rates and Charges ... £	1 12 3½	1 15 3½	1 16 7½	1 18 3½	1 19 4½
Grand Total £	6 18 9	7 11 6½	9 6 2½	9 18 2½	9 19 11½

The foregoing tables give a comprehensive list of the various sources of taxation, and the rates per capita prevailing during the five years ended the 30th June, 1918.

New sources of State revenue have been provided by the taxation of motor vehicles, racing clubs, bookmakers, betting on racecourses, &c.

In 1914 additional amounts were obtained by the Income Tax Acts of that year, which further increased the taxes, and reduced the exemption from £300 to £250, and since 1915 a super tax of 3d. in the £ has been levied.

In 1915 a Commonwealth Income Tax Act came into force, under the provisions of which all net incomes above £156, earned during the currency of the year ending the 30th June, 1915, were subjected to taxation.

In 1916 the amount of tax was increased by 25 per cent., and the amount of income exempt from taxation was lowered in certain cases to £100; and in 1917 a tax of 10 per cent. was imposed upon cash prizes in lotteries.

Early in the year 1914 the State Stamp Duties Amendment Act, 1914, became law, which imposed additional stamp duties and considerably increased the probate duties.

The State Land Tax.

The land tax of the State is levied on the unimproved value at the rate of 1d. in the £. A sum of £240 is allowed by way of exemption, and where the unimproved value is in excess of that sum, a reduction equal to the exemption is made; but where several blocks of land within the State are held by a person or company, only one amount of £240 may be deducted from the aggregate unimproved value.

Under the Local Government Act, 1906, when the council of a shire or municipality makes and levies a general rate, not less than 1d. in the £ on the unimproved value of land within its area, the land tax ceases to be collected by the State therein. A similar provision was extended to the City of Sydney under the operation of the Sydney Corporation (Amendment) Act, 1908.

The land tax is now levied, therefore, only on the unincorporated portion of the Western Division of the State.

The State Income Tax.

The former Acts relating to income tax were amended by the Income Tax Act, 1911. Under its provisions a tax became payable by all persons other than companies in receipt of £300 per annum, derived from all sources within New South Wales. In the case of companies the total receipts became taxable.

Under amending Acts passed in 1914, further increases were imposed, and the exemption was reduced to £250, no deduction being allowed to companies. A taxpayer is entitled to a deduction of £50 in respect of each child under 18 years of age wholly maintained by him, and insurance premiums up to £50 are exempt.

The tax payable by any company is 1s. in the £ on the taxable income of the company, and the rates per £ for persons other than companies are as follow:—

So much of income is chargeable—

As does not exceed £700	...	...	...	...	...	8d.
As exceeds £700 and does not exceed £1,700	...	...	...	...	...	9d.
„ £1,700	„	£2,700	...	...	...	10d.
„ £2,700	„	£4,700	...	...	...	11d.
„ £4,700	„	£6,700	...	...	...	1s.
„ £6,700	„	£9,700	...	...	...	1s. 1d.
„ £9,700	...	...	...	...	...	1s. 2d.

In each case an addition of one-third of the tax is made on so much of the income as is derived from the produce of property.

A supertax of 3d. in the £ has been levied in respect of incomes received during the years 1915 to 1917; also in respect to the incomes on which tax is payable during the year 1919.

The following incomes are exempt from income-tax, viz.:—

- (a) The revenues of municipal corporations or other local authorities.
- (b) The incomes of mutual life assurance societies, and of other companies or societies not carrying on business for purposes of profit or gain, except income from mortgages.
- (c) The funds and incomes of societies registered under the Friendly Societies Act, or under any Act relating to trade unions.
- (d) The incomes and revenues of all ecclesiastical, charitable, and educational institutions of a public character, whether supported wholly or partly by grants from the Consolidated Revenue Fund or not.
- (e) Income arising or accruing to any person from Government debentures, inscribed stock, and treasury bills.
- (f) Dividends derived from shares in a company.

These exemptions do not extend to the salaries and wages of persons employed by any such corporation, company, society, or institution, although the same be paid wholly or in part out of the revenues or funds thereof.

THE REVENUE FROM STATE LAND AND INCOME TAXES.

The revenue from land and income taxes since 1896, the year in which they were first imposed, is shown herewith. The amounts exclude refunds rendered necessary through correction of errors by the taxpayer, or through adjustments by the Department, but they include refunds brought about through the income of the year of assessment falling short of the amount of the income of the preceding year on which the assessment was made—a provision which was repealed by the Land and Income Tax Amendment Act, 1904.

Year.	Land Tax.	Income Tax.	Year.	Land Tax.	Income Tax.
	£	£		£	£
1896	...	27,658	1908	178,889	215,283
1897	139,079	295,537	1909	80,794	202,369
1898	364,131	166,395	1910	9,066	219,977
1899	253,901	178,032	1911	7,438	269,142
1900	286,227	183,460	1912	6,479	644,571
1901	288,369	215,893	1913	5,738	662,625
1902	301,981	203,625	1914	4,692	1,290,370
1903	314,104	214,686	1915	3,346	1,653,923
1904	322,246	193,240	1916	3,190	1,707,403
1905	323,267	195,252	1917	3,215	1,973,477
1906	329,998	266,233	1918	2,921	2,182,117
1907	345,497	283,422			

The fluctuations shown in the first three years are due to the difficulties inseparable from the introduction of a system of direct taxation; the returns for 1899 and subsequent years, however, are under normal conditions, which have been varied according to the rates in the case of the income tax, and by the transfer of the land tax to shires and municipalities.

MOTOR TAX.

Motor vehicles must be annually registered with the Police Department, and on such registration a fee fixed at a minimum of £1 is payable in respect of a motor cycle, motor tricycle, or taxi-cab. On other motor vehicles the license fee ranges between £2 and £20, and the basis upon which it is payable is the "horse-power" of the vehicle. Motor cars used by medical practitioners or clergymen, public motor cars (except taxi-cabs), and trade motor

vehicles pay half-rates. Government and ambulance motor vehicles, and those owned by municipalities and shires, or by the City of Sydney, are exempt from taxation. The revenue benefited during 1917-18 by the tax to the extent of £79,169.

THE BETTING TAXES.

The Finance (Taxation) Act, 1915, and amending Acts, imposed taxes on racing clubs and associations, on bookmakers, and on betting tickets.

With regard to the clubs, the taxes are levied on licenses and fees received from bookmakers. From the beginning of 1916 to 1st September, 1917, the rates ranged from 25 per cent. on racecourses within 40 miles of the General Post Office, Sydney, or 20 miles from the Post Office, Newcastle, to 10 per cent. on courses outside the limits mentioned. From 1st September, 1917, the rates were raised to 50 per cent. and 20 per cent. respectively.

The taxes payable by bookmakers are regulated according to the particular courses where operations are carried on, and vary considerably. The total amount received during the half-year ended the 30th June, 1918, from the betting taxes, was £59,359.

The Act of 1915 further provided for the imposition of a stamp duty on all betting tickets issued by bookmakers, the amount being one penny in the saddling paddock, and one half-penny for the other parts of the racecourse. In 1917 these rates were doubled. The revenue derived from this source during the year ended the 30th June, 1918, was £57,391.

THE TOTALIZATOR TAX.

For the purpose of increasing the revenue, the Government passed the Totalizator Act (No. 75, 1916), which became law on the 20th December, 1916. The revenue derived from this source for the first six months during which it was in operation was only £6,346, but the return for the year 1917-18 amounted to £82,802.

Under this Act all registered racing clubs and associations must establish an approved totalizator. The amount of commission to be deducted from the total amount invested is 10 per cent., and an additional 1 per cent. is allowed as a sinking fund to meet the cost of the machines. Seven-tenths of the deductions must be paid to the State Treasurer, and the other three-tenths are retained by the clubs for prizes and upkeep of the buildings.

THE COMMONWEALTH LAND TAX.

The Commonwealth Government levies a graduated tax on the unimproved value of the lands of the Commonwealth. In the case of owners who are not absentees, an amount of £5,000 is exempt, and the rate of tax ranges from $1\frac{1}{18750}$ d. for the first £1 of value in excess of that amount, and increases uniformly to 5d. in the £ on a taxable balance of £75,000, with 9d. in the £ for every £ in excess of that amount. Absentee owners are required to pay 1d. in the £ up to £5,000, with a uniform progression from $2\frac{1}{18750}$ d. to 6d. for the next £75,000. On every £ in excess of £80,000, the rate payable is 10d. Amending legislation passed in 1918 imposes an additional tax of 20 per cent. on assessments made for the financial year 1918-19.

Lands exempt from taxation are such as are owned by a State, municipality, or other public authority, by savings banks, friendly societies, or trade unions, or such as are used solely for religious, charitable, or educational purposes, etc.

The latest available statement issued by the Commonwealth Land Tax Department shows that the land tax payable for New South Wales property by residents for 1914-15 was £1,137,155; for absentees, £24,183; or total, £1,161,338. For the whole Commonwealth the corresponding figures were:—Residents, £2,200,960; absentees, £57,770; grand total, £2,258,730.

The area of country land in New South Wales included in taxable returns for 1914-15 was 57,204,873 acres, or 18·6 per cent. of the taxable land in the Commonwealth of Australia.

THE COMMONWEALTH INCOME TAX.

In addition to the taxation of incomes imposed by the State, the Commonwealth levies a tax which is payable by residents and absentees in respect of income derived from sources within Australia (which includes Papua).

The exemptions from taxation include the revenues and funds of local governing bodies or public authorities; friendly societies; trade unions and kindred associations; religious, scientific, charitable, or public educational institutions; and interest on certain Commonwealth war loan securities. Neither does the Act apply to persons on active service with the forces of Great Britain or of her Allies, as regards income derived from personal exertion, from the date of enlistment to the date of discharge.

Resident taxpayers who are unmarried and have no dependents are allowed an exemption of £100 less £1 for every £5 in excess of £100, and other resident taxpayers are allowed an exemption of £156 less £1 for every £3 by which the income exceeds £156. Absentees are assessed on their total incomes from all sources in Australia.

Special deductions include £26 for every child under 16 years of age maintained by a resident taxpayer; payments up to £50 for friendly society benefits, superannuation, &c.; and up to £50 for life assurance and fidelity guarantee; and gifts over £5 each to public charitable institutions or war relief funds.

The basic rate of taxation upon incomes derived from personal exertion is $3\frac{3}{8}\frac{3}{10}$ d. per pound sterling up to £7,600, increasing uniformly with each increase of one pound sterling of the taxable income by three eight-hundredths of one penny, until an average rate of 2s. 7½d. per pound is reached at £7,600. Over £7,600 the rate per pound sterling is 5s.

The basic rate of taxation upon income derived from property is stated by the following formula:—

$$R = \left(3 + \frac{I}{181\cdot058} \right) \text{pence,}$$

R being equal to the average rate of tax in pence per pound sterling, and I to taxable income in pounds sterling up to £546.

Over the sum of £546, and up to £2,000, the tax increases continuously with the increase of the taxable income till it reaches 33·6 pence per pound sterling on £2,000 10s.; thence up to a rate of 5s. for every pound sterling in excess of £6,500.

To these rates are added an additional tax equal to 25 per cent., and a super tax equal to 30 per cent. of the total amount of tax (including additional tax).

The minimum amount of tax payable by unmarried resident taxpayers having no dependents is £1.

Companies pay a flat rate of 2s. 6d. in the £ on such of the taxable incomes as have not been distributed to members or shareholders, and 8d. in the £ on dividends and interest paid to absentees.

Income tax at the rate of 13 per cent. is levied on cash prizes in lotteries.

THE COMMONWEALTH ESTATE DUTIES.

The Estates Assessment Act (No. 22 of 1914) provides for the imposition of a duty on properties of all persons dying after the commencement of the Act. The rates are 1 per cent. where the total value does not exceed £2,000, and an additional one-fifth of a pound for every thousand pounds, or part thereof, in excess of two thousand pounds, the maximum being 15 per cent.

A reduction of two-thirds of the above rates is allowed if the estate is left to the widow, children, or grandchildren of the testator.

Estates of persons dying on active service in the present war, or as the result of injuries or diseases contracted while on active service, are exempt.

THE COMMONWEALTH ENTERTAINMENTS TAX.

The Entertainments Tax is levied on tickets for admission to almost every class of amusement. The rates are as follow:—Payment for admission not exceeding one shilling, one penny on each ticket; for admission exceeding one shilling, one penny for the first shilling and one half-penny for every extra sixpence or part thereof. Payments not exceeding 3d. for the admission, on Saturday afternoons, of children under 12 years of age are exempt.

WAR-TIME PROFITS TAX.

The Commonwealth War-time Profits Act, 1917, imposes a tax on profits above the pre-war standard, which is taken to be the average profits of any two of the last three pre-war trade years, or 10 per cent. on the capital employed in the business. The rate of tax on war-time profits arising during the year ended 30th June, 1916, was 50 per cent., and in each succeeding year, 75 per cent.

THE LAND REVENUE OF THE STATE.

The receipts from the sale and occupation of Crown lands are treated as public income. Although the proceeds from occupation, being rent, can be reasonably regarded as an item of revenue, the inclusion of the proceeds of auction, conditional purchase, and other classes of sale as ordinary revenue is open to serious objection. It has been urged in justification of this course that the sums so obtained have empowered the Government to construct works, which enhance the value of the remaining public lands and facilitate settlement, and to endow local bodies, thus enabling them to carry out local improvements. Under the Act, passed in 1906, instituting the Public Works Fund, two-thirds of the net proceeds of the sale of Crown lands, less 20 per cent., equivalent to a clear 53½ per cent., are paid into the fund so created.

The revenue derived from lands may be grouped under three main heads—(a) auction sales and other forms of unconditional sale; (b) conditional sales under the system of deferred payments; (c) rents from pastoral, mining, and other classes of occupation. The receipts from each source in 1918 were £65,593, £1,008,893, and £626,425 respectively, while Miscellaneous Receipts amounted to £186,011, making a total of £1,886,922. Refunds amounting to £25,462 were made, leaving a net revenue of £1,861,460.

The land policy of the State, though largely connected with public finance, has been fully discussed in that part of this volume dealing with Land Settlement.

RECEIPTS FOR SERVICES RENDERED.

The net amount collected for services rendered by the State, other than for trading concerns, during the year ended 30th June, 1918, was £406,490. The principal sources of revenue were Pilotage, Harbour and Light Rates, &c., £58,105; Registrar-General, Fees, £81,319; Contributions for the Support of Patients in Mental Hospitals, £48,727; and other Fees of Office, £102,692.

GENERAL MISCELLANEOUS RECEIPTS.

All items which cannot be placed under one of the classes mentioned in the previous pages (Taxation, Land Revenue, and Receipts for Services Rendered) are grouped under the heading of "General Miscellaneous Receipts."

The total in 1918 amounted to £519,016, the principal items being interest on value of properties transferred to the Commonwealth, £184,124; rents, £71,305; interest on advances under Country Towns Water Supply and Sewerage Act, £52,098; and Wharfage and Tonnage Rates, £34,046.

The balance of the revenue received during the year ended 30th June, 1918, consisted of the revenue returned by the Commonwealth, £2,317,783; and interest and contributions from Industrial Undertakings (Act No. 22, 1912), £12,348.

EXPENSES OF GENERAL GOVERNMENT.

The figures given on a previous page regarding the revenue of New South Wales include the amount received on account of the business undertakings of the State—viz., Railways, Tramways, Water Supply and Sewerage, and the Sydney Harbour Trust—and as a consequence of this system the annual cost of maintaining those services is included in the expenditure.

The following statement shows the expenditure classified under two headings—the ordinary expenditure of the General Government, including interest on the capital liability of the services connected therewith, and the expenditure on services practically outside the administration of General Government, including interest on their capital liability. The figures for the ten years ended the 30th June, 1918, and the rates per inhabitant, were as follow:—

Year ended 30th June.	Governmental.			Business Undertakings.				Grand Total Expenditure (Including Advances).
	General Services.	Interest and Redemptions.	Total.	Railways and Tramways.	Water Supply and Sewerage.	Sydney Harbour Trust.	Total.	
	£	£	£	£	£	£	£	£
1909	6,986,290	1,233,849	8,220,139	5,698,801	524,254	283,327	6,506,382	14,726,521
1910	6,046,888	1,228,963	7,275,851	6,131,654	536,669	256,212	6,954,535	14,230,386
1911	5,616,317	1,211,103	6,827,420	6,759,942	576,072	307,253	7,643,267	14,470,687
1912	6,379,242	1,334,136	7,713,378	7,501,224	608,534	314,143	8,423,901	16,137,279
1913	6,589,738	1,401,497	7,991,235	8,520,415	644,347	332,839	9,497,601	17,488,836
1914	6,438,271	1,028,364	7,466,635	9,505,926	725,931	366,698	10,598,555	18,065,190
1915	6,830,162	977,123	7,807,285	9,540,159	785,300	383,435	10,708,894	18,516,179
1916	7,120,558	1,064,273	8,184,831	10,107,149	841,278	420,669	11,369,096	19,553,927
1917	7,551,511	1,011,061	8,562,572	10,794,693	984,803	464,565	12,244,061	20,806,633
1918	7,922,365	1,096,547	9,018,912	10,969,924	1,065,413	499,156	12,534,493	21,553,405

Expenditure per Inhabitant.

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1909	4 9 5	0 15 11	5 5 4	3 13 1	0 6 9	0 3 7	4 3 5	9 8 9
1910	3 15 10	0 15 4	4 11 2	3 16 10	0 6 8	0 3 7	4 7 1	8 18 3
1911	3 8 6	0 14 9	4 3 3	4 2 6	0 7 1	0 3 9	4 13 4	8 16 7
1912	3 15 0	0 15 9	4 10 9	4 8 4	0 7 3	0 3 8	4 19 3	9 10 0
1913	3 14 1	0 15 9	4 9 10	4 15 9	0 7 3	0 3 9	5 6 9	9 16 7
1914	3 10 3	0 11 3	4 1 6	5 3 9	0 7 11	0 4 0	5 15 8	9 17 2
1915	3 13 4	0 10 6	4 3 10	5 2 6	0 8 5	0 4 1	5 15 0	9 18 10
1916	3 16 2	0 11 5	4 7 7	5 8 2	0 9 0	0 4 6	6 1 8	10 9 3
1917	4 1 1	0 10 10	4 11 11	5 15 10	0 10 7	0 5 0	6 11 5	11 3 4
1918	4 3 10	0 11 7	4 15 5	5 16 0	0 11 3	0 5 3	6 12 6	11 7 11

Under the head of general services are included public health, education, police, and all other civil and legal expenditure, also the cost of public works paid out of the ordinary revenue.

TRADING CONCERNS OF THE STATE.

The following table shows the transactions of the State business and industrial undertakings during the year ended 30th June, 1918, and the total capital expenditure at that date.

Service.	Total Capital Expenditure From Loans, Public Works Fund, and Consolidated Revenue to 30th June, 1918.	Revenue, 1918.	Expenditure, 1918.			Net Revenue or Expenditure.
			Working Expenses, including Rates and Taxes.	Interest, Sinking Fund, Depreciation Insurance, and Reserves.	Total.	
Business Undertakings—	£	£	£	£	£	£
Railways and Tramways	89,286,656	10,821,648	7,580,342	3,389,582	10,969,924	(—) 148,276
Sydney Harbour Trust	8,869,033	576,459	151,017	348,139	499,156	77,303
Water Supply & S.—Metropolitan	15,471,749	953,306	348,680	625,770	974,450	(—) 21,144
Do Hunter District	1,267,970	104,822	41,828	49,135	90,963	13,859
Total, Business Undertakings ..	114,895,408	12,456,235	8,121,867	4,412,626	12,534,493	(—) 78,258
Industrial Undertakings—						
Murrumbidgee Irrigation Area ..	4,116,941	225,297	240,442	194,153	434,595	(—) 209,298
Timber Yard, etc.—Uhr's Point	168,057	229,939	230,952	13,460	244,412	(—) 17,473
Trawlers	182,087	46,094	41,036	12,150	53,195	(—) 7,101
Brickworks—Homebush Bay ..	89,627	72,246	60,024	8,302	68,326	3,920
Blue Metal Quarries—Klarna and Port Kembla	93,771	92,681	83,076	10,047	93,123	(—) 442
Power Station—Uhr's Point ..	32,288	4,611	4,434	3,264	7,698	(—) 3,087
Brickworks—Botany	29,816	..	724	2,720	3,453	(—) 3,453
Joinery Works—Rozelle	25,613	..	77	1,127	1,204	(—) 1,204
Monier Pipe Works	18,022	30,156	21,015	5,404	26,419	3,737
Building Construction	13,808	424,764	418,983	1,130	420,163	4,601
State Bakery	17,791	32,687	29,910	1,982	31,892	795
Sawmills—Craven and Gloucester	28,514	29,423	25,869	1,543	27,412	2,011
Lime Works—Taree and Botany	14,361	228	126	1,134	1,260	(—) 1,032
Stone Quarry—Maroubra	13,912	24,931	22,669	1,681	24,350	581
State Clothing Factory	13,216	48,400	47,761	913	48,674	(—) 274
Motor Garage	8,035	22,560	20,343	815	21,158	1,402
Drug Depot	91	20,183	18,745	10	18,755	1,428
Total, Industrial Undertakings ..	4,866,850	1,301,200	1,266,186	259,903	1,526,089	(—) 224,889
Other Services—						
Observatory Hill, Resumed Area —“The Rocks”	1,322,078	65,131	20,347	52,603	72,950	(—) 7,819
Metropolitan Meat Industry ..	1,495,068	277,813	210,586	33,390	243,976	33,837
Dacey Garden Suburb	164,584	11,578	3,061	7,489	10,550	1,028
Total, Other Services	2,981,730	354,522	233,994	93,482	327,476	27,046
Grand Total	£ 122,743,988	14,111,957	9,622,047	4,766,011	14,388,058	(—) 276,101

(—) Denotes net expenditure.

The Newcastle Dockyard does not appear in the above table, as details regarding its operations cannot be obtained.

The capital expenditure, as shown above, includes amounts repaid from profits as follows:—Kiama and Port Kembla blue metal quarries, £10,000; State Brickworks, Homebush, £20,000; State Bakery, £5,000; and Building Construction Branch, £5,000. The joinery works at Rozelle were destroyed by fire in 1914, the Taree lime-kiln has been leased to a private company since January, 1917, while the Botany brickworks failed through over-capitalisation and other causes.

With regard to the Murrumbidgee Irrigation Area, on which a loss of £209,298 is shown for the year, the interest on the capital expenditure is largely responsible for the deficit.

The following table shows the transactions of all the State business undertakings and industrial undertakings during the years 1909-18.

Year ended 30th June.	Capital Expenditure.	Revenue.	Expenditure.			Net Revenue or Expenditure.	Proportion of Net Revenue to Capital Expenditure.
			Working Expenses.	Interest, Sinking Fund, Depreciation, and Reserves.	Total.		
	£	£	£	£	£	£	per cent.
1909	70,688,419	7,046,585	4,160,641	2,401,566	6,562,207	484,378	0.70
1910	73,611,671	7,615,024	4,595,710	2,413,263	7,008,973	606,051	0.84
1911	76,638,228	8,428,818	5,153,728	2,551,760	7,705,488	723,330	0.96
1912	81,150,817	9,194,758	5,800,117	2,974,066	8,774,183	420,575	0.52
1913	87,156,379	9,964,935	6,990,391	3,125,531	10,105,922	(—)140,987	(—)0.16
1914	95,188,549	11,541,295	8,056,766	3,135,475	11,192,241	349,054	0.37
1915	101,265,111	11,861,098	8,128,891	3,429,486	11,558,377	302,721	0.30
1916	112,299,306	12,502,391	8,638,534	3,944,306	12,582,840	(—) 80,449	(—) 0.07
1917	118,735,466	13,382,912	9,461,388	4,449,635	13,911,023	(—)528,111	(—) 0.44
1918	122,743,988	14,111,957	9,622,047	4,766,011	14,388,058	(—)276,101	(—) 0.24

(—) Denotes net expenditure.

TRUST FUNDS AND SPECIAL DEPOSITS.

The Trust Funds and Special Deposits form a very important division of the public finances, not only from the nature of the transactions and the volume of accumulation, but also by reason of the manner in which they are used in conjunction with the general finances of the State. The following table shows the amount of these funds at 30th June in each year of the last decade.

As at 30th June.	Amount.	As at 30th June.	Amount.	As at 30th June.	Amount.
	£		£		£
1909	2,575,757	1913	6,134,067	1916	5,601,471
1910	2,743,156	1914	5,341,000	1917	5,619,703
1911	4,522,915	1915	5,259,710	1918	5,957,608
1912	5,547,741				

The trust funds under the supervision of the State Treasurer are divided into two classes, viz.:—Special Deposits Account and Special Accounts. The total of all moneys under these headings on the 30th June, 1918, was £5,957,608—viz., the Special Deposits Account, £5,533,654, and

the Special Accounts £423,954. The amount at the credit of each account is shown in the following table.

<i>Special Deposits Account.</i>		
	£	£
Government Savings Bank of New South Wales Deposit Account	2,997,514	Treasury Fire Insurance Fund 110,752
Government Savings Bank of New South Wales Advances Deposit Account	320,700	"Sobraon" Fund... .. 10,000
State Debt Commissioners' Deposit Account	104,693	Water and Drainage Loan Redemption Fund 49,791
State Debt Trust Accounts	152,132	Union Trustee Company of Australia, Limited 20,000
Public Works and Railway Construction Stores Advance Account	347,737	Government Dock, Newcastle—Store Advance Account ... 91,596
Fixed Deposits Account	201,101	Unclaimed Salaries and Wages Account 34,090
Industrial Undertakings	168,177	Public Trustee—Unclaimed Balances 43,497
Sundry Deposits Account	491,907	Norton Griffiths and Co.—Store Advance Account 15,089
Municipal Council of Sydney, Sinking Funds	91,821	Treasury Workmen's Compensation Fund 12,588
Government Railways Superannuation Account	11,238	Commonwealth Advance re Settlement of Returned Soldiers 20,000
Housing Fund	13,966	Metropolitan Water and Sewerage Board 12,570
Revenue Suspense Account	9,934	Other Accounts—less than £10,000... .. 18,955
Broken Hill Water Supply Account	145,402	
Forestry Account (Act No. 55 of 1916)	15,934	
Treasury Guarantee Fund	22,470	Total £5,533,654

<i>Special Accounts.</i>		
	£	£
Master-in-Equity Account	81,600	Prothonotary Account 1,777
Master-in-Lunacy Account	12,236	Registrar of Probates' Account 21,224
Public Trustee Account	307,117	Total 423,954

Grand Total, Special Deposits and Special Accounts, £5,957,608.

The existence of a large account upon which the Treasurer is free to operate is of great assistance to the Consolidated Revenue, the Trust Funds and the Special Deposits forming a strong reserve on which the Government may draw in time of need. The great bulk of the funds bear interest, whether invested or not, but the power to use them enables the Government to effect a large saving of the interest which might otherwise be charged for accommodation from the banks.

Of the total sum of £5,957,608 at the credit of the Special Deposits and the Special Accounts on the 30th June, 1918, £115,961 was invested in securities; £4,374,613 was uninvested, but used in Advances and on Public Account at interest; the remainder, £1,467,034, was similarly used, but without an interest charge.

The rate of interest paid on the 30th June, 1918, was 3 per cent., with the following exceptions:—

Crown Leases Security Deposit Account	4 per cent.
Government Savings Bank of N.S.W. Deposit Account	4 and 4½ „
„ „ Advances Deposit Account	4 „
Fixed Deposits Account	1 to 4 „
State Debt Commissioner's Trust Accounts, Municipal Council of Sydney Sinking Fund (50 Vic., No. 13)	4 „
State Debt Commissioners' Deposit Account	4½ „
Master-in-Equity and Master-in-Lunacy Accounts	1 „

On the 30th June, 1918, the trust funds in the custody of the State Treasurer were held as follow:—

In Banks—						£
Special Deposits Account	...	...	...	...	...	5,417,693
Special Accounts ...	...	...	...	...	...	423,954
New South Wales Funded Stock	...	...	...	...	...	22,500
Treasury Bills ...	...	...	...	...	...	41,000
Commonwealth Inscribed Stock	...	...	...	...	...	6,000
Fixed Deposits...	...	...	...	...	...	14,180
Miscellaneous Securities	...	...	...	...	...	32,281
Total ...						£5,957,608

The total amount of interest received by the Treasury during the year ended June, 1918, on bank deposits and other temporary investments of public moneys was £17,036.

LOAN APPROPRIATIONS.

All items of expenditure to be met by loan are authorised under an Appropriation Act, in the same manner as the ordinary expenditure chargeable to the general revenue. There is a restriction on the expenditure of money, whether from loans or from revenue, in the provisions of the Public Works Act. Under that Act the question of constructing all works estimated to cost more than £20,000, except those connected with the maintenance of railways, is referred by resolution of the Legislative Assembly to the Parliamentary Standing Committee appointed during the first session of each parliament. The Committee investigates and reports to the Parliament, and the Assembly declares whether it is expedient to carry out the proposed work. If the declaration be favourable, a Bill based thereon must be passed before the authorisation is absolute.

The loan appropriations, in quinquennial periods since 1875, are shown in the following table, the amounts proposed to be expended on public works being distinguished from those required for the redemption of previous loans.

Period.	Amount appropriated—		
	For Public Works and Services.	For Redemption of Loans.	Total.
	£	£	£
1875-9	10,708,768	...	10,708,768
1880-4	26,457,803	...	26,457,803
1885-9	11,123,394	2,113,800	13,237,194
1890-4	15,927,993	2,910,800	18,838,793
1895-9	13,661,046	2,275,200	15,936,246
1900-4	17,690,893	2,841,612	20,532,505
1905-9	10,509,590	7,480,054	17,989,644
1910-14	22,649,240	2,549,350	25,198,590
1915	7,560,702	...	7,560,702
1916	5,851,480	...	5,851,480
1917	3,992,130	...	3,992,130
1918	3,725,100	...	3,725,100

RAILWAYS LOAN ACCOUNT.

The Railways Loan Account, which was opened under the authority of Act No. 4, 1910, together with subsequent Acts passed in the years 1913 and 1915, increased to £8,000,000 the maximum amount which could be borrowed. This account is applied to meet the cost of duplicating portions of the main trunk lines of railways and deviation works.

The following are the transactions for the year 1917-18:—

Receipts—	£	Expenditure—	£
Balance brought forward from 1916-17	636,258	Duplications—	
Repayment to Votes on Account of Previous Years ...	35,324	Southern Line	324,615
		Western Line	5,153
		Northern Line	1,235
		South Coast Line	101,872
			<u>432,875</u>
		Credit Balance Carried Forward to 1918-19	238,707
	<u>£671,582</u>		<u>£671,582</u>

LOAN ACCOUNTS.

The following figures show the amount of loans raised from the commencement of the Loan Account, in 1853, to the 30th June, 1918, and the proceeds available for expenditure, including the moneys credited to the Railways Loan Account.

Treasury Bills, Debentures, Inscribed and Funded Stock sold to the 30th June, 1918	£214,797,361
Discount, Interest, Bonus, and Charges	13,767,616
Net amount raised	<u>£201,029,745</u>
Less Amount of Proceeds included in Public Debt, but not credited to Loan Accounts	5,107,863
Net amount available for Public Works, etc.	<u>£195,921,882</u>

The foregoing statement shows that a sum of £214,797,361 had been raised by loans to the 30th June, 1918, in connection with which the discount, interest, bonus, and other charges amounted to £13,767,616, leaving £201,029,745 available for expenditure. The effective value of this last-cited amount was reduced by the sum of £5,107,863, and the net amount available for public works, &c., was £195,921,882.

On the 30th June, 1918, an amount of £62,212,668 had been redeemed, of which £9,524,105 was a charge on the Consolidated Revenue, and £152,584,693 was left outstanding at the close of the last financial year. The aggregate amount of interest actually paid by the State on loans to the 30th June, 1918, was £104,371,917, the liability during the last financial year being £6,077,912.

The uses to which the available sum of £195,921,882 was applied are shown in the following table. The sum of £52,688,563 for redemption of loans is

included in the total; this amount was not, of course, an item of expenditure, but its inclusion is necessary to account fully for the total of £196,550,715, in which the original as well as the redemption loans were included.

Expended on—	£	£
Reproductive Works:—		
Railways... ..	79,553,656	
Tramways	8,927,003	
Water Supply	11,541,975	
Sewerage... ..	8,140,730	
Sydney Harbour Trust	8,437,517	
Darling Harbour Wharves Resumptions	1,310,139	
Industrial Undertakings	610,399	
Partly Productive Works:—		118,521,419
Conservation of Water, Artesian Boring, etc.	5,263,070	
Harbours and Rivers—Navigation	6,037,046	
Roads, Bridges, and Punts	1,821,457	
Housing Fund	180,300	
		13,321,873
Public Buildings and Sites	7,438,990	
Immigration	569,930	
Public Works in Queensland Prior to Separation	49,855	
Commonwealth Services—		8,058,775
Construction of Telegraph and Telephone Lines	1,297,582	
Post and Telegraph Offices	464,262	
Fortifications and Defence Works	1,457,536	
Lighthouses	144,288	
Customs Buildings	48,880	
Quarantine Buildings	18,099	
Government Dockyard—Cockatoo Island	502,988	
Naval Victualling Stores—Darling Harbour	26,450	
		3,960,085
Redemptions:—		£143,862,152
Loans repaid under various Acts, etc.	25,283,663	
Treasury Bills for Loan Services repaid	27,404,900	
		52,688,563
		£196,550,715
Add Credit Balance of Railways Loan Account		238,707
		£196,789,422
Less Debit Balance, General Loan Account		867,540
Total		£195,921,882

The sum actually expended from loans on public services was, therefore, £143,862,152, the balance to make up the total of £196,550,715 being represented by redemptions. An analysis of the foregoing shows that the proportional allocation of the items of loan expenditure was as follows:—Reproductive works, 83 per cent.; partly productive works, 9 per cent.; other, 6 per cent.; Commonwealth services, 2 per cent.

The loan expenditure on account of the various services during each of the past five years is shown herewith.

Head of Service.	1914.	1915.	1916.	1917.	1918.
	£	£	£	£	£
Railways	4,903,328	4,394,318	4,787,669	3,706,422	2,294,547
Tramways... ..	811,636	296,590	195,963	136,387	117,561
Water Supply	606,521	621,021	760,693	731,211	691,006
Sewerage	428,133	381,695	389,593	348,918	257,030
Water Conservation and Irrigation	907,843	365,544	385,078	355,420	239,776
Harbours, Wharves, and Docks	856,468	684,363	1,045,741	1,021,444	451,644
Rivers	3,443	...	8,593	10,697	452

Head of Service.	1914.	1915.	1916.	1917.	1918.
	£	£	£	£	£
Dredges, Tugs, Punts, etc. ...	3,016	1,296	957	5,058	3,765
Roads and Bridges ...	23,703	8,609	421	5,428	22,374
Public Works, Buildings, etc.—					
Educational ...	10,830	16,905	8,792	...	...
Public Instruction, School Buildings, etc. ...	228,397	...	...	...	...
Public Abattoirs, Homebush	82,480	315,510	201,669	249,435	152,882
Other... ..	17,075	83,824	35,279	72,074	67,561
Pastures Protection Boards, for					
Wire-netting ...	2,318	...	...	...	...
Clearing Crown Lands and Preparing Farms ...	...	...	...	...	12,154
Grain Elevator and Bulk Wheat Handling ...	...	...	...	...	40,797
Promotion of Agriculture, Clearing Land for Wheat-growing, etc. ...	...	48,188	28,956	60,008	7,506
Industrial Undertakings, including Housing Fund ...	241,653	115,613	81,229	87,606	65,864
Shires and Municipalities, for Works ...	...	17,310	...	...	...
Advances to Settlers, for Wheat-growing ...	...	6,026	48,683	...	...
Advances to Settlers, as Financial Assistance ...	...	...	12,446	...	...
Site of Horse-breeding Farm ...	...	...	53,389	1,956	2,504
Returned Soldiers' Settlement, etc. ...	...	...	...	85,324	230,654
Advances in Connection with Agreement with Norton Griffiths & Co., including Stores, etc. ...	...	...	141,175	38,893	...
Mines—Great Cobar, Ltd.—Certificates taken up by Government ...	...	...	40,000	...	...
Gross Expenditure...	9,126,844	7,356,817	8,226,326	6,916,281	4,658,077
Less Excess Repayments to Credit of Votes—					
Rivers ...	...	433	...	...	...
Public Instruction—School Buildings ...	...	21,103	17,532	25,158	25,000
Closer Settlement ...	...	300,000	...	...	...
Pastures Protection Boards, for Wire-netting ...	...	174	5,733	3,918	2,452
Public Works Fund—Amount recouped ...	...	39,000	19,500	19,500	19,500
Shires and Municipalities, for Works ...	...	...	10,457	1,322	7,364
Advances to Settlers—Wheat-growing ...	...	...	...	2,747	2,384
Advances to Settlers—Financial Aid ...	...	...	...	1,457	2,107
Advances in connection with Norton Griffiths & Co. ...	...	...	...	...	71,759
Mines—Great Cobar, Ltd.—Certificates taken up by Government ...	...	...	...	...	40,000
Total Excess Repayments	...	360,710	53,222	54,102	170,566
Net Expenditure on Public Works, etc. ...	£ 9,126,844	6,996,107	8,173,104	6,862,179	4,487,511
Loans repaid by New Loans (including Treasury Bills) ...	757,772	8,864,654	2,814,025	1,467,083	10,767
Total ...	£ 9,884,616	15,860,761	10,987,129	8,329,262	4,498,278

It will be seen that the bulk of the proceeds of loans has been judiciously utilised, as most of the works are of a self-supporting character, and have materially assisted in developing the State's resources, enhancing largely the value of the public estate.

The loan expenditure, exclusive of payments on account of redemptions, conversions, and renewals, is shown herewith for 1842-1890, in decennial periods from 1891 to 1910, and from 1911 to 1918.

Year.	During Each Period.		At the End of Each Period.	
	Amount.	Per Inhabitant.	Amount.	Per Inhabitant
	£	£ s. d.	£	£ s. d.
1842-1890	.....	.....	43,955,551	39 3 7
1891-1900	20,515,704	16 6 8	64,471,255	47 12 1
1901-1910	26,876,468	18 0 4	91,347,723	56 11 11
1911-1918	52,514,429	28 8 0	143,862,152	75 7 6

The difference between the actual loan expenditure as shown in the previous table, and the public debt as stated below, is due to the fact that the outstanding debt represents the gross amount sold, and the expenditure is the net amount credited to loan accounts after deducting discount and expenses of flotation, and allowing for credit or debit balances.

PUBLIC DEBT.

The public debt outstanding at the end of each quinquennial period and at the close of the financial year 1917-18 is given in the following table.

Year.	Amount.	Year.	Amount.	Year.	Amount.
	£		£		£
1842	49,500	1870	9,681,130	1900	65,332,993
1845	97,900	1875	11,470,637	1905	82,321,998
1850	132,500	1880	14,903,919	1910	92,525,095
1855	1,000,800	1885	35,564,259	1915	127,735,405
1860	3,830,230	1890	48,383,333	1918	152,584,693
1865	5,749,630	1895	58,220,933		

The following table shows the position of the public debt as at 30th June, 1909, and annually thereafter. The amount for 30th June, 1918, includes £10,076,000 floated in February, 1918, being part of the loan of £12,648,477 for redemptions due 1st September, 1918.

As at 30th June.	Authorised to date.	Raised.	Redeemed.			Public Debt on 30th June.	
			From Consolidated Revenue and Sinking Fund.	From General Loan Account, including Renewals.	Total.	Total.	Per Inhabitant.
	£	£	£	£	£	£	£ s. d.
1909	140,192,315	126,241,736	7,725,887	28,208,430	35,934,317	90,307,419	57 6 7
1910	146,305,227	132,465,258	8,231,066	31,709,097	39,940,163	92,525,095	57 6 6
1911	153,188,227	138,797,372	8,475,887	34,797,559	43,273,446	95,523,926	57 9 9
1912	159,512,197	143,602,006	8,775,887	34,833,484	43,609,371	100,052,635	57 10 9
1913	169,186,717	154,464,714	9,519,705	38,774,262	48,293,967	106,170,747	58 13 9
1914	183,018,817	165,746,770	9,519,705	39,532,034	49,051,739	116,695,031	62 16 9
1915	207,445,569	185,651,798	9,519,705	48,396,688	57,916,393	127,735,405	68 7 8
1916	220,603,887	191,244,436	9,519,705	51,210,713	60,730,418	130,514,018	69 19 8
1917	228,636,874	200,340,248	9,524,105	52,677,796	62,201,901	138,138,347	73 19 5
1918	245,493,790	214,797,361	9,524,105	52,688,563	62,212,668	152,584,693	80 13 5

In former years the State Government depended largely upon the London money market for the flotation of its loans, but during recent times and until the outbreak of the Great War in August, 1914, the requirements were met to a much greater extent locally, as will be seen from the following statement, which shows the public debt on each register for quinquennial periods from 1900 to 1915, and for the year 1918. Stocks may be transferred at any time from London to Sydney.

Year Ended 30th June.	Registered in London.		Registered in Sydney.		Total Public Debt.
	Amount.	Proportion to Total Debt.	Amount.	Proportion to Total Debt.	
	£	per cent.	£	per cent.	£
1900	55,060,650	84.28	10,272,343	15.72	65,332,993
1905	64,007,550	77.75	18,314,448	22.25	82,321,998
1910	67,154,805	72.58	25,370,290	27.42	92,525,095
1915	86,167,288	67.46	41,568,117	32.54	127,735,405
1918	105,648,569	69.24	46,936,124	30.76	152,584,693

From the foregoing figures it will be noted that the amount of liabilities held locally at the close of the financial year 1917-18 amounted to somewhat less than one-third of the total indebtedness.

The following table shows the annual payments under each head for interest and expenses of the public debt since 1909.

Year ended 30th June.	Interest.	Re-demptions.	Expenses Connected With Management of Inscribed Stock.	Commission Paid to Financial Agents in England and New South Wales.	Total Interest and Charges paid.		Average Rate of Interest Payable on Debt.
					Total.	Per Inhabitant.	
	£	£	£	£	£	£ s. d.	per cent.
1909	3,039,539	478,791	20,501	3,046	3,541,877	2 4 10	3.47
1910	3,117,472	421,034	18,894	4,621	3,562,021	2 4 4	3.51
1911	3,227,315	409,349	19,095	4,159	3,659,918	2 4 8	3.52
1912	3,430,096	436,921	19,088	2,918	3,889,023	2 5 11	3.46
1913	3,516,233	450,602	19,990	1,511	3,988,336	2 4 10	3.54
1914	3,881,011	5,632	21,171	1,039	3,908,853	2 2 8	3.49
1915	4,125,600	5,688	21,394	1,492	4,154,174	2 4 7	3.60
1916	4,552,765	6,504	21,705	2,117	4,583,091	2 9 2	3.71
1917	4,914,211	6,868	22,297	1,991	4,945,367	2 13 1	3.81
1918	5,188,754	6,819	22,746	1,988	5,220,307	2 15 2	3.98

The public debt is partly funded and partly unfunded, the former comprising debentures and inscribed and funded stocks; and Treasury bills constituting the latter. The amounts outstanding, and the annual interest payable on the 30th June, 1918, were as follow:—

Description of Stock.	Amount Outstanding, 30th June, 1918.	Annual Interest Payable.
Debentures—	£	£
Matured	3,550	...
Still Bearing Interest	13,421,700	614,996
Stock—		
Matured	3,100	...
N. S. W. 4 per cents.	530,189	21,208
„ 1924 Stock	198,065	5,942
„ 1925 „	222,255	6,668
Inscribed and Funded Stock	126,565,939	4,927,457
Total, Funded Debt... ..	£140,944,798	£5,576,271
Treasury Bills—		
For Public Works	9,641,433	410,676
Renewals	1,998,462	90,065
Total, Unfunded Debt	£11,639,895	£501,641
Total, Public Debt	£152,584,693	£6,077,912

The following table shows the total amount outstanding at each rate of interest, and the annual interest payable thereon.

Interest—Per cent.	Amount of Stock and Bills.	Annual Interest payable.
	£	£
5½	13,076,000	751,870
5½	3,000,000	165,000
5¼	2,695,400	141,508
5	5,366,300	268,272
4½	12,030,162	541,357
4½	7,400,000	305,250
4	28,149,340	1,125,742
3¾	13,514,098	506,779
3½	50,306,321	1,760,722
3	17,047,072	511,412
Total	£152,584,693	£6,077,912

The total debt shown in the foregoing table includes £6,650 not now bearing interest, viz.:—£850 floated at 5 per cent. and £5,800 at 4 per cent. It must also be stated that the rate given for the £7,400,000 outstanding, viz., 4½ per cent., is approximate only, as it has not been definitely fixed.

DATES OF MATURITY.

The dates of repayment extend from 1917 to 1962, and the sums falling due for redemption vary considerably, as detailed in the following table, which shows the due dates and the amount repayable in London and in Sydney.

Due Date.	Registered in—		Total.
	London.	Sydney.	
Overdue	£ 2,750	£ 3,900	£ 6,650
1917 ... ..	...	616,667	616,667
1918	12,648,478	6,961,055	19,609,533
*1919 ... ..	...	11,670,569	11,670,569
1920	1,723,200	4,009,920	5,733,120
1921	276,800	5,449,043	5,725,843
†1922	6,900,000	218,200	7,118,200
‡1923	1,999,300	6,075,182	8,074,482
1924	16,432,545	265,520	16,698,065
1925 ... ..	...	311,799	311,799
1926 ... ..	...	415,000	415,000
§1927	8,000,000	2,748,417	10,748,417
1928 ... ..	...	36,000	36,000
¶1932	10,074,000	2,000	10,076,000
1933	9,547,131	139,169	9,686,300
1935	15,474,165	25,835	15,500,000
|| 1950	12,069,000	181,000	12,250,000
**1962	10,500,000	...	10,500,000
Interminable	1,200	531,690	532,890
††Indefinite ... ..	...	7,275,158	7,275,158
Total	£ 105,648,569	46,936,124	152,584,693

* Includes £120,050 redeemable on or after 4th April, 1910, at option of Government, on giving twelve months' notice. † Redeemable after 15th August, 1920, on Government giving three months' notice. ‡ Includes £1,900,000 redeemable whole, or in part, on or after 1st July, 1921, at Government option, on giving three months' notice. § Includes £8,000,000 redeemable after 1st July, 1922, in whole or in part, on Government giving three months' notice. ¶ Redeemable after 1st July, 1922, on Government giving six months' notice. || Redeemable after 1st July, 1930, on Government giving six months' notice. ** Redeemable after 1st July, 1842, on Government giving six months' notice. †† Minimum date expired—redeemable at option of Government, on giving twelve months' notice.

THE COST OF RAISING LOANS.

The charges incidental to the issue of loans in London are heavy. Operations are conducted by the Bank of England and by the London and Westminster Bank. The former charges $\frac{1}{2}$ per cent. per £100 of stock on all loan

issues, and £350 per million annually for the inscription and management of stock, including the payment of the half-yearly dividends; and the latter charges $\frac{1}{2}$ per cent. and £150 per million respectively for similar services. In Sydney the Bank of New South Wales and the Commercial Banking Company of Sydney (Limited) transact all Government banking business. The former acts as the financial agent for the State in Victoria, and also undertakes the payment of the half-yearly dividends on local debentures and funded stock. The Treasury directly conducts the operations connected with the issue of New South Wales funded stock and Treasury bills, and no local loan has been underwritten.

The following statement shows the charges for the negotiation of loans floated during the period from 1909-10 to 1917-18, inclusive of the accrued interest and bonuses allowed to investors. Treasury bills have not been included in the subjoined statement, because those disposed of at the Treasury, Sydney, are usually sold at par, and little expenditure, if any, is involved, while the bills negotiated in London are generally for short periods pending the flotation of long-dated loans.

Year 'when Floated.	Amount of Principal.	Gross Proceeds.	Charges, etc.					Expenses per £100 of Gross Proceeds.
			Stamp Duty, Postage, and other Expenses.	Bank Commis- sion.	Paid to Investors— Interest Bonus and Discount Bonus.	Broker- age, Under- writing, Postage, and Petty Expenses.	Total.	
	£	£	£	£	£	£	£	£ s. d.
Issued (in London) as Debentures.								
1913	4,500,000	4,425,000	5,625	11,250	4,360	68,743	89,978	2 0 8
1915	*7,000,000	6,965,000	23,310	17,500	9,015	106,553	156,378	2 4 11
1917	2,500,000	2,500,000	3,095	6,250	14,389	38,650	62,384	2 9 11
1918	*3,000,000	2,985,000	14,985	7,500	....	52,503	74,988	2 10 3
Issued (in Sydney) as Funded Stock.								
1910	3,473,523	3,473,523	Nil			4,927	4,927	0 2 10
1911	6,332,113	6,332,113				6,811	6,811	0 2 2
1912	2,864,634	2,864,634				2,327	2,327	0 1 8
1913	2,552,709	2,552,709				4,622	4,622	0 3 7
1914	532,056	532,056				1,300	1,300	0 4 11
1917	1,770,154	1,770,154				2,110	2,110	0 4 8
1918	979,313	979,313				....	....	---
Issued (in London) as Inscribed Stock.								
1910	2,750,000	2,667,500	17,137	6,875	22,154	42,131	88,347	3 6 3
1913	3,000,000	2,985,000	18,750	7,500	9,334	46,220	81,804	2 14 10
1914	7,500,000	7,312,500	46,875	18,750	55,473	115,270	236,368	3 3 1

* Floated as Debentures, but portion subsequently converted into Stock.

The Sydney sales take place at the Treasury on the basis of £100 cash for every £100 of stock, and a commission of $\frac{1}{2}$ per cent. is allowed when a broker is engaged. The average cost of negotiation for all issues since 1905 did not exceed 3s. 1d. per cent., whilst the charges for London loans, with the additional $1\frac{1}{4}$ per cent. for underwriting, averaged £1 16s. 3d. for debentures and £3 5s. 9d. for inscribed stock.

STOCK QUOTATIONS, 1917-18.

The average market prices of stock in London and Sydney are shown in the following table for each month of the year 1917-18. Where blanks appear quotations have not been recorded. The London figures are taken from the *Economist*, and the Sydney quotations from the *Sydney Stock and Share List*.

Date.	London—Average Market Price.						Sydney—Average Market Price.				
	5½ per cent. Stock.	5 per cent. Stock.	4½ per cent. Stock.	4 per cent. Stock.	3½ per cent. Stock.	3 per cent. Stock.	4½ per cent. Stock.	4 per cent. Stock.	3½ per cent. Stock.	3½ per cent. Stock.	3 per cent. Stock.
1917.	£	£	£	No Quotations			£	£	£	£	£
July	90				92	*	94½	92	*
August	90½				*	92½	97	93	59
September	90½				92	92½	96½	92	60
October	90½				*	93	*	93	*
November	90½				*	93¼	93½	93½	*
December	90½				*	*	97½	91½	61½
1918.				No Quotations							
January	89				*	*	96½	92	60½
February	90				98	94½	*	*	*
March	92				98½	*	*	90	59½
April	92				98½	94½	*	93	59½
May	91				98½	94	97½	90	58½
June	93½				*	93½	97½	90	60

* No quotations.

REDEMPTIONS AND SINKING FUNDS.

Under the provisions of the State Debt and Sinking Fund Act, 1904, a board called the "State Debt Commissioners" was constituted, the members of which were the Treasurer, the Chief Justice, the Speaker of the Legislative Assembly, and the Under Secretary for Finance and Trade, to administer, from the 1st July, 1905, various trust accounts and balances at credit of certain special accounts in connection with the Treasury Bills Deficiency Acts of 1895, 1900, and 1901, the Railway Loan Redemption Act of 1899, and the sinking funds created by various loan Acts passed from 1894 to 1899. That Act provided for a general sinking fund, and an annual appropriation of £350,000 was paid to the credit of the fund, together with such further amount as Parliament had to provide. Under the Treasury Bills Deficiency Act, 1905, an additional £50,000 was required to be transferred to the fund whenever the operations of a financial year left a sufficiently large surplus to enable this to be done. The Commissioners applied the amount at the credit of the fund in purchasing, redeeming, or paying-off Government stock, debentures, or Treasury bills; and they were empowered to invest the moneys under the Act. The State Debt and Sinking Fund (Amendment) Act, 1914, provided that where at the close of a year there was a deficiency on the Consolidated Revenue Account the

Commissioners should repay any amount, not being greater than such deficiency, which had been issued from the fund to the Commissioners during the year. Since the Act was passed the amount has been paid to the Commissioners each year and has been returned to the Treasury.

The transactions under the Act for the financial year ended the 30th June, 1918, were as follow:—

RECEIPTS.						£
Annual Contribution from Consolidated Revenue Fund	...	...	...	...	...	350,000
Repayments—						
Country Towns Water Supply	...	...	...	...	...	5,449
Country Towns Sewerage	...	...	...	...	...	1,934
Closer Settlement under Crown Lands Act of 1895	...	...	...	...	...	6,819
Interest on Funded Stock	...	...	...	...	...	13,169
Interest on Deposit with Colonial Treasurer	...	...	...	...	...	3,163
						<hr/> 380,534
Balance brought forward from 1916-17	...	...	...	...	...	463,629
						<hr/> £844,163
EXPENDITURE.						
Repayments—						
Annual contributions from Consolidated Revenue Fund	(in terms of section 2 of State Debt and Sinking Fund Amendment Act, 1914)					350,000
Balance carried forward—						£
Invested in N.S.W. Funded Stock	...	...	...	...	...	389,406
On Deposit with Colonial Treasurer	...	...	...	...	...	104,693
On Account Current	...	...	...	...	...	64
						<hr/> 494,163
Total	...	...	...	...	...	£844,163

CHARACTER OF STOCK ISSUED.

As previously stated, loans have been raised by Treasury bills, debentures, and stock. The amount of Treasury bills current on the 30th June, 1918, was £9,641,433 for public works, and £1,998,462 for renewals, making a total of £11,639,895, the whole of which will be redeemed at the close of 1921.

The issue of funded or registered stock is regulated by four Acts passed in the years 1873, 1892, 1894, and 1895. The amount issued under the Act of 1873 (£530,189) is interminable, but that issued under the more recent Acts may be repaid before the final due dates at the option of the Government, on the Treasurer giving from three to twelve months' notice of his intention to redeem.

SECURITY FOR THE PUBLIC DEBT.

On the 30th June, 1918, the liabilities of the State were as follow:—
 Debentures, £13,425,250; Inscribed and Funded Stock, £127,519,548;
 Treasury Bills, £11,639,895; total Public Debt, £152,584,693.

This amount might reasonably be lessened by the sum of £1,831,045 shown herewith, representing expenditure to be repaid in annual instalments of principal and interest by the parties benefited.

	£
Country Towns Water Supply	1,288,036
Country Towns Sewerage and Drainage	389,695
Water and Drainage Trusts	115,724
Other Advances	37,590
Total	<hr/> £1,831,045

There is also the property transferred to the Federal Government, on which interest is paid by the Commonwealth at $3\frac{1}{2}$ per cent. per annum. The value of this property is £3,960,085, on which a sum of £184,124 was received by the State as interest in 1917-18. The total amount of the public debt might therefore be reduced by about £5,791,130.

EXPENDITURE BY THE STATE ON IMMIGRATION.

The following statement shows the amounts spent towards promoting immigration and advertising the resources of the State during the period extending from 1832 to 1918, both years inclusive.

Period.	Amount.	Period.	Amount.	Period.	Amount.
	£		£		£
1832-50	1,192,193	1903	...	1911	32,786
1851-60	1,261,255	1904	...	1912	59,186
1861-70	278,980	1905	...	1913	69,656
1871-80	395,536	1906	1,226	1914	33,158
1881-90	533,849	1907	8,079	1915	24,501
1891-1900	14,200	1908	13,184	1916	13,571
1901	...	1909	22,436	1917	3,690
1902	245	1910	26,815	1918	1,367

It should be noted that the amounts expended from revenue and loans cannot be stated separately, as in the earlier years the proceeds of loans were credited to Consolidated Revenue, and part of the immigration expenses was defrayed from "Territorial Revenue," which constituted a distinct account.

As a method of promoting immigration, the Commonwealth Government spends sums of money in advertising the attractions of Australia generally.

Further particulars relating to the encouragement of immigration may be found in the part of this Year Book dealing with Employment and Industrial Arbitration.

FINANCIAL RELATIONS BETWEEN THE STATES AND THE COMMONWEALTH.

One of the most difficult problems to be solved in formulating a Constitution for the Commonwealth of Australia was the determination of the relative shares of the Commonwealth and States respectively in the proceeds of taxation from customs and excise. Each of the two governing powers was invested with authority to levy direct taxation, consequently no difficulty arose in this respect, but the power to impose tariffs through customs and excise duties was vested in the Commonwealth Parliament. Hence it became necessary to decide some proportion of the revenue derivable from these sources of indirect taxation which should constitute by legal right the share of the States *qua* States in these imposts. In the issue of this Year Book for 1913 the financial relations between the States and the Commonwealth were discussed fully, and a statement presented showing the degree to which the customs and excise taxation served to fulfil Commonwealth requirements. Information was given also regarding the relative magnitude of the functions of the State and of the Commonwealth Governments.

MANUFACTURING INDUSTRY.

In 1895 the first measure of legislative regulation dealing with the Manufacturing Industry was initiated in New South Wales, namely, the Factories and Shops Act, 1896, which required the registration and inspection of factories and the inspection of shops, so as to secure the maximum advantage to the workers in the matter of safety to health and life. This Act, the Minimum Wage Act, 1908, and the Factories and Shops (Amendment) Act, 1909, have been consolidated in the Factories and Shops Act, 1912.

For purposes of the Act, any place is a factory in which four or more persons are engaged, directly or indirectly, in working at any handicraft, or in preparing or manufacturing articles for trade or sale, also laundries and dyeworks, but not any place in which the persons so working are members of a single family, and in which steam or other mechanical power is not used. Any place is a factory in which even one Chinaman is engaged, directly or indirectly, in working at any handicraft, or in preparing or manufacturing articles for trade or sale. The definition includes also any place in which steam or other mechanical power or appliance is used in manufacturing or packing for transit, or in the generation of electricity, water or other power.

Each employer is required to make returns showing the wages and piece-work rates paid to all employees, whether engaged within or outside the factory, and to keep records of employees, their ages, etc. The provisions of the Act are applicable to the whole State.

The following statement exhibits the development of the manufacturing industry in New South Wales from 1871 at decennial intervals, and for the six years, 1912-18. The figures are for the calendar year down to 1913, and for years ended the 30th June thenceforward, statistics for the first six months of the year 1914 not having been collected.

Year.	Manufacturing Establishments.	Persons Employed in Factories, including Working Proprietors.				
		Males.	Females.	Total.	Per Factory.	Per cent. of Population.
1871	1,813	...	...	13,583	7.5	2.7
1881	2,961	28,819	2,372	31,191	10.5	4.1
1891	3,656	43,203	7,676	50,879	16.6	4.5
1901	3,369	54,556	11,674	66,230	19.7	4.8
1911	5,039	82,083	26,541	108,624	21.6	6.5
1912	5,162	88,178	27,383	115,561	22.4	6.6
1913	5,346	93,036	27,364	120,400	22.5	6.6
1915	5,269	90,409	26,202	116,611	22.1	6.5
1916	5,210	87,724	28,677	116,401	22.3	6.2
1917	5,356	88,910	29,087	117,997	22.0	6.3
1918	5,414	90,025	30,529	120,554	22.3	6.4

In considering statistics relating to the manufacturing industry, it should be remembered that prior to the Census Act of 1891 there was no measure in force within the State which made it imperative for proprietors of manufacturing works to supply the Statistician with annual returns.

EXPANSION OF INDUSTRIES.

The growth of manufacturing industries in New South Wales since the Federation year of 1901 is shown in the following table:—

Year.	Capital Invested in Land, Buildings, and Fixtures.	Value of Plant, Machinery, Tools, Implements, etc.	Amount Paid in Salaries and Wages.	Cost of Motive Power, including Fuel.	Value of Materials Used.	Value of Goods manufactured inclusive of Work Performed.
	£	£	£	£	£	£
1901	7,838,628	5,860,725	4,952,000	496,715	15,140,896	25,648,471
1906	*	8,407,337	5,591,888	602,998	22,102,685	34,796,169
1911	13,140,207	12,510,600	10,047,662	1,242,613	33,670,951	54,346,011
1912	14,395,026	13,795,195	11,592,052	1,360,141	37,122,441	61,163,328
1913	15,405,018	14,861,676	12,683,384	1,371,425	40,537,476	65,672,495
1914-15	16,843,698	16,866,982	12,667,721	1,364,186	42,559,370	68,253,332
1915-16	17,770,517	18,211,104	13,413,845	1,528,220	44,227,079	70,989,864
1916-17	18,920,057	20,364,122	14,381,309	1,766,664	57,044,667	85,944,320
1917-18	20,533,171	21,739,739	14,701,255	2,060,076	64,718,726	96,178,191
Increase per cent. 1901 to 1918.	161·9	270·9	196·9	314·7	327·4	274·9

*Not available.

The figures in the first column represent the values stated by the occupiers in cases where they owned the properties, plus the rent paid for properties not owned by the occupiers capitalised at fifteen years purchase.

The figures representing goods manufactured or work done include the value of production of butter and cheese factories, which is included also in the records of the Dairying Industry in another part of this volume.

During the last ten years additional plant and machinery, valued at £12,020,897, have been introduced; salaries and wages have increased by nearly 104 per cent., and output by nearly 140 per cent. Comparing the figures for 1917-18 with those of the other years shown, continued and general expansion is apparent, though the total increase is rather in the form of an augmentation of values than in volume of output.

MANUFACTORIES IN NEW SOUTH WALES.

The following table is a summary of the important facts relating to the manufactories of New South Wales in 1901, 1911, and 1917-18.

Particulars.				1901.	1911.	1917-18.
Number of Establishments...	...	...	...	3,369	5,039	5,414
Number of Employees	{	Male	...	54,556	82,083	90,025
		Female	...	11,674	26,541	30,529
		Total	...	66,230	108,624	120,554
†Salaries and Wages paid to Employees.	{	Male	...	£ *	8,917,583	12,848,017
		Female	...	£ *	1,130,079	1,853,238
		Total	...	£ 4,952,000	10,047,662	14,701,255
Capital invested in Land, Buildings, and Fixtures	...	...	...	£ 7,838,628	13,140,207	20,533,171
Value of Plant and Machinery	...	...	...	£ 5,860,725	12,510,600	21,739,739
Value of Materials and Fuel used...	...	...	...	£ 15,637,611	34,913,564	66,778,802
Value added to Raw Materials in process of Manufacture	...	...	...	£ 10,010,860	19,432,447	29,399,389
Total Value of Output	...	...	...	£ 25,648,471	54,346,011	96,178,191
Average per Factory--						
Employees	...	...	No.	19.7	21.6	22.3
Land and Buildings	...	...	£	2,327	2,607	3,791
Plant and Machinery	...	...	£	1,740	2,482	4,014
Material and Fuel	...	...	£	4,642	6,928	12,330
Value added in process of Manufacture	...	...	£	2,972	3,856	5,512
Total Output	...	...	£	7,613	10,784	17,764
Average per Employee—						
Time Worked	...	...	months	11.32	11.55	11.47
†Salaries and Wages	{	Male	...	£ *	114	149
		Female	...	£ *	43	61
		Total	...	£ 81	96	126
Value of Materials and Fuel	...	...	£	236	321	554
Value added in Manufacture	...	...	£	153	179	247
Total Output	...	...	£	387	500	798

* Information not available. † Excluding drawings of working proprietors.

The figures of the foregoing statement show that the number of establishments has increased by nearly 61 per cent., and the number of employees by over 82 per cent. In 1901 the capital invested in land, buildings, fixtures, plant and machinery amounted to £13,699,353, and in 1917-18 it had increased to £42,272,910, or by over 208 per cent. The value of the output was nearly 275 per cent. higher than in 1901. Side by side with this development the amount paid in wages had increased by nearly 197 per cent., and that expended on materials and fuel by over 327 per cent.

ESTABLISHMENTS.

The following table shows since the year 1901 the distribution of manufacturing and works throughout New South Wales as between the metropolitan district and the remainder of the State, together with the number of establishments in which machinery was installed.

Year.	Metropolitan District.			Remainder of State.			New South Wales.		
	With Machinery.	Without Machinery.	Total.	With Machinery.	Without Machinery.	Total.	With Machinery.	Without Machinery.	Total.
1901	756	661	1,417	1,215	737	1,952	1,971	1,398	3,369
1906	1,136	635	1,771	1,360	730	2,090	2,496	1,365	3,861
1911	1,793	717	2,510	1,757	772	2,529	3,550	1,489	5,039
1912	1,964	686	2,650	1,811	701	2,512	3,775	1,387	5,162
1913	2,093	658	2,751	1,881	714	2,595	3,974	1,372	5,346
1914-5	2,154	709	2,863	1,832	573	2,405	3,987	1,282	5,269
1915-6	2,250	565	2,815	1,827	568	2,395	4,077	1,133	5,210
1916-7	2,416	589	3,005	1,856	495	2,351	4,272	1,084	5,356
1917-8	2,545	540	3,085	1,899	430	2,329	4,444	970	5,414

Shipping facilities and an incomparable harbour have made Sydney the chief manufacturing centre of the State, though in some industries, notably ship-building and the manufacturing of steel, Newcastle may in the future prove an important rival. The establishment of the Government dockyard at the latter seaport, and the erection of the works of the Broken Hill Company, already presage great industrial expansion in the northern city. But, from the foundation of New South Wales, the metropolis has been the supreme seat of manufacturing industries in the State, a supremacy which, as may readily be seen by the foregoing table, the accomplishment of Federation did not interrupt or diminish. In the earliest days of the Colony's history, Sydney, as the first place of settlement, was of necessity the sole manufacturing town in the territory. In 1901, after more than a century of colonization, the metropolitan area contained over 42 per cent. of the manufacturing establishments in the State; in 1918, this proportion had increased to over 57 per cent.

The country manufacturing industries are mainly occupied with the direct handling of primary products, and include sawmills, butter factories, creameries, bacon-curing establishments, brickworks, flour mills, sugar mills, and freezing plants in connection with the rabbit trade. Lithgow is the site of the Commonwealth small arms and ammunition works, besides a great iron and steel foundry. At Portland a cement manufactory is established. Fellmongery and boiling down are carried on near Sydney, but chiefly outside the metropolitan area. Bricks and tiles are made in the vicinity of suitable clayfields, mainly in the coastal counties of Cumberland, Northumberland, and Camden. Smelting works and the treatment of mineral ores are conducted at Broken Hill. Cokeworks are operated in the neighbourhood of the southern coalfields, and sugar mills on the northern rivers. Almost every town of importance possesses a printing plant, and a factory for the manufacture of aerated waters.

In the metropolitan area factories for the clothing and textile fabric industries head the list, followed in order by those treating metals and machinery; books, paper, and printing; food and drink; furniture, bedding, and upholstery; wood; vehicles and saddlery; stone, clay, and glass; raw materials; and drugs, chemicals, and by-products. In the remainder of the State the industries in order of precedence are food and drink; working in wood; clothing and textile fabrics; vehicles and saddlery; metals and machinery; stone, clay, and glass; raw materials; and heat, light, and power.

THE SIZE OF ESTABLISHMENTS.

The following statement shows the distribution of establishments according to the number of persons engaged in the metropolitan district and in the remainder of New South Wales, at intervals since the year 1901.

Establishments employing—	1901.		1911.		1913.		1917-18.	
	Establishments.	*Em- ployees.	Establishments.	*Em- ployees.	Establishments.	*Em- ployees.	Establishments.	*Em- ployees.
METROPOLITAN DISTRICT.								
Under 4 employees	79	188	238	547	302	678	403	890
4 employees ...	105	420	179	716	190	760	224	896
5 to 10 employees	429	3,036	743	5,336	809	5,800	950	6,626
11 to 20 „ ...	335	4,939	520	7,834	570	8,423	587	8,658
21 to 50 „ ...	279	8,564	477	14,695	527	16,593	565	17,859
51 to 100 „ ...	108	7,518	202	14,360	193	13,678	203	14,193
101 and upwards...	82	17,750	151	34,144	160	40,331	153	38,897
Total ...	1,417	42,415	2,510	77,632	2,751	86,263	3,085	88,019
REMAINDER OF STATE.								
Under 4 employees	439	1,094	538	1,282	569	1,347	599	1,376
4 employees ..	256	1,024	371	1,484	367	1,468	283	1,132
5 to 10 employees	768	5,333	993	6,817	1,010	6,920	840	5,715
11 to 20 „ ...	294	4,236	381	5,390	381	5,457	354	5,044
21 to 50 „ ...	142	4,612	164	4,874	175	5,219	164	5,063
51 to 100 „ ...	30	2,086	40	2,858	47	3,311	40	2,937
101 and upwards...	23	5,430	42	8,327	46	10,415	49	11,268
Total ...	1,952	23,815	2,529	31,032	2,595	34,137	2,329	32,535
NEW SOUTH WALES.								
Under 4 employees	518	1,282	776	1,829	871	2,025	1,002	2,266
4 employees ...	361	1,444	550	2,200	557	2,228	507	2,028
5 to 10 employees	1,197	8,369	1,736	12,153	1,819	12,720	1,790	12,341
11 to 20 „ ...	629	9,175	901	13,224	951	13,880	941	13,702
21 to 50 „ ...	421	13,176	641	19,569	702	21,812	729	22,922
51 to 100 „ ...	138	9,604	242	17,218	240	16,989	243	17,136
101 and upwards..	105	23,150	193	42,471	206	50,746	202	50,165
Total ...	3,369	66,230	5,039	108,664	5,346	120,400	5,414	120,554

* Including working proprietors.

A comparison showing the relative position of each group of establishments is presented in the following statement.

Establishments employing—	Proportion of each Group to Total.							
	Metropolitan District.				Remainder of State.			
	1901.		1911.		1913.		1917-18.	
	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.
Under 4 employees ...	5.6	9.5	11.0	13.1	22.5	21.3	22.0	25.7
4 employees ...	7.4	7.1	6.9	7.2	13.1	14.7	14.1	12.2
5 to 10 employees ...	30.3	29.6	29.4	30.8	39.3	39.2	38.9	36.1
11 to 20 „ ...	23.6	20.7	20.7	19.0	15.1	15.1	14.7	15.2
21 to 50 „ ...	19.7	19.0	19.2	18.3	7.3	6.5	6.7	7.0
51 to 100 „ ...	7.6	8.1	7.0	6.6	1.5	1.6	1.8	1.7
101 and upwards ...	5.8	6.0	5.8	5.0	1.2	1.6	1.8	2.1
Total ...	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

From the foregoing table it will be seen that establishments employing 10 hands or less represent 50 per cent. of the total number.

The proportion of the largest type of factory is, in districts outside the metropolitan area, increasing slightly, but not in the metropolitan district. The tendency is towards an increase of small workshops and factories, and a gradual decline in the proportion of larger establishments.

During the period extending from 1913 to 1917-18 the number of establishments in New South Wales increased by about 1·3 per cent., and the number of employees by a little over 0·1 per cent. The four intervening years, 1914-17, were occupied by the great war, when there was a large withdrawal of male labour from industrial life, and the number of persons employed in manufactories and works fell below that of 1913. The distribution of establishments according to capacity of employment did not, however, vary greatly throughout the period; but there was a marked tendency of increased capacity of employment in establishments operating with 101 workers and upwards.

With regard to employment generally, the factories of the metropolitan district are more important than those of all other areas, not only on account of the amount of capital invested and the volume of their output, but also because they provide employment for nearly three times the number of persons. The average number of employees per establishment in the metropolitan district in 1917-18 was 28·5, as compared with 14·0 in the country.

CLASSIFICATION OF MANUFACTORIES.

The manufacturing industries have been arranged for purposes of reference and comparison into nineteen classes, in accordance with a standard classification adopted at a Conference of Statisticians.

The term "establishment" includes branches which, whether conducted in separate buildings or not, deal with separate branches of industry, and are therefore counted as separate industrial entities.

The returns of manufacturing industry relate to establishments employing four, or more than four, persons engaged directly or indirectly in working at certain handicrafts, or in preparing or manufacturing articles for trade or sale; and to establishments employing less than four persons, where machinery, operated by steam, gas, electric, water, wind, or horse power, is used.

With the exception of tanneries, of bacon, butter, cheese, and soap and candle factories, of brickyards, of quarries, and of gas and lime works, of which it is necessary to ascertain the production in order to calculate the total output, establishments operating with manual labour only, and with fewer than four workers, are not included. If two or more Chinamen are employed, however, the place is considered to be a factory.

The foregoing definition, based on the number of workers, applies uniformly to all other industries, and includes within its limitation all tailoring, bootmaking, dressmaking and millinery establishments. The definition does not, however, cover shops engaged only in retail trade and in the distribution or in the importation of goods. Nor does it apply to bakeries, butcheries in which sausages and smallgoods are made, laundries, monumental masonry yards, and waterworks.

With the exception of blacksmiths' and wheelwrights' shops, the definition covers the establishments in which workers are engaged in repairing or assembling manufactured parts of an article.

In cases where a manufacturing business is conducted in conjunction with an importing or a retail business, reference is made to the manufacturing section only; and persons employed in the importing or retail branch of the business are not included. In cases also where construction (including repairs to the factory buildings or machinery) is in progress, particulars

connected therewith are excluded from statistics relating to the establishments in which other specific industries are conducted. But in cases where two or more industries are being conducted, as in large establishments, returns are furnished for each industry; and where power from the same generating plant is used for more than one industry, it is proportionately distributed, as far as possible. If generated on the premises, electric light and power are treated as an independent industry.

The value of production includes that of manufactures executed in educational, charitable, and reformatory, or in other public institutions, excluding penitentiaries. Power and lighting plants are in all cases recorded.

CAPITAL INVESTED IN PREMISES.

With regard to capital invested in manufacturing industries, full particulars are not available, as the amount employed as working capital cannot be ascertained. Where the land, buildings, and fixtures in use for manufacturing purposes are the property of the occupier the capital value is recorded; where they are not the property of the occupier the rental value is recorded.

The following statement shows the extent to which, since 1901, the capital value and the rental value of premises have increased, also the advance in the value of plant and machinery installed.

Year.	Premises.			Value of Machinery, Tools, and Plant.
	Capital Value when occupier is owner.	Value of Rented Premises, based on the rent paid, capitalised at 15 years' purchase.	Total Capital Value.	
	£	£	£	£
1901	4,969,698	2,868,930	7,838,628	5,860,725
1906	*	*	*	8,407,337
1911	8,126,487	5,013,720	13,140,207	12,510,600
1912	8,833,266	5,561,760	14,395,026	13,795,195
1913	9,598,713	5,806,305	15,405,018	14,861,676
1914-15	10,916,283	5,927,415	16,843,698	16,866,982
1915-16	11,892,032	5,878,485	17,770,517	18,211,104
1916-17	12,239,807	6,680,250	18,920,057	20,364,122
1917-18	13,524,481	7,008,690	20,533,171	21,739,739
Percentage increases, 1901-1918 ...	172.14	144.29	161.95	270.94

*Not available.

The foregoing figures show an increasing tendency towards industrial ownership of the land and premises devoted to manufacturing activities—a tendency which is held in check within metropolitan boundaries proper by the rapidly increasing values of real estate, which compels enterprise to seek less costly foothold in the more distant suburbs, and even in extra metropolitan areas. The great advance, particularly during the last four years, in the value of machinery, tools, and plant does not necessarily imply any extraordinary increased employment of mechanical utilities. It is due

mainly to the almost total cessation of oversea shipping, or to its diversion to the needs of wartime. These conditions forced up freight-charges and greatly inflated values, especially of machinery, tools, and mechanical plant generally, a very inconsiderable portion of which is made in the State. With a return to more normal conditions the advance may be expected to assume less disproportionate dimensions as compared with the other factors in manufacturing production.

MOTIVE POWER.

The power used for driving machinery in factories is derived to a very considerable extent from steam; in some instances, chiefly in the metropolitan district, gas is employed. Other agencies are used only to a limited extent; and, although there are electric engines of considerable voltage, they are employed mainly for lighting and tramway purposes, and the generation of their power usually depends upon some other class of engine.

The following table shows the distribution of motive power through the various agencies of steam, gas, electricity (generated by steam-power), water and oil, expressed in units of horse-power, for the first and second quinquennial period and succeeding years since Federation.

Year.	Establishments using Machinery.	Horse-power of Machinery (Average used).					Total ex-Electricity.
		Steam.	Gas.	Electricity.	Water.	Oil.	
1901	1,971	42,555	1,577	330	97	36	44,265
1906	2,496	70,192	4,212	8,989	75	277	74,756
1911	3,550	113,939	12,201	20,671	222	1,185	127,547
1912	3,775	130,479	16,028	26,652	273	1,181	147,961
1913	3,974	141,025	13,802	35,885	307	1,478	156,612
1914-15	3,987	158,718	14,552	50,179	283	1,885	175,438
1915-16	4,085	177,162	13,926	58,075	319	1,689	193,096
1916-17	4,272	159,712	13,312	61,702	274	1,830	175,128
1917-18	4,444	175,232	14,110	67,719	248	1,795	191,385

During the seventeen years under review the potential horse-power of the machinery in the State increased from 57,335 to 406,746; or, exclusive of electric or secondarily-produced power, from 56,669 to 295,949. The development of electrical power is characteristic of the period, the full capacity of machinery so equipped advancing from 666 h.-p. in 1901, to 110,797 h.-p. in 1917-18. In all statements of the comparative horse-power of machinery it is, however, advisable to eliminate the electrical agency, as it is a reproduced or transmitted force originating from some other primal source, in New South Wales predominantly steam-power, though in other countries water-power is a highly important factor.

The actual average motive force employed in operating machinery, exclusive of electricity, amounted in all the factories of the State, in 1901, to 44,265 horse-power; and in 1917-18 to 191,385 horse-power, which reveals an increase of over 332 per cent. during the seventeen years' period. The fluctuations in the last three years indicate the effects of the great strike which practically held up all manufacturing industries during the second half of the year 1917. The strike resulted in diminished services and economic reconstruction, which have their reflex in the statistics for 1917-18, as shown in the foregoing statement.

Exclusive of electrical power the proportion of average motive force used in operating machinery to potential motive-force was about 78 per cent. in 1901, and about 65 per cent. in 1917-18; but the average margin varied from year to year. Broadly speaking, the motive power of machinery is capable of supplying a fourth more energy than that ordinarily operated.

The distribution of the various kinds of power, together with the value of fuel used and the cost of power rented, among the different classes of industries in 1917-18 was as follows:—

Class of Industry.	Horse-power of Machinery in use.										Value of Fuel Consumed, including Motive Power rented.
	Full Capacity.					Used on the average.					
	Steam.	Gas.	Electricity.	Water.	Oil.	Steam.	Gas.	Electricity.	Water.	Oil.	
Treating Raw Material: Product of											£
Pastoral Pursuits, etc.	4,011	800	4,150	14	121	3,119	531	3,416	9	80	64,709
Oils and Fats: Animal, Vegetable. .	1,018	11	639	..	..	730	10	546	..	..	44,870
Processes in Stone, Clay, Glass, etc.	10,502	1,608	9,059	150	143	6,023	1,053	6,062	150	121	247,142
Working in Wood	13,894	1,012	8,789	32	112	10,536	722	5,962	23	87	32,273
Metal Works, Machinery, etc. . . .	41,697	2,445	47,863	5	334	26,796	1,845	25,324	4	193	646,792
Connected with Food, Drink, etc. . .	21,772	5,390	11,533	35	363	15,208	4,020	8,435	25	226	326,212
Clothing, Textile Fabrics, and											
Materials	1,962	1,193	4,092	..	10	1,661	999	3,689	..	8	54,529
Books, Paper, Printing, etc.	1,901	1,032	5,687	3	223	1,867	713	4,164	2	155	44,780
Musical Instruments, etc.	1	70	348	..	..	1	70	333	..	..	1,100
Arms and Explosives	672	..	1,041	..	..	351	..	427	..	..	3,650
Vehicles and Fittings, Saddlery, etc.	511	770	1,443	..	257	352	523	955	..	164	17,672
Ship and Boat Building, etc. . . .	2,801	52	6,532	..	8	2,136	45	1,584	..	8	15,430
Furniture, Bedding, and Upholstery	239	420	2,516	..	25	126	265	2,105	..	13	12,967
Drugs, Chemicals, and By-Products	202	292	2,890	..	10	149	210	2,070	..	10	21,819
Surgical and other Scientific Instru-											
ments . . . . .	..	5	38	..	..	..	2	35	..	..	239
Jewellery, Timepieces, and Plated											
Ware . . . . .	..	38	283	..	..	..	26	232	..	..	1,975
Heat, Light, and Power	172,360	4,478	3,012	40	910	105,320	2,932	1,659	35	727	515,536
Leatherware, N.E.I.	10	96	169	..	..	6	79	138	..	..	1,537
Minor Wares, N.E.I.	291	94	713	..	4	251	65	583	..	3	6,844
Total	273,344	19,806	110,797	279	2,520	175,232	14,110	67,719	248	1,795	2,060,076

SALARIES AND WAGES.

The figures representing salaries and wages, as stated throughout this chapter, are exclusive of amounts drawn by working proprietors.

The salaries and wages paid to employees in manufactories and works amounted in 1917-18 to £14,701,255, male workers receiving £12,848,017, or £148 18s. 8d. per head, and female workers £1,853,238, or £61 5s. 6d. per head.

A comparison of the total amount of salaries and wages paid since 1901 is shown below, together with the average amount received and the average time worked per employee.

Year.	Salaries and Wages (exclusive of drawings by Working Proprietors).				Average time worked per Employee.
	Total.	Average per Employee.			
		Male.	Female.	Total.	
	£	£ s. d.	£ s. d.	£ s. d.	months.
1901	4,952,000	*	*	81 0 0	11·32
1906	5,591,888	*	*	77 9 7	11·45
1911	10,051,161	114 4 5	43 2 1	96 8 0	11·55
1912	11,592,052	122 10 4	48 7 9	104 8 10	11·59
1913	12,683,384	127 15 4	50 5 10	109 13 2	11·62
1914-15	12,667,721	130 19 3	52 18 10	112 18 11	11·46
1915-16	13,413,845	141 9 1	53 14 6	119 5 11	11·50
1916-17	14,381,309	149 6 11	57 9 10	126 3 3	11·55
1917-18	14,701,255	148 18 8	61 5 6	126 3 7	11·47

* Not available

In 1901, the year of Federation, the general average amounted to £81 per worker; in 1906 it had fallen to the extent of £3 10s. 5d.; but since 1907 it has increased steadily, although its normal rate of progression received a temporary check in 1917, and the advance on the preceding twelve months amounted only to 4d.

In 1917-18 the largest amount of wages was paid in the class metal works and machinery, namely, £3,985,818, out of a total of £14,701,255; next in order were the classes clothing and textiles, food and drinks, and books and printing. But it is to be noted that whilst the class listed under food and drink gained an increase of wages amounting to £247,264, and that under clothing and textiles an increase amounting to £92,831, the class metal works and machinery suffered a loss in wages amounting to £253,228, and books and printing a loss in wages amounting to £6,301. Herein, among other factors, may be seen the influence of the strike, operating incidentally with war problems, involving shortages of mechanical appliances and printing paper.

The amounts paid in each class of industry during the years 1913, 1916-17, and 1917-18 were as follow:—

Class of Industry.	Salaries and Wages (exclusive of drawings by Working Proprietors).					
	Total Amount.			Average amount per employee.		
	1913.	1916-17.	1917-18.	1913.	1916-17.	1917-18.
	£	£	£	£ s. d.	£ s. d.	£ s. d.
Treating Raw Material, etc.	370,943	456,731	482,855	100 7 3	132 11 7	128 3 7
Oils, Fats, etc.	82,325	150,175	169 178	91 17 7	216 13 9	121 14 2
Stone, Clay, Glass, etc.	754,291	698,512	738,796	119 14 7	130 2 3	125 14 9
Working in Wood	979,464	856,466	937,607	113 13 7	129 18 11	136 6 0
Metal Works, Machinery, etc.	3,676,626	4,239,046	3,985,818	135 12 7	159 1 0	154 15 8
Connected with Food, Drink, etc.	1,568,297	1,849,812	2,697,106	106 9 0	122 9 0	127 6 11
Clothing, Textile Fabrics, etc.	1,840,414	2,052,531	2,145,362	71 13 8	81 2 9	84 0 7
Books, Paper, Printing, etc.	1,099,656	1,181,368	1,175,067	115 10 8	129 7 4	128 5 11
Musical Instruments, etc.	50,618	58,873	65,466	127 16 5	139 16 10	154 8 0
Arms and Explosives	48,424	233,492	227,093	129 9 6	177 5 5	191 0 0
Vehicles and Fittings, Saddlery, etc.	450,123	462,983	492,075	110 12 5	124 11 2	128 2 11
Ship and Boat building, etc.	464,912	674,056	560,358	140 6 7	161 18 4	155 12 3
Furniture, Bedding, and Upholstery, etc.	425,477	392,566	441,687	112 19 3	115 17 5	125 12 5
Drugs, Chemicals and By-products	132,363	196,135	238,733	100 13 2	169 18 10	109 9 2
Surgical and other Scientific Instruments	11,170	17,336	18,965	131 18 3	130 6 11	126 8 8
Jewellery, Time-pieces and Plated Ware.	93,784	89,171	97,782	123 1 6	136 2 9	140 17 11
Heat, Light, and Power	492,510	586,526	611,466	139 8 10	161 8 11	155 6 3
Leatherware, N.E.L.	49,190	57,703	68,507	99 15 6	99 16 8	98 11 5
Minor Wares, N.E.L.	92,947	151,797	152,336	86 14 1	100 0 0	101 7 1
Total	12,653,384	14,881,369	14,701,255	109 13 2	126 3 3	126 3 7

The increase in the average amount paid per employee has been general throughout every class of industry except those dealing with surgical instruments and leatherware. The high increase in the class arms and explosives is the result of the establishment of the Commonwealth Small Arms Factory, where highly skilled labour is engaged, and is not general throughout the industry. For reasons sufficiently indicated some classes of workers experienced a diminution in the amount of wages drawn in 1917-18.

The average amount per employee is lowest in the class clothing and textiles, where women and juveniles are largely in excess of adult male workers, in leatherware, in minor wares, in drugs and chemicals, in furniture and bedding, and in establishments treating oils and fats. The important classes of industry most affected by the employment of females were those related to clothing, the manufacture of textile fabrics, food and drink, printing, binding, paper-making, and box-making. Female employment in association with the majority of other manufacturing industries was mainly of a clerical nature.

The following comparison shows the average earning per employee of each sex in 1913, in 1916-17, and in 1917-18. During the period shown in the table the general average for male employees has increased by £21 3s. 4d., or 16·5 per cent., and for females by £10 19s. 8d., or nearly 22 per cent.; but no allowance has been made for intermittent employment, skilled or unskilled labour, or other important factors affecting the comparison.

Class of Industry.	Average Annual Amount of Salaries and Wages per Employee, excluding Working Proprietors.					
	Males.			Females.		
	1913.	1916-17.	1917-18.	1913.	1916-17.	1917-18.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Treating Raw Material: Product of Pastoral Pursuits, etc.	101 15 3	134 13 10	130 5 6	51 12 0	62 12 8	61 2 7
Oils and Fats: Animal, Vegetable.	104 12 1	132 16 7	138 19 3	48 8 11	57 0 0	57 2 0
Processes in Stone, Clay, Glass, etc.	120 8 6	131 6 3	126 10 2	43 10 11	57 18 6	74 11 9
Working in Wood	114 2 7	130 13 5	137 4 3	60 3 11	79 15 11	79 13 8
Metal Works, Machinery, etc.	136 6 0	160 11 7	156 18 0	57 2 5	72 17 1	62 11 8
Connected with Food, Drink, etc.	125 2 8	147 1 7	154 2 5	48 0 0	55 13 7	60 17 1
Clothing, Textile Fabrics, etc.	126 2 1	149 11 11	148 6 3	51 0 7	57 4 6	61 15 0
Books, Paper, Printing, etc.	141 2 9	156 17 4	158 4 7	47 4 7	58 18 5	61 0 2
Musical Instruments, etc.	126 8 3	150 4 0	165 17 9	49 4 1	59 3 4	64 8 9
Arms and Explosives	131 13 0	177 12 7	191 1 0	50 6 0	55 10 0	130 0 0
Vehicles and Fittings, Saddlery etc.	111 9 5	126 15 2	130 18 4	64 1 11	72 4 8	67 10 3
Ship and Boat Building, etc.	140 6 10	162 7 11	155 18 1	100 0 0	62 12 0	85 12 0
Furniture, Bedding, and Upholstery	121 11 10	127 3 9	138 15 9	43 1 2	54 8 3	61 0 1
Drugs, Chemicals, and By-Products	137 17 2	151 19 0	149 4 5	47 15 3	52 19 10	51 0 8
Surgical and other Scientific Instruments	149 9 7	159 9 8	140 7 8	64 3 4	62 12 0	94 17 10
Jewellery, Timepieces, and Plated Ware.	130 3 5	146 14 8	154 1 10	68 0 11	69 12 8	67 11 1
Heat, Light, and Power	140 16 1	162 4 0	156 16 5	60 12 8	70 10 8	52 10 2
Leather, N.E.I.	113 2 1	121 12 4	129 1 3	52 3 4	53 3 8	46 18 6
Minor Industries, N.E.I.	101 13 1	121 6 1	118 1 10	48 15 4	59 4 5	63 12 10
Total	127 15 4	149 6 11	148 18 8	50 5 10	57 9 10	61 5 6

Available information indicates that the average time worked in all industries, 11·47 months, was lower than in 1913 and 1916-17; and that the proportion of employees under 16 years of age was 3 per cent. of males and 10 per cent. of females in 1916-17, as compared with less than 3 per cent. of males and 8·5 per cent. of females in 1917-18.

The following are the index levels of the average annual amount of wages paid to the total number of employees in manufactories and works during the years 1908-18.

Wages in 1911=1,000.

Class of Industry.	1908.	1909.	1910.	1911.	1912.	1913.	1914-15.	1915-16.	1916-17.	1917-18.
Treating Raw Material, etc.	838	846	962	1,000	969	1,113	1,201	1,322	1,470	1,421
Oils, Fats: Animal, Vegetable.	1,030	1,029	1,042	1,000	1,100	1,173	1,328	1,409	1,489	1,553
Processes in Stone, Clay, Glass, etc.	868	922	883	1,000	1,104	1,080	1,164	1,198	1,174	1,135
Working in Wood	901	931	947	1,000	1,107	1,168	1,214	1,245	1,334	1,369
Metal Works, Machinery, etc.	919	932	962	1,000	1,083	1,114	1,075	1,213	1,306	1,271
Connected with Food, Drink, etc.	842	897	957	1,000	1,037	1,113	1,198	1,211	1,281	1,332
Clothing, Textile Fabrics, etc.	880	869	923	1,000	1,053	1,125	1,168	1,183	1,271	1,316
Books, Paper, Printing, etc.	880	957	981	1,000	1,103	1,153	1,221	1,230	1,291	1,280
Musical Instruments, etc.	838	912	932	1,000	1,055	1,107	1,124	1,188	1,211	1,337
Arms and Explosives	1,114	1,242	729	1,000	1,910	1,905	1,725	2,844	2,608	2,810
Vehicles and Fittings, Saddlery, etc.	909	981	1,078	1,000	1,217	1,262	1,344	1,404	1,422	1,463
Ship and Boat Building, etc.	976	986	887	1,000	1,069	1,099	1,124	1,272	1,268	1,218
Furniture, Bedding, and Upholstery	781	883	887	1,000	1,035	1,071	1,070	1,120	1,088	1,180
Drugs, Chemicals, and By-products	870	899	908	1,000	1,064	1,149	1,111	1,169	1,252	1,247
Surgical and other Scientific Instruments	789	1,000	951	1,000	1,119	1,399	1,237	1,368	1,383	1,341
Jewellery, Time-pieces and Plated Ware	874	893	902	1,000	1,068	1,161	1,266	1,310	1,284	1,329
Heat, Light, and Power	933	916	978	1,000	1,092	1,042	1,065	1,072	1,206	1,160
Leatherware, N.E.I.	823	851	878	1,000	1,167	1,188	1,103	1,216	1,189	1,174
Minor Wares, N.E.I.	863	943	942	1,000	1,104	1,183	1,228	1,286	1,364	1,383
Mean of all Industries	879	906	943	1,000	1,085	1,138	1,172	1,238	1,309	1,369

The wages in each class in the above table are called 1,000 in 1911; therefore, the index levels can be compared only horizontally, not vertically.

The table shows that wages in all industries were higher in the year 1916-17 than in 1911, also that with but two exceptions, namely, in Class XV surgical and other scientific instruments and Class XVIII leatherware, the wages further advanced between 1913 and 1916-17. In 1917-18, however, whilst the wage level advanced in some manufacturing industries it diminished in others, the trades experiencing decreases in the order named being ship and boat building, the treatment of raw materials, heat, light, and power, surgical instruments, stone, clay and glass, metal works and machinery, leatherware, books and printing, and drugs and chemicals. This was partly due to unemployment resulting from the strike of 1917, and partly to the difficulty of obtaining from oversea materials indispensable to manufacture, which occasioned a restriction in the output of certain classes of goods.

VALUE OF PRODUCTION FROM MANUFACTORIES.

In a previous table giving the value of production from manufactories, returns from establishments dealing with milk products were included.

The value of goods manufactured or of work accomplished in 1917-18, excluding the production of establishments dealing with milk products, amounted to £90,779,134. Of this amount, £61,762,380 represents the cost of materials used and fuel consumed, the value added by processes of treatment, inclusive of salaries and wages, being £29,016,754.

The following table shows the proportion of each item combined in the process of production to the total output.

Heading.	Industries connected with Milk Products.	Other Industries.	All Industries.	Proportion of Total Output.
	£	£	£	per cent.
Materials	4,978,705	59,740,021	64,718,726	67·0
Fuel, including Motive Power rented ...	37,717	2,022,359	2,060,076	2·1
Salaries and wages... ..	164,944	14,536,311	14,701,255	15·2
Total	5,181,366	76,298,691	81,480,057	84·3
Goods manufactured or work done ...	5,399,057	90,779,134	96,178,191	...
Balance which accrued to Proprietors for general purposes and as profit.	217,691	14,480,443	14,698,134	15·7

The difference between the value of output and the cost of materials, fuel, and wages, as shown, represents the balance accruing to proprietors and manufacturers. Under the heading of fuel is included the cost of rented power, but waste-product used for fuel, as in saw-mills, is for the purposes of these tables regarded as valueless.

Thus, out of every hundred pounds' worth of goods produced in manufactories, the materials used and the fuel consumed in the manufacture thereof cost £69 2s., while the workers received £15 4s., and the proprietors £15 14s. There are, of course, numerous other items of expense, and the proprietors' share does not represent actual profits. A considerable amount must be allowed for depreciation and renewal of plant and machinery, etc., insurance, rent, advertising, rates, taxes (other than duty or income tax), and a sum to cover the interest on invested capital. After deducting from the total value of output the sums represented by these items, all of which are not necessarily incidental to every kind of manufacturing industry, the net balance remains as the actually accruing reward of the investment of capital represented by the individual enterprise. Many persons who work in their own establishments as managing directors, as foremen, or even as skilled artisans and supervising accountants, draw salaries; but the money

thus earned by them is included in necessary working expenses, and must not be regarded as profit on capital invested.

The following table shows, in each class of industry, the value of goods manufactured or of work done, the amount paid in wages and salaries, the cost of materials used and of fuel consumed, and the proportionate value of manufactured goods represented by these various charges on production.

Class of Industry.	Goods Manufactured, or work done.	Materials used.	Fuel consumed, including motive power rented.	Salaries and Wages.	Proportionate Value of Manufactured Goods represented by—			
					Materials used.	Fuel, etc.	Salaries and Wages.	Balance.
	£	£	£	£	per cent.	per cent.	per cent.	per cent.
Treating Raw Material, Pastoral Products	9,473,367	7,869,944	64,709	432,855	82·4	0·7	5·1	11·8
Oils and Fats, etc. .. .	2,838,273	2,092,309	44,870	169,178	72·5	1·6	5·9	20·0
Processes in Stone, Clay, Glass, etc. .. .	1,951,841	530,213	247,142	733,796	27·2	12·7	37·6	22·5
Working in Wood .. .	4,044,341	2,508,794	32,273	937,607	62·0	0·8	23·2	14·0
Metal Works, Machinery, etc. .. .	23,416,570	15,018,690	646,792	3,985,313	64·1	2·8	17·0	16·1
Connected with Food and Drink, etc. .. .	30,698,691	25,135,986	326,212	2,097,106	81·9	1·0	6·8	10·3
Clothing and Textile Fabrics, etc. .. .	8,303,314	4,791,686	54,529	2,145,362	57·7	0·7	25·8	15·8
Books, Paper, Printing, etc. .. .	3,959,322	1,336,026	44,780	1,175,067	46·4	1·2	29·6	22·8
Musical Instruments, etc. .. .	208,293	98,766	1,100	65,466	47·4	0·5	31·5	20·6
Arms and Explosives .. .	372,342	145,976	3,650	227,096	39·2	1·0	60·9	(—)1·1
Vehicles, Fittings, and Saddlery, etc. .. .	1,267,346	532,205	17,672	492,075	42·0	1·4	38·8	17·8
Ship and Boat Building, etc. .. .	967,571	335,228	15,430	560,358	34·7	1·6	57·9	5·8
Furniture, Bedding, and Upholstery .. .	1,375,264	721,000	12,967	441,687	52·4	1·0	32·1	14·5
Drugs, Chemicals, and By-products .. .	2,412,794	1,450,744	21,819	238,733	60·1	1·0	9·8	29·1
Surgical and other Scientific Instruments .. .	59,723	18,692	239	18,965	31·3	0·4	31·8	36·5
Jewellery, Timepieces, and Plated Ware .. .	261,468	124,396	1,975	97,782	47·6	0·8	37·4	14·2
Heat, Light, and Power .. .	3,527,382	941,404	515,536	611,466	26·7	14·6	17·3	41·4
Leatherware, N.E.L. .. .	384,632	255,495	1,537	68,507	66·4	0·4	17·8	15·4
Minor Wares, N.E.L. .. .	610,657	371,178	6,544	152,336	60·8	1·1	24·9	13·2
Total .. .	96,173,191	64,718,726	2,060,076	14,701,255	67·0	2·1	15·2	15·7

* Exclusive of drawings of working proprietors.

It is interesting to note the extent to which the value of materials is enhanced by the processes of treatment. For all industries materials were 67 per cent. of the value of the output, but there was great diversity amongst the various classes, the proportion ranging from 26·7 per cent. in those industries providing heat, light and power, to over 82 per cent. in those treating the raw material of pastoral and agricultural products. These variations can be understood readily when the wide difference between the operations of the industries is considered, and the value of the plant and machinery employed is taken into account. The extensive use of plant alone is not, however, a factor in the creation of high values, this being the result of the extensive use also of machinery, and the industries dealing with food and those engaged in shipbuilding may be cited as examples. In the former class materials represent over 81 per cent. and wages only 6·7 per cent. of the total value, while in the latter class the wages amount to considerably more than one and a half times the value of materials used, and represent nearly 58 per cent. of the total cost. It must be noted that in ship and boat building and repairing a very large proportion of the work consists of repairs and renovations in which the cost of materials is much less than in the manufacture of commodities, and owing to the nature of the employment little machinery is brought into requisition.

When compared with the statistics of the preceding year, the detailed table reveals some interesting re-adjustments in proportionate expenditure.

In the manufacturing industry as a whole, the balance for profit and expenses has advanced nearly 1 per cent. But though the cost of the materials used has increased by 0·6 per cent., and the cost of the fuel consumed and the motive power rented has remained proportionately the same, the proportional amount expended on salaries and wages has decreased by 1·5 per cent.

The following table shows the proportion per cent. which the cost of wages and materials, including fuel, bears to the total output of manufactories and works since the year 1901.

Year.	Wages.	Materials and Fuel.	Balance for Profit and Expenses.	Total
1901	19·3	61·0	19·7	100·0
1906	16·1	65·8	18·1	100·0
1911	18·6	64·2	17·2	100·0
1912	18·9	62·9	18·2	100·0
1913	19·3	63·8	16·9	100·0
1914-15	18·6	64·3	17·1	100·0
1915-16	18·9	64·5	16·6	100·0
1916-17	16·7	68·5	14·8	100·0
1917-18	15·2	69·1	15·7	100·0

The following statement shows the progress of manufactories, inclusive of those connected with milk products, the value of production, and the amount paid in wages during the same period.

Year.	Value of—					Salaries and Wages paid, exclusive of drawings of Working Proprietors.
	Materials Used.	Fuel consumed, including Motive Power rented.	Goods manufactured, or work done.	Production, being Value added to Raw Materials.	Production per head of Population.	
	£	£	£	£	£ s. d.	£
1901	15,140,896	496,715	25,648,471	10,010,860	7 6 3	4,952,000
1906	22,102,685	699,998	31,796,169	12,033,486	8 2 10	5,591,888
1911	33,670,951	1,242,613	54,346,011	19,432,447	11 13 6	10,047,662
1912	37,122,441	1,363,141	61,163,328	22,680,746	13 0 11	11,592,052
1913	40,537,476	1,371,425	65,672,495	23,763,594	13 2 8	12,683,384
1914-15	42,559,370	1,364,186	68,253,332	24,329,776	13 1 3	12,667,721
1915-16	44,227,079	1,528,220	70,989,864	25,234,565	13 10 4	13,413,845
1916-17	57,044,667	1,766,664	85,944,320	27,132,989	14 11 0	14,381,309
1917-18	64,718,726	2,060,076	96,178,191	29,399,389	15 10 11	14,701,255

The production per head of population has increased by £8 4s. 8d., or 113 per cent., since 1901, and the value is now the largest from all industries.

The following table shows the cost of materials (including fuel) per individual engaged in manufacturing, under each class of industry, for the five years 1913-18.

Class of Industry.	1913.	1914-15.	1915-16.	1916-17.	1917-18.
	£	£	£	£	£
Treating Raw Material, etc. ...	1153.19	1281.88	1460.83	1776.11	1982.04
Oils, Fats, etc. ...	814.84	875.77	932.88	1208.36	1521.12
Processes in Stone, Clay, Glass, etc. ...	82.85	90.73	114.78	121.59	128.70
Working in Wood ...	258.89	259.27	284.77	315.19	342.92
Metal Works, Machinery, etc. ...	367.85	293.49	371.55	514.74	598.19
Connected with Food, Drink, etc. ...	1058.72	1292.43	1206.32	1503.26	1507.89
Clothing, Textile Fabrics, etc. ...	112.68	130.02	149.31	169.26	183.58
Books, Paper, Printing, etc. ...	100.93	109.80	131.94	165.16	196.69
Musical Instruments, etc. ...	168.71	170.08	182.43	235.09	230.64
Arms and Explosives... ..	*318.14	*163.78	*124.53	*162.04	*137.83
Vehicles and Fittings, Saddlery, etc. ...	106.90	104.76	113.79	112.19	127.91
Ship and Boat Building, etc. ...	67.12	56.41	64.39	92.64	96.89
Furniture, Bedding, and Upholstery ...	153.65	154.50	162.90	177.00	195.20
Drugs, Chemicals, and By-products ...	413.63	481.94	549.54	553.67	666.32
Surgical and Scientific Instruments ...	88.19	54.94	63.95	115.37	116.86
Jewellery, Timepieces, and Plated Ware... ..	170.72	159.53	152.72	160.44	173.59
Heat, Light, and Power ...	234.97	257.63	255.49	322.04	365.69
Leatherware, N.E.I. ...	291.13	286.21	301.56	363.36	355.81
Minor Wares, N.E.I. ...	187.91	187.09	222.94	233.08	239.10
Totals	348.90	373.64	396.61	503.57	558.13

*Excluding Commonwealth Small Arms Factory.

The foregoing table shows a general increase per individual in the value of materials handled in each class of industry for the five years under review; but this is indicative in the main of the great increase in prices brought about by the War. In some industries the increase has been small, and in one or two classes there has been an actual decrease. The figures given do not necessarily show an advance in individual efficiency, or a more extended employment of machinery. They record simply the average value of the materials treated by the persons individually engaged in each class.

The following table shows the production or value per individual worker added to raw materials in the process of manufacture, during the past six years.

Class of Industry.	1912.	1913.	1914-15.	1915-16.	1916-17.	1917-18.
	£	£	£	£	£	£
Treating Raw Material, etc. ...	186.92	192.69	195.89	263.47	332.14	402.39
Oils, Fats, etc. ...	336.47	257.17	291.29	344.97	352.62	531.63
Processes in Stone, Clay, Glass, etc. ...	213.89	201.47	211.65	225.63	213.93	194.45
Working in Wood ...	156.73	153.31	158.60	156.62	183.98	202.87
Metal Works, Machinery, etc. ...	241.17	229.72	233.21	254.85	275.96	295.98
Connected with Food, Drink, etc. ...	283.06	284.97	326.93	301.80	303.93	336.93
Clothing, Textile Fabrics, etc. ...	102.23	105.19	113.03	120.23	128.37	130.95
Books, Paper, Printing, etc. ...	171.54	178.25	166.23	190.43	202.60	217.37
Musical Instruments, etc. ...	204.86	219.50	212.76	206.22	211.75	250.41
Arms and Explosives	*113.75	*136.85	*146.36	*103.83	*423.85	*277.87
Vehicles and Fittings, Saddlery, etc. ...	143.80	153.28	155.39	165.17	159.01	166.89
Ship and Boat-building, etc. ...	158.01	167.40	163.14	183.08	166.57	170.46
Furniture, Bedding, and Upholstery ...	150.33	152.19	153.26	157.13	150.54	170.56
Drugs, Chemicals, and By-products ...	289.35	338.39	313.40	328.48	360.65	425.44
Surgical and other Scientific Instruments ...	184.96	194.99	165.85	200.90	213.78	251.80
Jewellery, Timepieces and Plated Ware ...	177.72	174.94	182.98	200.36	185.34	185.57
Heat, Light and Power ...	497.43	522.33	553.34	499.43	553.68	519.69
Leatherware, N.E.I. ...	170.64	169.58	184.66	181.75	178.01	176.49
Minor Wares, N.E.I. ...	133.72	142.26	143.62	150.10	147.34	147.14
Total	196.54	197.54	208.95	216.55	229.72	247.24

* Excluding Commonwealth Small Arms Factory.

The foregoing table shows simply the average cost of the work done in processes of manufacture by each individual; while the table preceding exhibits the value of raw materials and fuel treated by each individual. It shows, moreover, that the production per employee has increased generally in value during the period under review, as a consequence of the increase in the cost of materials, and in wages, although there have been certain decreases, most marked in industries connected with processes in stone, clay, and glass, and in the generation of heat, light, and power, and to a less extent in minor wares; whilst the jewellery and timepiece industry shows little alteration. As a general rule, the value added in production is highest where machinery is most employed, and declines proportionately with its decreasing use in different manufacturing industries.

The ratio of the annual expenditure in wages and salaries to the value of production varies considerably, according to the industry affected, as will be seen in the following table, which shows the proportion per cent. of the amount annually expended in this connection for the five years 1913-18.

Class of Industry.	1913.	1914-15.	1915-16.	1916-17.	1917-18.
	per cent.	per cent.	per cent.	per cent.	per cent.
Treating Raw Material, etc.	48·2	51·5	42·2	37·6	30·2
Oils, Fats, etc.	24·7	34·7	31·5	32·8	22·7
Processes in Stone, Clay, Glass, etc.	57·0	58·7	56·8	58·7	62·4
Working in Wood	68·8	68·6	71·8	65·5	62·4
Metal Works, Machinery, etc.	57·9	55·1	57·0	56·7	51·4
Connected with Food, Drink, etc.	36·2	34·0	37·2	39·2	36·9
Clothing, Textile Fabrics, etc.	65·5	63·5	60·8	61·0	62·1
Books, Paper, Printing, etc.	61·6	70·1	61·9	61·2	56·6
Musical Instruments, etc.	56·8	59·3	65·3	64·5	60·4
Arms and Explosives	*61·8	*72·9	*88·3	*22·4	*39·5
Vehicles and Fittings, Saddlery, etc.	64·5	68·3	67·2	70·4	68·6
Ship and Boat-building, etc.	82·7	87·2	88·2	96·7	90·8
Furniture, Bedding, and Upholstery	69·3	69·8	70·9	71·7	68·9
Drugs, Chemicals, and By-products	28·7	30·2	30·7	30·0	25·4
Surgical and other Scientific Instruments	59·1	60·3	58·0	55·2	46·5
Jewellery, Time-pieces, and Plated Ware	65·6	68·7	65·2	69·8	72·4
Heat, Light, and Power	26·4	25·4	28·4	28·8	29·5
Leatherware, N.E.I.	55·3	47·7	53·7	53·8	53·7
Minor Wares, N.E.I.	57·8	59·5	60·5	64·8	65·5
Total	53·3	52·0	52·8	52·8	48·8

* Excluding Commonwealth Small Arms Factory.

In the manufacturing industry of the State as a whole the proportion of the value of production expended in salaries and wages diminished to the extent of 4 per cent. on that of the preceding year. There was no decrease, however, in the rates of wages; in fact, in certain industries the rates of wages were higher than ever they had previously been. But scarcity in certain lines of goods, the restriction of shipping facilities, and the continuous demands of wartime combined to augment prices, and to deflect the proportion of the value of goods manufactured or work done expended in salaries and wages, as compared with immediately preceding years.

The following table shows the principal facts relating to each class of manufacturing industry conducted in the State and in the metropolitan district during the year 1917-18.

Class of Industry.	Establishments.	Average Number of Employees.			Average time worked per Employee.	Total Salaries and Wages, exclusive of Drawings of Working Proprietors.	Horse-power of Machinery—Average used.	Value of Machinery, Tools, and Plant.
		Males.	Females.	Total.				

					months.	£	h.-p.	£
Treating Raw Material, etc.	258	3,850	114	3,973	10.24	482,855	7,155	527,326
Oils, Fats, etc.	39	1,112	293	1,405	11.71	169,173	1,286	393,734
Processes in Stone, Clay, Glass, etc.	282	5,948	92	6,040	10.83	733,706	14,009	1,212,078
Working in Wood	670	7,290	111	7,410	11.04	937,607	17,380	916,940
Metal Works, Machinery, etc.	617	25,607	581	26,188	11.47	3,985,818	54,162	6,037,231
Connected with Food, Drink, etc.	704	12,135	4,751	16,886	11.20	2,097,108	27,914	4,151,037
Clothing, Textile Fabrics, etc.	998	7,218	19,181	26,399	11.74	2,145,362	6,357	652,447
Books, Paper, Printing, etc.	471	6,729	2,833	9,562	11.90	1,175,067	6,901	1,323,907
Musical Instruments, etc.	15	385	48	433	11.94	65,466	404	18,412
Arms and Explosives	5	1,151	1	1,152	12.00	227,086	778	142,143
Vehicles and Fittings, Saddlery, etc.	459	4,128	171	4,299	11.72	492,075	1,994	193,994
Ship and Boat Building, etc.	35	3,604	15	3,619	11.94	560,358	3,773	1,354,372
Furniture, Bedding, and Upholstery	256	3,239	521	3,760	11.79	441,687	2,509	94,566
Drugs, Chemicals, and By-products	120	1,325	885	2,210	11.91	283,733	2,439	369,914
Surgical and other Scientific Instruments	16	115	47	162	12.00	18,965	37	7,701
Jewellery, Timepieces, and Plated Ware	50	622	106	728	11.90	97,782	258	27,962
Heat, Light, and Power	227	3,927	57	3,984	11.24	611,466	110,673	4,186,318
Leatherware, N.E.I.	29	464	259	723	11.76	68,507	223	15,105
Minor Wares, N.E.I.	78	1,118	463	1,581	11.26	152,336	902	112,207
Total ...	5,414	90,625	30,529	120,554	11.47	14,701,255	239,104	21,739,739

					months	£	h.-p.	£
Treating Raw Material, etc.	105	2,585	109	2,694	11.35	372,139	5,548	389,796
Oils, Fats, etc.	26	767	236	1,003	11.73	124,256	945	317,427
Processes in Stone, Clay, Glass, etc.	132	3,819	55	3,874	10.72	492,359	7,191	537,782
Working in Wood	232	3,597	66	3,663	11.66	512,103	9,046	420,606
Metal Works, Machinery, etc.	441	16,388	541	16,879	11.89	2,393,434	14,610	2,317,260
Connected with Food, Drink, etc.	248	6,890	4,396	11,286	11.72	1,371,702	14,578	2,440,102
Clothing, Textile Fabrics, etc.	771	6,078	17,574	23,652	11.76	1,919,772	5,055	541,933
Books, Paper, Printing, etc.	272	5,505	2,715	8,220	11.93	1,013,035	6,219	1,058,943
Musical Instruments, etc.	15	385	48	433	11.94	65,466	404	18,412
Arms and Explosives	4	22	...	22	12.00	2,522	14	2,234
Vehicles and Fittings, Saddlery, etc.	218	2,522	135	2,657	11.67	317,352	1,660	99,377
Ship and Boat Building, etc.	30	2,743	5	2,748	11.92	429,963	3,031	1,012,468
Furniture, Bedding, and Upholstery	229	2,997	514	3,511	11.77	413,548	2,354	85,333
Drugs, Chemicals, and By-products	109	1,141	878	2,019	11.99	508,524	1,943	208,505
Surgical and other Scientific Instruments	15	114	46	160	12.00	18,890	36	7,601
Jewellery, Timepieces, and Plated Ware	48	606	105	711	11.92	95,466	258	27,302
Heat, Light, and Power	92	2,209	42	2,251	11.38	320,832	81,223	2,769,904
Leatherware, N.E.I.	29	464	259	723	11.76	68,507	223	15,105
Minor Wares, N.E.I.	69	1,054	459	1,513	11.24	146,836	855	108,950
Total ...	3,085	59,886	28,183	88,019	11.72	10,266,706	164,593	12,379,090

EMPLOYMENT.

The relative importance of different manufacturing industries, based on their capacity to employ human labour, is shown in the following comparative statement of the average number of persons engaged.

Class of Industry.	Persons engaged, including Working Proprietors.				
	1913.	1914-15.	1915-16.	1916-17.	1917-18.
Treating Raw Material, etc.: Pastoral Products	3,992	3,818	3,528	3,659	3,973
Oils and Fats: Animal, Vegetable, etc. ...	923	1,008	1,103	1,301	1,405
Processes in Stone, Clay, Glass, etc. ...	6,563	6,256	5,470	5,321	6,040
Working in Wood ...	9,293	8,185	7,397	7,111	7,410
Metal Works, Machinery, etc. ...	27,619	26,407	27,967	27,090	26,188
Connected with Food, Drink, etc. ...	15,197	15,390	14,409	15,520	16,886
Clothing, Textile Fabrics, etc. ...	26,565	24,869	26,440	26,208	26,399
Books, Paper, Printing, etc. ...	10,009	9,279	9,368	9,529	9,562
Musical Instruments, etc. ...	406	354	381	431	433
Arms and Explosives ...	379	700	1,243	1,354	1,192
Vehicles and Fittings, Saddlery, etc. ...	4,550	4,080	4,049	4,137	4,299
Ship and Boat Building, etc. ...	3,358	4,710	3,223	4,185	3,619
Furniture, Bedding, and Upholstery ...	4,035	3,642	3,464	3,636	3,760
Drugs, Chemicals, and By-products ...	1,365	1,559	1,691	1,812	2,210
Surgical and other Scientific Instruments ...	97	112	115	147	162
Jewellery, Timepieces, and Plated Ware ...	816	714	688	689	728
Heat, Light, and Power ...	3,577	3,721	3,728	3,676	3,984
Leatherware, N.E.I. ...	525	532	582	602	723
Minor Wares, N.E.I. ...	1,131	1,275	1,555	1,589	1,581
Total ...	120,400	116,611	116,401	117,997	120,554

During the quinquennial period 1901-6, covering the first five years since Federation, the increase in the number of persons engaged in manufacturing industries was 11,867; during the next quinquennial period, 1906-11, it amounted to 30,820; and during the period 1911-16 it was only 7,759. The increase from 1911 to 1912 amounted to 6,919, and from 1912 to 1913 to 4,839. There was, however, owing to the withdrawal of a number of male workers capable of bearing arms, a decline of 3,789 persons during the two years 1913-15, and during 1915-16 a further decline of 210 persons. The following year showed an increase of 1,596, succeeded in 1917-18 by a larger increase of 2,557, though the increase for the quinquennium 1913-18 was only 154 persons, the result of the four and a half years of war, the exigent demands of which find a reflection in the increased number of workers engaged in the manufacture of arms and explosives. From the year 1913 to 1916-17 there was an actual decrease in the number engaged

in manufacturing industries of 2,403 workers, or nearly 2 per cent. In quinquennial periods the aggregate figures for all classes give the following increases:—

1901-1906	..	..	..	..	17.7 per cent.
1906-1911	..	..	..	..	39.6 "
1911-1916	..	..	..	..	7.1 "
1916-1918 (two years)	..	..	..	..	3.6 "

During the quinquennial period 1911-16 the increase in manufacturing industrial employment was only 7.1 per cent., as against 39.6 per cent. during the preceding quinquennium. The slow increase here shown cannot be attributed entirely to the War, because the rate of progress had already exhibited signs of a decline during the first half of the period, prior to the declaration of hostilities. Indeed, the War, while acting retardingly with respect of some manufacturing industries, stimulated others. Industries operating in metal works and machinery suffered a loss in personnel of employment during the year 1914-15, but recovered in 1915-16, and at the latter period furnished with occupation 348 persons more than were employed in 1913. In 1916-17 there were, however, 877 fewer workers engaged in the manufacturing metal industries than during the preceding year, and 529 fewer than in 1913; and in 1917-18 unemployment in this class had increased, and there were 902 fewer workers than in 1916-17, and 1,431 fewer than in 1913. This great decrease may be ascribed to the absence of the most qualified and expert workers at the seat of war, and the consequent difficulty of obtaining competent tradesmen, by the high cost of indispensable materials, and by the disinclination of manufacturing firms to tender for important contracts whilst in a condition of uncertainty concerning the ultimate expenditure.

The following table shows the average number of persons engaged in manufacturing industries in the metropolitan area and in the remainder of the State for the first three quinquenniums and succeeding years since 1901.

Year.	Employees (including Working Proprietors).			Year.	Employees (including Working Proprietors).		
	Metropolitan District.	Remainder of State.	Total.		Metropolitan District.	Remainder of State.	Total.
1901	42,415	23,815	66,230	1914-15	84,971	31,640	116,611
1906	52,695	25,217	77,822	1915-16	85,365	31,036	116,401
1911	77,592	31,032	108,624	1916-17	85,404	32,593	117,997
1912	83,352	32,209	115,561	1917-18	88,019	32,535	120,554
1913	86,263	34,137	120,400				

Under the classification of "Remainder of State" are included such urban centres as Newcastle, Broken Hill, Lithgow, Goulburn, Bathurst, Albury, and Orange, yet it is significant that Sydney and the metropolitan suburbs constituted the chief manufacturing centre of the State, and that whereas the number of employees in the metropolitan district increased by 45,604, or 107.5 per cent., from 1901 to 1918, the increase for all other parts of the State was only 8,720 persons, or 36.6 per cent.

As already pointed out, the industrial supremacy of Sydney is due to priority of settlement, and to the incidence of development, combined with its situation on one of the finest and most accessible deep-water harbours in the world, which makes it the port of distribution and exchange for practically the whole State.

The following figures show the increase in the employees of both sexes during the decennium 1908-1918:—

Year.	Metropolitan District.		Remainder of State.	
	Males.	Females	Males.	Females.
1908	42,054	18,920	25,562	2,562
1917-18	59,836	28,183	30,189	2,346
Increase per cent.	42·3	48·9	18·1	(—) 8·4

During 1917-18 the increase in the metropolitan area amounted to 2,615 persons, of whom 1,103 were males and 1,512 were females; but in the remainder of the State there was a decrease of 58 persons, resulting from an increment of 12 males and the decline in number of 70 females. Hence the actual increase of workers in manufacturing industries on the figures of the preceding year was 2,557 for the whole of the State.

CHILD LABOUR.

The law regulating primary education prescribes that children must attend school until the completion of their fourteenth year, exception being made only in case of those who, prior to reaching that age, have obtained exemption certificates. The Shops and Factories Act of 1896 prohibited the employment of children under the age of 14 in any factory, unless by special permission of the Minister for Labour and Industry; but such special permission may not be given to a child under the age of 13 years. Since the 30th December, 1909, permission has not been granted, except under extreme circumstances, to any girl under the age of 14 years.

Of 5,076 juveniles engaged in manufacturing, 4,290 were employed in factories within the metropolitan area. Reviewing the statistics of juveniles since 1896, it is noticeable that in the past boys formed consistently a larger body than girls, but in 1917-18, the girls outnumbered the boys, but only by 92. Nearly 94 per cent. of the girls employed were working in Sydney and suburbs, while a fair proportion (24 per cent.) of the boys were employed in establishments located outside the metropolitan area.

Certificates of Physical Fitness.

The employment in a factory of juveniles under the age of 16 years is conditional upon a medical certificate as to physical fitness being secured by the factory occupier under the Factories and Shops Acts.

The following table exhibits classified particulars of certificates issued during the last five years:—

Year.	Metropolitan.		Newcastle.		Broken Hill.		Rest of State.		Total.		
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Total.
1913	2,201	2,014	277	152	5	1	64	16	2,547	2,183	4,730
1914	2,287	2,114	214	131	18	...	41	9	2,560	2,254	4,814
1915	2,755	2,501	214	135	21	...	116	14	3,106	2,650	5,756
1916	2,421	2,583	268	135	27	1	100	22	2,816	2,741	5,557
1917	2,298	2,418	306	99	20	...	99	18	2,723	2,535	5,258

Permits to Work.

The following table shows particulars of special permits to work in a factory issued during the last five years to children, between the ages of 13 and 14 years, arranged in factory districts of the State.

Year.	Metropolitan.		Newcastle.		Broken Hill.	Rest of State.		Total.		
	Males.	Females.	Males.	Females.	Males.	Males.	Females.	Males.	Females.	Total.
1913	149	9	10	...	...	1	...	160	9	169
1914	142	8	7	...	...	3	...	152	8	160
1915	141	6	2	...	...	...	...	143	6	149
1916	158	14	2	...	1	1	...	162	14	176
1917	110	28	4	...	...	1	...	115	28	143

In addition to these special permits to work, 5,750 permits were granted "temporarily to children between 14 and 16 years of age," the number being distributed in factory districts as follows:—Metropolitan, 5,182; Newcastle, 413; Broken Hill, 22; "Rest of State," 133.

SEX AND AGE DISTRIBUTION.

The following table shows the sex and age distribution of the persons engaged in manufactories from 1907, the first year for which statistics respecting child employment are available.

Year.	Persons Employed in Manufactories, including Working Proprietors.								
	Adults.			Children under 16 years of age.			Adults and Children.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
1907	63,547	18,634	82,181	2,406	1,880	4,286	65,953	20,514	86,467
1911	79,609	24,274	103,883	2,474	2,267	4,741	82,083	26,541	108,624
1912	85,953	25,290	111,243	2,225	2,093	4,318	88,178	27,383	115,561
1913	90,651	25,278	115,929	2,385	2,086	4,471	93,036	27,364	120,400
1914-15	87,972	23,876	111,848	2,437	2,326	4,763	90,409	26,202	116,611
1915-16	85,146	26,072	111,218	2,578	2,605	5,183	87,724	28,677	116,401
1916-17	86,306	26,638	112,944	2,604	2,449	5,053	88,910	29,087	117,997
1917-18	87,441	27,938	115,379	2,584	2,591	5,175	90,025	30,529	120,554

It was shown on page 279 that during the year 1917-18 there had been an increase in the number of persons engaged in the manufacturing industries of the State, amounting to 2,557, of which total 1,115 were males and 1,442 were females. There was a total increase of adult workers amounting to 2,435, of which number 1,135 were males and 1,300 were females; and there was a corresponding increase of 122 in the number of children under 16 years of age, for whilst there was a decrease of 20 in the number of the boy workers, there was an addition of 142 to the number of the girl workers.

The employment in the manufacturing industries of children under 16 years of age has increased by nearly 163·2 per cent. since the year of Federation, though the increase in 1915-16 was 173 per cent. The proportional increase in the employment of women during the seventeen years since 1901 amounted to over 34·84 per cent., and of women and children under 16 years of age combined, to 45·96 per cent. The following table shows that the employment of adult males in relation to other workers has never been so low as in 1917-18, the decrease amounting to 8·65 per cent. since Federation.

The following statement shows the variations in the proportion of adults and children of each sex to the total number employed at intervals since 1901.

	1901.	1903.	1913.	1915-16.	1916-17.	1917-18.
	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.
Adults—						
Males	81·18	75·94	75·29	73·15	73·14	72·33
Females	17·19	22·18	21·00	22·40	22·58	23·18
Total	98·37	98·12	96·29	95·55	95·72	95·71
Children under 16 years of age—						
Males	1·19	1·13	1·98	2·21	2·20	2·14
Females	0·44	0·75	1·73	2·24	2·08	2·15
Total	1·63	1·88	3·71	4·45	4·28	4·29
Grand Total.	100·00	100·00	100·00	100·00	100·00	100·00

WOMEN AND JUVENILES.

The tendency of the factory system is for the employment of women and children to increase, and legislation has been introduced to resist this tendency within limits considered conducive to the total good of the community. Largely owing to such legislative restriction the proportion of juvenile to total labour in manufacturing industries declined between the years 1911 and 1915; but in 1914-15, due mainly to causes created by the War, with a consequent decrease in the number of male adults, the proportion of juveniles showed a corresponding increase—an increase, however, which was lessened somewhat in 1916-17, concurrently with the decline in recruiting for military service.

In the year 1896 the average number of women and children engaged in manufacturing industries was 6,957 (the factory age of children being then 15 years), and in 1917-18 it had increased to 33,113, or nearly fivefold. In proportion to the total employment of men, women, and juveniles, the increase in the number of women and juveniles together was higher in 1917-18 than in any year shown in the foregoing table, though the number of juveniles was slightly higher in 1915-16.

The raising of the age-limit of so-called juvenile labour from 15 to 16 years would not account for the fall in the proportion of males above those ages to the total number of workers from 85 per cent. in 1896 to 75·29 per cent. in 1913, and for the increase of woman and juvenile labour from 15 per cent. to 24·71 per cent. during the same period. In 1914-15 the proportion of woman and juvenile labour fell to 24·56 per cent., but rose during the year ending the 30th June, 1916, to 26·85 per cent.; during the succeeding year to 26·86 per cent.; and during the year ending the 30th June, 1918, to 27·47 per cent., the highest figures shown in the table.

The following table shows, at intervals since 1901, the industries in which women and girls have been employed in greatest numbers, and the proportion to every hundred males employed in the same industries.

Industry.	Average Number of Women and Girls.					Proportion per 100 Males.				
	1901.	1911.	1913.	1916-17.	1917-18.	1901.	1911.	1913.	1916-17.	1917-18.
Food, etc.—										
Aerated waters ...	49	152	139	114	118	4	11	10	11	13
Baking Powder and Self-raising Flour ...	...	88	96	111	107	...	100	104	156	164
Biscuits ...	350	705	846	787	832	71	108	113	104	101
Condiments, Coffee, and Spices ...	167	216	237	419	454	42	102	101	129	135
Confectionery ...	225	483	489	715	904	39	64	52	74	86
Cornflour, Oatmeal	71	199	256	160	174	46	73	89	60	65
Jam and Fruit Canning ...	140	449	396	354	448	28	114	105	75	87
Meat Preserving ...	24	121	157	122	251	3	13	15	22	24
Pickles, Sauces, and Vinegar ...	58	174	184	207	242	129	125	102	127	140
Tobacco ...	428	755	805	1,062	1,155	71	112	116	122	132
Clothing, etc.—										
Dressmaking and Millinery ...	2,526	5,053	4,814	5,660	5,937	4,141	5,677	4,150	3,272	3,227
Hats and Caps ...	198	1,029	975	895	976	150	192	171	191	192
Waterproofs and Oilskins ...	290	98	77	185	180	203	377	233	370	346
Shirts, Ties and Scarfs ...	337	1,655	1,950	1,712	1,676	1,021	1,191	1,059	1,206	1,088
Slop Clothing ...	2,636	5,503	4,910	4,152	3,929	431	528	541	541	499
Tailoring ...	1,437	3,004	3,424	3,159	3,103	100	136	147	178	185
Woollen and Tweed Mills ...	72	389	416	590	572	44	111	116	133	121
Hosiery and Knitted Goods ...		180	320	514	540		529	533	547	545
Tents and Tarpaulins ...	86	241	268	273	306	88	178	203	184	203
Boots and Shoes ...	1,118	1,593	1,559	1,702	1,789	39	57	58	63	66
Chemicals, Drugs and Medicines ...	66	365	329	488	584	20	79	71	82	87
Bedding, Flock, and Upholstery ...	98	105	130	161	147	26	26	26	33	28
Brooms and Brushware ...	5	15	24	55	51	3	7	10	21	20
Furnishing, Drapery, etc. ...	...	166	227	283	275	...	231	311	393	377
Inks, Polishes, etc. ...	...	...	108	141	159	...	...	65	59	62
Leatherware ...	5	74	110	184	259	4	19	26	44	56
Manufacturing Jewellery ...	3	70	74	76	95	3	14	13	17	20
Paper, Paper Bags, and Boxes ...	148	754	778	775	924	149	157	154	124	142
Printing and Book-binding ...	703	1,539	1,821	1,772	1,819	16	26	27	29	31
Rubber Goods ...	...	62	80	182	219	...	29	37	53	51
Soap and Candles ...	60	169	190	263	279	9	34	36	38	41
Tinsmithing ...	...	38	49	238	253	...	5	6	28	32
Other industries ...	374	1,097	1,126	1,576	1,772	1	2	2	2	3
Total ...	11,674	26,541	27,364	29,087	30,529	21	32	29	33	34

OCCUPATIONAL STATUS.

Of all the persons engaged in manufacturing industries during the year 1917-18, approximately 84 per cent. were actually employed in the different processes of manufacture, or in the sorting and packing of finished articles.

The following statement shows the occupational status of the persons engaged in each class of industry for 1917-18.

Class of Industry.	Working Proprietors, Managers, and Overseers.	Clerks, etc.	Engine-drivers, etc.	Workers in Factory, Mill, etc.	Carters, Messengers, and others.	Persons regularly employed at their own homes.	Total.
Treating Raw Material, etc. ...	354	100	200	3,176	143	...	3,973
Oils, Fats, etc. ...	72	79	26	1,202	22	4	1,405
Processes in Stone, Clay, Glass, etc.	407	209	178	5,089	140	17	6,040
Working in Wood ...	855	391	369	5,406	381	8	7,410
Metal Works, Machinery, etc. ...	1,335	1,089	567	22,544	343	10	26,188
Connected with Food, Drink, etc.	1,122	1,055	843	13,474	386	6	16,886
Clothing, Textile Fabrics, etc. ...	1,580	514	51	23,468	182	604	26,399
Books, Paper, Printing, etc. ...	845	756	33	7,670	254	4	9,562
Musical Instruments, etc. ...	21	43	1	360	8	...	433
Arms and Explosives ...	21	28	7	1,121	15	...	1,192
Vehicles and Fittings, Saddlery, etc.	601	223	10	3,394	67	4	4,299
Ship and Boat-building, etc. ...	105	225	26	3,171	92	...	3,619
Furniture, Bedding, and Upholstery	332	90	10	3,292	34	2	3,760
Drugs, Chemicals, and By-products	144	167	28	1,811	60	...	2,210
Surgical and other Scientific Instruments	21	8	...	125	8	...	162
Jewellery, Timepieces, and Plated Ware..	59	54	...	591	23	1	728
Heat, Light, and Power ...	301	187	634	2,787	74	1	3,984
Leatherware, N.E.I. ...	46	53	1	617	6	...	723
Minor Wares, N.E.I....	127	49	6	1,382	17	...	1,581
Total ...	8,348	5,320	2,990	100,980	2,255	661	120,554

The occupational status of workers employed varied greatly in the nineteen standard classes of manufacturing industry. The proportion per cent. of working proprietors, managers, and overseers was 6.92 for all classes, but fell as low as 1.76 in arms and explosives, and rose as high as 13.98 in vehicles, fittings, saddlery, and harness. This was due to the fact that the only large employer in the first-mentioned class was the Government of the Commonwealth, and that country waggon-builders, wheel-wrights, and blacksmiths were invariably masters of their crafts, who owned their own businesses.

The workers actually employed in mill, workshop, and factory ranged from 94.04 per cent. of the total number engaged, under arms and explosives, to 69.95 per cent. under heat, light, and power.

The highest proportion of clerical workers, 9.93 per cent., was shown in the class relating to musical instruments; and the lowest, 1.95 per cent., in the class relating to clothing and textiles. Engine-drivers represented 15.92 per cent. of the workers engaged in the generation of heat, light, and power; and carters, messengers, etc., were represented by 5.14 per cent. in the industry connected with workers in wood.

BOUNTIES ON MANUFACTURED PRODUCTS.

In order to develop the manufactures, products, industries, and commerce of the Australian Commonwealth, and generally to promote its manufacturing interests, the Federal Government inaugurated a scheme of bounty endowment, the necessary powers being conferred by section 51 (iii) of the Constitution Act, under the provisions of which such payments could be made uniformly throughout the States of the Federation. Though these bounties were payable only on articles manufactured in Australia from Australian products, an exception was made in the case of wire-netting, if woven from wire manufactured in the United Kingdom.

The enactments in this connection include the Sugar Bounty Acts, 1903-13; the Bounties Act, 1907-12; the Manufactures Encouragement Act, 1908-14; the Iron Bounty Acts, 1914-15; the Iron and Steel Bounty Act, 1918; the Shale Oils Bounties Act, 1910; the Shale Oil Bounty Act, 1917; and the Wood Pulp and Rock Phosphate Bounties Acts, 1912-17. The periods for the payment of these bounties have expired except with relation to rock phosphate, shale oil, iron, and steel.

The Wood Pulp and Rock Phosphate Bounties Acts, 1912-17, conferred for ten years, from the 1st January, 1913, a bounty of 10 per cent. on the market value of rock phosphates manufactured into marketable phosphatic manure. On shale oil, the bounty is payable for a period of four years from 1st September, 1917, at the following rate per gallon:—Up to 3½ million gallons, 2½d.; 3½ to 5 million gallons, 2d.; 5 to 8 million gallons, 1½d.; each additional gallon, 1½d.

The bounty on iron and steel, up to a total amount of £200,000 is payable for a period of five years after 1st October, 1918; when the freight from the United Kingdom to Australia is £2 10s. per ton; or under the rate of bounty on black steel sheets is £1 10s. per ton; and on galvanised sheets, £2 per ton, including the bounty (if any) paid on the black steel sheets from which the galvanised sheets are made. When the freight exceeds £2 10s. per ton, the rates of bounty are decreased accordingly.

The only payments under Bounties Acts during the year 1918 on the products of New South Wales were made under the Shale Oil Bounty Act, 1917, upon 1,600,904 gallons of crude shale oil. The total bounties paid amounted to £15,008.

INDIVIDUAL INDUSTRIES.

In the following pages are shown the results of a more detailed examination with regard to the separate industries included in each of the 19 classes of manufactures, group particulars of which have already been given.

I.—TREATING RAW MATERIAL: PASTORAL AND AGRICULTURAL PRODUCTS.

The industries in which raw material, as derived from pastoral and agricultural operations, is treated, form five distinct orders. Details for 1917-18 for these orders are as follow:—

Industry.	Establishments.		Average number of Employees, including Working Proprietors.		Power used.			Value of Machinery, Tools and Plant.
	Total.	Using Machinery	Males.	Females.	Steam.	Electricity	Other.	
Boiling-down, Tallow Refining, etc. ...	29	27	357	17	h.-p. 332	h.-p. 1,120	h.-p. 60	£ 89,713
Sausage-skin Making ...	2	1	48	...	...	...	...	...
Tanning ...	74	71	1,061	12	567	632	339	106,971
Wool-scouring and Fellmongering ...	50	50	1,813	83	1,699	1,432	108	278,666
Chaff-cutting, Corn-crushing, etc. ...	98	98	580	2	521	232	113	51,976
Total...	253	247	3,859	114	3,119	3,416	620	527,326

BOILING-DOWN, ETC.

In the figures given above regarding establishments, particulars are not included concerning boiling-down or wool-washing plants in operation on sheep stations and on farms. Such plants are necessarily operative for more or less restricted periods, and their activities are manifested generally during definite seasons of the year.

The majority of the establishments shown in the table as engaged in these processes is situated within the metropolitan boundaries, and the operations are mainly connected with the reduction of refuse, and the treatment for by-products of aged animals, or those condemned for diseases. The work includes the manufacture of manures and fertilisers, glue and gelatine, the extraction of fat and of fish and animal oils, the refining of tallow, and the milling of bones. Three establishments in the metropolitan district and one at Riverstone are engaged in cleaning and manufacturing sausage-skins and meat-casings, of which the output in 1917-18 was valued at £14,840.

Tallow Refining.

Tallow refining as an industry is largely dependent on seasonal conditions and the state of the stock market. The following statement shows the estimated production at intervals since Federation, together with the output from all sources, including station plants and the amount used locally for soap and candles, the balance being exported:—

Year.	Estimated Quantity of Tallow.	
	Produced.	Used Locally.
	cwt.	cwt.
1901	439,700	124,100
1906	487,830	116,742
1911	729,330	123,740
1912	568,500	131,600
1913	795,020	143,590
1914-15	711,857	165,143
1915-16	274,000	147,758
1916-17	379,660	154,018
1917-18	331,294	165,930

TANNING.

Two-thirds of the number of tanneries in operation in the State are situated within the boundaries of the metropolitan area. The number of hides and skins treated, and the value of the leather manufactured during the year 1917-18 were as follow:—

Skins Treated in Tanneries.			Manufactures.	Quantity.	Value.
	No.			lb.	£
Calf and Yearling ...	113,483		Leather	16,546,946	1,410,972
Other Hides	430,202		Basils	3,019,542	222,165
	cwt.			No.	
Hide-pieces	4,160		Pickled Pelts ...	624,437	44,772
	No.		Other Skins ... ..	...	117,179
Sheep Pelts	3,479,395			cwt.	
Other Skins	281,430		Fleshings	39,024	5,640

The bark used in tanneries amounted to 12,053 tons. The number of persons permanently employed was 1,073; the average power used was 1,538 h.p.; and the value of plant and machinery £106,971.

WOOLSCOURING AND FELLMONGERING.

All the wool-scouring and fellmongering plants within the metropolitan area are situated in the southern suburbs; but of those occupied with the cleansing and treatment of wool the majority were in the country division. The order included pelt-pickling and the tanning of basils in combination with fellmongering. The operations for the year 1917-18 included the output of two wool-combing plants which treated scoured wool for the production of wool-tops and noils. The following is a statement of work done during the year 1917-18, which shows the material treated and the goods manufactured:—

MATERIAL TREATED.	GOODS MANUFACTURED.			Value.
				£
In wool-scouring works—Greasy wool lb. 65,173,008	Scoured wool .. lb.	31,296,334		2,979,385
In wool-combing works—Scoured wool „ 5,768,223	Wool-tops and noils ..	5,475,546		1,653,301
In fellmongeries—Skins .. No. .. 3,233,946	Pelts.. .. No.	2,788,789		115,613
	Scoured wool .. lb.	13,752,971		1,623,944

The wool-scouring and fellmongering plants in the State furnished permanent employment for 1,896 persons; the average capacity of power used was 3,239 horse-power; the value of plant and machinery was £278,666; and the total value of output £6,396,060.

II.—OILS, FATS, ETC.

The industries in which oils and fats, animal and vegetable, are treated, are grouped under two heads, namely, oil and grease, mainly engaged in the manufacture of commercial lubricants, and soap and candles, the latter being by far the most important of these groups. The following table exhibits the chief particulars of each group during the year 1917-18:—

Industry.	Establishments.		Average Number of Employees, including Working Proprietors.		Power used.			Value of Machinery, Tools and Plant.
	Total.	Using Machinery.	Males.	Females.	Steam.	Elec- tricity.	Other.	
Oil and Grease	13	12	429	14	h.-p. 503	h.-p. 465	h.-p. 10	£ 166,807
Soap and Candles	26	20	683	279	227	81	...	226,927
Total	39	32	1,112	293	730	546	10	393,734

The production of soap and candles, the average number of persons employed in this branch of manufacture, and the full horse-power capacity of plant installed are shown in the following statement for intervals since 1901.

Year.	Soap and Candle Factories.	Average Number of Employees, including Working Proprietors.	Quantity Manufactured.		Horse-power of Plant (full capacity).
			Soap.	Candles.	
			cwt.	lb.	h.-p.
1901	44	533	233,700	3,895,468	829
1906	41	602	221,834	5,076,048	522
1911	37	658	277,449	5,388,848	872
1912	34	689	290,953	5,581,858	837
1913	31	725	278,899	5,563,404	645
1914-15	32	753	286,425	4,958,741	829
1915-16	30	836	299,439	4,748,460	883
1916-17	27	955	299,247	4,212,750	564
1917-18	26	962	343,770	4,228,947	413

III.—STONE, CLAY, GLASS, &c.

The majority of the industries in this class are associated with building and construction, and their operations reflect, to a great extent, the condition of that trade. Details of each industry for 1917-18 were as follow.

Industry.	Establishments.		Average Number of Employees, including Working Proprietors.		Power used.			Value of Machinery, Tools and Plant.
	Total	Using Machinery.	Males.	Females.	Steam	Electricity.	Other	
Bricks and Tiles	162	87	2,555	42	h.p. 3,885	h.p. 1,911	h.p. 1,146	£ 687,011
Glass (including Bottles)	10	8	1,296	13	265	403	...	34,304
Glass (Ornamental)	24	16	274	13	4	140	...	13,053
Lime, Plaster, Cement, and Asphalt ...	47	29	1,085	9	2,069	2,907	110	393,084
Marble, Slate, etc.	16	15	251	2	...	496	28	24,821
Pottery, Earthenware	23	23	487	13	400	205	40	59,805
Total	282	178	5,948	92	6,623	6,062	1,324	1,212,078

With the exception of 121 horse-power derived from oil-engines, and 150 horse-power derived from water-mills, and used in brick, tile, lime, and cognate works, all the "other" power used was derived from gas with the exception of a modelling establishment, which worked twelve months, all the other orders listed in this class made less than twelve months during the year 1917-18.

Of the brick and tilemaking plants operating in New South Wales, fully three-fourths of the total number are situated outside the metropolitan area, and the brickworks nearest Sydney are to be found in the southern and south-eastern suburbs. At various establishments engaged mainly in the making of bricks, associated industries include the manufacture of pipes, tiles, fire-bricks, retorts, sand-lime bricks, etc. A few plants specialise in the manufacture of terra-cotta hollow-building bricks and magnesite bricks. Most country towns, and both northern and southern coalfields areas are well-equipped with brick-making works.

The following figures present detailed statistics regarding the production of bricks at intervals since 1901:—

Year.	Brickworks.	Average Number of Employees, including Working Proprietors.	Bricks made.	Horse-power of Plant (full capacity).
1901	182	1,823	159,254,000	h.p. 1,543
1906	187	2,147	172,010,000	3,172
1911	222	3,017	327,864,000	6,311
1912	202	3,128	383,656,000	7,956
1913	217	3,665	389,435,000	10,788
1914-15	188	3,230	331,107,000	11,192
1915-16	168	2,590	272,579,000	10,911
1916-17	169	2,384	229,959,000	10,981
1917-18	162	2,597	218,005,000	9,843

It is to be noted that there is considerable overlapping in the various branches of the industry, bricks and tiles being manufactured also at plants devoted mainly to pottery, and *vice versa*. In addition to those shown in the preceding table, which were designed for building purposes, there was a considerable manufacture of calcined magnesite bricks, terra-cotta fire-bricks, fire-clay blocks, hollow building blocks, and tiles. Since the middle of the year 1914 there has been a marked suspension of activity in the building trades, construction of an imperative character only being undertaken, and there has been a corresponding decline in the output of building bricks.

STATE BRICKWORKS, HOMEBUSH.

In the latter part of 1911 the Government established State Brickworks at Homebush, near Sydney, where a considerable area of suitable clay had been found. Most of the output in the period of inauguration was used in constructing and amplifying the works, but there is now considerable production for general supply outside the quantity made for use in building conducted under the supervision of the Public Works Department.

The business results of the past and previous years are regarded as highly satisfactory, the undertaking having been enabled to repay £20,000 on account of capital expended, and to set apart £10,000 for purposes of renewals, replacements, and new works. Besides supplying the requirements of the different Government Departments, the State Brickworks at Homebush have sold their manufactures to the public at prices below those ruling outside, and this latter branch of business shows an increase of 159·15 per cent. over the figures of the previous year, notwithstanding the decline in building activities. The sale prices given were for bricks loaded into trucks, and at the yard, Homebush Bay.

The following table gives particulars of the State Brickworks at Homebush Bay since 1913.

Particulars.	1913.	1914.	1915.	1916.	1917.	1918.
Number of Bricks manufactured	14,676,279	27,110,056	32,331,801	38,137,384	29,720,259	28,936,715
Used for Public Works	10,901,932	1,922,083	27,999,787	35,287,615	22,255,645	13,912,968
Sold to Private Purchasers	1,599,635	5,102,817	3,616,009	2,828,262	6,127,621	15,879,945
Stocks at 30th June .. ..	....	....	321,317	282,521	1,472,876	588,397
Balance used at Works	2,174,712	85,156	719,005	60,303	146,688	28,281
Cost of manufacture per 1,000 £	....	1 6 10	1 5 7	1 5 4	1 12 1	1 14 5
Sale price per 1,000 £	1 10 0	1 19 6	1 15 0	....	....	....
Seconds .. .. £	....	....	....	1 10	1 15 0	1 15 0
Commons .. .. £	....	....	....	1 15 0	1 17 6	1 17 6
Face .. .. £	....	....	....	3 0 0	3 5 0	3 5 0

Lime and Cement Works.

Lime is manufactured chiefly at Capertee and Goulburn, though small quantities are obtained from other localities.

The manufacture of cement has become an important industry, and the production increased considerably on account of the construction of the Burrinjuck dam, and of extensive railway and other works. The principal cement manufactories are in operation at Granville, and at Portland, the limestone being obtained from quarries in the neighbourhood of Capertee.

The production of lime and cement during the last five years was as follows:—

Year.	Lime Manufactured.		Cement Manufactured.	
	Quantity.	Value.	Quantity.	Value.
	tons.	£	tons.	£
1912	35,657	44,478	*	368,280
1913	33,272	41,428	*	402,249
1914-15	36,405	46,091	131,622	410,020
1915-16	27,852	39,335	126,694	414,150
1916-17	27,621	44,510	119,284	389,902
1917-18	25,129	42,774	101,827	297,498

* Not available.

Pipes, Pottery, etc.

The manufacture of pipes and earthenware is carried on usually in conjunction with brick and tile making, although some establishments are exclusively occupied with this branch of the industry. Only a few of the factories listed under this classification were outside the metropolitan area, and these were described as potteries, although there was a certain amount of overlapping with brick and tile making. Besides a number of potteries so described within the metropolitan area, there were a few establishments engaged in the manufacture of earthenware drain-pipes and one or two plants in that of filters and dry-cell batteries. Since the outbreak of the War certain branches of pottery manufacture have been established in this State, which is now practically producing all the sanitary ware for building requirements for which New South Wales was previously dependent on importations from abroad.

The total number of persons permanently employed in this industry during 1917-18 was 498; the full capacity of power provided was 1,232 h.-p.; the value of plant and machinery was £59,675; and the total value of output £147,305.

The value of the pipes and earthenware manufactured in 1917-18 were as follow:—Pipes, £63,615; pottery, £49,135; sundries, £34,555; total, £147,305.

IV.—WORKING IN WOOD.

Joinery and saw-milling, the two most important industries associated with wood-working activities, are connected generally with the preparation and supply of building materials, and, as in the class immediately preceding, they afford an approximate index to the state of the building trade from year to year.

The following figures present detailed statistics of the industry.

Industry.	Establishments.		Average Number of Employees, including Working Proprietors.		Power used.			Value of Machinery, Tools, and Plant.
	Total.	Using Machinery.	Males.	Females.	Steam.	Elec- tricity.	Other.	
Boxes and Cases	52	50	828	10	h.-p. 400	h.-p. 1,105	h.-p. 33	£ 53,439
Cooperage	12	9	180	2	19	116	36	33,807
Joinery	145	138	1,744	32	775	2,076	452	173,013
Saw-mills... ..	409	409	4,206	52	9,196	2,368	280	623,263
Wood-turning, etc.	52	52	341	15	146	297	31	32,818
Total	670	658	7,299	111	10,536	5,962	832	916,340

Of the total number of persons employed in these industries less than half were engaged within the metropolitan area; but the employment in the country was almost wholly in connection with sawmilling, which provided work for over 3,000 persons. Almost the whole number of box and case making factories and of the cooperages were operated within the metropolitan area, as well as about two-thirds of the joinery establishments in the State. Boxes and cases are manufactured mainly for the packing of butter, eggs, fruit, washing-blue and laundry requirements; and in some instances leading manufacturing firms had a branch establishment engaged in making the boxes and cases required by their special industries. Of the metropolitan cooperages, two were associated with great breweries, and one with an important firm engaged in the manufacture of soap. Joinery is a term which covers a very large range of industrial operations applied to timber in a prepared condition. Of the establishments within the metropolitan area, nearly one-half were called simply joineries or joinery works; whilst others restricted themselves to shop-fronts, show-cases, certain kinds of furniture, and the manufacture of coffins.

Sawmills.

Details concerning the sawmilling industry at intervals since 1901 were as follow:—

Year.	Sawmills.	Average Number of Employees (including Working Proprietors.)	Logs treated and Sawn Timber resawn.	Output.	Value of Plant and Machinery.
			Sup. ft.	Sup. ft.	£
1901	345	4,088	213,228,000	180,028,000	273,883
1906	338	3,642	*	*	260,810
1911	452	5,205	213,007,000	151,471,000	526,909
1912	469	5,590	248,756,000	175,060,000	597,097
1913	477	5,788	259,030,000	180,704,000	619,264
1914-15	414	4,808	220,121,000	154,250,000	571,525
1915-16	402	4,344	181,570,000	126,858,000	547,471
1916-17	397	4,163	185,889,000	129,796,000	578,776
1917-18	409	4,253	187,797,000	134,997,000	623,263

* Figures not available.

The column in the above table, "Logs treated and sawn timber resawn," includes cedar, softwoods, hardwoods, and imported timber in the form of logs and baulks.

Sawmills were classified as metropolitan, country town, and forest. To the first category belonged only about one-fourteenth of the total number, to the second about four-sevenths; and to the last somewhat more than a third; of which the great majority were in the country division. Besides general sawmilling, some mills undertook moulding, planing, and the cutting of wood-paving blocks. In the more important centres sawmills were associated with yards dealing with imported timbers and joinery.

The value of the timber, 126,745,000 superficial feet, sawn from native logs during the year 1917-18, was £394,904 for softwood, and £677,974 for hardwood, at the works; and of imported timber, when sawn, £94,401 for softwood, and £34,906 for hardwood.

V.—METAL WORKS, MACHINERY, ETC.

The industries included in this class are by far the most important to the industrial workers in the State, although the clothing trade employs a

greater number of persons, of which number, however, nearly 73 per cent. are females. The following figures present detailed particulars of the industry for 1917-18.

Industry.	Establishments.		Average Number of Employees (including Working Proprietors.)		Power used.			Value of Machinery, Tools, and Plant.
	Total.	Using Machinery.			Steam.	Electricity.	Other.	
			Males.	Females.				
					h.-p.	h.-p.	h.-p.	£
Agricultural Implements	23	21	439	6	43	131	99	42,538
Art Metal Works	5	4	54	1	..	26	51	22,301
Brass and Copper	36	35	341	12	26	123	42	24,919
Cutlery	12	12	46	3	..	94	..	6,520
Engineering	211	209	6,180	83	2,127	5,260	598	1,071,294
Galvanized Iron	42	33	761	12	88	210	154	51,496
Ironworks and Foundries	100	99	4,230	48	15,693	5,945	204	2,129,133
Railway Carriages and Rolling Stock	5	5	310	5	420	235	..	86,130
Railway and Tramway Workshops	34	34	7,385	24	1,258	2,904	567	1,078,548
Smelting and Ore Dressing	27	26	3,334	17	6,939	8,291	17	1,203,624
Stoves and Ovens	12	12	517	12	..	257	138	48,783
Tinsmithing	55	39	787	253	92	205	45	101,482
Wireworking	20	18	496	22	..	634	16	93,869
Other Metal Works (including... Lead Mills)	35	32	677	83	160	1,009	111	76,684
Total	617	579	25,607	581	26,796	25,324	2,042	6,037,231

On the figures of last year, the returns of 1917-18 show a decline, some manufacturing industries in this class having suffered from the effects of the War. Very little agricultural or pastoral machinery is manufactured in New South Wales; but some large firms have extensive assembling plants, appliances, and staffs, and the parts are brought oversea and the machines put together in Sydney. The few firms actually engaged in the manufacture of agricultural and pastoral machinery in this State show increasing business, a result, probably, of shipping limitations. Among the articles recorded as being made or assembled in the State, in addition to agricultural implements, were wool-presses, sheep-shearing machines, and other pastoral appliances. The number of persons permanently employed under this order numbered 445, and the greatest number at any one time during the year 539. The full capacity of power provided was 371 horse-power; the value of plant and machinery was £42,538, and the total value of output £295,789.

Brass and copper working is essentially a metropolitan industry. All the establishments classed thereunder are situated within metropolitan boundaries. Several establishments associate working in brass and copper with other branches of industry, such as engineering, electro-plating, ships' plumbing, tinsmithing, sheet-metal working, motor engineering, and the manufacture of soda fountains and aerated-water machines, supplies, and accessories. The number of persons permanently employed was 353, and the greatest number at any one time during the year 408. The full capacity of power provided was 229 horse-power; the value of plant and machinery was £24,919, and the total value of output £146,898.

Of the 211 establishments classed under engineering, 163 (more than two-thirds) are within metropolitan boundaries. Besides the greater number of establishments designated simply as engineering works, a certain proportion associate in their returns other branches of allied manufacture. In the extra-metropolitan division this order includes the aviation manufacturing plant at Richmond, and the locomotive works at Auburn. In this connection it may be noted that the operations carried on at the railway and tramway workshops at Eveleigh and Randwick, and at certain railway

dépôts at important junctions in the country districts, are, to a large extent, of a character similar to that classed as engineering, under order 5 of Class V; and to some extent the two orders may be correctly associated in results and in type of industry. Apart from the Government railway workshops for manufacture and repairs, certain large firms have establishments at Auburn, and there are also plants at Silvertown and Deniliquin, where rolling stock can be renovated. The number of persons permanently employed in the engineering industry was 6,263, and the greatest number at any one time during the year 7,390. The full capacity of power provided was 13,522 horse-power; the value of plant and machinery was £1,071,294; and the total value of output £2,413,134.

Working in galvanized iron and sheet metal is taken as a separate order of industrial manufacturing, together with zinc founding, japanning, etc. Of the 42 establishments engaged in this industry, three-fourths of the total number were situated in the metropolitan area, but only a few were returned simply as working in galvanized iron. The number of persons permanently employed was 773, and the greatest number at any one time during the year 924. The full capacity of power installed was 554 horse-power; the value of plant and machinery was £51,406, and the total value of output £410,203. The number of persons permanently employed in iron works and foundries was 4,278, and the greatest number at any one time during the year 4,756. The full capacity of power installed was 35,757 horse-power; the value of plant and machinery was £2,129,133; and the total value of output £5,453,855.

There was only one factory in the State returned as being engaged in the nail-making industry so defined. The building of railway carriages and rolling stock was represented by 5 establishments, of which 2 were situated in the country division. The number of persons permanently employed was 315, and the greatest number at any one time during the year 408. The full capacity of the power installed was 1,164 horse-power; the value of plant and machinery was £86,130, and the total value of output £107,542. The railway and tramway workshops were represented by the New South Wales Railways and Tramways Department, the Silvertown Tramway Company, Limited, and the Deniliquin-Moama Railway Company. The total number of persons permanently employed in the railway and tramway workshops specified was 7,409, and the greatest number at any one time during the year 9,284. The full capacity of power installed was 12,867 horse-power; the value of plant and machinery was £1,078,548; and the total value of output £1,958,355.

Smelting.

The smelting and treatment of ores occupied 27 plants or establishments, of which 3 were in the metropolitan division. Of the 24 plants in the remainder of the State, 12 were in the neighbourhood of Broken Hill. There were copper-smelting, ore-dressing, lead-smelting, gold-recovery and cyanide plants at the copper and other mines of Burrage, Cangai, Canbelego, Cobar, Wrightville, Mount Hope, Peak Hill, Boolaroo, Wollongong, Waratah, Nymagee, and Lithgow. It is convenient here to refer to three establishments listed as lead mills. Of these a plant at Broken Hill was engaged in the production of pig lead; there were lead works also within the metropolitan area. At the 24 smelting and ore treatment plants in the country division 3,320 persons were employed, and 81 in the 3 metropolitan establishments. Besides the treatment of silver and lead ores won in New South Wales, some smelting works dealt with gold, copper, tin, and other ores, brought from all parts of Australia, and even from New Caledonia.

Smelting, as a distinct industry, is carried on in several centres in New South Wales, the most important works being at Cockle Creek, Boolaroo,

in the Northern District, and at Port Kembla in the Southern. At Cockle Creek the ores treated are obtained from Broken Hill, as well as from mines in other parts of the State; the greater portion of the output of the Electrolytic Refining and Smelting Works, at Port Kembla, is derived from copper produced at Mount Morgan (Queensland) and at Mount Lyell (Tasmania), though a small proportion of blister copper is derived from mines in this State. It is considered that an economy could be effected, both in regard to the producing mine and the smelter, if all copper won in Australia, either in the form of ore, matte, or metal, were refined in New South Wales.

The following statement shows the operations of New South Wales smelting companies during 1917-18:—

Works.	Output.						Value.
	Gold.	Silver.	Lead.	Copper.	Tin.	Spelter.	
	oz. fine.	oz.	tons.	tons fine.	tons.	tons.	£
Cockle Creek ...	5,150	1,838,362	21,922	...	...	...	1,015,764
Port Kembla ...	176,227	527,717	...	30,467	...	...	4,166,124
Woolwich ...	...	...	...	...	1,182	...	388,900
Total ...	181,377	2,366,079	21,922	30,467	1,182	...	5,570,788

The output shown for the works at Woolwich is derived from ores mined exclusively in this State. At Port Kembla ores won in New South Wales, treated in the Company's works, yielded as follow:—Gold, 12,682 oz. fine, valued at £50,728; silver, 127,005 oz., valued at £27,941; copper, 6,013 tons fine, valued at £611,266. The total value of metal treated at Port Kembla by the electrolytic plant was for the year £4,166,124; of gold, 176,227 oz. fine, valued at £745,440; silver, 527,717 oz. fine, valued at £116,538; and copper, 30,467 tons, valued at £3,304,146.

Persons permanently employed at the 27 smelting works above detailed numbered 3,401, but the greatest number engaged during the year 1917-18 was 3,988; the full capacity of the power supplied was 23,592 h.p.; the value of plant and machinery was £1,203,624, and the total value of output £10,523,672.

The manufacture of stoves and ovens is a metropolitan industry, though only a few of the firms operating during the year 1917-18 confined their activities to stove and range making, and but one to the manufacture of ovens. The number of persons permanently employed in the manufacture of stoves and ovens was 529, and the greatest number at any one time during the year 563. The full capacity of power provided was 436 h.p.; the value of plant and machinery was £48,783; and the total value of output £191,754.

Order 13 comprised mainly those manufacturing industries in which the material used consisted of tin plates, and of the number so classed more than half were within the metropolitan area. The number of persons permanently employed was 1,040, and the greatest number at any one time during the year 1,313. The full capacity of power provided was 785 h.p.; the value of plant and machinery was £101,482, and the total value of output £726,127.

Wire-working is a distinctive order (14), and comprehends those industries in which manufactured wire chiefly furnishes the basic material. Of the 20 establishments so classed, only 2 were outside the metropolitan area. The wire-mattress factories in the State, returned as such, numbered 6; but there were a number of factories engaged in the manufacture and working of wire. The value of plant and machinery used in this industry was £93,809, and the total value of output £436,374.

VI.—FOOD AND DRINK.

This class includes the preparation of articles of food and drink, also certain associated processes, such as refrigerating, distilling, and malting. It deals also with narcotics, as represented by plug and cut tobacco, snuff, cigars, and cigarettes; and grocers' sundries, which cover a wide range of miscellaneous commodities that cannot be strictly regarded as articles of human consumption.

The following table shows the average number of persons employed, together with the quantity of h.-p. used, and the value of machinery, tools, and plant, in each industry during 1917-18.

Industry.	Establishments.		Average Number of Employees, including Working Proprietors.		Power used.			Value of Machinery, Tools and Plant.
	Total.	Using Machinery.	Males.	Females.	Steam.	Electricity.	Other.	
Bacon-curing	22	22	265	11	h.-p. 255	h.-p. 158	h.-p. 30	£ 34,659
Butter and Milk Factories and Creameries	125	125	897	23	2,248	150	751	300,910
Butterine and Margarine	4	4	90	4	12	108	40	14,750
Cheese Factories	30	25	105	1	95	..	2	15,697
Condensed Milk	4	4	79	18	60	..	..	34,823
Meat Preserving and Refrigerating	13	13	1,036	251	224	102	..	50,930
Biscuit Manufacture	9	9	326	832	149	548	15	101,900
Confectionery	63	52	1,050	904	75	815	157	145,428
Cornflour, Oatmeal, etc.	15	15	263	174	394	434	103	103,038
Flour-mills	61	61	1,218	18	3,538	286	1,266	371,852
Jam and Fruit Canning	22	17	517	448	228	180	2	104,048
Pickles, Sauces, and Vinegar	21	17	173	222	57	73	..	21,234
Sugar Mills and one Sugar Refinery	4	4	895	66	1,355	1,865	15	986,511
Aerated Waters, Cordials, etc.	192	189	901	118	216	394	294	167,760
Breweries	21	25	939	11	1,462	1,102	13	729,322
Condiments, Coffee, Spices, etc.	35	32	335	454	30	222	43	32,800
Distilleries	3	3	25	..	13	122	..	63,053
Ice and Refrigerating	130	130	1,579	16	4,748	1,336	1,531	690,619
Malting	4	4	60	..	40	47	8	40,794
Tobacco, Cigars, etc.	16	9	877	1,155	..	523	1	140,849
Total	794	755	12,135	4,751	15,208	8,435	4,271	4,151,037

The average time made by the whole class was 11-20 months.

Butter, Cheese, and Bacon Factories.

Factories operating in the curing of bacon and hams numbered 22, of which 6 were situated within the metropolitan area, and 16 in the remainder of the State. There were 125 establishments classed under butter factories, 3 of which were within the metropolitan area. A small proportion of the butter factories were milk-receiving depôts for subsequent distribution, and at a few such it was pasteurised and chilled; whilst at a limited number the manufacture of butter was combined with the making of ice and the curing of bacon. The four factories engaged in the manufacture of butterine and margarine were all within the metropolitan area. At 30 establishments cheese was made, and these were all in the country division; and 4 country factories were engaged in the manufacture of condensed milk.

The 22 factories engaged in the curing and smoking of bacon, and classed under order 1, gave permanent employment to 276 persons, the greatest number at any one time during the year being 315; the full capacity of power used was 528 h.-p.; the value of plant and machinery was £34,659; and the total value of output £878,711. The 125 establishments classed under order 2 as butter factories gave permanent employment to 925 persons, the greatest number at any one time during the year being 1,042; the full capacity of machinery was 4,303 h.-p.; the value of plant and machinery was

£300,910; and the total value of output £5,208,993. The 30 cheese factories classed under order 4 gave permanent employment to 106 persons, the greatest number at any one time during the year being 117; the full capacity of power used was 152 h.-p.; the value of plant and machinery was £15,697; and the total value of output £190,064.

There has been a gradual but almost continuous increase in the quantity of butter made in creameries during recent years; but creameries operated as subsidiary branches of butter factories are not treated as separate establishments, and the workers operating in them are included in the total of the whole order. The number, either of factories or of employees, does not coincide with that shown in the preceding table, from which was excluded the dairy production of farms and of employees (1,018 males and 1 female in 1917-18) partly occupied in general farm labour. Particulars of the machinery in use and the number of persons employed during each of the last five years are given in the following table:—

Year.	Factories.							Estimated Value of Plant and Machinery.	Machinery in use.							Persons employed.	
	Butter only.	Cream and Milk.	Cheese only.	Bacon and Hams only.	Butter and Cheese.	Butter and Bacon.	Total.		Engines.		Butter Workers.	Churns.	Cream Separators.	Cheese Presses.	Males.	Females.	
									Number.	Horse-power.							
1913	142	677	50	19	3	6	897	£ 435,619	1,027	6,996	133	266	752	145	1,927	22	
1914-15	142	609	66	21	4	1	843	446,507	963	6,947	109	258	704	146	1,949	33	
1915-16	151	652	58	19	2	..	882	434,956	1,002	7,041	93	258	730	126	1,909	43	
1916-17	128	846	60	21	5	..	1,000	506,968	1,205	7,946	73	238	914	143	2,167	49	
1917-18	122	961	59	22	6	..	1,170	568,757	1,253	8,294	57	227	989	131	2,374	59	

Bacon, hams, butter, and cheese are made largely also on farms; the special chapter in this Year Book dealing with the Dairying Industry should, therefore, be consulted for complete information regarding these branches of agricultural and manufacturing production.

The foregoing figures show rather a readjustment than a revolution in the dairy produce industry. On the figures of the preceding year there was a decrease in the number of factories at which butter only was made amounting to 6, and of butter-workers (machines) amounting to 16; but every other column exhibited an increase. The number of workers was greater than in 1916-17 by 267 males and 10 females, and the machinery in use by 348 h.-p. The results in production were highly satisfactory, the output of butter showing an increase on that of the preceding year of 803,166 lb. in quantity, and of £296,457 in value; of cheese, of 415,984 lb. in quantity, and of £26,424 in value; of bacon and hams, of 2,042,553 lb. in quantity, and of £126,794 in value; of lard, of 155,550 lb. in quantity, and £786 in value; and of condensed milk, of 3,143,926 lb. in quantity, and of £81,130 in value.

During the year ended 30th June, 1918, the bacon factories, apart from farms, cured 15,602,919 lb. of bacon and hams, valued at £767,845, and produced lard weighing 811,061 lb., valued at £28,464, also small goods to the value of £52,274. The butter factories showed during the same period an output of 75,867,550 lb., valued at £5,155,939. Cheese factories produced 6,088,412 lb., valued at £235,439, and at condensed and concentrated milk factories 8,973,916 lb. of condensed and concentrated milk were made, the value being stated as £206,250. The total production of bacon, butter, cheese, and condensed and concentrated milk factories for the year 1917-18 was £6,446,211, or higher than that of the preceding year by £544,742.

During the year 1917-18 the output of the butterine and margarine factories amounted to 6,744,296 lb. of margarine, valued at £230,639; and there was also a production of 5,650 cwt. of tallow, valued at £18,436; and of 187,333 lb. of stearine, valued at £5,707. The factories engaged in condensing and canning milk treated during the year 1917-18 a total quantity of 2,366,334 gallons of milk, for an output of 8,973,916 lb. of condensed milk, valued at £206,250.

Meat Preserving and Refrigerating.

There were 13 establishments and 1,287 persons employed in connection with meat-preserving during 1917-18. Two establishments in the country division were rabbit canneries, and 5 meat preserving factories were within the metropolitan area. The industry gave permanent employment to 1,287 persons, the greatest number employed at one time during the year being 1,490. The full capacity of power provided was 415 horse-power; the value of plant and machinery was £50,930, and the total value of output £1,628,071. The following table shows the number of carcasses treated in establishments dealing with meat by canning and chilling at intervals since 1901.

Year.	Meat Preserving Works.				Refrigerating Works.	
	Cattle.	Sheep and Lambs.	Meat and Tongues and Sundries.		Cattle.	Sheep and Lambs.
			Quantity.	Value.		
1901	No. 16,538	No. 732,094	lb. *	£ *	No. 18,195	No. 963,614
1906	9,995	274,950	*	*	5,352	1,283,862
1911	61,596	925,475	3,023,931	31,978	10,188	1,469,923
1912	50,941	616,435	2,301,418	37,079	11,552	1,191,711
1913	100,827	374,523	7,305,113	81,807	29,887	2,160,484
1914-15	103,778	415,397	7,356,501	90,293	53,605	2,423,638
1915-16	11,466	76,008	4,993,226	195,464	11,835	762,034
1916-17	25,963	28,474	686,652	20,631	27,977	791,752
1917-18	47,845	399,833	9,295,428	178,895	29,168	337,234

* Not available.

The output of tinned meat in 1917-18 was 18,795,194 lb., valued at £1,135,262; sheep and ox tongues, 445,464 lb., valued at £40,000; meat extract, 122,078 lb., valued at £573,266; tallow, 65,803 cwt., valued at £132,587; fat, bones, etc., 58,675 cwt., valued at £38,585; dripping, 980 cwt., valued at £1,980; tinned rabbits, 2,056,286 lb., valued at £80,554; hides, wool, skin, and bones, valued at £71,537; sundries, valued at £1,064; 18,474 cwt. of manures, valued at £4,423; or a total output valued at £1,628,071, inclusive of by-products.

The meat-preserving industry shows the effects of the War in value of output, when the returns for the period since the year 1914 are compared with those of preceding years; not because there was no demand for preserved meats, but on account of the restriction of shipping facilities and the transference of vessels to military transport services.

The detailed figures relating to the freezing and chilling of carcass meat at refrigerating works during the year 1917-18 were as follow:—

Live Stock Treated.				Frozen for Export.	Chilled.	Total.
				No.	No.	No.
Bullocks and Cows	...	...	...	22,920	5,753	28,673
Calves	...	...	...	319	176	495
Total	...	...	...	23,239	5,929	29,168
Sheep	...	...	...	230,723	30,209	260,932
Lambs	...	...	...	75,207	1,095	76,302
Total	...	...	...	305,930	31,304	337,234
Pigs	...	...	...	742	4,339	5,081
Total : Carcasses	...	...	...	329,911	41,572	371,483

Biscuit, Confectionery, and Meal Factories.

There were in the State 9 establishments engaged in the manufacture of biscuits, 6 of which were within the metropolitan area. The number of persons permanently employed was 1,658, and the greatest number at any one time during the year 1,831. The full capacity of power provided was 864 horse-power; the value of plant and machinery was £101,900, and the total value of output £1,057,402. During the year 1917-18 the flour used in these factories amounted to 16,561 tons, and the production of biscuits to 48,145,600 lb., value at £1,014,182, besides cakes, valued at £26,361, and dog biscuits, valued at £4,139, also made at these factories.

The manufacture of confectionery, cakes, pastry, and ice-cream is an important metropolitan industry. Of 63 establishments engaged under this classification in New South Wales, 3 only were listed as being situated in the remainder of the State. The number of persons permanently employed was 1,954, and the greatest number at any one time during the year 2,115. The full capacity of power provided was 1,399 horse-power; the plant and machinery were valued at £145,428, and the total output at £1,165,590.

Fifteen factories, only one of which number was outside the metropolitan area, were engaged in the various processes of the preparation of oatmeal, rolled oats, cornflour or maize (maizena), ground rice, wheat-meal, flaked meal, semolina, cereal meal, rye, macaroni, starch, and poultry foods. These included both milling and packing establishments. The local manufacture of these prepared grain products was concerned with the treatment of wheat, maize, oats, rice, rye, and the semolina of commerce, and the production of 107,102 cwt. of oatmeal, valued approximately at £155,332; 70,338 cwt. of cornflour, valued at £112,729; 12,724 cwt. of maize meal, maize flour, and rye flour, valued at £6,709; 131,580 cwt. dressed rice, valued at £153,961; and flour, bran, pollard, rye, and other meals, semolina, macaroni, and starch, valued at £37,484. The number of hands permanently employed was 442, and the greatest number employed at any one time during the year was 490. The full capacity of power provided was 1,259 h.p.; the value of plant and machinery was £103,038; and the total value of output £521,763.

Flour-Mills, Biscuit Factories, etc.

The amount of mill-power for grinding and dressing grain is ample for treating the flour consumed in the State, and prior to the declaration of

war an export trade was progressively developing, though it experienced a set-back from causes sufficiently detailed in other portions of this Year Book.

The following table shows the average number of persons employed, the wheat treated, the flour made, and the power and value of plant and machinery, in the flour-mills of the State in 1901 and at intervals thereafter:—

Year.	Flour Mills.	Average Number of Employees, including Working Proprietors.	Wheat treated.	Flour made.	Plant and Machinery.	
					Power (full capacity).	Value.
			bushels.	tons.	h.-p.	£
1901	89	389	9,369,534	191,504	4,429	254,335
1906	78	873	11,151,126	225,995	5,532	297,859
1911	73	967	12,616,111	253,556	6,302	340,316
1912	69	964	12,065,733	255,359	6,263	333,068
1913	68	1,035	13,963,806	285,425	6,278	342,367
1914-15	63	901	12,836,354	266,302	6,359	334,602
1915-16	63	1,026	12,309,748	254,393	6,372	336,982
1916-17	62	1,097	15,839,319	331,063	6,399	342,141
1917-18	61	1,236	17,530,907	355,843	6,499	371,852

In the year 1917-18 the amount of wheat treated at the mills was greater in quantity by 1,691,588 bushels than in 1916-17, but the total value of production was more by £405,940. From 17,530,907 bushels of wheat the total output was 355,843 tons of flour valued at £3,862,493; of bran, 78,980 tons, valued at £315,263; of pollard, 78,090 tons, valued at £418,882; of sharps and screenings, 5,304 tons, valued at £41,549; of wheatmeal, semolina, and other meal preparations, 48,426 cwt., valued at £23,570; and of milling sundries to the value of £3,338—total value of the output of the flour-mills of the State for the year 1917-18, £4,665,301. If to this be added 95 tons of flour, valued at £879, produced at the meal mills, the total production was of the value of £4,666,180. Of the 61 flour-mills in the State, 10 only were included in metropolitan boundaries, and 51 were situated in the country division, few important towns being unprovided in this prime essential of a branch of food production. The total number of persons permanently employed was 1,236, and the greatest number employed during the year at any one time was 1,437. The full capacity of power provided was 6,499 h.-p., but that actually used was 5,090 h.-p.; and the value of plant and machinery was £371,852.

Preserved Vegetable Products.

Preserved vegetable products are classified under two orders, namely 11 and 12 of Class VI, and consist of jam, preserves, pickles, sauces, vinegar, and pulped condiments. Of the combined orders there were within the State 43 factories, of which number 32 were within the metropolitan area. The products treated are quoted as jams, canned and preserved fruits, crystallized fruit and preserved ginger, pickles, sauces, flavouring essences, condiments, yeast, vinegar, jelly crystals, and curry and custard powders. There were 22 jam and fruit canning factories in 1917-18, which gave permanent employment to 965 persons, the greatest number at one time during the year being 1,495; the full capacity of power was 670 h.-p., the value of plant and machinery, £104,048; and the total value of output £795,769. The establishments engaged in the manufacture of pickles, sauces, vinegar, etc., numbered 21; they gave permanent employment to 415 persons, the greatest

number at one time during the year being 478; the full capacity of power was 167 h.-p.; the value of plant and machinery, £21,284; and the total value of output £256,089.

The principal articles produced in jam, pickle, and sauce factories during 1917-18 were 30,503,822 lb. of jams, valued at £637,130; 5,541,622 lb. of preserves, valued at £124,084; 1,078,872 lb. of dried and evaporated fruit and pulp, valued at £7,910; 195,937 lb. of candied peel, valued at £5,721; 253,120 lb. of crystallized and preserved ginger, valued at £10,202; 2,119,680 pints of pickles, valued at £59,691; 3,613,870 pints of sauces, valued at £109,577; 1,271,090 gallons of vinegar, valued at £41,257; and 260,801 gallons of yeast, valued at £12,247; besides table syrups and cordials. In the manufacture of these goods, 185,326 cwt. of sugar and 403,808 cwt. of fruit and other materials were used.

Jam and fruit-canning is an industry which awaits systematic development in New South Wales; the climate and soil are admirably adapted for fruit growing, nevertheless a large proportion of the local demand is supplied by importation, although there exists the anomaly of hundreds of tons of fruit grown in the State being yearly wasted. The marked increase in the output of jam, and more particularly of canned and preserved fruit, during the years 1915-16, 1916-17, and 1917-18, is due largely to the effort made to fulfil contracts with the Imperial Government for supplies of these articles of food for the British Army.

Sugar Mills.

The manufacture of sugar has long been an important industry. As far back as 1878 there were 50 mills in the State, but there are now only 3, and employment is afforded to a smaller number of persons than were engaged ten years ago.

The reason for the decline in the manufacture of sugar is to be found in the decrease of the area put under sugar-cane in New South Wales. The cultivation of sugar-cane is confined practically to the Richmond, the Tweed, the Brunswick, and the Clarence Rivers, and the area farmed is yearly diminishing, as other more profitable crops can be grown. Queensland is the great sugar centre of Australia on account of its immunity from the frosts which retard the cultivation of the cane in higher latitudes.

The raw sugar manufactured in 1917-18 was valued at £432,717, and the molasses at £3,485, the quantity of cane crushed being 174,881 tons.

The number of mills and of persons employed, and the quantity of sugar and molasses manufactured, together with the capacity of horse-power used, during 1901 and certain other years are shown in the following table.

Year.	Sugar Mills.	Average Number of Employees.	Quantity manufactured.		Horse-power of Plant (full capacity).
			Sugar.	Molasses.	Steam.
			cwt.	gallons.	h.-p.
1901	12	635	390,375	1,300,909	2,935
1903	5	622	479,993	1,305,466	3,485
1911	4	469	345,978	796,440	3,546
1912	3	469	336,340	667,100	2,835
1913	3	486	443,840	966,000	2,885
1914-15	3	437	400,580	1,104,000	2,885
1915-16	3	463	382,870	1,099,000	2,032
1916-17	3	427	321,280	781,870	1,638
1917-18	3	367	397,500	975,770	1,466

Sugar Refinery.

There is but one sugar refinery in the State, and as it treats both local and imported raw product its operations are extending each year. During the year 1917-18 it handled 2,417,660 cwt. of raw sugar, which gave an output of 2,344,440 cwt. of the refined article, valued at £3,059,782.

The three mills, which were situated respectively at Harwood Island, on the Clarence River, at Broadwater, on the Richmond, and at Condong, on the Tweed, together with the refinery at Pymont, Sydney, during the year 1917-18 furnished with permanent employment 961 persons, the greatest number at one time during the year being 1,043; the full capacity of power supplied was 3,448 h.-p.; the value of plant and machinery, £986,521; and the total value of output, £3,495,984.

Breweries.

There were in the State 21 establishments classed as breweries, of which 3, the largest and most important, were within metropolitan boundaries. In 1908 there were 37 breweries in New South Wales, but though the number is decreasing, the output during the last ten years shows an increase. The 21 breweries furnished permanent employment to 950 persons, the greatest number employed during 1917-18 being 1,063. The full capacity of power supplied was 4,353 h.-p., plant and machinery were valued at £729,322, and the total value of output was £1,535,669.

The materials used in breweries for manufacturing purposes and the actual output during 1906 and other years were as follow:—

Year.	Malt.	Hops.	Sugar.	Other Materials.	Ale, Beer and Stout manufactured
	bushels.	lb.	tons.	centals.	gallons.
1906	488,982	586,438	3,435	5,530	14,032,390
1911	667,457	790,866	4,421	7,705	19,804,540
1912	773,194	891,535	5,048	8,286	22,741,332
1913	809,171	909,116	5,218	9,404	24,212,202
1914-15	838,148	893,050	5,192	6,044	24,434,147
1915-16	666,088	849,161	5,223	3,657	23,889,737
1916-17	678,206	805,514	5,366	3,336	22,485,765
1917-18	687,702	771,078	5,430	1,292	23,166,180

In the following table is given the quantity on which excise was paid:—

Year.	Breweries.	Average Number of Employees including Working Proprietors.	Ale, Beer and Stout on which Excise was paid.	Horse-power of Plant (full capacity).
			gallons.	h.-p.
1901	51	1,016	13,253,600	1,477
1906	39	881	13,587,336	1,087
1911	37	912	19,352,993	1,192
1912	33	1,020	22,126,426	1,926
1913	31	1,043	23,516,656	2,186
1914-15	27	1,045	23,516,877	3,965
1915-16	24	940	22,997,466	4,191
1916-17	22	1,003	21,851,727	4,508
1917-18	21	950	22,483,993	4,353

In the output of the breweries must be included a large production of aerated waters and cordials, though there are about two hundred factories throughout the State exclusively occupied with the production of these

articles. They furnished permanent employment during the year 1917-18 to 1,019 persons; the full capacity of power supplied was 1,442 h.p.; the value of plant and machinery, £167,760; and the total value of output £518,109.

Condiments, Coffee, Spices, etc.

A number of establishments, almost entirely within the metropolitan area, are engaged in the preparation of grocers' minor wares, in tea-blending, and the preparation of coffee, spices, &c. They afforded permanent employment to 789 persons during the year 1917-18; the full capacity of power supplied was 561 h.p.; the value of plant and machinery, £32,800; and the total value of output £986,527.

Distilleries.

During the year 1917-18 the three distilleries in the State produced 1,600,668 gallons of white spirit from 348,731 cwt. of molasses, and 10,185 gallons from 66,476 gallons of wine, exclusive of 9,007 gallons distilled by vigneron from 54,464 gallons of wine. The quantity of manufactured spirits produced was as follows:—Brandy, 4,115 gallons; rectified spirit, 714,101 gallons; and methylated spirit, 892,637 gallons. No rum was manufactured from spirits distilled during this period. The distillers were furnished with machinery with a full capacity of 139 horse-power; the value of plant and machinery was £63,053; and the total value of output, £70,271.

Ice and Refrigerating.

The manufacture and utilization of ice are of paramount importance in a country subject to severe summers, or in which long distances have to be traversed, or perishable food retained in storage awaiting exportation. The refrigerating, freezing, chilling, packing, and cold-storage establishments in the State number 130, of which 30 are within metropolitan boundaries; and the articles treated comprise carcase meat, poultry, rabbits, hares, fish, milk, cream, butter, eggs, general dairying produce, and perishable food products. Factories for the production of ice mainly for distribution numbered 53, and of these 19 were within the metropolitan area. Two aerated water factories in the country division also produced a small quantity of ice, which is included in the total. Some refrigerating works sell a certain amount of their production of ice to the public, but they are not numerous.

The total value of the output in 1917-18 of ice and refrigerating works was £4,910,673, inclusive of 59,900 tons of ice, valued at £95,585. Of a total number of 2,243 persons working during the year, 1,595 were permanently employed. Plant and machinery was valued at £690,619, and the full capacity of power used was 11,524 h.p.

Tobacco Factories.

Sixteen factories under this classification were in operation during the year 1917-18, all situated within the metropolitan area. Of these, 12 were engaged in the manufacture of cigars, 2 in that of tobacco, 1 in that of cigarettes, and 1 in the manufacture of tobacco and cigarettes. The number of persons permanently employed was 2,032, and the maximum during the twelvemonth, 2,165; the full capacity of power supplied was 805 h.p.; the value of plant and machinery was £140,849; and the total value of output, £2,222,751.

About a seventh of the tobacco manufactured in New South Wales is grown in the State. In 1917-18 tobacco was grown on 791 acres, and the year's crop was 2,609 cwt., valued at £18,260.

There were 102 more operatives employed in the manufacture of tobacco in its various forms in 1917-18 than during 1916-17.

The following table shows details of the operations of tobacco factories in New South Wales at intervals since Federation. The large increase in the number of females employed is due principally to the extension of cigarette making.

Year.	Establishments.	Average Number of Employees.		Tobacco Leaf used, exclusive of waste.		Tobacco, Cigars, and Cigarettes manufactured.		
		Males.	Females	Australian grown Leaf.	Imported Leaf.	Tobacco.	Cigarettes.	Cigars.
				lb.	lb.	lb.	lb.	lb.
1901	20	621	440	883,615	2,114,456	2,524,231	457,276	67,128
1906	25	649	397	1,178,183	3,056,906	4,057,965	837,835	50,326
1911	26	697	765	745,405	4,617,756	3,996,471	1,899,462	87,818
1912	22	694	748	760,543	5,305,654	4,170,853	2,377,554	80,537
1913	24	692	805	727,759	5,085,083	3,885,562	2,526,130	86,264
1914-15	18	785	978	924,781	5,756,652	4,523,617	2,866,283	102,260
1915-16	17	884	1,085	988,183	6,363,446	5,041,172	3,043,134	98,626
1916-17	15	868	1,062	863,475	6,239,766	5,013,094	2,790,994	100,342
1917-18	16	877	1,155	917,291	6,864,428	5,529,376	3,018,319	118,521

The value at the factories of the tobacco manufactured in 1917-18 was £1,171,536; cigarettes, £961,838; and cigars, £79,365; the total being £2,212,739. The number of cigarettes and cigars represented by the above-mentioned weights were 1,368,868,602 and 10,533,984 respectively.

VII.—CLOTHING, TEXTILE FABRICS, ETC.

Manufactories dealing with the industries relating to textile fabrics and the making of articles of attire afford the greatest numerical employment of any in the State, but with regard to production, and to wages paid per employee, they are much below several other classes. The number of persons engaged in each branch of the industry during 1917-18 is shown in the following table.

Industry.	Establishments.		Average Number of Employees, including Working Proprietors.		Power Used.			Value of Machinery, Tools and Plant.
	Total.	Using Machinery.			Steam.	Electricity.	Other.	
			Males.	Females.				
Woollen and Tweed Mills	6	6	473	572	h.-p. 1,068	h.-p. 1,245	h.-p. 200	£ 188,437
Hosiery and Knitting Factories	20	18	69	540	42	123	5	39,789
Boots and Shoes	111	97	2,692	1,789	50	744	499	160,490
Slop Clothing	93	90	788	3,929	..	352	7	42,802
Clothing (Tailoring)	333	62	1,677	3,103	..	102	1	24,039
Clothing (Waterproof and Oilskin)	5	5	52	180	..	27	..	2,791
Dressmaking and Millinery (makers' materials)	230	89	173	5,315	4	229	..	31,257
Dressmaking and Millinery (customers' materials)	70	23	11	622	..	43	..	5,163
Dyeworks and Cleaning	13	9	85	87	13	46	5	12,275
Furriers	10	2	30	62	..	1	4	669
Hats and Caps	36	33	509	976	344	308	14	72,553
Shirts, Ties, and Scarfs	47	45	154	1,676	..	201	37	23,216
Rope and Cordage	7	6	300	19	140	98	225	37,073
Sailmaking	6	4	28	5	..	8	2	805
Tents and Tarpaulins	11	10	147	306	..	122	8	11,148
Total	908	499	7,218	19,181	1,661	3,689	1,007	652,447

Woollen and Tweed Mills.

Although New South Wales is one of the greatest wool-producing countries in the world, those engaged in the manufacture of woollen materials

numbered only 1,045 in 1917-18, which was slightly more than in 1916-17, but 124 fewer than during the year 1915-16. Woollen mills were amongst the earliest established in the State, but the industry has progressed very slowly.

In 1917-18 there were 6 establishments under this classification, of which number 3 were situated within the metropolitan area and 3 in the remainder of the State. The full capacity of the power supplied was 2,628 h.p., and the value of plant and machinery £188,437. The total output of the woollen mills for the year 1917-18 was valued at £731,185.

Details of employment, output, and motive power at intervals since 1901 are shown in the following table:—

Year.	Woollen and Tweed Mills.	Average Number of Employees (includes Working Proprietors).			Woollen Cloth and Tweed manufactured.	Horse-power of Plant (full capacity).
		Males.	Females.	Total.		
					yds.	h.-p.
1901	4	162	72	234	525,020	325
1903	5	160	178	338	498,164	327
1911	5	349	389	738	1,654,845	1,024
1912	5	351	413	764	1,143,046	1,029
1913	5	360	416	776	1,312,363	2,015
1914-15	5	379	576	955	1,718,903	2,493
1915-16	5	501	668	1,169	2,447,910	2,548
1916-17	6	444	590	1,034	2,194,955	2,603
1917-18	6	473	572	1,045	2,044,745	2,628

During 1917-18, 2,833,326 lb. of scoured wool, 192,063 lb. of tops, 281,699 lb. of cotton, besides yarn and dyes were used in the mills; and, in addition to the tweed and cloth shown above, 707,820 yards of flannel, 76,814 pairs of blankets and 12,000 rugs and shawls were also manufactured. Until the latter half of 1905 there was only a very small demand for locally woven cloth, and since then the market has grown but slowly. Nevertheless, the prejudice against Australian tweeds and similar fabrics is now diminishing under necessity, and it is possible that, with the assurance of peace, the industry will expand beyond local needs, and that exports of manufactured cloth will gradually take the place of exports of raw wool.

Hosiery and Knitting Factories.

The industries under this classification during the year 1917-18 numbered 20, of which 2 only were outside metropolitan boundaries, and 1 outside the county of Cumberland. These factories were engaged in knitting fine and ordinary hosiery, woollen articles of apparel, etc., and in making yarn for the manufacture of woollen goods. It is to be noted that the preparation of yarn is a branch of industry pursued also in the woollen mills under the main class. The number of persons permanently employed was 639; and the greatest number at any one time during the year, 709. The full capacity of power provided was 255 h.p.; the value of plant and machinery was £39,789; and the total value of output, £222,663. During the years 1917 and 1918 supplies of imported yarns and knitting wools were very short, and towards the end of the latter year the shortage became acute owing to lack of shipping space from the United Kingdom. Japan now produces yarns from wool tops exported from Australia, the yarns being returned to this country. The hosiery and knitting industry should expand considerably as the imports increase and as the necessary machinery becomes more readily obtainable.

Statistics of hosiery and knitting factories are available for the past six years; previously they were included with those of woollen and tweed mills.

The following statement shows the number of factories, particulars of employment, the value of goods manufactured, and the full capacity of motive power supplied for the five years 1913-18:—

Year.	Factories.	Average Number of Employees.			Value of Goods Manufactured.	Horse-power of Plant (full capacity).
		Males.	Females.	Total.		
1913	13	60	320	380	£ 78,718	h.p. 97
1914-15	16	71	416	487	111,475	138
1915-16	19	84	522	606	180,285	167
1916-17	20	94	514	608	194,543	215
1917-18	20	99	540	639	222,663	255

The output of the factories has increased largely since the establishment of the industry as an independent enterprise. The requirements of the Commonwealth Defence Department proved a great stimulus to this branch of textile industry, and some of the factories worked overtime throughout the duration of the War.

Boot and Shoe Factories.

The number of establishments occupied during the year 1917-18 in various branches of boot and shoe manufacture was 111, of which 89 were situated within the metropolitan area, and 22 in the remainder of the State. The greatest number of persons employed during the year 1917-18 was 4,775, but the average number permanently working was 4,481; the full capacity of power supplied was 1,605 h.p.; the value of plant and machinery, £160,490; and the total value of output, £1,977,376.

For the year 1917-18 the output of boots and shoes was valued at £1,853,317; slippers, etc., at £63,097; and uppers, at £18,081. Other work to the value of £42,881 was performed during the year, and this included repairs, the manufacture of heels, etc. In the manufacture of boots, etc., in 1917-18, approximately 5,079,584 lb. weight of sole leather was used, and 7,461,028 square feet of upper leather, besides other material to the value of £227,424, which included heels, linings, trimmings, facings, eyelets, etc.

Year.	Boot and Shoe Factories.	Average Number of Employees (includes Working Proprietors).			Output (as returned by Manufacturers).		
		Males.	Females.	Total.	Boots and Shoes.	Slippers, Infants' Shoes, Canvas and Cloth Shoes.	Uppers.
1901	100	2,861	1,118	3,979	pairs. 2,821,724	pairs. 512,584	pairs. *
1906	102	3,178	1,589	4,767	3,567,555	378,599	*
1911	106	2,818	1,593	4,411	3,730,760	439,425	71,138
1912	103	2,779	1,612	4,391	3,885,267	399,874	61,647
1913	105	2,703	1,559	4,262	3,640,068	310,026	53,295
1914-15	108	2,634	1,471	4,105	3,530,172	311,873	54,777
1915-16	103	2,540	1,659	4,199	3,552,021	291,366	43,735
1916-17	115	2,694	1,702	4,396	3,784,749	389,378	56,231
1917-18	111	2,692	1,789	4,481	3,772,234	473,464	51,644

* Not available.

Tailoring, etc.

Nearly all the establishments engaged in the manufacture of slop clothing were within the boundaries of the metropolitan area. The majority worked up proprietors' materials, but in some cases the materials were supplied by warehousemen. The number of persons permanently employed during the year 1917-18 was 4,717, and the greatest number at one time 5,282, over 83 per cent. of the employees being females. The full capacity of power supplied was 429 h.-p., and the value of plant and machinery £42,802. The total output was valued at £1,306,811.

Tailoring, which included ladies' tailoring, was well represented by establishments throughout the State, though the majority was within the metropolitan area. The number of persons permanently employed in 1917-18 was 4,780, and the greatest number during the year 5,401, about 65 per cent. being females. The full capacity of power supplied was 115 h.-p.; the value of plant and machinery was £24,039, and of output £1,256,760.

A few factories, all within the metropolitan area, were engaged in the manufacture of waterproof and oilskin goods, and afforded permanent employment to 232 persons, of which number over 77 per cent. were females. The full capacity of power supplied was 27 h.-p.; the value of plant and machinery £2,791, and that of output £125,167.

Dressmaking and millinery are presented in a preceding table in two sets of statistics, namely, those relating to the fabrication of makers' materials, and those relating to the fabrication of materials supplied by customers. The facts representative of the industry are, however, essentially the same in both branches. Of the total number of establishments, less than a fifth were outside the metropolitan area, and all those in the country division were to be found in the more important urban centres. The number of persons permanently employed in both branches of the industry was 6,121, of which total the males formed about 3 per cent.; and the greatest number employed during the twelvemonth was 6,889. The full capacity of power supplied was 302 h.-p.; the value of plant and machinery was £36,420, and that of output £1,095,627.

All the establishments engaged in dyeing, cleaning, and associated operations were within the metropolitan area, and furnished permanent employment to 172 persons. They were supplied with motive power of 76 h.-p. full capacity, the value of plant and machinery was £12,275, and that of output £51,052.

The treatment of furs as articles of wearing apparel was almost exclusively a metropolitan industry, and furnished permanent employment to 92 persons. The output for the year 1917-18 was valued at £32,482.

The manufacture of shirts, ties, and scarfs, almost exclusively a metropolitan industry, gave permanent employment to 1,830 persons, of which number a little more than 8 per cent. were males. The greatest number employed at any one time during the twelvemonth was 2,026. The full capacity of power supplied was 272 h.-p.; the value of plant and machinery was £23,216, and that of output £316,049.

Hat and Cap Factories.

There has been considerable expansion in the industry organized for the manufacture of hats and caps. Until 1898 it employed fewer than 100 persons, but in 1917-18 there were 1,485, of which number nearly 66 per cent. were females. The greatest number of persons employed during the twelve-months was 1,644.

There were 36 establishments listed under this classification, of which 1 only was outside the metropolitan area. They were supplied with motive power the full capacity of which was 823 h.-p.; the value of plant and machinery was £72,553.

Year.	Hat and Cap Factories.	Average Number of Employees (includes Working Proprietors).			Power of Machinery (full capacity).	Value of Machinery, Tools, and Plant.
		Males.	Females.	Total.		
1901	10	132	198	330	h.-p. 27	£ 7,034
1906	23	342	694	1,036	144	32,570
1911	32	537	1,029	1,566	625	60,807
1912	35	546	1,051	1,597	863	61,873
1913	38	570	975	1,545	786	69,397
1914-15	36	511	918	1,429	821	68,318
1915-16	36	515	1,044	1,559	768	75,941
1916-17	33	468	895	1,363	823	72,401
1917-18	36	509	976	1,485	823	72,553

The hats and caps manufactured during 1917-18 numbered 2,257,291, valued at £448,608. The total output, inclusive of miscellaneous work, was £485,376.

VIII.—BOOKS, PAPER, PRINTING, ETC.

The details of each order arranged under this industrial class are shown in the subjoined table for the year 1917-18. It is necessary to note that all printing establishments did not represent businesses trading as such, as a number of firms engaged in general commerce had a printing department attached to their chief depôts, and performed all the work of printing, etc., connected with their special enterprise.

Industry.	Establishments.		Average Number of Employees (includes Working Proprietors).		Power Used.			Value of Machinery, Tools, and Plant.
	Total.	Using Machinery.	Males.	Females.	Steam.	Electricity.	Other.	
Electrotyping and Stereotyping ...	8	8	75	15	h.-p. 1	h.-p. 53	h.-p. ...	£ 16,418
Paper-making, Paper-boxes, Bags, etc. ...	33	31	651	924	1,842	723	52	206,151
Photo-engraving ...	19	17	181	75	...	102	...	21,248
Printing and Binding ...	411	394	5,822	1,819	25	3,286	818	1,083,090
Total ...	471	450	6,729	2,838	1,867	4,164	870	1,326,907

Inclusive of a special branch at the Government Printing Office, the industry of electrotyping and stereotyping was represented by 8 establishments, all situated within the metropolitan area. The number permanently employed during 1917-18 was 90; the full capacity of power supplied was 69 h.-p.; the value of plant and machinery was £16,418, and that of output £23,880.

The manufacture of paper, and of bags and boxes of that material, was exclusively a metropolitan industry which afforded permanent employment in 1917-18 to 1,575 persons, of whom nearly 59 per cent. were females. The greatest number of persons employed at any one time during the twelve-month was 1,806. The full capacity of power supplied amounted to 3,112 h.-p.; the value of plant and machinery was £206,151, and that of output £777,141.

Photo-engraving, a purely metropolitan industry, afforded permanent employment to 256 persons in 1917-18, the greatest number employed at any one time during the year being 282. The full capacity of power provided amounted to 140 h.-p.; the value of plant and machinery was £21,248, and that of output £75,787.

Printing, binding, and correlated crafts were classified under order 4, but newspapers were placed under a sub-order (4A), some of the plants of which were engaged in job-printing, in addition to their prescribed business of providing periodical literature. Under the first classification 207 establishments were enumerated, of which about 13 per cent. were outside metropolitan boundaries. Of printing offices, printeries and binderies so described apart from newspaper businesses, there were in the State 207, inclusive of 24 in the country division, and of three specific branches of the Government Printing Office.

The order printing and binding, inclusive of the sub-order newspapers, in 1917-18 furnished with permanent employment 7,641 persons, of whom nearly 24 per cent. were females; and the greatest number of persons employed at any one time during the twelvemonth was 8,448. The full capacity of power provided amounted to 5,525 h.-p.; the value of plant and machinery was £1,083,090, and that of output £3,082,514.

Of the 204 newspaper proprietaries (many of which performed also job-printing) 29 were in the metropolitan area, and 175 in the remainder of the State. The metropolitan newspaper plants furnished 1,484 persons with permanent employment in 1917-18, the greatest number employed during the twelve-month being 1,592. In 1917-18 the country press offices afforded permanent employment to 1,173 persons, the greatest number employed during the twelvemonth being 1,294.

The newspaper industry was almost entirely masculine in type of employment, as will be seen from the following statement which gives the principal particulars relating to the periodical press of New South Wales:—

	Establishments.	Males.	Females.	Total.	Greatest number employed at one time.		Full capacity of power provided.	Value of Plant and Machinery.	Output.
					M.	F.	h.p.	£	£
Metropolitan	29	1,369	115	1,484	1,464	128	2,442	318,518	1,040,089
Country	175	1,083	90	1,173	1,191	103	890	243,729	320,484
Total	204	2,452	205	2,657	2,655	231	3,322	562,247	1,360,573

IX.—MUSICAL INSTRUMENTS, ETC.

Fifteen establishments, of which 9 used machinery, were, during the year 1917-18, engaged in the manufacture and repair of musical instruments and sewing machines. The persons employed in these pursuits number 385 males and 48 females; and the greatest number employed at any one time during the year was 469. The full capacity of power provided was 419 horse-power, of which 348 was derived from electricity, 70 from gas, and 1 from steam. The value of plant and machinery was 18,412, and included the works of an important piano-making industry. The total value of output for the year 1917-18 was £208,293.

All the establishments enumerated under this class were situated within the metropolitan area, and comprised repairing plants for the treatment of musical instruments, particularly pianofortes, and factories for assembling sewing machines.

X.—ARMS AND EXPLOSIVES.

The manufacture of small-arms and ammunition has received the attention of the Commonwealth Government, which, on the 8th June, 1912, formally opened a small-arms factory at Lithgow. There are now five establishments in the State arranged under this classification; but details of employment, average time made, machinery in use, and value of plant and machinery may not be published at present.

XI.—VEHICLES AND FITTINGS, SADDLERY, ETC.

With the extension of the railways and tramways, and the introduction of other improvements in locomotion, the development of some of the industrial orders under this classification is considerably affected. In many workshops in the metropolitan division plants previously engaged in building vehicles for horse traction have been diverted to the manufacture of automobiles. The chassis are imported, but in most cases the bodies are built locally, and the machines are assembled in the workshops of the State. The industry of cycle-building is growing in importance, and the whole of the group shows an increasing capacity for employment.

The particulars relating to the industries grouped under vehicles and fittings, saddlery, etc., are shown in the following table for the year 1917-18:—

Industry.	Establishments.		Average Number of Employees (includes Working Proprietors).		Power used.			Value of Machinery, Tools, and Plant.
	Total.	Using Machinery.			Steam.	Electricity.	Other.	
			Males.	Females.				
Coach and Waggon Building	216	125	1,510	31	64	480	400	71,924
Cycles and Motors	174	171	1,418	62	4	275	275	88,623
Perambulators	3	3	55	7	...	8	3	524
Saddlery and Harness	50	13	560	69	...	12	...	11,000
Spokes, etc.	12	12	185	2	284	60	9	15,704
Whips	4	...	20	1	...	...	...	20
Total	459	324	4,288	171	312	455	687	192,934

Coach and waggon building includes also the making and repairing of motor vehicles, wheelwrighting, and general farriery. The order provided permanent employment for 1,941 persons in 1917-18, and the greatest number employed at any one time throughout the year was 2,156. The full capacity of power provided amounted to 1,380 h.p.; the value of plant and machinery was £74,924, and that of output £545,849.

The nature of the work performed under cycles and motors was mainly repairing, and the assembling of parts for completed machines. The cycle and motor industry provided permanent employment for 1,510 persons in

1917-18, and the greatest number employed at any one time during the year was 1,694. The full capacity of power provided was 1,098 h.p.; the value of plant and machinery was £88,623, and that of output £396,359. The manufacture of perambulators was a purely metropolitan industry, of which the total value of output was £24,421.

The business of producing saddlery and harness was about equally divided between the metropolitan area and the country division. In 1917-18 it provided permanent employment for 628 persons, and the greatest number employed at any one time during the year was 682. The full capacity of power provided amounted to 39 h.p.; the value of plant and machinery was £11,009, and that of total output £254,319.

The manufacture of wheel parts, such as spokes, naves, felloes, etc., is partly a sawmilling industry. It gave in 1917-18 permanent employment to 137 persons. The full capacity of power provided was 450 h.p.; the value of plant and machinery was £18,704, and that of total output £58,112.

Whip-making is not a very extensive industry. In 1917-18 it gave permanent employment to only 21 persons. No motive power was demanded by its requirements, and but little plant and machinery, though the total value of output for the year amounted to £8,286.

XII.—SHIP AND BOAT BUILDING, ETC.

Inclusive of the Commonwealth Naval Dockyard and the New South Wales Government Dockyard, this class comprises all the docks, slips, and ship and boat building establishments in the State. Though many fine ferry steamers have been constructed in the private dockyards of Sydney, the bulk of the present output consists of small wooden vessels designed for river and island trade, and other small craft. Included in the class are the repairing workshops and refitting plants owned by the local ferry steamship and the leading coastal steamship companies; and the Sydney Harbour Trust also has a construction branch.

The following table exhibits particulars relating to each of the two industrial orders comprising the ship and boat building and repairing industry.

Industry.	Establishments.		Average Number of Employees (includes Working Proprietors).		Power used.			Value of Machinery, Tools, and Plant.
	Total.	Using Machinery.	Males.	Females.	Steam.	Electricity.	Other.	
Docks and Slips... ..	7	7	2,858	10	1,966	1,320	8	1,333,133
Ship and Boat Building and Repairing ...	28	23	746	5	170	264	45	21,239
Total	35	30	3,604	15	2,136	1,584	53	1,354,372

The employment in this class is essentially of a masculine character, and the 15 females engaged in the two orders were members of the clerical staff. In 1917-18 shipbuilding and repairing furnished 3,619 persons with permanent employment, the greatest number employed at one time during the year being 4,623. The full capacity of power provided was 8,893 h.p.; the value of plant and machinery was £1,354,372, and that of output £967,571.

XIII.—FURNITURE, BEDDING, AND UPHOLSTERY.

Industries connected with the manufacture of furniture, bedding, upholstery, and other accessories of household interiors have greatly expanded during the past decade, as the following table shows:—

Year	Establishments.		Average number of Employees (includes Working Proprietors).		Power Used.			Value of Machinery, Tools and Plant.	Value of Output.
	Total.	Using Machinery.	Males.	Females.	Steam.	Electricity	Other.		
					h.-p.	h.-p.	h.-p.	£	£
1901	115	28	1,963	177	188	...	80	19,304	432,094
1906	119	48	2,148	169	164	61	123	32,336	531,168
1911	197	128	3,189	345	126	640	329	53,118	1,047,000
1912	220	162	3,583	391	240	963	350	61,749	1,171,320
1913	246	190	3,590	445	197	1,234	379	70,757	1,234,117
1914-15	243	181	3,172	470	118	1,422	420	72,902	1,120,888
1915-16	246	202	2,996	468	248	1,655	378	75,510	1,108,604
1916-17	253	215	3,105	531	252	1,426	280	87,507	1,190,923
1917-18	256	215	3,239	521	126	2,105	278	94,506	1,375,264

The particulars relating to the various manufacturing trades are shown in the following table for the year 1917-18:—

Industry.	Establishments.		Average Number of Employees (includes Working Proprietors).		Power used.			Value of Machinery, Tools, and Plant.
	Total.	Using Machinery.	Males.	Females.	Steam.	Electricity.	Other.	
Bedding, Flock, and Upholstery	34	25	522	147	h.-p. 12	h.-p. 384	h.-p. 5	£ 16,397
Chair-making	20	20	250	19	...	145	4	6,369
Furnishing Drapery, &c.	19	17	73	275	...	57	1	5,137
Furniture, Cabinet-making, and Billiard Tables	162	137	2,258	30	114	1,489	268	63,245
Picture Frames... ..	13	12	98	45	...	18	...	2,293
Window Blinds	8	4	38	5	...	12	...	765
Total	256	215	3,239	521	126	2,10	278	94,506

The manufacture of bedding and flock mattresses, together with articles of upholstery, is almost entirely a metropolitan industry, and includes items required for furnishing shipping interiors. The order afforded permanent employment in 1917-18 to 669 persons, and the greatest number employed at one time during the year was 762. The full capacity of power provided was 522 h.-p.; the value of the plant and machinery was £16,397, and that of total output £362,577.

The furniture industry, which includes cabinet-making and the manufacture of billiard tables, was practically of a metropolitan character, though

a small proportion was distributed throughout a number of country towns. The work included also the construction of shop-fronts, show-cases, and general interior fittings, as well as french-polishing, and certain minor branches of carpentry. The number of persons to which this industry afforded permanent employment in 1917-18 was 2,288, and the greatest number employed at any one time during the twelvemonth 2,511. The full capacity of power provided was 2,391; the value of plant and machinery was £63,245, and that of the total output £750,903.

The manufacture of chairs and miscellaneous furniture constituted a distinct order of the class, which afforded permanent employment to 269 persons in 1917-18, the greatest number employed at any one time during the twelvemonth being 302. The full capacity of power provided was 180 h.-p.; the value of plant and machinery was £6,669, and that of output £91,829. Furnishing drapery included carpets and certain kinds of blinds, and afforded permanent employment to 348 persons, the greatest number employed during the year at any one time being 391; the total capacity of power amounted to 60 h.-p.; the value of plant and machinery was £5,137; and that of total output, £108,612. The window-blind industry as a separate order afforded permanent employment to 43 persons, and the value of output was £17,547. The manufacture of picture frames afforded in 1917-18 permanent employment to 143 persons; the value of plant and machinery was £2,293, and that of total output £43,796.

XIV.—DRUGS, CHEMICALS, AND BY-PRODUCTS.

Several large and a number of small establishments were engaged during the year 1917-18 in the manufacture of drugs and chemicals and the fabrication of their by-products into articles of utility, as baking powder, blue, blacking, etc., for domestic and general use. Owing, however, to the incidence of the war there was a shortage in the importation of raw material, and a corresponding inflation of the prices of these commodities, accompanied by a decrease in the quantity manufactured.

The following table exhibits particulars relating to the four orders of industrial manufacture listed under this class for the year 1917-18:—

Industry.	Establishments.		Average Number of Employees (includes Working Proprietors).		Power used.			Value of Machinery, Tools, and Plant.
	Total.	Using Machinery.			Steam.	Electricity.	Other.	
			Males.	Females.				
Baking Powder and Self-raising Flour ...	20	20	65	107	h.-p. ...	h.-p. 178	h.-p. ...	£ 9,404
Chemicals, Drugs, and Medicines	61	41	675	584	135	£40	29	232,043
Paints and Varnishes	18	18	329	35	14	500	107	68,248
Inks, Polishes (including Fertilizers, &c.)	21	19	256	159	...	462	84	60,129
Total	120	98	1,325	885	149	2,070	220	369,914

A considerable proportion of those employed in these industries, with the exception of paints and varnishes, were females, and they were occupied principally in packing and labelling the prepared commodities for distribution. The manufacture of baking-powder, etc., in 1917-18 provided permanent employment for 172 persons, and the total value of output was £345,619. In all classes 4,062,969 lb. of baking powder, valued at £188,633,

and 15,651,910 lb. of self-raising flour valued at £155,297 were produced during the year. The industrial treatment of chemicals, drugs, and medicines provided permanent employment for 1,259 persons, and the greatest number employed during the twelvemonth was 1,465. The full capacity of motive power provided was 1,268 h.p.; the value of plant and machinery was £232,043, and that of the total output £1,221,076. The preparation of paints and varnishes provided permanent employment for 364 persons, the greatest number employed at any one time during the twelvemonth being 390. The full capacity of motive power provided was 1,179 h.p., the value of plant and machinery was £68,248, and that of total output £432,753. The manufacture of inks, polishes, and fertilizers provided permanent employment for 415 persons in 1917-18, and the greatest number employed at any one time during the year was 528. In the manufacture of fertilizers all the workers were males. The full capacity of the total motive power provided in this order was 730 h.p.; the value of plant and machinery was 60,129, and that of the total output £413,346.

XV.—SURGICAL AND OTHER SCIENTIFIC INSTRUMENTS.

Sixteen establishments were engaged in making surgical and other scientific instruments and appliances, inclusive of artificial limbs and opticians' goods, and in the grinding of lenses. The number of persons employed permanently under this class in 1917-18 was 162, including 47 females. The full capacity of power provided was 43 h.p.; the value of plant and machinery was £7,701, and that of total output £59,723.

XVI.—JEWELLERY, TIME-PIECES, AND PLATED WARE.

Under this classification are grouped the industries associated with electroplating and allied processes, the manufacture of jewellery, and watch and clock making and repairing. The following table exhibits particulars of these two orders of manufacture in 1917-18:—

Industry.	Establishments.		Average Number of Employees (includes Working Proprietors).		Power used.		Value of Machinery, Tools and Plant.
	Total.	Using Machinery.			Electricity.	Other.	
			Males.	Females.			
				h.p.	h.p.	h.p.	£
Electro-plating	12	12	135	11	99	26	10,148
Manufacturing Jewellery	38	34	487	45	133	...	17,814
Total	50	46	622	106	232	26	27,962

The industries belonging to this class were almost entirely metropolitan, only about 20 per cent. being distributed throughout the remainder of the State, and these were principally watch and clock repairing shops. Electroplating and allied processes afforded permanent employment to 146 persons in 1917-18, the greatest number employed at any one time throughout the twelvemonth being 159. The full capacity of motive power provided was 153 h.p.; the value of plant and machinery was £10,148; and that of total output £50,973.

The manufacture of jewellery and the watch and clock industry afforded in 1917-18 permanent employment to 582 persons, and the greatest number employed at any one time throughout the year was 609. The full capacity of active power provided was 168 h.p.; the value of plant and machinery was £17,814; and that of total output £210,495.

XVII.—HEAT, LIGHT, AND POWER.

The production of heat and light and the generation of power are industrial enterprises which have been systematically pursued throughout the State, wherever a population centre existed sufficiently large to sustain the cost. To Tamworth belongs the credit of being the first Australian municipal town outside the metropolitan area to have its streets lighted by electricity. There are now 21 country municipalities lighted by electricity, and 47 lighted by coal-gas.

Establishments connected with the supply of heat, light, and power show an increase in each year, and the figures for 1917-18 were as follow:—

Industry.	Establishments.		Average Number of Employees (includes Working Proprietors).		Power used.			Value of Machinery, Tools and Plant.
	Total.	Using Machinery.			Steam.	Electricity.	Other.	
			Males.	Females.				
Coke-works	14	14	593	...	1,668	803	20	268,565
Electrical Apparatus	39	38	627	39	...	227	60	39,328
Electric Light and Power	125	125	1,240	9	101,618	...	3,104	2,160,568
Hydraulic Power	1	1	41	1	500	...	...	28,887
Gas-works and Kerosene	44	39	1,371	7	1,514	619	510	1,687,860
Lamps, Fittings, etc....	4	3	55	1	...	10	...	1,110
Total	227	220	3,927	57	105,320	1,659	3,694	4,186,318

The greater number of plants engaged in the production of coke were situated at various coal-centres on the South Coast, and the output was employed mainly to furnish the smelters. The total quantity of coal used was 556,082 tons, and the production of coke 383,965 tons, valued at £439,394, exclusive of that produced at gas-works throughout the State. The coke manufacturing industry proper afforded permanent employment to 593 persons in 1917-18, and the greatest number employed at any one time throughout the year was 679. The full capacity of power provided was 3,385 h.-p.; the value of plant and machinery was £268,565, and that of total output £439,394.

The manufacture of all kinds of electrical apparatus and appliances, including the work of installation, afforded permanent employment to 666 persons, and the greatest number employed at any one time in 1917-18 was 711. The full capacity of motive power provided was 457 h.-p.; the value of plant and machinery was £39,328, and that of total output £192,047.

Besides the establishments engaged in the metropolitan area directly in the generation of electric light and power, were a few which derived their supply from neighbouring private plants. The industry afforded permanent employment to 1,249 persons in 1917-18, the greatest number employed during the year at any one time being 1,387. The full capacity of motive power provided was 170,370 h.-p.; the value of plant and machinery was £2,160,568, and that of total output £1,321,112. A marked development in the production of electricity is to be attributed the necessity of creating a supply of power for operating tramways in the metropolitan area, as well as for the demands of extended lighting systems to replace or duplicate the use of gas.

The industry associated with the manufacture and distribution of gas and with the kerosene lighting agency afforded in 1917-18 permanent employment to 1,378 persons, the greatest number employed at any one time during the year being 1,691. The full capacity of power provided was 5,775 h.-p.; the value of plant and machinery was £1,687,860, and that of the total output £1,529,886.

A few metropolitan establishments were engaged in the manufacture and repair of gas-lamps and other mechanical accessories. They afforded in 1917-18 permanent employment to 56 persons, which increased at one time during the year to 67. The full capacity of power employment was 13 h.-p.; the value of plant and machinery was £1,110, and that of total output £15,446.

The one establishment in the State engaged in the generation of hydraulic power was provided with motive power, having a full capacity of 800 h.-p., and the value of plant and machinery was £28,887.

The following table exhibits particulars relating to the number of establishments, the average number of employees, full capacity of horse-power of machinery, and of plant, tools, etc., devoted to the generation of electric energy for intervals since Federation.

Year.	Electric Supply Works.	Average Number of Employees (including Working Proprietors).	Machinery, Tools, and Plant.		Coal Used.
			Power (full capacity).	Value.	
			h.-p.	£	Tons.
1901	51	245	6,377	192,842	*
1906	66	565	38,327	975,723	*
1911	104	929	89,155	1,257,173	259,239
1912	113	1,073	110,511	1,350,488	286,013
1913	115	1,118	114,371	1,391,007	309,441
1914-15	129	1,161	127,551	1,597,624	334,592
1915-16	126	1,122	147,950	2,024,328	367,886
1916-17	124	1,156	169,134	2,097,443	404,701
1917-18	125	1,249	170,370	2,160,568	408,555

* Not available.

Gasworks.

Although considerable progress has been made in the installation of electric lighting plants, the use of gas for purposes of illumination, power, and cooking is extending continuously.

The following table shows particulars of the operations of gasworks at intervals since Federation.

Year.	Gasworks.	Average Number of Employees.	Gas made (1,000 cubic feet.)	Machinery Tools, and Plant.		Coal used (Tons.)
				Power (full capacity.)	Value.	
				h. p.	£	Tons.
1901	38	650	2,138,631	1,065	480,533	*
1906	44	654	2,790,494	1,221	628,339	*
1911	47	1,053	4,275,859	1,928	888,711	323,910
1912	47	1,298	4,820,512	2,223	1,236,541	340,463
1913	52	1,351	5,536,139	2,107	1,112,828	369,424
1914-15	53	1,485	6,080,270	4,300	1,749,724	416,485
1915-16	45	1,440	6,234,785	5,472	1,658,803	427,716
1916-17	44	1,506	6,399,688	5,386	1,695,975	421,064
1917-18	44	1,578	6,555,945	5,775	1,687,860	447,814

* Not available.

The value of the total output for the whole class of industries under light, heat, and power was £3,527,382.

During the year 1917-18 the quantity of coal used for gas was 447,814 tons, which, with 31,835 tons of shale and 1,837 tons of coke, produced, in addition to the gas (valued at £1,131,442), 265,268 tons of coke (valued at £148,509), 6,726,449 gallons of tar (valued at £75,638), and 3,751,047 gallons of ammoniacal liquor (valued at £11,135).

XVIII.—LEATHERWARE.

In 1917-18 there were 29 establishments, all within the metropolitan area, with 464 males and 259 females employed in the manufacture of leatherware (not elsewhere included), the more important branches of the industry being the manufacture of trunks, fancy goods, and machinery belting. Nearly all the establishments under this classification used machinery, and the average horse-power utilised amounted to 223, of which 79 h.p. was generated by gas-engines, 138 by electricity, and 6 by steam, whilst the value of machinery and plant was estimated at £15,105. The workers under this class permanently employed numbered 723, and the greatest number employed during the year at any one time was 776. The full capacity of power provided was 275 h.p., and the total value of output was £384,632.

XIX.—MINOR WARES.

Of the minor industries, not readily assignable to any of the preceding classes, the more important were the manufacture of rubber goods, brooms and brushware, and toys. The particulars relating to the different industries listed under this miscellaneous class for the year 1917-18 were as follow:—

Industry.	Establishments.		Average number of Employees (includes Working Proprietors).		Power used.			Value of Machinery, Tools, and Plant.
	Total.	Using Machinery.	Males.	Females.	Steam.	Electricity.	Other.	
Baskets, Wickerware, Matting, etc. ...	11	...	193	19	h.p.	h.p.	h.p.	£
Brooms and Brushware ...	26	23	258	51	...	48	45	360
Rubber Goods ...	12	11	427	219	251	404	...	7,960
Toys ...	17	17	116	12	...	75	13	83,181
Umbrellas ...	4	3	49	59	...	8	...	6,158
Other Industries ...	8	6	75	63	...	48	10	1,088
Total ...	78	59	1,118	463	251	583	68	13,460
								112,207

The most important of the minor industries dealt with rubber goods, and with processes including vulcanising and the manufacture of stamps, dies, motor tyres, etc. The establishments under this classification were practically all metropolitan. The value of total output was £277,473.

The brooms locally manufactured were made principally from millet grown in the State, and the industry afforded employment to the blind. In 1917-18 there were 120 persons in the Sydney Industrial Blind Institution who were employed in the manufacture of baskets, brooms, and brushes, and in wicker-chair making and similar crafts. The value of total output was £163,705.

The manufacture of toys and children's playthings was the chief industry of the remainder of the minor group, which included a varied assortment of manufactures. The value of total output was £166,508.

SOCIAL CONDITION.

PUBLIC HEALTH.

Laws with respect to immigration, trade, commerce, quarantine, and to the provision of old-age and invalidity pensions, are functions of the Commonwealth; whilst matters pertaining to public health (other than quarantine), to the maintenance of high standards in regard to food, to the supervision of sources of supply and distribution, and to the enforcement of sanitary and hygienic conditions are functions of the State Government.

Practical measures to promote the well-being of the people, through the prevention or relief of sickness and destitution, are directed by the State towards the protection of infant life, the removal of children from unsuitable environment, the housing and care of mental defectives and of the aged and infirm, and the enactment of laws to safeguard the public from preventable disease. State establishments are maintained for the alleviation of sickness and destitution, and many institutions controlled by private organisations are assisted with Government subsidy.

DEPARTMENT OF PUBLIC HEALTH.

In New South Wales the Department of Public Health undertakes the general medical work of the Government, safeguards public health, and advises Local Government bodies. Acts relating to public health, hospitals, pure food, supervision of dairies and dairy cattle, noxious trades, sanitation, cattle slaughtering and diseased animals and meat, for preventing the spread of tuberculosis and other diseases, and for regulating sanitation in local government areas, in factories and shops, and in premises licensed under the Liquor Act, are administered by the Department, and the various State hospitals and asylums are under its control.

The Board of Health consists of ten members, nominated by the Government, with the President, who is Director-General of Public Health and Chief Medical Officer to the Government. Several other Boards have been established in connection with the Public Health Department, such as the Tuberculosis Advisory Board, to furnish expert advice for the treatment and prevention of tuberculosis; the Metropolitan Hospitals Advisory Board, consisting of the secretaries of the hospitals, to co-operate with the Department in matters concerning hospital administration; the Pre-Maternity, Baby Clinics, and Home Nursing Board, to organise measures with the object of lessening the infantile death rate, and safeguarding the health of women and children generally.

The State institutions under immediate control of the Director-General of Public Health include the Coast Hospital, for the treatment of general and infectious cases; the Leper Lazaret; David Berry Hospital, in the Shoalhaven district; Lady Edeline Hospital for Babies; Sanatorium for Consumptives at Waterfall; two Convalescent Hospitals; and five Asylums for the Infirm, which, since the inauguration of the old-age and invalidity pension system, have been utilised to a great extent for the treatment of the sick.

STATE EXPENDITURE ON HOSPITALS AND CHARITABLE RELIEF.

The State expenditure on hospitals and charities for the year ended June, 1918, amounted to £1,033,166; in addition, the State expended a sum of £281,558 on matters arising out of the war, principally for the assistance of soldiers and their dependents.

The expenditure on hospitals and charities includes the cost of maintenance of State institutions and departments administering relief and subsidies to other institutions, granted on condition that an equal amount be raised by private annual contributions, and that the Government through approved officers have the right of recommending the admission of patients. The following is a statement showing the growth of expenditure in the five years ended 30th June, 1918:—

Payments from—	1914.	1915.	1916.	1917.	1918.
	£	£	£	£	£
Consolidated Revenue ...	734,511	782,500	872,501	946,418	983,483
Public Works Account ...	52,919	44,780	69,334	78,830	49,683
Total ...	£ 787,430	827,280	941,835	1,025,248	1,033,166

Sums paid from the Consolidated Revenue to augment the National War Relief Funds have been excluded from the table, viz., £44,049 in 1915, £52,062 in 1916, £127,087 in 1917, and £281,558 in 1918.

Grouping the items of expenditure from the Consolidated Revenue Fund under various headings, a comparison of the respective items for the last two years is shown below:—

	1917.	1918.
	£	£
General Hospitals and Charitable Institutions	238,287	254,915
Mental Hospitals and Institutions ...	356,419	342,956
Children's Relief ...	175,659	190,045
Government Asylums for the Infirm ...	126,287	108,107
Destitute and Deserted, Sick and other ...	39,342	53,710
Aborigines Protection ...	16,620	16,706
Charitable Societies ...	3,330	3,474
Miscellaneous ...	10,474	13,570
Total ...	946,418	983,483

To these figures are to be added the cost shown subsequently of State subventions to Friendly Societies, the maintenance of the Department of Public Health, and similar agencies for the public benefit.

PROTECTION OF THE ABORIGINES.

For the protection and training of the aboriginal natives in New South Wales, a Central Board was appointed in June, 1910, under the Aborigines Protection Act, 1909, replacing local boards in the various districts of the State. All officers in the police force of the State are guardians of the aborigines, and two inspectors have been appointed to supervise the reserves and stations. The Central Board, consisting of the Inspector-General of Police, and a maximum of ten other members appointed by the Governor, controls the disbursement of moneys available for education, maintenance, and relief.

The area of the reserves was about 21,800 acres at the end of December, 1917. At the various stations and camps the residents are encouraged to work; dwellings have been erected, and assistance in the form of food and clothing is supplied when necessary; the stations are under the control of managers appointed by the Board.

Aboriginal children are required to attend school until the age of 14 years. The Board is authorised to assume control of any of these children, and may apprentice them or place them in training homes. Several schools have

been established for their exclusive use. In 1917 there were 1,052 children attending the schools.

On 1st September, 1917, there were in New South Wales 6,247 aborigines, viz., 1,326 full-bloods and 4,921 half-castes. The following statement shows the classification as recorded at that date:—

Classification.	Men.	Women.	Children.	Total.
Full-bloods	549	383	294	1,326
Half-castes	1,248	986	2,687	4,921
Total	1,797	1,369	3,081	6,247

The ages were as follows:—Under 20 years, 3,081; 20-40 years, 1,804; 40-60 years, 1,029; over 60 years, 333.

The expenditure by the Aborigines Protection Board during 1917 amounted to £26,971, including £15,010 for general maintenance, £2,236 for the purchase of stores, £4,507 as disbursements from the Board's produce and sale store account, £4,414 for educational purposes, £696 for medical attention, and £108 for other services. An amount of £4,569 was received as revenue from sales, so that the net expenditure was £22,402.

CHILD HYGIENE.

The law of New South Wales relating to the protection of children, and to the condition of child-life, is contained for the most part in the following statutes:—State Children Relief Act, 1901; Deserted Wives and Children Act, 1901, and Amendment, 1913; Children's Protection Act, 1902; Infant Protection Act, 1904; and Neglected Children and Juvenile Offenders Act, 1905.

Under the State Children Relief Act, the Controlling Board has power to board-out children who are inmates of an asylum or charitable institution, wholly or partly supported by grants from the public revenue, also children whose admission to such institutions has been authorised. The Board may issue licenses for the reception of these children as boarders, may apprentice them to suitable persons, or arrange for their adoption or restoration to parents or natural guardians. Children may be boarded out with their own mothers, and the period of boarding-out usually terminates at 14 years of age; but in special cases it may be extended. At the end of the boarding-term the children may be apprenticed for a maximum term of five years.

The Children's Protection Act regulates the adoption of young children. The reception of a child under 3 years of age, to be maintained for payment apart from his parents or guardians, is allowed only on the written authority of a Justice of the Peace; persons who receive two or more children under 3 years of age must apply annually for registration; the children, and the premises of persons having custody of them, are subject to inspection by the officers of the State Children Relief Board; persons in charge of maternity homes must furnish records of all births occurring in the homes; the employment of young children in dangerous or unsuitable occupations is prohibited; and provision is made for the protection from neglect or ill-treatment of any boy under 14 years of age, or of any girl under 16 years.

The Infant Protection Act regulates the protection and maintenance of infants, and the supervision of institutions used for the reception of children up to 7 years of age. The Act provides for the payment by the father of expenses, up to a maximum amount of £20, incidental to the birth of an illegitimate infant, and for the maintenance of the child up to the age of 14 years, if a boy, and to 16 years, if a girl. The mother also may

be required to contribute towards the maintenance of an illegitimate infant. Cases in respect of the provisions of the Act are heard at the Children's Courts, and disobedience of an order of the Court may be punished by imprisonment. Institutions used for the reception and care of children under 7 years of age must be licensed, and are subject to inspection by officers of the State Children Relief Board.

The Venereal Diseases Act, 1918, prescribes that no child may be boarded-out by the State Children Relief Board unless certified by a medical practitioner as being free from venereal diseases; and the Children's Courts may order the medical examination of any child reasonably believed to be suffering from such diseases.

The Deserted Wives and Children Act, which relates to the maintenance of wives and legitimate children, provides that a man who has left his wife or children without means of support may be ordered to contribute towards their maintenance, and to enter into recognisances for his obedience to the order. In default of finding security he may be imprisoned for a period not exceeding twelve months; non-compliance with a maintenance order may be punished by imprisonment. An important amendment of this Act, passed in 1913, prescribes that any person committed to prison for failing to find security, or for non-compliance with an order under the Deserted Wives and Children Act, or under the Infant Protection Act, may be required to perform work, the earnings, after deducting his cost of living, being applied to the satisfaction of the order. The Act provides also that in cases of wife desertion the court may place any child of the marriage under the legal custody of the wife, or other approved person, and may order the husband to contribute towards the child's maintenance; similar procedure is authorised in cases of child desertion. Orders in respect of children cease at age 16.

The Neglected Children and Juvenile Offenders Act authorises the establishment of shelters for the temporary detention of children, and provides for industrial schools and reformatories. Special courts were established to deal with cases in respect of children over 5 years and under 16 years of age, and of offences by and against children, and with affiliation cases under the Infant Protection Act. In 1913 the jurisdiction of the Children's Courts was extended to complaints under the Deserted Wives and Children Act. Where practicable the Children's Courts must be held in proximity to a shelter, and not in the ordinary Courts; persons not directly interested may be excluded from the court-room. In the disposal of children the Courts, presided over by a Special Magistrate, may release on probation to an asylum or person willing to undertake care, may commit to an institution, or may sentence according to law, in which case the child may be detained in a reformatory for a term ranging from one to five years. Pending removal to an institution, children may be placed in a shelter for a maximum term of three months; children in an institution may be removed to another institution or to an asylum, or may be apprenticed or transferred to the State Children Relief Board for boarding-out. Children released on probation, or sent to an asylum, are supervised by probation officers. No children, under the Neglected Children and Juvenile Offenders Act, can be boarded out to their own mothers without a specific Court direction to that effect.

The Neglected Children and Juvenile Offenders Act regulates also the issue of licenses to children engaged in street-trading, this part of the Act being administered by the State Children Relief Board.

The Juvenile Smoking Suppression Act of 1903 restricts the use of tobacco by juveniles. Any person who supplies a child under 16 years of age with tobacco, cigars, or cigarettes is liable to a fine of £5.

Under the provisions of the Liquor Act, children must not be supplied with intoxicating liquor, nor be allowed in the bar of licensed premises, nor sent to licensed premises to obtain liquor.

The laws relating to factories and shops, and to apprenticeship, &c., regulate the conditions of child labour. Particulars are shown in the chapters of this volume relating to the manufacturing industry and employment.

The Testators' Family Maintenance and Guardianship of Infants Act, 1916, assures to the widow or widower and children of a testator an adequate maintenance from the estate, and amends the law regarding the guardianship of infants. An important provision provides that after the death of the father of an infant the mother shall be guardian notwithstanding any appointment made by the father.

The Public Instruction Act was amended in 1916 to cause regular attendance at a school of all children between the ages of 7 and 14 years, and to render the laws relating to truancy more effective.

THE STATE CHILDREN RELIEF BOARD.

The State Children Relief Board is charged with the administration of the State Children Relief Act. The Department administers also the Children's Protection Act, and supervises institutions licensed under the Infant Protection Act, and children placed under its jurisdiction by the Children's Courts as boarded-out wards, children on probation, or inmates of institutions. The Board's officers undertake the licensing of children engaged in street-trading, and the supervision of school attendance in country districts.

The total number of children under supervision by the officers of the Board in terms of the various Acts, at 5th April, 1918, was 16,218, as compared with 15,757 in the previous year:—

	1914.	1915.	1916.	1917.	1918.
Boarded out apart from their mothers ...	4,695	4,880	5,081	4,653	4,656
" with their mothers ...	5,970	6,612	7,310	7,323	7,764
Registered under Children's Protection Act	925	925	693	590	499
In institutions licensed under Infant Protection Act.	331	535	500	382	395
Engaged in street trading ...	477	680	695	785	782
Employed in theatres ...	280	265	180	121	240
Released on probation ...	1,213	1,184	1,566	1,903	1,882
Total ...	13,891	15,081	16,025	15,757	16,218

The supervision of these children is undertaken by salaried inspectors, whose efforts are supplemented by honorary officers. Women inspectors, charged specially with the supervision of the conditions of infant life, visit and inspect infants placed out apart from their mothers; and the regulations prescribe that all such infants in the Metropolitan area must be submitted to medical examination every fortnight during the first twelve months of life.

EXPENDITURE OF STATE CHILDREN RELIEF DEPARTMENT.

The gross amount expended by the Government during the year ended April, 1918, on account of the services of the State Children Relief Department, was £183,356; of this amount £63,534 represented the cost of maintenance of children boarded-out apart from their parents, while allowances to widows and deserted wives towards the support of their own children amounted to £89,364. Contributions by parents and relatives and repayments of maintenance allowances amounted to £6,580. The Department realises the need of remedial legislation to ensure the recovery of contributions for maintenance from any near relative of a destitute person.

The following statement shows the expenditure of the State Children Relief Department during the five years ended April, 1918:—

Year ended April.	Boarding-out.	Widows, &c.	Cottage Homes.	Children's Protection and Neglected Children Acts and Supervision of School Attendance.	Total Expenditure.	Contributions by Parents and other Revenue.	Net Expenditure by Government.
	£	£	£	£	£	£	£
1914	56,127	54,975	11,496	9,785	132,383	6,370	126,013
1915	52,940	61,890	9,962	9,654	134,446	6,194	128,252
1916	57,996	76,989	11,599	10,047	156,631	6,357	150,274
1917	64,378	79,405	17,892	12,828	174,503	5,880	168,623
1918	63,534	89,364	14,428	16,030	183,356	6,580	176,776

THE PRESERVATION OF INFANT LIFE.

Reference to the chapter of this volume relating to vital statistics will show that much of the infantile mortality is due to preventable causes. With the object of reducing this wastage, preventive measures were commenced by the Sydney Municipal Council in 1904, and trained female inspectors were appointed to visit mothers and to instruct them. This work was extended subsequently to the more populous suburbs.

Baby Clinics.

In 1914 the Baby Clinics, Pre-Maternity and Home-Nursing Board was appointed by the Government as an Advisory Board to establish organisations in the Metropolis and large country centres, for supplying advice and instruction in the care and nurture of infants.

The Board consists of eight members, including three women and two medical practitioners. At the end of 1918, seventeen clinics had been opened in the most thickly-populated suburbs of Sydney, in Newcastle, and in Broken Hill; those at Alexandria and Newtown continue the work conducted previously by a private organisation—the Alice Rawson School for Mothers.

An honorary medical officer and two nurses are attached to each clinic; the nurses instruct the mothers, and make arrangements for medical treatment when necessary; dental defects of children up to 5 years of age are treated at the dental hospital. Particulars relating to the work of the clinics during 1918 are shown below:—

Patients seen by doctor	... 6,382	Babies weighed	... 69,209
" sent to hospital	... 2,197	New-born babies visited	... 9,494
Total attendance at Clinics	... 94,745	Pre-maternity cases advised	... 1,202

Notification of Births.

The Notification of Births Act, which has been proclaimed operative in Sydney and Newcastle and their suburbs, was passed in February, 1915, to provide that a written notification of every birth must be delivered or posted within thirty-six hours after birth to the Under Secretary of the Department of Public Health, or to any other authorised person. Previously the Health authorities were dependent upon the notification of births to the Registrar-General in connection with which a period of sixty days is allowed; conse-

quently the benefits of the baby clinics were not applied during the period when they might have been most effectual. The notification under the Act is in addition to the notice required by any Act relating to the registration of births.

Maternity Allowances.

The payment of maternity allowances to mothers of children born in Australia is made under the Maternity Allowance Act, passed by the Commonwealth Parliament in 1912. A sum of £5 is payable in respect of each birth, one allowance only being payable in cases of plural births. The allowance is payable to women who are inhabitants of the Commonwealth or who intend to settle therein; Asiatic women and aboriginal natives of Australia, Papua, and the Pacific Islands are excluded from the benefits of the Act.

The following statement shows the number of maternity allowances passed for payment in New South Wales during the years ended 31st December, 1913-18:—

Year.	Maternity Allowances.	Year.	Maternity Allowances.
1913	51,564	1916	51,992
1914	53,690	1917	52,600
1915	52,028	1918	50,320

Infants' Homes.

Homes licensed under the Infant Protection Act are classified in two groups—those for the reception of five or less children, being generally private homes, and those for six children or more, mainly institutions of a charitable nature for the care of infants.

The number of licensed places during the years 1913-17 is shown below:—

Year.	Private Dwellings Registered.	Institutions.	
		Number.	Inmates under 7 years of Age.
1913	173	21	331
1914	184	21	309
1915	81	20	389
1916	44	20	382
1917	166	21	400

With the exception of the Infants' Home, Ashfield, subsidised by the Government, the institutions are supported entirely by voluntary contributions.

The Sydney Benevolent Asylum, for the reception of children, operates under a special Act, and is exempted from the provisions of the Infant Protection Act.

The twenty-one institutions licensed during 1917 provided accommodation for 663 children, but the provisions of the Act apply only to those under age 7; the number in each age group is shown below:—

Age group.	Number.	Age group.	Number.
Under 1 year	28	5-6 years	94
1-2 years	34	6-7 years	93
2-3 years	24		
3-4 years	57	Total	400
4-5 years	65		

Three Homes for Mothers and Infants are maintained in the metropolitan area under the direction of the State Children Relief Department. They were established on the principle that the accommodation of a small number of inmates in a cottage home is more efficacious for the preservation of infant-life than the aggregation in large institutions. During the year ended 5th April, 1918, 154 women and 119 infants were admitted, and 136 women and 244 infants were discharged.

The Lady Edeline Hospital for Sick Babies, under the direction of the Public Health Department, provides accommodation for children up to 2 years of age suffering from gastro-enteritis and other diseases peculiar to infancy. The children under treatment during 1917 numbered 241; there were 50 deaths.

Registrations under Children's Protection Act.

The number of children registered under the Children's Protection Act during 1917 was 1,112, and at 31st December there were 499 under supervision; 240 theatre licenses for children were issued, as compared with 121 during the previous year. Theatre licenses may be issued to children over 10 years of age in the metropolitan area, but those under 14 years are not permitted to travel with touring companies. Strict supervision is necessary to protect the interests of children engaged in this class of work.

The transactions under the Children's Protection Act during the years 1913-17 may be seen in the following statement:—

Particulars.	1913.	1914.	1915.	1916.	1917.
Registrations from Lying-in Homes ...	4,430	7,884	8,064	8,250	10,030
Foster Homes registered	82	140	126	113	126
Children registered	1,447	1,648	1,268	1,094	1,112
„ died	41	59	52	33	34
„ discharged from supervision ...	481	664	523	471	579
„ under supervision at 31st Dec....	925	925	693	590	499
Theatre Licenses for Children	280	265	180	121	240

DEPENDENT, NEGLECTED, AND DELINQUENT CHILDREN.

Since its inception in 1881, 26,829 children have been placed under the control of the State Children Relief Board to be boarded-out apart from their parents. Of this total 22,173 children had been removed from the control of the Board, so that there were 4,656 remaining under its charge on 5th April, 1918, of whom 2,703 were boys and 1,953 were girls. In addition the Board was paying allowances towards the support of 7,764 children living with their mothers, who are widows or deserted wives; thus the total number of children under the supervision of the Board, in terms of the State Children Relief Act, was 12,420.

Children maintained apart from parents.

The State wards are boarded out to persons deemed to be eligible after strict inquiry by the Board, the maximum number of children under the care of one guardian being three, except in cases of families comprising a greater number, brothers and sisters being placed usually in the same home. Strict supervision is exercised by the officers of the Board to prevent ill-treatment or neglect, and visiting ladies voluntarily assist in the various districts,

keeping a constant watch upon the children, and the conditions under which they live. The distribution of the children provided for apart from their parents at 5th April, 1918, was as follows:—

Classification.	Boys.	Girls.	Total.
Boarders	1,688	1,291	2,979
Without subsidy	55	104	159
Apprentices	455	319	774
Adopted	53	101	154
In Hospitals	29	4	33
Cottage Homes	329	84	413
Depôt	21	23	44
Absconded	71	20	91
Unofficial	2	7	9
Total	2,703	1,953	4,656

The Central Depôt for State Children at Paddington is used as the reception-house into which children, under the Board's control, are received from their parents, and from the police or inspectors who may have rescued them from unsuitable surroundings. It serves also for the housing of State children in transit from one foster home to another, and as a shelter in connection with the Children's Court for boys under 7 years of age, and for girls.

The number of children who were wards of the State Children Relief Board is shown in the following table, at five-year intervals since 1881:—

Year ending April.	Boys.	Girls.	Total.	Year ending April.	Boys.	Girls.	Total.
1881	24	35	59	1906	2,114	1,776	3,890
1886	779	587	1,366	1911	2,551	1,947	4,498
1891	1,417	952	2,369	1916	3,029	2,052	5,081
1896	1,954	1,502	3,456	1917	2,733	1,920	4,653
1901	2,205	1,705	3,910	1918	2,703	1,953	4,656

The following table shows, for a period of five years, the ages of children when received by the Board for boarding out apart from their mothers:—

Age.	Year ending April—				
	1914.	1915.	1916.	1917.	1918.
Under 1 year ...	188	186	116	139	148
1 year ...	85	84	118	43	57
2 years ...	55	54	62	43	50
3 „ ...	46	48	60	30	49
4 „ ...	49	47	65	51	70
5 „ ...	49	50	71	43	66
6 „ ...	48	51	62	44	51
7 „ ...	50	52	74	45	76
8 „ ...	75	72	73	56	77
9 „ ...	59	52	99	63	81
10 „ ...	82	81	130	79	102
11 „ ...	74	78	129	86	82
12 „ and over ...	217	214	296	222	289
Unknown ...	127	126	104	37	20
Total ...	1,204	1,195	1,459	981	1,218

The reduced number of children in 1917, in comparison with those received in previous years, was due to the adoption more generally of the practice at the Children's Court of releasing children on probation to their parents, instead of committing them to institutions; in other cases, the increased rate of allowances paid by the State for children boarded out to their own mothers enables the mothers to retain their children.

The increase of 237 in the number of children received during 1918 was due probably to the high cost of living and the economic stress ensuing from the war conditions.

Of the 1,218 children received by the Board during 1917-18, 445 came from the Children's Courts, 28 were transferred from the Sydney Benevolent Asylum, and 21 were received from the police, while 724 were boarded-out direct from the State Children's Depot.

Children boarded-out with their mothers.

In April, 1918, 2,640 widows and deserted wives were receiving allowances towards the support of 7,764 of their own children under 14 years of age. The new applications during 1918 numbered 1,390; allowances were granted in 1,129 cases. The mothers receiving allowances in April, 1918, were 1,455 widows, 522 deserted wives, and 663 wives deprived of their husbands' support through insanity, 225; imprisonment, 126; detention in hospital, 229, or in asylum for infirm, 83. There is no law in operation in New South Wales to compel relatives, other than parents, to contribute towards cost of maintenance.

Payment for Children Boarded-out.

Payments for the maintenance of children vary according to age and physical conditions. The State Children Relief Board may determine necessary rates of payment, and with the sanction of the Minister may continue the payments after the age of 14 years is attained. The rates generally paid are 12s. to 15s. per week for young ailing infants; 10s. per week for children under 1 year; 8s. per week for children up to 2 years; 7s. per week for children up to 3 years; 6s. per week for children between 3 and 14 years.

Cottage Homes for Children.

Cottage homes have been established by the State Children Relief Board for State children requiring special treatment. The homes form a valuable adjunct to the boarding-out system; there are now eleven at Mittagong, and four in the Pennant Hills district, all situated amid rural surroundings. At Mittagong six of the homes comprise the Farm Home for boys, three are for the use of invalids and delicate State children, and two are maintained for the care and instruction of feeble-minded boys; and at Parramatta the cottages are reserved for delicate children, one home being for feeble-minded girls.

The Farm Home at Mittagong provides suitable industrial occupation and training for boys committed from the Children's Court for reasons which do not warrant the more drastic measure of detention in a reformatory. The boys are taught regular and industrious habits, and the products of the farm are available for the children in the Cottage Homes. There were 217 boys under supervision in the Farm Home at 5th April, 1918.

The admissions to the Cottage Homes during the year ended April, 1918, were 584 and the discharges 561. On 5th April, 1918, 358 children remained in the various homes, 281 boys and 77 girls.

In addition to the Cottage Homes there is a home at Raymond Terrace for feeble-minded boys who are not suitable for boarding with private families; 17 boys were admitted during the year, and 17 discharged, 32 being under supervision at 5th April, 1918.

Permanent Adoption of Children.

The State Children Relief Act provides that orphan children, or those who have been surrendered for adoption, may be adopted permanently; the permanent adoption of 154 State wards—53 boys and 101 girls—has been arranged by the State Children Relief Board; and 55 boys and 104 girls are boarded without subsidy. The law, however, does not forbid private arrangement of adoptions, and many are arranged without the cognisance of the Board.

Apprenticeship of State Children.

The following statement shows the number of apprentices placed by the Board during the five years ended 5th April, 1918:—

	1914.	1915.	1916.	1917.	1918.
Boys ...	298	257	155	123	154
Girls ...	174	162	90	84	96
Total ...	472	419	245	207	250

At the end of April, 1918, there were 774 apprentices (455 boys and 319 girls) under indentures. The terms of indenture prescribe a wage payment and pocket-money on a specified scale, the wages being banked half-yearly to the credit of the apprentice; one-third of the accumulated amount is paid over on completion of the apprenticeship, the balance remaining at interest till age 21 is attained, unless exceptional circumstances arise, when the Board may allow the money to be paid earlier.

The majority of the girls are apprenticed in domestic service, and the boys to farmers, orchardists, and artisans in country districts. In order to give opportunity for the children in a wider range of industrial occupations, arrangements have been made to establish special cottage homes for training them prior to apprenticeship.

From 1887 to April, 1918, the total collections of the Apprentices Fund were £94,833, of which £76,609 had been paid over on completion of the indentures, and £18,224 remained to the credit of the fund, the collections for the year having been £4,328.

Reformatories and Industrial Schools.

The number of children sent to reformatories has diminished considerably since the development of the probationary system; such institutions are needed, however, for a number of delinquents who show positively criminal tendencies. In addition to the Farm Home at Mittagong, where truants and minor delinquents are detained for short periods, there are two State institutions, viz., the Farm Home for Boys at Gosford, and the Girls' Industrial School at Parramatta, to which a training home is attached.

The Gosford Home is used for the reception and treatment of the older juvenile offenders. The work of establishing this institution was commenced in July, 1912, and the labour of the boys was utilised largely in clearing the site, which was practically virgin forest, and in constructing the necessary buildings, &c. The plan of the institution was designed to allow the inmates to be classified and segregated; for this reason it would be suitable for the reception of youths from 16 to 20 years of age, who, under existing legislation, are received in prisons.

In connection with this phase of the reformatory system, a number of youths between the ages 16 and 18 years have been transferred under license from the gaols to complete their term of detention at the Gosford Farm Home.

During the year 1917, 98 boys were admitted, and 70 discharged; of the latter 3 were apprenticed, 52 were released on probation, and 2 were transferred to the Mittagong Farm Home.

At the Girls' Industrial School a training home was established in 1912, to enable a more effective classification of the inmates. On 31st December, 1917 there were 147 girls in the institution—115 in the Industrial School, and 32 in the Training Home; 65 girls were admitted during the year, and 73 were discharged.

There are a number of institutions conducted by religious bodies and other organisations, in which destitute children are placed by their natural guardians in preference to boarding-out. These institutions receive a small number of children from the Children's Courts, and at the end of the year 1917, supported 2,349 children:—

Institutions.	Boys.	Girls.	Total.
General Public	169	137	306
Church of England	21	205	226
Roman Catholic	547	862	1,409
Methodist	11	30	41
Presbyterian	114	63	177
Salvation Army	124	66	190
Total	986	1,363	2,349

Children's Courts.

The majority of cases in respect of neglected children and juvenile offenders are conducted at the Metropolitan Children's Court, the transactions in the Country Children's Courts being comparatively few. Two shelters have been established in Sydney in connection with these Courts; they are used for the detention of children apprehended by the police, or awaiting decisions of the Courts, or due for transfer to institutions to which they have been committed; they serve also for the detention of those sentenced to imprisonment in default of payment of fine, or on remand for discipline, medical examination, or other inquiry.

As the number of girls passing through the shelter is small, the work is conducted at the Central Dépôt for State Children, where also boys under 7 years of age are received. The shelter for boys over 7 years is attached to the Metropolitan Children's Court.

A medical officer from the Department of Education examines juvenile offenders, prescribes treatment, and advises the magistrate where delinquency is the outcome of physical or mental disability. During the year ended 5th April, 1918, 223 boys were examined at the shelter, 33 were found

to be suffering with physical defects, and recommended for hospital treatment; tested by the Binet-Simon method, the mental capacity of 44 boys was below normal.

During the year ended 5th April, 1918, the number of children brought before the Metropolitan Children's Court was 2,396, of whom 2,163 were boys and 233 were girls; 313 were uncontrollable children; 334 were neglected or under improper guardianship; 162 were charged with breaking terms of probation.

It is the policy of the Court in regard to minor offences to have proved cases formally withdrawn, usually on payment of costs, in order to avoid the recording of a conviction; in 1917-18 685 cases were withdrawn, 31 were dismissed, and the convictions numbered 1,680.

The disposal of these children is shown in the following statement:—

Disposal.	Boys.	Girls.	Total.
Released on Probation to Parents	1,155	53	1,208
Do do do Other persons	42	32	74
Committed to care of State Children's Relief Board.	16	12	28
Do do Ormond House, Paddington	33	29	62
Do do Farm Home, Mittagong	211	..	211
Do do Farm Home, Gosford	58	..	58
Do do Girls' Training Home, Parramatta ..	..	19	19
Do do do Industrial School, Parramatta ..	..	19	19
Do do do Truant School	1	..	1
Withdrawn	619	66	685
Dismissed or Discharged	23	3	31
Total	2,163	233	2,396

Further particulars regarding offenders charged at the Children's Courts are given in the chapter of this volume relating to Law Courts.

Release on Probation.

The probationary system by which truants and other juvenile offenders are released under supervision has proved a more effective measure for the reform of juvenile delinquents than the former method of committing them to institutions.

The number of children released under probation from the Children's Courts during the year ended 5th April, 1918, was 1,610, viz., 1,499 boys and 111 girls; 157 had been brought before the Court as neglected, 214 as uncontrollable, 838 were convicted for stealing, and 401 for other offences. The metropolitan and suburban courts released 1,297 children, and the country courts 313.

The terms of probation were:—One year and under, 1,518; one to two years, 65; over two years, 27. Cases in which the term of probation exceeds one year usually relate to children committed to the care of relatives or to private establishments, the length of term implying legal authority to retain custody of the children apart from their parents.

During the year ended April, 1918, 272 children were released on probation by the State Children Relief Board.

Street-trading by Children.

Street-trading is defined by law as hawking newspapers, matches, flowers, or other articles, singing, or performing for profit, or any like occupation carried on in a public place. Girls are not allowed to engage in street-trading. Licenses are issued by the State Children Relief Department to boys under 16 years; the trading hours prescribed for boys between ages 12 and 14 are from 7 a.m. to 7 p.m., and for boys over 14 years of age, from 6 a.m. to 10 p.m. The minimum age at which a license is granted is 12 years,

and in case of certain occupations, 14 years. Licenses are renewable half-yearly, and licensees are required to wear a metal arm-badge whilst trading.

Precautions are taken by supervisors to ensure the regular school attendance of licensees under 14 years of age.

During the year ended 31st March, 1918, 782 boys were licensed, their ages and the purposes for which licenses were granted were as follows:—

Street-trading.		12 years and under 14.	14 and under 16.	Total.
Hawking newspapers	... ..	386	360	746
„ flowers, &c.	... ..	9	5	14
„ other articles	... ..	6	16	22
Total	... ..	401	381	782

Particulars regarding the licenses granted and refused during the last five years are shown below:—

Period ended 31st March.	Boys Licensed.			Applications refused.	Licenses withdrawn during year.
	12 years and under 14.	14 years and under 16.	Total.		
1914	317	160	477	170	33
1915	469	211	680	130	40
1916	482	213	695	122	38
1917	393	270	663	122	42
1918	401	381	782	55	32

MEDICAL INSPECTION OF SCHOOL CHILDREN.

The question of physical fitness of children is of considerable importance to the community, and the medical reports of the Education Department point out the necessity for organised attention to physical disabilities, which retard educational progress, also to the prevention of epidemic disease, and to the checking of children's ailments in the early and curable stages.

A Medical Branch of the Department of Education has been created, with a staff of medical officers and nurses, and a bacteriological laboratory for the investigation of outbreaks of disease in schools. The work of the medical branch includes the medical inspection of school children, the inspection of school buildings, the delivery of lectures to teachers, senior students, and parents, and the investigation of outbreaks of infectious disease. Dental inspections are conducted in conjunction with the medical.

A medical examination will be made every three years of all children present at each school, and, as the term of compulsory attendance is seven years, the children will be examined at least twice during their school life.

Recent developments of the school medical system have been in the direction of providing facilities for treatment of defective children. A travelling hospital, a travelling ophthalmic clinic, a metropolitan dental

clinic, and 6 travelling dental clinics have been established. A general clinic was established in Sydney in 1917 for the treatment of children found physically defective, but it was closed after a short period, as it was considered by the local branch of the British Medical Association to be inimical to the interest of its members.

Where there are no resident doctors or dentists the travelling hospital visits parts of the State with a staff of two medical officers, a nurse, and a dentist; one doctor gives general treatment and performs minor operations, the other treats eye defects. The travelling ophthalmic clinic treats eye defects at the larger country schools. The number of school children treated by the hospital and clinics during 1917 was 23,200.

For the purpose of inspection the children are classified in three groups, viz., those attending schools (1) in the metropolitan district, (2) in the large country towns on or near the railway, (3) in small country towns, villages, and remote settlements. The number of children examined during 1917, including 3,082 examined by the travelling hospital, was 67,886; of these, 42,807 showed defects needing treatment.

Schools.	Enrolment at Schools examined.			Pupils examined.			Pupils notified as defective.		
	Boys.	Girls.	Total.	Boys.	Girls.	Total.	Boys.	Girls.	Total.
State Schools—									
Metropolitan district	14,350	12,873	27,223	12,567	10,676	23,243	7,749	6,665	14,414
Large country towns	11,671	10,950	22,621	10,494	9,793	20,287	6,252	6,015	12,267
Small country areas	9,273	8,326	17,599	7,928	7,074	15,002	5,390	4,939	10,329
Total	35,294	32,149	67,443	30,989	27,543	58,532	19,391	17,619	37,010
Private Schools—									
Metropolitan district	1,797	2,147	3,944	1,249	1,368	2,617	773	914	1,687
Large country towns	3,349	4,149	7,498	2,697	3,248	5,945	1,563	2,008	3,571
Small country areas	630	327	957	515	277	792	332	207	539
Total	5,776	6,623	12,399	4,461	4,893	9,354	2,668	3,129	5,797
Total, all Schools	41,070	38,772	79,842	35,450	32,436	67,886	22,059	20,748	42,807

The proportion of pupils who showed defects was 63·1 per cent. of those examined; it was lowest in the large country areas, being 60·4 per cent., as compared with 68·8 in the small country towns. The following table shows the percentage of pupils found defective during the years 1916 and 1917:—

Schools.	1916.			1917.		
	Boys.	Girls.	Total.	Boys.	Girls.	Total.
	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.
Metropolitan district	59·2	60·4	59·8	61·7	62·9	62·3
Large country towns	57·8	62·0	59·9	59·2	61·2	60·4
Small country areas	49·8	52·9	51·3	67·8	70·0	68·8
Total, all Schools	56·9	59·3	58·0	62·2	64·0	63·1

The investigation disclosed that defects of the teeth were very numerous, the majority being in the second teeth; other common ailments were adenoids, defective tonsils, and enlarged glands. A summary of the defects is shown below:—

Defects.	Total.	Defects.	Total.
Eyes—Vision	3,714	Skin	511
Other	1,171	Deformities—Round Shoulders	231
Ears—Hearing	1,872	Other	9
Other	150	Hernia	20
Nose and Throat—		Enlarged Glands	4,340
Tonsils, Adenoids ...	7,813	Anæmia	41
Other	254	Defective Nutrition	545
Teeth—Second, gross ...	4,741	Defective Speech	969
slight	25,979	Lungs	28
First	5,949	Other defects	271
Hair	2,016		

It has been found difficult to ensure satisfactory treatment for all children suffering from defects. Returns received by the Medical Branch with respect to notifications sent to parents show the following results; the returns are incomplete as, at the date of compilation, full particulars had not been received from many schools, especially those in remote districts:—

Division.	Notifications sent.	Children subsequently treated.	Percentage treated of number notified.
Metropolitan area	16,101	9,249	57·4
Large country towns	15,838	7,522	47·5
Small country areas	8,408	4,638	55·2
Total	40,347	21,409	53·1

Although the non-treatment of some children is due to the indifference of parents, in many other cases it is due to inability to afford the cost of treatment, or to the absence of facilities, as, even in some of the larger country towns, treatment is not obtainable for serious defects of vision and of teeth.

Infectious Diseases of School Children.

During 1917, 38,550 pupils of Public Primary Schools were compulsorily absent on account of infectious diseases, 27,532 being patients, and 11,018 contacts; the former represented 9·4 per cent. of the total enrolment, and the latter 3·8 per cent; the average period of absence was 4·2 weeks.

In 1916, there were 31,547 patients and 12,090 contacts, the ratios to the net enrolment being 11·2 per cent. and 4·3 per cent. respectively; the average period of absence was 4·6 weeks. In both years mumps was the cause of the absence of a large number of children.

Cases of ophthalmia occur mainly in the western districts, and pamphlets and drugs are provided for the prevention and cure of this disease.

PUBLIC HOSPITALS.

Public hospitals embrace all institutions for the care of the sick, except those owned and maintained entirely by private persons; hospitals conducted by charitable and religious organisations, some of which are not subsidised by the Government, and the Thomas Walker Convalescent Hospital, maintained by private endowment, are included. The Public Hospitals Act of 1898, and its amendment, define the procedure in the election of officers, and in matters relating to the property of the public hospitals to which the provisions of these Acts have been extended. With few exceptions the hospitals receive financial assistance from the public funds.

There were in New South Wales, at the end of 1917, 157 general hospitals for the treatment of the sick; 26 were in the metropolitan area, and 131 in country districts. The accommodation provided was 6,775 beds, including 350 in the open air, viz., in the metropolitan hospitals, 3,067, or an average of 118 per hospital; and in country districts, 3,708, or an average of 28 per hospital. The cubic capacity of metropolitan hospitals was 3,327,562 cubic feet, or an average of 1,159 cubic feet per bed; in the country hospitals the average was 1,191 cubic feet, the average for New South Wales being 1,177 cubic feet per bed. The average daily number of patients was 2,504 in all the metropolitan hospitals, and 2,151 in the country.

The following statement shows the extent to which the general hospital services have increased since 1901:—

Particulars.	1901.		1911.		1917.	
	Metro- politan.	Country.	Metro- politan.	Country.	Metro- politan.	Country.
Hospitals	15	103	21	120	26	131
Beds, including those in open air	1,453	1,938	2,113	2,976	3,067	3,708
Indoor patients	16,919	16,093	29,610	26,954	42,706	33,954
Outdoor patients	72,645	7,614	104,466	11,880	147,190	19,804
Average daily number of patients	2,045		3,302		4,655	
Indoor patients per 1,000 of mean population	24.1		34.0		40.9	
Average annual cost per occupied bed	£72 12s. 11d.		£85 18s. 9d.		£106 15s. 2d.	

The number of indoor patients is exclusive of those treated in Government asylum hospitals; the outdoor patients are exclusive of 4,843 and 4,323 patients treated at the Dental Hospital during the years 1911 and 1917 respectively.

PRIVATE HOSPITALS.

In addition to the public hospitals, there are numerous private hospitals which, prior to 1909, were entirely free of State supervision; but since the passing of the Private Hospitals Act, 1908, a private hospital (which includes any place in which medical, surgical, or lying-in cases are received) is not allowed to carry on business unless it is licensed by the Department of

Public Health, and complies with the regulations as to structure and management. The hospitals thus licensed in 1917 numbered 582, viz., 196 in Sydney, and 386 in the country.

The following statement shows the classification and accommodation of private hospitals:—

District.	Classification.				Accommodation.			
	Medical, Surgical, and Lying-in.	Medical and Surgical.	Lying-in.	Total.	1 to 3 Beds.	4 to 10 Beds.	11-20 Beds.	Over 20 Beds.
Sydney	52	6	138	196	81	73	19	23
Country	124	11	251	386	181	172	30	3
Total	176	17	389	582	262	245	49	26

Country hospitals were licensed in 172 towns; in the majority the accommodation provided was from 1 to 10 beds; only in 26 hospitals, 23 in Sydney and 1 each at Richmond, Goulburn, and Maitland, were more than 20 beds available.

HOSPITAL FINANCE.

The following statement shows the revenue and expenditure of the public hospitals for the year 1917:—

Items.	Metropolitan.	Country.	New South Wales.
Receipts—	£	£	£
State aid	158,283	138,578	296,861
Subscriptions and donations	75,704	99,101	174,805
Contributions by patients	44,967	46,369	91,336
Miscellaneous	17,427	10,506	27,933
Total Receipts	£ 296,381	294,554	590,935
Expenditure—			
Buildings and repairs	36,725	49,272	85,997
Salaries and Wages	117,025	98,921	215,946
Provisions, Stores, &c.	136,641	119,561	256,202
Miscellaneous	24,824	19,672	44,496
Total Expenditure	£ 315,215	287,426	602,641

The expenditure in connection with the institutions controlled entirely by the Government has been included in the figures stated above.

According to the hospital accounts the total amount of State aid received by the hospitals in the metropolitan area in 1917 was £158,283, and by the country hospitals £138,578. The total for the State was £296,861, comprising special grants amounting to £53,038 to metropolitan and £45,877 to country hospitals; and subsidies, £105,245 to metropolitan and £92,701 to country institutions. These amounts do not include payments for attendance on aborigines, expenses in connection with special outbreaks of disease, which are met from the general Medical Vote, nor cost of maintenance of a large number of chronic and incurable cases in hospitals and asylums for the infirm.

The revenue and expenditure of public hospitals at intervals since 1900 are shown below:—

Year.	Revenue.					Expenditure.			
	State aid.	Subscriptions and Donations.	Contributions by Patients.	Other.	Total.	Buildings and Repairs.	Salaries and Wages, Provisions, Stores, &c.	Other.	Total.
	£	£	£	£	£	£	£	£	£
1900	88,463	65,634	20,458	16,474	191,029	17,362	131,932	14,339	163,633
1905	100,976	72,430	27,635	14,824	215,865	34,541	167,815	22,808	225,164
1910	146,638	102,690	45,417	19,603	314,348	33,652	241,607	29,054	304,313
1915	265,590	133,780	73,615	25,048	498,023	82,747	389,105	36,139	507,991
1916	287,385	163,018	85,551	24,981	558,935	80,182	433,339	37,546	551,067
1917	296,861	174,005	91,336	27,933	590,935	85,997	472,148	44,496	602,641

Hospital Funds.

The balances of the funds of the hospitals as at the beginning and end of the year 1917 are shown in the following statement:—

Hospitals.	Current Account.		Invested Funds.	
	At 1st Jan., 1917.	At 31st Dec., 1917.	At 1st Jan., 1917.	At 31st Dec., 1917.
	£	£	£	£
Metropolis ...	(-)86,898	(-)109,971	136,930	140,869
Country ...	24,208	23,978	88,564	95,922
Total ...	(-)62,690	(-)85,993	225,494	236,791

(-) Indicates debit balance.

Cost of Maintenance of Hospital Patients.

The average annual cost of maintenance per patient in the hospitals during 1917 was £106 15s.; the average is calculated on the average daily number of patients, and is exclusive of cost of buildings, repairs, outdoor treatment, and district nursing:—

Average Daily Number Resident.	Number of Hospitals.	Average Annual Cost per Occupied Bed.			
		Wages.	Provisions, Stores, &c.	Miscellaneous.	Total.
		£	£	£	£
Under 1	4	274.89	135.87	63.61	479.37
1 to 3	17	138.37	110.26	22.82	271.45
3 „ 5	12	130.32	89.49	19.24	239.05
5 „ 10	31	68.79	65.86	14.82	149.47
10 „ 15	22	53.48	59.50	9.44	122.42
15 „ 20	14	45.08	59.99	7.63	112.70
20 „ 25	7	41.16	53.45	6.02	100.63
25 „ 30	6	27.77	46.45	5.87	80.09
30 „ 35	7	29.97	51.75	10.82	92.54
35 „ 40	5	38.72	50.13	7.86	96.71
40 „ 100	17	33.93	45.29	8.70	87.92
Over 100	9	47.63	50.55	8.64	106.82
Total ...	151	45.61	52.08	9.07	106.76

STAFFS AND PATIENTS IN PUBLIC HOSPITALS.

The following statement shows the medical and nursing staffs attached to public hospitals during 1917:—

Hospitals.	Medical Staff.		Nursing Staff.			
	Honorary.	Salaried.	Qualified Nurses.	Nurses Training.	Wardsmen & Wardsmails.	Total.
Metropolitan ...	357	68	564	539	98	1,201
Country ...	204	120	504	327	62	893
Total ...	561	188	1,068	866	160	2,094

During the year 76,660 persons were under treatment as indoor patients, 42,706 in metropolitan, and 33,954 in country hospitals, and the number remaining in hospitals at the close of the year was 4,143 (2,109 males and 2,034 females).

The following statement shows the number of indoor patients treated, and the discharges and deaths during the past five years:—

Year.	Patients under Treatment.	Discharges.	Deaths.	Patients at the end of Year.
1913	65,190	56,908	4,458	3,824
1914	70,154	61,759	4,310	4,085
1915	73,183	64,088	4,788	4,307
1916	75,856	66,642	5,027	4,187
1917	76,660	67,890	4,627	4,143

The increase in the number of patients treated has been steady, and has been more rapid than the growth of population, the proportion of the population treated in hospitals having risen gradually from 28 per 1,000 in 1906 to 41 per 1,000 in 1917.

Outdoor Hospital Patients.

During 1917, 171,317 persons were treated as outdoor patients of the general hospitals, viz., 151,513 at metropolitan hospitals, including 4,323 at the Dental Hospital, and 19,804 at country hospitals.

Sickness in Public Hospitals.

The principal diseases of patients under treatment in the public hospitals during 1917 are shown below; patients treated at the hospitals attached to the Government asylums are not included, but are shown separately on a subsequent page. The cases under treatment during 1917 numbered 76,660—males 38,750, and females 37,910. The number who died, or were discharged as recovered, relieved, or unrelieved, numbered 72,517, leaving 4,143 under treatment at the end of the year. These figures include transfers, and represent the aggregate of the number of cases treated at each hospital;

cases admitted more than once during the year are counted each time admitted:—

Disease	Total under Treatment.		Number of those discharged during the year who—					
			Recovered.		Were Relieved.	Were un-relieved.	Died.	
	Males.	Females.	Males.	Females.	Persons.	Persons.	Males.	Females.
Typhoid	613	433	498	352	10	6	54	31
Smallpox	90	56	88	55	1	...	...	...
Scarlet fever	405	708	367	674	11	1	7	9
Diphtheria and Croup ...	2,181	2,730	1,825	2,369	357	10	96	91
Influenza	561	395	529	374	18	1	7	3
Purulent infection, Septicæmia	685	290	552	216	118	3	21	21
Tuberculosis of lungs ...	1,055	638	82	85	602	152	213	105
Tuberculosis, other organs	326	318	96	93	278	33	37	26
Venereal diseases	953	602	91	80	1,180	81	17	9
Cancer	917	755	255	208	467	283	196	138
Rheumatism, Gout	1,026	608	606	364	510	12	11	14
Diseases of the eye	848	554	515	345	414	51	...	1
Heart diseases	891	571	78	74	794	48	260	116
Diseases of the Veins ...	589	462	504	382	104	13	2	1
Diseases of nose	1,105	1,018	1,043	979	41	46	1	...
Bronchitis	874	536	635	422	262	6	37	10
Pneumonia — Broncho-								
Pneumonia	1,941	1,281	1,578	1,075	38	8	280	146
Pleurisy	411	272	321	207	74	3	23	7
Diseases of the Pharynx ...	573	759	547	727	33	10	5	3
Diseases of the stomach ...	1,065	923	805	718	286	20	34	17
Diarrhoea and Enteritis ...	1,131	965	800	707	126	16	172	119
Appendicitis, Typhlitis ...	1,552	2,195	1,347	1,958	120	22	49	40
Intestinal obstruction ...	1,242	462	1,073	368	57	30	56	45
Nephritis, Bright's disease	520	317	119	107	281	17	190	92
Diseases, female genital organs ... ..	...	4,664	...	3,960	342	85	...	41
Puerperal condition ... ..	...	6,289	...	5,616	148	124	...	132
Diseases of skin, &c.	1,396	836	1,032	663	362	22	26	24
Accidents	6,388	1,777	5,005	1,359	987	82	247	86
All Diseases	38,750	37,910	25,758	28,289	12,043	1,790	2,109	2,034

STATE ASYLUMS FOR THE INFIRM.

Five asylums for the infirm are maintained by the Government—four for men and one for women. These institutions were established as asylums for aged and destitute persons, but the introduction of the Old-age and Invalidity pension systems and the prosperous conditions prevalent throughout the State have caused a considerable decrease in the number of persons requiring relief. In consequence, the character of the work of the institutions has changed considerably and the treatment of the sick has developed into a primary feature of administration, the majority of inmates being those requiring medical care.

The average number resident during the year 1917 was 2,942, as compared with 3,022 during the previous year. The weekly cost per inmate for each of these years is shown below:—

Head of Expenditure.	1916.	1917.
	s. d.	s. d.
Salaries and money allowances	3 9	3 10
Provisions, extras, medical comforts, and forage	8 7	8 2
All other expenses	1 2	0 7
Gross weekly cost for maintenance	13 6	12 7
Average weekly contribution towards Revenue	2 2	2 5
Net weekly cost	11 4	10 2

ASYLUM HOSPITALS.

In the hospitals attached to these institutions 5,144 cases of illness were treated during 1917—males, 3,988, and females, 1,156; at the end of the year, 1,175 cases remained under treatment.

CONVALESCENT HOSPITALS.

Two State Convalescent Hospitals have been established—Denistone House, at Eastwood, for men; and the Strickland Convalescent Home, for women, Carrara, Rose Bay. These institutions receive persons who are convalescent from serious illness, and thereby accommodation is made available for urgent cases at the metropolitan public hospitals. During 1917 the number of persons treated was 276 men and 626 women; 15 men and 32 women remained in the institutions at the end of the year.

At the Carrington Centennial Convalescent Hospital, Camden, patients from the metropolitan district are accommodated for rest and change in the bracing climate of the southern highlands; the hospital is subsidised by the Government. The Thomas Walker Convalescent Hospital, Parramatta River, is privately endowed.

TREATMENT OF COMMUNICABLE DISEASES.

Measures for the treatment and prevention of infectious diseases are taken under the authority of the Public Health Act. Cases of such diseases as leprosy, bubonic plague, smallpox, scarlet fever, typhoid fever, diphtheria, infantile paralysis, acute malarial fever, and cerebro-spinal meningitis must be notified to the Board of Health; no case of typhus, yellow fever, or cholera has occurred in New South Wales, and bubonic plague is practically non-existent. Pulmonary tuberculosis is notifiable in the Metropolitan and Hunter River districts, also in the Katoomba municipality and in the Blue Mountains shire.

Where necessary, special provision is made for the isolation of infectious cases. In the metropolis the majority are treated at the Quarantine Station, or at the Coast Hospital; country cases are accommodated in special wards of the local hospitals.

The cases of infectious disease notified during 1917 were as follows:—

Disease.	Sanitary District.		Other Districts.	Total.
	Metro-politan.	Hunter River.		
Smallpox ... ..	.....	14	105	119
Typhoid Fever	402	72	617	1,091
Scarlet Fever... ..	1,218	95	942	2,255
Diphtheria	2,575	321	2,909	5,805
Infantile Paralysis	6	1	9	16
Acute Malarial Fever	15	1	1	17
Cerebro-Spinal Meningitis	62	11	124	197
Tuberculosis	1,181	60	78	1,319

There were also 3 cases of leprosy, 1 from the Metropolitan district, and 2 from country districts.

In comparison with the previous year there was a decrease in 1917 in the notifications of all these diseases except smallpox, which showed an increase of 12 cases.

Leprosy.

The Leper Lazaret for the segregation of persons suffering from leprosy was opened for the admission of patients in 1883, though statutory provision

for the compulsory notification of the disease and detention of lepers was not made until 1890. The number of cases in the lazaret on 1st January, 1917, was 25, during the year 3 were admitted, 1 died, and 3 were discharged, leaving 24—19 males and 5 females—in the lazaret at 31st December, 1917. The birthplaces of the inmates of European descent were New South Wales, 9; Victoria, 1; England, 3; Germany, 1; and Fiji, 1. There were 9 coloured inmates, 2 were born in China, 5 in the Pacific Islands, 1 each in Syria and Java.

The cost of management was £2,843, or an average of £118 8s. 9d. per inmate.

Smallpox.

An outbreak of smallpox of a mild type, which occurred in New South Wales in 1913, continued until October, 1917, when it finally disappeared. Only a small proportion of the population was protected by vaccination, but the disease had apparently a very low infective power, and did not spread rapidly, being transmitted, as a rule, by personal contact only. Stringent measures were taken to restrict the epidemic; where practicable the patients were transferred for treatment to the hospital in the Sydney Quarantine Area, and a large number of people were vaccinated.

The total number of smallpox cases notified was 2,398; in 1913 there were 1,073 cases, and during the following year, 628. In 1915 there were 471 cases; the majority were from mining centres in the Newcastle and Hunter River districts—only 41 occurred in Sydney. In 1916 there were 107 cases, of which 15 were in the Metropolitan area, and 33 in Newcastle; and in 1917 there were 14 cases in the Hunter River district, and 105 in other country areas. Throughout the epidemic the death-rate was remarkably low; four patients died in the earlier stages, but in each case death was probably due to some other cause; and in 1915 one patient died, but the primary cause was gastro-enteritis.

Tuberculosis.

A remarkable reduction in the mortality from tuberculosis has been effected since the enactment of the Dairies Supervision Act of 1886, the Pure Food Act of 1908 and other legislation for the protection of the food supply from insanitary conditions, but the fact, as shown in the chapter dealing with vital statistics, that 6·5 per cent. of the deaths in New South Wales during 1917 were caused by tuberculosis, demonstrates the necessity for further drastic measures to prevent the spread of the disease.

In July, 1912, an Advisory Board was appointed to assist the Government in matters relating to the treatment of tuberculous diseases. This Board is composed of medical practitioners representing the University, the hospitals, the Government Medical Service, the general practitioners, and the various branches of medical science, medicine, surgery, pathology, State medicine, and diseases of women and children, also a veterinary scientist.

In August, 1915, pulmonary tuberculosis was proclaimed under the provisions of the Public Health Amendment Act of 1915 as notifiable in the Metropolitan and Hunter River sanitary districts, and in October, 1916, in the Katoomba municipality and the Blue Mountains shire. The Metropolitan combined sanitary district includes Sydney and suburbs, the municipalities of Granville, Parramatta, Liverpool, Bankstown, the shires of Ku-ring-gai, Hornsby, and Warringah. The Hunter River district embraces Newcastle and the surrounding municipalities as far west as Singleton. Under the by-laws of the City of Sydney, medical practitioners had been required, since 1904, to notify cases of phthisis occurring within the city

area, but in March, 1917, the Council agreed to the abolition of the dual system of notification of this particular disease thus arising, and the by-law was revoked.

Persons suffering from pulmonary tuberculosis may receive treatment of a temporary character at the general hospitals, and there are special institutions for their care and treatment, such as the State Hospital at Waterfall, the Queen Victoria Homes for Consumptives, at Wentworth Falls and Thirlmere, and the R. T. Hall Sanatorium, at Hazelbrook, as well as various private hospitals; tuberculous cases are received also at the Sacred Heart Hospice for the Dying, Sydney. At the hospitals attached to the State asylums at Lidcombe and Newington, accommodation is reserved for a limited number of tuberculous patients; and arrangements have been made with the Government of South Australia to provide sanatorium treatment in that State for patients from Broken Hill.

The Waterfall Hospital was established in 1909, and persons suffering from pulmonary tuberculosis in early as well as advanced stages of the disease are treated there; male patients only were admitted prior to 1912, when a department for females was opened. There are 366 beds, of which 58 are in the open air; 508 males and 296 females were accorded hospital treatment during 1917. The expenditure during the year was £17,576, the average cost of treatment, excluding buildings, repairs, &c., was £53 9s. per occupied bed.

The National Association for the Prevention and Cure of Consumption opened the first Anti-tuberculosis Dispensary in Sydney. Medical advice is given at the dispensary to persons suffering from tuberculous diseases, and a nurse is employed to visit their homes and instruct the inmates in precautionary measures to prevent the spread of tuberculosis.

The dispensary system is being extended with the co-operation and financial assistance of the Government; throat and chest dispensaries have been established in connection with metropolitan hospitals, and at Newcastle.

Malarial Fever.

Acute malarial fever was proclaimed as a notifiable disease on 17th March, 1915; this precautionary measure was taken to prevent its spread amongst the residents of the State by soldiers returning from service in the tropics. To the end of the year 105 cases had been reported; with 14 exceptions, the patients were men from the warships or members of the Expeditionary Force who had been employed in New Guinea and other malarial regions in the Pacific. In 1916, 58 cases, and in 1917, 17 cases were notified.

Venereal Diseases.

The treatment of venereal diseases is regulated under the Venereal Diseases Act, 1918, which prescribes that all persons suffering from such diseases must place themselves under treatment by a qualified medical practitioner.

Clinics for the treatment of venereal diseases have been established at two of the metropolitan public hospitals, and special wards for these cases have been provided at the Newington and Liverpool State Asylum Hospitals. Prisoners suffering from venereal diseases are detained for treatment in Lock Hospitals under the Prisoners Detention Act; particulars are given in the chapter relating to Police and Prison services.

Other Notifiable Diseases.

Infant paralysis—acute anterior poliomyelitis—was made notifiable in New South Wales from 1st January, 1912; there were 16 notifications in 1917, as compared with 311 in the previous year.

Cerebro-spinal meningitis was proclaimed a notifiable disease on 11th October, 1915, when an outbreak occurred in a military encampment and spread to some extent amongst the civil population. The notifications in 1917 numbered 197, or 112 less than in the previous year. During 1917 a number of cases of a disease somewhat resembling cerebro-spinal meningitis occurred in various country towns in the north-western and western districts. The mortality rate was high, and after special investigations by the public health authorities it was concluded that the disease was a polio-encephalo-myelitis, known for the purpose of convenience as "X disease." In 1917 seventy cases were recorded, and 39 deaths; in 1918 there were 58 cases and 46 deaths.

CHARITABLE INSTITUTIONS AND SOCIETIES.

In addition to hospitals for the treatment of sickness or disease, the State asylums for the infirm, and the cottage homes for State children, there exist, both in the metropolis and in the country, other institutions, such as homes for women, and for the blind, deaf, and dumb; for granting casual aid to indigent persons; and for the help of discharged prisoners.

A number of charitable institutions are maintained partly by State aid and partly by private contributions, and others are wholly dependent on private aid.

During 1917 the recorded admissions to the various charitable institutions numbered 14,750, and at the end of the year there were 6,802 persons in the institutions, viz., 2,686 men, 1,240 women, and 2,876 children. The estimated value of outdoor relief afforded at institutions and by societies during 1917 was £35,912. State aid amounted to £289,697, and the total revenue and expenditure were respectively £481,230 and £478,391.

The following is a comparative statement of the revenue and expenditure of the charitable institutions and societies:—

Particulars.	1905.	1910.	1915.	1917.
Number of Institutions and Societies ...	167	179	199	195
Revenue—	£	£	£	£
State Aid... ..	164,040	189,584	275,513	289,697
Subscriptions, &c.	49,670	66,815	107,773	111,219
Other	50,357	67,806	77,937	80,314
Total	264,067	324,205	461,223	481,230
Expenditure—				
Buildings and Repairs	9,195	13,912	18,862	15,330
Maintenance, Salaries and Wages	223,198	278,590	401,273	443,284
Other	29,088	26,103	45,232	19,777
Total	261,481	318,605	465,367	478,391

Ambulance and First Aid.

In the work of rendering first aid, and transporting invalid or injured persons, several organisations are engaged, viz., the St. John Ambulance Association and Brigade, the Civil Ambulance and Transport Corps, and the New South Wales Marine Ambulance. An ambulance service is maintained in connection with the Public Health Department, and during 1917 2,652 persons were removed by three motor ambulances.

The primary object of the St. John Ambulance Association is the dissemination of general information as to the preliminary treatment of the sick and injured; a large number of classes of instruction are held throughout the State, certificates of competency being awarded by the Association.

Ambulance Corps connected with the Railway and Tramway Department, the Department of Mines, and the police, encourage first-aid instruction.

The Royal Life-saving Society promotes technical education in life-saving and resuscitation of the apparently drowned.

Nursing Associations.

In the matter of nursing, the District Nursing Association, the Bush Nursing Association, and the Sydney Day Nursing Association are active. The District Nursing Association restricts its operations to Sydney and its suburbs, and during 1917 seven nurses connected with the Association made 16,403 visits to 877 patients. The Association is maintained by public subscriptions.

To provide nursing for the sick in districts sparsely settled or remote from an established hospital the Bush Nursing Association was instituted during 1911, and during its first year four nurses were installed. In each centre a cottage was furnished and equipped for the use of the nurse; the costs of equipment and services are guaranteed by local committees, promoted and subsidised by the Association, which was inaugurated with an endowment provided by public subscriptions, and is maintained by annual contributions subsidised by the Government.

During 1914 the Association was reorganised with Government representation and endowment in order to extend the service to all remote settlements, and at the end of the year twelve nurses had been appointed in various parts of the State. Arrangements were made also to subsidise doctors in small centres where the resident population is insufficient to provide a fair remuneration to medical practitioners. Where practicable the residents are expected to guarantee a certain sum to the doctor, and his earnings are further supplemented by Government subsidy. The subsidised doctors and nurses are required to co-operate with the medical officers attached to the travelling hospitals of the Education Department. In 1917 eighteen nurses were at work in various parts of the State.

GOVERNMENT RELIEF ORDERS.

To the various hospitals and asylums the Government issues orders authorising the holders to secure relief from the institutions. During 1917 10,653 orders were granted, of which 5,645 were to the Government asylums, 3,096 were to the Coast Hospital, and 925 were for out-door treatment at hospitals; the balance were distributed among other institutions. The total applications numbered 10,772 in 1917, as compared with 12,084 in 1916; 119 were refused, but it frequently happens that applicants who have been refused Government orders receive recommendations to institutions not under State management.

PUBLIC CHARITABLE COLLECTIONS.

Numerous public collections have been made for the relief of distress occasioned by war, mining disasters, floods, drought, &c. A fund thus established is usually administered by a committee formed at a public meeting of citizens summoned for the purpose of inaugurating the fund.

With the object of increasing the revenue of the hospitals and charitable agencies, public collections are made in the Metropolitan and several country districts.

National Relief Fund of New South Wales.

The National Relief Fund of New South Wales was formed in 1914 by the amalgamation of certain funds which had been established by public subscription. A Board consisting of the Colonial Secretary, the Lord Mayor of Sydney, the Public Trustee, and six other members appointed by the Governor was constituted to administer the fund; the moneys, &c., are

vested in the Public Trustee, and will be used for the relief of persons injured, or of the dependents of those killed or injured in war or public disasters.

The funds absorbed by the National Relief Fund were as follows:—The Patriotic Fund inaugurated in 1899 to relieve distress arising from the South African War amounts at date of amalgamation £25,450; the New South Wales Public Disaster Fund and the Education Department Relief Fund initiated for the relief of sufferers by the disaster at Mount Kembla mine in 1902, £15,863; the Bulli Colliery Disaster Fund, established in 1887 in connection with the mining disaster at Bulli, £13,174. On the resolution of both Houses of Parliament any other fund may be amalgamated with the National Relief Fund.

The relief distributed during the year 1917 was valued at £14,111, and administrative expenses £81; the balance at the credit of the fund on 31st December, 1917, was £44,010.

War Relief Funds.

On the outbreak of the present war numerous relief funds were initiated in New South Wales; those subsidised or assisted by grants or expenditure from the Consolidated Revenue of the State are audited by the Auditor-General in terms of the Trustees Audit Act.

The total amount of contributions to the War Relief Funds from the commencement of the war to 31st March, 1919, was £4,731,342, the amount contributed to the principal funds being as follows:—

Fund.	Amount.	Fund.	Amount.
	£		£
Australia Day	1,102*	Italian Red Cross	67,577
Australia Day Amelioration Committee	296,709	Servian and Montenegrin	54,184
Red Cross (N.S.W. Division)...	976,108	Air Squadron	82,645
Red Cross (Australian) Day ...	373,650†	Tanned Sheepskin Clothing ...	41,516
Lord Mayor's Patriotic	311,538	Pastoralists' Union	28,490
Citizens' War Chest	543,070	A.I.F. Memorial	54,313
Chamber of Commerce... ..	110,659	Anzac Day	12,014
Y.M.C.A. Field Service	282,421	Voluntary Workers' Association and Homes Day ...	60,427
Jack's Day	146,715	Miscellaneous	163,831
Belgian Relief	690,933		
French Relief	328,805		
Polish Relief	104,635	Total	£4,731,342

*Exclusive of £618,861 transferred to Red Cross Fund, and £220,000 to Amelioration Committee.

†Exclusive of £50,000 transferred to Australia Day Amelioration Committee.

In addition to the amount shown above, goods in kind were supplied to a very large extent.

Of the total cash contributions, viz., £4,731,342, an amount of £4,043,591 had been disbursed at 31st March, 1919.

Hospital Saturday Fund.

The Hospital Saturday Fund of New South Wales, inaugurated in 1893, is registered under the Companies Act, and is managed by a Board of thirty members and eight honorary officers, all of whom are elected annually. Indoor collections at places of business, household collections by means of boxes, and an annual out-door collection are made; the money is distributed among certain hospitals and auxiliary medical charities in the metropolitan area.

During the year ended 31st May, 1918, £18,511 was collected and £17,450 was distributed; the expenses amounted to £914.

United Charities Fund.

The United Charities Fund is administered by a general committee, composed of delegates of the Associated Charities within Sydney and suburbs, except the medical charities aided by the Hospital Saturday Fund; usually an annual collection is made throughout the metropolis.

During the year ended 1st February, 1918, the collections amounted to £3,250. The amount distributed was £3,200, the expenses being £222.

INSANITY.

Under the Lunacy Act, 1898, the Judge in Equity is constituted a court to deal with matters relating to persons of unsound mind or incapable of managing their own affairs, and the Master in Lunacy has power to manage the estates of such persons, and controls trust funds which at December, 1917, amounted to £282,839. The Act authorises the appointment of an Inspector-General of Insane, who is empowered to visit every hospital, reception-house, ward, cell, or licensed house, and to inquire generally as to the care, treatment, and health, mental and physical, of the patients. Persons deemed to be insane may be examined and detained on the order of a Justice; and in public hospitals, and in gaol establishments, wards are reserved for the reception and observation of mental patients, but special hospitals are maintained by the Government for their treatment and care.

MENTAL HOSPITALS.

For the treatment of mental patients there were during 1917 nine Government hospitals, in addition to a hospital for criminal insane at Parramatta, three licensed houses at Tempe, Ryde, and Mt. Colah, and reserved accommodation in a South Australian hospital for patients from the Barrier District of New South Wales.

Each institution admitting new cases is provided with a department specially designed and fully equipped for the treatment of curable patients.

The medical staff of the hospitals and licensed houses numbered 21, the nursing staff and attendants numbered 608 men and 490 women, and the average daily number of patients resident, excluding patients on leave, was 6,896, comprising 4,117 males and 2,779 females.

At the end of the year 1917 there were in the New South Wales hospitals 6,879 patients—4,103 males and 2,776 females; in the South Australian hospitals the patients from New South Wales numbered 22 men and 25 women; in addition there were 214 men and 247 women on leave from various institutions, making a total number of 7,387 under official cognisance—4,339 males and 3,048 females.

In the following table is stated the number of mental patients under official notice at the close of each year, with their proportion per 1,000 of the population at intervals since 1881:—

Year.	Number of Mental Patients.			Proportion per 1,000 of Population.		
	Males.	Females.	Total.	Males.	Females.	Total.
1881	1,354	726	2,080	3·16	2·06	2·66
1891	1,912	1,222	3,134	3·04	2·29	2·70
1901	2,684	1,804	4,488	3·72	2·75	3·26
1911	3,810	2,573	6,383	4·30	3·19	3·77
1912	3,866	2,640	6,506	4·13	3·13	3·66
1913	3,935	2,739	6,674	4·09	3·15	3·64
1914	4,092	2,846	6,938	4·23	3·17	3·73
1915	4,169	2,930	7,099	4·38	3·19	3·80
1916	4,264	3,020	7,284	4·62	3·23	3·92
1917	4,339	3,048	7,387	4·64	3·26	3·91

From these figures it appears that generally the proportion of patients treated in the mental hospitals is increasing. To ascertain the general insanity rate it would be necessary to consider the extent to which patients are treated in private houses, and the proportion of persons whose mental condition, while not calling for certification, might be relieved by treatment if provision were made for the admission of voluntary patients.

Admissions and Discharges.

The steadily increasing number of admissions overtaxed the accommodation available in the large hospitals to such an extent that additional accommodation had to be secured, and the opportunity was taken in 1910 of giving experience of open-air treatment to select patients, housing them in tents with wooden framework and flooring; the resultant benefit to health was regarded as highly satisfactory.

Prior to 1893 there was no law in force to prevent the influx of insane into New South Wales, but in that year legislation rendered the owner, charterer, agent, or master of a vessel liable for the maintenance of any insane person landed in the State. In 1917 12 insane patients were received from places beyond the State, 5 being discharged after a few days' treatment at the Reception House, and 7 admitted to mental hospitals.

The numbers of admissions and re-admissions to mental hospitals during the last five years are shown below:—

Year.	Admissions.			Re-admissions.		
	Males.	Females.	Total.	Males.	Females.	Total.
1913	643	415	1,058	125	88	213
1914	760	462	1,222	118	81	199
1915	685	435	1,120	124	102	226
1916	747	477	1,224	109	93	202
1917	710	393	1,103	109	98	207

Of the admissions in 1917 natives of New South Wales numbered 702, England 212, Ireland 82, Scotland 56, other British countries 180, foreign countries 78.

The next table shows the numbers of patients who died or who were discharged from the mental hospitals, on account of recovery, permanent or temporary:—

Year.	Discharged.						Deaths.		
	Recovered.			Relieved.					
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
1913	300	211	511	51	41	92	340	153	493
1914	341	222	563	69	48	117	301	168	469
1915	338	230	568	84	44	128	310	179	489
1916	313	233	546	56	37	93	396	214	610
1917	326	258	584	54	35	89	363	171	534

PER CENT. OF AVERAGE NUMBER RESIDENT.

1913	8.0	8.4	8.1	1.4	1.6	1.5	9.0	6.1	7.9
1914	8.7	8.5	8.7	1.8	1.8	1.8	7.7	6.4	7.2
1915	8.5	8.7	8.6	2.1	1.7	1.9	7.8	6.8	7.4
1916	7.7	8.5	8.0	1.3	1.4	1.4	9.7	7.8	8.9
1917	7.9	9.3	8.5	1.3	1.3	1.3	8.8	6.1	7.7

Causes of Insanity.

The records of persons admitted during 1917 show that among the exciting causes of insanity intemperance in drink is most prominent, particularly among men; among predisposing causes the most important are congenital defects, hereditary influence, and old age.

Cost of Maintenance.

The weekly cost of maintaining mental patients in Government hospitals during the year 1917 was 17s. 7½d. per patient, of which the State paid 14s. 9½d., the balance being derived from private contributions. The sub-joined table shows the average weekly cost per patient from 1913 to 1917:—

Year.	Annual Cost of maintenance of Patients.	Cost of maintenance of Patient per week.		
		To State.	Private Contributions.	Total.
	£	s. d.	s. d.	s. d.
1913	248,105	12 9½	2 8	15 5½
1914	249,832	12 2½	2 8½	14 11½
1915	268,795	13 0½	2 9	15 9½
1916	306,569	14 7½	2 9½	17 5½
1917	311,757	14 9½	2 10	17 7½

The increase in the cost of maintenance is due mainly to benefits conferred on the staff, such as increased remuneration and shorter hours of work, and to the higher cost of commodities.

Reception Houses for the Mentally Afflicted.

Reception houses have been established at Sydney, Newcastle, and at the local gaols in some country towns where affected persons are placed under observation. At Darlinghurst (Sydney) and Newcastle treatment is provided for attacks of short duration and for alcoholic cases, which have developed mental symptoms. The number of patients under care during 1917 was 1,598; 890 were transferred to mental hospitals, and 660 were discharged as recovered or relieved.

Persons who become mentally deranged in gaol are placed in the observation ward at the State Penitentiary at Long Bay; 61 persons were under observation during 1917.

Mental Ward.

A small hospital was established in 1908 by the Lunacy Department on a site adjoining the Reception House at Sydney, for the treatment of patients in the earlier and curable stages of mental diseases, wherein restraint or the special conditions of a hospital are not required. Accommodation is provided for 20 male patients; and during 1917 the number of cases treated was 151; 132 were discharged, 3 died, and 16 remained at the end of the year.

CARE OF THE FEEBLE-MINDED.

At present the only provision made by the State for the feeble-minded is at four cottage homes established by the State Children Relief Department, where State children who are feeble-minded are accommodated, and at the Newcastle Hospital for the Insane, which is used for children who are certified as imbeciles or idiots. In connection with the medical inspection of school children, data are being collected by the medical officers as a preliminary to the establishment of special schools for mentally defective children.

DEAF MUTISM.

The number of persons who were deaf and dumb, as ascertained at the census of 1911, was 640, equivalent to one person in every 2,573 of the population.

The rate at ages 10 to 20 is the highest; whereas, since deaf-mutism is an affliction of childhood, it is reasonable to expect that the rates below those ages would be the highest. This probably arises from the unwillingness of parents to make known this infirmity in their children.

Excluding children under 10, the rate declines more or less regularly as the age advances. At all ages over 30 the female rate is higher than the male.

BLINDNESS.

The number of persons afflicted with blindness at the census of 1911 was 1,011; this is equivalent to one person in every 1,629. The higher proportion which exists among males is probably due to the greater risk of accident to which they are exposed.

Among both sexes the rate increases from the lowest to the highest ages, and rapidly after age 60. Practically at all ages the male rate is higher than the female. The majority of young persons afflicted with blindness were probably so at birth.

The care and education of the blind and the deaf and dumb are undertaken at several institutions in New South Wales. The New South Wales Institution for the Deaf and Dumb and the Blind is maintained partly by Government subsidy and partly by public subscriptions; special educational courses are provided, the fees being remitted in cases of financial inability. Denominational institutions for the instruction of deaf mutes are conducted at Waratah and Westmead, and one for blind girls at Liverpool.

The Sydney Industrial Blind Institution undertakes the care of the adult blind, and provides industrial training to enable them to earn a livelihood. Homes for the blind are conducted in connection with this institution, and a free circulating library of embossed books is provided.

Under the Commonwealth invalid pension system provision is made for the payment of pensions to permanently blind persons above the age of 16 years.

FRIENDLY SOCIETIES.

The first Friendly Society in New South Wales was founded in 1834, when the Australian Union Benefit Society was established; this society is still existent.

The first Act of Parliament to regulate Friendly Societies, passed in 1843, conferred certain legal advantages on societies established for the purpose of raising funds for mutual relief of the members.

In 1873 a more comprehensive Act was passed, and a Registrar was appointed to certify as to the accordance of the rules of the societies with the law. To obtain the registration of a society under this Act it was essential that the table of contributions be certified by an actuary; but after registration, the society had power to vary the rates of subscription and the amount of benefits, so stultifying the requirements as to certification.

It was not until 1899 that these defects were remedied. In that year an Act was passed under which the supervision of the State was imposed upon societies in the conduct of their business, and in the safeguarding of their funds, collection of data as to membership, sickness and mortality experience, investigation of accounts; and expert advice was made available in their financial concerns, with actuarial oversight by means of periodic valuations.

In 1906, under further legislation, compulsory registration of all Friendly Societies was required, the only exception being as to dividing societies which annually distribute all their funds amongst their members, and stringent provisions were made to prevent misapplication of benefit funds.

In 1908 a new feature was introduced in the form of Subventions to Societies from the Public Revenue of the State, under the Subventions to Friendly Societies Act, 1908. This system is detailed subsequently.

The whole of the existing legislation was consolidated in the Friendly Societies Act, 1912, but in 1913 an amending Act was passed which provides that after valuation the Registrar may authorise surplus moneys belonging to any one fund or benefit to be used in any manner for the purpose of any other fund or benefit. An amending Act in 1916 provided that where the benefit funds are administered by one central body for the whole society they may be treated as one fund.

Benefits and Actuarial Valuations.

The benefits assured are fairly uniform in all societies, and consist usually of medical attendance and medicine for a member and his family, with sick pay for the member, and funeral allowances for the member and his wife. The average sickness benefit is 21s. per week during the first six months, 10s. 6d. for the next six months' illness, and 5s. per week for rest of illness, this last provision being rendered possible by the system of State Subventions, of which more detailed mention is made later. The funeral benefits usually range from £20 to £40 at death of the member, with a maximum benefit of £200; a contingent benefit of £10 or £15 is payable on death of the wife. A separate benefit for widows of members, usually £10, may be assured in most of the societies for a stated contribution.

The first quinquennial valuation of Friendly Societies required in compliance with the Act of 1899 was undertaken as at 31st December, 1904. Eighteen affiliated societies and thirteen single societies were valued.

At this valuation 96,422 members were valued for sickness benefit, and 97,511 for funeral benefits, with 51,155 subsidiary funeral benefits.

The valuation showed that there was a net deficiency of £271,620 on a total liability of £3,981,252, equal to 1s. 4d. per £1, or, in other words, a sum of only 18s. 8d. was available to meet each £1 of liability.

In his report, the Registrar made recommendations designed to strengthen the financial position of the societies, and to improve their status. The effect was visible in the result disclosed by the second valuation, as at the 31st December, 1909, which showed that the position of the societies as a whole was sound.

The second quinquennial valuation was made on a $3\frac{1}{2}$ per cent. rate on the basis of the experience of the Friendly Societies in this State during the nine years 1900-8. Sickness and funeral benefits were valued for 116,186 members, funeral benefit only for 5,258, and sickness benefit only for 13,109 members. In addition, there were subsidiary risks on account of 54,391 persons, comprising members, their wives, and children.

In the third quinquennial valuation as at 31st December, 1914, the experience used in 1909 was again made the basis, but as the interest-earning rates had improved considerably during the quinquennium, a 4 per cent. rate was adopted in many cases. The risks valued for both Sick and Funeral benefits amounted to 150,714, whilst there were 22,582 for sickness only and 8,055 for funeral only. The usual subsidiary risks on account of wives, children, &c., were 67,635.

The combined results of the valuations of the seventeen affiliated societies showed a surplus of £311,753 in the Funeral Fund, and a deficiency of £162,539 in the Sickness Fund, the net result being a surplus of £149,214

on a total liability of £5,312,991. The single societies showed assets of £3,030 in excess of liabilities of £98,725. The liabilities of all societies for Sick and Funeral benefits were £5,411,716, whilst the total assets were £5,563,960, showing a surplus of £152,244; so that the assets were equal to £1 0s. 7d. for every £1 of liabilities. The results showed uniformly strong positions in the Funeral Funds, but there was a tendency to weakness in the Sickness Funds, necessitating an adjustment of the contributions in some cases.

Societies.

The societies may be divided into two classes, viz., Friendly Societies proper, and Miscellaneous Societies, whose objects bring them within the scope of Friendly Societies' legislation, but whose benefits differ somewhat from those of ordinary Friendly Societies.

At 31st December, 1917, there were 63 Societies, including 24 Miscellaneous; 18 possessed branches, and 46, including 2 with juvenile branches, were classed as Single Societies.

At the end of the year 1918 the Friendly Societies proper numbered 39, of which 18 were affiliated and 21 were classed as single societies, though in 2 cases juvenile branches were attached, and there were 22 miscellaneous societies.

The following summary shows the branches, membership, and funds as at 31st December, 1917:—

Classification.							Societies and Branches.	Members.	Funds.
Friendly Societies Proper—							No.	No.	£
Affiliated	...	...	...	...	...	...	1,837	173,717	2,039,047
Single	...	...	...	...	...	...	23	3,885	55,625
Miscellaneous Societies							1,860	177,602	2,094,672
							24	1,255	19,082
Total...	...	...	...	...	...	...	1,884	178,857	2,113,754

Friendly Societies Proper.

The societies classified as "Friendly Societies proper" offer such a wide range and appeal so strongly to individual sympathies that the field of operations for new societies is limited, and consequently few are now formed; the existing societies, however, extend their sphere of operations by opening branches in new centres. Only one new Society has been established since 1913, but two were dissolved during 1918.

Membership.

The following table shows the number of members during the ten years ended 31st December, 1917:—

Year.	Aggregate Membership.		Year.	Aggregate Membership.	
	Members.	Percentage of Population.		Members.	Percentage of Population.
1908	123,440	7.9	1913	188,530	10.3
1909	133,273	8.3	1914	182,325	9.8
1910	149,579	9.1	1915	178,705	9.6
1911	164,910	9.7	1916	178,877	9.6
1912	179,932	10.1	1917	177,602	9.4

The membership of 177,602 at 31st December, 1917, represented 9·4 per cent. of the total population of the State. The number of members entitled to benefits was 162,370, the remainder being ineligible on account of brief membership or arrears of contributions. The benefits of medical attendance and medicine accrue also to the member's family, and, making allowance for such cases, it is estimated that approximately 600,000 persons, or one-third of the population, participate in the benefits provided by the societies.

The membership in 1917 comprised 158,343 men, 9,676 women, and 9,583 juveniles. As compared with the previous year there was a decrease of 2,507 men, and increases of 126 women, and of 1,106 juveniles, the total net decrease being 1,275 members. During each of the previous three years there were decreases in the male membership, which may be attributed directly to the war.

Finances.

Figures regarding receipts and expenditure of Friendly Societies, and the accumulated assets, may be found upon reference to Part Private Finance of this Year Book.

MISCELLANEOUS SOCIETIES.

In addition to the Friendly Societies proper there were at the end of 1917 twenty-four Miscellaneous Societies registered under the Friendly Societies Act. Twenty were medical institutes or dispensaries which have no members in the ordinary sense of the term, but are supported by subscriptions from branches of Friendly Societies within their immediate districts, at a fixed rate per head of membership. The dispensaries supply medicine to all members whose names have been placed on their lists by contributing branches, and in some cases arrange also for medical attendance.

The receipts of the dispensaries in 1917 were £36,234, and the expenditure was £35,777, so that there was an excess of receipts amounting to £457. These bodies have received liberal grants from the Government, and with this assistance have been able to purchase land and to erect buildings, the shares of the subscribing branches being covered by the issue of interest-bearing debentures; but in addition to making the necessary interest payments, most of the dispensaries have been enabled to make substantial reductions in the principal.

The four remaining societies were Accident Societies.

The following particulars of the Miscellaneous Societies relate to the year 1917:—

Classification.				Dispensaries.	Other Miscellaneous Societies.	Total.
Societies	...	...	No.	20	4	24
Membership	...	...	No.	.....	1,255	1,255
Receipts	...	...	£	36,234	3,038	39,272
Expenditure	...	...	£	35,777	3,658	39,435
Funds	...	...	£	15,959	3,123	19,082

During the year 1918 two Miscellaneous Societies were closed.

STATE SUBVENTION OF FRIENDLY SOCIETIES.

To enlarge the sphere of usefulness of the Friendly Societies the Subvention to Friendly Societies Act, 1908, now consolidated with the Friendly Societies Acts, assured to the societies which might elect to be bound by its provisions, the following monetary benefits payable from the Consolidated Revenue of the State:—

1. Sick pay—

- (a) One half of the cost in each year in respect of continuous sickness after twelve months from the commencement of such sickness, for male members less than 65, and for females less than 60 years of age—provided that the maximum cost to the State shall not exceed 5s. per week for each case.
- (b) The whole cost of sick pay in respect of male members aged 65 years and over, and of female members aged 60 years and over—subject to the same proviso as above.

2. Amount equal to contributions payable—

- (a) On account of all male members 65 years and over, and of female members 60 years and over, for medicine and medical attendance, provided that such contributions shall not be more than those payable by members of the same society under the ages stated.
- (b) Under the rules of a society in respect of the aged members above mentioned, to assure payment of funeral allowance at their death.

With one exception all affiliated societies have become applicants under the Act.

The refunds to the societies on account of sick pay in 1917 to 3,060 members amounted to £18,915, and the payments on account of contributions to £11,301; of the latter amount £8,025 provided medical attendance and medicine to 5,805 aged members and widows, and £3,276 paid the contributions to the Funeral Fund of 6,218 aged members and widows.

The following is a summary of the claims for the nine years during which the system has been in operation:—

Year.	Applicant Societies.	Sick Pay.				Contributions.				Total Amount of Claims.
		Continuous Sickness.		Sickness of Aged Members.		Medical.		Funeral.		
		Claimant Members.	Amount.	Claimant Members.	Amount.	Claimants.	Amount.	Claimants.	Amount.	
1909	18	285	£ 925	701	£ 2,763	2,569	1,348	2,486	£ 822	£ 5,858
1910	28	457	2,442	1,183	7,072	3,608	3,402	3,481	1,871	14,787
1911	30	576	2,837	1,417	8,428	3,194	4,028	3,400	2,055	17,348
1912	29	617	3,296	1,519	9,742	3,940	4,549	4,170	2,222	19,809
1913	29	681	3,480	1,615	10,146	4,300	4,874	4,561	2,320	20,820
1914	29	776	4,030	1,662	10,770	4,717	5,955	5,066	2,536	23,291
1915	28	904	4,764	1,871	11,659	4,909	6,423	5,251	2,737	25,583
1916	29	928	5,012	1,852	12,547	5,418	7,219	5,487	2,965	27,743
1917	29	1,018	5,292	2,042	13,623	5,805	8,025	6,218	3,276	30,216

During the nine years the total claims for subvention have amounted to £185,455. The amount in 1909 was comparatively small, as the majority of applicant societies did not register as such until the middle of the year; during 1910 there were ten more applicant societies, and the claims practically covered the whole of the year, consequently there was a large increase in the amount claimed. In 1911 and 1912 there were further large increases, due to special causes; and the annual claim now exceeds £30,000.

The system has been of benefit to all the societies, but more particularly to those in which the proportion of aged members is large.

THE FRIENDLY SOCIETIES' EXPERIENCE OF SICKNESS.

The returns of the Friendly Societies of New South Wales furnish valuable information relating to the sickness and mortality of the members, and a standard of purely local experience is provided as a basis of the quinquennial valuations of the societies, by their experience recorded for the nine years 1900-08. During this period the sickness of the male members aggregated 859,412 weeks, the annual rate per member being 1·30 weeks.

The following table shows the average annual weeks of sickness per member in New South Wales at every fifth year of age during the years 1900-08 in comparison with the experience of the Manchester Unity Friendly Society of England, 1893-7, the South Australian Friendly Societies, 1895-1904, and the Victorian Friendly Societies, 1903-7:—

Central Age.	New South Wales Friendly Societies, 1900-1908.	Manchester Unity, England, 1893-1897.	South Australian Friendly Societies, 1895-1904.	Victorian Friendly Societies, 1903-1907.
Years.				
18	·84	·95	·74	·91
23	·76	·90	·77	·86
28	·74	·97	·75	·85
33	·75	1·10	·79	·89
38	·84	1·33	·89	·99
43	1·02	1·65	1·04	1·29
48	1·32	2·11	1·32	1·46
53	1·85	2·93	1·80	2·10
58	2·94	4·41	2·84	3·82
63	4·63	7·15	4·44	6·56

The New South Wales experience approximates closely to that of South Australia, but is considerably below the experience of England and of Victoria.

The male rates decrease down to age 29, and then increase regularly to the end of the observed period of life. The phenomenon of high rates at the early ages is not explained on the ground of paucity of data, as the same result was exhibited in the experience of individual societies whether their membership was large or small. The sickness rates of the Friendly Societies of other States of the Commonwealth disclose a similar feature, and it must be concluded that such high rates are peculiar to this class of experience, and probably induced by the liberal benefits available.

The actual sickness rates amongst males in the societies during the last valuation period, 1910-14, are shown below, together with the percentage of sickness experienced when compared with the sickness expected:—

Age Group.	Sickness per Member per annum.	Ratio of Actual Sickness to expected Sickness.	Age Group.	Sickness per Member per annum.	Ratio of Actual Sickness to expected Sickness.
	weeks.	per cent.		weeks.	per cent.
21-25	·783	103	46-50	1·378	105
26-30	·783	106	51-55	1·902	103
31-35	·828	110	56-60	2·842	96
36-40	·909	108	61-65	4·633	101
41-45	1·024	99			

Hazardous Occupations—Extra Sickness Risk.

The only well-defined class of occupations carrying a heavy risk, the experience of which was deducible from the available records of the societies, was that of the mining section. An experience of all persons engaged in the work of mining could not be secured, but an investigation was made of the branches of which the members were nearly all miners, and the experience obtained may be assumed to fairly represent this particular class.

The following table shows a comparison of the rates of sickness of the mining and non-mining branches as disclosed by the valuation of 1909:—

Branches.	Weeks of Sickness.	
	Total.	Annual Rate per Member.
Mining	154,251	1·613
Non-mining	705,161	1·249
Total	859,412	1·301

The effect of the added sickness of the mining population was to raise the general rate by 4·2 per cent., the mining being 29·2 per cent. above the non-mining rate. It is unfortunate, in view of the results disclosed by this section of persons engaged in hazardous occupations, that other such dangerous occupations could not be traced, but the data were too scanty for exhaustive investigation.

Mortality Experience of Friendly Societies.

In conjunction with the low sickness experience of the members, there is also a low mortality rate. During the nine years 1900-8 the male adult experience comprised 791,856 exposures to risk for one year each, and there were 5,952 deaths, the rate being 7·52 per thousand.

The following figures show the mortality experienced per 1,000 men during the valuation period 1910-14, and the variation from the expected

rates derived from the aggregate experience of the societies in the years 1900-8:—

Age Group.	Mortality per 1,000 Exposures.	Ratio of Actual Mortality to expected Mortality.	Age Group.	Mortality per 1,000 Exposures.	Ratio of Actual Mortality to expected Mortality.
		per cent.			per cent.
21-25	2.49	82	46-50	8.49	93
26-30	2.88	88	51-55	11.52	82
31-35	3.58	85	56-60	17.19	78
36-40	4.31	81	61-65	29.02	90
41-45	6.15	90			

PENSIONS.

New South Wales Government Pensions.

No general pension system, other than the old-age and invalid pensions noted subsequently, is in operation in New South Wales, but pension funds have been established in connection with sections of the Public Services, and are maintained partly by deductions from officers salaries and partly by public revenue, viz., the Public Service Superannuation Fund, the Police Superannuation and Reward Fund, and the Government Railways Superannuation Fund. The Superannuation Acts, 1916 and 1918, which provide for the establishment of a Provident Fund for employees of the State Government and other public bodies, came into operation on 1st July, 1919.

The Public Service Superannuation Fund was established by the Civil Service Act, 1884; contributions by officers of the service were at the rate of 4 per cent. of salary. Since the Public Service Act of 1895 came into operation no new contributors have been admitted, and at that date the existing contributors were given the option of withdrawing from the fund. The officers who elected to discontinue their contributions are entitled under prescribed conditions to receive refunds and gratuities on retirement; officers who have continued to contribute are entitled to an annual pension equal to one-sixtieth of the average annual salary for the last three years' service, multiplied by the years of service, the pensions being payable on retirement through incapacity or at age 60, or on abolition of office. An Amending Act in 1903 provided that on the Superannuation Account becoming exhausted all amounts payable to or out of that account should be paid to or out of the Consolidated Revenue. During the year 1917-18 the expenditure was £135,934, consisting of pensions, £156,236; and refunds of contributions, £9,698; contributions by public servants amounted to £9,709; the balance, £156,225, representing the net charge to Consolidated Revenue. In addition to these amounts, a sum of £3,500 is appropriated annually in terms of the Constitution Act for the payment of pensions to certain Government officers; the pensions paid during 1917-18 amounted to £2,422, the balance unallotted being £1,078.

The pension fund for the police force was established in 1899, amending legislation being passed in 1906. Annual contributions by members of the service are at the rate of 4 per cent. of salary; other sources of revenue are penalties imposed on members of the police force, and penalties and damages awarded to the police as prosecutors, also the proceeds of the sale of unclaimed goods in possession of the police. The amount of pension payable to members who entered the police service prior to 1906 is graduated in accordance with length of service, and ranges from half the salary, less 3 per cent. on retirement after fifteen years' service, to the whole of the salary, less 3 per cent., after thirty years' service. For the members who

entered the service after 1906 the pension is one-fortieth of the salary on retirement for each year of service, less 3 per cent., up to a maximum of three-fourths of the salary on retirement; the retiring age is 60 years, except in cases of incapacitation, but under prescribed conditions the services of any member of the force may be retained until he reaches the age of 65 years. During the year ended 30th June, 1918, the receipts of the Police Superannuation and Reward Fund amounted to £97,862, including deductions from salaries, £34,862; and special appropriation from Consolidated Revenue, £63,000; the disbursements, £97,214, included pensions, £94,370; gratuities, £2,552; and miscellaneous, £292.

The Railway Service Superannuation Fund was established in October, 1910; the contributions from employees of the Railway and Tramway services are at the rate of $1\frac{1}{2}$ per cent. of salary, and the State provides all that is necessary beyond such contributions. The amount of pension payable is one-sixtieth of the average annual salary during term of service, multiplied by the number of years of service, the maximum pension being two-thirds of the average salary. At 30th June, 1918, there were 34,958 contributors; the number of pensions in force was 1,583, amounting in the aggregate to £111,854 per annum. The average rate of pension was £75 13s. 7d. per annum. Since the inception of the fund 1,962 pensions have been granted, and 358 pensioners have died; 19 officers under 60 have been re-employed, and 2 pensions have been written off the books. During the year 1917-18 the receipts of the fund amounted to £111,186; the disbursements, representing pensions, gratuities, refunds, &c., amounted to £113,530.

The main provisions of the Superannuation Acts, 1916 and 1918, which came into operation on 1st July, 1919, provide pensions and other benefits for employees of the New South Wales Government and other public bodies, except those subject to the Railway Service and Police Superannuation Acts. Half the cost will be borne by the employees, except where otherwise provided, and the balance by the employers. The retirement age is 60 years, but women may elect to contribute for retirement at age 55; upon the death of a contributor or pensioner his widow will receive half the amount of pension for which he has contributed and £13 per annum for each child under 16 years. Contributions of employees will vary in accordance with age and salary; the rates in the following table indicate half cost payable twice each month;—

Age next Birthday.	Men.		Women.	
	First £52 to man, £26 to widow, £13 to each child under 16.	Subsequent increment £52 to man, £26 to widow.	Each £52 on retirement at age.	
			55 Years.	60 Years.
Years.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
16	0 2 6	0 2 2	0 2 0	0 1 2
20	0 3 2	0 2 10	0 2 8	0 1 7
25	0 4 5	0 3 11	0 4 0	0 2 4
30	0 5 9	0 5 2	0 5 11	0 3 5
35	0 7 6	0 6 10	0 8 9	0 4 10
40	0 9 11	0 9 2	0 13 4	0 6 11
45	0 13 11	0 13 2	1 2 7	0 10 6
50	1 2 1	1 1 3	2 10 6	0 17 10
55	2 5 11	2 4 10	.....	1 19 2
60	11 3 11	10 19 11	.....	10 4 5

Employees over 30 years of age may contribute at the rates prescribed for age 30 for pensions up to a maximum of £104; if under 55 years they may contribute for an additional pension not exceeding £52 at the rates for actual age, so that the maximum pension payable will be £156 per annum. The amount of pensions will vary in accordance with salary, as shown hereunder:—

Annual Rate of Salary.		Pension.	Annual Rate of Salary.		Pension.
£	£	£	£	£	£
1	to 130	52	365	to 416	182
131	„ 156	65	417	„ 468	208
157	„ 208	78	469	„ 520	234
209	„ 260	104	521	„ 572	260
261	„ 312	130	573	„ 624	286
313	„ 364	156	625	and over.	312

Clauses of the Act, which came into operation when it received Royal assent, authorise the payment of pensions up to £104 per annum, without contribution, to employees who attain the age of 60 years after 1st January, 1914, and before the commencement of the Act, and are retired after ten years' service. The Superannuation Act does not apply to employees having rights to pension or gratuity under the Civil Service Acts, but they may elect to come under it.

The following statement shows the total pensions and gratuities paid from the sources enumerated during the year ended 30th June, 1918:—

Particulars.	Public Revenue.	Contributions.	Total.
Pensions—	£	£	£
Judges	3,829	.....	3,829
Stipends to Clergy	108	.....	108
Public Service—			
Superannuation Act (1903) ...	156,225	11	156,236
Superannuation Act (1916) ..	32,873	.....	32,873
Constitution Act	2,422	.....	2,422
Police Superannuation and Reward Fund.	63,000	31,370	94,370
Government Railways Superannuation.	30,000	72,538	102,538
Other	1,474	.....	1,474
Total Pensions	289,931	103,919	393,850
Gratuities—			
Imperial and State Contingents, South Africa and China.	617	.....	617
Railway and Tramway	10,903*	.....	10,903
Government Railways Superannuation Fund.	.....	1,628	1,628
Police Superannuation and Reward Fund.	.....	2,552	2,552
Other	33,714	.....	33,714
Total Gratuities	45,234*	4,180	49,414
Total Pensions and Gratuities	335,165*	108,099	443,264

* Includes £2,655 from Loans.

WAR PENSIONS.

The War Pensions Act, 1914-16, passed by the Commonwealth Parliament, provides for the grant of pensions upon the death or incapacity, as the result of warlike operations, of members of the Commonwealth Naval or Military Forces, enlisted for or employed on active service outside Australia, or employed on a ship of war, or enlisted or appointed for service in connection with naval or military preparations or operations. The general administration of the Act is entrusted to a Commissioner.

The rates of pensions payable in case of death or total incapacity are based on the following scale:—

Rate of Pay.	Rate of Pension.		Rate of Pay.	Rate of Pension.	
	To widow on death of member.	To member upon total incapacity.		To widow on death of member.	To member upon total incapacity.
per day.	per fortnight.	per fortnight.	per day.	per fortnight.	per fortnight.
s. d.	£ s. d.	£ s. d.	s. d.	£ s. d.	£ s. d.
6 0 and under	2 0 0	3 0 0	13 0	2 19 6	3 14 0
7 0	2 3 0	3 2 0	17 6	3 10 0	4 0 0
9 0	2 9 0	3 6 0	22 6	3 17 6	4 5 0
10 0	2 12 3	3 8 0	30 0	4 9 0	4 15 0
10 6	2 13 9	3 9 0	37 6	5 0 9	5 5 0
11 6	2 16 0	3 11 0	45 0	5 12 3	5 15 0
12 0	2 17 3	3 12 0	50s. and over.	6 0 0	6 0 0

In the case of death the rates of pension are as follow:—To the widow or the widowed mother of an unmarried son the rate as specified above; to each child under 16 years of age, 20s. per fortnight for the first, 15s. for the second, and 10s. for each subsequent child; and to other dependents, rates as assessed by the Commissioners, but not exceeding in the aggregate the rates specified above, plus £2 per fortnight. In the case of total incapacity the rates are—to the member, the rate specified above; to his wife, 50 per cent. of that rate; to children under 16 years of age and to other dependents, the same as in the case of death.

In the case of partial incapacity the rates as assessed by the Commissioner; for loss of both legs, feet, arms, hands, or eyes, or of arm and leg, hand and foot, or one eye, together with leg, foot, hand, or arm, the maximum rate is payable to the member; for loss of one eye, half-rate; for loss of leg, foot, hand, or arm, maximum rate for six months, thereafter three-fourths.

Where the pension payable is not more than 30 per cent. of the rate for total incapacity payment of a lump sum may be substituted. The maximum pension payable to a child under 16 years whose parents are dead is £1 per fortnight up to 10 years of age, 25s. at ages 10 to 14 years, and 30s. at ages 14 to 16 years; and except to a wife, child, widow, parent, or grandparent,

no pension is payable for more than two years to any dependent who is able to earn a livelihood. Pensions to female dependents may not be continued for more than two years after marriage or re-marriage.

The number of pensioners under the War Pensions Act as at 30th June, 1918, was as follows:—

Pensioners.	New South Wales.		Commonwealth.	
	Number of Pensioners.	Average Fortnightly Rate.	Number of Pensioners.	Average Fortnightly Rate.
Incapacitated Soldiers	14,024	£ s. d. 1 17 4	39,888	£ s. d. 1 16 6
Dependents of deceased Soldiers	9,813	{ 1 2 2	33,973	{ 1 1 2
Dependents of incapacitated Soldiers	9,998		30,741	
Total	33,835	1 8 6	104,602	1 7 0

The total war pensions expenditure during the year 1917-18 amounted to £2,772,210, of which the expenditure in New South Wales was £844,685.

INVALID AND OLD-AGE PENSIONS.

Invalid Pensions.

Invalid pensions were first paid in New South Wales under the Invalidity and Accidents Pensions Act, passed by the State Parliament in 1907, which allowed pensions up to £26 a year to persons over 16 years of age permanently incapacitated for any work.

The State system was maintained until the payment of invalidity pensions was undertaken by the Commonwealth on 15th December, 1910. The pensions paid during the currency of the State Act amounted to £235,012.

The conditions attaching to invalid pensions payable by the Commonwealth are similar to those prescribed by the State Act; the amount of pension is the same as in the case of old-age pensions. The applicant must have resided for at least five years, and have become incapacitated or blind in Australia; persons permanently incapacitated or blind by reason of congenital defect are regarded as having become so in Australia, if brought to Australia before the age of 3 years. Invalid pensions are not payable to persons whose income or property exceeds the limits prescribed in the case of applicants for old-age pensions, or whose relations adequately maintain them. Aliens, Asiatics (except those born in Australia), and aboriginal natives of Australia, Africa, Pacific Islands, and New Zealand are not qualified to receive invalid pensions.

Prior to the commencement of the Commonwealth invalid pension system, New South Wales was the only State in which such a pension scheme was operative; in Victoria pensions were payable to persons permanently disabled whilst engaged in certain hazardous occupations, but only 111 claims were taken over by the Commonwealth. The pensions taken over from New South Wales at 15th December, 1910, numbered 3,498. Particulars of

transactions in New South Wales during the last five years are shown below:—

Year ended 30th June.	New Claims.	Lapses.			Invalid Pensions current in New South Wales at 30th June.		
		Deaths.	Cancellations and Transfers.	Total.	Males.	Females.	Total.
1914	1,825	530	186	716	3,537	3,371	6,908
1915	2,204	383	150	538	4,158	3,980	8,138
1916	2,001	445	99	544	4,810	4,537	9,356
1917	2,335	332	111	473	5,106	5,697	10,803
1918	2,582	469	162	631	5,669	6,500	12,169

The invalid pensions current in New South Wales on 30th June, 1918, represented 6·5 per thousand of population compared with 6·1 for the Commonwealth.

Old-age Pensions.

The old-age pension scheme sanctioned by the Old-age Pensions Act, 1900, passed by the Parliament of New South Wales, commenced to operate on 1st August, 1901, and virtually expired on 1st July, 1909, when that portion of the Commonwealth Invalid and Old-age Pensions Act, 1908-1909, which relates to the payment of old-age pensions to men, came into operation. The portion of that Act authorising payment of pensions to women on attaining age 60 commenced to operate on 15th December, 1910.

The total amount paid for old-age pensions for the period of nine years during which the State system was in operation was £4,009,127, and the cost of administration £165,560 approximately. On the introduction of the Commonwealth administration, 21,292 State pensions were converted.

The conditions governing the payment of old-age pensions under the Commonwealth have varied but slightly from the conditions prevailing under the State Act; the age qualification is 60 years for women and 65 years for men, with a reduction to 60 years in case of men permanently incapacitated; the length of residence qualification is twenty years in Australia, but absences amounting in the aggregate to one-tenth of the total period of residence are permitted. Naturalised persons are eligible for pensions, but aliens and aboriginal natives are disqualified.

Up to the 12th October, 1916, the maximum pension payable was £26 per annum; since that date it has been £32 10s. per annum, with proportionate reduction in respect of any income or property of the claimant, so that the pensioner's income with the pension shall not exceed £58 10s. per annum; in computing income any benefits accruing from friendly societies are not to be reckoned as income, nor any gifts and allowances from children or grandchildren; in assessing the value of property, the home in which the pensioner permanently resides is not included. Money payable to a pensioner while he is an inmate of a benevolent asylum or hospital may be paid to the asylum or hospital for his benefit.

Prior to the introduction of the Commonwealth system, old-age pensions had been payable in three States—New South Wales, Victoria, and Queensland.

The following statement shows the applications received in New South Wales, and the number of old-age pensions current on 30th June, 1914-18:—

Year ended 30th June.	New Claims.	Lapses.			Old-age Pensions current in New South Wales at 30th June.		
		Deaths.	Cancellations and Transfers.	Total.	Male.	Female.	Total.
1914	4,819	2,755	768	3,523	14,217	17,948	32,165
1915	4,732	2,845	834	3,679	14,569	18,335	32,904
1916	4,375	2,884	936	3,820	14,630	18,619	33,249
1917	4,553	2,727	737	3,464	14,591	19,350	33,941
1918	4,689	2,451	702	3,153	14,795	20,283	35,078

The old-age pensioners in New South Wales represent 18·6 per thousand of population; in the Commonwealth as a whole the rate is 19·3.

The total expenditure by the Commonwealth on invalid and old-age pensions during the year ended 30th June, 1918, was as follows:—

	£
Paid as pensions	3,753,977
Paid to benevolent asylums for maintenance of pensioners ...	39,060
Cost of administration	54,335
Total	£3,847,372

HOUSING.

Occupied Dwellings.

The number of occupied dwellings in New South Wales at the Census of 1911 was 332,841.

Private dwellings, including tenements, numbered 319,766, or 96·07 per cent. of occupied dwellings; boarding and lodging houses, 5,966, or 1·8 per cent.; hotels, 2,795, or ·8 per cent.

The inmates of private dwellings numbered 1,494,504, or 91·2 per cent. of the total population of the State. Nearly 25 per cent. of the inmates of private dwellings reside in houses containing 5 rooms, while 84 per cent. reside in houses containing from 4 to 9 rooms.

The principal materials used for building are wood and bricks, 49·7 per cent. of the occupied dwellings being built of the former and 36·4 per cent. of the latter; 3 per cent. are built of stone and 2·7 per cent. of iron.

New Buildings.

In regard to population it has been shown that the density of settlement in Sydney and the suburban areas varies considerably. The extent of building operations, as shown by the records of past years, indicates an increase of dwelling-houses in New South Wales, but the major portion of that increase has been in suburban dwellings.

In Sydney improvements and resumptions have been continuous; 76 new buildings were erected during 1918, and 491 were altered or enlarged. Since 1909 many of the old buildings have been demolished, and in the rebuilding on the areas thus made available modern requirements have been kept in view; but apart from them there has been a distinct, though gradual, development of an architectural style adapted to local conditions. In the suburbs the cottage plan of dwelling-house is favoured. During the past

five years new buildings have been erected in the city and suburbs at a rate averaging 5,886 per annum:—

Year.	New Buildings.			Net Increase of Population, Sydney and Suburbs.
	Sydney.	Suburbs.	Total.	
1914	206	8,342	8,548	27,100
1915	123	5,943	6,066	10,500
1916	90	4,961	5,051	1,600
1917	88	4,723	4,811	12,700
1918	76	4,878	4,954	15,400

Since 1911 the number of new buildings in the suburban areas has largely increased, but there has been a considerable decline in building operations since the commencement of the war.

RENTS—HOUSING.

An investigation was made recently by the Interstate Commission of Australia into rents of dwellings of six rooms (including kitchen) and less, occupied by persons of moderate incomes, within the metropolitan areas of New South Wales, Victoria, and Queensland. No attempt has been made by the Commonwealth to control rents generally either by a tribunal such as the Fair Rents Courts of New South Wales or otherwise; but the War Precautions (Active Service Moratorium) Regulations afforded a special protection against increase of rent to any member of the forces or to a parent or female dependent of a member. In regard to Sydney it was found that improvements by street-widening, &c., had much reduced the dwelling accommodation, and that the present high prices of material was checking investment building, so that at the end of 1918 it was estimated there was a shortage of about 12,000 dwellings.

The Commission recommended that the Government, under certain conditions, undertake construction work to meet the existing shortage of houses; that an allowance in aid of the purchaser or lessee of homes so built be provided during the period of abnormal prices; that the War Service Homes Act be amended; that early investigation be made to ascertain the supply of labour and the quantities of materials for building available, as well as the prices, &c.; that in connection with the housing programme necessary powers be obtained for the protection of public constructing authorities; that an official body control the allocation of building material; that land acquired under the general housing scheme or under the War Service Homes Act be taken at its value on a given date; that it is desirable to make compulsory the provision for bath, copper, and washing-tubs in every tenement; that action be taken, in co-operation with State Governments and local authorities, for the redesigning and reconstruction of city and suburban areas where conditions are admittedly below reasonable standards of health and comfort.

GOVERNMENT HOUSING SCHEMES.

The Government of New South Wales has approved a Housing Scheme for the purpose of assisting persons to become the owners of their own homes. Persons eligible for assistance are those in receipt of an income not exceeding £400 per annum and not already owning a house.

Assistance is afforded to persons (a) who desire to purchase an allotment of land on which a dwelling is already erected; (b) who have insured, or

will insure, their lives and assign their policy as a security against the amount to be advanced; (c) who already possess an allotment of land and desire to build thereon; (d) who possess an allotment of land and desire the Housing Board to build for them; (e) to purchase an allotment of land and subsequently to build a home themselves thereon. An applicant must certify that the assistance required is to enable him to obtain a home for himself, and that he does not already possess any land in New South Wales having a dwelling thereon. The advance will be up to 95 per cent. of the value of the property concerned—maximum amount, £570. Repayment may be spread over a period of thirty years in case of a brick building, and twenty years in the case of a weatherboard building. Persons may at any time pay off the whole or any portion of the amount. If the building be erected by the Housing Board, $7\frac{1}{2}$ per cent. will be added to cover cost of professional fees and overhead charges.

GOVERNMENT HOUSING AREAS.

With the object of relieving the urgent demands for small dwellings, the Housing Act was passed in 1912, authorising the construction of dwellings by the Government. The administration of the Act is entrusted to a Housing Board, which controls the Government housing areas. The Board may erect buildings for residential and other purposes on land acquired by the Government, and may dispose of such land and buildings by lease or by sale.

The term of a lease may not exceed seven years, and the rental must be sufficient to cover interest at 4 per cent. on capital value, cost of insurance, rates, repairs, and maintenance, a proportionate part of management expenses, and a sinking fund in respect of the capital outlay. As regards disposal by sale, the selling price will be based on valuation by the Government Savings Bank Commissioners; no person may purchase more than one house and $\frac{1}{4}$ acre of land, and the buyer must satisfy the Board that he is purchasing the land for a home for himself or a member of his family.

The Dacey Garden Suburb, situated in the municipalities of Botany and Mascot, was placed under the Board's control on its appointment, and in May, 1912, the management of the Observatory Hill Resumed Area was transferred from the Sydney Harbour Trust Commissioners.

Dacey Garden Suburb.

The Dacey Garden Suburb is about 5 miles from the centre of the City of Sydney, and adjoins the suburb of Kensington.

An area of Crown lands, covering 336 acres, and valued at £21,872, was appropriated, and a sum of £75,000 was made available for the purposes of the suburb; in April, 1914, the expenditure of an additional amount of £150,000 was authorised. Reservations have been made for roads, parks, gardens, and other open public places, also for public buildings, schools, and for religious purposes, the area allotted for various purposes being as follows:—Roads, 70 acres; parks and open spaces, $21\frac{1}{2}$ acres; houses and shops, $169\frac{1}{2}$ acres; public buildings and churches, 7 acres; public school, 5 acres; leaving an area of 63 acres yet to be dealt with. The total number of houses on the 273 acres will be 1,673, averaging 6.65 to the acre, including roads, but excluding parks and open spaces. The main roadway is 100 feet wide, with secondary roads 66 feet wide.

Building operations were commenced on 6th June, 1912, and 267 cottages, six shops, and one picture theatre had been completed at 30th June, 1918. The cottages are built of brick or concrete blocks, on stone or rubble foundations, with tile and slate roofs. The accommodation of the

smallest dwellings is three rooms, and of the largest four rooms, kitchen, &c. The cottages are lighted throughout with electricity, and gas is laid on for cooking purposes. The rentals ranged from 12s. 9d. to 18s. 9d., and the average cost from £276 to £640, which includes building, kerbing and guttering, asphaltting footpaths, turfing, sewerage connection, &c.

The capital employed at 30th June, 1918, amounted to £164,584, of which £117,204 was absorbed on cottages, £8,944 on shops and picture theatre, and the balance, £38,436, was expended in the construction of the storm-water channel, road formation, &c.; £126,148 represented the cost of erection of houses. During the financial year 1917-18 the rentals contracted for amounted to £10,801, and the rents received to £10,649; at the end of the year the arrears of rent outstanding amounted to £76.

Observatory Hill Resumed Area.

The Observatory Hill Resumed Area is situated on the foreshores of Port Jackson, adjoining the wharves, and contains a number of business premises and residences, including dwellings, erected on the flat system, for waterside workers. The area comprises about 30 acres, and was acquired by the Government in 1900 in connection with the Darling Harbour wharves resumption. Being the oldest settled portion of Sydney, practically the whole of the area required improvement. The capital employed amounted to £1,325,374 as at 30th June, 1918; the total revenue during the year 1917-18 was £65,131; and the expenditure £20,347, exclusive of interest on loan capital.

Sydney Municipal Housing Area.

An Act was passed in 1912 to enable the Municipal Council of the City of Sydney to erect and let dwelling-houses, and for that purpose to acquire land.

A block of buildings named "Strickland Dwellings," erected by the Council on land acquired in Chippendale in connection with street improvements, was opened in April, 1914. The buildings are three storeys high, and cover a ground space of 279 feet by 78 feet; the total cost, including land, was £49,814. At each end there are four shops, and the remainder of the building is divided into 71 suites of self-contained flats of two, four, or six rooms; the rents range from 12s. 6d. to 27s. 6d. per week. The City Council has by resumptions acquired other lands and buildings, and after street-widening retained many dwellings which by repairs and improvements of sanitary conditions have been converted into satisfactory residential areas.

SOLDIERS' HOMES.

During the year ended 30th June, 1918, the Housing Board supervised the building of 130 cottages in various suburban and country localities for the Returned Soldiers Settlement Branch, the total amount involved being about £40,000.

The Voluntary Workers (Soldiers' Holdings) Act, 1917, provides for the issue of Crown Grants of land for the purpose of providing homes for disabled soldiers and sailors, or the dependents of those who have died; the Public Trustee is authorised to advance money to Voluntary Workers Associations to purchase materials for the construction of the buildings.

The Commonwealth War Service Homes Act, 1918, which will commence on a date to be proclaimed, provides for homes for Australian sailors and soldiers and their female dependents. The Commissioner charged with the

administration of the Act is authorised to acquire land and dwellings, and to erect dwellings, &c.; he may make advances on mortgage to eligible persons to enable them to acquire homes, or may sell homes to them on the rent-purchase system. The amount of advance on the total cost of land and a dwelling may not exceed £500, and the maximum rate of interest for repayments is 5 per cent.

STATE ADVANCES FOR HOMES.

Under the provisions of an Act passed in 1913 the Commissioners of the Government Savings Bank were authorised to make advances to enable persons to erect or enlarge their homes or to purchase dwellings already constructed.

The Bank advances up to three-fourths of the value of the property to a maximum of £750, and the repayments in the case of new stone, concrete, or brick buildings are to be made within thirty years, and in the case of wooden structures within twenty years. No advance will be made to any person who at the time of the application is the owner of another dwelling in the State.

The system came into operation on 1st July, 1914, and up to 30th June, 1918, the amount of £1,106,770 had been advanced to 3,027 borrowers; £11,250 remains to be paid on the completion of buildings, so that the total advances to these persons will be £1,118,020, or an average of £369 each. The transactions during each year were as follow:—

Year ended 30th June.	Applications received.		Advances approved.		Advances made.	
	No.	Amount.	No.	Amount.	No.	Amount.
		£		£		£
1915	840	337,894	728	283,870	575	221,900
1916	928	333,490	927	346,175	794	298,375
1917	992	347,810	946	329,100	783	274,785
1918	1,567	573,870	1,251	460,245	875	311,710
Total ...	4,327	1,593,064	3,852	1,419,390	3,027	1,106,770

In the Murrumbidgee Irrigation Area the administrative authority may erect homes for settlers, the cost to be repaid by a deposit of 10 per cent., and the balance in twenty-four half-yearly instalments, with interest at 5 per cent. Settlers who build their own homes may obtain building materials on ten years' terms.

PARKS AND RECREATION RESERVES.

The city of Sydney contains within its boundaries a large extent of parks, squares, and public gardens. The most important are—Moore Park, where about 368 acres are available for public recreation, including the Sydney Cricket Ground and the Royal Agricultural Society's Ground; the Botanic Gardens and Garden Palace Grounds, 65 acres, with the adjoining Domain, 86 acres, ideally situated on the shores of the Harbour; and Hyde Park, 39 acres, in the centre of the city. The total area covered is 654 acres, or 20 per cent. of the whole of the city proper. This

does not include the Centennial Park, 552 acres in extent, situated on the outskirts of the city, formerly reserved for the water supply, but now used for recreation by the inhabitants of Sydney. This magnificent recreation ground has been cleared, planted, and laid out with walks and drives, and is a favourite resort of the citizens.

The Zoological Gardens were situated in Moore Park until a new site was opened in 1916 at Taronga Park, on the northern side of the Harbour. In the preparation of the new gardens the natural formation has been retained as far as practicable, with the object of displaying the animals in natural surroundings.

The suburban municipalities are also well served, as they contain, including the Centennial Park, about 4,060 acres of public parks and reserves, or about 4·4 per cent. of their aggregate area, dedicated to, and in some cases purchased for, the people by the Government.

In addition to these parks and reserves, the National Park, situated about 16 miles south of Sydney, and accessible by railway, was dedicated to the people in December, 1879. This park, with the additions subsequently made in 1880 and 1883, contains a total area of 33,747 acres, surrounding the picturesque bay of Port Hacking, and extending in a southerly direction towards the mountainous district of Illawarra. It is covered with magnificent virgin forests; the scenery is charming, and its beauties attract thousands of visitors.

Another large tract of land, designated Kuring-gai Chase, was dedicated in December, 1894, for public use. The area of the Chase is 35,322 acres, and contains portions of the parishes of Broken Bay, Cowan, Gordon, and South Colah. This park lies about 15 miles north of Sydney, and is accessible by railway at various points, or by water *viâ* the Hawkesbury River, several of whose creeks, notably Cowan Creek, intersect it.

In 1905 an area of 248 acres was proclaimed as a recreation ground at Kurnell, on the southern headland of Botany Bay, a spot famous as the landing-place of Captain Cook; and the Parramatta Park (252 acres) although outside the metropolis, may be mentioned on account of its historic interest.

In country districts, reserves have been proclaimed as temporary commons, and considerable areas have been dedicated from time to time as permanent commons attached to inland townships, which are otherwise well provided with parks and reserves within their boundaries.

A State Nursery is maintained at Campbelltown, from which plants, trees, and shrubs are distributed to the various parks and reserves.

Under the Public Parks Act the Governor may appoint trustees of any lands proclaimed for the purposes of public recreation, convenience, health, or enjoyment. The trustees are empowered to frame by-laws for the protection of shrubs, trees, &c., upon the land vested in them, and to regulate the use and enjoyment of such land by the public.

RACE-COURSES.

No race meeting may be held on any race-course in New South Wales unless such race-course is licensed under the Gaming and Betting Act, 1912. When used for horse-racing or pony-racing the running ground of such race-course must not be less than 6 furlongs in circumference. A limitation is made in certain cases regarding the number of days in any one year on which meetings for horse-racing, pony-racing, and trotting races or contests may be held on a race-course.

During the year ended 31st December, 1918, there were 274 separate licenses issued for horse-racing, pony-racing, and trotting contests, the license fees received amounting to £976. The decrease from previous years was due to the curtailment of racing by the Commonwealth authorities under the War Precautions Act.

Under the provisions of the Totalisator Act, 1916, racing clubs must establish totalisators on race-courses when so directed.

THEATRES AND PUBLIC HALLS.

Plans of buildings intended to be used for theatres and public halls must be approved by the Government. A license may be refused if the provisions of the Theatres and Public Halls Act, 1903, have not been complied with; or that alterations or additions to the building are necessary in order to provide for public safety, health, or convenience; or if it is considered that the building is not suitable for holding public entertainments or public meetings therein, or the site of such building is unsuitable. At 31st December, 1918, there were 1,783 theatres and public halls in New South Wales, to which buildings the provisions of the Theatres and Public Halls Act, 1903, applied, and seating accommodation was provided for approximately 800,000 persons.

RELIGIONS.

Churches in New South Wales.

New South Wales being originally a Crown colony, the church establishment as existing in England was introduced. Subsequently, there was accorded to the clergy of each of the principal denominations support from the Crown in the form of subventions, which were continued under a statute passed in New South Wales in 1836, as an annual payment of £30,000 divisible between the Church of England, Roman Catholic, Presbyterian, and Wesleyan denominations. In 1862 these subventions were restricted to the clergy then actually in receipt of State aid, and in the succeeding year (1863) the subventions paid by the State amounted to £32,372, distributed as follows:—Church of England, £17,967; Roman Catholic, £8,748; Presbyterian, £2,873; Wesleyan Methodist, £2,784.

The number of recipients of these subventions in December, 1918, was one, the total allowance made during 1917-18 amounting to £108.

Church Constitution and Government.

Property belonging to the Church of England may be vested in corporate bodies of Trustees, and trusts for various dioceses have been formed under the Act of Parliament passed in the year 1881. They are entitled to hold, on behalf of the Church, all real and personal property which may be assigned to them by grant, will, or otherwise. There are seven dioceses in the province of New South Wales, under a Metropolitan, viz., Sydney, Newcastle, Goulburn, Bathurst, Armidale, Riverina, and Grafton. In each diocese a Synod, consisting of clerical and lay representatives meets annually to make ordinances for the government of the Church. Each diocesan synod elects from its members representatives to sit at the Provincial Synod of New South Wales, which meets every three years, and to the General Synod of Australia and Tasmania, which meets every five years.

The Roman Catholic Church is under the direction of the Archbishop of Sydney, under whom are the Suffragan Bishops of Maitland, Goulburn, Bathurst, Armidale, Wilcannia, Forbes, Lismore, and Wagga Wagga, the State of New South Wales forming an ecclesiastical province. An

Apostolic Delegation for Australasia was constituted in 1914, with headquarters at Sydney.

The various branches of the Presbyterian Church in the State are classified into seventeen Presbyteries, consisting of a number of separate charges, to each of which a Minister is appointed. The management of the affairs of the Presbyterian Church is controlled by a General Assembly, which sits annually. It is presided over by a Moderator, who is elected by the Presbyteries. By Act of Parliament, the Assembly has power to grant permission to trustees to mortgage Church property, and trustees are authorised to hold property for the Church generally. In July, 1901, a scheme of federal union was adopted by representatives from the various States, and the United Church is called the Presbyterian Church of Australia, the General Assembly of which meets alternately in the capital city of the various States every second year.

On 1st January, 1902, the Wesleyan Methodist Church, the Primitive Methodist Church, and the United Methodist Free Church in New South Wales entered into organic union, with a common name, common funds, common laws, and equal rights. The United Church is known as "The Methodist Church of Australasia." The South Sea Mission Districts are under the control of the New South Wales Conference.

The Congregational Union of New South Wales was incorporated in 1882 by an Act which gives it legal status, and empowers it to hold property. The Union allows every separate church to maintain independence in the administration of its local affairs. Assemblies for the transaction of denominational business, &c., are held every six months.

The churches of the Baptist Denomination, which are independent of each other, are united together in a voluntary association called the Baptist Union of New South Wales, which holds annual and half-yearly meetings. The denomination has a fund controlled by trustees, from which churches are assisted on terms, with easy repayments. At the annual or assembly meetings, officers are chosen by nomination and ballot, and ministers or laymen are eligible for the highest positions. The churches prosecute Home Mission work in this State, and maintain a Foreign Mission Establishment in India.

The Salvation Army was established in Australia in 1881. Melbourne was made the chief centre for Australia under the command of a Commissioner. Sydney, Newcastle, Bathurst, and Armidale, are now district headquarters for New South Wales, each district being under direction of a divisional commander, all officers and members bearing military titles and designations; there are also treasurers and secretaries to corps. Persons who are in sympathy with the Salvation Army and attend its meetings, but who have not subscribed to the "articles of war"—which combine a confession of faith and a pledge against the use of intoxicating liquors and baneful drugs—are regarded as adherents.

The various Jewish congregational movements in Sydney were amalgamated when the Great Synagogue was opened in 1878. A local ecclesiastical court was opened in 1905, when an ordained Rabbi arrived from England to become chief minister of the community, and president of its court. There have been other Jewish congregations at West Maitland and Newcastle, and there is one at Broken Hill.

Census Records of Religion, 1911.

An interesting comparison of the number of persons belonging to the principal religions at the date of each Census from 1891-1911 is afforded in

the following table. In this table "Catholic" (undefined) has been included with "Roman Catholic":—

Religious Denominations.	Number of Persons.			Proportion per cent.		
	1891.	1901.	1911.	1891.	1901.	1911.
Protestant—						
Church of England	503,054	623,131	734,667	45·32	46·58	45·46
Methodist	112,448	137,638	151,392	10·13	10·29	9·37
Presbyterian	109,390	132,617	183,099	9·86	9·91	11·33
Congregational	24,090	24,834	22,656	2·17	1·86	1·40
Baptist	13,029	15,441	20,679	1·18	1·15	1·28
Lutheran	7,950	7,387	7,087	·72	·55	·44
Unitarian	1,329	770	844	·12	·06	·05
Salvation Army	10,315	9,585	7,413	·93	·72	·46
Other Protestants	9,741	14,251	54,395	·87	1·06	3·37
Total, Protestants	791,346	965,654	1,182,232	71·39	72·18	73·16
Roman Catholic	286,911	347,286	412,680	25·85	25·96	25·54
Greek Church... ..	253	561	1,083	·02	·04	·07
Others—						
Jew, Hebrew	5,484	6,447	7,660	·49	·48	·47
Buddhist, Confucian, Moham- medan, &c.	11,508	8,035	5,114	1·04	·60	·32
Freethinkers, Agnostics, &c. ...	6,358	3,564	3,929	·57	·27	·23
No Denomination, No Religion ...	8,062	6,265	3,239	·73	·47	·21
	1,109,922	1,337,812	1,615,937	100	100	100
Object to state	11,237	13,068	22,008	...	...	...
Unspecified	2,795	3,966	10,503	...	...	...
Total, New South Wales, } including Federal territory }	1,123,954	1,354,846	1,648,448	...	...	...

NOTE.—The figures for 1911, for purposes of comparison with the previous Census returns, include persons within the Federal capital territory.

LOCAL GOVERNMENT.

LEGISLATION passed in the years 1905 and 1906 gave the State of New South Wales full local government, except in the Western Division, where, however, there are eight municipalities which were incorporated under the Municipalities Act of 1897, viz.:—Balranald, Bourke, Brewarrina, Broken Hill, Cobar, Wentworth, Wilcannia, and Wrightville.

The Act of 1842, under which the City of Sydney was incorporated, was the first provision in this State for conferring municipal privileges. In 1843 a further step was taken by the incorporation of Campbelltown, Appin, Camden, Narellan, and Picton as one district council, which was subdivided into three, during the same year, by the formation of Campbelltown and Appin into separate councils.

Various Amending Acts were passed from 1844, and the present system of Local Government is considered in the succeeding pages.

The Municipalities Act of 1897 consolidated the previous Acts and Amending Acts, but did not alter their principles. The voluntary principle of incorporation was retained, but it was not conducive to the adoption of a general system of local government, as it was natural that, so long as the central Government continued to construct local works, the persons benefited would submit to the absence of local management of their affairs.

The Local Government (Shires) Act, 1905, provided for the compulsory division of the State into local government areas, called shires. The city of Sydney and existing municipalities, the whole of the Western Division, the Quarantine Station, Lord Howe Island, and the islands in Port Jackson were excepted from its operation. The Act provided for the payment of a minimum sum of £150,000 annually, as endowment from the Consolidated Revenue Fund, in the following proportions, viz.:—First-class shires, from nil up to 10s. per £; second-class, 15s. per £; third-class, 20s.; fourth-class, 25s.; fifth-class, 30s.; and sixth-class, 40s. or more. These endowments were made payable on the amount of general rates received during the preceding year, the amount of endowment being fixed triennially, according to the area, revenue, and expenditure of the shires.

The councils were authorised to exercise the following powers:—The care, control, construction, fencing, and maintenance of all public places, except those vested in the Railway Commissioners, or other public bodies or trustees, and except national works; regulation of traffic; street and road lighting; prevention of bush fires; flood relief and prevention; construction and maintenance of streets, jetties, wharfs, and buildings for the transaction of business; and the administration of the Impounding and Public Watering Places Acts. The right was given to acquire other powers, such as the prevention of nuisances; water supply; regulation and licensing of public vehicles and hawkers; management of parks and commons; and the administration of the Public Gates Act and the Native Dog Destruction and Poisoned Baits Act.

The Act also provided for the division of the shires into ridings, each riding having equal representation on the council, and triennial elections were prescribed. All owners and occupiers of ratable property of annual value not less than £5, over 21 years of age, male and female, unless not naturalised, were entitled to be entered on the electors' roll, any male person

enrolled being qualified for nomination as a councillor. The usual conditions as to disqualification were provided, and the penalties for acting while not properly qualified.

Under an important provision in the Act rates were charged on the unimproved value of the land, and not on the annual rental. The rate levied could be not less than 1d., nor more than 2d. in the £, unless the minimum rate was more than sufficient to meet the requirements of the shire, in which case a rate of less than 1d. might be levied by permission of the Governor. The ratable value of coal-mines was fixed at 50 per cent. of the gross value of the average annual output for the preceding three years, and of other mining properties at 40 per cent. for the same period. Another important feature of the Act was the provision for suspending the operation of the State land tax when the council had imposed a rate of 1d. in the £ on the unimproved capital value. Commons, public reserves and parks, cemeteries, public hospitals, benevolent institutions, churches and other buildings used exclusively for public worship, free public libraries, and unoccupied Crown lands were exempted from taxation.

In 1906 the Local Government Extension Act was passed by Parliament. The first important provision of this Act is for the establishment of cities, the Governor being authorised to proclaim as a city, any municipality which has had during a period of five years a population exceeding 20,000 persons and a revenue of £20,000, and which is an independent centre of population. During the year 1907 Broken Hill was proclaimed a city, and is the only municipality which has taken advantage of the Act in this respect.

It was also enacted that all municipalities not receiving statutory endowment under the existing Act, if found to be in necessitous circumstances, should be entitled to a sum not exceeding 3s. 4d. in the £ on the general rate collected; but if the revenues were sufficient to meet the reasonable requirements under proper management of the corporations, endowment would not be paid. When, however, the estimated responsibility for expenditure (transferred with the land tax) exceeds the amount of the suspended tax, the amount of 3s. 4d. in the £ may be increased, provided that the endowment be not greater than the excess of that expenditure.

The rates are levied on the unimproved value, at a minimum amount of 1d. in the £, but if this rate proves more than sufficient to meet the requirements of the municipality, it may be reduced. Having levied the general rate of 1d. on the unimproved value, a council is empowered to impose, either on the improved or on the unimproved value, such additional rate as may be required. Special, local, and loan rates may be imposed on the improved or unimproved value, at the option of the council. The conditions as to ratable value and the franchise of electors are similar to those of the Local Government (Shires) Act.

Other important provisions are the power to borrow up to 10 per cent. of the unimproved value, such loans to be guaranteed by the Government; redistribution and reconstruction of existing areas, so that the municipalities might form portions of shires; acquisition of land and works; control of cattle-slaughtering and public health; dealing with noxious animals and plants; safety of the public; regulation of hoardings and other structures; the appointment of auditors, and the inspection of accounts by Government examiners. The Governor is authorised to proclaim any park, road, bridge, or other public work as a national work to be maintained by the State, but which may be handed over to the council at any time.

LOCAL GOVERNMENT ACT, 1906.

The Local Government Act, 1906, deals fully with both shires and municipalities, and came into operation on 1st January, 1907, as regards shires, and on 1st January, 1908, as regards municipalities. It repeals the Municipalities Act, 1897, the Local Government (Shires) Act, 1905, and the Local Government Extension Act, 1906, and consolidates their provisions. Under an amending Act passed at the end of 1908, councils must cause a valuation of all ratable land to be made at least once in every three years, provided that they may adopt for any period the whole or any part of the valuations in force at the close of the preceding period. Other amending Acts have been passed in subsequent years, but no essential features of the original Act have been affected, the principal alteration being the power given to shires to borrow, which was granted under the Shire Loan Act of 1914.

Prior to the inception of the Local Government Act, 1906, a very small portion of the State had been incorporated, as will be seen in the statement below, which gives the area incorporated and unincorporated in 1906 in the three great land divisions of the State, exclusive of the Federal Territory:—

Division.	Incorporated.	Unincorporated.	Total.
	sq. miles.	sq. miles.	sq. miles.
Eastern	1,932	92,881	94,813
Central	571	88,579	89,150
Western	282	125,216	125,498
Total	2,785	306,676	309,461

On 31st December, 1917, the area incorporated, excluding Lord Howe Island and the federal territory of Canberra and Jervis Bay, was as follows, the only part of the State unincorporated being that portion of the Western Division not included in municipalities; the population in the different groups is also given:—

	Area (sq. miles).	Population.
In Metropolitan Municipalities... ..	149	762,480
In Country Municipalities	2,723	453,800
In Shires	180,658	658,880
Total (incorporated)... ..	183,530	1,875,160
Western Division (portion unincorporated) ...	125,909	13,969
Total	309,439	1,889,129

The area of Lord Howe Island is 5 square miles, and the area transferred to the Federal Government was 928 square miles. These amounts added to the total incorporated shown above, viz.:—309,439 square miles, give a total of 310,372 square miles for the whole State, as already shown in previous chapters of this publication.

GREATER SYDNEY.

The amalgamation of the metropolitan municipalities is a question which has attracted considerable attention, and various schemes have been suggested. Particulars relating to proceedings and results of Select Committees and Royal Commissions which have considered the question of Greater Sydney will be found in a former issue of this publication.

CITY OF SYDNEY.

The City of Sydney was incorporated on 20th July, 1842, under the Sydney Municipal Council, the election of aldermen taking place on the 9th November. The city was originally divided into six wards, but at a subsequent adjustment the number was increased to eight.

Great dissatisfaction soon arose as to the manner in which the affairs of the Corporation were conducted. A Select Committee of the Legislative Council was appointed in 1849 to inquire into the matter, and reported in favour of the abolition of the Municipal Council, with a recommendation that its powers should be vested in three Commissioners. This was not carried into effect until 1853, when the Corporation was dissolved, and its authority was transferred to a commission of three persons, who administered the affairs of the city from the beginning of 1854 to the end of 1857, when a new Council, consisting of sixteen aldermen—two for each ward, came into existence. By the Sydney Corporation Act of 1879 the number of aldermen was increased to twenty-four, being three representatives for each ward.

In 1900 an Amending Act was passed, dividing the city into twelve wards, each returning two aldermen. The innovation of retiring the whole of the aldermen simultaneously was introduced, with a provision for the election of a new Council on the 1st December in every second year, re-election of qualified persons being permitted. Important changes were effected under this Act as to the franchise, sub-tenants and lodgers being placed on the rolls, and extended powers were conferred on the Council as to resumption of lands for city improvements.

In 1902 an Act was passed consolidating statutes previously passed in regard to the City of Sydney. In 1905 an amending Act was passed to provide for the better government of the city, especially with regard to the control of hoardings, the proper cleansing of footways, the prevention or regulation of the smoke nuisance from furnaces and chimneys, the regulation and control of refreshment stalls and stands, the control of juvenile hawkers and shoeblacks, the prevention of betting in public places, while the tenure of office of the aldermen was altered to three years.

The Municipality of Camperdown was amalgamated with the City of Sydney as from 1st January, 1909, and the Council now consists of twenty-six aldermen elected every third year by thirteen wards. The Lord Mayor is elected by the aldermen from their own number, but under an Act passed in 1916, in the event of an equal number of votes being polled, the Governor in Council may appoint one of the aldermen to the position. The Act also regulated the election of the city members of the Metropolitan Board of Water Supply and Sewerage, and of the Fire Brigades Board, and extended the power of the Council as regards resumptions, in order to provide workmen's dwellings, and further provision was made for the extension of the city boundaries.

In 1908 a further Amending Act was passed, containing several important provisions. Commencing with the year 1909, the Council was compelled to levy a rate, not less than 1d. in the £, upon the unimproved capital value, in addition to any rate imposed under the Act of 1902. Under the former Act the rate levied in 1915, the last year affected by the 1908 Act, was 1½d. in the £ on the unimproved capital value, and under the 1902 Act 2½d. in the £ on the assessed annual value. It is provided, however, that the total amount leviable shall not exceed the amount which would be yielded by a rate of 3d. in the £ on the unimproved capital value, and 2s. in the £ on the average annual value, taken together, of all ratable property. On the Council imposing such rate on the unimproved capital value, the State land tax is suspended automatically. The valuation of the unimproved capital value is to be made at least once in every five years. The Council

was empowered also to establish public libraries and milk depôts, to control certain parks, and to widen certain streets. The Lending Branch of the Public Library, and various parks and public ways were vested in the Council by the Government under certain conditions.

The Sydney Corporation (Dwelling-houses) Act, 1912, enables the City Council to erect and let dwelling-houses, and for that purpose to acquire land.

Another amending Act, passed in April, 1916, empowers the Council to levy rates on persons owning pipes, wires, cables, and rails on, under, over, or through any public places under the control of the Council, excepting properties owned by the Crown. Also, under the same Act, the Sydney Council may levy a general rate, not exceeding 6d. in the £, on the unimproved value of all ratable property in the city. This Act amends the 1908 Act so far as the latter relates to the land tax on the unimproved capital value and the city rate on the assessed annual value.

VALUATIONS.

The Unimproved Capital Value of land is the amount for which the fee-simple estate in such land could be sold under such reasonable conditions as a *bonâ-fide* seller would require, assuming that the actual improvements had not been made.

The Improved Capital Value is the amount for which the fee-simple estate of the land, with all improvements and buildings thereon, could be sold.

The Assessed Annual Value is nine-tenths of the fair average rental of land with improvements thereon.

Property in the City of Sydney was up to 1915 rated on the basis of the annual rental value, and the following is a comparison of the capital and annual values in the city during the three years 1915-1917. As previously stated, the rating for 1916 and 1917 was on the unimproved value only.

	1915.	1916.	1917.
	£	£	£
Unimproved capital value	27,226,283	31,168,904	31,130,368
Improved capital value	78,580,300	80,264,720	81,976,260
Assessed annual value... ..	3,391,759	3,466,550	3,533,779

These figures show that the unimproved capital value has increased by 14·3 per cent., and the corresponding increases of the improved capital value and the assessed annual value were 4·3 per cent., and 4·2 per cent. respectively.

In the following table the unimproved and improved values for 1916 and 1917 are compared:—

Division.	Unimproved Value.			Improved Value.		
	1916.	1917.	Increase, 1917.	1916.	1917.	Increase, 1917.
	£	£	per cent.	£	£	per cent.
Sydney—City ...	31,168,904	31,130,368	*0·1	80,264,720	81,976,260	2·1
Suburbs ...	34,719,417	36,803,755	6·0	96,394,785	101,493,562	5·3
Metropolis ..	65,888,321	67,939,123	3·1	176,659,505	183,469,822	3·9
Country	23,378,626	24,350,474	4·1	59,422,910	62,055,080	4·4
Total Municipalities	89,266,947	92,289,597	3·4	236,082,415	245,524,902	4·0

* Decrease.

The difference between the unimproved and improved capital values is, of course, the value of improvements, and the following statement shows that the value of improvements increased in 1917 for all divisions:—

Division.	Value of Improvements.		
	1916.	1917.	Increase.
	£	£	per cent.
Sydney—City	49,095,816	50,845,892	3·5
Suburbs	61,675,368	64,684,807	4·9
Metropolis	110,771,184	115,530,699	4·3
Country	36,044,284	37,704,606	4·6
Total Municipalities	146,815,468	153,235,305	4·4

The capital and annual values of properties in all municipalities show a great increase since 1908, which was the year when the Local Government Act was fully applied. The expansion is shown in the following table:—

Municipalities.	1908.			1917.		
	Unimproved Capital Value.	Improved Capital Value.	Assessed Annual Value.	Unimproved Capital Value.	Improved Capital Value.	Assessed Annual Value.
	£	£	£	£	£	£
City of Sydney...	20,207,812	49,060,600	2,249,760	31,130,368	81,976,260	3,533,779
Suburbs... ..	23,799,856	56,441,828	3,803,338	36,808,755	101,493,562	7,399,892
Metropolis	44,007,668	105,502,428	6,053,098	67,939,123	183,469,822	10,933,671
Country... ..	20,104,983	44,784,238	2,997,762	24,350,474	62,055,080	4,493,644
Total Municipalities.	64,112,651	150,286,666	9,050,860	92,289,597	245,524,902	15,427,315

The increases, both absolute and relative, during the nine years from 1908 to 1917, were as follow:—

Municipalities.	Unimproved Capital Value.		Improved Capital Value.		Assessed Annual Value.	
	Total Increase.	Increase per cent.	Total Increase.	Increase per cent.	Total Increase.	Increase per cent.
	£		£		£	
City of Sydney	10,922,556	54·0	32,915,660	67·1	1,284,019	57·0
Suburbs	13,008,899	54·7	45,051,734	79·7	3,596,554	94·5
Metropolis	23,931,455	54·4	77,967,394	73·9	4,880,573	80·6
Country	4,245,491	21·1	17,270,842	38·3	1,495,882	49·9
Total Municipalities	28,176,946	44·0	95,238,236	63·4	6,376,455	70·4

The ratio of increase in the unimproved capital value was highest in the Suburbs of Sydney, and lowest in the country municipalities. The suburbs also show the highest ratio for the improved capital value, and for the assessed annual value, while the lowest for these values appear in the country districts.

A comparison of the improved and unimproved capital values with the assessed annual value is given below. The highest rates were levied in the suburban municipalities, which returned 7·29 per cent. and 20·10 per cent. respectively. These ratios were closely followed by the country areas with 7·24 per cent. and 18·45 per cent., while the City of Sydney yielded only 4·31 per cent. and 11·35 per cent., the average for the whole of the municipalities being 6·29 per cent. and 16·72 per cent. respectively:—

Municipalities.	Assessed Annual Value.	Ratio of Assessed Annual Value to Improved Capital Value.	Ratio of Assessed Annual Value to Unimproved Capital Value.
	£	per cent.	per cent.
City of Sydney	3,533,779	4·31	11·35
Suburbs	7,399,892	7·29	20·10
Metropolis	10,933,671	5·96	16·69
Country	4,493,644	7·24	18·45
Total Municipalities...	15,427,315	6·29	16·72

The value of improvements in municipalities was £153,235,000, or 166 per cent. of the unimproved value. The total for the City of Sydney was £50,846,000, or 163·3 per cent.; for the suburbs, £64,685,000, or 175·7 per cent.; and for the country, £37,704,000, or 154·8 per cent. The value of improvements is not available for all the shires, but it has been assumed that it is the same proportion of the unimproved value as the average in those which are known, namely, about 126·4 per cent. greater than the unimproved value. In the Western Division it may be placed at £10,000,000, so that for the whole of the State the following values for 1917 are obtained:—

Division.	Unimproved Value of Land.			Value of Improvements.		
	Total.	Per Head.	Per Acre.	Total.	Per Head.	Per Acre.
	£	£	£ s. d.	£	£	£ s. d.
Sydney—City	31,130,000	294	9,356 15 7	50,846,000	480	15,282 16 9
Suburbs	36,809,000	56	400 7 10	64,685,000	98	703 12 4
Metropolis	67,939,000	89	713 4 1	115,531,000	152	1,212 16 2
Country Municipalities	24,350,000	54	13 19 6	37,704,000	83	21 12 10
Shires	107,695,000	164	0 18 7	136,148,000	207	1 3 7
Western Division (part unincorporated).	10,000,000	716	0 2 6	10,000,000	716	0 2 6
Total State...	209,984,000	111	1 1 2	299,383,000	159	1 10 2

CITY OF SYDNEY RATINGS.

The Sydney Corporation Act of 1902 directed that improved property within the city should be assessed at a fair average annual value, with an allowance for outgoings not exceeding 10 per cent., and the unimproved property at a maximum of 6 per cent. on its capital value. On the value of such assessment a city rate not exceeding 2s. in £ might be levied, exclusive of lighting. In 1902, the rate was reduced from 24d., which had been imposed in 1901, to 22d., and still further reduced to 21d. in 1903, which was also levied from 1904 to 1915. The Act provided for a special local rate not exceeding 6d. in the £ of annual value, for any work for the particular benefit of one locality, but then only if two-thirds of the ratepayers of such locality petitioned for the same. Occasional advantage of this power has been taken for street-watering, though not of late years, and the amount levied in 1915, covered the expenses of street-lighting and street-watering. As already mentioned, the amending Acts of 1908 and 1916 repealed the former provisions, and the rate for 1917 was 3½d. in the £ of unimproved capital value, which covers all services.

SUBURBAN AND COUNTRY RATINGS.

The other municipal councils were formerly empowered to raise revenue by rates not exceeding 1s. in the £ for ordinary purposes and the same amount for special purposes, with 6d. in addition for street-watering. The amount of each rate was calculated upon the fair average rental value, which was represented by nine-tenths of the fair average annual rental of all buildings and cultivated lands, or lands let for pastoral, mining, or other purposes, plus 5 per cent. of the capital value of the fee-simple of all unimproved lands.

Municipalities which avail themselves of the provisions of the Country Towns Water and Sewerage Act of 1880 are empowered to levy a rate for each service not exceeding a maximum of 10 per cent. on the assessed annual value of land and tenements, in addition to the ordinary municipal rates. Under the Local Government Act, however, a water rate equivalent to this maximum of 10 per cent. on the assessed annual value must be levied either on the unimproved or the improved capital value of lands within the reticulated area.

In order to aid municipalities in their formative stages, the 1897 Act provided for endowment by the State during a period of fifteen years. In each of the first five years after incorporation, every municipality is entitled to a sum equal to the whole amount actually received from general rates; in each of the next succeeding five years, a sum equal to one-half; and in each of the next five years, a sum equal to one-fourth of such receipts. After the expiry of fifteen years, the State assistance ceases, and any further aid from the State is in the nature of a special grant. At the close of the year 1917 there were only three Municipalities entitled to the original statutory endowment.

Since 1st January, 1908, under the Local Government Act of 1906, suburban and country municipalities have been obliged to levy a general rate on the unimproved capital value of all ratable land, and may levy additional, general, special, local, or loan rates on either the unimproved or the improved capital value. The only rates based on the annual value are those charged by the Metropolitan and the Hunter District Water Supply and Sewerage Boards.

The general rate must be not less than 1d. in the £ on the unimproved capital value of all ratable land, and the total amount to be derived from the general rate and additional rates taken together must not exceed the

amount yielded by a rate of 2d. in the £ on the unimproved value and 2s. in the £ on the assessed annual value of all ratable land. In 1917 only ten municipalities levied additional general rates, the remainder confining themselves to one general rate. The variation in the rates is rather remarkable, as in the suburbs of Sydney for 1917 they ranged from 2½d. to 5½d., and in the country from 1d. to 16d. The following general rates were struck for the year 1917:—

General Rate Levied.				Suburbs of Sydney.	Country.
1d. and under 2d....	...	...	...	.....	12
2d. „ 3d....	...	...	...	2	19
3d. „ 4d....	...	...	...	6	35
4d. „ 5d....	...	...	...	26	44
5d. „ 6d....	...	...	...	6	18
6d. and over	...	...	...	.....	16
Total	...	...	...	40	144

The majority of suburban councils in 1917 levied general rates between 4d. and 5d., the next in number being between 3d. and 4d., and between 5d. and 6d., while in the country the highest proportion was between 4d. and 5d., the next in order being between 3d. and 4d., followed by those between 2d. and 3d. The councils which levied 6d. and over in the £ during 1917 were Aberdeen, Ballina, Bathurst, Braidwood, Murrurundi, Singleton, and Warialda, each 6d.; Scone, 6½d.; Lambton, 7d.; Cobar, 7½d.; Broken Hill, 8½d.; Bourke, 10½d.; Hillgrove, 12d.; and Wrightville 16d. These rates are exclusive of the amounts levied on mines. None of the suburban councils levied 1d. in the £; but this rate was imposed in four country municipalities.

One hundred and fifteen municipalities levied special, local, and loan rates on the unimproved capital value, ranging from $\frac{1}{30}$ d. to 24d. in the £, and thirty-three on the improved capital value, ranging from ¼d. to 3d. in the £.

FINANCES.

The Local Government Act, 1906, prescribes that there must be a general fund in each area, to which must be paid the proceeds of all general and additional general rates, moneys received by way of grant, endowment, &c., from the Government, and miscellaneous income not required by law to be carried to other funds. The expenditure from the general fund must be on administration, health, roads, and other public services.

In addition, there must be a special fund for each special rate levied, and for each work or service carried on by the council in respect of which the special rate has been made, and the fund may be used only for the purposes of such work or service. A local fund also must be kept for each local rate levied, with restrictions similar to those in the case of special funds. The expenditure of the local fund is restricted to works in the specified portion of the area.

Where any borrowed money is owing by a council, a separate loan account must be kept for each work or service on which the amount has been spent. If the Loan fund has no revenue from rates, the attendant obligations, such as provision for the repayment of principal and interest,

may be met by transfers from the General fund or other appropriate fund. The object of the loan, as a rule, determines the source from which the Loan fund shall obtain its necessary revenue. When the loans have been raised for general purposes, transfers are made from the General fund, and the profits of trading concerns provide for the disbursements of their corresponding loan funds.

The foregoing remarks have reference more particularly to those loan funds which must be kept in respect of loans raised before the present Act came into operation, that is to say, when the law did not require (as it does now) a loan rate to be levied to pay interest and provide for the extinction of each loan within a fixed period. It is apparent, therefore, that all new loans will be self-supporting, whether the undertakings are profitable or not. In these latter cases the councils may either use profits to swell the amount which is being provided for repayment, or retain them in the working accounts of the Special, Local, or Trading Funds.

The revenue of special and local funds may be used in a similar manner; for example, the Street Lighting Special Fund must provide the money to meet not only the ordinary cost of maintaining the street lighting for the year, but also the obligations of the Street Lighting Loan Fund; and similarly with regard to other Special and Loan Funds.

The Regulations under the Act prescribe the system of accounts to be adopted. The accounts must be "Income and Expenditure Accounts," kept by double entry, and each "Fund" must have a separate banking account. Thus there is shown for each General, Special, Local, Loan or Trading Fund a Revenue Account, or Profit and Loss Account, giving the total expenditure chargeable for the period, whether paid or unpaid, and the total income for the same period, whether received or outstanding. A balance-sheet is also required for each fund with appropriate liabilities and assets. Only "realisable" assets may be shown, so that the whole of the roads, bridges, drains, and other constructive work, are excluded.

CITY OF SYDNEY ACCOUNTS.

The Council of the City of Sydney conducts its affairs under the City Corporation Act, and therefore is not bound by the provisions of the Local Government Acts. The various accounts of the city were formerly kept on a "cash" basis, except those relating to the Electricity Fund, but from the year 1913 the system has been altered, and the Revenue and Capital transactions are shown separately in the same manner as those of all other Local Bodies. As details cannot in many instances be allocated to the headings of expenditure and income as set out in the system of accounts prescribed under the Local Government regulations, it is obvious, when discussing the financial transactions of the whole municipal area of the State, that an endeavour to collate similar information from two different sources would serve no useful purpose, and the figures for statistical comparison would be of doubtful value. For these reasons, the following particulars relating to municipal accounts are divided into two parts, one dealing with the City of Sydney, and the other with the suburbs of Sydney and country municipalities.

City of Sydney—Receipts.

The receipts from the various funds, exclusive of the Electric Lighting Fund, in 1917, amounted to £696,438; the City Fund contributing £530,807, the Public Markets Fund, £80,583 and the Resumption Account £85,048. Although abstracts of receipts and disbursements in respect of the Public Markets Fund and the Resumption Account are shown separately in the city accounts, these funds are really subsidiary to the City Fund, their

balances at the end of the year being transferred to the last-mentioned fund.

The following is a statement for the year 1917 of the receipts of the City Fund under appropriate headings:—

	£
General Purposes	458,844
Works	5,073
Health Administration	22,909
Public Services... ..	27,000
Municipal Property	11,021
Miscellaneous	5,960
Total	£530,807

City rates, £456,612, which include interest, form by far the greater part of the receipts under the heading "General Purposes." As provided by the amending Act of 1908, rating on the unimproved value of land was first brought into force in 1909, and that such a large amount should be realised with the minimum rating of 1d. in the £ shows the importance of the transfer of the State Land Tax as an addition to the city finances. Under the amending Act of 1915, the City rate is now levied on the unimproved capital value.

City of Sydney—Disbursements.

The disbursements in 1917 amounted to £743,348, viz.: City Fund, £493,903; Public Markets Fund, £88,860; and Resumptions Account, £160,585. Shown under the same headings as the receipts, the following were the disbursements of the City Fund:—

	£
General Purposes	51,423
Works	105,881
Health Administration	131,189
Public Services... ..	69,373
Municipal Property	25,467
Miscellaneous (Interest, Sinking Fund, &c.)	110,570
Total	£493,903

Salaries, which amounted to £36,882, absorbed a very large share of the expenses for General Purposes. Of the sum spent on Public Works, street maintenance accounted for £62,644, footpaths for £17,971, and wood-paving for £14,474. On city cleansing £86,153 was expended, and this was the main item in Health Administration. The large amount shown under "Miscellaneous" includes the Annual Debenture indebtedness, which in 1917 was £46,616 for interest, commission, &c., and £16,618 for Sinking Fund contributions.

The receipts and disbursements of the Public Markets Fund were £80,583 and £88,860 respectively, the latter amount being inclusive of interest and sinking fund, showing a deficit of £8,277 on the year's transactions, which has been included in the City Fund. The Queen Victoria Markets brought in revenue to the extent of £17,488, or nearly 22 per cent. of the total; and the receipts from the Municipal Markets amounted to £26,037, or nearly one-third of the whole.

The receipts and disbursements of the Resumption Account were £85,048 and £160,585 respectively, showing a debit of £75,537 after paying interest and contribution to sinking fund, and this deficit was also transferred to the City Fund.

City Electricity Undertaking.

The next account to be considered is the Electricity Works Fund, and the expenditure and income for the year ended 31st December, 1917, are shown below:—

Expenditure.		Income.	
	£		£
Generation of Electricity ...	125,991	Private Lighting ...	209,549
Distribution ...	67,928	Public Lighting ...	52,791
Management ...	72,928	Power Supply ...	161,814
Bad debts written off ...	302	Rentals—Meters, Motors, Lamps, &c. ...	27,596
Total ...	£267,149	Miscellaneous ...	13,218
Balance carried to Net Revenue Account ...	197,819		
Total ...	£464,968	Total ...	£464,968

Generation forms the largest item of expenditure, accounting for 47·2 per cent. of the whole. Distribution cost 25·4 per cent., Management 27·3 per cent., and amounts written off 0·1 per cent.

The sales of current to the public for light and power amounted to £392,118, and to the Council £32,036.

The gross profit carried to the Net Reserve Account was £219,481, viz., £197,819 for 1917, as shown above, and £21,662 brought forward from 1916. The charges against the profits were:—Interest on Debentures and Overdraft, £99,566; Sinking Fund contribution, £18,391; Depreciation Reserve Account, £85,637; Turbine Replacement, £9,196; and written off, flotation expenses, &c., £4,900, making a total of £217,690. It will be seen from the foregoing that the net gain for the year 1917, after paying interest and Sinking Fund was £1,791, which is carried forward to profit and loss account for 1918.

Below is a summary of the balance-sheet of the Electricity Works Fund on 31st December, 1917:—

Liabilities.		Assets.	
	£		£
Debenture Loans...	2,074,500	Capital Expenditure — Land, Buildings, Machinery, Plant, &c. ...	2,854,549
Sinking Fund ...	138,960	Sinking Fund Investments—	
Reserve and Suspense Accounts	543,613	Commonwealth War Loan ...	50,410
Sundry Creditors...	62,609	New South Wales Treasury...	46,716
Deposits (Consumers) ...	18,161	Debentures—Sydney Municipi- pal Council ...	41,103
Bank of New South Wales debit balance ...	458,055	Stores, Materials, Cables, Coal, &c. ...	197,243
Balance—Net Revenue Account	1,791	Sundry Debtors, Consumers' Balances, &c. ...	83,435
		Other ...	24,233
	£3,297,689		£3,297,689

The loan capital, which forms 62·9 per cent. of the liabilities, returned about 9 per cent. profit for the year; and consideration of the fact that the interest payments and Sinking Fund contribution for the year amounted to £117,957, that £85,637 was allowed for depreciation, and that the Sinking Fund is represented by an investment of £138,229 in Commonwealth War Loan, State Government Stock, and Sydney Municipal Council Debentures, will show that the finances of the Sydney Electricity Works Fund are in a healthy condition.

Each year's returns emphasise the rapid and at the same time profitable expansion of the electric lighting undertaking. The lights were used for the first time on 8th July, 1904, when parts of the city were illuminated. and since that date great progress has been made, and the public parks, as well as the remainder of the streets under the control of the council, are now included, and some of the suburbs are supplied from the city.

The following is a Summary of Liabilities and Assets of all funds of the City of Sydney as at 31st December, 1917:—

Liabilities.			Assets.		
		£			£
Debentures current	...	7,478,960	Bank Balances, Cr.	...	664,042
Bank Balances, Dr.	...	581,726	Landed Properties, Baths, and Sundries	...	6,013,209
Sundry Creditors	...	668,513	Machinery, Plant, Furniture, Stores, &c.	...	2,584,649
Sinking Funds	...	731,972	Sundry Debtors	...	249,979
Reserves, Revenue Accounts, and Sundries...	...	1,008,057	Sinking Funds	...	729,447
		£10,469,228	Other Investments	...	246,153
Excess of Assets	...	265,564	Flotation Expenses and Sundries	...	163,499
		£10,734,792	Revenue Accounts	...	83,814
					£10,734,792

Notwithstanding the large Loan indebtedness the assets exceed the liabilities by £265,564. It should be noted that the Debentures include £2,074,500 borrowed in connection with Electric Lighting, and £1,066,680 for Public Markets, and as the proceeds of those loans have been spent on reproductive municipal works, such works should provide the annual interest charges and sinking fund contributions. The Electricity Works Fund is quite self-supporting; but the deficiency in the Public Markets Fund becomes a charge on the city rates. Landed properties, baths, &c., which comprise about 56 per cent. of the assets, include such large items as Public Markets, £1,324,306; Town Hall, &c., £769,661; Resumptions, £2,892,096, Electric Light, Land, and Buildings, £514,865. The accumulated Sinking Fund, £729,447, as against a Debenture Debt of £7,478,960, must be regarded as a satisfactory cover.

PROGRESS OF SYDNEY.

The following table shows the progress of the City of Sydney during the five years ended 1917:—

Particulars.	1913.	1914.	1915.	1916.	1917.
Area Acres	3,327	3,327	3,327	3,327	3,327
Population ... No.	115,900	110,700	104,200	106,000	106,000
	£	£	£	£	£
Unimproved Capital Value	23,837,157	27,395,826	27,226,283	31,168,904	31,130,368
Improved Capital Value ...	64,080,440	75,786,580	78,580,300	80,264,720	81,976,260
Assessed Annual Value ...	2,753,468	3,271,102	3,391,759	3,466,550	3,533,779
City Fund—					
Income—Rates ...	242,303	285,024	295,529	525,869	456,612
Land Tax ...	151,212	170,653	168,703		
All other sources ...	61,378	62,255	76,962	80,790	74,195
Total ...	454,893	517,932	541,194	606,659	530,807
Expenditure ...	401,373	419,970	442,303	454,711	493,903
Public Markets Fund—					
Income ...	48,240	52,055	69,924	72,362	80,583
Expenditure ...	65,230	71,827	76,640	88,654	88,860
Resumption Account—					
Income ...	112,379	64,098	75,470	84,968	85,048
Expenditure ...	154,948	114,596	127,448	140,574	160,585
Electricity Works Fund—					
Income ...	301,637	350,146	388,559	433,996	464,968
Expenditure ...	244,291	287,296	323,800	403,334	484,839
Total Income—All Funds	917,149	984,231	1,075,147	1,197,985	1,161,406
Total Expenditure—All Funds ...	865,842	893,689	970,191	1,087,273	1,228,187
Excess of Income ...	51,307	90,542	104,956	110,712	(—) 66,781
Liabilities—All Funds ...	7,195,657	8,142,616	8,877,853	9,751,011	10,469,229
Assets—All Funds ...	7,456,600	8,397,918	9,124,125	10,005,232	10,734,793
Excess of Assets ..	260,943	255,302	246,272	254,221	265,564
Loans outstanding ...	5,627,300	6,163,800	5,715,100	7,050,100	7,478,960
Sinking Fund ...	402,448	471,403	550,633	637,313	729,447

(—) Denotes decrease.

EXPENDITURE.

Suburbs of Sydney and Country Municipalities.

The net expenditure during 1917 by the various municipalities under the Local Government Act amounted to £1,746,176, which was £122,817 less than the income. The following statement shows the expenditure allocated to the various funds in 1908 and 1917.

Funds.	1908.			1917.		
	Suburbs of Sydney.	Country.	Total.	Suburbs of Sydney.	Country.	Total.
	£	£	£	£	£	£
General Fund ...	348,765	330,327	679,092	760,812	496,202	1,257,014
Trading Accounts ...	7,078	50,167	57,245	...	129,278	129,278
Special and Local Funds	4,856	67,629	72,485	56,157	295,256	351,413
Loan Funds ...	33,288	25,133	58,421	54,884	43,677	98,561
Reserves and Renewals Account ...	...	...	...	1,089	3,686	4,775
Gross Expenditure ...	393,987	473,256	867,243	872,942	968,099	1,841,041
Deduct Transfers...	44,358	29,657	74,015	44,537	50,328	94,865
Net expenditure ...	349,629	443,599	793,228	828,405	917,771	1,746,176

The greatest expenditure was naturally from the General Fund, which in 1917 accounted for 72 per cent. of the whole. The trading concerns of the municipalities are gas and electricity; the special and local funds relate to water supply, sewerage, sanitary and garbage, street-watering, street-lighting, old loans interest, and other miscellaneous matters.

An amendment of the Local Government Act in 1908 provided that, except when exemption had been granted by the Governor, the cost of night-soil and garbage removal must be paid out of a Special Fund, and not out of the General Fund; and the cost of lighting streets and roads must also be defrayed from a Special Fund. When, however, the whole area of a municipality is within 20 miles of the General Post Office, Sydney, or when the whole area of a municipality is benefited by the expenditure on street lighting, the council, in its discretion, may pay such costs out of the General Fund. The effect of this enactment is reflected clearly in the figures given in the next table, which show an increased expenditure on Health Administration and Public Services.

Details of the expenditure from the General Fund are shown below:—

Head of Expenditure.	1908.			1917.		
	Suburbs of Sydney.	Country.	Total.	Suburbs of Sydney.	Country.	Total.
	£	£	£	£	£	£
General Purposes—						
Rates and interest abandoned ...	...	...	...	569	363	732
Administrative expenses	45,187	60,385	105,572	63,979	69,035	133,014
Public Works ...	150,404	115,036	265,440	453,691	268,715	722,406
Health Administration ...	39,930	68,709	108,639	95,481	49,460	144,941
Public Services ...	59,766	43,219	102,985	105,577	55,874	161,451
Municipal Property ...	6,591	7,875	14,466	20,150	32,454	52,604
Transfers ...	44,358	29,657	74,015	15,994	16,408	32,402
Other ...	2,529	5,446	7,975	5,571	3,893	9,464
Total expenditure ...	348,765	330,327	679,092	760,812	496,202	1,257,014

The proportion of expenditure under each head to the total expenditure was as follows:—

Head of Expenditure.	1908.			1917.		
	Suburbs of Sydney.	Country.	Total.	Suburbs of Sydney.	Country.	Total.
General Purposes—	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.
Rates and interest abandoned	...	...	...	...	0·1	0·1
Administrative Expenses ...	13·0	18·3	15·5	8·4	13·9	10·6
Public Works	43·1	34·8	39·1	59·6	54·1	57·5
Health Administration ...	11·5	20·8	16·0	12·6	10·0	11·5
Public Services	17·1	13·1	15·2	13·9	11·3	12·8
Municipal Property	1·9	2·4	2·1	2·7	6·5	4·2
Transfers	12·7	8·9	10·9	2·1	3·3	2·6
Other	0·7	1·7	1·2	0·7	0·8	0·7
Total	100·0	100·0	100·0	100·0	100·0	100·0

In 1917, of the expenditure by municipalities from the General Fund, 10·6 per cent. was spent on administrative expenses, and 57·5 per cent. on public works. Of the administrative expenses, salaries were the largest, and the actual and relative expenditure under each heading is shown below. The total amount for all funds was £161,249, of which 42 per cent. was incurred in the suburbs, and 58 per cent. in the country districts. Salaries comprised 47 per cent. of the total:—

Services.	Total Administration Expenses.			Proportion to Total.		
	Suburbs.	Country.	Total.	Suburbs.	Country.	Total.
	£	£	£	per cent.	per cent.	per cent.
Salaries	30,341	45,066	75,407	45·1	48·0	46·8
Elections (including Rolls).....	6,102	4,350	10,452	9·1	4·6	6·5
Office Expenses (Rent, Light- ing, &c.)	3,695	7,336	11,031	5·5	7·8	6·8
Printing, Stationery, Advertis- ing, &c.	10,124	14,495	24,619	15·0	15·4	15·3
Audit Fees	1,646	3,796	5,442	2·4	4·0	3·4
Valuation Fees	4,787	4,924	9,711	7·1	5·3	6·0
Law Costs	4,539	3,433	7,972	6·7	3·7	4·9
Mayoral Allowance	2,366	4,563	6,929	3·5	4·9	4·3
Sundries	3,738	5,948	9,686	5·6	6·3	6·0
Total.....	67,338	93,911	161,249	100·0	100·0	100·0

The ratios of Administrative expenses to the total Income and Expenditure for the year ended 31st December, 1917, are given in the subjoined statement, the various districts being shown separately:—

District.	Gross Income from all sources.	Gross Expenditure on all services.	Administrative Expenses on all funds.		
			Total amount.	Proportion to—	
				Gross Income.	Gross Expenditure.
City of Sydney	£ 1,161,406	£ 1,228,187	£ 51,423	per cent. 4·43	per cent. 4·19
Suburbs	899,375	872,942	67,338	7·49	7·71
Metropolis	2,060,781	2,101,129	118,761	5·76	5·55
Country	1,064,483	968,099	93,911	8·82	9·70
Total	3,125,264	3,069,228	212,672	6·80	6·93

The relative cost of administration is largest in the country, being 9·7 per cent. of the total expenditure; the suburban municipalities spend only 7·7 per cent. under the same heading. The high relative cost of administration in the country is due, no doubt, to the sparse population and small revenue of many of the municipalities, as in such cases the expenses on account of salaries, &c., would naturally be larger proportionately than in the more closely-settled localities in the City and suburbs.

Public Services for 1917 include—Pounds, £3,372; street-watering, £13,891; street lighting, £80,167; and all other services, £64,021. The greatest part of the expenditure on Public Works was for roads, streets, &c., as will be seen below:—

Services.	1908.			1917.		
	Suburbs of Sydney.	Country.	Total.	Suburbs of Sydney.	Country.	Total.
	£	£	£	£	£	£
Supervision	*.....	*.....	*.....	15,349	9,199	24,548
Roads, streets, culverts, &c....	147,472	108,316	255,788	400,178	235,282	635,460
Bridges	148	2,717	2,865	862	7,540	8,402
Drains, sewers, &c.	1,583	2,028	3,611	19,608	4,427	24,035
Ferries, wharfs, and jetties	986	1,801	2,787	4,066	2,372	6,438
Sundries	215	174	389	13,628	9,895	23,523
Total	150,404	115,036	265,440	453,691	268,715	722,406

* Included in Roads, Streets, &c.

Of the expenditure on roads, streets, &c., in 1917, the amount spent on maintenance, renewals, and repairs was £337,542; £81,375 was expended on construction, £59,108 on street and gutter cleaning, £51,126 on kerbing and guttering, £67,060 on footpaths and gutter bridges, £30,686 for interest on loans, and £8,563 on sundries.

The Trading Accounts, which relate to the supply of gas or electricity, will be treated later under those headings, and the special Water and Sewerage Funds will also be discussed separately.

INCOME.

The net income in 1917 of all the municipalities brought under the provision of the Local Government Act was £1,868,993, including £49,127 received as endowments or grants from the Government. Under the same funds as shown in the expenditure the income for 1908 and 1917 was as follows:—

Funds	1908.			1917.		
	Suburbs of Sydney.	Country.	Total.	Suburbs of Sydney.	Country.	Total.
	£	£	£	£	£	£
General Fund	382,739	360,039	742,778	759,878	493,098	1,252,976
Trading Accounts	6,863	59,814	66,677	.....	162,628	162,628
Special and Local Funds	3,192	70,312	73,504	59,959	310,050	370,009
Loan Funds	43,601	39,082	82,683	74,571	71,487	146,058
Reserves and Renewals Account ... ..	.....	.....	.....	4,967	27,220	32,187
Gross Income	436,395	529,247	965,642	899,375	1,064,483	1,963,858
Deduct Transfers... ..	44,358	29,657	74,015	44,537	50,328	94,865
Net Income	392,037	499,590	891,627	854,838	1,014,155	1,868,993

Details of the items of the General Fund for 1908 and 1917 are as follows:—

Source of Income.	1908.			1917.		
	Suburbs of Sydney.	Country.	Total.	Suburbs of Sydney.	Country.	Total.
	£	£	£	£	£	£
General Purposes—						
Rates levied (including interest)	327,255	235,396	562,651	642,535	374,207	1,016,742
Government Endowments, &c.	606	4,791	5,397	430	2,892	3,322
Sundries	4,368	4,932	9,300	9,563	7,977	17,540
Public Works*	18,247	19,605	37,852	54,463	41,200	95,663
Health Administration*	19,462	60,069	79,531	20,795	13,629	34,424
Public Services*... ..	2,678	16,765	19,443	13,263	15,281	28,544
Municipal Property	7,306	17,516	24,822	16,207	36,586	52,793
Miscellaneous	2,787	965	3,752	2,622	1,326	3,948
Total	327,739	360,039	742,778	759,878	493,098	1,252,976

* Including Government grants.

To the income from public works and other services in 1917 the Government contributed £37,936 as grants for roads, streets, &c., £347 for ferries, £4,210 for Parks and Reserves, £2,861 for portion of sanitary inspectors' salaries, and £451 for other purposes, making a total of £45,805.

Stating the receipts under each head as a percentage of the total income of the General Fund, the following results are obtained:—

Source of Income.	1908.			1917.		
	Suburbs of Sydney.	Country.	Total.	Suburbs of Sydney.	Country.	Total.
General Purposes—	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.
Rates levied (including interest)	85·6	65·4	75·7	84·6	75·9	81·2
Government Endowments, &c.	0·2	1·3	0·8	0·1	0·5	0·3
Sundries	1·1	1·4	1·3	1·3	1·6	1·4
Public Works*	4·8	5·4	5·1	7·2	8·4	7·6
Health Administration*	5·1	16·7	10·7	2·7	2·8	2·7
Public Services*	0·6	4·6	2·6	1·7	3·1	2·3
Municipal Property	1·9	4·9	3·3	2·1	7·4	4·2
Miscellaneous	0·7	0·3	0·5	0·3	0·3	0·3
Total	100·0	100·0	100·0	100·0	100·0	100·0

* Including Government grants.

The bulk of the general income was received from rates, the average in 1917 for all municipalities being 81·2 per cent., the proportion in the suburbs being 84·6 per cent., and in the country 75·9 per cent. The next important source of income was from Public Works, but it should be remembered that about 40 per cent. of the contribution was provided by the Government as grants. By the transfer of the Sanitary and Garbage Services from the General Fund, as provided by the 1908 Amendment of the Act, Health Administration lost its most important factor of revenue, contributing only 2·7 per cent. of the total for 1917 as against 10·7 per cent. in 1908. The difference is still more marked in the country, where the proportion was 16·7 per cent. in 1908 and 2·8 per cent. in 1917. In the suburbs, the Metropolitan Sewerage Board levies charges in addition to those made by the municipalities, reference to which is made later on.

SPECIAL AND LOCAL FUNDS.

The expenditure and income of the Special and Local Funds for the years 1908 and 1917 are shown in the following table:—

Funds.	1908.			1917.		
	Suburbs of Sydney.	Country.	Total.	Suburbs of Sydney.	Country.	Total.
Expenditure—	£	£	£	£	£	£
Water Supply	51,139	51,139	.....	101,518	101,518	101,518
Sewerage	4,468	4,468	.....	16,640	16,640	16,640
Sanitary and Garbage ... ..	.....	.....	42,895	143,009	185,904	185,904
Street Lighting	2,270	6,342	8,612	107	27,758	27,865
Street Watering	1,887	208	2,095	473	540	1,013
Old Loans' Interest	327	2,182	2,509	2,810	1,359	4,169
Cemetery ... ..	.....	.....	.....	7,354	.....	7,354
Miscellaneous	372	3,290	3,662	2,518	4,432	6,950
Total	4,856	67,629	72,485	56,157	295,256	351,413
Income—	£	£	£	£	£	£
Water Supply	53,991	53,991	.....	107,478	107,478	107,478
Sewerage	3,159	3,159	.....	21,668	21,668	21,668
Sanitary and Garbage ... ..	.....	.....	45,189	144,384	189,573	189,573
Street Lighting	5,996	5,996	121	29,270	29,391	29,391
Street Watering	2,724	308	3,032	700	707	1,407
Old Loans' Interest	442	2,217	2,659	2,962	1,564	4,526
Cemetery ... ..	.....	.....	.....	7,770	.....	7,770
Miscellaneous	26	4,641	4,667	3,217	4,979	8,196
Total	3,192	70,312	73,504	59,959	310,050	370,009

The Sanitary and Garbage funds are the most important of those mentioned above, both in the suburban and country districts. The Water and Sewerage Services are next in order, as far as the country is concerned, the suburbs of Sydney being supplied by the Metropolitan Board of Water Supply and Sewerage.

BALANCE-SHEET.

The financial position of the municipalities, at 31st December, 1908 and 1917, is shown by the following statement of liabilities and assets of the various funds:—

Funds.	1908.			1917.		
	Suburbs of Sydney.	Country.	Total.	Suburbs of Sydney.	Country.	Total.
Liabilities—	£	£	£	£	£	£
General Fund	60,468	97,884	158,352	191,744	128,130	319,874
Trading Accounts ...	2,337	22,492	24,829	.....	90,338	90,338
Special and Local Funds	254	766,653	766,907	10,087	1,547,092	1,557,179
Loan Funds	784,585	628,341	1,412,926	840,706	629,397	1,470,103
Reserves and Renewals Account ... ..	.....	.....	.....	3,878	24,913	28,791
Total	847,644	1,515,370	2,363,014	1,046,415	2,419,870	3,466,285
Assets—						
General Fund	230,562	510,251	740,813	422,599	562,044	984,643
Trading Accounts ...	1,890	65,151	67,041	.....	173,514	173,514
Special and Local Funds	2,639	791,382	794,021	40,798	1,723,563	1,764,361
Loan Funds	153,698	402,854	556,552	160,170	621,671	781,841
Reserves and Renewals Account ... ..	.....	.....	.....	3,878	24,913	28,791
Total	388,789	1,769,638	2,158,427	627,445	3,105,705	3,733,150

Every municipality must keep a General Fund, the liabilities of which consist mostly of amounts due to temporary and other loans, and sundry creditors, the latter being chiefly advances from the State Departments; but the assets are more than sufficient to meet them, and in only seven municipalities in 1917 was there an excess of liabilities. The liabilities and assets of the General Fund in the suburban and country municipalities, as at 31st December, 1908, and 1917, are shown below:—

Classification.	1908.			1917.		
	Suburbs of Sydney.	Country.	Total.	Suburbs of Sydney.	Country.	Total.
Liabilities—	£	£	£	£	£	£
Temporary loans	11,191	25,079	36,270	63,696	34,798	98,494
Overdrafts	8,817	13,293	22,110	4	77	81
Sundry creditors (including amounts due to other Funds)	39,238	51,367	90,605	128,044	93,255	221,299
Other	1,222	8,145	9,367	.....	.....	.....
Total	60,468	97,884	158,352	191,744	128,130	319,874
Assets—						
Outstanding rates (including interest)	49,358	92,462	141,820	58,657	95,934	154,591
Stores and materials ...	2,902	5,505	8,407	11,149	10,661	21,810
Bank balance and cash ...	31,811	48,102	79,913	39,876	46,293	86,169
Land and buildings	117,694	263,187	380,881	213,913	263,831	477,744
Plant and furniture	14,525	69,957	84,482	67,473	72,062	139,535
Other	14,272	31,038	45,310	31,531	73,263	104,794
Total	230,562	510,251	740,813	422,599	562,044	984,643

The principal asset of the general fund consists of land and buildings, which were at the end of 1917 valued at £477,744, or 48.5 per cent. of the total assets. Outstanding rates and interest amounted to £154,591, while bank balances and cash in hand were equal to £86,169.

LOANS.

Under the Local Government Act a municipality may borrow to an amount which, with existing loans, does not exceed 10 per cent. of the unimproved capital value of ratable lands. Where, at the commencement of the Act, any municipality had exceeded the statutory maximum, it could not borrow further until the total amount owing had fallen below the limit.

The total amount of loans raised during 1917 was £621,441, including £479,160 borrowed by the City of Sydney, £99,631 by the Suburbs, and £42,650 by Country municipalities. The sinking funds of the City of Sydney were increased by £92,135, and of the Country by £381; while in the Suburbs a decrease of £2,930 is shown, due to the application of the funds in redemption of the loans. Apart from the liability of the State under the Country Towns Water and Sewerage Act, the total amount of loans outstanding at the close of the year was £9,117,315, and towards this amount there was at the credit of the sinking fund a sum of £763,777.

Rates of interest ranged from $3\frac{1}{2}$ per cent., which was carried by £171,104, to 7 per cent., which, however, was payable only on £1,200, and the amount paid and due as interest on loans during the year was £363,875. The total indebtedness was £9,117,315, bearing an average rate of interest of 3.99 per cent., viz., 3.94 per cent. on the loans of the City of Sydney, 4.23 per cent. on those of the suburban municipalities, and 4.26 per cent. on those of the country municipalities.

The average rate of interest payable on all loans is hardly, however, an index of the true value of municipal debentures to the investors, as out of a total debt of £9,117,315, the sum of £4,874,966 pays interest at 4 per cent., and £2,184,400 at $3\frac{1}{4}$ per cent., and of these amounts the metropolitan municipalities are responsible for £4,800,493 at 4 per cent., and the whole floated at $3\frac{1}{4}$ per cent. The country municipalities borrowed £74,473 at 4 per cent., £170,060 at $4\frac{1}{2}$ per cent., and £182,806 at 5 per cent.

The total debt per head of population in municipalities amounted to £7 9s. 11d., without allowance being made for sinking funds, while the yearly charge for interest is 6s. per head. These sums, compared with the resources of the municipalities, appear by no means formidable.

The following are the outstanding loans on 31st December, 1917, and the sinking funds set apart to meet them; the New South Wales figures include £9,000 raised in Victoria:—

Division.	Municipal Loans Outstanding.			Sinking Funds.	Interest paid and due on Loans, 1917.
	New South Wales.	London.	Total.		
	£	£	£	£	£
Sydney—City	6,678,960	800,000	7,478,960	729,448	294,340
„ Suburbs	958,424	.....	958,424	6,773	40,581
Country	657,488	22,443	679,931	27,556	28,954
Total	£ 8,294,872	822,443	9,117,315	763,777	363,875

Temporary loans, amounting altogether to £214,746, which bear interest at current bank rates, and loans payable on demand amounting to £77,319, are included in the above table.

The loans are redeemable at various periods after 1917, and the amount to be repaid in London was £822,443, or about 9 per cent. of the total, and the amount of debentures held locally was £8,294,872.

SHIRES.

From the 1st January, 1907, 135 shires had been working under the Local Government Act, 1906, but the number was increased to 136 during 1915, owing to the establishment of the Nambucca Shire, which was separated from Bellingen, and Woolooma has been changed to Upper Hunter. These shires are all in the Eastern and Central Land Division, 98 being in the former, and 38 in the latter.

The shires vary in area from 36 square miles in Ku-ring-gai, immediately north of the City of Sydney, to 5,730 square miles in Lachlan, the headquarters of which are at Condobolin, and the smallest shires are in the most closely settled parts of the State.

A general rate, not less than 1d. in the £, and not more than 2d. in the £, may be levied by shires on the unimproved capital value of all ratable land. If, however, the general rate of 1d. is more than sufficient to meet requirements, the Governor may allow the rate to be reduced below 1d., and in 1917 eight shires levied a general rate less than 1d.

The general rates levied in 1917 and the unimproved capital value of the land in each case were as follow:—

No. of Shires.	General Rate levied in £.	Unimproved Capital Value of Land.
	d.	£
1	$\frac{1}{2}$	1,201,047
2	$\frac{3}{4}$	2,477,650
4	$\frac{3}{4}$	4,210,512
18	1	23,577,684
2	$1\frac{1}{4}$	2,519,677
11	$1\frac{1}{2}$	10,518,162
1	$1\frac{3}{4}$	1,120,745
27	$1\frac{3}{4}$	19,268,714
4	$1\frac{3}{4}$	3,158,063
66	2	39,634,061
136	...	107,695,315

The unimproved capital value of shires from 1910 to 1917 is shown below. The total increase during the period mentioned was £17,759,403, or over 19·7 per cent.

Year.	Unimproved Capital Value.	Year.	Unimproved Capital Value.
	£		£
1910	89,935,912	1914	103,451,177
1911	94,189,939	1915	104,745,633
1912	97,661,454	1916	105,697,791
1913	99,452,191	1917	107,695,315

As already stated, the unimproved capital value of the shires in 1917 was £107,695,315, but it is not possible to give the improved capital value, or the assessed annual value, as the shires are not compelled to make those valuations.

In addition to the general rates, additional general, special, and local rates were also levied by thirty-four shires, ranging from one-sixteenth of a penny to 5d. in the £.

The purposes for which these special and local rates were imposed were:—Roads and street improvements and maintenance, footpaths, kerbing and guttering, metal and gravel, water supply, drainage, street lighting, bridges, parks, fire brigade, and foreshores improvement.

The total amount of general and additional general rates levied was £670,234, and of special and local rates £20,856. These figures represent the rates actually levied in respect of the year 1917, and do not agree with the amount shown later, the difference being due to the inclusion of interest on unpaid rates.

In many shires the general rate was not sufficient to meet the requirements, and the State granted subsidies in these cases. Endowments are fixed every third year, and are determined according to the extent of the shire, the probable revenue from a rate of 1d. in the £, the necessary expenditure, the extent of roads and other public works to be constructed and maintained, and other matters. The endowment is paid on the general rates actually collected in the preceding year. There are six classes into which the shires are divided for endowment purposes, the classification for the three years 1916-18 being as follows:—

52 shires in 1st class receive no endowment.

63 „ 1st „ „ from 1s. to 10s. in the £ on General Rate.

5 „ 2nd „ „ 15s. in the £ on General Rate.

8 „ 3rd „ „ 20s. „ „

4 „ 4th „ „ 25s. „ „

3 „ 5th „ „ 30s. „ „

1 shire in 6th „ receives 40s. „ „

The highest endowment allotted in 1917 was 40 shillings in the £ to Bellingen shire, but on the whole the endowments are considerably lower than those paid in the preceding three years. In 1917 the Government paid £151,446 as endowment to the shires, and a further sum of £146,972 was paid as grants for special purposes, making the total subvention from the State £298,418.

INCOME.

The principal heads of income of shires in 1917 were as follow, and for purposes of comparison the 1908 figures are attached.

Particulars.	1908.		1917.	
	Income.	Per cent.	Income.	Per cent.
General Fund—	£		£	
General rates (including interest) ...	382,336	61·0	672,473	60·4
Government endowment ...	162,859	26·0	151,446	13·6
Public works ...	65,781	10·5	167,696	15·1
Health administration ...	2,979	0·5	3,987	0·4
Public services ...	7,038	1·1	10,653	0·9
Shire property ...	517	0·1	14,343	1·3
Miscellaneous ...	4,198	0·7	7,303	0·7
Special and local funds ...	1,160	0·1	77,729	7·0
Loan funds ...	.....	...	6,863	0·6
Total Income ...	£ 626,868	100·0	1,112,523	100·0

The income from public works in 1917 increased largely compared with 1908, owing to the fact that the Government grants in aid of roads, streets, bridges, etc., in the first-mentioned year were very large. The greater revenue from Government endowment in 1908 is accounted for by the

higher rates granted in the earlier years. The income from special and local funds has increased, owing principally to the establishment of the Sanitary and Garbage Fund, and the expansion in the transactions of the other funds.

Of the total income in 1917, Government assistance, exclusive of grants for public works, provided 13·6 per cent., as against 26·0 per cent. in 1908. The principal items in public works were contributions to roads, bridges, etc., £17,536, Government grants for roads, etc., £135,214; and receipts from ferries, which, including Government grants, amounting to £11,287, were £12,713. The principal item in public services was rent, etc., from public watering places, £8,393. The income derived from special and local funds, consisting of the proceeds of special and local rates and sanitary and garbage fees, claimed 7 per cent. of the total.

EXPENDITURE.

The following statement shows the expenditure of shires during 1917 in comparison with the year 1908.

Particulars.	1908.		1917.	
	Expenditure.	Per cent.	Expenditure.	Per cent.
	£		£	
General Fund—				
Rates and interest abandoned ... ..	.....	.....	1,351	0·1
Administrative expenses	116,932	17·7	100,649	8·9
Public works	516,072	78·7	901,730	79·0
Health administration	4,604	0·7	9,149	0·8
Public services	11,703	1·8	18,256	1·6
Shire property	397	0·1	16,211	1·4
Miscellaneous	6,453	1·0	14,561	1·3
Special and local funds	58	.....	69,554	6·1
Loan Funds ... ..	.....	.....	9,266	0·8
Total Expenditure	£ 656,219	100·0	1,140,727	100·0

The administrative expenses in 1917 were £100,649, or 8·9 per cent. of the total expenditure. Of the administrative expenses, £42,894 were on salaries, £16,804 on advertising, stationery, printing, etc., £5,267 on valuation fees, and £15,061 on presidents' allowances and councillors' travelling expenses. It should be mentioned, however, that the amount stated for salaries (£42,894), although charged to the general account, includes payments for the special and local services. The gross administrative expenses were £106,200, so that salaries actually comprised about 40 per cent. of the total cost. The salaries paid ranged from £150 to £946, the average being £316, and all salaried officers are included, in addition to the shire clerks, but engineers' salaries are charged to works. The expenditure on works accounted for 79 per cent. of the total. The principal expenditure was £761,424 on roads, streets, footpaths, kerbing and guttering, culverts, etc., of which £437,153 were on maintenance, repairs, and renewals, £321,022 on construction, and £3,249 on sundries. For other public works—bridges,

punts, ferries, wharfs, etc.—£42,640 were spent on maintenance and repairs, and £23,374 on construction. Supervision expenses (salaries of engineers, etc.) amounted to £52,836.

The total receipts from all sources were £1,112,523, and as the administrative expenses, as already stated, amounted to £100,649, the cost of collection amounted to slightly over 9 per cent.

BALANCE-SHEET.

The financial position of the shires on 31st December, 1917, was strong, as there was an excess of assets of £406,006. The combined balance-sheet of the shires on 31st December, 1917, appears as follows:—

Liabilities.				Assets.			
General Fund—		£		General Fund—		£	
Temporary Loans	...	62,351		Outstanding Rates	...	50,526	
Due to Trust Fund	...	288		Stores and Materials	...	17,776	
Sundry Creditors	...	54,008		Bank Balance and Cash	...	116,467	
Due on Contracts	...	38		Sundry Debtors	...	16,226	
Other	...	386		Land and Buildings	...	125,271	
				Plant and Property	...	156,981	
				Furniture, &c.	...	15,830	
				Other	...	9,043	
Total, General Fund	...	£117,071					
Special or Local Funds	...	18,184		Total, General Fund	...	£508,120	
Loan Funds	...	28,009		Special or Local Funds	...	51,762	
				Loan Funds	...	9,388	
Total, all Funds	...	£163,264					
Excess of Assets	...	406,006		Total	...	£569,270	
Total	...	£569,270					

It will be observed that a large proportion of the assets of the General Fund—£116,467, or nearly 23 per cent.—consists of cash in bank or in hand. The liabilities of the Special or Local funds consist for the most part of amounts due to general and other funds, and sundry creditors; while the assets comprise land, buildings, outstanding fees and rates, and bank balances.

LOANS.

The Local Government (Shires Loans) Act, 1914, empowers Shire Councils to borrow money, not exceeding in the aggregate a sum equal to thrice the amount of the annual income. The loans may be secured and charged upon the income of the general funds of the shire, and are repayable in annual or half-yearly instalments of principal and interest. At the 31st December, 1917, there were eleven shires which had loans current, viz., Ashford, Bannockburn, Coolamon, Culcairn, Hornsby, Kyeamba, Murrumbidgee, Nepean, Sutherland, Urana, and Warrungah. The original amount of the loans was £38,713, and £10,823 had been paid off, leaving a balance due of £27,890. The loans were raised for the purpose of making improvements to roads, footpaths, etc., except those of Ashford and Hornsby, where the amounts were floated for the construction of office premises, and of Sutherland for the building of a wharf at Cronulla. In addition to the foregoing fixed loans, sixty shires had temporary loans amounting, with accrued interest, to £62,351 on the 31st December, 1917.

TAXATION BY LOCAL GOVERNING BODIES.

The total revenue collected by all the local governing bodies from rates and charges amounts to £3,392,538, equal to £1 16s. 2d. per head of the population residing in the taxable districts. This includes £1,642,978, rates collected by municipalities; £691,090, rates collected by shires; and £1,058,470, rates collected by the various Water and Sewerage Boards referred to later. The distribution of the total amount is as follows:—

Local Bodies.	General Rates.	Special and Loan Rates.	Total.	Per head of population living in local areas.
	£	£	£	£ s. d.
Municipalities (including City of Sydney)	1,465,995	176,983	1,642,978	1 7 0
Shires	670,234	20,856	691,090	1 1 0
Metropolitan water and sewerage charges	953,648	.....	953,648	0 19 3
Hunter District water and sewerage charges.	104,822	.....	104,822	0 18 0
Total	£ 3,194,699	197,839	3,392,538	1 16 2

BOARDS AND TRUSTS.

In addition to the ordinary forms of municipal local government, there are various boards and trusts with local jurisdiction. The control of the water supply and sewerage of the Metropolitan and Hunter districts is placed under separate Boards. The Metropolitan and the Country Towns Water Supply and Sewerage Acts, the Fire Brigades Act, the Sydney Harbour Trust Act, the Metropolitan Traffic Act, and the Motor Traffic Act, were all passed with the object of extending the principle of local government, and Boards have been established to carry out the provisions of some of these Acts.

The Metropolitan Board of Water Supply and Sewerage was established in 1887, the Hunter District Board in 1892, and the Sydney Harbour Trust in the year 1900.

In 1900 the Metropolitan Traffic Act was passed, which gives the complete control of street traffic and the licensing of public vehicles, drivers, and conductors to the Inspector-General of Police, and the Motor Traffic Act of 1909 places the supervision of motor vehicles under the same authority. Further information regarding licenses and fees is published in the chapter of this Year Book treating of "Police and Prison Services."

BOARD OF FIRE COMMISSIONERS.

The Fire Brigades Act, 1909, which repealed the Act of 1902, applies to the City of Sydney, to forty suburban municipalities, to eighty-six country municipalities, and to parts of eleven shires, and the operations of the board may be extended to other districts by proclamation. At the end of 1917 the districts embracing the municipalities and shires numbered seventy-eight. Particulars relating to the financial transactions of the board will be found in the chapter of this publication dealing with "Private Finance."

The calls attended during 1917 numbered 1,665, of which 1,090 were in the Sydney district. Particulars are shown below:—

Calls.	Sydney District.	Country Districts.	Total.
False alarms	159	45	204
Chimney alarms	38	28	66
Fires—Slight	844	414	1,258
„ Serious	5	6	11
„ Total destruction...	44	82	126
Total	1,090	575	1,665

WATER SUPPLY FOR COUNTRY TOWNS.

The Country Towns Water Supply and Sewerage Act of 1880 was passed with the object of assisting municipalities to construct general systems of water supply and sewerage. To the end of June, 1918, fifty-six municipal councils had availed themselves of the privilege offered as regards the water service, and works were under construction in other municipalities.

The amount required for carrying out the works is advanced by the State. The municipality, however, has the option of supervising and constructing the works, failing which the Government undertakes these duties. Under the original Act, the sum advanced was to be repaid by instalments, with interest at the rate of 4 per cent., on the unpaid balances, each annual instalment to be equal to 6 per cent. of the total cost, and the first payment to be made twelve months after the date of the transfer of the works to the municipality; but as it was found that the municipalities which had contracted liabilities in respect of water supply works were unable to comply with these conditions, the Government, in 1894, passed an amending Act which granted them more favourable terms, the rate of interest being reduced to 3½ per cent., and the number of yearly repayments fixed at a maximum of 100. Under the amending Act of 1905, the rate of interest is fixed at 4 per cent. per annum. This Act also provides for the issue of licenses, for the recovery of rates, for making by-laws for the assessment of lands, and for other purposes. The total amount of debts owing by the municipalities on the 30th June, 1918, was £1,288,036, and the aggregate annual instalment repayable was £48,173. The last-mentioned sum is approximate only, as in a few cases the payment has not been definitely fixed.

The combined revenue accounts of the municipalities which maintain waterworks, for the year ended 31st December, 1917, are shown below:—

Income.				Expenditure.			
			£				£
Rates levied...	...	...	75,541	Management ... ..	...	...	15,968
Meter rents ... ..	...	...	831	Working and maintenance	...	...	32,933
Water sales ... ..	...	...	25,428	Repairs and renewals ...	...	...	5,283
Garden charges, &c. ...	...	...	5,678	Interest payable to Government...	...	...	41,950
				Other... ..	...	...	5,384
				Balance ... ..	...	...	5,960
Total... ..	...	...	£107,478	Total ... ..	...	...	£107,478

With regard to the expenditure, management charges accounted for 15·7 per cent., working and maintenance for 32·4 per cent., repairs and renewals

5·2 per cent., interest payable to Government 41·4 per cent., and miscellaneous items 5·3 per cent.

The income figures show that rates contributed 70·2 per cent. of the receipts, meter rents 0·8 per cent., water sales 23·7 per cent., and garden charges, &c., 5·3 per cent.

The combined balance-sheet on 31st December, 1917, was as follows:—

Liabilities.				Assets.			
			£				£
Capital Debt due to Government	1,097,217			Waterworks—plant, buildings, &c.	...	...	1,162,954
Interest due to Government	...	37,643		Outstanding rates...	...	...	21,328
Sundry creditors	...	36,981		Bank balances and cash in hand	...	...	23,215
Excess of Assets	...	83,272		Stores and materials	...	...	4,889
				Sundry debtors	...	...	24,792
				War Loans, Fixed deposits (including interest)	...	...	17,935
Total	...	...	£1,255,113	Total	...	...	£1,255,113

The total amount advanced by the Government practically represents the present value of the services; but where the works were not constructed by the Government, the value is included as an asset of the loan fund. The amount of rates outstanding on the date mentioned was £21,328, while the bank balances, cash in hand, investment in war loans, and fixed deposits were £41,150. On the whole, the assets exceeded the liabilities by £83,272.

SEWERAGE AND DRAINAGE WORKS.

Only nineteen municipal councils have taken advantage of the Act providing for the construction of sewerage and drainage works in country towns, and the capital debt and annual repayments on 30th June, 1918, were £389,695 and £14,323 respectively. Other sewerage systems are in existence in several places, but they have been constructed apart from the Act, and, with few exceptions, the operations have been on a minor scale.

Some of the municipalities do not levy special sewerage rates, and therefore do not keep a separate account. The revenue accounts of the other municipalities for the year ended 31st December, 1917, are shown below:—

Income.				Expenditure.			
			£				£
Rates levied	...	...	19,382	Management	...	...	2,494
Other	...	...	2,286	Working and maintenance	...	...	3,816
				Repairs and renewals	...	...	218
				Interest payable to Government...	...	...	9,752
				Other...	...	...	360
				Balance	...	...	5,028
Total	...	...	£21,668	Total	...	...	£21,668

Practically the only source of income is from rates, the other receipts representing contributions to works, sales of fittings, &c. Of the expenditure, management charges represented 15·0 per cent., working and maintenance 22·9 per cent., repairs and renewals 1·3 per cent., interest payable to Government 58·6 per cent., and other expenses 2·2 per cent.

The combined balance-sheet was as follows:—

Liabilities.				Assets.			
			£				£
Capital Debt due to Government	330,805			Works and Plant ...	...	...	335,846
Interest due to Government	...	10,388		Outstanding rates ...	...	...	6,827
Sundry creditors	...	...	6,355	Bank balance and cash	...	...	5,565
Excess of Assets	...	...	4,033	Stores and materials	...	...	1,552
				Sundry debtors	...	...	1,791
Total	...	...	£351,581	Total	...	...	£351,581

DRAINAGE TRUSTS.

In addition to the water and sewerage works shown in the foregoing tables, thirty-two trusts for reclamation of swamp and other lands were in operation on the 30th June, 1918, with a total length of 123 miles, the total area served being 133,608 acres. The total cost as gazetted was £115,724, and the annual payments were £6,907. The owners of the lands improved by these works are responsible for the repayment of the capital expenditure, and are also required to provide for the cost of maintenance and administration.

GAS-WORKS.

The Local Government Act authorises the construction of works for public lighting, and enables municipalities to provide private consumers with gas. In addition to the twenty-one municipalities supplying coal-gas, acetylene and other gas plants have been established in twenty-one other municipalities.

The operations of the municipalities with coal gas-works in 1917 will be seen from the subjoined statements showing the Gasworks Trading Undertaking revenue account and balance-sheet, and the loan fund balance-sheet. The following is the revenue account, and particulars for 1908 are appended for purposes of comparison:—

Income.			Expenditure.		
	1908.	1917.		1908.	1917.
	£	£		£	£
Private lighting	33,867	69,579	Manufacture	22,714	51,081
Public lighting	7,652	12,123	Distribution	1,525	6,122
Sale of residual products	4,142	8,933	Management expenses	3,904	15,180
Other	1,742	585	Public lighting	1,700	4,027
			Other	2,457	1
			Balance	15,103	14,809
Total	£ 47,403	91,220	Total	£ 47,403	91,220

On the total operations for 1917 there was a gross profit of £14,809, none of the municipalities showing a loss. The manufacture of gas accounted for 67 per cent. of the expenditure, as compared with 70.2 per cent. in 1908, and private lighting for 76.3 per cent. of the income, as against 71.5 per cent. in 1908.

The gross profit in 1917 was reduced in the Net Revenue Appropriation Account by charges amounting to £14,319. Transfers to loan and other funds included £4,710 for payment of interest, and £9,609 for other purposes, and the credit balance carried forward amounted to £29,580.

The balance-sheet of the Gasworks Trading Undertakings, exclusive of loans, for 1917, is given below:—

Liabilities.				Assets.			
£				£			
Due to other Funds	...	...	34,011	Buildings, land, stock, plant, &c.	...	...	80,124
Sundry creditors	...	...	17,749	Sundry debtors, including amounts	...	...	...
Reserves	...	...	8,279	due from other funds	...	...	26,639
Excess of Assets	...	...	55,638	Fixed deposits	...	...	763
				Bank balance and cash	..	...	8,151
Total	...	..	£115,677	Total	...	...	£115,677

The total excess of assets amounted to £55,638, to which each municipality, with two exceptions, contributed.

The following balance-sheet of the Loan Fund shows the position of the Gasworks Trading Undertakings for 1917:—

Liabilities.				Assets.			
£				£			
Loans current	...	...	123,444	Land and buildings	..	...	39,940
Interest accrued not paid, &c.	...	...	1,713	Plant, mains, lamps, &c.	...	...	147,970
Excess of Assets	...	...	82,475	Due from other funds	...	...	15,228
				Fixed deposits, investments, bank	...	...	...
				and cash balances	...	...	4,206
				Other	...	...	288
Total	...	...	£207,632	Total	...	...	£207,632

Against a total loan indebtedness for Gasworks of £123,444, the municipalities had assets valued at £207,632, the excess of assets being £82,475, exclusive of the assets of the trading account proper, shown above. Land, buildings, plant, &c., made up 90.5 per cent. of the assets of the Loan Fund; amounts due from other funds, chiefly trading accounts, 7.3 per cent.; and investments, &c., 2.2 per cent.

ELECTRICITY WORKS.

The following councils have erected electric lighting plants:—Sydney, Albury, Broken Hill, Corowa, Goulburn, Inverell, Moss Vale, Narrandera, Newcastle, Penrith, Tamworth, Temora, Tenterfield and Young. These works were erected under separate Acts, as electric lighting may not be undertaken without special legislation.

The following statement shows the results of the operations of the electricity works in 1908 and 1917 in respect of municipalities operating under the Local Government Act. The City of Sydney electric lighting undertaking has already been dealt with:—

Income.	1908.	1917.	Expenditure.	1908.	1917.
	£	£		£	£
Private lighting	6,779	39,794	Generation	6,878	33,017
Public lighting	9,366	11,759	Distribution	1,468	4,273
Power supply	504	14,647	Management, &c. ...	943	11,366
Rents of meters, &c. ...	133	2,574	Special charges ...	952	957
Other	1,819	2,634	Public lighting	690	2,644
			Other	2,469	610
			Balance	5,201	18,541
Total	£ 18,601	71,408	Total	£ 18,601	71,408

Generation of electricity is the largest item of expenditure, accounting in 1917 for 62.5 per cent. of the whole. Distribution of the current cost 8.1 per cent., management 21.5 per cent., and other expenses 7.9 per cent. The gross profit of this concern to the combined municipalities was £18,541, and after deducting amounts transferred to the net revenue appropriation account, viz., interest £3,927, redemptions and sinking funds £3,408, and miscellaneous £8,164, a total of £15,499, the net profit was £3,042.

The balance-sheet of the Trading Fund for 1917, exclusive of loans, was as follows:—

Liabilities.			Assets.		
	£			£	
Due to other funds... ..	20,357		Materials, stock, &c. ...	18,640	
Sundry creditors... ..	9,942		Sundry debtors	18,607	
Excess of Assets... ..	27,538		Fixed deposits, bank balance, and cash	20,590	
Total	£ 57,837		Total	£ 57,837	

Only two municipalities showed an excess of liabilities, and the position is therefore satisfactory.

The final statement is the balance-sheet of the loan fund for 1917:—

Liabilities.				Assets.			

to Prospect Reservoir, a distance of 40 miles from the farthest source of supply. The conduits above Prospect Reservoir have a maximum delivery of 150,000,000 gallons per day, and for 10 miles below this reservoir the capacity of the canals and pipes is 50,000,000 gallons. For the last 11 miles the water is conveyed by two 48-inch mains. In this work there are 63½ miles of tunnels, canals, and pipes.

Notwithstanding the size of Prospect Reservoir, it was found in 1902—a very dry year—that the supply was not sufficient for the growing needs of the metropolis. The Government therefore decided to build the Cataract Dam, which was completed in 1908, the catchment area above the dam being about 50 square miles. The water flows from this dam down the Cataract River to a weir at Broughton's Pass, where it enters a tunnel previously existing, and is conveyed by a system of open canals to the Prospect Reservoir. The total distance from Cataract to Sydney, *via* Prospect, is 66½ miles.

The dimensions of the Prospect and Cataract reservoirs are as in the following statement:—

Dam.			Height above Sea-level.	Area.	Capacity.	Length of Dam.	Width at top.	Height.
Prospect	...	...	ft. 196·7	acres. 1,266½	gallons. 11,029,180,000*	ft. 7,300	ft. 30	ft. 85½
Cataract	...	...	950	2,200	20,743,196,475	811	16½	160

* When full, about half this quantity is available by gravitation.

From Prospect the water flows 5 miles by open canal to the Pipe Head Basin, thence 5 miles by 6-foot wrought-iron and steel pipes to the Potts' Hill Balance Reservoir, which has a capacity of 100,000,000 gallons, and covers 24½ acres. This reservoir was designed to tide over any interruption in the supply from Prospect, as well as to prevent fluctuation at the head of pressure. A by-pass is laid along the floor to enable mains to deliver water to Sydney direct.

At Potts' Hill the water passes through a series of copper-gauze screens, and is then conducted by two 48-inch mains and three smaller mains to the reticulated area south of Port Jackson. At Lewisham a bifurcation takes place in one of the 48-inch mains; one branch supplying the Petersham Reservoir, the other continuing to Crown-street. The Petersham Reservoir is 166 feet above high-water mark, is built of brick, and has a capacity of 2,157,000 gallons. The other 48-inch main, laid in 1893, delivers water direct from Potts' Hill to Crown-street. These two trunk mains are connected at Petersham as an intermediate spot. The Crown-street Reservoir is 21 miles from Prospect. It is of brick, and contains 3,250,000 gallons, the top water-level being 141 feet above high-water mark.

On account of the elevation of parts of the reticulated area, pumping is necessary for the purpose of supplying the upper zones, and no less than 8,673 million gallons were raised at the various stations during the twelve months ended June, 1918, representing 60·1 per cent. of the Prospect Reservoir consumption. At Crown-street is situated the main pumping station, where are erected three sets of compound high-duty pumping

engines. A covered reservoir, of a capacity of 18,500,000 gallons, has been constructed in the Centennial Park at a height of 245 feet, for the purpose of ensuring a larger bulk of water within the city limits. At Ashfield there is a wrought-iron tank at an elevation of 223 feet above high water, with a capacity of 1,000,000 gallons. This tank is supplied from the Centennial Park Reservoir by a main, and provides for the higher part of the district. Vacluse Reservoir, at a height of 313 feet, is connected with Waverley, and supplies a district of about 1,200 acres around Vacluse and South Head. It has a diameter of 107 feet, a depth of 18 feet, and its capacity is 1,000,000 gallons. The No. 1 reservoir at Waverley has a capacity of 1,087,000 gallons; but the new reservoir erected in the Waverley Park, and occupying the highest point in the eastern suburbs of Sydney, has a capacity of 4,260,000 gallons; and surmounted on this structure, at an elevation of 396 feet above sea-level, is a smaller reservoir of 500,000 gallons capacity, for the service of residents in the high zone of the immediate vicinity.

North Sydney receives its supply from Potts' Hill, *via* Ryde, where there is a reservoir containing 2,000,000 gallons, from which the water is pumped into a 1,000,000-gallon tank at Ryde village, 234 feet above sea-level, and, by a continuation of the same main, into a pair of tanks, of a joint capacity of 3,000,000 gallons, at Chatswood, at an elevation of 370 feet above high-water mark. Water can be lifted direct from Ryde to Wahroonga and Pymble, or may be re-pumped from Chatswood, where a small pumping station has been erected. There are three tanks (one of them being of 1,000,000 gallons, one of 250,000 gallons, and one of 40,000 gallons capacity) at Wahroonga, $7\frac{1}{2}$ miles distant, whence the water flows as far as Hornsby, where there is a tank of 1,000,000 gallons capacity, 13 miles to the north-west of Port Jackson. At a height of 567 feet a concrete reservoir of a capacity of 500,000 gallons has been constructed at Pymble, and during the past year a second reservoir with a capacity of 6,905,160 gallons was brought into operation. From these reservoirs the districts between Pymble and Chatswood are served, thus reducing the abnormal pressure by reason of the supply being from so great a height as Wahroonga.

From the Ryde tank the districts of Ryde, Gladesville, and Hunter's Hill are supplied; while a 9-inch main extends over the Parramatta and Iron Cove bridges to supply Balmain, at which suburb there is now a reservoir with a storage capacity of 2,376,250 gallons. An elevated tank, at a height of 354 feet, with a capacity of 72,800 gallons, and a reservoir, with a capacity of 1,925,000 gallons, 302 feet above sea-level, have been erected at Mosman.

The districts of Campbelltown and Liverpool are supplied from the main canal by gravitation. At the latter place, a 4,000,000-gallon earthen reservoir has been constructed, and a tank with a capacity of 250,000 gallons, for the purpose of tiding over any interruption in the flow from the canal. Other districts lying nearer Sydney, *viz.*, Smithfield, Granville, Auburn, and Rookwood, are also supplied *en route*; and at Smithfield there is a 100,000-gallon concrete tank, the top water of which is 175 feet above sea-level. At Penshurst there is a tank 270 feet above sea-level, with a capacity of 1,000,000 gallons, and one 300 feet high, capable of holding 1,500,000 gallons. Works for the supply of water to the towns of Camden and Narellan, from a point on the canal near Kenny Hill, were completed in October, 1899. In 1893, the Board assumed control of the Richmond waterworks, in 1902 of the Manly works, and in 1903 of the Wollongong works. Manly is also connected with the metropolitan system by a main from Mosman, crossing Middle Harbour.

The following statement shows the number of houses in the metropolitan area supplied with water during the last ten years.

Year ended 30th June.	Houses Supplied.	Average Daily Supply.	Total Supply for Year.	Average Daily Supply.	
				Per House.	Per Head.
	No.	gallons.	gallons.	gallons.	gallons.
1909	128,444	25,911,400	9,457,660,000	201	40·3
1910	133,788	26,903,200	9,819,652,000	201	40·2
1911	139,237	29,006,700	10,587,434,000	208	41·7
1912	146,236	30,354,800	11,079,500,000	207	41·5
1913	155,213	32,594,200	11,897,000,000	209	42·0
1914	166,112	36,539,700	13,337,000,000	220	44·0
1915	175,758	35,909,589	13,167,000,000	204	40·9
1916	183,598	39,380,000	14,374,000,000	214	42·9
1917	193,643	39,637,128	14,467,352,000	204	40·9
1918	198,685	41,358,989	15,096,031,000	208	41·6

The rate levied for water is 6½d. in the £ on the assessed annual value of ratable property in the Metropolitan district, while the charge per meter is 11d. per 1,000 gallons up to 10 millions, 10d. from 10 millions to 20 millions, and 9d. over 20 millions. The revenue from the Water Service Branch during the year ended 30th June, 1918, was £523,979, and the expenditure, including interest on capital, £539,164. The net revenue showed a return of 3·87 per cent. on the capital debt of £8,472,700.

The following statement gives the financial transactions of the Metropolitan Water Supply for each of the last ten years, and for the years 1917 and 1918 it includes the Richmond and the Wollongong water supply systems, the accounts of which were previously kept separately.

Year ended 30th June.	Capital cost.	Revenue.	Working expendi- ture.	Interest.	Net return after paying working expenses.	Net profit after paying working expenses and interest.
	£	£	£	£	per cent.	£
1909	5,146,302	267,519	80,281	185,591	3·04	1,647
1910	5,286,917	284,943	93,027	184,486	3·63	7,430
1911	5,420,813	299,442	99,355	192,486	3·69	7,601
1912	5,606,268	329,605	112,958	198,443	3·86	18,204
1913	5,907,125	361,187	126,795	200,918	3·96	33,474
1914	6,257,976	410,823	145,948	223,145	4·23	41,730
1915	6,644,289	441,966	159,637	235,949	4·24	46,330
1916	7,192,472	470,744	165,210	261,335	4·24	44,199
1917	7,979,121	479,290	182,087	314,659	3·72	17,456*
1918	8,472,700	523,979	195,448	343,716	3·87	15,185*

* Loss.

In addition to the city and suburbs, various country towns are supplied with water by the Metropolitan Board, and some of their accounts were formerly kept distinct from those of the metropolis. The works at Richmond and at Wollongong were constructed under the Country Towns Water Supply and Sewerage Act, and subsequently handed over to the Board, in which they are now vested under the Amending Act of 1916. The districts of Campbelltown, Camden and Narellan, and Liverpool, receive the water by gravitation from the upper canal at Prospect.

THE HUNTER DISTRICT WATER SUPPLY.

The water supply works of the Lower Hunter were constructed by the Government under the provisions of the Country Towns Water Supply and Sewerage Act of 1880. In 1892, under the authority of a special Act, a Board was established on similar lines to those of the Metropolitan Water and Sewerage Board, the number of members being the

same—three being nominated by the Governor, one elected by the Municipal Council of Newcastle, two by the adjacent municipalities, and one by the municipalities of East and West Maitland and Morpeth. The following districts are within the area of the Board's jurisdiction:—

Municipalities—

Adamstown, Carrington, Greta, Hamilton, Lambton and New Lambton, East and West Maitland, Merewether, Morpeth, Newcastle City, Wallsend, Waratah, Wickham.

Shires—

In Bolwarra Shire: Bolwarra, Lorn.

In Cessnock Shire: Aberdare, Abermain, Abermain Government Township, Cessnock, South Cessnock, Bellbird, Church Hill, Hebburn, Heddon Greta, Homeville, Kurri Kurri, Mayfield, Neath, Oakhampton, Rutherford, Telarah, Weston.

In Lake Macquarie Shire: Argenton, Boolaroo, Spier's Point, Teralba, West Wallsend.

In Tarro Shire: Hexham and Ash Island, Minmi, Morpeth Road, Pelaw Main, Stanford Merthyr, Tenambit.

The Government Railways and Tramways properties, eleven in number, are also served by the Board.

The supply of water for the district is pumped from the Hunter River, about a mile and a half up stream from the Belmore Bridge, West Maitland. The pumping engines are situated above flood-level, on a hill about 44 chains from the river. At the pumping station there is a settling tank of 1,390,500 gallons; also six filter-beds, 10,000 square feet each, and one of 15,000 square feet, a clear-water tank of 589,500 gallons capacity, and a storage reservoir of 172,408,100 gallons available capacity. The filtered water is pumped from the clear-water tank into two summit reservoirs, one at Rutherford and one at Buttai. The former, connected by a 10-inch and 12-inch main, with a capacity of 500,000 gallons, supplies East Maitland, West Maitland, Morpeth, Lorn, Bolwarra, Campbell's Hill and neighbouring places. Buttai Reservoir is fed by two rising mains, one a riveted steel pipe, 20½ inches diameter, the other a 15-inch cast-iron main, 5½ miles in length; it has a capacity of 1,051,010 gallons, and supplies Newcastle and environs. Fourteen district reservoirs, which are supplied from Buttai, ten by gravitation and four by re-pumping, receive water for distribution.

The length of the mains when the Board was established was 134 miles; at 30th June, 1918, it had been increased to 425 miles.

Particulars relating to the water supply of the Board for the past ten years are given below. A water rate of 10d. in the £ is payable on the assessed annual value of all properties over £12, but if valued at less than £12, the rate is 10s. per annum. The charge by meter is 2s. per 1,000 gallons, and extra charges are made for water used for other than domestic purposes, the rates on which services range from 10s. to 40s. per annum.

Year ended 30th June.	Properties Supplied.	Supply.		Average Daily Supply	
		Daily average.	Total.	Per Property.	Per Head.
	No.	gallons.	gallons.	gallons.	gallons.
1909	15,679	1,766,300	644,689,000	113	22.5
1910	16,446	1,650,700	602,497,000	100	20.1
1911	17,164	1,849,900	675,214,000	108	21.5
1912	17,907	2,026,100	739,539,000	114	22.7
1913	18,405	2,366,300	863,692,000	129	25.7
1914	19,575	2,791,300	1,018,810,000	143	28.5
1915	20,709	2,859,000	1,043,547,000	138	27.6
1916	22,056	3,507,500	1,283,754,000	159	31.8
1917	22,604	3,435,336	1,253,898,000	152	30.3
1918	23,257	3,442,816	1,256,628,000	148	29.6

The funds necessary for the maintenance and management of the water supply and sewerage services, as well as the sum required to pay interest on the capital debt, are obtained by rates levied on the properties situated in the districts benefited by the systems. The assessments of the Municipal Councils are generally accepted by the Boards as the values on which to strike their special rates. In cases of heavy consumption of water, a charge is made according to the quantity used; but fixed charges are imposed for the use of water in certain trades and callings, for gardens, and for animals. The following table shows the financial position for the period 1909 to 1918.

Year ended 30th June.	Estimated Capital Debt.	Revenue.	Expenditure.*	Return on Estimated Capital Debt.
	£	£	£	per cent.
1909	474,485	43,395	41,184	3.90
1910	485,967	46,767	43,126	4.17
1911	495,747	45,711	45,420	3.55
1912	510,897	47,788	47,920	3.53
1913	531,969	53,673	49,042	4.42
1914	567,842	66,323	52,994	5.73
1915	601,983	68,611	55,383	5.53
1916	634,265	79,507	58,436	6.75
1917	704,305	78,040	65,338	5.44
1918	832,064	50,607	73,949	4.43

* Including Interest and Instalments to Sinking Funds for Renewal of Works.

METROPOLITAN SEWERAGE WORKS.

The first sewerage works at Sydney were begun in 1853; and in 1889, the date of transfer to the Board, there were 70 $\frac{1}{4}$ miles of old city sewers in existence. The original scheme was designed on the "combined" system, by which street-surface water as well as sewage was removed. The works comprised five main outfalls discharging into the harbour at Blackwattle Bay, Darling Harbour, Sydney Cove, Fort Macquarie, and Woolloomooloo Bay. The pollution of the harbour, consequent on these outlets, led to the appointment of a Commission of Inquiry, and the outcome of the labours of the Commission was the adoption of the present system.

This system consists of three main outfalls—the northern, southern, and western; the northern discharges into the Pacific Ocean near Bondi, and the southern and the western discharge into the sewage farm at Webb's Grant, near Botany Bay. The northern system receives sewage from Waverley, Bondi, Woollahra, Double Bay, Darling Point, Rushcutter's Bay, Elizabeth Bay, and parts of Woolloomooloo.

The southern main outfall commences at a point on the north side of Cook's River, near Botany Bay, and receives the drainage from Alexandria, Waterloo, Erskineville, Newtown, and portions of the Surry Hills district. The inlet-house, into which the sewage passes, is fitted with the latest machinery for straining the sludge, and for ejecting the fluid after filtration. Storm-water channels are also constructed at various points to carry off the superfluous water after heavy rainfalls.

The western outfall, which provides for the western suburbs, starts at a receiving chamber in the Rockdale end of the sewage farm, from which it runs to another chamber about a quarter of a mile to the north-east of Muddy Creek, and thence to a penstock chamber at Marrickville on aqueducts over Wolli Creek and Cook's River. The latter

chamber receives the discharges from the eastern, northern, and western branch sewers, and drains part of Marrickville, Petersham, Stanmore, Newtown, Leichhardt, Annandale, Camperdown, Summer Hill, Ashfield, Canterbury, Enfield, Burwood, Five Dock, and Concord. A branch outfall has been constructed at Coogee, which discharges into the ocean, and serves the districts of Randwick, Kensington, and Coogee. On the northern side of the city extensive works have been completed; in the borough of North Sydney septic tanks were built in 1899 to deal with the sewage matter; and at Middle Harbour, Mosman, and Manly, ample provision has been made for the sanitation of the districts.

The length of sewers in the Metropolitan District and the houses served during the last ten years are shown below:—

Year ended 30th June.	Houses connected.	Length of Sewers.	Length of Storm-water Drains.	Length of Ventilating Shafts.	Length of Sewers Ventilated.
	No.	miles.	miles.	feet.	miles.
1909	99,442	760.16	47.30	299,910	714
1910	104,029	793.55	47.82	361,200	761
1911	108,012	825.20	48.85	376,900	795
1912	110,737	863.29	49.69	382,654	809
1913	114,690	890.53	52.24	401,344	853
1914	118,643	930.06	53.15	408,778	870
1915	124,759	972.14	53.65	429,364	915
1916	130,638	1,022.19	54.98	443,134	953
1917	135,588	1,085.45	59.55	475,474	1,030
1918	139,777	1,113.34	60.07	479,464	1,039

The subjoined statement gives the financial transactions relating to Metropolitan Sewerage during the ten years ended 30th June, 1918.

Year ended 30th June.	Capital cost.	Revenue.	Working expendi- ture.	Interest.	Net return after paying working expenses.	Net profit (+) or loss (-) after paying working expenses and interest.
	£	£	£	£	per cent.	£
1909	4,225,239	214,212	68,574	151,317	3.44	(-) 5,679
1910	4,351,381	223,131	70,851	151,943	3.49	(+) 337
1911	4,496,290	234,208	79,636	159,070	3.43	(-) 4,498
1912	4,769,449	250,826	82,246	166,771	3.53	(+) 1,809
1913	5,083,263	268,292	91,094	171,957	3.48	(+) 5,241
1914	5,448,968	297,840	104,543	193,389	3.54	(-) 92
1915	5,775,094	344,489	111,809	205,928	4.02	(+) 26,752
1916	6,114,072	363,799	120,244	224,551	3.98	(+) 19,004
1917	6,722,313	387,353	138,417	269,723	3.70	(-) 20,807
1918	6,870,927	429,669	147,444	283,661	4.10	(-) 1,436

The sewerage rate for the city of Sydney and the eastern suburbs up to 1903 was 7d. in the £, the northern and the western suburbs being rated at 1s., but in 1904 a uniform rate of 11d. was imposed. In 1907 it was

reduced to 10d. in the £, and in 1908 to 9½d., the latter being the rate ruling up to the 30th June, 1917; but on the 1st July following it was increased to 10d.

NEWCASTLE AND SUBURBS SEWERAGE WORKS.

The sewerage scheme for the Hunter District has its outfall at Merewether Gulf, some distance south from Newcastle. Two gravitation sewers which branch from the main, one at Merewether and the other in the city of Newcastle, have been completed and transferred to the control of the Hunter District Water and Sewerage Board, also the reticulation sewers for the areas capable of being drained by gravitation. The districts served so far are Newcastle, Adamstown, Hamilton, Lambton, New Lambton, Merewether, Waratah, and Wickham. The following table shows information relating to sewers under the control of the Board on 30th June, 1918:—

Year ended 30th June.	Properties connected.	Length of Sewers.	Ventilating Shafts.	Length of Sewers Ventilated.
	No.	miles.	No.	miles.
1909	228	23·67	183	11·45
1910	661	29·50	183	17·28
1911	1,465	29·91	285	17·68
1912	2,424	37·14	418	37·14
1913	3,457	51·30	623	51·30
1914	4,887	56·75	733	56·75
1915	6,151	63·23	791	63·23
1916	7,240	83·81	808	83·81
1917	8,284	103·10	815	103·10
1918	9,333	117·50	819	117·50

The particulars of cost, revenue, and expenditure for the ten years to 30th June, 1918, are shown below:—

Year ended 30th June.	Capital cost— interest- bearing.	Revenue.	Working expendi- ture (including Sinking Fund).	Interest.	Net return after paying working expenses.	Net profit (+) or loss (-) after paying working expenses and interest.
	£	£	£	£	per cent.	£
1909	87,127	745	1,461	2,779	.....	(-) 3,495
1910	128,655	6,192	2,303	3,814	3·02	(+) 75
1911	170,151	8,975	4,217	5,368	2·79	(-) 610
1912	246,915	10,999	6,002	7,331	2·45	(-) 2,334
1913	301,809	12,472	7,722	9,244	1·79	(-) 4,494
1914	331,694	14,622	8,743	11,274	1·77	(-) 5,395
1915	358,480	17,212	9,045	12,281	2·28	(-) 4,114
1916	411,732	18,582	9,820	14,117	2·13	(-) 5,355
1917	454,638	21,408	12,051	17,226	2·05	(-) 7,869
1918	475,239	24,215	13,866	18,930	2·17	(-) 8,581

The sewerage rate—1s. in the £ on the annual rental value—came into force on 1st January, 1909, and this was the rate ruling in 1918.

The position of the combined Water and Sewerage services of the Metropolitan and of the Hunter Districts for the five years ended 30th June, 1918, are shown below. For the years 1917 and 1918 the figures of the Metropolitan District include the Richmond and the Wollongong water supply systems, the accounts of which were both formerly kept separate. The working expenses for the Hunter District include the instalment paid to Sinking Fund for reconstruction of renewable works.

Year ended 30th June.	Capital Cost.	Revenue.	Working Expenses.	Interest on Capital.	Net return after paying working expenses.	Net profit after paying working expenses and interest.
Metropolitan District.						
	£	£	£	£	per cent.	£
1914	11,706,944	708,663	250,491	416,534	3·91	41,638
1915	12,419,383	786,455	271,496	441,879	4·15	73,080
1916	13,306,544	834,543	285,454	485,886	4·13	63,203
1917	14,701,437	866,623	320,304	584,382	3·71	(-) 38,263
1918	15,343,627	953,648	342,892	627,377	3·92	(-) 16,621
Hunter District.						
1914	899,536	80,945	42,525	30,485	4·27	7,935
1915	960,463	85,823	44,320	32,389	4·32	9,114
1916	1,045,997	98,089	46,454	35,919	4·93	15,716
1917	1,158,943	99,448	51,746	42,909	4·12	4,793
1918	1,307,303	104,822	57,611	49,134	3·61	(-) 1,923

(—) Denotes net loss.

ROADS AND BRIDGES.

Main roads in New South Wales were first formed to connect the towns of Parramatta, Liverpool, Windsor, and Penrith with Sydney. All access to the interior of the country was considered barred by the apparently insurmountable sandstone precipices rising on the farther side of the Nepean, and until the year 1813 no effort to cross the mountains was attended with success. In that year, however, after a protracted season of drought, involving heavy losses of stock, the settlers recognised that the future of the country depended on an extension of the pastoral area, and three explorers, Blaxland, Lawson, and Wentworth, again essayed the task of finding a way over the mountains. After encountering tremendous difficulties, they succeeded in crossing the range, and discovered the rich pastures of the Bathurst Plains. Shortly after their return, Governor Macquarie despatched a party of surveyors to determine whether a road were practicable. The report was favourable, the construction of a track was at once begun, and the Great Western Road was completed as far as Bathurst on 21st January, 1815.

The access to the fertile lands surrounding Bathurst, by means of this mountain road, gave such an impetus to settlement that it was found impossible to keep pace in the matter of road-making with the demands of the settlers. The authorities, therefore, for many years confined their attention to the maintenance of roads already constructed, and extended them in the direction of the principal centres of settlement. Had the progress of settlement subsequent to 1850 been as slow as that of the preceding years, this system would have sufficed; such, however, was not the case. The discovery of gold completely altered the circumstances, and during the period of excitement and change which followed, so many new roads were opened, and traffic increased to such an extent, that the general condition of the public highways was by no means good. The modern system

of road-making may be said to have begun in the year 1857, consequent on the creation of the Roads Department; it was not, however, until 1864 that the whole of the roads, both main and subordinate, received consideration by the Government.

The principal main roads are:—

Northern Road—length, 405 miles, from Morpeth to Maryland, on the Queensland border.

Western Road—length, 513 miles, from Sydney, through Bathurst, and many other important townships, to the Darling River, at Bourke.

Southern Road—length, 385 miles, from Sydney through Goulburn and other important townships to the Murray River to Albury.

South Coast Road—length, 250 miles from Campbelltown, through Coal Cliff, and along the South Coast generally, as far as Bega, whence it extends as a minor road to the southern limits of the State.

None of the roads has so great an importance as it possessed before the opening of the railways, which for the greater part follow the direction of the main roads, and attract nearly all the through traffic. Thus many roads on which heavy expenditure has taken place have been more or less superseded, and the opening of new roads has been rendered necessary to act as feeders to the railways from outlying districts.

CONTROL OF ROADS AND BRIDGES.

Prior to 1907, when the Local Government Act came into effect, the State was divided into road districts, each of which was placed under the supervision of an officer directly responsible to the Commissioner for Roads. These officers had under their care the greater part of the roads and bridges of the State outside the incorporated areas, as well as a portion of those within such limits. The road trusts had the supervision of the expenditure of certain grants for the maintenance of roads in districts chiefly of minor importance, as well as some important roads in the vicinity of the metropolis.

On 1st January, 1907, the administration of the bulk of the works under the control of the Roads and Bridges Department (with the exception of those in the unincorporated areas of the Western Division, and certain bridges and ferries proclaimed as “national works”) was transferred by the operation of the Local Government Act to the shires and municipal councils.

The Act authorises payments by way of endowment to municipalities and shires, the minimum endowment payable to shires being fixed at £150,000 per annum, to be distributed in accordance with a classification made every third year. The Minister for Works may withhold payment of endowment from a council if his requirements in respect of main roads are not satisfied.

Between 1906 and 1912 the amount of endowment allotted to shires rose from £150,000 to £360,000 approximately, but the expenditure on the important roadways has not been sufficient to maintain them in a serviceable condition. It was decided, therefore, to amend the conditions under which Government assistance is granted, by reducing the amount of general endowment for each of the years 1915-18, and distributing an additional sum as a special endowment for the upkeep of the main roads.

LENGTH OF ROADS.

The length of roads under Government control on 30th June, 1906, prior to the transfer to the shires, was 48,311 miles, while 195 miles were

under the care of road trusts, and 1,338 miles within the municipal areas were subsidised by the Government, making a total of 49,844 miles. There were also about 8,000 miles of roads and streets belonging to the municipal councils. Since 1906, statistics of roads, streets, bridges, and public ferries have been collected triennially, the date of the latest available returns being 1915. In that year the length of roads in the State was, approximately, 97,881 miles, of which 31 miles in shires were controlled by the Government, 10,300 miles by the municipalities, 81,075 miles by the shires, and 6,475 miles were in the unincorporated areas of the Western Division. The nature of these roads may be seen in the following statement:—

Divisions.	Mettled, Gravelled, Ballasted, &c.	Formed only.	Cleared only.	Natural surface.	Total.
	miles.	miles.	miles.	miles.	miles.
National	8	23	.....	.....	31
Municipalities	4,970	1,988	2,183	2,059	10,300
Shires	14,342	10,404	24,731	31,598	81,075
Western Division	160	196	2,752	3,427	6,475
Total	18,520	12,611	29,666	37,084	97,881

BRIDGES.

Many of the earliest bridges erected in the State were built of stone, and are still in existence. Those erected in the period following the extension of settlement to the interior were principally of timber, and have since been replaced after an average life of about twenty-five years. Nearly all the large bridges of recent date are of iron and steel, and some of them have been erected under difficult engineering conditions, owing to the peculiarity of the river flow in certain parts of the country.

NUMBER OF BRIDGES AND FERRIES.

On 1st January, 1907, the date of the inception of the Local Government Act, the bridges of 20 feet span and over, including those in course of construction, numbered 3,575. Of these, 256 bridges, with an aggregate length of 101,416 feet, which by reason of their cost, size, and extra-local importance constitute a strain on the resources of the local councils, were proclaimed as "national works," to be maintained by the Government.

Where local conditions and limited traffic have not favoured the erection of a bridge, a punt or ferry has been introduced. The most important ferries which are worked otherwise than by hand, have been proclaimed as national services. Prior to 1st December, 1907, it was the practice to charge a small fee for ferry transit; but on that date tolls were abolished, and public ferries are now free.

The latest particulars of the bridges, culverts, and ferries of the State are shown below:—

Classification.	Bridges over 20 feet span.		Culverts.		Ferries.
	Number.	Length.	Number.	Length.	Number.
		ft.		ft.	
National Works	275	105,330	.....	.....	16
Municipalities	771	40,917	4,415	178,133	14
Shires	3,523	211,770	34,668	317,189	96
Western Division (unincorporated)	93	12,530	153	1,709	5
Total	4,662	370,547	39,236	497,031	131

GOVERNMENT EXPENDITURE ON ROADS, BRIDGES, &c.

Although the main roads have been largely superseded by the railways, yet they are still the sole means of communication throughout a large part of the interior, and serve as valuable feeders to the railway system. No revenue is derived directly from roads, but their indirect advantages to the country have been very great.

In view of the transference of the administration of roads and bridges, with the exception of those noted previously, from direct State to local government control, the following return will be of interest. It shows the Government expenditure on works of a local character, such as roads, bridges, punts, ferries, public watering-places, &c., during the last five years.

Year ended 30th June.	Expenditure on Services.	Endowments and Grants, including Main Roads.			Total Expenditure.
		Shires.	Municipali- ties.	Total.	
	£	£	£	£	£
1914	251,730	346,973	50,742	397,715	649,445
1915	175,726	288,053	40,314	328,367	504,093
1916	114,011	353,048	62,457	415,505	529,516
1917	100,667	300,258	46,144	346,402	447,069
1918	102,896	305,445	44,870	350,315	453,211

EXPENDITURE ON ROADS, &c., BY MUNICIPAL AND SHIRE COUNCILS.

In the subjoined statement the expenditure by municipal and shire councils on behalf of roads, etc., is shown for the year 1917:—

City of Sydney—					£
Salaries—Road Maintenance and City Cleansing	...	...	...	...	3,105
Streets	...	...	...	...	62,644
Footpaths	...	...	...	...	17,971
Woodpaving	...	...	...	...	14,474
Gullies	...	...	...	...	7,831
Street Cleaning	...	...	...	...	86,153
Street-lighting	...	...	...	...	24,794
Street Watering and Sanding	...	...	...	...	8,474
Total	...	...	...	£	225,446
Municipalities (other than Sydney)—					
Maintenance, Repairs, and Renewals...	...	...	...	...	337,542
Construction	...	...	...	...	99,507
Street and Gutter Cleaning	...	...	...	...	59,140
Kerbing and Guttering	...	...	...	...	57,209
Footpaths and Gutter Bridges	...	...	...	...	67,060
Street-watering	...	...	...	...	14,904
Street-lighting	...	...	...	...	108,032
Other, including Tree-planting, &c.	...	...	...	...	8,563
Total	...	...	...	£	751,957
Shires—					
General Fund—Maintenance and Construction	...	...	...	...	758,175
Local & Loan Funds—	...	...	...	...	22,369
Other Expenditure	...	...	...	...	2,369
Total	...	...	...	£	782,913
Grand Total	...	...	...	£	1,760,316

The amount expended by municipalities, other than Sydney, on account of bridges was £8,402. In the shires the maintenance, repairs, renewals, etc., of bridges cost £19,330; whilst £23,400 was spent on construction. The cost of the upkeep of Pyrmont Bridge, previously a charge on the City Council, is now defrayed by the New South Wales Government.

PARKS AND RECREATION RESERVES.

It has always been the policy of the State to provide the residents of municipalities and shires with parks and reserves for public recreation, and the city of Sydney contains within its boundaries a large extent of parks, squares, and public gardens. The most important are:—Moore Park (including Sydney Cricket Ground, Royal Agricultural Society's Ground, and the Sports Ground), Botanic Gardens and Garden Palace Grounds, with the adjoining Domain, and Hyde Park. The total area covered is 654 acres, or 20 per cent. of the whole of the city proper. This does not include the Centennial Park, 552 acres in extent, formerly reserved for water supply, but now used for recreation by the inhabitants of Sydney, and which has been cleared, planted, and laid out with walks and drives.

The suburban municipalities are also well served, as they contain, including the Centennial Park and the Zoological Gardens, Taronga Park (48½ acres in the municipality of Mosman), about 4,074 acres of public parks and reserves, or about 4·4 per cent. of their aggregate area, dedicated to, and in some cases purchased for, the people by the Government.

In addition to these parks and reserves, the National Park, situated about 16 miles south of Sydney, was dedicated to the people in December, 1879. This park, with the additions subsequently made in 1880 and 1883, contains a total area of 33,747 acres, surrounding Port Hacking, and extending towards the district of Illawarra.

Another large tract of land, designated Kuring-gai Chase, was dedicated in December, 1894, for public use. The area of the Chase is 35,322 acres, and contains portions of the parishes of Broken Bay, Cowan, Gordon, and South Colah. This park lies about 15 miles north of Sydney, and is accessible by railway at various points, or by water *via* the Hawkesbury River, several of whose creeks, notably Cowan Creek, intersect it.

In 1905 an area of 248 acres was proclaimed as a recreation ground at Kurnell, on the southern headland of Botany Bay, a spot famous as the landing-place of Captain Cook; and the Parramatta Park (252 acres) although outside the metropolis, may be mentioned on account of its historic interest.

In country districts, reserves have been proclaimed as temporary commons, and considerable areas have been dedicated from time to time as permanent commons attached to inland townships, which are otherwise well provided with parks and reserves within their boundaries.

A State Nursery is maintained at Campbelltown, from which plants, trees, and shrubs are distributed to the various parks and reserves.

Under the Public Parks Act the Governor may appoint trustees of any lands proclaimed for the purposes of public recreation, convenience, health, or enjoyment. The trustees are empowered to frame by-laws for the protection of shrubs, trees, &c., upon the land vested in them, and to regulate the use and enjoyment of such land by the public.

POSTS AND TELEGRAPHS.

The postal, telegraphic, and telephonic services of New South Wales passed over to the Commonwealth, on 1st March, 1901, and on 1st November, 1902, uniformity of the rates was established for the conveyance of newspapers and transmission of telegrams.

The postage rates on letters, letter-cards, printed papers, books, and magazines within each State were continued until 1st May, 1911, when, by the Postal Rates Act, 1910, complete uniformity of postage rates was established, and the postage for letters within the Commonwealth or to any part of the British Empire was reduced to 1d. per $\frac{1}{2}$ oz. In October, 1918, war postage was imposed, in addition to the ordinary charges, at the rate of $\frac{1}{2}$ d. on each postal article.

NUMBER OF POST OFFICES, &c.

The following table shows, in comparative form, the number of post offices, and the postal matter carried in the State of New South Wales.

Year.	Post Offices in New South Wales.	Receiving Offices.	Letters, Post-cards and Registered Articles.	Newspapers.	Packets.	Parcels.
1910	1,911	526	163,754,056	66,963,559	39,098,610	1,600,426
1911	1,948	542	189,656,401	71,619,194	36,283,500	1,748,822
1912	2,000	559	192,996,376	68,696,648	32,687,904	2,067,652
1913	2,025	571	212,639,659	64,874,811	38,583,889	2,318,453
1914	2,049	574	217,907,644	66,216,639	31,203,574	2,372,964
1915-16	2,074	566	219,525,661	72,067,335	33,343,149	2,537,970
1916-17	2,040	548	259,185,729	68,546,782	28,230,715	2,906,090
1917-18	2,031	548	255,177,316	62,320,777	24,844,315	2,923,254

A large percentage of circulars classified previously as packets have been sent as letters since the reduction of letter rates.

Further particulars of the postal matter carried during the year ended 30th June, 1918, are shown below:—

Postal Matter.	Inland (Counted Once).	To and from other Australian States.	To and from Countries outside Australia.	Total.	Per Head of Population.
Letters and post-cards	171,301,359	40,283,868	41,127,530	252,712,757	133·6
Registered articles ...	1,492,146	522,330	450,083	2,464,559	1·3
Newspapers ...	42,860,931	12,048,960	7,410,886	62,320,777	32·9
Packets ...	18,214,195	4,247,248	2,382,872	24,844,315	13·1
Parcels ...	1,913,234	442,309	567,711	2,923,254	1·6

During 1917-18 the postal matter posted and received per head of population was—Letters, post-cards, and registered articles, 135; newspapers, 33; and packets and parcels, 15.

Value-payable Parcel Post.

Under a system of value-payable parcel post, the Department accepts for transmission within the Commonwealth parcels or letters sent in execution of orders, and collects from the addressees on behalf of the senders the charges due thereon. During the year ended 30th June, 1918, the number of parcels posted in New South Wales was 21,962, and the value collected was £37,813, the revenue, including postage, commission on value, registration, and money-order commission being £3,338.

DEAD LETTERS, &c.

The number of letters and other postal articles dealt with by the Dead Letter Office in New South Wales during the year ended 30th June, 1918, was as follows :—

How dealt with.	Letters.	Post-cards.	Packets and Circulars.
Returned direct to writers, or delivered	609,033	5,185	418,380
Destroyed in accordance with Act	110,775	2,597	95,034
Returned as unclaimed to other States or Countries ...	117,020	4,304	17,951
Total... ..	836,828	12,086	531,365

RATES OF POSTAGE.

On 1st May, 1911, the penny postage rates were introduced; the rate for letters throughout the Commonwealth and to any part of the British Empire, New Hebrides, Banks and Torres Islands, was fixed at 1d. per $\frac{1}{2}$ oz., and to all other places 2 $\frac{1}{2}$ d. per $\frac{1}{2}$ oz.

Since 28th October, 1918, $\frac{1}{2}$ d. war postage, in addition to ordinary postage, has been charged on all postal articles, other than parcels, posted in the Commonwealth; letters for members of the Australian Imperial Forces abroad, and those serving on ships of the Australian Navy, have been exempted from war postage.

The principal postal charges in force within the Commonwealth and Papua are at the following rates, plus $\frac{1}{2}$ d. war postage :—

Letters	1d. per $\frac{1}{2}$ oz.
Post cards—Single	1d. each.
Newspapers—Printed and published in Australia	$\frac{1}{2}$ d. per 10 oz.
Printed and published outside Australia	$\frac{1}{2}$ d. per 4 oz.
Magazines—Printed and published in Australia	$\frac{1}{2}$ d. per 8 oz.
Printed and published outside Australia	$\frac{1}{2}$ d. per 4 oz.
Books—Printed in Australia	$\frac{1}{2}$ d. per 8 oz.
Printed outside Australia	$\frac{1}{2}$ d. per 4 oz.
Printed papers	$\frac{1}{2}$ d. per 2 oz.
Commercial papers, patterns, samples and merchandise	1d. per 2 oz.
Parcels	6d. for 1 lb., and 3d. per lb. additional.

Stamped letter-cards may be purchased at the rate of 2d. each.

Licensed vendors of postage stamps may be allowed 2 $\frac{1}{2}$ per cent. commission, up to a maximum of 30s. per week. During the year ended 30th June, 1918, an amount of £4,846 was paid as commission to licensed vendors in New South Wales, the total so paid for all States of the Commonwealth being £17,703.

MAIL SERVICES.

The number of inland mail services in New South Wales during 1917–18 was 2,166; the cost of road services amounted to £217,891, and of railway services to £93,070.

The Postmaster-General establishes new mail services in the country districts of the State when the persons interested provide half the difference between cost and revenue.

OCEAN MAIL SERVICES.

A contract for the carriage of oversea mails fortnightly, between Australia and the United Kingdom, was arranged by the Commonwealth Government with the Orient Steam Navigation Company for a period of ten years, dating from 1st February, 1910.

The Peninsular and Oriental Company also conducted a fortnightly service, under contract with the Imperial Government, and thus regular weekly communication *via* Suez was maintained until the war period.

Mails to Europe *via* America are carried by the Union Steamship Company, which maintains a monthly service *via* Auckland, Fiji, Honolulu, and Vancouver, subsidised by New Zealand and Canada, and a monthly service *via* Wellington and San Francisco, subsidised by New Zealand. American vessels of the Oceanic Steamship Company despatched every three weeks also carry mails between Sydney and San Francisco.

Mails to China, Japan, and other eastern ports are carried by various British steamships, also by the Dutch and Japanese.

A British service between Sydney and Singapore is subsidised by the Government of New South Wales, and a mail service to Lord Howe Island and Norfolk Island, Papua, Solomon Islands, New Hebrides, and the Marshall and Gilbert Islands is subsidised by the Commonwealth Government.

TELEGRAPHS.

The electric telegraph was first used by the public of New South Wales on 26th January, 1858, when the line from Sydney to Liverpool, 22 miles in length, was brought into operation. At 30th June, 1918, there were 2,237 telegraph stations. The following table gives a view of the telegraph business transacted in New South Wales since 1910 :—

Year.	Telegraph Stations.	Telegrams.			Revenue received.
		Transmitted, and delivered (Inland counted once).	In Transit.	Total.	
1910	1,399	5,220,962	386,216	5,607,178	£ 245,245
1911	1,406	5,505,935	357,625	5,863,560	253,398
1912	1,384	5,917,219	447,771	6,364,990	278,665
1913	1,602	6,116,945	456,722	6,573,667	297,965
1914	1,937	6,178,926	524,093	6,703,019	289,347
1915-16	2,107	6,402,092	624,992	7,027,084	331,924
1916-17	2,231	6,491,354	661,559	7,152,913	350,581
1917-18	2,237	6,870,263	728,154	7,598,417	386,919

Although the telephone system has been developed extensively during recent years, there has been no decline in the number of telegraph messages.

The telegrams received and despatched during the year ended 30th June, 1918, were classified as follows :—

Inland (counted once) ..	...	...	...	...	4,034,510
Interstate ..	...	...	...	...	2,391,367
To and from other countries (cablegrams) ..	...	...	...	...	444,386
In transit ..	...	...	...	...	728,154
Total ..	...	...	...	...	7,598,417

Excluding the telegrams in transit, the messages represented 3·6 per head of population.

CABLE SERVICES.

The following statement shows the particulars of the cable lines giving communication from Sydney :—

- To Europe—
 via Darwin and Banjoewangie, Java (duplicate).
 via Perth, Cocos, and Durban.
 via Roebuck Bay and Banjoewangie.
 via Southport, Norfolk Island, Fiji, Fanning Island, and Canada.
- To New Zealand—
 via La Perouse and Nelson (duplicate).
 via Southport, Norfolk Island, and Auckland.
 via Bondi and Muriwai Creek.
- To New Caledonia—
 via Bundaberg and Gomen.
- To Tasmania—
 via Flinders and Low Head (duplicate).

Cable Messages.

The following table gives a comparison of the cable business transacted in New South Wales during the last five years, excluding messages to and from Tasmania. Messages in transit are excluded also, but the receipts from such business are included in the amount of revenue shown.

Year.	Cable Messages.		Amount Collected.	
	Sent from New South Wales.	Received in New South Wales.	Total.	Portion due to Commonwealth Government.
1913	149,318	154,004	£ 293,769	£ 16,435
1914	162,114	153,395	366,086	29,833
1915-16	186,487	211,490	450,374	42,708
1916-17	186,143	260,284	503,587	48,107
1917-18	192,467	251,919	628,292	60,688

LETTER TELEGRAMS.

Letter telegrams were introduced in February, 1914; messages may be telegraphed during the night to certain offices and thence forwarded as ordinary letters—that is, delivered by first letter delivery, or despatched to address by mail. The messages must be written in plain language. Letter telegrams may be exchanged between any offices which are open for the receipt of ordinary business between 7 p.m. and midnight, or for ordinary or press business after 7 p.m.

DEFERRED TELEGRAMS.

A system of deferred telegrams came into operation on 1st January, 1912, by which telegrams, written in plain language, and subject to a delay not exceeding twenty-four hours, may be sent at half ordinary rates to those countries which have adopted the service, including the United Kingdom and all British Possessions to which the rate per word is not less than 10d., also to the Commonwealth wireless stations in the Pacific, and to Port Moresby and Flinders Island. Besides British territories the Commonwealth exchanges deferred telegrams with a number of foreign countries.

TELEPHONES.

The telephone system was established in Sydney in 1880, and exchanges have since been provided in many other important centres, the number in 1918 being 825. A telephone trunk line between Sydney and Melbourne was brought into use in 1907.

The following table shows the growth of the telephone service since 1913:—

Year.	Exchanges	Connections (Subscribers' Lines).			Public Tele-phones.	Telephone Instruments connected.
		Sydney and Suburbs.	Country.	Total.		
1913	451	27,676	16,169	43,845	916	53,978
1914	521	30,330	18,630	49,040	1,069	62,367
1915-16	705	32,438	19,467	51,905	1,317	69,010
1916-17	765	34,082	23,471	57,553	1,421	72,884
1917-18	825	36,816	25,307	62,123	1,521	78,886

FINANCIAL RESULTS OF POSTAL SERVICES.

Viewing the postal services as important factors in the development of the country, any financial loss incurred in the working of the Post Office has been deemed to be counterbalanced by the national advantages gained.

The results for the whole Commonwealth during the last five years are compared in the following statement:—

Year ended 30th June.	Earnings.	Working Expenses.	Surplus. (+) Deficit. (—)	Interest on Capital.	Net Profit. (+) Net Loss. (—)
	£	£	£	£	£
1914	4,523,368	4,589,602	(—) 66,234	435,223	(—) 501,457
1915	4,620,061	4,761,714	(—) 141,653	488,069	(—) 629,722
1916	5,049,569	4,841,667	(+) 207,902	523,892	(—) 315,990
1917	5,515,763	5,134,533	(+) 381,236	558,382	(—) 177,146
1918	5,773,954	4,809,571	(+) 964,383	577,001	(+) 387,382

The accounts for the years 1916-18 are exclusive of the figures relating to the Wireless Telegraph Branch, which has been transferred to the Department of the Navy.

Particulars regarding the various branches in the State of New South Wales, during 1918, were as follows:—

Branch.	Earnings.	Working Expenses.	Surplus.	Interest on Capital.	Net Profit.
	£	£	£	£	£
Postal	1,162,961	1,033,496	99,465	43,246	59,219
Telegraph (except Wireless) ...	375,721	300,014	75,707	36,502	39,205
Telephone	715,566	536,741	178,825	136,895	41,930
Total, all branches	2,254,248	1,900,251	353,997	213,643	140,354

RAILWAYS AND TRAMWAYS.

CONTROL OF STATE RAILWAYS AND TRAMWAYS.

THE control of the railways is vested in the Minister for Works, the direct management being undertaken in terms of the Government Railways Amendment Act, 1916, by a Chief Commissioner and three Assistant Commissioners, the duties of the latter being allotted by the Governor upon the recommendation of the Chief Commissioner.

RAILWAY CONSTRUCTION.

Since the commencement of the Government Railways Amendment Act, 1916, the authority to construct or complete all lines authorised by Parliament has been vested in the Railway Commissioners.

On 26th September, 1855, the first railway line, 14 miles in length, was opened for traffic between Sydney and Parramatta, and communication was established between Newcastle and East Maitland on 11th April, 1857.

The progress in construction of the State railways of New South Wales may be traced in the table given below, the figures covering the period ending on 30th June, 1918. Included in the mileage are the Campbelltown-Camden, and Yass tramways, which are worked with the railways.

Period.	Opened during the period.	Total opened at end of period.	Period.	Opened during the period.	Total opened at end of period.
	miles.	miles.		miles.	miles.
1855-9	55	55	1895-9	205	2,706
1860-4	88	143	1900-4	575	3,281
1865-9	175	318	1905-9	342	3,623
1870-4	85	403	1910-14	344	3,967
1875-9	331	734	1915	167	4,134
1880-4	884	1,618	1916	54	4,188
1885-9	553	2,171	1917	249	4,437
1890-4	330	2,501	1918	242	4,679

In addition to the mileage shown above there were at 30th June, 1918, 954 miles of sidings and crossovers.

EXTENSION OF RAILWAY FACILITIES.

The progress of the State railways can be gauged fairly by comparing the population and area of territory to each mile of line open for traffic at different periods. In 1900 the average population per mile of line was 482, and in 1918 it was 408. The decrease in the area of territory to each mile of line open has been very rapid, ranging from 4,434 square miles in

1860 to 66 square miles in 1918. The following statement shows the extension of railway facilities since 1860:—

Year.	Population to each Mile of Line open.	Area to each Mile of Line open.	Year.	Population to each Mile of Line open.	Area to each Mile of Line open.
	No.	sq. miles.		No.	sq. miles.
1860	4,979	4,434	1900	482	110
1865	2,861	2,170	1905	443	95
1870	1,471	916	1910	443	85
1875	1,360	710	1915	452	75
1880	881	366	1916	445	74
1885	548	179	1917	422	70
1890	523	142	1918	408	66
1895	501	123			

Duplication of Main Lines.

In addition to increasing the facilities by the construction of new lines, provision for the rapidly extending traffic is made by the duplication of existing main lines.

Works now in progress will duplicate the northern line to Werris Creek, 255 miles from Sydney; the western to Orange, 196 miles; the southern to Murrumburrah, 232 miles; and the South Coast line to Wollongong, 48 miles.

The following statement shows the length of line laid with one or more tracks at intervals since 30th June, 1900:—

At 30th June.	Single.	Double.	Triple.	Quadruple.	Total.
	miles.	miles.	miles.	miles.	miles.
1900	2,644	158½	...	8½	2,811½
1905	3,079½	193	...	8½	3,280½
1910	3,393	241½	...	8½	3,643
1915	3,692½	406½	8	27¾*	4,134½
1916	3,654	492½	7½	34*	4,186
1917	3,863½	532	7½	34*	4,437
1918	4,103½	533½	7½	34½*	4,679

* Includes 1 mile 9 chains with five tracks.

RAILWAY SYSTEMS.

The railways of the State are divided into three branches, each constituting a separate system.

Southern Lines.

The southern system has several offshoots serving the most thickly-populated district, and places the capital cities, Sydney, Melbourne, Adelaide, and Perth in direct communication.

Numerous branches traverse the fertile Riverina district. From Culcairn there are two branch lines, one connecting with Corowa on the **Murray** River, and the other with Holbrook; from The Rock a line extends to Oaklands, and from Wagga Wagga a branch to Humula is being extended to Tumbarumba. From Junce a branch runs to Narrandera, where it bifurcates, one branch extending westerly to the town of Hay and the other in a southerly direction to connect with the Victorian railways at Tocumwal. From Cootamundra a southerly branch carries the line to Tumut, and another, in a north-westerly direction, through Temora and Wyalong to Cudgellico. A branch line from Temora extends to Griffith, in the Murrumbidgee Irrigation Area. From Stockinbingal, between Cootamundra and Temora, a cross-country line connects with the western system at Forbes.

From Murrumburrah a branch has been constructed to Blayney, on the western line, and from Koorawatha, on this connecting line, a branch has been laid down to join Grenfell with the railway system, and there is a branch line from Cowra to Canowindra. From Galong there is a branch to **Burrowa**.

Nearer the metropolis, a branch from Goulburn to Nimmitabel brings the rich pastoral district of Monaro into direct communication with the metropolis. An extension from Nimmitabel to Bombala, a distance of 40 miles, has been commenced. From Goulburn also a branch line has been opened to Crookwell.

A small offshoot from the main southern line joins Campbelltown with Camden, and on the main suburban section of the southern system there are branch lines from Clyde to Carlingford, and from Lidcombe to Regent's Park.

The South Coast, or Illawarra line, which forms part of the southern system, has been constructed to Nowra, connecting the metropolis with the coastal district of Illawarra, which is rich in coal and in the produce of agriculture. From the Illawarra line a branch extends between Sydenham and Bankstown, with Liverpool as the objective.

Western Lines.

The western system of railways extends from Sydney over the Blue Mountains, and has its terminus at Bourke, a distance of 511 miles. Leaving the mountains, the western line throws out a branch from Wallerawang to Mudgee and Coonabarabran, which will be extended to join the north-western branch of the northern system at Burren Junction, and enters the Bathurst Plains, connecting with the metropolis the rich agricultural lands of the Bathurst, Orange, and Wellington districts.

At Blayney, as before stated, the western line is joined with the southern system by a branch line to Murrumburrah; at Orange a branch runs through **Parkes** to Condobolin; an extension from Condobolin to Broken Hill, a distance of 373 miles, has been commenced. At Bogan Gate a branch line has been opened to Tottenham. Further west, branch lines extend from Dubbo to Coonamble, from Nevertire to Warren, and from Nyngan to the important mining district of Cobar. There is a connecting line from Narromine, on the main western line, *via* Parkes to Forbes, which is connected with Stockinbingal on the southern line. From Byrock a line

branches off to Brewarrina. A line from Dubbo connects with the Wallerawang-Coonabarabran branch at Merrygoen, and a connecting line between this branch and the main northern line is under construction.

The western system includes also a short line from Blacktown to Windsor and Richmond.

Northern Lines.

The northern system originally commenced at Newcastle, but a connecting line crosses the Hawkesbury River by means of the Hawkesbury Bridge, thus making Sydney the centre of the whole of the railway systems of the State, and affording direct communication between the five State capital cities of Perth, Adelaide, Melbourne, Sydney, and Brisbane, a distance of 3,476 miles.

The northern system has a branch from Tamworth to Barraba, and there is a north-westerly branch from Werris Creek, *via* Narrabri and Moree, to Inverell, placing the Namoi and Gwydir districts in direct communication with the ports of Newcastle and Sydney. A branch runs from Moree to Mungindi, on the border of the State of Queensland. There is also a branch line from Narrabri to Walgett, with a further branch at Burren Junction to Collarenebri East.

From Muswellbrook a branch has been constructed to Merriwa, a distance of 51 miles. There is a short line connecting Newcastle with the tourist district of Lake Macquarie, and another line runs from East Maitland to Morpeth.

At West Maitland the North Coast railway branches from the main northern line; the construction is now proceeding in sections to meet a line which connects Murwillumbah, on the Tweed River, with Grafton, on the Clarence River; the sections from West Maitland to Kempsey, from Raleigh to Coff's Harbour, and from Glenreagh to Grafton have been opened for traffic. On the Murwillumbah-Grafton line there is a branch from Casino to Kyogle. To provide an outlet for the produce of the fertile Dorriggo district, a branch of the North Coast line, from Dorriggo to Glenreagh, has been commenced. A short line, 13 miles in length, branches off the main northern line at Hornsby, and connects with the north shore of Port Jackson at Milson's Point, whence passengers are conveyed to the city by commodious ferry steamers.

Goods Lines.

A short line from the Central Station at Sydney connects with the wharves at Darling Harbour, and a line has been constructed from the stock saleyards at Flemington on the main suburban line to the Abattoirs at Homebush Bay; these lines are used for goods and live-stock only.

On account of the rapid growth of the traffic it has been found necessary to provide a means of access to the wharves, independent of the Central Station, by the construction of a line from Flemington to join the Sydenham-Bankstown branch of the South Coast line at Campsie, and a line from Wardell-road, also on this branch, to Darling Island, with a new shipping depôt at Glebe Island.

An extension from Sydenham has been commenced to serve the important manufacturing district of Botany.

Commonwealth Railways in New South Wales.

A short railway, 5 miles in length, has been constructed from Queanbeyan, on the Cooma-Nimmitabel branch, to connect Canberra, the Federal Capital, with the State railway system. The work of construction was

undertaken on behalf of the Commonwealth Government by the Public Works Department of New South Wales, at a charge of 5 per cent. in addition to capital outlay. The line was opened for departmental goods traffic in May, 1914, and is worked by the New South Wales Government on behalf of the Commonwealth. A trial survey of a line from Canberra to Yass has been made.

Under the "Seat of Government Acceptance Act" the Commonwealth Government has the right to construct a line from Canberra to Jervis Bay, 140 miles; a preliminary survey of the route has been made.

SYDNEY AND SUBURBAN PASSENGER SERVICE.

A portion of the passenger traffic between Sydney and suburbs is conducted by suburban railways and ferry services, but the tramways form the most important means of communication.

The railway suburban traffic is conducted principally on the main trunk line, which runs in a westerly direction from Sydney to Granville, where the main southern and western railway systems separate; the main northern system being at Strathfield (8 miles from Sydney). The South Coast railway, which has a branch from Sydenham (3 miles) to Bankstown (11 miles), brings passengers from the suburbs situated south of Sydney on the western shore of Botany Bay. The passengers travelling by these lines, however, are conveyed to and from the Central Station by trains running through the city streets.

The populous suburbs of the north-western, central, and eastern divisions of the metropolitan area are served entirely by the tramways. On the north shore of Port Jackson there is a railway to connect the ferry service at Milson's Point with Hornsby on the main northern line; with this exception all the passengers from the northern suburbs connect by tramway at various points with the ferry services to the Circular Quay.

On account of the expansion of the commercial interests of New South Wales, and the consequent growth of population in and around Sydney, where the trade of the State is centralised, the tramway system has been extended steadily, but the requirements of suburban traffic are gradually outgrowing the capacity of the main city thoroughfares, which were not originally designed for this class of traffic. Thus the extension of the tramway system, combined with the increase in the mercantile vehicular traffic, has resulted in a state of congestion in some of the city streets that demands remedy. The urgent necessity is now recognised of supplying a more effective method of dealing with the rapidly increasing traffic than is possible under any system of surface tramways.

Proposed Improvements.

In October, 1913, a Bill to authorise the construction of a city railway was submitted to Parliament. The design included an underground loop railway around the city, joining the existing railway system near Redfern Station, and comprising three up and three down tracks; and double lines of tramway to connect the eastern and western suburban tram services with the city railway, the total length of the connection for the eastern suburbs being 1 mile 18½ chains, and for the western suburbs 1 mile 15½ chains. The cost of the work was estimated at £4,800,000.

This Bill was rejected by the Legislative Council, but in 1915 the City Railway and portions of the Eastern and Western Suburbs Railways to Bondi Junction and Weston-road, Balmain, respectively, were included in the list of works to be carried out by the Norton Griffiths Company under

contract with the New South Wales Government, and the City and Suburban Electric Railways Act was passed. The design, as outlined in the Schedule of the Act, includes the city railway, with two up and two down tracks forming a loop round the city, the total length is 16 miles 52 chains of single track, of which 8 miles 66 chains are below ground; the Eastern Suburbs Railway, double track throughout of a total length of 8½ miles of single track; and the Western Suburbs Railway, double track throughout, connecting with the main suburban line between Stanmore and Petersham Stations, the total length being 5 miles 44 chains of single track. The estimated cost, exclusive of land resumption, was £6,400,000.

The Norton Griffiths contract was cancelled in May, 1917, and work on the City Railway has been suspended.

GRADIENTS OF RAILWAYS.

In many cases the railways of New South Wales pass through mountainous country, and have been constructed with a large proportion of steep gradients, some of the heaviest being situated on the trunk lines.

In the southern system, the line at Roslyn, near Crookwell, reaches an altitude of 3,225 feet above sea level; and at Nimmitabel, the terminus of the Goulburn to Nimmitabel railway, the height is 3,503 feet. In the western system, at Newnes Junction, on the Blue Mountains, a height of 3,503 feet is attained; and on the northern line the highest point, 4,473 feet, is reached at Ben Lomond.

Numerous deviations have been made during recent years in order to secure easier grades and curves, with the result that considerable economy in working and expedition in traffic have been effected.

The following statement shows the number of miles on different gradients in June, 1918:—

Gradients.	Southern System.	Western System.	Northern System.	Total.
1 in	miles.	miles.	miles.	miles.
18 to 30	3½	...	...	3½
31 „ 40	46¾	62½	33	142¼
41 „ 50	59½	49½	85¼	194¼
51 „ 60	55¾	70	59¾	185½
61 „ 70	52¼	57¼	38¾	148¼
71 „ 80	146¼	98½	154¼	399
81 „ 90	40½	44½	44½	129½
91 „ 100	109¾	141¾	85½	337
101 „ 150	151¼	157½	148½	457¼
151 „ 200	100¼	82	83¾	266
201 „ 250	52¼	42¾	41	136
251 „ 300	71¾	65¾	60	197½
301 „ level	733¼	634	674½	2,041¾
Total ..	1,623	1,506	1,508¾	4,637¾

The above table is exclusive of the Government line from Broken Hill to Tarrawingee, measuring 40 miles 7 chains, and that at Wollongong of 1 mile 8 chains, the total length of these lines being 41 miles 15 chains.

COST OF RAILWAY CONSTRUCTION.

The average cost per mile open for traffic of the Government Railway lines, excluding expenditure for rolling-stock, machinery, furniture, and workshops and stores, has been £12,483—an amount which is by no means high considering the character of some parts of the country through which the lines have been carried, and the cost of labour. Some of the extensions through pastoral country have been constructed at a comparatively low cost per mile; these are known as the “pioneer” class, and are of a light and cheap kind, on which the produce of the settlers may be conveyed to the trunk lines at a reasonable speed, and at a cheaper rate than carriage by road. The average cost of the line from Parkes to Condobolin was £2,116 per mile; Burren Junction to Collarenebri East, £2,455 per mile; from Byrock to Brewarrina, £2,750 per mile; and from Dubbo to Coonamble, £2,838 per mile.

The amount expended on rolling-stock, &c., to 30th June, 1918, was £16,637,920:—Rolling stock, £13,418,199; machinery, £956,368; workshops, £877,110; furniture, £10,243; stores advance account, £1,376,000. The total capital expenditure amounted to £75,050,450, an average of £16,039 per mile. The growth of the capital expenditure may be seen in the following table:—

Period.	Capital expended during period.	Total capital expended to end of period.	Period.	Capital expended during period.	Total capital expended to end of period.
	£	£		£	£
1855-9	1,278,416	1,278,416	1895-9	2,137,005	37,992,276
1860-4	1,353,374	2,631,790	1900-4	4,296,241	42,288,517
1865-9	2,049,539	4,681,329	1905-9	5,324,149	47,612,666
1870-4	2,163,217	6,844,546	1910-14	13,652,203	61,264,869
1875-9	3,561,949	10,406,495	1915	4,318,405	65,583,274
1880-4	9,673,643	20,080,138	1916	3,242,318	68,825,592
1885-9	9,759,029	29,839,167	1917	3,181,029	72,006,621
1890-4	6,016,104	35,855,271	1918	3,043,829	75,050,450

Of the £75,050,450 expended to 30th June, 1918, an amount of £659,930 has been provided from the Consolidated Revenue of the State, leaving a balance of £74,390,520 which has been raised by the issue of debentures and other stock. The net revenue for the year ended 30th June, 1918, after paying working expenses, was £3,014,433, which gave a return of 4 per cent. upon the total capital expenditure.

WORKING EXPENSES AND EARNINGS.

While the primary object of State railway construction has been to promote settlement, apart from consideration of the profitable working of the lines, the principle has nevertheless been kept in view that the railways should be self-supporting.

A statement of the capital cost of the State Railways and Tramways, and the result of working during the last two years, is shown below:—

Particulars.	1917.			1918.		
	Railways.	Tramways.	Railways and Tramways.	Railways.	Tramways.	Railways and Tramways.
	£	£	£	£	£	£
Cost of Construction and Equipment at 30th June ..	72,006,621	8,309,629	80,316,250	75,050,450	8,470,091	83,520,541
Year ended 30th June—						
Earnings	8,380,084	2,008,539	10,388,623	8,954,880	1,992,641	10,947,521
Working Expenses	5,915,360	1,691,367	7,606,727	5,940,447	1,603,260	7,543,707
Balance after paying Working Expenses	2,464,724	317,172	2,781,896	3,014,433	389,381	3,403,814
Interest on Capital	2,858,789	335,361	3,194,150	3,043,349	348,546	3,391,895
Deficit	394,065	18,189	412,254	28,916	*40,835	*11,919

* Surplus.

A statement of the working expenses and earnings of the railways during the year ended 30th June, 1918, is shown below:—

Working Expenses.	Earnings.
£	£
Maintenance of Way, Works, and Buildings	Passengers 3,473,340
Locomotive Power 2,309,728	Mails, Parcels, Horses, &c. ... 459,595
Greasing and Oiling Carriages and Waggon 6,567	Total Coaching... .. 3,932,935
Carriage and Waggon Repairs and Renewals 438,888	Refreshment Rooms 274,699
Traffic Expenses 1,727,861	Goods—
Compensation 7,927	Merchandise 2,653,330
General Charges 207,364	Live Stock 732,373
Refreshment Rooms 236,063	Wool 355,246
Gratuities, &c. 7,547	Minerals 911,165
Fire Insurance Fund 2,000	Total Goods 4,652,114
5,940,447	Rents 69,593
Balance, Net Earnings 3,014,433	Miscellaneous 25,539
Total £ 8,954,880	Total £8,954,880

The expenditure on locomotive power amounted to 39 per cent. of the total; traffic expenses to 29 per cent.; and maintenance of way, works, and buildings to 17 per cent. Of the earnings 39 per cent. was derived from the carriage of passengers, 5 per cent. from mails, parcels, &c., 3 per cent. from refreshment rooms, and 52 per cent. from the conveyance of goods.

As the carriage of goods and live stock constitutes the principal source of railway revenue, the earnings fluctuate in each year in accordance with the type of seasons experienced in the agricultural and pastoral districts. In unfavourable seasons the carriage of fodder and the transfer of live stock at reduced rates cause a diminution in the earnings, and at the same time

an increase in the working expenses. The extension of the lines into sparsely settled districts also causes an increase in the proportion of working expenses to total earnings, as several of these lines earn little more than cost of maintenance.

The following table shows the gross earnings, working expenses, and the proportion of the expenditure to receipts, in stated years from 1890 up to 30th June, 1918:—

Year ended 30th June.	Gross Earnings.	Working Expenses.	Proportion of working expenses to gross earnings.	Year ended 30th June.	Gross Earnings.	Working Expenses.	Proportion of working expenses to gross earnings.
	£	£	per cent.		£	£	per cent.
1890	2,633,086	1,665,835	63·3	1915	7,616,511	5,311,162	69·7
1895	2,878,204	1,642,589	57·1	1916	8,006,078	5,661,168	70·7
1900	3,163,572	1,844,520	58·3	1917	8,380,084	5,915,360	70·6
1905	3,684,016	2,216,442	60·2	1918	8,954,880	5,940,447	66·3
1910	5,485,715	3,276,409	59·7				

The working expenses during the year ended 30th June, 1918, represented 66·3 per cent. of the gross earnings. In 1907 the proportion was 53·0 per cent., the lowest since the control of the railways was vested in Commissioners, but the percentage has risen steadily since that year, the increase being due mainly to advances in the salaries and wages of the staff and in the prices of necessary materials.

NET EARNINGS AND INTEREST ON CAPITAL.

The net revenue from railways for the year ended 30th June, 1918, was £3,014,433, while the capital expended on lines open for traffic to that date was £75,050,450, including £659,930 paid from consolidated revenue. The amount thus available, to meet the interest charges on the capital expended, represents a return of 4·1 per cent. The following table shows the net earnings and the interest returned on the total capital expended on railways, including the cost of construction and equipment for the year 1890 and subsequent periods:—

Year ended 30th June.	Net Earnings.	Interest on Capital.	Year ended 30th June.	Net Earnings.	Interest on Capital.
	£	per cent.		£	per cent.
1890	967,251	3·17	1915	2,305,349	3·60
1895	1,235,615	3·31	1916	2,344,910	3·45
1900	1,319,052	3·43	1917	2,464,724	3·50
1905	1,467,574	3·40	1918	3,014,433	4·10
1910	2,209,306	4·58			

During 1917-18 there was an increase in the rate of interest returned on account of additional revenue produced as the result of increases in rates for the carriage of goods imposed in December, 1916, and in passenger fares in August, 1917.

The table below shows the rate of interest returned on the capital expenditure for each of the years since 1909, with the sum by which such return falls short of or exceeds the actual rate of interest payable on the cost of construction. The rate of return on capital represents the interest on the gross cost of the lines:—

Year ended 30th June.	Interest returned on Capital.	Actual rate of Interest payable on Cost of Construction.	Gain (+) or Loss (—).	Year ended 30th June.	Interest returned on Capital.	Actual rate of Interest payable on Cost of Construction.	Gain (+) or Loss (—).
	per cent.	per cent.	per cent.		per cent.	per cent.	per cent.
1909	4.45	3.65	+0.80	1914	3.87	3.67	+0.20
1910	4.58	3.53	+1.05	1915	3.60	3.67	-0.07
1911	4.67	3.59	+1.08	1916	3.45	3.78	-0.33
1912	4.41	3.60	+0.81	1917	3.50	4.09	-0.59
1913	3.76	3.49	+0.27	1918	4.10	4.17	-0.07

The railways being owned by the State, public opinion at once demands a reduction in freights and rates, when the net earnings are much in excess of the interest requirements; substantial reductions were made in 1911 and 1912, but season ticket fares and certain goods rates have been increased considerably since June, 1913.

COACHING AND GOODS TRAFFIC.

For the first ten years after the opening of the first railway in New South Wales the larger part of the earnings was obtained from the passenger traffic, no doubt owing to the fact that the first lines were entirely suburban. It was not until the line crossed the mountains and opened up the interior that the proportions changed, and the goods traffic became the principal source of revenue.

The following table gives the proportion of earnings from the coaching and goods traffic at intervals since 1890. The percentages shown below include earnings from miscellaneous sources and rents, and therefore differ slightly from those stated on a previous page:—

Year ended 30th June.	Proportion of Total Earnings.		Year ended 30th June.	Proportion of Total Earnings.	
	Coaching, &c.	Goods and Live Stock.		Coaching, &c.	Goods and Live Stock.
	per cent.	per cent.		per cent.	per cent.
1890	40.2	59.8	1915	44.7	55.3
1895	35.5	64.5	1916	45.8	54.2
1900	38.8	61.2	1917	45.7	54.3
1905	39.9	60.1	1918	48.0	52.0
1910	39.9	60.1			

Coaching Traffic.

The following table shows the number of passenger journeys and the receipts from coaching traffic since 1890:—

Year ended 30th June.	Passenger Journeys.	Gross Earnings from Coaching Traffic.	Per head of population.	
			Passenger Journeys.	Gross Earnings from Coaching Traffic.
	No.	£	No.	s. d.
1890	17,071,945	1,041,607	15·8	19 3
1895	19,725,418	1,001,107	15·9	16 2
1900	26,486,873	1,195,496	19·7	17 6
1905	35,158,150	1,428,190	24·4	19 10
1910	53,644,271	2,124,292	33·6	26 7
1915	88,774,451	3,315,294	47·7	35 7
1916	92,850,838	3,574,063	49·9	38 5
1917	96,709,846	3,637,656	51·8	39 0
1918	94,304,516	3,932,936	49·9	41 7

Particulars regarding the passenger traffic on suburban and country lines during the year ended 30th June, 1918, are shown below; suburban lines include distances within 34 miles of Sydney and Newcastle:—

Description.	First Class.	Second Class.	Total.
SUBURBAN LINES.			
Ordinary Passengers	5,590,544	27,703,655	33,294,199
Season Ticket Holders' Journeys	9,178,260	20,025,600	29,203,860
Workmen's Journeys ... ..	.....	22,252,644	22,252,644
Total Passenger Journeys	14,768,804	69,981,899	84,750,703
Miles Travelled	106,355,918	509,514,356	615,870,174
Average Mileage per Passenger	7·20	7·28	7·27
Amount Received from Passengers	£ 251,063	849,081	1,100,149
Average Receipts per Passenger per Mile d.	0·57	0·40	0·43
COUNTRY LINES.			
Passengers	2,302,466	7,161,347	9,553,813
Miles Travelled	314,198,162	454,697,506	768,895,668
Average Mileage per Passenger	131·32	63·49	87·43
Amount Received from Passengers	£ 1,097,810	1,275,381	2,373,191
Average Receipt per Passenger per Mile d.	0·84	0·67	0·74

Goods Traffic.

The following figures show how greatly the goods traffic has expanded, especially in recent years:—

Year ended 30th June.	Goods and Live Stock Traffic.		Per head of Population.	
	Tonnage.	Gross Earnings.	Tonnage.	Gross Earnings.
		£		£ s. d.
1890	3,788,950	1,569,356	3·5	1 9 0
1895	4,075,093	1,855,187	3·3	1 9 11
1900	5,531,511	1,936,217	4·1	1 8 5
1905	6,724,215	2,213,105	4·7	1 10 9
1910	8,393,038	3,290,640	5·3	2 1 3
1915	11,920,881	4,206,234	6·4	2 5 2
1916	11,915,500	4,329,971	6·4	2 6 6
1917	11,732,864	4,542,619	6·3	2 8 8
1918	11,293,060	4,652,113	6·0	2 9 2

The reduction in the tonnage since 1916 has been compensated by increased rates, which were introduced in December, 1916.

A statement showing the class of goods carried on the railways since 1900 is shown below:—

Year ended 30th June.	General Merchandise.		Wool.	Live Stock.	Minerals.		Total Goods.
	Grain, Flour, &c. (Up Journey).	Other.			Coal, Coke, and Shale.	Other.	
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1900	361,052	1,151,564	84,678	188,595	3,406,769	338,853	5,531,511
1905	522,755	1,398,443	90,572	174,424	4,169,076	368,945	6,724,215
1910	608,405	2,100,203	138,779	463,669	4,553,965	528,017	8,393,038
1915	482,876	2,849,908	132,895	849,604	6,649,704	955,894	11,920,881
1916	852,019	2,753,295	111,083	797,065	6,410,503	991,535	11,915,500
1917	1,327,067	2,713,102	117,762	577,798	6,052,489	944,646	11,732,864
1918	1,398,994	2,920,205	120,612	523,683	5,497,564	832,002	11,293,060

EXPANSION OF TRAFFIC.

The remarkable expansion which has taken place in the volume of traffic on the railways of New South Wales will be seen from the following comparison; the earnings during the quinquennium 1914-18, show an increase of £10,902,967, or 37 per cent., as compared with the earnings during the previous five years. The number of passengers has increased by 45 per cent., and the tonnage of goods and live-stock, &c., by 18 per cent.:—

			Five years ended 30th June, 1913.	Five years ended 30th June, 1918.	Increase.	Percentage increase.
Earnings—						
Coaching Traffic	...	£	12,512,240	18,530,670	6,018,430	48
Goods and Live Stock	...	£	14,973,877	19,115,961	4,142,084	28
Coal and Coke	...	£	2,310,711	3,053,164	742,453	32
Total earnings	...	£	29,796,828	40,699,795	10,902,967	37
Passengers	...	No.	316,812,195	458,968,072	142,155,877	45
Goods and Live Stock	...	Tons	20,720,218	27,544,735	6,824,517	33
Coal and Coke	...	Tons	29,904,117	32,563,412	2,659,295	11
Total Tonnage	...	...	50,624,335	60,108,147	9,483,812	18

ROLLING-STOCK.

Information regarding the rolling-stock of New South Wales Railways on 30th June, 1917 and 1918, appears in the following table:—

Classification.	1917.	1918.	Classification.	1917.	1918.
Locomotives—			Merchandise—		
Engines	1,275	1,282	Goods, open	15,311	15,798
Tenders	1,031	1,039	Goods, covered	955	985
Coaching—			Meat trucks	428	428
Special & sleeping cars	95	121	Live-stock trucks	2,923	2,929
First-class	424	421	Brake-vans	557	557
Composite	210	213	Total	20,174	20,697
Second-class	895	904			
Brake-vans	162	136	Departmental Stock—		
Horse-boxes, carriages, trucks, &c.	293	289	Loco. coal, ballast, &c., waggons	1,744	1,737
Total	2,079	2,084			

MAINTENANCE OF PERMANENT WAY.

During the year ended 30th June, 1918, the length of line wholly or partially renewed by relaying, re-sleepering, and re-railing, was 142 miles 15 chains, and 197 miles 54 chains were re-ballasted, thus making a total of 339 miles 69 chains of line either partially or completely renewed. In this work 4,577 tons of rails, 324,648 sleepers, and 73,571 cubic yards of ballast were used.

SIGNALLING AND SAFETY APPLIANCES.

Great progress has been made in providing safety appliances at various places, and during recent years much new work has been installed in connection with the deviations, duplications, and new railway lines. At many of the principal stations the points and signals are interlocked, and at the Central Station, Sydney, an electro-pneumatic system of signalling is in operation. During 1913, track block and automatic signalling—the first in Australia—was installed between Redfern Tunnel Signal-box and Sydenham Junction; this system has been extended to 120 miles 23 chains of double track.

Particulars regarding the various systems employed for the safe working of the lines in 1917 and 1918 are shown below:—

	1917.		1918.	
Single Line.	Mls.	Chs.	Mls.	Chs.
By electric tablet	357	70	353	69
electric train staff	1,369	21	1,606	15
train staff and ticket with line clear reports ...	1,451	38	1,451	38
train staff and ticket without line clear reports.	677	68	686	40
train staff and one engine only	2	72	2	72
	3,859	29	4,100	74
Double Line.				
By automatic signalling with track block working	108	54	120	23
absolute manual block system	487	61	478	78
permissive manual block system	6	27	5	12
telephone	0	33	0	33
	603	15	604	66

An experimental installation of a locomotive cab signalling system laid down on the Richmond line has been attended with success, and it is proposed to extend it to the more important main lines of the State.

The Westinghouse brake is used on all the rolling stock of the Government railways.

RAILWAY ACCIDENTS.

The persons meeting with accidents on railway lines may be grouped under three heads—passengers, employees, and trespassers; and the accidents themselves may be classified into those arising from causes beyond the control of the persons injured, and those due to misconduct or want of caution.

The accidents may be further subdivided into those connected with the movement of railway vehicles and those apart from such movement.

Adopting such classifications, the accidents during the quinquennial period terminated on 30th June, 1918, are shown below. The return is compiled in a similar way to that adopted by the Board of Trade in England, and all accidents are reported which occur in the working of the railways, or on railway premises, to persons other than servants of the Department, however slight the injuries may be. In the case of employees of the Department all accidents must be reported which cause the employee to be absent for at least one whole day from his ordinary work:—

Classification.	Accidents connected with the Movement of Railway Vehicles.					Accidents not connected with the Movement of Railway Vehicles.				
	1914.	1915.	1916.	1917.	1918.	1914.	1915.	1916.	1917.	1918.
Passengers—										
Causes beyond their own control—										
Killed	14	1	...	...	...	...	...	...	...	...
Injured	46	77	14	34	25	...	...	12	11	4
Their own misconduct, or want of caution—										
Killed	9	5	16	14	12	1	...	...	...	...
Injured	137	174	208	141	142	83	40	41	53	59
Servants of the Department—										
Causes beyond their own control—										
Killed	1	2	...	...	1	...	...	...	...	2
Injured	44	30	37	30	24	83	64	103	92	96
Their own misconduct, or want of caution—										
Killed	41	31	31	16	20	4	5	3	5	3
Injured	257	281	344	283	221	3,120	2,704	2,690	2,408	2,505
Trespassers and others—										
Killed	47	39	40	33	26	3	6	7	7	4
Injured	86	83	107	84	84	131	107	110	157	102
Total { Killed	112	78	87	63	59	8	11	10	12	9
{ Injured	570	645	710	572	496	3,417	2,915	2,956	2,721	2,766

The Deniliquin and Moama Company possesses 4 locomotives, 6 passenger carriages, and 63 goods carriages and vans. The Silverton Company has 20 locomotives, 665 goods vehicles, and 1 passenger carriage; and passenger carriages are hired also from the South Australian Government railways as required. On the Warwick Farm line Government rolling-stock is used. The Seaham Colliery has 2 locomotives, but otherwise Government rolling-stock is used, 4 passenger carriages, and 1,956 goods vehicles being hired during 1917. On the East Greta railway there are 19 locomotives, 32 passenger carriages, and 33 goods carriages. The Hexham-Minmi Company has 1 locomotive, and 4 passenger carriages; and the Commonwealth Oil Corporation has 4 locomotives, 2 passenger carriages, 1 motor car, and 73 goods carriages and vans.

In addition to the private railway lines shown in the above table, there are several branches, connected principally with coal and other mines; a summary of them is given below:—

District.					Length.	Gauge.	
					m. ch.	ft. in.	
Connected with	Northern Line	...	...	...	95 54	4	8½
„	Western „	...	...	...	6 39	4	8½
„	South Coast „	...	...	...	3 40	3	6
					29 76	4	8½

RAILWAYS OF NEW SOUTH WALES AND OTHER COUNTRIES.

The position of all railways of New South Wales in relation to other important countries of the world is shown in the following table; but it is necessary to remember that there are vital differences which really invalidate any effective comparison, as, for instance, differences in population, and in the competition or assistance which railways encounter from river or sea carriage:—

Country.	Length of Railways.	Per Mile of Line Open.		Country.	Length of Railways.	Per Mile of Line Open.	
		Popu- lation.	Area.			Popu- lation.	Are
	miles.	No.	sq.miles.		miles.	No.	sq.miles.
<i>New South Wales</i>	4,852	394	64.0	Germany	39,532	1,691	4.3
Victoria ...	4,183	339	21.0	France ...	31,958	1,239	6.5
Queensland ...	5,832	119	115.0	Switzerland ...	3,705	1,047	4.3
South Australia ...	3,351	131	113.4	Austria ...	14,747	2,099	8.6
Western Australia	4,955	63	197.0	Hungary ...	13,671	1,566	9.2
Tasmania...	751	270	34.9	Canada ...	38,604	217	96.6
New Zealand ...	3,012	354	33.4	United States of America.	264,378	379	11.4
United Kingdom	23,709	1,940	5.1	Argentina Re- public.	21,858	392	52.8
Russia ...	48,955	3,654	169.4	Japan ...	7,147	7,956	20.7

RAILWAY GAUGES OF AUSTRALIA.

Excluding the Tasmanian lines the classification of the Government Railways according to gauge as at 30th June, 1918, may be seen below:—

Government Railways.	Mileage with Gauge.					Total Miles
	2 ft.	2 ft. 6 in.	3 ft. 6 in.	4 ft. 8½ in.	5 ft. 3 in.	
New South Wales	26	.....	40	4,639	.....	4,705*
Victoria ... ..	.....	122	.....	.....	4,035	4,157
Queensland	29	.....	5,409	.....	.....	5,438
South Australia ... ..	.....	.....	1,209	.....	1,033	2,242
Western Australia ... ..	.....	.....	3,491	.....	.....	3,491
Commonwealth ... ..	.....	.....	677	1,956	.....	1,733
Total	55	122	10,826	5,695	5,068	21,766

* Includes Burrinjuck line.

In consequence of the diversity of gauge interstate railway communication is seriously hampered; in a journey from Queensland to Western Australia, breaks of gauge occur at Wallangarra, where the systems of Queensland and New South Wales meet, and at Albury, on the border of New South Wales and Victoria, at Terowie and Port Augusta in South Australia, and at Kalgoorlie, where the Commonwealth and the Western Australian lines connect.

The question of fixing the standard gauge has been the subject of many diverse professional opinions. The New South Wales gauge of 4 ft. 8½ in. has been recommended by the chief railway engineers of the Commonwealth and of the five States and by the Railway War Council, and has been adopted for the Port Augusta-Kalgoorlie railway.

TRANSCONTINENTAL RAILWAYS.

It is the intention of the Federal Government to construct transcontinental railway lines to bring the States of the continent of Australia into direct communication. A line from Port Augusta in South Australia to Kalgoorlie in Western Australia was opened for traffic in November, 1917, the gauge of 4 feet 8½ inches having been adopted. The total length is 1,051 miles, making the distance by rail from Sydney to Fremantle (Western Australia) 2,761 miles, divided up as follows:—Sydney to Melbourne, 583 miles; Melbourne to Adelaide, 483; Adelaide to Port Augusta, 259; Port Augusta to Kalgoorlie, 1,051; Kalgoorlie to Fremantle, 385. This line is required to facilitate the transport of troops, &c., in time of war, and accelerate the transit of European mails. Mail matter forwarded to Adelaide from Sydney by rail, and thence sent by steamer to Fremantle, takes six days, whereas the through railway journey occupies four days. When the heavy ballasting is completed it should be practicable to make the journey between Port Augusta and Kalgoorlie in about 24 hours; in the meantime, it takes about 35 hours.

TRAMWAYS.

With the exception of 2½ miles privately owned, the tramways of New South Wales are the property of the State Government. The standard gauge of 4 ft. 8½ in. has been adopted for all lines. The electric system was introduced into Sydney at the close of 1899, and the steam tramways in

the metropolitan district have been converted. Of the 225½ miles of line open at 30th June, 1918, there were 154½ miles under the electric system and 71 miles worked by steam.

Line.	Length of Line.	Length of Single Track.
Electric—	mls. ch.	mls. ch.
City and Suburban	112 62	206 26
North Sydney	21 11	36 33
Ashfield to Mortlake and Cabarita	8 38	15 9
Rockdale to Brighton-le-Sands	1 20	1 20
Manly to The Spit and Manly to Narrabeen	10 58	15 37
	154 29	274 45
Steam—		
Arncliffe to Bexley	2 50	2 50
Kogarah to Sans Souci	5 45	6 79
Parramatta to Castle Hill	6 55	6 55
Sutherland to Cronulla	7 32	7 32
Newcastle City and Suburban	34 6	44 34
East to West Maitland	4 47	4 47
Broken Hill	10 4	11 35
	70 79	84 12
Total	225 28	358 57
Sidings, loops, and Cross-overs ... ..	.....	54 32

During the year ended 30th June, 1918, the length of tramway opened for traffic was 1 mile 30 chains.

Rolling-stock.

The tramway rolling-stock, on 30th June, 1918, consisted of 26 steam motors, 83 steam cars, 1,387 motor cars and 11 trail cars for electric lines, and 113 service vehicles, making a total of 1,620.

Cost of Construction.

The capital cost of the State tramways to 30th June, 1918, amounted to £8,470,091, or £37,586 per mile open; the cost of construction was £4,237,612, or £18,804 per mile, and the expenditure on rolling-stock, workshops, machinery, &c., amounted to £4,232,479.

Working of Tramways.

The following statement shows the working of the various tramways in sections for the year ended 30th June, 1918. Three sections returned a profit during the period, and the total profit on all lines, after allowing for interest on capital, amounted to £40,835.

Line.	Cost of Construction and Equipment.	Passengers carried.	Gross Revenue.	Working Expenses.	Net Earnings.	Interest on Capital.	Profit + Loss —
Electric—	£	No.	£	£	£	£	£
City and Suburban ..	6,445,500	212,372,470	1,643,604	1,290,547	353,057	265,653	+ 87,404
North Sydney ..	740,424	19,235,753	141,775	111,021	30,754	30,336	+ 418
Ashfield to Mortlake & Cabarita	211,141	4,068,136	27,192	27,397	— 205	8,753	— 8,958
Manly to The Spit and Manly to Narrabeen.	321,951	3,159,120	31,472	25,399	6,073	13,340	— 7,267
Rookdale to Brighton-le-Sands	19,361	604,217	3,825	2,985	840	712	+ 128
Steam—							
Arncliffe to Bexley ..	22,250	570,262	3,887	5,428	— 1,541	926	— 2,467
Kogarah to Sans Souci ..	28,875	957,509	9,028	9,525	— 497	1,201	— 1,698
Parramatta to Castle Hill ..	40,214	909,149	8,476	9,115	— 639	1,675	— 2,314
Sutherland to Cronulla ..	51,379	749,625	10,411	10,080	331	2,141	— 1,810
Newcastle City and Suburban	458,630	11,220,039	93,993	89,003	4,990	18,408	— 13,418
East to West Maitland	38,906	455,144	4,324	5,072	— 748	1,620	— 2,368
Broken Hill ..	91,451	1,436,384	14,654	17,688	— 3,034	3,781	— 6,815
Total, All Lines ..	8,470,091	255,740,808	1,992,641	1,603,260	389,381	348,546	+ 40,835

Revenue and Expenditure.

In the following table are given details of revenue and expenditure, and capital invested for all State tramways, since 1880. The net earnings of the tramways for the year ended 30th June, 1918, amounted to 4·60 per cent. on cost of construction and equipment, as compared with 4·17 per cent., the actual interest on the public debt, taking into consideration the actual sum obtained by the State for its loans, many of which were floated below par:—

Year ended 30th June.	Total Length of Lines.	Capital Expended on Lines open for Traffic.	Gross Revenue.	Working Expenses.	Net Earnings.	Interest Returned on Capital.
	Miles.	£	£	£	£	per cent.
1880	4½	60,218	18,980	13,444	5,536	9·19
1890	39½	333,614	268,062	224,073	44,889	4·81
1900	71½	1,024,720	409,724	341,127	68,597	3·56
1910	165½	4,668,797	1,185,568	983,587	201,981	4·33
1915	219½	7,970,293	1,956,060	1,611,286	374,774	4·70
1916	220½	8,166,423	1,991,628	1,602,650	388,978	4·76
1917	224	8,309,629	2,008,539	1,691,367	317,172	3·82
1918	225½	8,470,091	1,922,641	1,603,260	389,381	4·60

During the year ended 30th June, 1918, the percentage of working expenses to the total receipts was 80·5, as compared with 84·2 in the previous year; the net earnings amounted to £389,381, which is equal to a net return per average mile open of £1,730, as compared with £1,424 per mile open in the previous year.

Comparison of Tramway Traffic.

The following statement contains a comparison of the passenger traffic and the tram mileage in the State tramways since 1900. With the extension of the tramway system the earnings per tram mile decreased from 2s. 3d. in 1900 to 1s. in 1905, but have since risen to 1s. 10d.; the working

cost per tram mile dropped from 1s. 10d. in 1900 to 10d. in 1905, but increased steadily to 1s. 5½d. in 1918:—

Year ended 30th June.	Length of line open.	Passengers carried.	Tram mileage.	Earnings per tram mile.	Working cost per tram mile.
	miles.	No.	miles.	s. d.	s. d.
1900	71½	66,244,334	4,355,024	2 3	1 10
1905	125½	139,669,459	16,413,762	1 0	0 10
1910	165½	201,151,021	20,579,386	1 1½	0 11½
1915	219½	289,282,845	26,842,974	1 5½	1 2½
1916	220½	292,021,774	26,451,442	1 6	1 2½
1917	224	295,303,714	25,361,992	1 7	1 4
1918	22½	255,740,808	21,762,244	1 10	1 5½

The extension of the City and North Sydney tramways since 1905 may be seen in the following statement, also the enormous increase in the passenger traffic. All lines which communicate directly with the city of Sydney are included in the category "City and Suburban"; the Ashfield, Kogarah, Arncliffe, and Rockdale lines, which act as feeders to the railways, and the Manly lines, have not been included:—

Year ended 30th June.	City and Suburban.			North Sydney.		
	Length of line.	Passengers carried.	Tram mileage.	Length of line.	Passengers carried.	Tram mileage.
	miles.	No.	miles.	miles.	No.	miles.
1905	73½	120,973,934	14,413,273	11½	9,128,575	1,074,743
1910	94½	173,897,034	17,743,868	16½	13,677,491	1,651,153
1915	110½	240,545,317	22,242,010	19½	20,743,680	2,375,916
1916	111½	242,686,337	21,937,619	19½	20,813,57	2,279,494
1917	112½	244,712,191	20,884,254	20½	21,612,120	2,290,913
1918	112½	212,372,470	17,600,43	21	18,234,53	2,225,771

TRAMWAY ACCIDENTS.

The accidents which occurred on tramways during the last five years are classified in the following table, in a similar way to those relating to the railways:—

Classification.	Accidents connected with the movement of tramway vehicles.					Accidents not connected with the movement of tramway vehicles.				
	1914.	1915.	1916.	1917.	1918.	1914.	1915.	1916.	1917.	1918.
Passengers—										
Causes beyond their own control—										
Killed	2	1	...	...	...	...	...	...	...	...
Injured	120	75	77	43	57	3	2	1	2	...
Their own misconduct, or want of caution—										
Killed	11	7	7	12	4	...	...	1	...	...
Injured	487	312	346	297	270	16	19	8	13	13
Servants of the Department—										
Causes beyond their own control—										
Killed ... ..	...	1	1	...	...	...	...	...	...	...
Injured	74	37	47	74	64	45	19	29	31	36
Their own misconduct, or want of caution—										
Killed ... ..	...	3	1	1	3	1	...	...	...	...
Injured	212	161	152	241	207	549	411	306	322	379
Others—										
Killed	16	21	23	12	13	...	...	...	...	...
Injured	368	267	294	226	194	8	2	4	10	8
Total { Killed	29	33	32	25	20	1	...	1	...	...
{ Injured	1261	852	916	881	792	621	453	348	378	436

As the tramways usually traverse crowded streets, the number of accidents must be considered small.

The number of passengers carried on the tramways during the year ended 30th June, 1918, was £255,740,808, and the rate of fatal accidents to passengers was .02 per million. With three exceptions the fatal accidents in the last five years were ascribed entirely to misconduct or want of caution on the part of passengers.

Compensation Paid—Tramways.

The amount of compensation paid during the twelve months ended 30th June, 1918, in respect of accidents on the tramways was £12,823, as compared with £14,521 for the preceding year.

PRIVATE TRAMWAYS.

There is one tramway under private control within the State—a steam tramway, which passes through the town of Parramatta, commencing at the Park and continuing as far as the Newington Wharf at Duck River, a distance of 2 miles 66 chains, where it connects with the Parramatta River steamers conveying passengers and goods to and from Sydney. The line has been constructed to the standard gauge of 4 feet 8½ inches, and was opened in 1883.

RAILWAYS AND TRAMWAYS—EMPLOYMENT AND WAGES.

The account of wages paid, together with the staff employed on the Government railways and tramways in June, 1918, is shown in the following statement, in comparison with the previous year:—

Particulars.	Year ended 30th June, 1917.			Year ended 30th June, 1918.		
	Railways.	Tramways.	Total.	Railways.	Tramways.	Total.
Persons employed—						
Salaried staff ...	4,590	639	5,229	4,870	784	5,654
Wages „ ...	30,726	9,124	39,850	29,370	8,171	37,541
Total number	35,316	9,763	45,079	34,240	8,955	43,195
Wages paid—	£	£	£	£	£	£
Maintenance Branch	1,626,779	166,490	1,793,269	1,282,169	151,223	1,433,392
Locomotive „	2,066,243	.....	2,066,243	1,731,207	.....	1,731,207
Electric „	.....	399,082	399,082	.....	312,704	312,704
Traffic „	955,682	718,897	1,674,579	923,298	652,952	1,576,250
Total	£ 4,648,704	1,284,469	5,933,173	3,936,674	1,116,879	5,053,553

The average number of men employed during the year ended 30th June, 1918, was 41,733, including an average of 5,652 employees serving with the Australian Imperial Force. To 30th June, 1918, the number of railway and tramway employees who had joined the Australian Imperial Force was 8,221; all permanent employees are paid the difference in their pay in railway and tramway service and in the defence forces; under certain conditions similar terms are allowed to members of the temporary staff.

A scheme to provide superannuation allowances for the officers of the railway and tramway service was introduced in 1910; particulars are shown in another chapter of this Year Book.

FOOD AND PRICES.

In the portions of this Year Book dealing with primary and manufacturing production, sufficient evidence is adduced regarding various industries to show the extent to which the State is independent of external sources of supply ; but as the community is yet in a comparatively early stage of development, the raw materials form a much larger proportion of production than the manufactures which usually accompany a more advanced social growth.

For purposes of review, the summary at the end of this chapter gives the value of production from local industries ; and the extent to which food products are imported from oversea countries may be seen by reference to the section relating to Commerce.

FOOD CONSUMPTION.

With the cessation, on the 13th September, 1910, of the system of keeping records of interstate trade, it became impossible to determine accurately the quantity and value of commodities consumed ; consequently, tables which had been published previously were discontinued. In view of the special interest attached to the question of food consumption, particularly in relation to the cost of living, efforts were made with considerable success to obtain information to enable estimates of consumption to be given again, and their publication was resumed in the 1916 issue.

The results have been compiled carefully, and in spite of the absence of official records of interstate trade, they are published with a large degree of confidence as indicative of the consumption of the more important articles of diet.

The estimates for the year 1917-18 are shown in the following table, in comparison with those for the three years 1907-09 :—

Commodity.	Unit.	Consumption per head.		Commodity.	Unit.	Consumption per head.	
		1907-09.	1917-18.			1907-09.	1917-18.
Meat—Beef ...	lb.	141·8	85·2	Flour ...	lb.	228·4	207·4
Mutton ...	lb.	96·5	62·7	Bread ...	2-lb.	102·0	96·0
Pork ...	lb.	3·2	4·0		loaves		
Bacon and Ham	lb.	7·9	10·1	Rice ...	lb.	8·2	7·1
				Sago and Tapioca	lb.	2·0	2·0
Total Meat	lb.	249·4	162·0	Oatmeal ...	lb.	7·6	6·2
Fish—Fresh and Smoked	lb.	6·4	10·5	Sugar ...	lb.	103·8	110·6
Preserved ...	lb.	4·3	4·6	Salt ...	lb.	38·5	29·5
Total Fish	lb.	10·7	15·1	Jam ...	lb.	16·7	12·4
Potatoes ...	lb.	181·0	127·9	Butter ...	lb.	26·1	28·1
				Cheese ...	lb.	3·5	3·4
				Milk—Fresh ...	gal.	17·4	20·5
				Preserved ...	lb.	4·4	6·2
				Tea ...	lb.	7·3	7·7
				Coffee ...	oz.	11·0	14·4

From the above table it will be seen that there has been a marked decline in the consumption of some leading articles of diet ; and as that decline has not been accompanied apparently by a corresponding increase in other articles, it might be inferred that there has been either a lowering of the

standard of living, or an elimination of waste and an adjustment of dietary. There is little doubt that the great cheapness of meat in the earlier years caused a wasteful consumption, and much of it taken for individual use was practically thrown away. It is remarkable, however, that the table shows also a decline in the consumption of bread; and as meat is rich in proteids (tissue formers), and moderately supplied with fat, while bread is largely the source of the supply of the necessary carbohydrates (work and heat producers) in a bread-and-meat diet, a correlative decline in the consumption of both bread and meat points to a more economic dietary, subject to certain modifications which will be considered later.

In comparison with the previous year there were decreases in 1917-18 in the consumption of the following important articles of diet:—Meat 16 lb., potatoes 3·4 lb., flour 8·5 lb., sugar 2·3 lb., and jam 2·3 lb. The figures relating to other leading items did not vary greatly.

During the interval between the periods 1909 and 1918 the consumption per head of meat declined by 87·4 lb., and of the varieties affected the decrease was greatest in the use of beef, in which the difference amounted to 56·6 lb., mutton coming next with a decrease of 33·8 lb.; but there were increases in the consumption of pork and bacon amounting to 0·8 lb. and 2·2 lb., respectively. There was during the period an increase of 4·4 lb. per head in the consumption of fish, to which the quantity preserved contributed only 0·3 lb. per head, the remainder used as food being either fresh or smoked. The decline in the consumption of meat, has therefore not found a counter-balancing increase in the consumption of fish, which is an inferior food in every respect, if considered from the view-point of weight for weight. The local production of fish, which constitutes the bulk of the supply, amounted in 1917-18 to 19,641,700 lb., exclusive of 8,328 dozen crayfish, 1,008 dozen crabs, 472,584 lb. of prawns, and about 21,700 sacks of oysters.

The unsatisfactory condition of the fishing industry and its effect on supplies and prices are mentioned on a subsequent page. During 1917-18, the supply included 2,463,064 lb. marketed by the State Trawling Industry, and the facilities for distribution were improved by the establishment of State fish-shops.

— It is, however, very probable that a growing consumption of rabbits has partially replaced the decline in the consumption of meat. During the year 1917-18 the local consumption of this type of food, which is estimated at 60,000 pairs per week, was doubtless as great as for the whole period represented by the years 1907 to 1909.

It is probable also that the diminution in the consumption of meat has been made good partially by an increased consumption of eggs. There is, however, no means of ascertaining the number of eggs used as food, either directly or as ingredients in cakes, pastry, puddings, &c.

There were decreases per head in the consumption of the following carbohydrate foods:—Flour 21 lb., potatoes 53·1 lb., bread 12 lb., oatmeal 1·4 lb., and rice 1·1 lb., whilst the per capita consumption of sago and tapioca was undisturbed.

Refined sugar is classed as a practically pure carbohydrate, and its food-value is very high. The consumption has increased by 6·8 lb. per head, but in computing the average it is not possible to make allowance for the quantities used in the manufacture of products such as jam, of which the exportation has increased largely; thus, the quantity of jam exported overseas increased from 300,000 lb. per annum during the period 1907-09 to over 14,000,000 lb. in 1917-18. Jam, the consumption of which decreased by 4·3 lb. per head, is used as a substitute for butter to some extent, and is dependent on its sugar contents for its measure of efficiency in this respect.

It is interesting to note that the increase in the consumption of butter amounted to 2 lb. per head. Preserved milk increased by 1·8 lb. per head, and fresh milk by 3·1 gallons per head. The consumption of cheese did not increase. The increase per head in the consumption of tea amounted to 0·4 lb., and of coffee to 3·4 oz. Salt decreased in consumption per head by 9 lb., due in all probability to the recent decline in the operations of meat-preserving establishments.

The foregoing facts, relative to the consumption per head of specific articles of food in 1909 and in 1918, appear to be the result of a more economic dietary at the present time than that which obtained nine years ago. But it must be remembered that the constitution of the community in 1909 was not analogous to that in 1917 or 1918, when large numbers of young men were absent on military service abroad.

Meat.

The quantity consumed is very large, though it has declined since 1909 from 249·4 lb. per head to 162 lb., or by 35 per cent. The decrease, which has been general for all kinds of meat except bacon and ham, was greatest during the years 1914–16, and is due to the greatly increased prices. Reference to a subsequent table shows that there has been a correspondingly steep rise in the price-levels. Approximately, one-third of the meat sold for consumption is bone and waste.

The following statement shows the average annual consumption per head of the various kinds of meat in each year since 1910:—

Year.	Beef.	Veal.	Mutton and Lamb.	Pork.	Bacon and Ham.	Total.
	lb.	lb.	lb.	lb.	lb.	lb.
1910	142·2	3·1	100·0	5·9	9·1	260·3
1911	147·6	3·3	101·3	5·0	10·7	267·9
1912	161·0	4·4	90·9	6·2	11·1	273·6
1913	148·3	4·1	93·8	5·8	9·8	253·8
1914–15	118·3	3·3	78·8	5·0	9·4	212·8
1915–16	97·1	1·6	73·1	2·0	8·0	181·8
1916–17	93·0	2·0	69·8	3·6	9·6	178·0
1917–18	83·7	1·5	62·7	4·0	10·1	162·0

The quantity of meat consumed increased in each year from 1909 to 1912, when it reached 273·6 lb. per head; in 1913 it dropped to slightly below the level of 1910, and subsequent decreases brought it to 162 lb. in 1917–18, or 40·9 per cent. lower than in 1912. The consumption of beef, pork, and bacon was highest in 1912, and of mutton in 1911.

The consumption of beef rose in 1912, when the supply of sheep was lessened, owing to the unfavourable season in the sheep districts, but it decreased by 20 per cent. in 1914–15, and by 19 per cent. in the following year. As regards mutton and lamb the most notable decrease occurred in 1914–15, when it was 16 per cent. lower than in 1913; in the succeeding years there were further decreases, and the average consumption is now 38 per cent. below the level of 1910. The consumption of pork declined during the period by about 32 per cent., though an increase of 100 per cent. has occurred since 1915–16. The quantity of bacon and ham has varied between 11·1 lb. per head in 1912 and 8 lb. in 1915–16, and is now 10·1 lb. or 11 per cent. higher than in 1910. The decrease in the consumption of beef, veal, mutton, and lamb has been most marked since 1913—the year immediately preceding the declaration of war, also the year before a period of drought.

Potatoes.

The consumption of potatoes decreased from 181 lb. per head to 127·9 lb. during the period under review. Local production varies greatly, and is not equal to the demand, large supplies being imported from the neighbouring States. The average annual production during the last three years was 44,900 tons as compared with 80,800 tons during the period 1907-09.

Bread and Flour.

The average consumption of bread in 1917-18 was 96 loaves (2 lb.) per head, and of flour 207·4 lb. per head, inclusive of manufactured articles in the shape of biscuits, cakes and pastry. The flour consumed includes approximately 136,300 tons (143·9 lb. per head) used for bread, and 16,561 tons (17·5 lb. per head) used in biscuit factories, but the quantity used by pastrycooks is not recorded. Exclusive of the quantity used for bread, biscuits, etc., it is estimated that the average household consumption of flour by a family of five persons is about 4 lb. per week, or 42 lb. per head per annum.

The reduction in the consumption of bread from 102 loaves per head in 1907-09 to 96 in 1917-18, a reduction equivalent to 12 lb. of bread per annum, or 6 per cent., is a matter for attention. In this connection it is interesting to record the opinion of those in the trade, who consider that the introduction of day-baking in the middle of 1914 reduced the consumption of bread by about 10 per cent., as a result of a comparative staleness of the loaf baked the day preceding delivery. Bread now is delivered generally from eighteen to twenty-four hours after baking, and after that interval is less appetising than when eaten hot, as was usually the custom prior to day-baking. A good loaf, as to volume, consists three-fifths of gas, and of the solid part about 40 per cent. by weight consists of water. A loaf of bread twelve hours old is said to lose about an ounce and a half in weight, due to evaporation of water; and it takes seventy-two hours to reduce its weight by 15 per cent.

Oatmeal, Rice, and Sago.

The consumption of oatmeal has declined from 7·6 lb. to 6·2 lb. per head, probably on account of an increased consumption of other breakfast foods. The consumption of sago and tapioca shows no alteration, but the quantity of rice has decreased from 8·2 lb. to 7·1 lb. per head.

Sugar.

The quantity of sugar consumed—110·6 lb. per head—appears high, but it includes sugar used in the production of other foods, such as jam—of which large quantities have been exported—biscuits, confectionery, beer, etc. The records of the manufacturing industry in 1917-18 show that 9,266 tons of sugar (11 lb. per head) were used for jam and canned fruit, 2,533 tons (3 lb. per head) for biscuits, 968 tons (1·1 lb. per head) in condensed milk factories, 5,337 tons (6·3 lb. per head) in breweries, 2,722 tons (3·2 lb. per head) in aerated water factories, 6,119 tons (7·4 lb. per head) in making confectionery, and 707 tons (8 lb. per head) in bacon factories. The average household consumption of sugar is estimated at 6 lb. per week for a family of five persons, or 62 lb. per head per annum.

Salt.

Salt is an ingredient of almost all foods, large quantities being used in bacon-curing and meat-preserving, as well as in the preparation of bread, butter, cheese, &c. The average annual consumption amounts to 29·5 lb. per head. Ordinary domestic consumption in a family of five persons probably does not exceed 1 lb. per week.

Butter, Cheese, and Milk.

Butter is an important item of food in New South Wales, and the consumption has increased from 26 lb. per head in 1909 to 28 lb. in 1918. During the last three years the production of butter in New South Wales exceeded, on the average, 73,000,000 lb. per annum, which was more than sufficient to supply the local demand, and a considerable quantity was exported.

The quantity of cheese consumed decreased slightly, but the quantity of milk consumed has increased from 17·4 gallons to 20·5 gallons per head.

Tea and Coffee.

Tea enters largely into consumption amongst all classes, the average annual consumption being 7·7 lb. per head. Of coffee, on the other hand, the average was only 14·4 oz. per head. There are indications, however, that the consumption of coffee is increasing.

CONSUMPTION OF INTOXICANTS.

As with other commodities, so with alcoholic beverages, the figures relating to local consumption in years later than 1909 were not published until the issue of the Year Book for 1916. To supply an approximate basis for later years, however, information was obtained from spirit merchants, and the consumption for the last ten years is estimated to have been as follows:—

Year.	Aggregate Consumption of Spirits.			Per Head of Population.		
	Australian.	Foreign.	Total.	Australian.	Foreign.	Total.
	gallons.	gallons.	gallons.	gallons.	gallons.	gallons.
1908	99,900	1,087,700	1,187,600	·07	·70	·77
1909	123,800	1,171,100	1,294,900	·08	·74	·82
1910	165,200	1,211,100	1,376,300	·10	·75	·85
1911	194,300	1,337,800	1,532,100	·12	·80	·92
1912	245,000	1,426,700	1,671,700	·14	·82	·96
1913	285,600	1,449,300	1,734,900	·16	·80	·96
1914-15	314,400	1,369,000	1,683,400	·17	·73	·90
1915-16	335,900	1,072,900	1,458,800	·21	·57	·78
1916-17	433,500	849,700	1,283,200	·23	·46	·69
1917-18	420,400	669,000	1,089,400	·22	·35	·57

In August, 1907, a proposal to amend the tariff was introduced into the Federal Parliament, and it is probable that a quantity of spirits was withdrawn from bond in that year in anticipation of increased duties, but did not pass into actual consumption until 1908 or later. For this reason, the actual consumption was probably higher in 1908 than indicated by the figures in the table.

The consumption of spirits, which had been increasing slowly for five or six years, declined after 1913, the decrease being in foreign spirits, as the quantity of Australian spirits increased by 41 per cent. A noticeable feature is the growth in popularity of Australian rum, of which the consumption in 1917-18 was over 93,000 gallons more than in 1913.

The departure of large numbers of men for military service abroad, the restriction of imports owing to difficulties of transport and high freights, the early closing of hotels and increased prices have all contributed to the general decline in the consumption of spirits. Hotels in the County of Cumberland and in places within five miles of any military training camp were closed by order of the Defence authorities at 8 p.m. from 24th February to 21st July, 1916, when the closing hour of all licensed premises in the State was fixed at 6 p.m. as the result of a referendum to the electors.

The consumption of beer has declined also since the commencement of the war, but in a less degree than that of spirits. The quantity per head, which increased by 32 per cent. between 1908 and 1913, has since decreased by 13 per cent., though the quantity in 1917-18 showed a slight increase as compared with the previous year. Of the beer consumed, over 99 per cent. is now brewed in Australia :—

Year.	Quantity of Beer consumed.			Per head of population.		
	Australian.	Imported.	Total.	Australian.	Imported.	Total.
	gallons.	gallons.	gallons.	gallons.	gallons.	gallons.
1908	14,856,800	906,800	15,763,600	9·61	·59	10·20
1909	15,240,000	973,500	16,213,500	9·66	·62	10·28
1910	16,287,600	1,033,600	17,321,200	10·08	·64	10·72
1911	18,332,900	1,200,100	19,533,000	11·01	·72	11·73
1912	20,777,300	1,349,600	22,126,900	11·95	·78	12·73
1913	22,973,400	1,338,000	24,311,400	12·70	·74	13·44
1914-15	23,175,100	934,300	24,109,400	12·44	·50	12·94
1915-16	22,586,600	568,700	23,155,300	12·08	·31	12·39
1916-17	21,159,200	204,000	21,363,200	11·35	·11	11·46
1917-18	21,978,500	88,600	22,067,100	11·62	·05	11·67

The consumption of both Australian and foreign wines has declined progressively, not only since the commencement of the War, but for several years before, as will be apparent from the following statement.

Year.	Consumption of Wine.					
	Aggregate.			Per Inhabitant.		
	Australian.	Foreign.	Total.	Australian.	Foreign.	Total.
	gallons.	gallons.	gallons.	gallons.	gallons.	gallons.
1908	905,600	42,900	948,500	·58	·03	·61
1909	955,500	41,300	996,800	·60	·03	·63
1910	816,900	46,900	863,800	·50	·03	·53
1911	903,700	57,900	966,600	·55	·03	·58
1912	975,500	60,600	1,036,100	·56	·04	·60
1913	927,800	58,500	986,300	·51	·03	·54
1914-15	851,700	50,400	902,100	·46	·03	·49
1915-16	767,200	32,800	800,000	·41	·02	·43
1916-17	764,500	30,300	794,800	·41	·02	·43
1917-18	839,500	22,000	861,500	·44	·01	·45

The wine entering into consumption in New South Wales is chiefly the produce of Australian vineyards, but the quantity produced in the State is much less than might be expected in a country so eminently adapted for viticulture.

The decrease in the consumption of Australian wine reflects a steady decline in the production, the average annual production in New South Wales in the three years ended June, 1918, being only 579,000 gallons, as compared with 917,000 gallons in the period 1906-08, ten years ago.

The amount of money expended on intoxicating liquors in New South Wales in the year ended 30th June, 1918, was estimated at £7,223,000, or £3 16s. 5d. per head. There was a steady increase between 1908 and 1914-15, but during the succeeding two years, the drink bill decreased by £648,000, or 7s. per head of population. In 1917-18, notwithstanding a decrease in the quantity consumed, the prices increased so much that the expenditure was nearly equal to that of 1915-16.

Year.	Drink Bill.		Year.	Drink Bill.	
	Total.	Per head of Population.		Total.	Per head of Population.
	£	£ s. d.		£	£ s. d.
1908	4,778,000	3 1 10	1913	7,601,000	3 17 5
1909	5,050,000	3 4 0	1914-15	7,315,000	3 18 6
1910	5,304,000	3 5 8	1915-16	7,246,000	3 17 6
1911	5,962,000	3 11 8	1916-17	6,667,000	3 11 6
1912	6,592,000	3 15 10	1917-18	7,223,000	3 16 5

CONSUMPTION OF TOBACCO.

The amount of tobacco consumed in New South Wales, as estimated, in each year since 1908, is shown in the following statement, special data having been obtained for estimates subsequent to 1909 :—

Year.	Total Consumption (000 omitted).				Per Head of Population.			
	Tobacco.	Cigars.	Cigarettes.	Total.	Tobacco.	Cigars.	Cigarettes.	Total.
	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
1908	3,748	245	690	4,683	2.42	.16	.45	3.03
1909	3,724	223	720	4,667	2.36	.14	.46	2.96
1910	3,707	239	873	4,819	2.29	.15	.54	2.98
1911	3,827	271	1,076	5,174	2.30	.16	.65	3.11
1912	3,796	293	1,353	5,442	2.18	.17	.78	3.13
1913	3,853	306	1,413	5,572	2.13	.17	.78	3.08
1914-15	3,921	296	1,391	5,608	2.10	.16	.75	3.01
1915-16	3,979	236	1,331	5,546	2.13	.13	.71	2.97
1916-17	4,098	263	1,283	5,644	2.20	.14	.69	3.03
1917-18	4,208	244	1,318	5,770	2.22	.13	.70	3.05

The quantity of tobacco (including cigars and cigarettes) consumed in 1917-18 was 5,770,000 lb., which represents an average of 3.05 lb. per head of population. The average has remained fairly constant throughout the period reviewed, the lowest being 2.96 lb. in 1909, and the highest 3.13 lb. in 1912.

As regards the description of tobacco used during the period under review the proportion of cigarettes advanced from 15 to 23 per cent., and the proportion of ordinary tobacco declined from 80 to 73 per cent.

Of the total tobacco consumed in 1917-18, about 93 per cent. was manufactured in Australia, the proportions of the different descriptions being of ordinary tobacco 95 per cent. made in Australia, cigarettes 89 per cent., and cigars 73 per cent. The proportion of tobacco and cigarettes made in Australia has not changed greatly since 1908, when the percentages were 88 and 94 respectively, but a marked increase—from 56 to 73 per cent.—has occurred in the proportion of cigars of Australian manufacture.

The following statement shows the quantity of Australian and of imported tobacco consumed in 1908 and in 1917-18 :—

Description.	Total Consumption.			Per Head of Population.		
	Australian.	Imported.	Total.	Australian.	Imported.	Total.
	lb.	lb.	lb.	lb.	lb.	lb.
Tobacco ... { 1908	3,282,200	465,600	3,747,800	2·12	·30	2·42
{ 1917-18	3,992,800	215,500	4,208,300	2·11	·11	2·22
Cigars ... { 1908	136,000	108,800	244,800	·09	·07	·16
{ 1917-18	178,800	64,800	243,600	·10	·03	·13
Cigarettes ... { 1908	646,700	44,000	690,700	·42	·03	·45
{ 1917-18	1,179,300	139,100	1,318,400	·62	·05	·70
Total ... { 1908	4,064,900	618,400	4,683,300	2·63	·40	3·03
{ 1917-18	5,350,900	419,400	5,770,300	2·83	·22	3·05

Although the tobacco is called "Australian," the bulk of it is made from imported leaf, as only about 12 per cent. is made from leaf grown in Australia.

MEAT SUPPLY.

In the chapter relating to the Pastoral Industry particulars are supplied regarding the production of live stock and the number of stock slaughtered for the meat supply.

The subdivision of large estates and the encroachment of agricultural settlement on large areas used previously for stock-raising have an important relation to the meat supply, tending to encourage the breeding of sheep for mutton rather than for wool, and the substitution of crossbred sheep for the smaller merino. These conditions have an opposite tendency in the case of cattle, as cattle for beef thrive best on large, sparsely-populated areas.

Another influence operating to restrict supplies of beef is the prohibition of the transfer of fat cattle from Queensland in consequence of the passing of the "Meat for Imperial Uses Act" in the Queensland Parliament in 1915, and a charge of 10s. per head made for permits to transfer "stores."

The following statement shows the estimated number of live stock (cattle, sheep, and pigs) required to feed the people of New South Wales in each year since 1910. These figures differ from those published elsewhere in this volume showing the animals killed in slaughtering establishments, as those include animals slaughtered for export and treated in boiling-down works. Moreover, the number of pigs shown in the table is larger than the number slaughtered, as New South Wales does not produce enough bacon for local requirements.

Year.	Bullocks.	Cows.	Calves.	Sheep and Lambs.	Pigs.
1910	227,691	153,208	50,238	3,894,589	315,786
1911	233,141	179,122	54,493	4,068,349	335,403
1912	263,656	202,596	74,599	3,991,784	383,869
1913	232,796	230,041	70,919	3,896,880	309,976
1914-15	156,886	246,659	59,350	3,521,883	289,224
1915-16	167,870	163,278	30,296	3,358,469	234,633
1916-17	164,548	140,173	36,764	2,940,981	304,846
1917-18	187,986	89,583	28,504	2,436,394	335,428

METROPOLITAN MEAT INDUSTRY BOARD.

The Meat Industry Act, 1915, which came into force on 1st March, 1916, created the Metropolitan Abattoir Area (comprising the county of Cumberland), and placed all operations in connection with the sale, slaughter, and inspection of cattle, and with the sale of meat in that area, under the control of a Board of three members, known as the Metropolitan Meat Industry Board.

Under the provisions of the Act the Board may—

- (1) Establish, maintain, and conduct abattoirs, or saleyards for the sale of cattle, or markets for the sale of meat, in any part of the Metropolitan Abattoir Area.
- (2) Establish, maintain, and conduct works for canning, preserving, chilling, or freezing meat.
- (3) Take delivery of cattle, and slaughter the same, either on its own behalf or on behalf of any other person.
- (4) Purchase cattle or meat.
- (5) Sell cattle or meat, either on its own behalf or on behalf of any other person.
- (6) Export meat on behalf of any person, and sell the same in any place on behalf of such person, and enter into all contracts and do all things that may be necessary or expedient in that connection.
- (7) Deliver or contract to deliver to any person any meat, either from a public abattoir, meat market, or from any other place.
- (8) Make arrangements with regard to the purchase, collection, and disposal of offal or other matter, and apply any manufacturing process thereto, and convert it into a merchantable article and sell the same.

The Act vests in the Board the land and buildings contained in the Public Abattoir at Glebe Island, the Stock Saleyards at Flemington, the new Public Abattoir at Homebush Bay, and the Meat Distributing Depot at Pyrmont.

The new Public Abattoir at Homebush Bay was opened officially in April, 1915, when advantage was taken of an offer by a leading firm of exporters to slaughter export mutton for Imperial army requirements. Owing to the shortage of supplies and the consequent stoppage of export, operations were discontinued on 22nd May, 1915. On 1st July, 1916, the Abattoir was again brought into operation, and the slaughter of all stock was transferred gradually from Glebe Island.

The following table shows the slaughtering at the Homebush Bay abattoir during each month of 1918 :—

Month.	Sheep.	Cattle.	Calves.	Pigs.
January ...	99,251	8,670	1,641	7,111
February...	87,140	9,159	1,223	6,399
March ...	123,414	9,869	1,720	8,040
April ...	139,235	10,885	2,041	9,221
May ...	161,137	10,776	2,600	11,820
June ...	134,636	10,034	2,406	10,772
July ...	139,579	11,433	2,982	11,903
August ...	70,563	6,157	4,027	13,248
September	80,210	5,941	3,693	9,365
October ...	177,017	9,718	4,657	11,553
November	177,238	9,775	3,512	8,799
December	231,199	11,679	3,375	12,407
Total for year...	1,620,619	114,096	33,882	120,638

The cattle saleyards at Flemington, covering an area of 66 acres, and capable of accommodating on one day from 75,000 to 80,000 head of sheep and lambs, and 2,500 head of cattle, are controlled by the Metropolitan Meat Industry Board.

The following table shows the number of stock yarded annually at the Flemington Cattle Saleyards :—

Year ended 30th June.	Sheep.	Cattle.	Year ended 30th June.	Sheep.	Cattle.
1910*	4,064,650	155,833	1915	3,381,937	255,876
1911*	3,407,835	193,953	1916	2,317,602	158,453
1912	3,648,138	211,705	1917	1,711,246	149,604
1913	2,721,356	265,126	1918	1,756,301	146,630
1914	2,805,207	276,440	1918†	1,249,858	74,641

* Year ended 31st December.

† Six months July-December.

The new Pig and Calf Saleyards and Markets were opened on 2nd July, 1916, and superseded the Sydney Municipal Small Stock Markets in Sussex-street. These markets are provided with ample railway siding accommodation, and with every facility for the conduct of the business.

The monthly yardings of stock during 1918 are shown hereunder :—

Months.	Sheep.	Cattle.	Calves.	Pigs.	Months.	Sheep.	Cattle.	Calves.	Pigs.
January ...	138,548	10,826	1,102	6,367	July ...	177,086	14,307	1,821	11,865
February ..	125,226	12,004	896	5,557	August ...	90,779	8,413	1,874	12,558
March ...	179,946	15,018	1,246	8,802	September	116,332	8,662	1,989	8,553
April ...	201,268	15,423	1,254	9,936	October ...	267,730	13,203	2,798	11,197
May ...	230,066	16,660	1,493	10,299	November	257,888	13,414	1,697	8,617
June ...	158,289	12,757	1,317	9,683	December.	340,043	16,642	1,453	10,615
					Total ...	2,283,201	157,329	18,940	114,049

The Meat Distributing Depôt is situated on the main Darling Harbour railway line, and is intended as a temporary distributing depôt for the city meat supply, pending the provision of more extensive accommodation elsewhere.

With a view to encouraging the consumption of rabbits, which are cheaper than other kinds of meat, the Meat Industry Board made arrangements in 1919 to distribute rabbits to butchers' and small goods shops in the metropolis to be retailed at 7½d. each; previously the price was 8½d. or 9d.

Prices of Live Stock.

The governing factor in the price of meat is the price paid for live stock at Flemington, which is itself influenced by the world's market price for meat, hides, skins, &c., and by local climatic conditions.

The following statement shows the movement of the prices of fat stock during the years 1914 to 1918. Accurate quotations for lambs in 1916 are not available, as they were sold in most cases with the grown sheep, owing to the abnormal conditions and limited supply :—

Stock.	1914.	1915.	1916.	1917.	1918.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Cattle.					
Bullocks and Steers—					
Extra prime ...	14 12 6	24 0 0	25 0 0	24 0 0	25 0 0
Prime medium ...	13 5 0	22 0 0	21 4 0	19 11 0	20 3 0
Prime handyweight...	11 10 0	18 12 6	19 18 6	17 9 0	18 19 0
Prime light ...	...	16 17 6	17 0 0	15 17 0	16 9 0
Good light ...	7 5 0	10 10 0	12 13 6	14 5 0	15 1 0
Medium light...	5 7 6	8 2 6	10 15 0	12 16 0	13 14 0
Cows and Heifers—					
Extra prime ...	10 2 6	16 0 0	17 15 0	17 13 0	18 0 0
Prime ...	8 17 6	13 7 6	14 16 0	15 0 0	15 6 0
Good ...	7 0 0	10 12 6	11 14 0	12 17 0	13 4 0
Calves, Vealers—					
Best ...	2 19 3	3 14 0	4 7 6	5 6 6	5 12 0
Good ..	2 11 0	3 2 0	3 17 3	4 7 6	4 10 0
Medium ...	2 1 0	2 13 0	3 3 3	3 15 0	3 14 6
Calves, Bobbies—					
Best ...	1 10 3	2 3 6	2 3 0	2 14 9	2 18 3
Good ...	1 4 6	1 12 6	1 17 0	2 7 9	2 8 0
Medium ...	0 17 9	1 6 0	1 9 3	1 14 0	1 15 0
Sheep.					
Cross-bred—					
Wethers—					
Extra prime ...	1 3 9	1 10 6	2 2 3	2 1 3	2 1 0
Prime ...	1 0 6	1 6 0	1 16 9	1 16 0	1 15 9
Good ...	0 17 3	1 0 3	1 10 0	1 12 3	1 11 0
Medium ...	0 14 0	0 15 6	1 5 6	1 9 0	1 5 9
Ewes—					
Extra prime ...	1 2 0	1 8 3	1 15 3	1 16 9	1 16 6
Prime ...	0 19 6	1 4 0	1 11 9	1 12 6	1 12 3
Good ...	0 16 3	0 18 9	1 5 3	1 9 0	1 9 0
Medium ...	0 13 0	0 14 6	1 0 0	1 3 6	1 4 6
Merino—					
Wethers—					
Extra prime ..	1 2 3	1 7 6	1 18 3	1 18 0	1 18 0
Prime ...	0 19 6	1 3 9	1 13 6	1 13 0	1 13 6
Good ...	0 16 0	0 19 0	1 8 3	1 9 6	1 8 6
Medium ...	0 12 6	0 13 9	1 5 0	1 6 0	1 4 6
Ewes—					
Extra prime ...	0 19 0	1 3 9	1 12 0	1 10 9	1 10 6
Prime ...	0 16 9	1 0 3	1 8 9	1 7 0	1 6 0
Good ...	0 13 9	0 16 3	1 4 3	1 4 3	1 2 0
Medium ...	0 10 9	0 12 0	0 19 9	1 1 3	0 18 0

Stock.	1914.	1915.	1916.	1917.	1918.
Lambs, Woolly—					
Extra prime ...	0 18 3	1 2 6	...	1 11 6	1 11 9
Prime ...	0 15 9	0 19 0	...	1 8 9	1 6 9
Good ...	0 12 6	0 15 3	...	1 4 0	1 3 6
Medium ...	0 9 9	0 11 3	...	1 0 3	0 19 0
Pigs.					
Porkers—					
Best ...	2 7 3	2 15 6	3 6 9	3 4 3	2 18 9
Good ...	2 5 0	2 7 0	2 9 0	2 17 6	2 10 6
Medium ...	1 14 6	1 18 6	2 8 0	2 7 9	2 1 6
Baconers—					
Best ...	3 14 6	4 15 0	5 6 9	4 15 3	4 13 6
Good ...	3 7 6	4 2 0	4 15 6	4 6 3	4 3 3
Medium ...	2 18 9	3 13 0	4 3 3	3 16 9	3 12 3
Backfatters—					
Best ...	5 18 6	8 15 0	7 19 6	7 14 6	7 9 0
Good ...	5 3 0	6 15 0	6 17 0	6 12 9	6 10 3
Medium ...	4 1 9	5 5 0	5 7 6	5 9 6	5 8 0

The continued dry weather, as well as the abnormal conditions in Europe, caused prices to rise in 1914, and the upward tendency was maintained until August, 1915, when the market became gradually easier, although extremely high prices were still ruling at the end of the year.

In 1916, the prices were considerably above the level of the previous year, as supplies of stock for slaughtering were scarce, owing to the great demand for re-stocking which set in as a result of a favourable season, and of high values of wool; the high prices were maintained throughout 1917. In the following year the average prices were slightly lower; a steady rise between March and September was followed by a decline during the last three months of the year.

The wholesale prices of meat since 1901 are shown in the following table. The prices, compiled from returns published in the *Australian Meat Trades' Journal*, represent the highest and lowest in each year, the range covering "firsts" and "seconds" in the case of mutton, and "hinds" and "fores" in the case of beef. From 29th July, 1918, to 2nd December the prices of meat, wholesale and retail, were fixed by proclamation of the Commonwealth Government after consideration of reports by the Interstate Commission, which are discussed below:—

Year.	Mutton.		Beef.		Year.	Mutton.		Beef.	
	per lb.		per lb.			per lb.		per lb.	
	d.	d.	d.	d.		d.	d.	d.	d.
1901	$\frac{7}{8}$	to 2 $\frac{1}{4}$	2	to 3 $\frac{1}{4}$	1914	2 $\frac{1}{2}$	to 4 $\frac{3}{8}$	2	to 4 $\frac{1}{2}$
1906	1 $\frac{7}{8}$	„ 2 $\frac{1}{2}$	1 $\frac{3}{8}$	„ 3 $\frac{1}{2}$	1915	2 $\frac{3}{4}$	„ 7 $\frac{1}{4}$	3	„ 9 $\frac{1}{4}$
1911	1 $\frac{5}{8}$	„ 2 $\frac{3}{8}$	1 $\frac{1}{2}$	„ 3	1916	4 $\frac{3}{8}$	„ 7 $\frac{1}{2}$	4	„ 8 $\frac{1}{2}$
1912	2	„ 4 $\frac{3}{4}$	1 $\frac{1}{2}$	„ 5	*1917	4 $\frac{1}{4}$	„ 6 $\frac{3}{8}$	4	„ 7 $\frac{1}{4}$
1913	2	„ 3 $\frac{1}{4}$	1 $\frac{3}{8}$	„ 3 $\frac{3}{4}$	1918	4	to 6 $\frac{1}{2}$	4 $\frac{1}{2}$	to 7

* January to August only, no further quotations owing to strike and abnormal conditions.

The following statement shows the average retail prices charged by cash butchers in Sydney; if delivered, an additional charge, ranging from $\frac{1}{2}$ d. to

1d. per lb. was made formerly, but during the last three years very little delivery has been done:—

Year.	Sirloin Roast.		Rump Steak.		Leg of Mutton.		Shoulder of Mutton.		Loin Chops.	
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
1901	4	to 5	6	to 7	2½	to 3	1½	to 2	3½	to 4
1906	4	„ 5	6	„ 7	2½	„ 3	1½	„ 2	3½	„ 4
1911	4½	„ 5	6½	„ 7	2½	„ 3	1½	„ 2½	3½	„ 4
1912	4½	„ 5½	6½	„ 7½	3	„ 3½	2¼	„ 3	4	„ 5
1913	4½	„ 5½	7	„ 8½	3½	„ 4	3	„ 3½	4½	„ 5
1914	5½	„ 6	8	„ 9	4½	d.	3½	„ 4	5½	„ 6½
1915	7½	„ 12½	9½	„ 16½	5	to 8	4	„ 7½	6½	„ 9
1916	10½	„ 11½	13	„ 14½	6½	„ 8½	5½	„ 7½	8	„ 9½
1917	10½	„ 12	13	„ 16	7½	„ 9½	6½	„ 8	9	„ 11
1918	8	„ 11½	13	„ 15½	7½	„ 8½	6	„ 7½	9	„ 10½

The causes of increase in the price of meat in New South Wales were the subject of investigation by the Inter-State Commission in 1917-18. The reports state that the rise in prices is due partly to loss through drought in 1914-15, with consequent shortage of stock, and to increased costs of raw material and labour, but particularly to the control of the wholesale market by powerful interests. The Commission found that as regards the effect of the export trade in normal times the export prices for beef and mutton may tend to keep local prices up to London parity, but in the absence of this trade production would be seriously reduced, and eventually this reduction in supply might lead to higher prices.

The Commission recommended that the Imperial contract prices, less a deduction of ⅔d. per lb. (freezing charges), be fixed as the maximum wholesale prices for meat in Sydney, and that the prices so fixed be used as a basis for fixing the price on the hoof of stock in centres where there is no wholesale meat trade. With regard to retail prices no action was deemed necessary, as evidence indicated that they would conform to the wholesale prices.

The cost of treating a bullock from pen to retailer in Sydney was stated at 18s., or, taking 650 lb. as an average weight, 33d. per lb.

In consequence of the report of the Interstate Commission the Commonwealth Government decided to fix the prices of meat. The system of fixing only wholesale prices was considered impracticable, and the prices fixed by proclamation, as from 29th July, 1918, related to cash retail sales as well as to wholesale transactions. On 2nd December the proclamations were annulled and the Government made arrangements to protect the interests of the consumer by regulating supplies, instead of prices, by releasing meat from cold storage during periods of scarcity.

In reference to the price of bacon the Interstate Commissioner reported that the causes of increase were the extra cost of raising pigs, and the enhanced value of raw materials and higher wages, which affected the manufacturing costs.

Meat Export Trade.

The maintenance and extension of the export trade, tend to increase the price for the local consumer, but it is of economic value to the State generally in providing a remunerative outlet for surplus stock, and it benefits the local meat market by encouraging the breeding of a class of sheep more suitable for mutton than the merino, and tends to lessen the expense of slaughtering and handling, by enabling the buyer for local consumption to handle larger numbers.

Since the outbreak of war, meat has been exported from New South Wales only with the permission of the Collector of Customs, Sydney.

Meat Supply for Imperial Uses Act.

In February, 1915, the Imperial Government requested the co-operation of the New South Wales Government in securing the whole of the Australian supply of beef and mutton available for export during the continuance of the War, the object being to obtain supplies for the armies of Britain and her Allies, and to prevent any excessive advance in the price of Australian meat in the United Kingdom. Consequently the Meat Supply for Imperial Uses Act was passed on 17th February, 1915, and all stock and meat in New South Wales were declared subject to the Act. Upon a written order of the Minister, all stock and meat mentioned therein become the property of the Crown, free of all mortgages and other encumbrances, and the owners are entitled to payment at prices fixed by a board appointed under the Act. The agreement with the Imperial Government will expire three months after the signing of peace, unless steps are taken to extend the term, and the question of the resumption of unrestricted trading is under consideration by the various States.

The prices fixed for meat taken into cold storage as at 30th June, 1919, are indicated below. The prices are conditional upon delivery by the vendors of the meat free on board ship; no interest or charges may be claimed by the vendors for the meat until it has been 28 days in cold storage, but thereafter they may be paid interest at the rate of 6 per cent. on the value of the meat, and the storage charge will be paid by the Government :—

Mutton.		Price.	Beef.		Price.
		per lb.			per lb.
F. a. q. and g. a. q.—(3rds $\frac{1}{2}$ d. less)		d.			d.
Wether	...	5 $\frac{1}{2}$	Ox	...	4 $\frac{7}{8}$
Ewe	...	5	Cow	...	4 $\frac{3}{4}$ —4 $\frac{7}{8}$
Teg	...	5 $\frac{3}{4}$	Bull—hinds and crops	...	4 $\frac{3}{4}$
Lamb	...	6 $\frac{1}{2}$	Buttocks	...	5 $\frac{3}{4}$
Stag	...	4 $\frac{1}{2}$	Rumps, loins—trimmed	...	5 $\frac{1}{2}$
Cut Carcases	...	5 $\frac{1}{2}$	Forequarter ribs	...	5
Hindquarters	...	5 $\frac{1}{2}$	Chuck and blade	...	4
Forequarters	...	4 $\frac{1}{2}$	Boneless—in bags	...	5 $\frac{1}{2}$
Loins—trimmed	...	5	„ in crates	...	5 $\frac{1}{2}$

The purchase and shipment are arranged by the Metropolitan Meat Industry Board.

Up to the end of June, 1919, the quantity of beef and mutton requisitioned under the authority of the Act and shipped from Sydney was 120,113,451 lb., consisting of 2,233,041 carcasses and 544 pieces of mutton and lamb, and 151,153 pieces of beef. The Imperial Government purchased 198,242 crates of rabbits, valued at £168,506; also 1,482,314 lbs. of cheese, the prices paid being 9 $\frac{1}{2}$ d. per lb. for first quality and 9d. per lb. for second quality. The total cost to the Imperial Government, including storage and interest, to the end of June, 1919, was £2,692,156 for beef and mutton, £184,919 for rabbits, and £57,108 for cheese.

FISH SUPPLY.

In the section relating to Fisheries it is shown that, although the sea-board waters, rivers, estuaries, and coastal lakes of New South Wales contain immense quantities of edible fish, the industry has not been developed extensively, and consequently the fish supply is inadequate, also there is no effective system of distribution, and as a result prices are high.

The supply of fish has been restricted by the want of regular and frequent communication with some of the more prolific grounds and by the cost of freight by steamer, but the extension of the coastal railways has improved the facilities for bringing the catch to market, and the Government is erecting a number of ice depots along the coast to enable the fish to be despatched in good condition.

For sea-carriage the fish are taken to the point of shipment in the fishermen's boats, then washed, packed in cases with ice, except in the case of short distances in winter, and consigned to agents in Sydney. The capacity of the cases varies from 252 lbs. to 640 lbs. of fish, exclusive of ice. Fish carried by rail are packed in cases of a capacity of 65 lbs. to 80 lbs.; for land carriage smaller cases are used.

There are two fish markets in Sydney, the Municipal Fish Market and the Commonwealth Co-operative Fish Exchange, Redfern. The former is controlled by the Sydney Municipal Council, which acts as selling agent, although private agents are allowed to conduct business in the Council's building. The Co-operative Fish Exchange is owned and controlled by a private company.

Fish is sold in the markets by agents both by auction and by private treaty; the Municipal Council sells by auction only. Inspection in the Municipal Market is made by an officer of the Council and by a Government Inspector; and in the Co-operative Fish Exchange by a Government Inspector acting under the Pure Food Act.

The need for an effective system of general distribution of fish to private consumers is urgent. The buyers at the markets consist mainly of wholesale and retail dealers, and hotel, restaurant, and boarding-house keepers, as few private consumers attend the sales. In the nearer suburbs a few dealers maintain regular rounds for the purpose of house-to-house distribution, but the more distant suburbs are supplied only by hawkers whose visits are intermittent.

Reliable statistics regarding the movement of prices are not obtainable but there is sufficient evidence to show that the wholesale prices of all classes of fish have increased considerably.

The main cause of the high prices is the steadily increasing demand, with which the supply has not kept pace. The increase in the demand is not due solely to growth of population, as during the period 1900-18 the quantity of fish marketed in Sydney increased by over 152 per cent. while the increase in the population was 62 per cent. The increase in the demand is attributed to the high cost of meat food, and to changes in the domestic and housing conditions of the people which have led to increased consumption in hotels and in boarding-houses where fish is more regularly an item of food than in the average private household.

The crayfish industry should experience an extensive development, because there is an increasing demand for this article of diet, the number marketed in 1918 being 60,816 as compared with 25,932 in 1901. As regards nutriment value, crayfish is equal to that of ordinary fish, but it is less digestible.

Oysters are marketed in sacks of 3 bushel capacity; they are gathered by hand on beds in shallow water or between tide-marks, and by means of the oyster dredge or tongs in deep-water. Owing to the increased demand oysters are marketed at a smaller size now than formerly.

All the Sydney oyster merchants hold oyster leases, and, in addition to production from their own leases, they market oysters for other lessees. The prices paid to producers by merchants, and to the latter by retailers, are fixed by private treaty. Competition in the oyster trade has been very keen during recent years, and producers have received high prices.

The demand for oysters is far in excess of the supply, and prices are high. The output during 1918 was 22,337 bags. Oyster culture differs from other branches of the fishing industry as to trade conditions, and is apparently more remunerative; the oyster leases form an important source of revenue to the Department of Fisheries.

In the seaboard waters of New South Wales there are large numbers of fish eminently suitable for preserving, but attempts to establish fish preserving as a local industry have not proved successful, owing partly to lack of experience of persons engaged and partly to irregularity of supplies. Therefore, the demand which is considerable, especially in country districts, is supplied wholly by imports, subject to duty of 1½d. per lb.

STATE TRAWLING.

The State Trawling Industry was established in New South Wales in 1915, active operations being commenced with three modern steam steel trawlers, using the full-sized commercial otter-trawl net. Trawling has been confined principally to an area known as the "Home," or Botany ground, a few miles to the south of Port Jackson, and to the Eden ground in the vicinity of Eden and Green Cape, in depths ranging from 35 to 90 fathoms. The catches are landed several times a week at a central receiving depôt at Woolloomooloo Bay, where there are cold storage facilities. The fish are cleaned, and distributed by light delivery cars to retail depôts situated in various parts of the Metropolitan area.

There are now nine State fish-shops in the Metropolitan area and a retail stall in the central distributing depot, and a fish shop at Newcastle; the varieties of fish offered for sale include deep-sea (or tiger) flathead, leather-jacket, john dory, nannygai, morwong, boarfish, sea perch, barracouta, gurnard, skate, ray, and other kinds. Fish are sold also as flake, fillets, and in various other ways, including smoked, smoked-salted, brine salted, and cooked. Varieties of fish not known previously among general consumers have been placed successfully on the market.

The average prices charged during 1918 in the State fish shops were for fresh fish from 3d. to 11d. per lb., and for smoked fish 5d. to 1s. per lb., according to variety; crayfish were from 1s. to 1s. 6d. each and prawns 8d. per lb.

During 1919 four additional trawlers were completed at Walsh Island Dockyards; a wooden general fishing vessel mentioned in the previous issue of the "Year Book," has been sold to the Queensland Government to facilitate the development of the deep sea fisheries of that State.

In order to improve the facilities for marketing the fish the State has commenced the erection of a chain of coastal receiving depôts north and south of Sydney, at which fishermen's catches will be received into cold storage to be distributed by rail, road, or water. A large fish-carrying vessel of special design has been built, and equipped with refrigerating plant for the purpose of carrying fish from the coastal depôts; it may be used also for snapper fishing on the northern grounds.

Many thousands of baskets of fish go to waste annually for lack of proper handling and distributing facilities, and the State scheme is designed to obviate this great loss. At the end of 1918 a central distributing depôt had been completed at Newcastle, and two receiving and refrigerating ice making depôts had been opened at Pindimar on the northern shores of Port Stephens and at Maclean on the Clarence River.

With the coastal depôts in operation and the extra trawlers in commission, fresh fish may be distributed to many parts of the State where it is not now obtainable, and preserving works will be erected for the treatment of any surplus. Fish-meal for poultry and pig and cattle food, also fish guano for fertilising, will be manufactured in due course.

BREAD.

The Sydney bread supply is produced by about 200 master bakers, and for the most part bread is sold by them directly to the consumers. The quality of the bread is good, and the conditions of production satisfactory.

Prior to the war the price of bread was fixed ordinarily by the Master Bakers' Association. The majority of the Sydney master bakers were members of the Association, but the price was observed generally by non-members also. Until the Necessary Commodities Control Act, 1914, came into operation the price was fixed with relation to the declared price of flour, but owing to the practice on the part of the millers of giving extended terms of delivery for flour purchases, the declared price was not always the actual price paid by the baker.

The price of flour was fixed by an association of millers, and was higher than the price obtainable for export, higher also than it would be under competitive conditions, because the total capacity of the mills was above the demand, and much of the machinery was intermittently idle. Export prices cannot be regulated by arrangement, consequently the millers maintained the price for local consumption at a higher level to compensate for this addition to the average cost of production. The excess, however, was not great enough to cause any substantial addition to the price of bread.

The prices of bread were regulated under Commonwealth supervision from July, 1916 to March, 1919, when the proclamations were annulled, and the price in Sydney was advanced to the extent of $\frac{1}{4}$ d. per 2 lb. loaf by the Master Bakers' Association.

The price of bread in Sydney, as fixed at various times from 1900, is shown below in conjunction with the declared price of flour at the time when the price of bread was fixed:—

Date.	Price of 2 lb. Loaf.	Cost of Flour per ton.
	d.	£ s. d.
1900	2 $\frac{1}{2}$	6 15 0
1902—April	2 $\frac{3}{4}$	8 15 0
September	3	9 10 0
November	3 $\frac{1}{4}$	10 10 0
1903—February	3 $\frac{1}{4}$	12 0 0
December	3 $\frac{1}{2}$	10 10 0
1904—February	3 $\frac{1}{4}$	9 10 0
September	3	9 0 0
1907—June	3 $\frac{1}{4}$	8 15 0
October	3 $\frac{1}{4}$	10 0 0
1909—March	3 $\frac{1}{2}$	10 0 0
1910—June	3 $\frac{1}{4}$	8 15 0
1912—May	3 $\frac{1}{2}$	9 15 0
1913—October	3 $\frac{1}{2}$	8 15 0
1914—December	4	11 17 6
1915—July	5	17 5 0
October	4	11 17 6
1916—March	*3 $\frac{1}{4}$	11 5 0
1917—June	*3 $\frac{1}{4}$	11 0 0
1918—July	*3 $\frac{1}{4}$	11 0 0
1919—March	* $\frac{1}{4}$	11 0 0

* Price over counter: $\frac{1}{4}$ d. additional if delivered.

At an investigation into the price of bread in Sydney, conducted by the Interstate Commission in 1918, it was stated that day-baking tends to diminish the returns of bakers by reducing the consumption—the bread being at least eighteen hours old when delivered—and to increase the cost,

as more dough is required to make a loaf which will satisfy the requirements of the law in regard to weight. Nevertheless, the average number of loaves obtained from a ton of flour is greater in Sydney than in Melbourne, where the bread is baked at night.

The average cost of producing bread in Sydney was estimated by the Interstate Commission at 2·9d. per loaf, and the delivery cost is about $\frac{3}{4}$ d. per loaf.

State Bakery.

A bakery was purchased by the State, and proclaimed a State industrial undertaking as from 12th February, 1914. The price paid for the land, buildings, and plant was £8,200, and with additional costs the capital was £17,791 as at 30th June, 1918.

During the year 1917-18 the trading operations resulted in a profit of £1,419, or 8 per cent.; the net profit after providing interest and sinking fund was £795, or 4·5 per cent. The sales amounted to £32,125, as compared with £61,925 in the previous year; the latter amount, however, included £38,943 for sales in connection with the mill, which until 30th June, 1917, was worked as an adjunct of the Bakery.

FRUIT AND VEGETABLES.

The fruit supply of Sydney was derived mainly from orchards within the State, from Victoria, Tasmania, America, Sicily, and Italy; relatively small quantities are obtained from Queensland and South Australia. Large shipments of bananas were imported from Fiji, but during the last two years, owing to the restriction of oversea shipping, the Sydney market has been supplied mainly from the Tweed River district.

From November or December to February or March the supply is for the most part locally grown; from March to October the market for all fruits, except citrus, is supplied chiefly from Victoria and Tasmania; in October shipments arrive from America. From May to December local supplies of citrus fruits are available, though importations from America of oranges and lemons are made from October to December, and from Italy from December to March.

The following statement shows the average wholesale prices of various fruits in Sydney during the last five years :—

Fruit.	1914.	1915.	1916.	1917.	1918.
Apples, per bushel ...	6s. to 9s.	7s. to 10s.	6s. 6d. to 10s.	9s. to 13s.	8s. to 11s.
„ cooking, per bushel	7s. 6d.	8s.	6s.	9s. 6d.	8s.
Oranges, per bushel ..	8s. to 14s.	8s. to 13s.	7s. 6d. to 15s.	7s. to 13s.	7s. to 14s.
Mandarins „	11s.	8s.	11s.	9s. 6d.	11s.
Pears „	12s.	11s.	11s.	9s. 6d.	12s.
Passion fruit, per $\frac{1}{2}$ bushel	7s.	7s.	6s. 6d.	7s.	10s.
Bananas, per $1\frac{1}{2}$ bushel ...	18s.	20s.	15s. 6d.	16s. 6d.	18s.
Pineapples „	9s.	8s.	7s. 6d.	9s.	9s. 6d.

No details are available regarding the local production of the different kinds of vegetables, except potatoes and onions, as the figures are included under a general heading, "Market Gardens," as shown in the chapter relating to Agriculture. Large supplies of vegetables are obtained from other Australian States.

The average wholesale prices of vegetables in Sydney during 1914-18 were as follows:—

Vegetables.	1914.	1915.	1916.	1917.	1918.
Cabbages... per doz.	5s. to 6s.	6s. to 8s.	5s. to 7s.	6s. to 7s.	7s. 6d.
Cauliflowers „	6s. to 8s.	6s. to 8s.	7s. to 8s.	8s.	8s. 6d.
Peas ... per bush.	5s. 6d.	6s. 6d.	7s.	8s.	9s. 6d.
Beans ... „	3s. to 4s.	5s. to 6s.	4s. to 5s.	5s. to 6s.	5s. 6d.

Imported potatoes are sold by private treaty on the wharf shortly after arrival, and the prices are fixed by arrangement between sellers. Locally-grown potatoes are sold by auction in the railway yards.

The average wholesale prices of potatoes imported from Tasmania and Victoria and of onions are shown below in half-yearly periods between 1901 and 1918:—

Year.	Potatoes.				Onions.	
	Tasmanian.		Victorian.			
	Jan.-June.	July-Dec.	Jan.-June.	July-Dec.	Jan.-June.	July-Dec.
	per ton. £ s. d.	per ton. £ s. d.	per ton. £ s. d.	per ton. £ s. d.	per ton. £ s. d.	per ton. £ s. d.
1901	5 0 0	6 0 0	*	*	10 0 0	10 5 0
1906	8 0 0	8 5 0	7 0 0	7 0 0	6 12 6	7 10 0
1911	7 0 0	6 7 6	5 7 6	5 15 0	3 2 6	5 0 0
1912	9 5 0	13 5 0	7 10 0	9 0 0	12 15 0	12 15 0
1913	7 18 6	6 11 6	6 13 0	3 17 6	7 1 6	7 14 6
1914	6 9 0	7 3 0	5 4 0	*	7 17 0	10 4 0
1915	7 1 6	12 10 6	6 9 0	10 15 6	8 3 0	7 14 6
1916	11 0 0	7 10 9	8 10 0	*	4 12 3	5 9 9
1917	6 14 3	8 3 9	4 15 9	6 2 3	7 5 6	14 4 6
1918	6 16 9	9 7 3	5 11 0	7 4 6	9 13 3	19 7 6

*None offering.

The Interstate Commission, after investigation into the prices of fruit and vegetables, concluded that the primary cause of any increase of prices has been seasonal. Secondary causes are the proportion of inexperienced cultivation and inefficient methods of grading and packing, and the relatively inferior means of transit. There was no evidence of the existence of combines whose operations cause the prices to be raised against the consumer, except in regard to potatoes and onions imported to Sydney, where the prices fixed by a body of merchants are often needlessly high.

MILK.

The law governing the conditions of milk production and distribution is contained mainly in the Dairies Supervision Act of 1901, the Pure Food Act of 1908, and the Dairy Industry Act of 1915. The duty of registering dairies, and supervising and inspecting dairy premises and cattle, is vested in local authorities, but in actual practice the administration is conducted by the Board of Health. At 31st December, 1918, there were 18,435 registered dairymen in the State, and the cattle in their dairy herds numbered 936,681; there were also 4,357 registered milk vendors. In the metropolitan district there are 323 registered dairymen, with 8,211 cattle, and 3,418 registered milk vendors.

The standard for milk is fixed by regulation under the Pure Food Act. It must contain not less than 8·5 per cent. of milk solids (not fat), and 3·2 per cent. of milk fat. During 1918 the Pure Food and Municipal Inspectors collected 10,104 samples of milk, and 715 were below standard; prosecutions were instituted in 281 cases, and penalties in fines and costs amounted to £1,282.

The Dairy Industry Act, 1915, was passed to regulate the manufacture, sale, storage, transit, and export of dairy produce, including margarine, and for prescribing standards; to provide for the testing, blending, mixing, and grading of cream, and for the grading and branding of butter.

The milk supply of Sydney is derived partly from dairies in the metropolitan area, and partly from dairies in country districts, viz., the South Coast district between Wollongong and Nowra, the districts traversed by the Main Southern Railway between Liverpool and Moss Vale, the Penrith, Windsor, and Richmond Districts, and the districts around Braxton, Singleton, and Gosford, on the Northern Railway line.

The proportion of the city supply derived from metropolitan dairies is decreasing steadily. The chief reasons for the decline are the increased land values in the suburban areas and the high price of fodder—cows kept in the city and suburbs must be hand-fed throughout the year. The average yield per cow is increasing in the metropolitan district, as the high cost of maintenance necessitates the elimination of unprofitable animals from the herds.

On the other hand, there is strong evidence of diminishing productiveness in many parts of the South Coast District, where the bulk of the country milk is obtained; although recently there has been an increase in the quantity obtained from the Maitland District. This has an important bearing on the city milk supply, as, unless an improvement is effected, milk will have to be brought to the city from more distant parts of the State.

The milk from the metropolitan dairies is distributed direct to the consumer, and the country milk is handled by three large distributing companies. The milk which is sent to two of these companies is delivered at the country railway stations in 10-gallon cans, and carried in louvered vans to Sydney, where it is subjected to a pasteurising process. A preferable method is adopted in the case of the milk sent to the third company; it is treated at a country factory and sent in 600-gallon tanks to Sydney, where it is cooled again before distribution.

The range of wholesale and retail prices of milk during each year since 1901 is shown below. The wholesale price represents that paid by the distributing companies to the farmer for milk delivered on trucks at country railway stations; the retail price for country milk is that charged by these companies, or by milk vendors, to the householder; and for fresh milk the retail price is that charged by the metropolitan dairyman.

The prices were fixed by the Necessary Commodities Control Commission from July, 1915, to June, 1916, and later by the Commonwealth authorities, under the War Precautions (Prices) Regulations:—

Year.	Wholesale.	Retail.		Year.	Wholesale.	Retail.	
		Country.	Fresh.			Country.	Fresh.
	per gal.	per qt.	per qt.		per gal.	per qt.	per qt.
	d. d.	d.	d.		d. d.	d.	d.
1901	6 to 7	4	4-5	1914	8 to 11	5	6
1906	6 „ 7	4	4	1915	8 „ 11	5-5½	6
1911	6 „ 9	4-5	5	1916	8 „ 12	5-5½	6
1912	6 „ 9	5	6	1917	10 „ 12	5½	6
1913	6 „ 9	5	6	1918	10 „ 12	5½	6

The price paid to the farmer for country milk has varied from 5d. to 1s. per gallon since 1901; in view of the increased costs of production, it is generally agreed that in an average year the minimum price payable is 8d. per gallon. The milk received by the distributing companies is retailed to the householder at an advance of from 10d. to 1s. 4d. per gallon on the price paid to the farmer, but considerable quantities are sold to vendors at wholesale rates about 4d. per gallon higher than the price paid to the farmer.

An investigation into the price of milk was conducted in 1918 by the Interstate Commission, who concluded that the increased price was due to the increased cost of dairy cows, of labour, and of plant.

PROTECTION AND STANDARDISATION OF FOODS.

Prior to the passing of the Pure Food Act, 1908, limited powers of supervision regarding the preparation and sale of foods had been exercised by the Board of Health and by the various local governing bodies under acts relating to public health, local government, dairies' supervision, cattle slaughtering, etc. Since the enactment of a specific measure, a definite system of regulation has become possible. The administration of the pure food law is entrusted primarily to the Board of Health, with an Advisory Committee, consisting of the President of the Board, and medical men, chemists, merchants, and others, on whose recommendations the Board makes regulations regarding the standardisation, composition, methods and conditions of manufacture, storage, sale, etc., in order to secure the wholesomeness, cleanliness, and purity of the food supply. Officers, appointed under the Act, may enter for the purpose of inspection any place used for the sale, storage, delivery, manufacture, or preparation of any article intended for use as a food or a drug. The first code of regulations, prescribing the standards for foods and drugs, was gazetted on 15th July, 1909. The Commonwealth Department of Trade and Customs has control as to the composition and labelling of foods and drugs imported into Australia.

STANDARD WEIGHTS AND MEASURES.

Weights and measures in New South Wales are regulated under the Weights and Measures Acts, 1915 and 1916. The standard weights and measures of the United Kingdom have been adopted; and all articles sold by weight must be sold by avoirdupois weight, except precious metals, by troy weight; precious stones, metric carat; and drugs, retail, by apothecaries weight. Sales by retail must be according to net weight or measure, and packages of goods must have the net weight or measure stamped thereon.

Weights, measures, and weighing and measuring instruments, used for trade are required to be stamped with marks of verification, and, unless a measure made of glass, must be restamped at specified intervals. In the Metropolitan and Parramatta police districts and in other districts as proclaimed, coal and firewood are sold by weight, but in the case of quantities exceeding 5 cwt., if the written consent of the purchaser be obtained, it may be sold otherwise as agreed.

MUNICIPAL MARKETS.

The Sydney Corporation (Consolidating) Act of 1902 and its amendments empower the City Council to establish public markets within its boundaries for the sale of fruit, vegetables, fish, produce, or general merchandise; the Council may grant licenses for hawking and selling in the city, poultry, fish, vegetables, garden produce, and other articles, and may make by-laws for the regulation and control of all stands and stalls used, in any public way in the city, for the sale of refreshments or fruit.

Under the Local Government Act of 1906, municipalities (excluding Sydney) exercise among their primary functions control as to the regulation and licensing of the hawking of goods; both shires and municipalities have power to lease buildings, wharfs, markets, etc. Among the specific powers of shires is included dairy supervision; among the additional powers which may be acquired by shires and municipalities are those relating to the construction, establishment and maintenance of cattle saleyards and abattoirs and public markets; supervision and regulation of the sale and storage of meat, fish, rabbits, poultry, and game.

SYDNEY MUNICIPAL MARKETS.

The Municipal Council of Sydney has erected markets for vegetables, farm produce, fruit, fish, and poultry.

The vegetable market has 288 stalls, which are occupied by the *bond fide* grower, who brings his own produce to market, and conducts the sale by private treaty; the charges are on the dues system at 1s. 6d. per cart load; the minimum amount payable for each stall is 3s. per week.

The produce market is occupied almost entirely by agents, who receive products from the country and oversea; these agents are allotted stands on the scale of 1s. 6d. per load, with an additional reserving fee of 1s. per week for the particular stand. Surrounding this market are stores, which are leased to the agents, who distribute to suburban and distant centres.

In the fish market supplies are consigned direct to the Council from the various districts, and are sold by the Council's officers at auction. Salt water, pumped from the harbour, is supplied to the markets for cleansing the fish, and a cooling chamber is provided.

The fruit market was designed for the speedy and careful handling of this delicate food product. Fruit may be conveyed to the market directly by means of a special railway siding, which connects with the main railway system. Provision is made for sales by auction or by private treaty.

In all these markets the officers of the Council are charged with the necessary authority for inspection and condemnation.

The poultry market provides accommodation for fifteen to twenty thousand head of poultry; there is also a special floor for eggs, bacon, butter, cheese, etc. The market is subdivided into stands, which are let to poultry auctioneers; the Council supervises the cleanliness of the market, but has no power in regard to inspection.

The area and cost of the several markets are as follows:—

Market	Floor Space.	Cost of Market.	Market.	Floor Space.	Cost of Market.
	sq. ft.	£		sq. ft.	£
Vegetable ...	95,560	127,000	Fish ...	47,517	49,000
Produce ...	45,300	48,300	Poultry ...	12,200	27,500
Fruit ...	143,000	119,500			

Municipal Cold Storage Works.

These works, situated in the Market area immediately adjoining the Fruit Markets, are equipped with chilling and freezing rooms for the storage of fruit, dairy and farm produce, mutton and rabbits; the cost was £94,000.

The total storage capacity of the chambers, excluding passages and grading rooms, is 208,130 cubic feet. Provision is made to supply power for an ice-making plant; also for a further addition of cooling space as may become necessary.

WHOLESALE PRICES.

The determination of average prices of food products is a difficult matter in view of the extensive area of New South Wales, its scattered population, the varying methods of transport, and the sparsity of large central markets. Consequently an average of prices prevailing throughout the State has not been attempted. The following figures represent prices determined in metropolitan markets; for country districts due allowance must be made for cost of transportation, etc.

Average wholesale prices at Sydney sales of the principal kinds of farm and dairy produce are given for the seven years, 1912 to 1918. The average for the year represents the mean of the prices ruling during each month, and does not take into account the quantity sold during the month. The figures are those quoted by the middleman and not those obtained by the producers :—

Farm and Dairy Produce.	1912.	1913.	1914.	1915.	1916.	1917.	1918.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Wheat ...bush.	0 4 1	0 3 7	0 4 2	0 5 5	0 5 0	0 4 9	0 4 9
Flour ... ton	9 8 11	8 12 9	9 9 8	13 7 0	11 5 4	11 1 0	11 0 0
Bran ...bush.	0 1 2½	0 0 11	0 1 1	0 1 3½	0 0 10½	0 0 9½	0 0 9½
Pollard ... "	0 1 3½	0 0 11½	0 1 1	0 1 5½	0 1 0½	0 1 0½	0 1 1
Barley ... "	0 4 4	0 2 11½	0 2 11	0 5 5½	0 3 4½	*	0 4 1
Oats ... "	0 3 6½	0 3 0	0 3 0	0 4 7	0 2 10½	0 3 3	0 4 7
Maize ... "	0 4 8	0 4 1½	0 3 11½	0 5 2½	0 4 6	0 3 9½	0 5 7
Potatoes... ton	8 12 9	4 16 6	4 14 8	7 9 1	8 14 0	6 3 0	6 17 2
Onions ... "	12 4 3	7 18 9	9 2 10	7 19 0	5 0 9	10 5 0	14 4 9
Hay—							
Oaten ... ton	6 6 6	4 15 3	4 17 2	8 4 8	4 7 0	4 16 0	6 4 0
Lucerne ... "	4 18 9	4 19 0	4 9 4	5 16 7	4 6 0	3 12 0	4 17 9
Chaff ... "	5 14 0	4 7 9	5 3 6	7 3 8	4 8 6	4 6 5	5 18 6
Butter ... lb.	0 1 0	0 0 11	0 0 11½	0 1 2½	0 1 3	0 1 4½	0 1 4½
Cheese ... "	0 0 8½	0 0 7	0 0 7½	0 0 9½	0 0 9	0 0 9½	0 0 10½
Bacon ... "	0 0 8½	0 0 9½	0 0 9½	0 0 10½	0 1 0	0 0 11½	0 1 0
Eggs ... doz.	0 1 2½	0 1 2½	0 1 1	0 1 4½	0 1 3	0 1 0	0 1 2
Milk ... gal.	0 0 11½	0 0 11	0 0 11½	0 1 0	0 1 2½	0 1 2½	0 1 2½
Poultry—							
Fowls							
(Roosters) pair	0 5 0	0 4 10	0 5 5	0 5 6	0 5 9	0 5 9	0 5 9
Ducks							
(English) ... "	0 3 3	0 4 4	0 4 5	0 3 11	0 4 11	0 4 9	0 4 9
Geese ... "	0 6 3	0 7 0	0 6 8	0 6 4	0 8 0	0 9 9	0 9 9
Turkeys							
(Cocks) ... "	0 15 9	0 11 0	0 11 2	0 13 3	0 14 3	0 15 6	0 17 6
Bee produce—							
Honey ... lb.	0 0 3	0 0 3½	0 0 3½	0 0 4½	0 0 4½	0 0 4½	0 0 4½
Wax ... "	0 1 2½	0 1 2½	0 1 2½	0 1 4	0 1 4½	0 1 6½	0 1 10½

* No quotations.

These figures call for little comment beyond the caution already given that in regard to the prices of commodities generally, the averages are irrespective of the quantities sold. As regards most of the articles in the list, the lower the price the larger the consumption. The exception to this rule is poultry, which is most in demand before the Christmas season, when prices are correspondingly high.

In comparison with the yearly prices, the averages of the whole sale prices current during each month of 1918 are quoted for the more important articles of New South Wales agricultural production :—

Month.	Wheat (Milling).	Flour (in 150 lb. bags).	Brans.	Pollard.	Oats.	M. d. z.	Hay (Oaten).
	per bushel.	per ton.	per bushel.	per bushel.	per bushel.	per bushel.	per ton.
	s. d.	£ s. d.	d.	d.	s. d.	s. d.	£ s. d.
January	4 9	11 0 0	9·6	13·2	3 5½	5 3½	5 0 0
February	4 9	11 0 0	9·6	13·2	3 7½	5 3½	4 15 0
March	4 9	11 0 0	9·6	13·2	4 0½	5 2¼	5 0 0
April	4 9	11 0 0	9·6	13·2	4 4½	4 11½	4 16 0
May	4 9	11 0 0	9·6	13·2	4 11½	4 10	4 14 3
June	4 9	11 0 0	9·6	13·2	4 11¼	4 10½	7 0 0
July	4 9	11 0 0	9·6	13·2	4 11½	5 8	7 14 0
August	4 9	11 0 0	9·6	13·2	5 0	5 9½	5 11 9
September	4 9	11 0 0	9·6	13·2	5 0	5 11½	5 18 3
October	4 9	11 0 0	9·6	13·2	4 9½	6 2½	7 12 6
November	4 9	11 0 0	10·8	12·0	5 0	6 4½	8 2 6
December	4 9	11 0 0	10·8	12 0	5 0	6 5½	8 5 0
	Potatoes (Local).	Butter (Good Brands).	Cheese (Prime).	Bacon (Sides).	Lard (Bulk).	Eggs.	
						Country Consign- ments.	New Laid.
	per ton.	per lb.	per lb.	per lb.	per lb.	per doz.	per doz.
	£ s. d.	d.	d.	d.	d.	s. d.	s. d.
January	5 15 0	16	9	12	9½	0 11½	1 3½
February	5 0 0	16	9½	12½	8½	1 1½	1 7½
March	6 13 3	16	9½	13	9½	1 5	1 10½
April	5 3 3	16	9½	13	9½	1 8½	2 4½
May	4 15 0	16	10	12½	9½	1 11½	2 5½
June	4 16 3	17	10½	12	10	1 11½	2 1½
July	5 2 6	17½	10½	12	10	1 5	1 6½
August	6 0 0	17½	10½	11½	10	1 0½	1 2
September	5 3 3	17½	10½	11½	10	0 9½	0 11½
October	6 11 9	16½	10½	11½	10	0 10½	0 11
November	9 5 0	16½	11½	11½	9½	0 11½	1 0½
December	8 14 3	18½	11½	13	9½	1 0½	1 2½

From 25th March, 1916 to 1st February, 1919, the average official f.o.b. price of grain used for flour for home consumption was 4s. 10½d. per bushel. This included 3½d. handling and commission charges, but city millers handling grain for their own mills obtained it for 1½d. per bushel less than the f.o.b. price, i.e., 4s. 9d. per bushel (on trucks) at Sydney. On 1st February, 1919, the price was raised to 5s. per bushel.

Of barley and oats, the bulk are imported, and the prices of these cereals during 1918 were much higher than in the previous two years. The price of oats increased during 1918 from 3s. 5½d. per bushel in January to 5s. in December. Maize is largely of local growth; there was a shortage during 1918, on account of the dry season in the coastal areas where the bulk of the cereal is grown; the prices ranged from 4s. 10d. in May to 6s. 5½d. per bushel in December.

Prices for the various kinds of fodder which had been high since May, 1917, rose again during the latter half of 1918 owing to the continued dry weather.

Root crops show very great range; thus locally-grown potatoes varied between £4 15s. in May and £9 5s. in November.

Prices of the items set forth in the tables just given are determined by the local demand, wheat excepted, its price being fixed usually by that ruling in the markets of the world; since 1914 it has been fixed by law. The prices of pastoral and other primary produce, which form so large a proportion of the exports of the State, are not sensibly affected by local consumption, but are established by the prices ruling in London.

In the following table are given for seven years the Sydney average f.o.b. prices of the principal pastoral products; leather is included as a pastoral product, although it might be regarded as a manufactured article:—

Pastoral Produce.	1912.	1913.	1914.	1915.	1916.	1917.	1918.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Beef ... lb.	0 0 2½	0 0 3½	0 0 3½	0 0 5½	0 0 6½	0 0 6	0 0 6½
Mutton ... „	0 0 3	0 0 3	0 0 3½	0 0 4½	0 0 5½	0 0 5½	0 0 6½
Wool—							
Greasy ... „	0 0 9	0 0 9½	0 0 9½	0 0 9½	0 1 1	0 1 3½	0 1 4½
Scoured... „	0 1 3½	0 1 5	0 1 4	0 1 4½	0 1 8½	0 1 10½	0 1 10½
Sheepskins with							
Wool ... bale	19 16 0	22 17 0	20 18 0	21 4 7	25 16 2	28 18 9	31 13 0
Hides ... each	1 4 0	1 9 4	1 8 0	1 12 0	1 9 3	2 13 0	2 9 3
Leather ... bale	34 16 8	39 19 9	47 15 4	50 2 0	55 5 8	56 9 6*	...
Tallow ... cwt	1 9 3	1 10 3	1 8 4	1 12 5	1 16 6	2 1 6	2 0 3

* January to June only; no later quotations.

In 1913 the prices of meat and leather were the highest throughout the period 1907-13. In 1914 the prices were affected by the War—the price of meat rose considerably, and that of leather was maintained at a high level; trade dislocations resulted in a decline in the prices of wool, skins, hides, and tallow, but towards the close of the year there was a marked improvement. During the last four years there has been a steady increase in the prices of all the products shown in the table, though the averages for hides and tallow were slightly lower in 1918 than in the previous year.

PRICES OF METALS.

The next table shows the Sydney average f.o.b. prices of the principal metals and of coal produced in the State. These, like pastoral products, are not affected by the local demand, but depend upon the prices obtained in the world's markets:—

Metals.	1913.	1914.	1915.	1916.	1917.	1918.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Silver ... oz.	0 2 3½	0 2 1½	0 1 11½	0 2 7½	0 3 4½	0 3 11½
Copper ... ton	68 13 4	60 16 8	73 0 0	115 15 0	125 3 4	115 16 8
Tin ... „	202 5 0	153 0 0	164 17 1	181 15 0	237 16 8	322 6 8
Lead ... „	18 15 0	19 1 8*	22 19 2	31 1 8	30 10 0	30 11 8
Coal ... „	0 10 9	0 10 7	0 10 7	0 11 3	0 14 9	0 14 6

* No quotations during three months, August-October.

During 1913 the prices for all these metals, with the exception of lead, were slightly lower than in the previous year. In 1914 the prices were affected adversely by the War, but in 1915 prices of copper, tin and lead rose again owing to the increased demand for war purposes, and during the last three years high prices were realised for all the industrial metals, notably tin, copper, and silver. The price of tin rose steadily from 1915 to the closing months of 1918, when it declined rapidly and the price in December was the lowest since October, 1916. The export price of coal, which had been fairly constant for some years, rose slightly during 1916, and there was a marked advance in 1917.

INDEX NUMBERS—EXPORT PRICES.

The following statement shows the variation since 1901 in price levels of the principal articles of domestic produce exported from New South Wales calculated on the average f.o.b. prices at Sydney. The average prices prevailing in 1901 were adopted as the basis :—

Period.	General Index— All articles.	Pastoral Products— Wool, Tallow, Hides, Leather, etc.	Metals— Silver, Lead, Copper, Tin.
1901	1,000	1,000	1,000
1906	1,277	1,316	1,432
1911	1,194	1,194	1,189
1912	1,327	1,263	1,454
1913	1,367	1,408	1,451
1914	1,365	1,451	1,302
1915	1,620	1,686	1,464
1916	1,878	1,988	1,948
1917	2,116	2,212	2,241
1918	2,207	2,333	2,387

SYDNEY RETAIL PRICES.

The following table shows the average retail prices in Sydney of various commodities at intervals from 1890 to 1910. The quotations are based on the prices charged in the shops in the metropolitan district. The 1905-6 edition of the Year Book gives average prices of commodities in each year from 1870 to 1900, and the 1913 edition the average prices in each year from 1900 to 1910:—

Commodity.	1890.	1895.	1900.	1905.	1910.
	s. d.	s. d.	s. d.	s. d.	s. d.
Bread ... 2 lb. loaf	0 3½	0 2¾	0 3	0 2¾	0 3½
Tea ... lb.	1 6	1 6	1 4	1 3	1 3
Coffee ... "	2 0	1 9	1 6	1 6	1 6
Sugar ... "	0 3½	0 2½	0 2½	0 2½	0 2½
Rice ... "	0 4	0 2½	0 2½	0 2½	0 2½
Oatmeal ... "	0 3	0 2	0 2½	0 2½	0 2½
Starch ... "	0 5	0 4	0 3½	0 5	0 5
Soap ... "	0 3½	0 2	0 3	0 3½	0 3½
Potatoes ... cwt.	6 0	4 3	6 9	10 6	7 6
Butter ... lb.	1 0	1 0	0 11	1 1	1 1
Cheese ... "	0 8	0 8	0 7½	0 8	0 9
Eggs ... doz.	1 6	1 0	0 11	1 0	1 3
Bacon ... lb.	1 0½	0 7½	0 7½	0 9	0 10
Beef, fresh ... "	0 4	0 3	0 3½	0 5½	0 5½

Since the beginning of 1911 particulars are available regarding a larger number of articles, and returns of prices are now collected monthly. The mean of the monthly prices during 1911 and subsequent years is shown in the following statement:—

Article.	Average Prices.				
	1911.	1915.	1916.	1917.	1918.
Bread per 2 lb. loaf	s. d. 0 3·5	s. d. 0 4·2	s. d. 0 4	s. d. 0 4	s. d. 0 4
Flour 25-lb. bag	2 8	4 0·7	3 6·1	3 4·1	3 7·4
Tea lb.	1 3·5	1 5	1 6·1	1 6·2	1 6·7
Coffee and Chicory	1 5	1 6	1 6	1 6	1 6·1
Cocoa ½ lb.	0 4·2	0 4·2	0 4·6	0 5·4	0 6·9
Sugar lb.	0 2·7	0 2·9	0 3·5	0 3·5	0 3·5
Rice "	0 2·7	0 3	0 3·2	0 3·3	0 3·4
Sago "	0 2·7	0 2·7	0 3·2	0 3·9	0 4·7
Jam (Australian)	0 4·4	0 5·2	0 6	0 5·7	0 5·7
Oatmeal 5 lb.	1 0·5	1 5·8	1 2	1 1·4	1 5·6
Raisins lb.	0 6·2	0 6·5	0 7·7	0 7·7	0 8·2
Currants "	0 7	0 7·8	0 9·1	0 8·3	0 8·6
Starch "	0 5·5	0 5·5	0 6·4	0 7	0 6·9
Blue doz. squares	0 9	0 9·1	0 9·2	0 9·5	1 3·6
Candles lb.	0 7	0 6·9	0 8	0 9·3	0 10·4
Soap "	0 3	0 3	0 3·4	0 4	0 4·4
Potatoes 14 lb.	1 0·2	1 5·3	1 6·5	1 4	1 5·2
Onions lb.	0 1	0 1·5	0 1·1	0 1·9	0 2·8
Kerosene gal.	0 11·1	1 1·5	1 6·7	1 10·8	2 2·7
Milk qt.	0 4·3	0 5·1	0 5·5	0 6	0 6
Butter lb.	1 1·5	1 5	1 5·3	1 6·7	1 7
Cheese—New "	0 8·7	1 0	1 0·1	1 0·6	1 1·3
Matured "	0 10	1 0·6	1 0·2		
Eggs—New laid doz.	1 6·5	1 11	1 9·5	1 7·5	1 8·8
Fresh "	1 3·5	1 7·5	1 6·4	1 4·7	1 5·8
Bacon—					
Middle cut lb.	0 10·5	1 3	1 4·5	1 4·3	1 4·5
Shoulder "	0 7	0 10·2	1 0·4	0 11·5	11·5
Ham "	1 1	1 3·3	1 5·5	1 5·4	1 5·9
Beef (fresh)—					
Sirloin "	0 4·5	0 9·8	0 11·1	0 11·1	0 10·2
Ribs "	0 3·8	0 8	0 9·5	0 9·5	0 9·2
Gravy beef "	0 3	0 6·2	0 7·6	0 8·0	0 7·2
Steak—Rump "	0 7	1 0·2	1 1·8	1 2·6	1 2·8
Shoulder "	0 3·5	0 7	0 8·5	0 9	0 8·8
Beef (corned)—Round "	0 4	0 7·8	0 9·6	0 9·5	0 9
Mutton—					
Leg "	0 3	0 6·2	0 7·8	0 8·2	0 7·8
Shoulder "	0 2·5	0 5·4	0 6·7	0 7·1	0 6·8
Loin "	0 3·8	0 6·7	0 7·9	0 9·1	0 8·4
Neck "	0 3	0 5·8	0 7	0 7·9	0 6·9
Chops—Loin "	0 4·2	0 7·8	0 9	0 10	0 10
Leg "	0 4	0 7·3	0 8·6	0 9·6	0 9·1
Neck "	0 3·5	0 6·1	0 7·3	0 7·9	0 6·8
Lamb—					
Fore-quarter each	1 9	†3 3	*0 7·7	*0 8·6	*0 7·8
Hind-quarter "	2 9	†4 5	*0 8·7	*0 9·9	*0 9·9
Pork (fresh)—					
* Leg lb.	0 7·8	0 11	1 0·1	1 1·1	1 1·3
Chops "	0 8·5	0 11·8	1 0·1	1 3·5	1 2·6

* Per lb.

† Mean of months January to July. From August to December the averages were Forequarter, 7d. per lb., hindquarter, 7½d.

While the above tables are useful for comparative purposes, in regard to the cost of living, the figures do not disclose a most interesting feature in a history of prices, namely, the fluctuations during the year, which are pronounced, especially in the case of perishable produce. The average prices in each month of the year 1918 are shown below:—

Article.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Bread ... 2 lb. loaf	d. 4	d. 4	d. 4	d. 4	d. 4	d. 4	d. 4	d. 4	d. 4	d. 4	d. 4	d. 4
Flour ... 25 lb. bag	42.7	42.7	42.7	42.7	42.7	43.4	43.4	43.4	43.5	44	44.2	45
Tea ... Self-raising ... 2 lb.	6.4	6.4	6.6	6.6	6.6	7.1	7.1	7.2	7.2	7.2	7.2	7.2
Coffee and Chicory ... lb.	18.2	18.5	18.5	18.5	18.5	18.7	18.7	19	19	19	19	19
Cocoa ... 4	5.0	6	6.1	5.7	5.6	6.2	7.4	7.9	8.2	8.2	8.2	8.2
Sugar ... lb.	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Rice ...	3.4	3.4	3.4	3.4	3.3	3.3	3.3	3.4	3.4	3.4	3.4	3.4
Sago ...	4.7	4.6	4.6	4.6	4.5	4.7	4.9	4.7	4.7	4.7	4.7	4.7
Jam (Australian) ...	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7
Oatmeal ... 5 lb.	13.4	13.4	14.3	17.6	17.7	19.3	19.2	18.3	19.2	19.3	19.3	19.3
Raisins ... lb.	7.6	7.6	7.6	7.6	7.7	8.2	8.5	8.5	8.7	8.7	8.7	8.7
Currants ...	8.1	8.1	8.1	8.1	8.5	8.7	9	9	9	9	9	9
Starch ...	6.7	6.7	6.7	6.9	6.9	7	7	7	7	7	7	7
Blue ... doz. squares	10.5	10.5	12.9	17	17	17	17	17	17	17	17	17
Candles ... lb.	10	10.1	10.2	10.1	10.1	10.4	10.6	10.6	10.6	10.6	10.6	10.6
Soap ...	4.1	4.1	4.1	4.1	4.1	4.6	4.6	4.6	4.6	4.6	4.6	4.6
Potatoes ... 14	16.5	16.5	16.5	15	17	14.5	14.5	15.6	16	15.7	22.3	23.6
Onions ... lb.	1.7	1.7	1.7	1.7	2.7	2.7	2.7	2.9	4	5.5	3.9	2.4
Kerosene ... gal.	24.3	24.3	25.2	27.8	27.3	27.3	27.3	27.8	27.5	27.5	27.5	27.5
Milk ... qt.	6	6	6	6	6	6	6	6	6	6	6	6
Butter ... lb.	18.4	18.3	18.1	17.9	17.8	18.9	19.4	19.7	19.7	19.7	19.4	21
Cheese—New and Matured lb.	11.8	11.7	11.7	12.1	13.6	14	14	14	14	14.1	14.5	14.7
Eggs—												
New laid ... doz.	10.8	23.2	28.2	33.7	34.4	29.2	31.6	10.5	13.5	13.8	15.3	18.8
Fresh ...	16.8	20.2	25.2	30.7	31.4	26.2	18.6	13.5	10.5	10.8	12.3	15.3
Bacon—												
Middle cut ... lb.	16.1	16.4	17.1	17.1	16.9	16.7	16.6	16.2	16.1	16.2	16.2	16.2
Shoulder ...	11	11.2	11.8	11.8	11.4	11.3	11.3	11	11.4	11.7	12	12
Ham ...	18.1	18.2	18.6	18.6	18.4	17.4	17.5	16.8	17.3	17.3	18.1	18.2
Beef (fresh)—												
Sirloin ...	11.4	11.5	10.7	10.2	10.1	9.7	9.7	8	8.7	11	11	11
Ribs ...	9.9	10	9.6	9.2	9	8.9	8.9	8	8.4	9.5	9.5	9.5
Gravy beef ...	8.9	9	8.4	8	7.8	7.5	7.2	5.6	6	6	6	6
Steak—												
Rump ...	15.5	15.5	15.1	15	15	15	14.6	13	13.5	15	15	15
Shoulder ...	9.4	9.5	9.1	9	8.5	8.1	8.5	8	8.2	9	9	9
Beef (corned)—												
Round ...	9.6	9.2	9.2	9.2	9	9	9	8	8.5	9	9	9
Mutton—												
Leg ...	8.4	8.5	8	7.7	7.5	7.5	7.5	7.5	7.6	8	8	8
Shoulder ...	7.4	7.5	7	6.7	6.7	6.5	6.2	6	6.2	7	7	7
Loin ...	9.6	9.4	8.7	8.5	8.6	8.7	8.5	7.5	7.6	8	8	8
Neck ...	8.3	8	7.4	7	6.9	6.9	6.9	6.5	6.4	6	6	6
Chops—												
Loin ...	10.3	10	9.6	9.9	10	10	10	9	9.4	10.5	10.5	10.5
Leg ...	9.8	9.5	8.9	8.5	8.6	8.7	8.7	9	9.1	9.5	9.5	9.5
Neck ...	8.3	8	7.3	6.9	6.7	7.1	7.1	6.1	6	6	6	6
Lamb—												
Forequarter ...	9.1	9.2	8.7	8.2	8	8	8	7	7	7	7	7
Hindquarter ...	10.3	10.5	10.1	10	10.1	10.1	9.7	9.5	9.5	9.5	9.5	9.5
Pork (fresh)—												
Leg ...	13.5	14.5	13.7	12	12	12	12	13.8	14	14	14	14
Chops ...	16	16	15.5	15	15	14.6	14.5	14	14	14.5	13.7	12.8

The retail price of flour per 25 lb. bag, as fixed by proclamation, was increased from 3s. 7½d. to 3s. 8d. in February, and to 3s. 9d. in September.

During the year increases were recorded in the prices of oatmeal, raisins, currants, cocoa, kerosene, candles, blue and soap; the average prices of sugar, rice, sago, jam and starch remained fairly constant.

The local production of potatoes is far below the demand, and the deficiency is met by importation from Tasmania and Victoria. The prices were high in 1918, and at the end of the year a sharp rise brought the price to 2s. 2½d. per 14 lb.

As in the case of potatoes, the local production of onions is supplemented by importation, mainly from Victoria. The price increased from ¾d. per lb. at the beginning of the year to 5½d. per lb. in October, but decreased towards the end of the year.

The price of butter has been fixed by proclamation since April, 1915; the prices usually advance at the beginning of winter, when supplies decrease, and drop with the approach of spring weather. High prices ruled throughout 1918.

The prices of cheese, which were high in 1918, increased from 11¾d. per lb. in January to 1s. 2¼d. in December.

The price of hams was high at the beginning of the year; a decrease occurred in June, but the price advanced again towards the end of the year in response to the increased demand for the Christmas season.

The prices of meat were fixed by the Commonwealth Government from 29th July to 2nd December, 1918. The first proclamation caused a decrease as compared with the previous month; on 23rd September the proclaimed prices were increased.

REGULATION OF FOOD SUPPLIES AND PRICES.

Wheat.

The Wheat Acquisition Act was passed in December, 1914, and authorised the Government to acquire wheat in New South Wales, and to provide for compensation, and for the sale and distribution of wheat so acquired; also for varying or cancelling certain contracts for the sale and delivery of wheat. The Act, with subsequent amendments, was in operation until 31st December, 1915, and the Necessary Commodities Control Commission regulated the price.

Subsequently the control of the wheat was transferred to the Australian Wheat Board, in accordance with arrangements made by the Governments of the Commonwealth and the wheat-producing States, as described in the chapter relating to Agriculture. On 15th December, 1915, the price of wheat for local consumption was fixed at 5s. 3½d. per bushel, f.o.b. Sydney; and on 22nd March, 1916, a reduction was made to 4s. 10¾d., f.o.b. Sydney, or 4s. 9d. on trucks, and on 1st February, 1919, the price was increased to 5s. per bushel on trucks (Sydney).

Necessary Commodities Control Act.

The Necessary Commodities Control Act passed in August, 1914, provides for the review of prices of necessary commodities during the present war, and for a further period not exceeding six months, as determined by proclamation. A "necessary commodity" is defined as follows:—

- (a) Coal, firewood, coke, or other fuel.
- (b) Gas for lighting, cooking, or industrial purposes.
- (c) Any article of food or drink for man or for any domesticated animal.
- (d) Any article which enters into, or is used in the composition or preparation of any of the foregoing.
- (e) Any article which, after a report of the Commission has by resolution of both Houses of Parliament, been declared to be a necessary commodity.

The Act provides for the appointment of a Commission of three persons, one being a judge of the Industrial Arbitration Court, to inquire into and

report as to prices of necessary commodities, and to advise the Governor as to maximum selling prices.

The Governor, by notice in the *Gazette*, may declare the maximum prices at which any necessary commodity may be sold for consumption in New South Wales, and may fix different prices according to differences in quality, description, or quantity sold, also for different parts of the State, and may vary any price fixed or annul any such notice.

Any person who sells or offers for sale, any necessary commodity at a price higher than the declared price, is liable to a penalty of £100, or in case of sale, may be required to refund the excessive amount to the purchaser; and any person who refuses to sell at the declared or lower prices any necessary commodity in his possession, in excess of his family requirements for six months, is liable to a penalty not exceeding £100.

The Governor, on the recommendation of the Commission, may order to be furnished returns of all necessary commodities in the State, and may authorise the seizure and distribution of necessary commodities withheld from sale, paying the declared price less a reasonable amount to cover expenses. Up to July, 1916, the following commodities were considered by the Commission, and prices fixed:—wheat, flour, bread, biscuits, oatmeal, butter, cheese, hams, bacon, pork, pigs, milk, cream, condensed milk, sugar, jam, tinned fruit, wine and spirits, plum puddings, rice, cordials, baking powder, bran, pollard, sharps, chaff, hay, oil (kerosene, benzine, etc.) and gas.

The Commission operated until 20th July, 1916, when the Commonwealth Government assumed the control of prices of foodstuffs, necessary commodities and services.

When a strike occurred in August, 1917, the Necessary Commodities Commission declared the maximum prices of all foodstuffs to be those ruling on 1st August, 1917. As the strike extended prices were declared for several commodities, viz., meat, salt, rabbits, coal, methylated spirits, and cheese. The proclamations regarding meat were annulled on 26th September, 1917, and those regarding other commodities on 14th November.

In view of the suspension of price-fixing by the Commonwealth authorities the Necessary Commodities Commission was brought again into operation in July, 1919, and the highest selling prices, wholesale and retail, of all necessary commodities were fixed as at 21st July.

Regulation of Prices by Commonwealth.

The Commonwealth Prices Adjustment Board was appointed under the Commonwealth War Precautions Act, also a Commissioner in each State to collect evidence for submission to the Board; on his advice the Board recommended to the Minister the prices and rates to be fixed.

Commonwealth proclamations were issued in respect of the following commodities:—

Ale and beer.	Drugs.	Milk.	Shellac.
Ammonia, Sulphate.	Fertilisers.	Motor spirit.	Soap.
Arsenic.	Flour.	Muslin, Butter.	Soda—Ash.
Bacon.	Fruit, Canned.	Oatmeal.	Bicarbonate.
Baking powder.	Gas.	Oils—Kerosene, &c.	Caustic.
Biscuits.	Glass bottles.	Linseed.	Spirits.
Bran.	Glass, Broken.	Olive.	Sulphur.
Bran bags.	Golden syrup.	Paper bags	Tartaric acid.
Bread.	Hams.	Paper—straw—and	Tin.
Butter.	Hides.	paper-box boards.	Tobacco.
Cases and tins.	Infants' and invalids'	Plum puddings	Treacle.
Cheese.	foods.	Pollard.	Vinegar.
Cocoa.	Iron, Galvanised.	Rabbits.	Wheat.
Confectionery.	Jam.	Rice.	Wheatmeal.
Corn sacks.	Matches.	Salt.	Whitelead.
Cream.	Medicines.	Sauce.	Wool, Knitting.
Cream of tartar.	Meat.	Semolina.	Yarns, Hosiery.

The prices of other commodities already proclaimed by the Necessary Commodities Commission were allowed to remain operative in New South Wales, the Minister having adopted those prices when the Commonwealth Government assumed control.

PRICES INVESTIGATION BY INTERSTATE COMMISSION.

In August, 1917, the Inter-State Commission commenced an investigation into the causes of increase in the prices of commodities in general use, viz., bread, meat, butter, cheese, bacon, vegetables and fruit, milk, groceries, clothing and boots, also as to house rents. Reports issued in relation to bread, meat, milk, fruit and vegetables, and house rents are discussed elsewhere in this chapter.

Butter, Cheese, &c.

The increases in the prices of butter and of cheese were found to be due partly to the drought, which increased the cost of production of milk, and partly to the rises in wages and the cost of plant, &c. The effect of export upon local prices, in the case of butter, was negligible; but as regards cheese the growing export trade caused the prices to be higher and steadier. The increased cost of condensed milk was attributed to the higher prices of milk and of sugar.

Groceries.

The Commission stated that the local manufacture of groceries is extensive; and, by reason of the expansion of manufactures arising from war conditions, the consumption of local products has increased rapidly. In New South Wales supplies are practically independent of oversea imports in regard to dairy products, sugar, jams, &c., cereal foods, biscuits, candles, soap, tinned meats, and vegetables.

The distribution of local and imported groceries is conducted generally by wholesale merchants; the great bulk of the trade with the retail grocer, especially in the country districts and towns, is in their hands, and much of the finance of the retail trade is conducted by them.

The principal causes of the high prices of groceries are stated by the Inter-State Commission to be:—The higher cost of materials used in connection with the manufacture, preparation, and packing of food stuffs, and in the construction, equipment, and maintenance of factories; increased cost of importing; increases in wages; wasteful methods of distribution; the heightened spending power of the community arising from the Government's large war expenditure, the high export prices obtained for primary products, and an expanded currency. A contributing cause is the dominating position occupied by associations of wholesale merchants and (in some lines) of manufacturers.

As regards the existing methods of distribution the Commission directed attention to the great waste involved by the excessive number of retail shops and the lack of co-operation in buying both local and imported goods.

Clothing and Boots.

The increased prices of clothing are directly attributable to the war and to the fact that manufacturers and wholesale and retail distributors have, to a large extent, taken advantage of abnormal conditions for the purpose of increasing their profits. Other causes are the scarcity of imported raw material, piece-goods, &c., restrictions of shipping, increased transport charges, and the increased actual amount paid as a consequence of *ad valorem* duty being charged upon the enhanced value of imported goods. The greater proportion of piece-goods used for clothing and a large volume of finished articles are imported.

The increased prices of boots, which date from the beginning of the year 1917, are caused by the higher cost of hides and of leather and of all accessories used in the trade; the great demand for the best leathers for military boots, harness, &c., which has had the effect of depressing the quality of certain footwear and at the same time elevating the price; increases in wages and in the spending power of the people; and increased profits throughout the industry, which has experienced a period of prosperity since the conclusion of the drought in 1915.

About 95 per cent. of the boots are of local manufacture—the Australian boot being, price for price, of better value than the imported.

In the event of the Government taking action to regulate the prices of clothing and of boots the Commission suggested that the prices be controlled by prescribing the maximum percentages allowed to be added by manufacturers and distributors as follows:—

Clothing.—By manufacturers—Tweeds and serges 30 per cent., blankets and flannels 25 per cent., hosiery and knitted goods 20 per cent., and felt hats 22½ per cent. to prime cost, *i.e.*, cost of material and wages. By wholesale distributing houses—22½ per cent. to cost landed in warehouse; by retail distributors—33½ per cent. to cost landed in warehouse or shop, provided that limitations of gross profit be not applied to businesses in which less than £5,000 is actually employed.

Boots and Shoes.—By Importers—15 per cent. to landed cost; by manufacturers—20 per cent. to bench cost; by retailers—35 per cent. to manufacturer's price. Wholesale distributors to be allowed 5 per cent. by the manufacturer and permitted to charge the retailer 10 per cent. above the manufacturer's price for direct sale to a retailer.

The Commission recommended also with regard to clothing that all traders be compelled to keep accounts, balance-sheets, &c., in a prescribed form; and in relation to boots, that the use of adulterants in the manufacture of leather be prohibited; that all Australian boots be impressed with the words, "Made in Australia," and with the name of the seller or manufacturer, and where the sole does not consist wholly of leather the boot should bear a statement showing the material composing it.

HOUSE RENTS.

Information regarding Housing is given in the chapter of this Year Book relating to "Social Condition," and particulars below show the average amounts paid by tenants of various types of houses in Sydney and suburbs during each of the past five years. The figures represent the average predominant rents paid for each class of house, as the range of rents varies considerably according to locality, position, and class of building rented:—

Class of House.	1914.	1915.	1916.	1917.	1918.
	s. d.	s. d.	s. d.	s. d.	s. d.
Under 3 rooms and kitchen..	12 6	12 3	12 3	12 3	12 6
3 rooms and kitchen ...	15 6	14 6	14 9	14 9	15 6
4 " " " ...	18 6	18 0	18 0	18 0	18 6
5 " " " ...	22 0	20 9	20 6	20 6	21 9
6 " " " ...	26 6	25 0	24 6	24 6	25 0
Average for all houses	20 0	19 0	19 0	19 0	19 6

It has been established that the average householder with a moderate income usually spends about a quarter of his income on rent, and therefore any fluctuation in rents exerts a large influence on the cost of living. During the ten years prior to the outbreak of war, rents in Sydney and suburbs increased by about 40 per cent., but the war had a steadying effect, and the next three years showed a slight decrease; in 1918 rents increased again. Rents vary in the suburbs in accordance with the class of people constituting the population.

The increase in house rents was the subject of an investigation by a Select Committee of the Legislative Assembly of New South Wales appointed in 1911. The rise was ascribed to the increase of population, the increased cost of labour and material, the demolition of buildings by public authorities, the growing demand resultant upon general prosperity, and the increased popularity of cottages in preference to the less costly terrace houses.

Following the recommendations of the Committee the Fair Rents Act was passed on the 29th December, 1915, for the purpose of determining the fair rental of dwellings valued at less than £156 per annum. The Act provided for the establishment of Fair Rents Courts, consisting of a Stipendiary or Police Magistrate, and for the appointment of Registrars and other necessary officers.

The operations of the Fair Rents Act may be applied to any localities proclaimed by the Governor, but up to the present it has been proclaimed in the metropolitan area only.

An inquiry into house rents was conducted in 1918-19 by the Interstate Commission; its scope was limited to the rents of dwellings of six rooms (including kitchen) and less, of the types occupied usually by the industrial classes or others with moderate incomes, and the evidence taken was confined to the metropolitan areas in New South Wales, Victoria and Queensland.

In spite of a general shortage of houses, amounting probably to 12,000 in Sydney at the end of 1918, there has been no marked increase in rents in many of the industrial suburbs since 1914, while in other places rises of from 10 to 15 per cent. were indicated.

Regulations, issued by the Commonwealth Government under the War Precautions Act, prohibited any increase in the rent of a house occupied by a member of the Expeditionary Forces, or by a parent or female dependent of a member, except by leave of a competent Court. These regulations and the operations of the Fair Rents Court in Sydney tend to keep rents from rising above pre-war level.

The shortage of houses is attributed to the practical cessation of investment building on account of the high price of materials. The following comparison shows the total cost in 1914 and in 1918, of building in Sydney a brick cottage with 5 rooms including kitchen and bathroom.

	Cost of Building.		Increase.	
	1914.	1918.	Total.	Per cent.
	£ s. d.	£ s. d.	£ s. d.	
Material	278 17 2	410 18 5	132 1 3	47·5
Labour	131 6 0	146 3 0	14 17 0	11·3
Total	410 3 2	557 1 5	156 18 3	35·8

The Fair Rents Act is regarded as a supplementary cause tending to check building for investment, but speculative building has declined also in Brisbane and in Melbourne where no such legislation has been enacted.

FAIR RENTS COURT.

In order to determine the fair rent, the Court must ascertain the capital value of the dwelling, which is the unimproved capital value of the land plus the estimated cost of erecting a dwelling similar to that existing at the date of the application, less a fair sum for depreciation.

The fair rent is fixed on the capital value at a rate not less than that charged on overdrafts by the Commonwealth Bank of Australia, and not more than $2\frac{1}{2}$ per cent. above such amount, plus rates, taxes, repairs, maintenance, insurance, and depreciation. But, excepting where circumstances which render an increase equitable are proved, the fair rent may not exceed the rent which was charged for the dwelling on 1st January, 1915.

The amount fixed by the Court remains in force from six months to three years when specifically stated, but if no special period be mentioned the duration is three years. The Act does not apply to houses leased for a period exceeding three years.

The first sittings of the Fair Rents Court in Sydney were held on the 13th March, 1916.

Particulars of cases determined by the Court are shown in the following tables, but for several reasons they cannot be regarded as a satisfactory basis for conclusions as to the effect of the Fair Rents Act upon house rents. For instance, in cases where the tenant applies promptly upon receiving notice of the landlord's intention to increase the rent, the "fair rent" as determined by the Court may be recorded as an increase on the rent at date of application, while it is a reduction when compared with the proposed rental against which the action was directed.

The number of applications dealt with during the three years ended 31st March, 1919, are shown in the following statement:—

Particulars.	1916-17.	1917-18.	1918-19.	Total.
Cases withdrawn or struck out ...	141	53	100	294
Rent fixed as at date of application	137	49	36	222
„ Increased	7	19	132	158
„ Decreased	294	102	65	461
Total	579	223	333	1,135

The 1,135 houses were situated in the following districts:—City, 182. Suburbs—North western, including Balmain, Leichhardt, Annandale, and Glebe, 94; West Central, including Newtown, Erskineville, and St. Peters, 76; East Central, including Redfern, Waterloo, Alexandria, and Mascot, 105; Eastern, including Paddington, Randwick, Waverley, and Woollahra, 314; Western, including Ashfield, Burwood, Enfield, Drummoyne, Marrickville, and Petersham, 212; Southern, including Canterbury, Bexley, Hurstville, and Kogarah, 38; and Northern, including North Sydney, Mosman, Willoughby, Lane Cove and Manly, 114.

The majority of dwellings affected by the decisions of the Court were small, and the rents did not exceed £1 per week. With few exceptions, the period of adjustment was twelve months. In the following statement

the figures are shown for the year 1918-19, and for the period of three years since the commencement of the Act.

Rent (at date Application).	Year ended 31st March, 1919.				Total to 31st March, 1919.			
	Fixed as at date of Appl'n.	Increased.	Reduced.	Total.	Fixed as at date of Appl'n.	Increased.	Reduced.	Total.
10s. and under	...	...	...	...	7	...	13	20
10s. to 12s. 6d.	2	5	2	9	11	8	45	64
12s. 6d. to 15s.	9	13	11	33	38	16	142	196
15s. to 17s. 6d.	3	35	16	54	37	41	86	164
17s. 6d. to 20s.	7	40	8	55	47	45	71	163
20s. to 25s. ...	8	29	19	56	45	34	56	135
25s. to 30s. ...	6	9	5	20	21	12	16	49
30s. to 40s. ...	1	...	3	4	10	...	17	27
40s. to 50s. ...	...	1	...	1	6	2	8	16
50s. to 60s. ...	...	...	1	1	...	...	7	7
Total ...	36	132	65	233	222	158	461	841

During 1918-19 the Court granted increases in 57 per cent. of the decisions, and reductions in 28 per cent.; the total increases to 31st March, 1919, represented 19 per cent. and the total reductions 55 per cent.

The amount of reduction and of increase in the rents of dwellings during the year 1918-19 may be seen in the following statement:—

Amount of Reduction, or of Increase.	Rents Increased.	Rents Reduced.	Amount of Reduction, or of Increase.	Rents Increased.	Rents Reduced.
6d.	17	4	3s. 6d. and 4s.	4	4
1s.	46	11	4s. 6d. and 5s.	27	...
1s. 6d.	10	20	over 5s.	5	3
2s.	14	14			
2s. 6d.	5	4	Total ...	132	65
3s.	4	5			

The reductions were on the average 10·2 per cent. and represented, in the aggregate, a sum of £6 19s. 6d. per week, or 2s. 2d. per dwelling per week.

In 132 cases the rents were increased, the total increases amounting to £15 16s. per week or 12·3 per cent. or 2s. 5d. per dwelling.

The rents reviewed by the Court during 1918-19 represented £232 9s. 3d. per week, the net increase being £8 16s. 6d. per week or 3·8 per cent.

COST OF LIVING.

Particulars given above in connection with the food supply of Sydney show that the cost of various food commodities has increased considerably in New South Wales during the past decade, the increase being more pronounced since the outbreak of war.

Applying these percentages, which are based on a pre-war standard, to the £3 living wage, the average amounts spent under the several heads would be :—

							£	s.	d.
Food and groceries	...	...	...	...	...	...	1	7	7
Rent	...	...	...	...	...	...	0	15	0
Clothing	...	...	...	...	...	...	0	7	10
Fuel and light	...	...	...	...	...	...	0	3	0
Miscellaneous	...	...	...	...	...	...	0	6	7
Total	...	...	...	...	...	...	£3	0	0

In the Commonwealth Court of Industrial Arbitration the living wage for men is based on the needs of a man, his wife and a family of three children, *i.e.*, one child more than in the State Court. In reference to this matter, the President of the Commonwealth Court, Mr. Justice Higgins, stated "I had no evidence on the subject of the actual average; and, as it would be absurd to make the minimum wage depend on the number of persons in each employee's family, as it would also handicap the man with many children in seeking employment, I thought that a family of 'about five' might fairly be taken as the kind of family to be brought into the calculations."

In 1907 an investigation was made into the cost of living in connection with a case in which the manufacturers of Harvester Machines at Sunshine, Victoria, in order to get the benefit of the Exise Tariff Act, were required to show that they were paying their labourers "fair and reasonable wages." It was decided that £2 2s. per week was a living wage for these workers. This rate has since been used by the Commonwealth Court as a basis of awards as to wages, by adding an allowance for the increased cost of living. As the cost of living is higher in Sydney than in Melbourne, the basic rate for Sydney, allowed by the Federal Court, is generally 3s. per week above the Melbourne rate, in cases where different rates are fixed for various localities.

The records of the Commonwealth Court show a number of cases in which a minimum rate has been fixed for unskilled labour, and the instances quoted below show the increase in the rate since 1913 :—

Date of Judgment.	Basic rate for Unskilled Labour.		
	Per week.	Average for—	
1913—December...	s. d. 50 0	Sydney, Melbourne, Adelaide, Hobart.	
1914—May ...	51 0	Australian Capitals.	
1915—October ...	54 0	Sydney, Melbourne and Brisbane.	
1916—October ...	60 0	Melbourne and Adelaide.	
1917—March ...	63 0	Sydney and Melbourne.	
September ..	63 0	Sydney.	
1919—March ...	64 6	Sydney, Melbourne, and Brisbane.	
July ...	66 0	Australian Capitals, except Sydney.	

Cost of Food and Rent.

The following table shows the variations in the cost, in Sydney, of food and groceries since July, 1914, the month before the outbreak of war. The prices in July, 1914, are taken as a basis and called 100, and the 41 commodities for which the price levels are computed are those in everyday consumption. In the statement meat is distinguished from other food and groceries, and the two groups are combined :—

Month.	Meat.	Other Food and Groceries.	Meat, other Food and Groceries. combined.	Month.	Meat.	Other Foods and Groceries.	Meat, other Food and Groceries combined.
1914.				1917.			
July ...	100	100	100	January...	165·7	119·4	131·3
August ...	98·9	100·1	99·8	February	170·4	121·1	133·8
September	97·1	99·0	98·5	March ...	170·8	121·6	134·3
October ...	98·5	98·0	98·1	April ...	171·0	122·2	134·8
November	95·3	97·2	96·7	May ...	162·4	122·0	132·4
December	99·7	103·7	102·7	June ...	158·8	122·1	131·6
1915.				July ...	162·5	121·6	132·1
January ...	107·1	104·2	104·9	August ...	182·7	122·6	138·1
February...	106·1	103·3	104·0	September	193·4	122·8	141·0
March ...	107·3	105·2	105·7	October ...	189·5	123·5	140·5
April ...	113·8	106·2	108·2	November	181·5	122·5	137·7
May ...	128·6	106·1	111·9	December	174·8	122·3	135·9
June ...	140·8	109·4	117·5	1918.			
July ...	158·1	116·0	126·9	January...	180·4	122·2	137·2
August ...	178·9	125·2	139·1	February	179·9	122·9	137·6
September	166·8	121·5	133·2	March ...	170·5	124·2	136·2
October ...	160·1	124·7	133·8	April ...	165·5	124·6	135·2
November	144·3	121·3	127·3	May ...	163·2	126·8	136·2
December	153·5	121·8	130·0	June ...	161·3	125·9	135·1
1916.				July ...	160·7	125·2	134·3
January...	155·0	119·8	128·8	August ...	147·1	125·4	131·1
February	162·0	122·6	132·8	September	152·3	126·0	132·8
March ...	167·2	118·8	131·3	October ...	166·9	126·3	136·8
April ...	165·7	116·7	129·3	November	166·7	130·3	139·7
May ...	166·4	118·6	131·0	December	166·5	134·3	142·6
June ...	167·6	118·7	131·3	1919.			
July ...	170·6	120·7	133·6	January...	166·6	140·2	147·0
August ...	166·1	119·6	131·6	February	166·6	143·4	149·4
September	166·2	119·5	131·6	March ...	169·9	144·7	151·2
October ...	164·1	118·9	130·6	April ...	173·0	142·9	150·7
November	161·4	121·2	131·6	May ...	173·1	144·5	151·9
December	163·1	119·9	131·0	June ...	173·0	145·1	152·3
				July ...	175·2	145·2	152·9

From the above table it will be seen that the effects of the war were not felt by housekeepers until early in 1915. In that year the price level rose from 104 in February to 139 in August, then declined gradually to 130 in December, and it is remarkable that throughout 1916 the prices showed very little variation, so that in December they were at practically the same level as at the end of the previous year. In 1917 the price level remained fairly constant until it rose in August and in September to 141, while a decline to 136 occurred during the last two months of the year. During 1918 the prices did not vary greatly until the latter half of the year, when a decline in July and August brought them back to the level of December, 1916. Then a steady rise commenced and continued until in July, 1919, the prices were 53 per cent. above the pre-war level.

The following statement shows the extent to which the war has affected the retail prices of the principal articles of food in other countries: the figures have been taken from the "London Labour Gazette":—

Country.	Percentage Increases in Retail Food Prices since July, 1914.				Country.	Percentage Increases in Retail Food Prices since July, 1914.			
	July, 1915.	July, 1916.	July, 1917.	July, 1918.		July, 1915.	July, 1916.	July, 1917.	July, 1918.
	per cent.	per cent.	per cent.	per cent.		per cent.	per cent.	per cent.	per cent.
India (Calcutta)	8	10	16	31*	Denmark ...	28	46	66	87
Australia ...	31	30	26	32†	France (Paris) ...	22	32	83	106
South Africa ...	...	...	...	32	United Kingdom ...	32	61	104	110
New South Wales ...	27	34	32	34	Switzerland ...	19	41	78	122
New Zealand ...	12	19	27	39	Italy ...	21	32	72	153
United States ...	(-)2	9	43	64	Sweden ...	24	42	81	168
Canada ...	5	14	57	75	Norway ...	...	60	114*	179
Holland (Amsterdam) ...	...	...	42	76					

* August.

† June.

The comparison shows that prices have risen considerably in all the countries enumerated, the lowest increases being in India and in Australia; New South Wales is fourth on the list.

It must be borne in mind that the price levels quoted below in regard to New South Wales relate only to food and groceries, and to rent, and in estimating the increased cost of living the percentages should be applied only to that proportion of the total family expenditure which is expended on food and groceries, and on rent, and not to the total family expenditure; although it is a common, and probably a fair assumption that the increase in the cost of clothing and of other miscellaneous items has been at least equal to that of food and groceries.

In the following table particulars are given, showing the advance since 1911, which year may be considered to represent a fair average for the previous decade. The same procedure has been followed as in the case of the table relating to the war period, except that the prices used are the average of the twelve monthly figures during each year.

The figures are based on Sydney prices; but, in the light of several special investigations into the cost of living in certain country towns as compared with Sydney, it may be assumed safely that a corresponding relative increase has occurred in country towns where no abnormal conditions prevail.

Columns are included showing the fluctuations in rents, also the price levels of food, groceries, and rent combined. The basis of the table is the year 1911, the price-level for which is called 100:—

Year.	Meat.	Other Food and Groceries.	Meat, other Food and Groceries combined.	Rent.	Food and Rent combined.
1911	100	100	100	100	100
1912	113·0	113·9	113·7	108·8	111·5
1913	114·8	106·2	108·0	114·7	111·0
1914	136·6	107·2	113·4	117·6	115·3
1915	196·0	121·7	137·2	111·7	125·8
1916	232·5	127·9	149·7	111·7	132·7
1917	245·2	130·5	154·4	111·7	135·3
1918	233·1	135·0	155·5	114·7	137·2

From the figures given in this and preceding tables, it will be seen that the great increase in the cost of food in recent years is due, in a large measure, to the price of meat, which, in seven years, increased by 133 per cent.

In order to demonstrate the effect of the increased prices in relation to the amount consumed, the weekly food bill of a family of five persons for the principal commodities in 1911 and in 1918 is shown below. It is assumed that each member of the family—a man, his wife and three children—consumed, on the average, equal quantities of food, though it is probable that the food consumption of an adult woman is about 80 per cent. of the quantity consumed by a man, and that the consumption by young children is still less. The statement is based upon the average rate of consumption as shown on a previous page, except in the case of flour and sugar, where allowance has been made for the quantities included in bread, jam, etc. The average consumption in 1911 has been assumed to be identical with that in 1907-9:—

Article.	Unit of Quantity.	1911.			1918.		
		Weekly Consumption.	Average Price.	Weekly Cost.	Weekly Consumption.	Average Price.	Weekly Cost.
Beef	lb.	13·6	d. 4·1	s. d. 4 7·8	8·2	d. 9·6	s. d. 6 9·7
Mutton	lb.	9·3	3·3	2 6·7	6·0	7·9	3 11·4
Pork	lb.	·3	8·1	2·4	·4	13·9	5·3
Bacon and Ham	lb.	·8	9·6	7·7	1·0	14·8	1 2·8
Fish—fresh, &c.	lb.	·6	8·7	5·2	1·0	13·0	1 1
„ preserved	lb.	·4	9·5	3·8	·4	16·8	6·7
Potatoes	lb.	17·4	·9	1 3·7	12·3	1·2	1 2·3
Flour	lb.	4·0	1·3	5·2	4·0	1·7	6·8
Bread	2lb. loaf	10·0	3·5	2 11	9·2	4·0	3 0·8
Rice	lb.	·8	2·7	2·2	·7	3·4	2·4
Sago and Tapioca	lb.	·2	2·7	0·5	·2	4·7	·9
Oatmeal	lb.	·7	2·5	1·8	·6	3·5	2·1
Sugar	lb.	6·0	2·7	1 4·2	6·0	3·5	1 9
Jam	lb.	1·6	4·4	7	1·2	5·7	6·8
Butter	lb.	2·5	13·5	2 9·8	2·7	19·0	4 3·3
Cheese	lb.	·3	9·4	2·8	·3	13·3	4
Milk—fresh	qt.	6·8	4·3	2 5·2	7·9	6·0	3 11·4
Tea	lb.	·7	15·5	10·9	·8	18·7	1 3
Coffee	oz.	1·1	1·1	1·2	1·4	1·1	1·5
Total ... ..	...	...	...	22 3·1	...	...	31 5

The weekly expenditure on the commodities enumerated rose from 22s. 3d. in 1911, to 31s. 5d. in 1918, an increase of 41·1 per cent. In spite of the lower rate of consumption, the meat bill increased from 8s. 0½d. to 12s. 2½d., while the expenditure on milk and butter rose from 5s. 3d. to 8s. 2¾d., the prices being higher and the consumption greater.

Taking rent into consideration—the averages being 17s. in 1911 and 19s. 6d. in 1918—the total weekly expenditure was 39s. 3d. as compared with 50s. 11d., and the increase per week during the period amounted to 11s. 8d., which represents 29·7 per cent.

In the table on p. 495, the price level of food in 1918 is quoted as 55·5 per cent. higher than in 1911, and of food and rent combined as 37·2 per cent. higher; the differences from the increases quoted above, viz., 41·1 and 29·7 per cent. respectively, are due to the fact that in computing the price levels the regimen was assumed to be constant. The difference was most marked in regard to meat, the price level of which increased by 133·1 per cent., but,

on account of reduced consumption, the weekly bill was only 51·8 per cent. higher.

The weekly food bill in 1918 was 4 per cent. lower than in the previous year, owing to the decreased consumption of meat, on which the expenditure declined by 11·5 per cent.

Cost of Clothing.

The information required to gauge accurately the movement of prices of clothing has not been collected by the Government Statistician, owing to the difficulty of fixing standards in view of the vast range of articles of clothing, the numerous grades of quality, and the rapid changes in fashion and design. But an effort has been made to ascertain the approximate increase in the cost of clothing since the commencement of the war period, and it is estimated that for a family of five persons—a man, his wife and three children (a boy, girl and baby)—with a moderate income, the common articles of clothing which could have been purchased for £31 in July, 1914, would have cost nearly £60 in July, 1919; this represents an increase of about 93 per cent. in cost, while it is probable that the standard of quality is much lower than in 1914.

In their recent investigation into the prices of clothing the Interstate Commission found it impracticable to make a statistical comparison, but it was stated in the report that the evidence of witnesses representing the retail trade indicated that the average increase in the cost of clothing generally in the first half of the year 1918 was 70 per cent. more than in 1914. The general increase in the retail price of ready-made suits of Australian material was about 50 per cent., and of British material, 65 per cent.; for tailored suits the advance in the cost, *i.e.*, material, making and gross profit at 33½ per cent., was stated to be 79 per cent. when made of material which in 1914 cost 5s. per yard, and 111 per cent. when made of material at 7s. per yard. Other examples quoted show that the increases in the wholesale prices of Australian knitted goods and hosiery ranged up to 133 per cent., and of wool and fur felt hats up to 43 per cent. The wholesale prices of imported goods showed very large increases between 1914 and 1917; for instance, calicoes 47 per cent., dark cambric 111 per cent., cashmere 200 per cent., sheets and sheeting 59 per cent., cambric and print blouses 31 per cent. The price of sewing cottons increased by about 100 per cent., and of Australian blankets by 19 per cent.

A comparison of the retail prices of Australian boots made of leather, of which the price was fixed by regulation, showed in 1917 an increase of 27·6 per cent. over 1914 and of 12·7 per cent. over 1916.

Cost of Fuel and Miscellaneous Expenses.

Substantial increases have occurred in the cost of fuel and light. Kerosene, which is included in the list of food and groceries shown above, has doubled in price since 1914; gas for household purposes increased from 3s. 6d. per 1,000 cubic feet in 1914 to 4s. 5d. in 1918; coal was nearly 30 per cent. dearer in 1918, and firewood increased by about 20 per cent.

Almost all the items of miscellaneous expenditure have increased in price; for instance, fares by train, tram and ferry, which are an important factor. General increases have been made in railway fares, *viz.*, 10 per cent. in August, 1917, and 7½ per cent. in November, 1918. The charges for workmen's weekly tickets have been raised in even greater proportion; the ticket for a journey of 5 miles cost 2s. 11d. in 1918 as compared with 2s. 2d. in 1914, which is an increase of nearly 40 per cent. Tram fares, which were charged at 1d. per section, except for the second section of certain lines which were 1½d., were raised in August, 1917, to 1½d. for all journeys of one

section, and in November, 1918, the fare for two sections was raised from 2d. to 2½d.; the fares for longer journeys have not been altered since 1914. Increases have been made in the fares charged on the majority of Sydney Harbour ferry routes, the season ticket fares being increased by 10 per cent. in 1917.

The entertainments tax, imposed by the Commonwealth Government from 1st January, 1917, represents an increase of ½d. for every 6d. paid as the price of admission to amusements. The land and income taxation—State and Federal—increased from 22s. 6d. per head in 1914 to 66s. 1d. in 1918, and local government and water and sewerage rates from 28s. 11d. per head to 35s. 10d. An additional charge of ½d. was imposed on each postal article in October, 1918. The cost of medical attendance and medicine also has increased since 1914.

VALUE OF PRODUCTION OF LOCAL INDUSTRIES.

During the year ended 30th June, 1918, the total value of production from the principal industries reached £99,089,000, which is the highest on record. For many years the pastoral industry was the chief source of the wealth of the State, the production of 1917-18 being £28,435,000. The production from the manufacturing industry has increased very rapidly since 1906, the value in 1917-18 being £29,017,000.

The value of agricultural production during 1915-16 was more than double the value in the previous year, the increase being due mainly to the greatly increased wheat yield, but this high rate of production was not maintained.

The following statement shows the estimated value of production of the various industries, at the place of production, at intervals since 1891:—

Value of Production. (*In thousands, 000 omitted.*)

Year.	Pastoral.	Agricultural.	Dairying. *	Poultry, Bees, Rabbits. *	Forestry and Fisheries.	Mining.	Manufacturing. (Value added to raw materials.)	Total, all Industries.
	£	£	£	£	£	£	£	£
1891	14,725	3,615	2,735	...	758	6,434	7,799	36,066
1896	11,774	5,374	2,546	...	715	4,465	7,302	32,176
1901	12,552	7,060	3,046	...	733	5,681	9,742	38,814
1906	19,743	7,518	3,425	1,693	1,536	7,913	11,906	53,734
1911	19,434	9,749	5,215	2,055	1,195	9,410	19,143	66,201
1912	19,440	11,817	5,758	2,089	1,303	11,229	22,464	74,100
1913	20,738	12,378	5,455	2,416	1,400	11,651	23,482	77,520
1914-15	18,848	10,031	6,231	2,301	1,307	9,603	24,011	72,332
1915-16	21,576	20,362	5,473	3,215	1,370	10,516	24,927	87,489
1916-17	26,842	11,488	7,478	3,395	1,282	12,564	26,748	89,797
1917-18	28,435	13,672	8,480	4,144	1,400	13,941	29,017	99,089

* Poultry and bee farming included with dairying in 1901 and previous years.

The following table shows the equivalent values, per head of population, of the products of local industries at intervals since 1891:—

Year.	Pastoral.	Agricultural.	Dairying. *	Forestry, Fisheries, Poultry, &c. *	Mining.	Manu- facturing.	Total, all Industries.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1891	12 17 10	3 3 4	2 7 11	0 13 3	5 12 8	6 16 7	31 11 7
1896	9 5 4	4 4 7	2 0 1	0 11 3	3 10 4	5 14 11	25 6 6
1901	9 3 8	5 3 4	2 4 7	0 10 9	4 3 1	7 2 6	28 7 11
1906	13 6 0	5 1 3	2 6 2	2 3 6	5 6 7	8 0 5	36 3 11
1911	11 13 6	5 17 2	3 2 8	1 19 0	5 13 0	11 10 0	39 15 4
1912	11 3 8	6 15 11	3 6 3	1 19 0	6 9 2	12 18 5	42 12 5
1913	11 9 3	6 16 10	3 0 3	2 2 2	6 8 9	12 19 7	42 16 10
1914-15	10 2 3	5 7 8	3 6 10	1 18 8	5 3 1	12 17 8	38 16 2
1915-16	11 10 10	10 17 10	2 18 7	2 9 1	5 12 6	12 6 8	46 15 6
1916-17	14 7 11	6 3 2	4 0 2	2 10 2	6 14 9	14 6 11	48 3 1
1917-18	15 0 8	7 4 6	4 9 8	2 18 8	7 7 5	15 6 10	52 7 9

* Poultry and bee farming included with dairying in 1901 and previous years.

This comparison gives a reasonable view of the variation of each industry over a series of years, but should not be used to compare different industries in the same year. For instance, for a just comparison of the rural industries with the manufacturing, it would be necessary to ascertain the situation and cost of production, value of machinery used, and amount of capital invested. The true basis of comparison is the interest earned on the capital invested.

The exceptionally dry season during 1914-15 caused a relative decrease in all the industries except dairying, the aggregate value of production showing a decrease on the year 1913 equal to £4 0s. 8d. per head of population. But in 1915-16 all the industries except dairying showed an increased value per head, especially agriculture, which advanced to £10 17s. 10d., as compared with £5 7s. 8d. in the previous year. In 1916-17 the agricultural production dropped back to the normal level, being about £6 3s. 2d per head; in the other industries substantial increases were recorded. In 1917-18 all the industries showed an increase as compared with the previous year.

The following table shows the total value of production in various years, from 1871 onwards, and the resultant return per head of population:—

Year.	Value of Production.		Year.	Value of Production.	
	Aggregate (,000 omitted).	Per head of Population.		Aggregate (,000 omitted).	Per head of Population.
	£	£ s. d.		£	£ s. d.
1871	15,379	30 5 3	1912	74,100	42 12 5
1881	25,180	32 18 3	1913	77,520	42 16 10
1891	36,066	31 11 7	1914-15	72,332	38 16 2
1901	38,814	28 7 11	1915-16	87,439	46 15 6
1906	53,734	26 3 11	1916-17	89,797	48 3 1
1911	66,201	39 15 4	1917-18	99,089	52 7 9

These figures show that since 1871 the aggregate value of production has increased by nearly 83 $\frac{3}{4}$ million pounds, and the value per head of population by £21 19s. 3d. From the primary industries alone the return in 1917-18 was £70,072,000, equal to £37 0s. 11d. per head. The figures afford ample justification for the investment of the capital which has secured such results.

Variations in prices, due mainly to causes beyond local control, and to the general conditions of the season, are the most powerful factors in regulating the volume and value of production; but, making due allowance for these factors, the steady advance made throughout the period covered by the figures given above is ample testimony to the wealth of the State, and an assurance of the prosperity of its future.

LAND LEGISLATION AND SETTLEMENT.

AREA OF NEW SOUTH WALES.

THE area of New South Wales, including Lord Howe Island of 5 square miles and the Federal Capital Territory of about 928 square miles, as stated previously in this Year Book, is estimated at 310,372 square miles, or 198,638,080 acres, being a little over two and a half times that of Great Britain and Ireland. Excluding the surface covered by rivers and lakes, the area within the boundaries of the State is 195,669,000 acres, or about 305,733 square miles, of which the greater portion has been alienated under various forms of tenure, classified as freehold or leasehold. The formal transfer on 1st January, 1911, of 576,000 acres at Yass-Canberra, and of 17,920 acres at Jervis Bay in 1915, to the Commonwealth Government as Federal Capital Territory, reduced the land surface of the State to 195,075,080 acres.

Territorial Divisions.

Under various Acts the State is divided into three territorial divisions, Eastern, Central, and Western, the boundary lines running approximately north and south.

The Eastern and Central Divisions are subdivided into Land Districts, in each of which is stationed a Crown Land Agent, whose duty is to receive applications and furnish information regarding land. Groups of these districts are arranged in larger areas, under the control of Land Boards, whose decisions are subject to review by the Land Appeal Court, which is composed of a President and two Commissioners, whose awards in matters of administration have the force of judgments of the Supreme Court. Whenever questions of law arise, a case may be submitted to the Supreme Court, either on the written request of the parties interested, or by the Land Appeal Court. The conditions of alienation and pastoral occupation of Crown lands differ in each of the three divisions of the State. Control of the lands within the Western Division is vested in the Western Land Board, consisting of three Commissioners.

The Eastern Division has an area of 60,669,606 acres (exclusive of an area of 593,920 acres of Commonwealth territory), and includes a broad belt of land between the sea-coast and a line nearly parallel to it, starting from a point midway between the small settlements at Bonshaw and Bengalla on the Dumaresq River, and terminating at Howlong, on the River Murray, thus embracing the coastal districts of the State, as well as the northern and southern tablelands. In this division is excellent agricultural land, and it includes all the original centres of settlement which are readily accessible to the markets of the State. For these reasons, the conditions governing the purchase and occupation of the Crown lands in the Eastern Division are more stringent than is the case in the Central and Western Divisions.

The Central Division embraces an area of 57,055,846 acres, extending from north to south between the western limit of the Eastern Division and a line starting from a point on the Macintyre River, where it is crossed by the 149th meridian of east longitude, and following this river and the Darling to the junction of Marra Creek; thence along that creek to the Bogan River, and across to the River Lachlan, between the townships of Euabalong and Condobolin, along the Lachlan to Balranald, and thence to the junction of the Edward River with the Murray. The area thus defined contains the upper basin of the Darling River in the northern part

of the State, and the basins of the Lachlan, the Murrumbidgee, and other affluents of the Murray in the southern portions. The land in this division is still devoted mainly to pastoral pursuits, but the cultivated area is increasing steadily.

The Western Division is situated between the western limit of the Central Division and the South Australian border. It contains an area of 80,318,708 acres, watered by the Darling River and its tributaries, and is devoted to pastoral pursuits. Water conservation and irrigation may ultimately make agriculture possible over this large area, but legislation in regard to the occupation of the lands of the district is based upon the assumption that for many years to come there will be little inducement for agricultural settlement.

METHODS OF ACQUISITION AND OCCUPATION.

Under the Acts now in force, land in the Eastern and Central divisions of the State may be acquired by the following methods:—

(a) Under residential conditions—

- (1) Conditional and additional purchase ;
- (2) Classified conditional purchase ;
- (3) Homestead Selection ;
- (4) Settlement purchase, under Closer Settlement Acts ;
- (5) Homestead farms ;
- (6) Suburban holdings ;
- (7) Irrigation farms ;
- (8) Returned Soldiers Special Holdings ;
- (9) Conditional purchase lease ;
- (10) Conditional lease ;
- (11) Residential on gold and mineral fields lease ;
- (12) Crown lease ;
- (13) Settlement lease.

(b) Under non-residential conditions,—

- (1) Conditional purchase, without residence ;
- (2) Improvement purchases on gold-fields ;
- (3) Auction sales ;
- (4) After-auction sales ;
- (5) Special sales, without competition ;
- (6) Exchange ;
- (7) Annual lease ;
- (8) Inferior lands lease ;
- (9) Occupation license ;
- (10) Scrub lease ;
- (11) Special lease ;
- (12) Improvement lease ;
- (13) Snow-lands lease ;
- (14) Week-end lease ;
- (15) Town lands lease ;
- (16) Special conditional purchase lease.

The maximum area which may be purchased conditionally differs in the Eastern and Central Divisions according to the method of acquisition shown in the statement above. In the Western Division land may be alienated by auction or occupied under lease.

Certain of the above tenures may be converted, under specified conditions, into all or portion of certain other tenures.

Conditional Purchase.

Unreserved Crown lands in the Eastern and Central Divisions not held under pastoral or other lease, are available for conditional purchase, and lands held under annual lease or occupation license may also be acquired in this way, if not otherwise reserved. Land under conditional lease in any division may be purchased conditionally by the leaseholder only. Lands within suburban boundaries or within population areas may be proclaimed as special areas, and are open to conditional purchase under the special conditions prescribed. The value of any improvements on a conditional purchase must be paid by the applicant.

A residential conditional purchase may be taken up by males of or over age 16, or by females of or over age 18, provided that a woman must be unmarried, or a widow, or judicially separated from her husband; for a non-residential conditional purchase the minimum age limit is 21 years.

The minimum and maximum areas allowed for each class of conditional purchase are as follow :—

Class.			Division.			Minimum Area.	Maximum Area.
						acres.	acres.
Residential	...	...	Eastern	...	...	40	1,280
"	...	...	Central	...	...	40	2,560
Non-residential...	...	...	Eastern	...	...	40	320
"	...	...	Central	...	...	40	320
Special area	...	...	Eastern	...	...	.....	320
"	...	...	Central	...	...	.....	640

With regard to special areas, both the minimum and maximum areas are subject to proclamation in the *Government Gazette*, and are, therefore, liable to limitation. Any conditional purchaser may take up the maximum area at once, or by a series of purchases at convenient intervals. With the exception of non-residential purchases, the specified maximum areas may be exceeded by means of additional holdings, but the area must not exceed a home-maintenance area. By this is meant an area which, used for the purpose for which it is reasonably fitted, would be sufficient for the maintenance in average seasons and circumstances of an average family. Additional holdings need not necessarily adjoin the original holdings, but must be situated within a reasonable working distance.

Areas may be set apart for original holdings, or for additional holdings, but no such area may be selected under both classes of holdings. Values and rentals are specified in the official notices under the Act. Lands may be classified and set apart, by notification, at specified prices.

Applications for conditional purchase, or for additional conditional purchase, must be lodged with the Crown Lands Agent of the district in which the land is situated, and a deposit and survey fee paid at the same time. The statutory price of ordinary Crown lands is fixed at £1 per acre for residential conditional purchase, but in special areas and on lands within classified areas the price per acre may be either above or below that amount. The deposit on all residential conditional purchases is at the rate of 5 per cent. of the capital value, but on non-residential conditional purchases the price of the land is doubled, the deposit being at the rate of 2s. in the £ of such increased value; at least one-tenth of the survey fee must be lodged with the application unless such fee has been paid by a previous holder, through whom the applicant claims title, and stamp duty must be paid. Deposit and survey fee may be dispensed with in connection with an

application for a holding within a classified area if such be lodged during the first week the land becomes available, but must be paid subsequently as directed by the Land Board. Under ordinary conditions the balance of purchase money, with interest at $2\frac{1}{2}$ per cent. per annum, is cleared-off by twenty-seven annual payments of 1s. per acre, and a subsequent final lesser payment. The first instalment is due on the expiration of three years from the date of the contract.

A resident conditional purchaser in certain circumstances may reduce his annual instalment of 1s. to 9d. per £, in which case it will take the selector about forty-one years to pay. Under special circumstances a similar privilege may be extended to conditional purchasers not in residence. By the Crown Lands Act Amendment Act of 1903, the rate of interest on the balance of purchase money was reduced from 4 to $2\frac{1}{2}$ per cent. per annum, being retrospective only in special circumstances.

Upon receipt of an application for a conditional purchase the Land Board may cause the land to be surveyed and a report to be supplied by the surveyor, and may either confirm or disallow the application. In case of confirmation a certificate is issued to the applicant.

The original conditional purchase must be occupied continuously by the selector for a period of five years, and residence must be commenced within three months after the application has been confirmed by the Land Board. Residence may be suspended conditionally, or remitted by the Land Board, for sufficient cause, for stated periods, or in certain circumstances may be effected on the holding of a member of the same family, or on another of applicant's holdings, or in a village or town, or elsewhere within reasonable distance. In certain cases a wife may carry out residence on her husband's holding, or, conversely, a husband may carry out residence on his wife's holding. Each additional conditional purchase or conditional lease is subject to the condition of residence indicated, but the place of residence may be on any block of the series, and the term may be reduced in certain circumstances, by the applicant's previous residence on the series. The Minister may permit improvements in lieu of residence where the unimproved value of the area is not greater than £300.

The selector must enclose his land, within three years after confirmation, with such a fence as the Land Board may prescribe; or he may substitute improvements in lieu of fencing. In such a case, permanent improvements, of the value of 6s. per £ of purchase money but not exceeding £384, are required within three years, and these improvements must be brought up to the value of 10s. per £ of purchase money, but not exceeding an aggregate value of £640, within five years from the date of confirmation. In the case of non-residential purchases, the land must be fenced within one year after date of confirmation, and within five years other improvements to the value of £1 per acre must be effected. Fencing may be superseded by other improvements equivalent to 30s. per acre, within five years after confirmation.

Under the Crown Lands Amendment Act, 1908, an original non-residential conditional purchase, with any additional non-residential conditional purchase made in virtue of it, may be converted into an original residential conditional purchase, provided that the five years' residence commences from the date of application for such conversion. This term of residence is subject to reduction, and all moneys previously paid are credited towards payment of the converted conditional purchase.

A conditional purchase, residential or otherwise, may be converted into a homestead farm under certain conditions.

The following table shows the transactions under each class of conditional purchase during the last ten years:—

Year ended 30th June.	Applications for—						Conditional Purchase Leases—application to convert into C.P. received.		Total.	
	Original Conditional Purchases.		Additional Conditional Purchases.		Non-residential Conditional Purchases.					
	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.
		acres.		acres.		acres.		acres.		acres.
1909	1,641	285,616	2,767	797,666	121	18,791	12	3,234	4,541	1,105,307
1910	1,206	184,097	1,001	150,074	57	8,196	22	8,357	2,286	350,724
1911	801	116,177	752	98,813	49	6,547	147	43,934	1,749	265,471
1912	584	99,604	626	84,597	48	6,768	122	39,296	1,380	230,265
1913	347	47,427	403	53,274	33	3,143	41	17,904	824	121,748
1914	250	31,543	236	31,525	26	2,238	47	27,649	559	92,955
1915	181	20,794	166	24,357	15	1,024	46	27,453	408	73,628
1916	115	11,770	97	10,387	4	338	79	47,143	295	69,638
1917	85	13,392	73	11,659	10	710	59	38,046	227	63,807
1918	110	12,465	143	17,986	18	1,634	80	38,275	351	70,360

Inclusive of conditional purchase leases as shown above, for the year 1917-18, there were in all 2,279 applications, covering an area of 956,357 acres, for conversion into conditional purchase from other forms of tenure.

The following applications for conditional purchases have been made under the various Acts:—

						Applications.	
						No.	acres.
Under Crown Lands Act of 1861	...	...	...	...	...	136,389	14,982,120
Under Crown Lands Act of 1880	...	...	...	...	...	55,084	8,488,020
Total to 31st December, 1884	...	...	...	...	...	191,473	23,470,140
Under the Crown Lands Acts of 1884, 1889, 1895, and subsequent amending Acts to 30th June, 1909	...	...	...	...	...	89,175	16,281,251
During years 1st July, 1909, to 30th June, 1918	...	...	...	...	...	7,436	1,050,539
Total to 30th June, 1918	...	...	...	...	...	288,084	40,801,930

Transactions in respect of conditional purchase applications and deeds issued from 1862 to 30th June, 1918, were as follows:—

Year.	Conditional Purchase—Applications made.		Conditional Purchase—Applications confirmed.		Conditional Purchases for which Deeds have Issued.		Conditional Purchases in existence.	
	No.	Area.	No.	Area.	No.	Area.	No.	Area.
		acres.		acres.		acres.		acres.
1862-1909	280,648	89,751,391	65,337	11,806,991	99,161	12,848,166	93,961	14,475,553
1910	2,264	342,867	1,984	294,897	7,097	1,079,887	93,567	14,362,463
1911	1,602	221,537	1,613	237,520	4,657	632,733	93,408	15,614,036
1912	1,258	190,969	1,039	175,044	5,231	671,564	92,203	16,529,038
1913	783	103,844	830	105,167	3,265	406,019	92,183	17,307,305
1914	512	63,308	554	67,534	2,338	322,556	91,935	17,837,702
1915	362	46,175	287	35,249	2,354	304,012	90,904	18,025,210
1916	216	22,435	183	23,552	2,462	307,016	89,670	18,315,095
1917	168	25,761	104	13,025	2,881	357,828	88,493	18,693,429
1918	271	32,085	121	16,211	2,861	358,338	87,651	19,225,738
Total (as at 30th June, 1918)	288,084	40,801,930	72,125	12,765,190	132,807	17,318,124	87,651	19,225,738

In 1908 the Conversion Act was passed, and since 1909 the number of selections has been reduced by forfeitures, cancellations, conversions into homestead selections, &c., and increased by conversions from various other tenures under the Crown Lands Act, so that the land wholly alienated, or in process of alienation, by conditional purchase, on 30th June, 1918, amounted to 36,543,862 acres, contained in 219,958 purchases. Included in the foregoing are 132,307 completed purchases, covering 17,318,124 acres, upon which deeds have now been issued. The balance represents the number of purchases still in force, but upon which the conditions, payments, &c., have not yet been fulfilled, viz., 87,651 with an area of 19,225,738 acres.

Applications for conversion to mineral conditional purchase may, under the 1910 Act, be annulled or withdrawn, and all moneys, less authorised deductions for cost, refunded with the application.

Improvement Purchases.

Holders of miners' rights or of business licenses on a gold-field, being in authorised occupation by residence on land containing improvements, may purchase such land without competition. Improvements must include a residence or place of business, and be of the value of £8 per acre on town land, and of £2 10s. per acre on any other land.

During 1917-18, 154 applications were granted for a total area of 54 acres 3 roods and 23½ perches, the total purchase price being £3,001.

Auction Sales and After-auction Purchases.

Crown lands are submitted for auction sale under two systems. Under the ordinary system the balance of purchase money is payable, without interest, within three months of the day of sale, while, under the deferred payment system, the balance is payable by instalments, with 5 per cent. interest, distributed over a period not exceeding five years; in either case, 25 per cent. of the purchase money must be deposited at the time of sale.

Auction sales are limited by law to 200,000 acres in any one year. Town lands may be sold in blocks not exceeding half an acre, at an upset price of not less than £8 per acre; and suburban lands must not exceed 20 acres in one block, the minimum upset price being £2 10s. per acre. Country lands may be submitted in areas not exceeding 640 acres, the upset price being not less than 15s. per acre. The value of improvements on the land may be added to the upset price.

Town or suburban land or portions of country land of less than 40 acres each, which have passed at auction may be bought, with the Minister's consent, at the upset price; a deposit of 25 per cent. of such upset price is payable at the time of application, the balance being payable on the terms fixed for the auction sale.

Special Non-competitive Sales.

Any unnecessary road which bounds or intersects freehold land may be closed and sold to the freeholder at a price determined by the Land Board, and any unnecessary road which passes through land held under conditional purchase may be closed and added to the area.

Reservations are maintained in many Crown grants of land having water frontage, being usually 100 feet from high-water mark; but the Crown may rescind the reservation, and convey the land to the holder of the adjoining land, at a price to be determined by the Land Board.

The owner in fee-simple of land having frontage to the sea, or to any tidal water or lake, who desires to reclaim and purchase any adjoining land lying below high-water mark, may apply to the Minister for Lands to do so, except in the case of Port Jackson, the control of which is vested in the Sydney Harbour Trust. Reclamations which might interrupt or interfere with navigation are not authorised.

Land encroached upon by buildings erected on granted land, or land situated between granted land and a street or road, which forms, or should form, the way of approach to the granted land, or land to which no way of access is attainable, or land which is insufficient in area for conditional purchase, may be purchased by the owner in fee-simple of the adjoining land, at a price determined by the Board.

Exchange of Land between the Crown and Private Owners.

Before the granting of fixity of tenure in connection with pastoral leases, the lessees had made it a practice to secure portions of their runs by conditional purchases and purchases in fee-simple. The practice was disadvantageous to the public estate, because Crown lands were left in detached blocks severed by lessees' freehold properties; and the lessees realised that it would be convenient to them to gather their freeholds together in one or more consolidated blocks by surrender of the private lands in exchange for Crown lands elsewhere.

Under the provisions of the Crown Lands Consolidation Act, 1913, the Governor, with the consent of the owner, may exchange any Crown lands for any other lands of which a grant in fee simple has been issued.

The Governor may accept in exchange for Crown lands, lands in respect of which a balance of purchase money remains unpaid, if upon payment of such balance the right to a grant in fee simple becomes absolute. In any such case a grant of Crown lands in exchange will not be issued until the balance of purchase money has been duly paid.

Applications received under this head during the year 1917-18 numbered 68, and 98 applications were outstanding on the 30th June, 1917. Thirty-five applications, embracing 42,958½ acres, were granted in 1917-18, and ten were either refused or withdrawn, etc.

Volunteer Land Orders.

Holders of certificates issued to volunteers who had served under the provisions of the Volunteer Force Regulation Act of 1867 were entitled to a free grant of land. These certificates entitled the holder to 50 acres of such land as was open to conditional purchase, other than lands within a proclaimed special area. Claims to these grants lapsed unless lodged within three years after the commencement of the Crown Lands (Amendment) Act, 1908, which period terminated on 31st January, 1912.

The total area alienated by volunteer land orders to 30th June, 1911, amounted to 170,650 acres, and this area had been increased by 848 acres as at 30th June, 1912. During the next year there was a further alienation of 500 acres, and during 1913-14 of an additional 200 acres, the total area standing at 172,198 acres, as at 30th June, 1914. Since that date there have not been any further alienations.

Homestead Selection and Homestead Grant.

The appropriation of areas for homestead selection was a prominent feature of the Act of 1895, the land chosen for subdivision being good agricultural land. Where suitable lands were situated within easy access of towns, small blocks were set apart, the lands being available after parti-

culars relating to area, capital value, &c., had been published in the *Gazette*. The maximum area that might be selected was 1,280 acres, but the selector was limited to a block as granted.

Under the Crown Lands (Amendment) Acts, of the years 1908 and 1912, a homestead selection or grant may be converted into a homestead farm, or a conditional purchase lease, or a conditional purchase, or a conditional purchase and conditional lease, provided the area contained in such conditional lease does not exceed three times the area in the conditional purchase.

Lands are not now made available for homestead selections, such tenure having been replaced by that of homestead farm. Applications dealt with subsequent to 1912, are either in connection with areas previously set apart for homestead selection, or as additional areas, principally the latter. A large number of persons have, however, selected under this form of holding, as will be seen from the following statement which shows the applications and confirmations in regard to homestead selections and homestead grants issued up to 30th June, 1918.

Year.	Homestead Selections.				Homestead Grants issued.	
	Applications.		Confirmations.			
	No.	Acres.	No.	Acres.	No.	Acres.
1895 to 1910 ... (Year ended 30th June)	9,059	3,582,134	7,059	2,555,805	4,028	1,628,177
1911 ...	359	98,155	294	76,651	287	123,086
1912 ...	537	119,278	466	94,641	196	88,517
1913 ...	65	19,595	106	30,879	175	55,377
1914 ...	19	4,941	22	5,707	231	39,231
1915 ...	30	16,983	18	7,233	198	59,919
1916 ...	8	3,141	17	7,559	161	48,479
1917 ...	5	3,970	5	1,337	212	54,791
1918 ...	24	18,175	10	5,535	189	49,306
Total ...	10,106	3,866,372	7,997	2,785,347	5,677	2,146,883

After making allowance for conversions to and from other tenures, forfeitures, &c., the number of homestead selections and grants in existence on 30th June, 1918, was 3,295, of an area of 1,055,915 acres.

Homestead Farms.

The new tenures created by the Crown Lands Amendment Act of 1912 were homestead farms, suburban holdings, Crown leases, and irrigation farms. Crown lands are set apart for disposal as homestead farms, but the land may be made available before survey. Crown Lands available for conditional purchase (unless otherwise notified in the *Gazette*) are also available for homestead farm, and land may be set apart for additional homestead farms.

A person—including an alien—of a minimum age of 16 years, if a male, or 18 years, if a female, may apply for a homestead farm, provided that the applicant does not hold under any tenure—except lease which has less than five years to run, and does not confer right to purchase the freehold—an area of land which, added to the area of the homestead farm, would substantially exceed a home-maintenance area. In estimating what constitutes a home-maintenance area, the joint area held by husband and wife (unless judicially separated) is taken into account as lands held by one person. An alien becoming the holder of a homestead farm, suburban holding, Crown lease, or irrigation farm, must become naturalised within three years. A

married woman may apply if possessed of a separate estate. Persons who have selected previously are disqualified in certain circumstances.

The title of a homestead farm is a lease in perpetuity. The annual rent is charged at the rate of $2\frac{1}{2}$ per cent. of the capital value, but for the first five years the holder, in lieu of payment of rent, may expend an equal amount on improvements of a permanent character, the same (except boundary fencing) being in addition to those which are otherwise required as a condition of improvement or expenditure of the lease. The capital value is subject to reappraisal after the first twenty-five years and for each subsequent period of twenty years.

A condition of 5 years' residence is attached to every homestead farm, but in special cases residence in a town or village, or anywhere within reasonable working distance, may be allowed. Residence may be permitted on a holding of a member of the same family, or on another of the selector's holdings within reasonable working distance. Suspensions or remissions may be granted for such periods as determined by the Land Board. In certain cases a wife may carry out residence on her husband's holding, or, conversely, a husband may carry out residence on his wife's holding.

The Minister may permit improvements in lieu of residence where the unimproved value of the area is not greater than £300.

The perpetual lease grant will be issued after the expiration of five years from confirmation of the application, if the holder has complied with all required conditions. The holder of a conditional purchase, or conditional purchase and conditional lease, or homestead selection, or homestead grant, or conditional purchase lease, under certain conditions, may convert such holding into a homestead farm. A homestead farm may be protected against sale for debt in certain circumstances. Under certain conditions, a homestead farm may be converted into a conditional purchase lease or into a conditional purchase, with or without a conditional lease. A homestead farm, which is a conversion of a settlement purchase under provision now repealed, may be reconverted into a settlement purchase.

Applications received for Homestead Farms and those dealt with, during the last seven years are as follow :—

Year ended 30th June.	Applications.				Created by Conversion from other tenures.		Reversal of forfeiture and increased area.		Less—Forfeited, decrease in area, and conversions into other tenures.		Homestead Farms in existence at end of year.	
	Received.		Confirmed.									
	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.
		acres.		acres.		acres.		acres.		acres.		acres.
1912	143	93,254	46	27,815	...	...	...	...	...	...	46	27,815
1913	400	217,186	356	203,365	19	10,041	...	...	...	...	421	241,221
1914	468	284,640	358	221,576	9	7,337	...	...	32	19,635	756	450,499
1915	605	467,873	437	327,098	11	4,550	1	210	50	33,439	1,155	748,918
1916	372	281,685	348	252,166	6	3,848	...	...	57	35,479	1,452	969,453
1917	271	181,722	167*	115,259	2	1,209	2	486	75	49,722	1,548	1,036,685
1918	245	186,853	158*	89,020	...	...	4	2,783	82	46,866	1,628	1,081,622

* Includes 82 original farms of 64,476 acres for Returned Soldiers in 1916-17, and 51 of 36,208 acres in 1917-18. Three applications for additional areas of 526 acres were also confirmed.

Suburban Holdings.

The conditions of perpetual rent and five years' residence are attached to suburban holdings. The area of a suburban holding is determined by the Minister for Lands; the rent—minimum 5s. per annum—is calculated at

the rate of $2\frac{1}{2}$ per cent. of the capital value, to be appraised for each period of twenty years. Males under 16 years, females under 18 years, are disqualified from applying. A married woman may, in certain cases, apply, provided her husband has not acquired a suburban holding. A suburban holding may be protected against sale for debt in certain circumstances, and may be purchased under certain conditions. After the expiration of five years from date of confirmation, and subject to fulfilment of all conditions, a perpetual lease grant will be issued.

Any suburban Crown lands, or Crown land within population boundaries, or within the Newcastle pasturage reserve, or any other Crown land, may be set apart for disposal by way of suburban holding.

The number of applications for, and confirmations of Suburban Holdings during the past seven years, were as under :—

Year ended 30th June.	Applications.		Confirmations.		Suburban Holdings in existence at the end of year.		Annual Rent.
	No.	Area.	No.	Area.	No.	Area.	
		acres.		acres.		acres.	£
1912	48	1,964	21	1,085	21	1,085	136
1913	548	12,704	373	8,730	388	9,731	1,146
1914	762	15,885	570	13,415	902	22,114	2,473
1915	563	10,499	477	9,299	1,311	30,717	3,495
1916	504	7,343	400	6,775	1,535	34,110	4,043
1917	299	4,300	230	2,937	1,662	36,631	4,246
1918	240*	4,576	186	3,318	1,815	38,643	4,381

*Includes 3 of 71 acres, as additional to holdings.

In the total number of Suburban Holdings shown as existing at 30th June, 1918, are included 11 of 289 acres, applications to purchase which had been approved during the year.

Week-end Leases.

This tenure, created by the Crown Lands Amendment Act, 1916, is a lease in perpetuity, and is subject to payment of rent at the rate of $2\frac{1}{2}$ per cent. of the capital value; to the effecting of substantial improvements worth £1 per acre within five years from confirmation, and to the performance of such special conditions as may be notified. Residence is not necessary. The minimum rent is £1. Anyone (except a married woman not judicially separated) not under 21 years, may apply.

Persons who already hold land within areas defined in a notification setting apart the land for week-end leases, are disqualified in special circumstances.

Transfers may be made at any time with the Minister's consent, but must be to a qualified person, except in cases of devolution under a will or intestacy. The consideration for a transfer must not exceed the capital value of the improvements on the land. Week-end leases, on approval by the Minister, may be purchased.

During the year ended 30th June, 1918, 16 applications for 115 acres were received, and confirmation was made in the case of 11 for an area of 29 acres at an annual rental of £13. In 2 cases the applications were either disallowed or withdrawn. At 30th June, 1918, these leases numbered 46, of an area of 87 acres, and annual rental £51.

Leases of Town Lands.

Crown lands within the boundaries of any town may be leased by public auction or by tender. The lease is perpetual, and the area included must not

exceed half an acre. The amount bid at auction or offered by tender (not being less than the upset value) is the capital value on which the annual rent at the rate of $2\frac{1}{2}$ per cent. is based for the first period of twenty years. The capital value for each subsequent twenty years' period is determined by the Land Board.

The lease may contain such covenants and provisions as may be gazetted prior to sale or tender. Residence is not necessary.

No person is allowed to hold more than one lease, unless with the permission of the Minister on recommendation by the Land Board. The holder of a town lease may be allowed to purchase.

In the year 1917-18, no areas were offered at auction or by tender. On 30th June, 1918, there were 42 leases, containing 17 acres, the annual rental being £55 13s. 3d.

Land for Returned Soldiers.

Under the Returned Soldiers' Settlement Act, 1916, special provision is made for the settlement of returned soldiers on Crown lands, including the Murrumbidgee Irrigation Areas, or on lands acquired under the Closer Settlement Acts. Under the first-mentioned Act land may be set apart only for disposal to returned soldiers, and the Minister may assist settlers thereunder with respect to clearing, fencing and general improvements of the land, erection of building, purchase of implements, stock, and other things necessary to satisfactorily occupy and develop the land. Seven lots, having a total area of 72 acres, were set apart under the Wentworth Irrigation Act for exclusive application by returned soldiers, and selected during the year ended 30th June, 1918.

During the year ended 30th June, 1918, three estates of an area of 47,426 acres, and valued at £238,327, were acquired out of the Closer Settlement Fund for soldiers' settlements. Up to 30th June, 1918, 14 estates, with a total area of 216,815 acres and value £987,364, had been acquired.

Applications for Returned Soldiers' Special Holdings received during the year numbered 81 for an area of 2,935 acres, and confirmation was made in respect of 58 cases, of an area of 2,177 acres. In 33 cases the applications were either disallowed or withdrawn.

There were in existence at 30th June, 1918, 92 holdings of 2,575 acres, and an annual rental of £450, inclusive of 1 holding of 1 rood, approval to purchase which had been granted during the year.

Land for Soldiers serving Abroad.

Facilities are provided for acquiring lands under the Crown Lands Acts by soldiers absent at the war. In such cases application and declaration may be made in the name, and on behalf of the absentee, by a person duly appointed and authorised under power of attorney.

Irrigation Farms.

MURRUMBIDGEE IRRIGATION AREAS.

The disposal of lands within these irrigation areas is regulated by the Crown Lands Consolidation Act, 1913, and the Irrigation Act, 1912. These areas are administered by the Water Conservation and Irrigation Commission. A special land board, with the powers and duties of a local land board, has been appointed in connection with certain provisions of the Crown Land Acts relating to lands within an irrigation area; the

lands are classified as town, irrigable, and dry or non-irrigable lands. A person (except a married woman not separated from her husband by judicial decree) 16 years or over, if a male, or 18 years or over, if a female, or two or more such persons, may apply for an irrigation farm or block. An alien is not barred, but he must become naturalised within three years under penalty of forfeiture. The title is perpetual lease, subject to perpetual payment of rent and performance of residence. The rent is at the rate of $2\frac{1}{2}$ per cent. of the capital value—minimum for town land blocks, £1 per annum. At the expiration of five years after granting of the application a grant of the farm or block will be issued to the holder, provided that the required conditions have been observed. The holding may be protected against sale for debt in certain circumstances.

In respect of town land blocks, the conditions of residence are not imposed, and no person may hold more than three adjoining blocks for residence, or four adjoining blocks for business purposes.

On the 30th June, 1918, 796 farms were held, representing a total area of 34,703 acres. In addition 147 Town Lands Blocks were held.

OTHER IRRIGATION SETTLEMENTS.

Irrigation settlements have also been established at Hay and at Curlwaa, near Wentworth. These were in 1913 placed under the control of the Water Conservation and Irrigation Commission.

The Hay Irrigation Area consists of an area of 3,842 acres, and the Curlwaa Area 10,600 acres. Practically the whole of these areas are under occupation.

Alienation.

From the early days of settlement until the year 1861 the Crown disposed of land, under prescribed conditions, by grants and by sales, so alienating, by the end of 1861, an aggregate area of 7,146,579 acres, made up as follows:—

	acres.
1. By grants, and sales by private tender to close of 1831	3,906,327
2. „ „ in virtue of promises of early Governors made prior to 1831, from 1832-40 inclusive	171,071
3. „ sales at auction, at 5s., 7s. 6d., and 10s. per acre, from 1832-38 inclusive	1,450,508
4. „ „ „ „ 12s. and upwards per acre, at Governor's discretion, from 1839-41 inclusive	371,447
5. „ „ „ „ 20s. per acre, from 1842-46 inclusive	20,250
6. „ „ „ „ and in respect of pre-emptive rights, from 1847-61 inclusive	1,219,375
7. „ grants for public purposes, grants in virtue of promise of Governor made prior to the year 1831, and grants in exchange for lands resumed from 1841-61 inclusive	7,601
Total area alienated on 31st December, 1861	7,146,579

The figures relating to land alienation under the legislation of 1861, and to its subsequent amendments, show that up to 30th June, 1918, 14,922,516 acres had been sold by auction and other forms of sale.

The total area alienated by volunteer land orders to 30th June, 1918, amounted to 172,198 acres. Free grants ceased as from 31st January, 1912.

From 1862 to 30th June, 1918, the Crown dedicated 239,842 acres for public and religious purposes, the dedications during the last year covering 502 acres.

The area and the purposes for which land was dedicated during 1917-18, were as follows:—

Area.				Area.			
	a.	r.	p.		a.	r.	p.
Fire Brigade Stations..	...	0	0 37 ³ / ₄	Racecourse and Public Recrea-	...	...	...
Conservatorium of Music	...	0	3 31	tion	...	2	0 1 ¹ / ₂
General Cemetery	...	2	2 1	Reserve for Travelling Stock	...	10	0 3
Preservation of Native Flora	...	3	2 0	and Camping	...	30	2 32
Public High School	...	17	3 22	Show Ground	...	5	0 0
Public Recreation	...	140	1 7	Technical School Site	...	10	2 10
Public Roads	...	165	0 8	Vice Regal Residence	...	...	...
Public School Purposes	...	112	2 36	Total	...	501	1 26 ¹ / ₄

The foregoing areas are inclusive of various tenures within the Federal Capital Territory aggregating approximately 173,451 acres and will be subject to modification when the territorial boundaries shall have been surveyed.

The operations of the various Orders, Regulations, and Acts of Council and of Parliament for the disposal of the public lands, since the foundation of New South Wales, have produced the following results:—

	acres.
Area granted and sold by private tender and public auction at prices ranging from 5s. to 20s. per acre, prior to the year 1862	7,146,579
Area sold by auction and other forms of sale, 1862 to 30th June, 1918, inclusive	14,922,516
Area sold under system of conditional purchase for which deeds issued, 1862 to 30th June, 1918, inclusive	17,318,124
Area granted under Volunteer Land Regulations of 1867	172,198
Area dedicated for public and religious purposes, less resumptions, 1862 to 30th June, 1918...	239,842
Homestead selections and grants existing on 30th June, 1918	1,055,915
Homestead farms	1,081,622
Suburban holdings	38,643
Returned Soldiers Special Holdings	2,575
Lands (acquired and Crown) alienated for Closer Settlement to 30th June, 1918	1,197,899
	43,175,913
<i>Less—</i>	acres.
Alienated and dedicated lands within Federal Capital Territory..	173,451
Area acquired for Closer Settlement, to 30th June, 1918	1,208,098
	1,381,549
Total area alienated, 30th June, 1918	41,794,364
Area in process of alienation under system of conditional purchase standing good on 30th June, 1918 (exclusive of Federal Capital Territory)	19,225,738
Total area alienated, and in process of alienation on 30th June, 1918 (exclusive of Federal Capital Territory)	61,020,102

It is not possible to separate the area alienated by grant from that sold by private tender, as the records of early years are incomplete upon this point.

Under the provisions of the Crown Lands Amendment Act, 1912, the holder of a settlement purchase under the Closer Settlement Acts other than those acquired under the Closer Settlement Promotion Act, 1910, was permitted, under certain conditions, to convert such holding into a homestead farm. The Crown Lands Amendment Act, 1917, withdraws this right, and provides that those conversions already made may be re-converted into settlement purchase tenures. See pages 514 and 515.

The progress of alienation and of conditional settlement by purchase and lease at various periods from 1861 to 30th June, 1918, is shown in the following table :—

Year.	Area Alienated to end of year.	Area Conditionally Purchased, standing good at end of year.	Total area alienated and in course of alienation.	Area under Leases with right to convert. (See page 525.)	Total Area placed beyond State control.
	acres.	acres.	acres.	acres.	acres.
1861	7,146,579	.....	7,146,579	.....	7,146,579
1871	8,630,604	2,280,000	10,910,604	.....	10,910,604
1881	22,406,746	12,886,879	35,293,625	.....	35,293,625
1891	23,775,410	19,793,321	43,568,731	11,234,131	54,802,862
1901	27,934,627	20,044,703	47,979,330	13,980,942	61,960,272
1906	33,470,512	16,499,823	49,970,335	15,807,249	65,777,584
1911	38,501,167	15,614,036	54,115,203	25,352,311	79,467,514
1916	41,172,383	18,315,095	59,487,478	22,044,506	81,531,984
1917	41,549,337	18,693,429	60,242,766	21,124,423	81,367,189
1918	41,794,364	19,225,738	61,020,102	20,554,771	81,574,873

CONVERSION OF TENURES.

In reference to the various methods of acquisition and occupation, details have been given of provisions of the Crown Lands Amendment Acts passed in 1908 and 1912, which confer on certain holders of Crown lands the right of conversion into more desirable tenures. The following statement shows the applications for conversion, and those confirmed, during the last three years :—

Class of Holding.	Applications.					
	1915-16.		1916-17.		1917-18.	
	No.	Area.	No.	Area.	No.	Area.
		acres.		acres.		acres.
Conditional Leases	997	484,079	1,175	574,834	1,332	626,790
Conditional Purchase Leases ...	79	47,143	59	38,046	80	38,275
Homestead Selections or Grants ...	120	57,879	130	63,346	443	272,718
Settlement Leases	68	246,662	73	244,724	48	158,611
Non-residential Conditional Purchases	2	86	3	400	3	347
Special Leases	276	34,002	328	39,872	392	48,391
Settlement Purchases	6	3,699	1	546	...	...
Church and School Lands Leases ...	...	...	8	1,081	...	...
Improvement Leases	2	1,280	4	2,089	2	1,280
Crown Leases ... ..	...	...	...	...	94	30,617
Conditional Purchases	1	1,736	..	...	...	...
Scrub Leases	1	640	...	...	...	...
Homestead Farms ... ..	...	...	...	...	43	11,705
Total	1,552	877,206	1,781	964,938	2,437	1,188,734

Class of Holding.	Applications confirmed.					
	1915-16.		1916-17.		1917-18.	
	No.	Area.	No.	Area.	No.	Area.
		acres.		acres.		acres.
Conditional Leases	880	421,927	1,105	538,629	1,277	612,702
Conditional Purchase Leases ...	64	36,828	64	46,458	69	36,005
Special Conditional Purchase Leases	2	80	...	...	...	...
Homestead Selections or Grants ...	105	57,653	121	60,731	306	207,789
Settlement Leases	55	183,101	55	194,824	49	177,741
Non-residential Conditional Purchases	2	86	3	400	...	...
Special Leases	177	20,776	226	28,862	217	26,153
Settlement Purchases	6	3,848	2	1,209	...	...
Improvement Leases	3	2,560	3	1,613	2	1,280
Crown Leases ... ..	...	...	...	...	42	14,863
Church and School Lands Leases	...	...	7	14	1	1,066
Homestead Farms ... ..	...	...	...	...	22	6,255
Total	1,294	726,859	1,586	872,740	1,985	1,083,854

The new tenures created by the foregoing applications during the past three years were as follows :—

New Tenures.	1915-16.		1916-17.		1917-18.	
	No.	Area.	No.	Area.	No.	Area.
		acres.		acres.		acres.
Conditional Purchase	1,216	547,347	1,492	686,809	1,880	863,461
Conditional Purchase and Associated Conditional Lease* ..	46	165,375	43	162,842	87	213,849
Conditional Lease	10	4,854	20	15,672	9	2,874
Conditional Purchase Lease ...	3	238	5	159	3	1,398
Homestead Selections	11	4,597	12	2,641	6	2,272
Settlement Lease	2	600	12	3,408	...	...
Homestead Farm	6	3,848	2	1,209	...	...
Total	1,294	726,859	1,586	872,740	1,985	1,083,854

* Included in the above figures are 46 Conditional Leases of 115,937 acres in 1915-16, 43 embracing 129,467 acres in 1916-17, and 87 of 162,205 acres in 1917-18. Non-residential Conditional Purchases converted into Conditional Purchase are also included.

OCCUPATION OF PASTORAL LANDS—LIMITED TENURE.

The pastoral lands of New South Wales have been occupied under various systems of tenure. In the early days land was held for grazing by virtue of tickets of occupation, the issue of which was stopped in 1827, when holders of such lands were required to pay a quit-rent of 20s. per 100 acres per annum, and to vacate the land at six months' notice. The necessity for depasturing increasing stocks induced settlers to extend their occupation

to Crown lands without any right except that of first discovery, until the Legislature, in 1833, passed an Act protecting Crown lands from intrusion and trespass, Commissioners being appointed to safeguard the interests of the State.

The discovery of new country soon attracted pioneer squatters beyond the limits of settlement as proclaimed on 14th October, 1829; and regulations, involving liability to severe penalties, were issued on 29th July, 1836, with the view of restraining unauthorised occupation. In 1839 the regulations were reinforced by the passing of an Act levying upon stock a yearly assessment at the following rates:— $\frac{1}{2}$ d. for every sheep, $1\frac{1}{2}$ d. per head of cattle, and 3d. for every horse.

Under an Act passed in 1847 a new system was introduced relating to pastoral lands of which previously the tenure had been annual, the fee being based on the area of land occupied by the squatter. Under the new plan, fixity of tenure of lease was substituted, the license fee being calculated upon the stock-carrying capacity of the run; but the term of the pastoral leases varied, being fixed, in the unsettled districts, at fourteen years; in the intermediate division, at eight years; while in the settled districts the yearly tenure was retained. The licensing fee under the altered conditions was charged at the rate of £10 for 4,000 sheep, or a proportional number of cattle—which was the minimum at which the stock-carrying capacity of a run could be assessed—and £2 10s. for every additional 1,000 sheep, or proportionate number of cattle. In settled districts lands were let for pastoral purposes only, in sections of not less than 1 square mile in area, the annual rental for each section being fixed at 10s. The holders of alienated lands were permitted to depasture their stock upon Crown lands adjoining their holdings, free of charge; this permission, however, constituted only a commonage right.

The Occupation Act of 1861 created a new system, limiting the tenure of pastoral leases to five years in unsettled and intermediate or second-class settled districts, and leaving the whole of the pastoral leases open to the operations of the free selectors. The evils resulting from this system led Parliament to adopt, in 1884, 1889, 1895, and at intervals since 1903, the measures, the provisions of which are described hereafter.

CROWN LANDS ACT OF 1861.

The Crown Lands Act of 1861, introduced by Sir John Robertson, aimed at facilitating the settlement of an industrial agricultural population side by side with the pastoral tenants, by introducing a principle entirely new to the land legislation of the State, namely, that of free selection, in limited areas, *before survey*. The Act provided for the conditional purchase of areas from 40 to 320 acres in extent at £1 per acre—25 per cent. of the purchase money to be deposited with the application. At the expiration of three years the purchaser was required to pay the balance, and to furnish a certificate showing that he had resided on the land, and made the necessary improvements. Provision was made to defer payment of the balance of the purchase money on receipt of 5 per cent. interest.

The Amending Act of 1875, under which annual instalments were payable, gave to any conditional purchaser of land the option of availing himself of the change in the method of payment. The system of unconditional sales was, however, continued under the Act of 1861; and during the twenty-three years the Act was in operation 23,470,140 acres were sold conditionally, and 15,572,001 acres by auction, by improvement purchase, by virtue of pre-emptive right, or otherwise without conditions, the total area alienated being 39,042,141 acres. In many cases the land selected, or purchased,

- reverted to the State ; so that the absolute area alienated or in process of sale when the Act of 1884 came into force amounted to only 32,819,023 acres, besides 7,146,579 acres alienated prior to 1861.

THE CROWN LANDS ACTS OF 1884 AND 1889.

After many amendments the Act of 1861 was superseded by that of 1884, with the supplementary enactment of 1889, which measures maintained the principle of free selection before survey, but with one essential difference. Under the original Act the whole area of the Crown lands was thrown open to free selection, including the lands held under pastoral lease. The Acts of 1884 and 1889 were devised to give fixity of tenure to the pastoral lessee and to obtain a larger rental from the public lands, at the same time restricting the area sold unconditionally.

Existing holders of pastoral leases under the earlier Act were required to surrender one-half of their leases, which were resumed by the Crown for subsequent alienation, leasehold, or reserve; the other half in each case was leased to the pastoralist under fixity of tenure for a term of years. On 31st December, 1884, when this division was made, there were 4,313 leased runs, yielding an annual rental of £268,500, and forming about 1,600 "stations," estimated to contain the bulk of the unalienated public estate, after allowing for reserves, &c. An increase in the revenue from pastoral occupation, one of the principal objects of the Act of 1884, has been realised, as evidenced by the total revenue received from the pastoral occupation of Crown lands, which increased from £329,356 in the year 1884 to £495,994 in the financial year 1917-18.

THE CROWN LANDS ACTS OF 1895 AND 1903 TO 1917.

The Act of 1861 failed conspicuously in encouraging *bona fide* settlement; and the legislation of 1884 and 1889 also was ineffective, since the accumulation of land in large estates continued, while settlement proceeded very slowly. Expert opinion pointed strongly to the necessity of introducing entirely new principles, and this was done in the Crown Lands Acts of 1895 and 1903, which, while placing land within easy reach of all, supplied the means of securing permanent settlers through the new system of tenure—homestead selections and settlement leases. These tenures have been superseded by those of homestead farms and Crown leases which were created by the Act of 1912.

In 1913 an Act, entitled the "Crown Lands Consolidation Act, 1913," was passed, which consolidated all existing original as well as amended and unrepealed portions of the various Acts dealing with the alienation, occupation, and management of Crown Lands. The Crown Lands (Amendment) Act, 1917, which came into force on 1st January, 1918, provided for conversion of certain tenures and modified the conditions relating to certain holdings particularly in regard to residence. It also amended the existing Acts in other respects.

OCCUPATION.

Annual Leases.

Unoccupied lands, not reserved from lease, may be obtained for pastoral purposes as annual leases, on application, or they may be offered by auction or tender. They may be obtained also by "after auction" tender, or "after tender" tender. No conditions of residence or improvement are attached to annual leases, which convey no security of tenure, the land being alienable by conditional purchase, auction sale, &c. The area in any one lease is

restricted to 1,920 acres. In certain circumstances an annual lease may be converted into a lease under improvement conditions for a term not exceeding ten years.

The number of annual leases current at 30th June, 1918, was 6,065, embracing 2,516,954 acres, with an annual rent of £20,485.

Conditional Purchase Leases.

This form of tenure was created in 1905; but, as in the case of homestead selections and settlement leases, it is obsolete for the purposes of selection, as lands are not now made available under it. There are, however, considerable numbers of conditional purchase leases still standing.

The holder may convert the area into a conditional purchase by payment of a deposit of 5 per cent. on the capital value of the land, provided that the proper conditions have been observed, and subject to all the unperformed conditions of the lease, except payment of rent. The balance of purchase money is payable by equal annual instalments at the rate of 5 per cent. of the price, consisting of principal and interest at the rate of $2\frac{1}{2}$ per cent. on the unpaid balance, the first instalment becoming due twelve months after the date of application for conversion. In accordance with the provisions of the Crown Lands Amendment Act, of 1912, conditional purchase leases might be converted also into homestead farms.

A holder of a conditional purchase lease may acquire additional conditional purchase leases, but in no case may the total area of the lands held by him under any tenure, except under lease having less than five years to run without right of purchase, exceed a home-maintenance area.

Nine applications for an area of 1,928 acres were received for additional conditional purchase leases during the year 1917-18, and five of 473 acres were confirmed. Nine special conditional purchase leases were confirmed, for an area of 447 acres. Three leases of 1,398 acres were converted from other tenures. The increase in area amounted to 11 acres. Reversals of forfeiture numbered 10 leases of 12,083 acres. The leases forfeited during the year were 3 of 2,352 acres, while 69 leases of 36,005 acres were converted into conditional purchase. The leases holding good at 30th June, 1918, numbered 650 with an area of 433,228 acres, the rent amounting to £14,400.

Special Conditional Purchase Leases.

Under the Crown Lands Act, 1908, land might be set apart for disposal as special conditional purchase lease, provided that for six months the land had been available for some class of residential holding. The areas must be not less than 20, nor more than 320 acres. There were no conditions of residence, but substantial improvements of value of £1 per acre, or any lesser value not being less than 10s. per acre, must be completed within three years. Although no lands are now set apart for special conditional purchase lease, there are areas still available for application in certain districts.

Three applications for an area of 380 acres were received during 1917-18. Nine applications were confirmed for 447 acres, as above.

Conditional Leases.

A conditional lease may be obtained by any holder of a conditional purchase (other than non-residential), or a conditional purchase within a special area in the Eastern Division. Lands available for conditional purchase are also available for conditional lease, with the exception of lands in the Western Division, or within a special area or a reserve.

Applications must be accompanied by a provisional rent of 2d. per acre and a survey fee, unless as otherwise provided. The area which an applicant may obtain as conditional purchases and conditional leases is restricted to 1,280 acres in the Eastern Division, and 2,560 acres in the Central Division; but the Land Board may specifically permit larger areas. The area that may be leased is limited to three times the area of the conditional purchase in virtue of which it is obtained. The lease is for a period of forty years, at a rent determined by the Land Board, payable yearly in advance. The conditions of fencing, or substitution of improvements in lieu of fencing, which attach to a residential conditional purchase, apply equally to a conditional lease, and residence is required as in the case of an additional conditional purchase.

After confirmation, a conditional lease may be converted, either wholly or in part not less than 40 acres, into a conditional purchase.

Applications for 166 leases, of an area of 46,089 acres, were lodged during 1917-18, and 89, including applications outstanding from the previous year, representing 25,463 acres, were confirmed.

Conditional leases, to the number of 1,277, embracing 612,702 acres, were converted into conditional purchase, and conditional leases containing an area of 165,079 acres, were created by conversion. Leases in existence at 30th June, 1918, numbered (gazetted) 26,631, embracing 14,831,535 acres, rent £191,220, and not gazetted (under provisional rent), 126 leases of 39,523 acres, and rent £329.

Leases of Scrub and Inferior Lands.

Scrub leases may be obtained by application, by auction, by tender, by after-auction tender, or by after-tender tender, but inferior-lands leases may be acquired only by auction or by tender, after-auction tender, or after-tender tender. There is no limitation as to area, and in the case of a scrub lease obtained by application the rent is appraised by the Local Land Board. The initial rent of an inferior-lands lease prevails throughout the whole term; but the terms of a scrub lease may be divided into periods, the rent for each period being determined by reappraisal. The term of each class of lease may not exceed twenty-eight years. The holder of a scrub lease must take such steps as the Land Board may direct for the purpose of destroying the scrub, and keep the land clear afterwards. During the last year of any of the leases application may be made for a homestead grant of an area not in excess of a home maintenance area.

There were in existence at 30th June, 1918, 243 scrub leases with an area of 1,689,956 acres, and rental of £6,540, and 31 inferior land leases, embracing 73,711 acres, and rent, £280.

Occupation Licenses.

Occupation licenses may be (a) preferential occupation licenses, consisting of the area within the expired pastoral leases, and (b) ordinary occupation licenses, which relate to the parts of the holdings formerly known as resumed areas. They may be acquired by auction or tender, after-auction tender, or after-tender tender. Occupation licenses extend from January to December being renewable annually at a rent determined by the Land Board.

The area under occupation license (Crown Lands Act) was represented at 30th June, 1918, by ordinary 692 of 5,085,034 acres, rental £8,678, and preferential 331 leases, representing 1,159,345 acres, and rent, £6,215.

18th Section and Pastoral Leases.

Under the Crown Lands Amendment Act of 1903, the registered holder of any pastoral lease, preferential occupation license, or occupation

license, could apply for a lease, for not more than twenty-eight years, of an area not exceeding one-third of the total area of the land comprised within the lease or license, subject to such rent, conditions of improvement, and withdrawal for settlement as may be determined. These are known as 18th Section Leases, having been granted under Section 18, Act of 1903, which has now been repealed.

At 30th June, 1918, these leases, also known as "Leases to Outgoing Pastoral Lessees," numbered 130 with an area of 725,312 acres, and rental of £6,971. There were also in existence on 30th June, 1918, 9 pastoral leases of 1,136,475 acres, and rent £734, in the Western Division, and not brought under the provisions of the Western Lands Act.

Special Leases.

Special leases are issued chiefly to meet cases where land is required for some industrial or business purpose, and may be obtained by application, auction, or otherwise, the term of the lease not to exceed twenty-eight years. The conditions attached are suitable to the circumstances of each case, being, like the rent, determined by the Minister. The Crown Lands Act, passed in 1908, provides for the conversion of special leases, for certain purposes, and of agricultural or pastoral Church and School lands leases, into original or additional conditional purchase leases; or original or additional conditional purchases; or original or additional homestead selections; or original or additional settlement leases; or conditional leases; or homestead farms.

The number of special leases granted during 1917-18 numbered 580 of 62,528 acres, and 217 leases representing 26,153 acres were converted into other tenures. After allowance has been made for leases which were terminated, were forfeited, surrendered, &c., and those which expired by effluxion of time, 6,830 leases (exclusive of leases within the Commonwealth territory) with an area of 664,935 acres and rental of £37,904, were current at 30th June, 1918.

Residential Leases.

The holder of a "miner's right" within a gold or mineral field may obtain a residential lease. A provisional rent of 1s. per acre is charged, the maximum area is 20 acres, and the longest term of the lease twenty-eight years; the annual rent is appraised by the Land Board. The principal conditions of the lease are residence during its currency, and the erection within twelve months of necessary buildings and fences. Tenant-right in improvements is conferred upon the lessee. The holder of any residential lease may apply after the first five years of his lease to purchase the land.

There were 955 leases embracing 13,675 acres and a rental of £1,676 current at 30th June, 1918.

Improvement Leases.

Improvement leases may consist of any scrub or inferior land not suitable for settlement in the Eastern or Central Divisions, and are obtained only by auction or tender, after-auction tender, or after-tender tender. The rent is payable annually, and the lease is for a period of twenty-eight years, with an area not exceeding 20,480 acres. Upon the expiration of the lease the last holder will have tenant-right in improvements. During the last year of the lease the lessee may apply for a homestead grant of an area not in excess of a home maintenance area, including the area on which his dwelling-house is erected. Should the Advisory Board, constituted under

the Closer Settlement Act, 1907, report that land comprised in an improvement lease or scrub lease is suitable for closer settlement, the Minister may resume the lease, the lessee being compensated.

During 1917-18, one lease, comprising 530 acres, was let by tender at a total rental of £6 12s. 6d., and 2 leases of 750 acres and rent £18 2s. 6d. were, under improvement conditions, granted. Two improvement leases were converted into homestead selections. After allowance has been made for leases, which were forfeited, voided, surrendered, expired and resumed, there remained current at 30th June, 1918, 925 leases with an area of 4,355,297 acres and rental £31,026.

Settlement Leases.

Under this tenure, which now has been superseded practically by that of Crown lease, farms gazetted as available for settlement lease were obtainable on application, accompanied by a deposit consisting of six months' rent and at least one-tenth of survey fee.

Under the Crown Lands Act of 1908, the holder of a settlement lease may convert such lease into a conditional purchase, or into a conditional purchase and conditional lease under certain provisions, but the area of the land to be converted into conditional purchase may not exceed a home maintenance area.

During 1917-18, three applications for additional leases relating to 4,383 acres were lodged. No settlement leases were created by conversion, but 49 leases for an area of 177,741 acres were converted into other tenures. After making allowance for leases forfeited, &c., and subdivision, there remained current at 30th June, 1918, 1,542 leases, comprising 4,571,864 acres, and rent, £54,294.

Snow Leases.

Vacant Crown lands which for a portion of each year are usually covered with snow, and are thereby unfit for continuous use or occupation, may be leased by auction or tender, by after-auction tender, or by after-tender tender as snow leases. Not more than one snow lease may be held by the same person. The maximum area is 10,240 acres. The term of the lease is seven years, but may be extended for three years.

At 30th June, 1918, there were twenty leases current, embracing 131,420 acres; and rent, £1,232.

Crown Leases.

Crown leases were constituted under the Crown Lands Amendment Act, 1912, and lands are specially set apart by notification in the *Gazette* as available for Crown lease. Crown lands available for conditional purchase (unless otherwise specified in the *Gazette*) are also available for Crown lease. Land may be set apart for Crown lease to be acquired only as additional holdings. The term of lease is forty-five years, and the annual rent $1\frac{1}{4}$ per cent. of the capital value, as determined every fifteen years. The rent payable for the first year may be remitted if, in addition to the improvements required as a condition of the lease, an equal sum be spent by the lessee in improving the land. The lessee is required to reside on the land for five years, and during the last five years of the lease, unless debarred by notification setting the land apart, may apply to convert into a homestead farm so much of the land as will not exceed a home-maintenance area. Under certain conditions, conversion may also be made into a conditional purchase, with or without a conditional lease. The lease may be protected against sale for debt in certain circumstances. Any person qualified to apply for a homestead farm may apply for a Crown lease.

Operations under this class of lease during the past seven years were as follow :—

Year ended 30th June.	Application.		Confirmed.		Leases current at 30th June.		
	No.	Area.	No.	Area.	No.	Area.	Rent.
		acres.		acres.		acres.	£
1912	116	311,360	54	168,392	54	168,392	1,588
1913	477	554,424	278	390,096	330	555,864	5,621
1914	836	697,425	493	356,727	805	880,785	9,259
1915	628	643,189	598	487,155	1,600	1,563,684	16,114
1916	571	864,158	501	780,373	1,760	1,896,765	21,561
1917	541	595,409	445*	441,313	2,033	2,134,446	24,845
1918	463	500,886	291*	285,218	2,337	2,449,587	28,292

* Includes 40 leases of an area of 99,885 acres, and annual rental of £1,448, for returned soldiers in 1917, and 21 of 66,197 acres, and rental £948, in 1918.

Church and School Land Leases.

Certain grants were made under special enactments, and instructions from the Imperial authorities to Sir Thomas Brisbane, then Governor (1821–25), directed him to reserve one-seventh of the Crown lands in each county for Church and School purposes.

The aggregate area of such reserves up to the year 1832, shown by survey to be actually 454,050 acres, did not attain the proportional area specified in the instructions. These lands were administered by the Clergy and School Land Corporation until its abolition by Order of Council on the 4th February, 1833, when the lands reverted to the Crown, and an agent was appointed to determine the claims of purchasers, to whom deeds of grant were made and confirmed by a subsequent Act of Council, dated the 5th August, 1834.

Of the reserves mentioned above, 171,746 acres were alienated up to the year 1880, when, by the Church and School Lands Dedication Act of that year, the balance of 282,304 acres came under the control of the State Legislature to be administered for the purpose of Public Instruction. Subsequently the Church and School Lands Act, 1897, revested all these lands in the Crown, free from any trust or condition, but subject to the provisions of the Crown Lands Act of 1884 and its subsequent amending Acts, thus determining the land as Crown land. Until a notification classifying any area of Church and School lands has been published in accordance with the Crown Lands Act, such area may be dealt with only by reservation, dedication, license, or held under special or annual lease.

The total area of Church and School lands held under lease at 30th June, 1918, in the Eastern Division was 11 acres, at a rental of £330 per annum, the subdivisions being as follows :—

	No.	Area. acres.	Rent. £
Agricultural	1	1	1
Ninety-nine Year	37	10	326
Total	38	11	327

In addition to the above, there was one water-race, aggregating about 10 miles, with a rental of £3.

Other leases in existence at 30th June, 1918, were as follow :—

Homestead leases in the Western Division not brought under the provisions of the Western Lands Act were twenty-one, containing an area of 153,275 acres, and rent £255.

Artesian well leases in the Western Division numbered five for an area of 51,200 acres ; rent, £109.

There was also one block-holder's lease, 1 acre, and rent £6 ; and 122 prickly-pear leases, embracing an area of 42,558 acres, with a rental of £567. Permissive occupancies in existence at the same date were 3,128, for an area of 1,156,416 acres, and rental £10,742.

In addition to the foregoing leases, there were at 30th June, 1918, exclusive of leases to mine on private lands, 198,955 acres, approximately, held under mineral and auriferous leases. Permits to mine under roads and reserves covered an area of 2,180 acres.

WESTERN DIVISION.

The administration of the Western Division under the Western Lands Acts, 1901 and 1905, is vested in three Commissioners, constituting "The Western Lands Board of New South Wales," who, sitting in open Court, also exercise all the powers conferred upon Local Land Boards by the Crown Lands Acts.

Subject to existing rights and extension of tenure granted under certain conditions, all forms of alienation (other than by auction) and lease prescribed by the Crown Lands Acts, ceased to operate within the Western Lands Division from 1st January, 1902.

The registered holder of a homestead selection or grant, pastoral, homestead, settlement, residential, special, artesian well, improvement, scrub, or inferior lease or occupation license, of land in the Western Division, may apply to bring his lease or license under the provisions of the "Western Lands Acts of 1901 and 1905" ; in cases where application has not been made, such lease or license is treated as if the Acts had not been passed.

Crown lands within this division are not available for lease until so notified in the *Gazette*, but leases for special purposes may be granted upon certain conditions, and holders of areas, which are considered too small to maintain a home or to make a livelihood, may obtain an additional area under certain conditions as a lease. Lands are gazetted open for lease at a stated rental under specified conditions with respect to residence, transfer, mortgage, and sub-letting.

All leases issued or brought under the provisions of the "Western Lands Acts of 1901 and 1905," except special leases, expire on 30th June, 1943. In cases where a withdrawal is made for the purpose of sale by auction or to provide small holdings, the lease of the remainder may, as compensation, be extended for a term not exceeding six years.

The rent on all leases brought under the provisions of the Act is determined by the Commissioners for the unexpired portion. The minimum rent or license fee is 2s. 6d. per square mile or part thereof, the maximum is 7d. per sheep on the carrying capacity determined by the Commissioners.

Holdings under the Western Lands Acts as at 30th June, 1918, were classified as follows:—

Class of Holding.	Leases issued.	Area.	Annual Rental.
	No.	acres.	£
Pastoral Leases	300	40,311,375	50,908
Homestead Leases	1,117	10,370,151	22,696
Improvement Leases	116	1,950,875	1,040
Scrub Leases	3	17,431	28
Inferior Lands Leases	4	209,950	50
Settlement Leases	8	40,050	130
Artesian Well Leases	31	317,111	409
New Special Leases	293	546,061	1,555
Special Leases (Conversion)	57	9,389	313
Residential Leases ... ..	...	...	...
Occupation Licenses	104	7,148,093	2,099
Homestead Selections and Homestead Grants	35	24,805	140
Section 32, Western Lands Act Leases	291	2,801,900	2,534
Part VII, " "	367	9,106,334	8,641
Preferential Occupation Licenses	4	11,938	10
Permissive Occupancies	60	804,267	644
Conditional Leases	81	109,922	538
Total	2,871	73,779,622	91,735

AREA LEASED AT 30TH JUNE, 1918.

The area leased to pastoral tenants and others at the end of June, 1918, amounted to 115,262,173 acres (including leases to miners under the Mining Act), and was subdivided as follows:—

Type of Lease.	Area, acres.	Type of Lease.	Area, acres.
Pastoral	1,136,475	Snow Land	131,420
To outgoing Pastoral Lessees	725,312	Special	664,935
Occupation License	6,244,379	Inferior Land	73,711
Conditional	14,871,058	Artesian Well	51,200
Conditional Purchase	433,228	Western Lands	73,779,622
Homestead	153,275	Permissive Occupancy	1,156,416
Annual	2,516,954	Prickly Pear	42,558
Settlement	4,571,864	Mining Act	201,135
Improvement	4,355,297	Other	13,791
Scrub	1,689,956		
Crown	2,449,587	Total	115,262,173

The total available area of the State, including that of Lord Howe Island, and exclusive of 593,920 acres ceded to the Commonwealth Government as Federal Capital Territory, is 198,044,160 acres. Deducting the area alienated, and in process of alienation, 61,020,102 acres, and the area

leased, 115,262,173 acres, making a total of 176,282,275 acres, there remained a balance of 21,761,885 acres, representing the area of country neither alienated nor leased, and including roads, reserves for public purposes, travelling-stock routes and water.

The following statement shows the tenure under which the areas leased with right or provision to convert into freehold, under the Crown Lands (Amendment) Act of 1908, are held :—

	acres.
Conditional Leases	14,871,058
Conditional Purchase Leases	433,228
Settlement Leases	4,571,864
Special Leases	664,935
Residential Leases on Mineral Fields... ..	13,675
Church and School Land Leases	11
Total	20,554,771

The areas under long contracts of lease, in some cases with right of renewal, are given below :—

	acres.
Crown Leases	2,449,587
Pastoral Leases	1,136,475
Leases to outgoing Pastoral Lessees	725,312
Homestead Leases	153,275
Scrub Leases and Inferior Land Leases	1,763,667
Artesian Well Leases	51,200
Snow-land Leases	131,420
Improvement Leases	4,355,297
Western Land Leases	65,815,354
Other Leases	243,798
Total	76,825,385

AREA AVAILABLE FOR SETTLEMENT.

As has been shown previously, the area which had been placed practically beyond State control at the end of June, 1918, was as follows :—

	acres.
Area alienated	41,794,364
Area conditionally purchased standing good	19,225,738
Area under Lease with right to convert... ..	20,554,771
Total area placed practically beyond State control	81,574,873

Adding together 81,574,873 acres practically beyond State control, and 76,825,385 acres of land leased on long contracts, a total of 158,400,258 acres shows the extent of territory which can now be more closely settled and intensely cultivated only by voluntary action of the holders, or by more systematic and probably costly resumptions. The balance is 39,643,902 acres; of this 2,969,080 acres represent the water area, and a considerable area, probably 3 or 4 million acres, must be deducted for roads and for useless land, leaving perhaps 32 million acres available for occupation under various tenures. There is, however, a difficulty attending any calculation of

the area included in land under long leases, which might be made available for settlement. This is apparent when the conditions under which the leases are now held are taken into consideration. Except where right to renewal on expiration of the lease exists, certain areas are continually reverting to the Crown by effluxion of time, and again in respect of certain leases provisions have been made whereby the Minister may at his discretion withdraw a part, and in some cases the whole, of a leased area, or he may resume such leases for the purposes of settlement.

AREAS FOR SETTLEMENT, 1917-18.

With a view to classifying and bringing forward those areas which are suitable for settlement, systematic inspections of Crown lands are made in each district. To meet the demand for land, 1,070,633 acres, including 193,732 acres for Soldiers' Settlement, were made available during the year 1917-18, for the classes of holdings specified below:—

	For Ordinary Settlement. acres.	For Soldiers' Settlement. acres.	Total. acres.
For Crown Lease	521,119	75,737	596,856
„ „ (Additional areas)	40,340	665	41,005
Homestead Farms	29,703	97,257	126,960
„ „ (Additional areas)	9,703	1,310	11,013
Suburban Holdings	5,745	...	5,745
Additional Holdings (ordinary)	181,579	1,241	182,820
Irrigation Farms	17	...	17
Conditional Purchase (original)	255	...	255
Conditional Purchase and Conditional Lease	1,371	...	1,371
Homestead Selection (original)	65	...	65
Returned Soldiers Special Holdings ... ..	...	9,221	9,221
Area acquired (Closer Settlement)	48	...	48
Closer Settlement Promotion Act.	53,283	...	53,283
	843,228	185,431	1,028,659
Area gazetted prior to 30th June, 1918, but not available until after that date	33,673	8,301	41,974
Total	876,901	193,732	1,070,633

The total areas available under the various tenures on 30th June, 1918, were as follow:—

	For Ordinary Settlement. acres.	For Returned Soldiers. acres.	Total, acres.
For Crown Lease	2,648,352	710	2,649,062
Homestead Farms	136,894	69,115	206,009
Suburban Holdings	25,105	...	25,105
„ (Additional Areas) ... ..	...	5	5
Conditional Purchase (Original)	5,316,060	...	5,316,060
Additional Holdings (Generally)	958,029	...	958,029
Week-end Leases	477	...	477
Town Lands Leases	194	...	194
Returned Soldiers' Special Holdings ... ..	...	5,990	5,990
Total	9,085,111	75,820	9,160,931

RESERVES.

The total area of reserved lands in the State as at 30th June, 1918, was 24,062,834 acres. A classification of reserves according to the purpose for which used is shown below:—

Class of Reserves.	Acres.
Travelling Stock	6,107,112
Water	988,701
Mining	1,312,202
Forest	4,572,108
Temporary Commons	498,991
Railway	279,561
Recreation and Parks	231,019
Pending Classification and Survey	5,218,788
For Conditional Purchase, within Gold-fields	801,429
Miscellaneous	4,052,923
Total	24,062,834

The extent of land set apart for timber conservation amounts to 4,572,108 acres; for routes and camping-places for travelling stock 6,107,112 acres have been reserved, 3,717,322 acres being in the Western Division; water reserves embraced 988,701 acres, of which 122,673 acres are in the Western Division.

Reserves are not necessarily unoccupied, and are in part held under Annual, Special, or Scrub Leases, occupation license, or permissive occupancy.

A revision of the reserved lands is being made in each Land District with the object of withdrawing from reserves any area the continued reservation of which is not required in the public interest.

LAND RESUMPTIONS.

Land required by the State may be obtained by resumption, purchase, exchange, surrender, or gift. Resumptions are those made under the Public Works and Lands for Public Purposes Acquisition Acts, and are treated by the Government Land Valuer, except those made for purposes of Public Instruction or of Railways. Resumptions under the Commonwealth Lands Acquisition Act, 1906, are also included.

The following statement shows the area of such resumptions and purchases which were made during the past five years:—

Year.	Resumptions and Purchases.	Gifts.	Total.
	a. r. p.	a r. p.	a. r. p.
1914	14,514 0 16	27 3 31	14,542 0 7
1915	19,107 3 8	17 0 10	19,124 3 18
1916	25,111 2 15	13 0 25	25,124 3 0
1917	12,789 0 9	7 0 0	12,796 0 9
1918	3,774 0 33	17 0 32	3,791 1 25

Resumptions and purchases, and the purposes thereof, during 1917-18 were:—

	Area.				Area.		
	a.	r.	p.		a.	r.	p.
Defence	330	0	31·50	Quarantine Purposes ...	670	0	19·75
General Purposes ...	2,433	0	23·33	Railways and Tram-			
Postal		2	10	ways	153	2	11·75
Public School sites ...	203	3	8·55	Total... ..	3,791	1	24·88

REVENUE FROM PUBLIC LANDS, 1914-18.

The following statement shows the Revenue received from Public Lands during the years ended 30th June, 1914 to 1918, also the Revenue per capita:—

Head of Revenue.	1913-14.	1914-15.	1915-16.	1916-17.	1917-18.
ALIENATION—	£	£	£	£	£
Auction and Special Sales—					
Auction Sales	43,762	31,630	27,329	25,330	54,529
Improved Purchases ...	2,427	2,753	2,982	1,793	3,049
Newcastle Pasturage Reserve					
Sales	619	619	453	297	199
Miscellaneous Purchases ...	18,233	19,698	15,655	9,311	7,816
Total	£ 65,041	45,700	46,419	36,731	65,593
Conditional Purchases—					
Deposits and Improvements					
(Acts, 1884 and 1889) ...	42,068	25,782	37,083	37,601	51,455
Instalments and Interest (Acts					
of 1875, 1884, and 1889) ...	721,470	715,697	794,267	780,924	802,047
Interest (Act of 1861) ...	17,279	16,131	18,319	15,352	16,380
Balances (Acts, 1861, 1875, 1884,					
and 1889)	101,210	71,231	123,502	71,777	104,268
Homestead Selections (Improve-					
ments and Rent)	43,409	38,621	39,656	35,499	34,743
Total	£ 925,436	867,462	1,017,827	941,153	1,008,893
OCCUPATION—					
Leases—					
Pastoral	735	769	734	736	735
Conditional	211,662	201,526	206,530	198,481	201,738
Conditional Purchase ...	20,704	16,987	18,927	14,844	14,517
Occupation Licenses ...	23,060	21,242	20,621	20,120	19,436
Homestead and Farm ...	1,114	1,085	1,343	1,359	4,354
Annual and Snow	37,405	35,639	31,902	31,038	31,218
Scrub and Inferior	72,233	67,743	68,204	62,723	60,668
Settlement	40,947	37,693	37,167	34,644	33,948
Improvement	144	118	169	118	167
Artesian Well	406	399	391	365	354
Church and School Land ...	84,662	87,488	90,073	87,588	92,547
Western Land Division ...					
Leases under 18th Section, Land					
Act, 1903	9,934	9,160	8,199	7,550	7,207
Crown Leases	7,268	11,748	18,167	21,191	24,696
Suburban Holdings	1,881	2,693	4,192	4,125	4,409
Total	£ 512,160	494,290	506,619	484,882	495,994

Head of Revenue.	1913-14.	1914-15.	1915-16.	1916-17.	1917-18.
OCCUPATION (continued)—	£	£	£	£	£
Mining—					
Mineral Leases	19,682	15,426	15,602	15,163	16,702
Leases of Auriferous Lands ...	1,755	1,668	1,315	1,226	1,174
Gold and Mineral Dredging					
Leases	834	793	651	591	711
Miners' Rights	2,780	2,484	2,399	2,201	2,414
Business Licenses	656	565	517	471	451
Residential Leases	1,611	1,816	1,830	1,894	1,844
Royalty on Minerals	110,833	99,345	111,194	104,129	102,164
Fees—Warden's Courts and					
Department of Mines	1,959	1,439	1,322	1,382	1,357
Other Receipts	5,032	3,842	3,344	2,956	3,614
Total	£ 145,202	127,378	138,174	130,018	130,431
Miscellaneous Land Receipts—					
Timber Licenses, &c.	93,972	88,908	66,922	68,218	69,318
Rents, Special Objects	47,174	52,800	57,087	53,650	56,433
Fees on Preparation and Enrol-					
ment of Title-deeds	4,609	3,742	4,058	3,353	4,041
Survey Fees	23,992	22,623	24,898	23,121	25,500
Fees on Transfer of Leases ...	2,742	2,653	2,769	.....	.....
Quit Rents and Other Receipts	33,479	24,254	27,804	28,788	30,659
Total	£ 215,963	194,980	183,528	177,135	186,011
Gross Revenue	£ 1,863,897	1,729,810	1,892,577	1,769,919	1,886,922
Refunds	34,920	31,729	27,264	22,910	25,462
Net Revenue	£ 1,828,887	1,698,081	1,865,313	1,747,009	1,861,460
REVENUE PER CAPITA.					
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Auction and Special Sales	0 0 9	0 0 6	0 0 6	0 0 5	0 0 8
Conditional Purchases	0 10 1	0 9 4	0 10 11	0 10 1	0 10 8
Pastoral Occupation	0 5 7	0 5 4	0 5 5	0 5 3	0 5 3
Mining Occupation	0 1 7	0 1 5	0 1 6	0 1 5	0 1 5
Miscellaneous Land Receipts ...	0 2 4	0 2 1	0 1 11	0 1 10	0 2 0
Gross Revenue	£ 1 0 4	0 18 8	1 0 3	0 19 0	1 0 0
Refunds	£ 0 0 5	0 0 5	0 0 3	0 0 3	0 0 3
Net Revenue	£ 0 19 11	0 18 3	1 0 0	0 18 9	0 19 9

CLOSER SETTLEMENT.

Under the Closer Settlement Act, 1901, provision was made for the acquisition of private lands, or of lands leased from the Crown, for purposes of closer settlement, but as power of compulsory resumption was not conferred, the Act was practically inoperative.

The Closer Settlement Act, 1904, repealed the 1901 enactment, and provided for compulsory resumption of private land for purposes of closer settlement when the value exceeds £20,000, exclusive of improvements, and owners could offer to surrender private lands at specified prices, such offer to be binding on the owner for a period of nine months. These provisions have been repealed by the Closer Settlement (Amendment) Act, 1914.

The Closer Settlement Amendment Act, 1907, constituted three Advisory Boards to report upon lands suitable for closer settlement, the land being

purchased by agreement with the owner, or acquired by resumption when the value, without improvements, exceeds £20,000. Within six months after the passing of an Act sanctioning the construction of a line of railway, the Governor may notify a list of estates within 15 miles of a railway line; within six months of this notification the Governor may notify his intention to purchase or resume for purposes of closer settlement land so notified the property of one owner and exceeding £10,000 in value.

Land comprised in an improvement or scrub lease, or section 18 lease, may also be resumed for closer settlement upon the recommendation of an Advisory Board constituted under the Act of 1907.

Before land acquired is available for settlement, the areas and values per acre of the proposed settlement purchases must be approved by the Minister. The area available may include not only land acquired under the Act but also any adjacent Crown lands set apart for the purpose. Settlement areas are notified for disposal in farms of three classes, viz., agricultural lands, grazing lands, and township settlement allotments.

In the Closer Settlement Amendment Act, 1909, provision is made that at any time after a proclamation of intended acquisition of an estate, if an agreement be made that the land shall be subdivided for closer settlement by the owner, the power of resumption may be suspended for a term not exceeding two years. Any sale or lease made under such agreement must be submitted to the Minister, and if it be found that the owner has failed to fulfil the conditions, the suspension of the power of resumption shall cease.

Males over the age of 16 years, and females over 21 years, may apply for land under the Act, if they are not holders, except under annual tenure, of land which, with the area sought, will substantially exceed a home-maintenance area; but if any person divests himself of land in order to apply for a settlement purchase, his application will be disallowed, unless the Minister's consent in writing be obtained to the making of an application.

The person applying, if a woman, must be unmarried or widowed, or if married, be living apart from her husband under a decree for judicial separation; but with the Minister's consent a married woman not living apart from her husband may apply for a settlement purchase, in which case the lands held by her husband will be considered in estimating whether the area held, together with that sought, substantially exceeds a home-maintenance area; and in considering any application by a married man not so living apart, the total area held by husband and wife will be similarly considered.

Unless otherwise prescribed or notified under the present regulation, applications, on or after the 1st September, 1917, accompanied by a deposit of $6\frac{1}{2}$ per cent. of the notified capital value of the land, must be lodged with the Crown Land Agent of the district, or with any other officer duly appointed. The purchase money is payable in thirty-two annual instalments at the rate of $6\frac{1}{2}$ per cent. of the capital value of the land, including interest at $5\frac{1}{2}$ per cent. on the unpaid balance of purchase money. Where the settlement purchase is within a settlement purchase area notified prior to 1st January, 1913, the deposit and subsequent instalments are at the rate of 5 per cent. per annum, and the interest is at the rate of 4 per cent. per annum.

Residence for a period of five years is required, and commences at any time within twelve months after the decision of the Land Board allowing the purchase; but the term may be extended to any date within five years of the allowance of purchase, and on such terms and conditions as to improvements and cultivation as may be arranged between the applicant and the Land Board. Residence implies continuous and *bona fide* living upon any farm or township settlement allotment in the same settlement

purchase area. Subject to the approval of the Land Board, the condition as to residence may be observed in any adjacent town or village; or by permission may be suspended. Residence may be permitted on another holding (within reasonable working distance) subject to such conditions as may be imposed.

On unimproved land, the purchaser is required to effect substantial and permanent improvements to the extent of 10 per cent. of the capital value within two years from the date of application, with an additional 15 per cent. within five years. Existing improvements on the land are held to fulfil this condition to the amount of their value. Every purchaser is subject to conditions as to mining, cultivation, destruction of vermin and noxious weeds, &c.

The Minister may give consent to the temporary occupation, subject to certain conditions, of any lands within a settlement purchase area which remain unselected. The permit to occupy does not exempt the land from settlement purchase.

The three Advisory Boards constituted under the Closer Settlement Act to inspect and report upon suitable estates for closer settlement were replaced by one central Board to deal with closer settlement for the whole State.

The following table contains information regarding areas administered under the Closer Settlement Acts as at 30th June, 1918:—

Name of Settlement Purchase Area.	Lands comprised in Settlement Areas.			Price paid for Acquired land.	
	Acquired land.	Adjoining Crown land.	Total.	Total.	Per Acre.
	acres.	acres.	acres.	£	£ s. d.
Myall Creek, Inverell	53,929	19,271	73,200	138,866	2 11 6
Gobbagombalin, Wagga	61,866	4,631	66,497	207,560	3 7 1
Marrar, Wagga	26,608	781	27,389	68,777	2 11 8
Walla Walla, Albury	50,156	1,580	51,736	250,687	5 0 0
Sunny Ridge, Cowra	12,031	420	12,451	49,038	4 1 8
Boree Creek, Urana	17,002	242	17,244	61,385	3 12 3
Peel River, Tamworth	99,618	114	99,732	405,416	4 1 5
Mungery, Parkes	55,159	47,371	102,530	115,878	2 2 0
Coreen and Back Paddock, Corowa	37,862	1,492	39,354	140,000	3 14 1
Brookong, Urana	12,006	156	12,162	42,170	3 10 3
Piallaway and Walhallow, Tamworth	12,447	348	12,795	61,980	5 0 0
Everton, Dubbo	6,477	6,049	12,526	19,426	3 0 0
Pine Ridge, Dunedoo	7,845	197	8,042	28,790	3 13 5
Richlands, Goulburn	8,719	302	9,021	34,885	4 0 1
Larras Lake, Molong	11,538	42	11,580	53,830	4 13 4
Crowther, Young	10,563	325	10,888	52,201	4 18 10
North Logan, Cowra	11,441	243	11,684	54,461	4 15 3

Name of Settlement Purchase Area.	Lands comprised in Settlement Areas.			Price paid for Acquired land.	
	Acquired land.	Adjoining Crown land.	Total.	Total.	Per acre.
	acres.	acres.	acres.	£	£ s. d.
Hardwicke, Yass	6,141	112	6,253	26,100	4 5 0
Tuppai, Corowa	49,178	1,073	50,251	221,224	4 10 0
Nangus, Gundagai	7,517	212	7,729	29,819	4 0 0
Gunningbland, Parkes	12,404	109	12,513	37,212	3 0 0
Tibbereenah, Narrabri	12,357	528	12,885	49,022	3 19 8
Wandary, Forbes	8,998	439	9,437	36,963	4 2 6
Cole Park, Malton, and Rossiville, Goulburn	3,141	769	3,910	14,090	4 10 0
Bibbenluke, Bombala	16,174	410	16,584	60,339	3 15 0
Maharatta, Bombala	20,256	454	20,710	72,190	3 11 11
Warrah, Murrurundi	45,006	.....	45,006	192,747	4 5 8
Boorabil, Wyalong	8,717	1,781	10,498	17,433	2 0 0
Eulabil	907	.....	907	6,449	7 2 3
North Barellan	4,366	.....	4,366	18,022	4 2 7
Bygalore	19,264	324	19,588	48,867	2 11 0
Forest Vale	20,642	.....	20,642	56,765	2 15 0
Gorman's Hill West	3,880	2,134	6,014	8,457	2 2 6
Ungarie South	11,668	87	11,755	33,546	2 17 6
Emu Park, Casino	1,321	.....	1,321	6,463	4 17 10
Farlane, Gunnedah	1,024	.....	1,024	4,864	4 15 0
Fitzroy Falls, Moss Vale	87	.....	87	807	9 4 7
Garoolgan Park, Narrandera	1,858	.....	1,858	5,651	3 1 0
Dingo Dell, Temora Central... ..	2,558	.....	2,558	10,032	3 18 5
Rosehill, Inverell	1,237	.....	1,237	7,299	5 10 0
The Curragh, Temora Central	2,998	.....	2,998	14,227	4 15 0
Yarran Park, Narrandera	2,560	.....	2,560	8,484	3 6 3
Total	759,526	91,996	851,522	2,772,422	3 13 0

NOTE.—In addition to the above, fourteen estates of an area of 216,815 acres, valued at £987,364, have been acquired for Soldiers' Settlements.

Of the total area of Closer Settlement lands, 26,537 acres have been reserved for roads and other purposes, and 824,985 acres have been divided into 1,708 farms, the average area per farm being 483 acres.

Particulars of the subdivisions are shown in the following statement:—

Name of Settlement Purchase Area.	Farms.	Capital value of Areas contained in Farms.			Farms allotted to 30th June, 1918.	Area allotted.	Capital value of Farms allotted.
		Acquired Lands.	Crown Lands.	Total.			
	No.	£	£	£	No.	acres.	£
Myall Creek	131	128,608	27,219	165,827	131	67,813	165,827
Gobbagombalin	142	225,663	12,472	238,135	142	64,501	238,135
Marrar	46	75,133	2,040	77,173	43	27,048	77,173
Walla Walla	128	255,282	3,845	259,107	126	50,605	259,107
Sunny Ridge	24	50,292	1,236	51,528	24	12,267	51,528
Boree Creek	30	67,606	527	68,133	30	17,031	68,133
Peel River	289	438,573	126	438,704	289	97,412	438,704
Mungery	62	117,497	81,962	199,459	62	95,111	199,459
Coreen and Back Paddock	63	150,173	3,549	154,022	63	33,353	154,022
Brookong	20	43,155	311	43,466	20	12,006	43,466
Piallaway and Walhallow	38	63,455	1,371	64,826	38	12,631	64,826
Everton	18	19,886	11,671	31,457	18	12,306	31,457
Pine Ridge	16	29,556	625	30,181	16	7,946	30,181
Richlands	37	36,161	932	37,093	37	8,917	37,093
Larras Lake	30	57,137	3	57,140	30	11,484	57,140
North Logan	51	58,487	676	59,163	46	11,279	58,683
Hardwicke	21	26,857	276	27,133	21	6,172	27,133
Tuppall	117	232,110	2,302	234,472	117	49,573	234,472
Nangus	17	31,067	485	31,552	17	7,649	31,552
Gunningbland	19	33,792	118	33,910	19	12,339	33,910
Tibbereenh	75	51,516	868	52,384	75	12,722	52,384
Wandary	18	37,985	642	38,627	18	9,075	38,627
Crowther	22	53,687	694	54,381	22	10,677	54,381
Cole Park, Malton, & Rossville	19	14,644	5,784	20,428	19	3,845	20,428
Bibbenluke	31	62,108	1,259	63,397	31	16,087	63,297
Maharatta	46	80,555	993	81,548	46	20,369	81,548
Warrah	83	209,994	..	209,994	83	44,318	209,994
Boorabil	8	19,630	3,219	22,849	4	4,565	11,640
Eulabil	5	6,449	..	6,449	5	907	6,449
North Barellan	8	18,022	..	18,022	8	4,966	18,022
Bygalore	19	59,846	434	60,280	..	..	..
Forest Vale*	25	68,879	..	68,879	..	..	..
Gorman's Hill West	6	8,623	4,067	12,720	..	..	..
Ungarie South	15	41,952	203	42,155	15	11,303	42,155
Emu Park	3	6,463	..	6,463	3	1,321	6,463
Farlane	3	4,863	..	4,863	3	1,024	4,863
Fitzroy Falls	2	807	..	807	2	87	807
Garoolgan Park	3	5,651	..	5,651	3	1,858	5,651
Dingo Dell	4	10,032	..	10,032	4	2,568	10,032
Rosehill	3	7,299	..	7,299	3	1,237	7,299
The Curragh	6	14,227	..	14,227	6	2,993	14,227
Yarran Park	4	8,484	..	8,484	4	2,560	8,484
Total	1,708	2,947,221	170,259	3,117,480	1,649	774,270	1,963,921

* Twenty-two farms on this Estate are being utilised in connection with Government scheme of share farming.

Up to 30th June, 1918, the total farms allotted were 1,649, containing 774,270 acres, of the capital value of £2,963,921, representing an average cost to the settler of £3 16s. 7d. per acre and of £1,797 per farm.

Of the above number, 46 farms, with 24,943 acres and valued at £110,094, have been converted into homestead farms, leaving 1,603 farms allotted under the Closer Settlement Act, in existence at 30th June, 1918, the area of which is 749,327 acres and the capital value £2,853,827.

On the 30th June, 1918, there were 59 farms containing 50,715 acres unallotted; 22 of these of 17,864 acres are being utilised in connection with the Government scheme of share-farming, leaving 37 farms of 32,851 acres available for settlement, and two farms which were forfeited are available for re-allotment.

The farms which have not yet been selected are let under permissive occupancy, and remain available for settlement purchase application.

Closer Settlement Promotion Act, 1910.

The Closer Settlement Promotion Act, 1910, enables three or more persons qualified to hold settlement purchases to negotiate with an owner of

private lands, and to apply to have such lands brought under the Act. Upon approval by the Minister, the vendor surrenders the land to the Crown, and the purchaser acquires it as a settlement purchase, obtaining an advance secured by mortgage on the land, from the Commissioners of the Government Savings Bank, who may make advances up to 93½ per cent. of the Crown valuation of the farm, with a maximum of £3,000; the total advances by the bank under this Act in any financial year may not exceed £1,000,000. Each farm is worked independently, the co-operation of the applicants ceasing with the allotment of an area, for which each has to lodge a deposit of £5 and costs of surveys, &c., with 6½ per cent. of the Crown valuation of the farm on allotment. Repayments of advances from the Government Savings Bank are subject to the regulations in force at the date of commencement of title. At present the regulations provide for repayment at the rate of 6½ per cent. per annum of the capital value of the farm; this includes interest at 5½ per cent. on the outstanding balance, the whole indebtedness being discharged in thirty-two years. Under the Returned Soldiers' Settlement (Amendment) Act, 1917, any one or more discharged soldiers, within the meaning of the Act, if duly qualified, may also apply.

Under the Closer Settlement (Amendment) Act, 1914, instead of the Government Savings Bank advancing the purchase money, the Minister for Lands is authorised to pay same from the Closer Settlement Fund, or to issue Closer Settlement Debentures covering the amount. In the latter case the principal is repayable by seven equal quinquennial payments, with interest at 4½ per cent. per annum, payable half-yearly.

Extension of time to pay instalments of purchase may be sanctioned in special circumstances, and holders of farms may obtain advances on account of improvements effected.

From the commencement of the Act in September, 1910, till 30th June, 1918, 1,391 farms, of a total area of 577,176 acres, were applied for, the amount involved being £2,916,282. Of this number, 1,108 farms, embracing an area of 448,572 acres, at a cost of £2,343,482, were allotted and finally dealt with at 30th June, 1918.

The transactions for each year were as follows:—

Year.	Estates.	Farms.	Area.	Amount Advanced.
			acres.	£
1910-11	4	26	10,785	54,131
1911-12	31	209	84,280	418,941
1912-13	36	274	107,791	599,145
1913-14	32	183	62,598	361,351
1914-15	16	95	35,963	201,163
1915-16	23	141	61,626	300,103
1916-17	13	57	28,877	123,331
1917-18	21	123	56,652	285,317
Total ...	176	1,108	448,572	2,343,482

Of the estates shown to have been dealt with during the year 1915-16 there was one containing 3 farms with an area of 1,321 acres, which was settled by certificates and cash from the Closer Settlement Fund, to the extent of £6,464. This, together with 2 estates, 13 farms of an area of 5,273 acres and value £24,471, dealt with in like manner in 1914-15, have now been included in Closer Settlement Areas.

In addition to the land acquired by the State for closer settlement a number of estates have been subdivided for that purpose by private owners.

LABOUR SETTLEMENTS.

In the Labour Settlements Act, 1902, provision was made for land to be set apart for lease as a labour settlement, under the control of a Board, which was empowered to enrol approved persons; to make regulations concerning the work to be done; to apportion the work among the members; and to distribute equitably wages, profits, and emoluments, after providing for the cost of maintenance of members; to establish any trade or industry, and apportion the profits among the enrolled members. The land was under the control of a Board, in trust for the members of the settlement.

With a sufficient enrolment of members a Board might apply for monetary assistance on behalf of the members of the settlement, to a maximum amount of £25 for each enrolled member who was the head of a dependent family; £20 for each married person without a family; and £15 for each unmarried person. On the expiration of four years from the commencement of the lease, and at the end of each year following, 8 per cent. of the total sum paid to the Board became a charge on its revenue, until the total amount advanced, with interest at the rate of 4 per cent. per annum, had been repaid.

The Labour Settlement Act of 1902 was repealed by the Bega and Wilberforce Labour Settlement Act, 1917. That act dissolves the Boards of Control and provides for the exclusive right of the present settler or his representatives to acquire, within a specified period, the block set down opposite his name in the schedule under the Act, as a homestead farm under the Crown Lands Consolidation Act, 1913.

RURAL SETTLEMENT.

The State may be classified for purposes of rural settlement and rural industries into five divisions, viz., Coast, Tableland, Western Slopes of the Great Dividing Range, Central Plains and Riverina, and the Western Plains. Each Division has its own special character, and its natural resources are characteristic of its climatic conditions. From Sydney as the centre, settlement extended first along the coast, then to the central and more accessible parts of the tableland, following the course of the great inland rivers towards the southern and western parts of the State where pressed by lack of pasturage for the growing flocks and herds, and debouching upon the great plains of the west.

Geographical features and climate have been the primary factors in determining the trend of settlement; and other considerations, such as the fertility of the soil, the distribution of the rainfall, the density of the timber-growth, and the consequent cost and difficulty of clearing, etc., naturally regulated the character of the rural settlement in a given locality and determined the purposes to which lands were applied.

Another matter of great importance was the question of communication between the sparsely-settled and the populous centres, with access to a market which would assure to the settler a reasonable prospect of the disposal of his products, and would permit an effort to regulate supply according to demand.

RURAL HOLDINGS AND TENURES.

Rural holdings may consist of alienated lands, or of Crown lands, or of both. The extent of alienated or freehold land occupied in holdings of one acre and over, as at 30th June, 1918, was 57,787,075 acres, of which 53,968,493 acres were occupied by the owners and 3,818,582 acres were rented. The Crown lands in occupation amounted to 116,833,721 acres, the area attached to alienated holdings was 92,319,689 acres, the balance, 24,514,032 acres, being in separate holdings.

The following table shows the area taken up in holdings of one acre and over in each Division of New South Wales, according to the class of tenure.

Division.	Area Alienated in Holdings.			Crown Lands.		Total Area in Holdings.
	Occupied by Owner	Rented.	Total.	Attached to Alienated Holdings.	In Separate Holdings.	
	acres.	acres.	acres.	acres.	acres.	acres.
Coastal Belt...	7,659,561	1,444,408	9,103,969	3,802,116	452,850	13,358,935
Tableland ...	10,503,220	830,332	11,333,552	7,066,922	1,130,986	20,131,460
Western Slopes ...	13,352,347	686,360	14,068,707	5,085,760	1,327,139	20,984,606
Central Plains and Riverina	20,854,890	804,380	21,659,270	13,729,583	6,294,948	41,683,801
Western Plains ...	1,568,475	53,102	1,621,577	62,032,308	14,808,109	78,461,994
New South Wales ...	53,968,493	3,818,582	57,787,075	92,319,689	24,514,032	174,620,796

Of the total area occupied, 33·1 per cent. was freehold, and 66·9 per cent. was leased from the Crown. Nearly one-third of the Crown lands so leased was in the Western Division, and utilised almost exclusively for depasturing stock. In the Division of the Central Plains and Riverina 52 per cent. of the land occupied was freehold.

Tenancy, as understood in older settled communities oversea, has made comparatively little progress, 93·4 per cent. of the alienated land being in the occupancy of the proprietors; but in some districts the system of working

on shares has been instituted—the owner providing the land and the capital for the cultivation of the soil, and the farmer supplying the labour and the machinery, &c.

The proportions of the total area of the several Divisions occupied in holdings of various classes are shown in the following table :—

Division.	Proportion of Total Area Contained in—					
	Alienated Lands.			Crown Lands.		Total Holdings.
	Occupied by Owner.	Rented.	Total.	Attached.	Separate.	
	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.
Coastal Belt	34·25	6·47	40·72	17·01	2·03	59·76
Tableland... ..	40·66	3·21	43·87	29·68	4·33	77·93
Western Slopes	55·18	2·83	58·01	20·98	7·54	86·53
Central Plains and Riverina ...	45·50	1·76	47·26	29·96	13·74	90·96
Western Plains	1·95	·07	2·02	77·19	18·42	97·63
New South Wales	27·17	1·92	29·09	46·48	12·34	87·91

The foregoing ratios show that slightly less than 88 per cent. of the total area contained within the boundaries of the State is occupied in holdings of one acre and upwards. The highest proportion of absolute alienation, 58 per cent. of the area of the Division, has taken place in the Western Slopes, and the lowest 2 per cent., in the Western Plains, but taking the total area of holdings, the Western Plains show the maximum proportion of its area—97·6 per cent.—under occupation; the proportions are high also in the Central Plains and Riverina, 91 per cent., and in the Western Slopes, 86·5 per cent.

NUMBER OF HOLDINGS AND AVERAGE AREAS.

Excluding from consideration land held simply under lease from the Crown, there were in the State of New South Wales on the 30th June, 1918, 96,085 holdings of one acre and upwards in extent, comprising land acquired from the Crown by grant or by purchase, with, in some cases, areas of Crown lands attached thereto.

The number of these holdings as returned by occupiers, and the alienated area at intervals since 1881, are shown herewith, together with the average area contained in the holdings.

Year.	Number of Alienated Holdings.	Alienated Area.		Year.	Number of Alienated Holdings.	Alienated Area.	
		Total.	Average per Holding			Total.	Average per Holding.
		acres.	acres.			acres.	acres.
1880-1	39,992	27,765,318	694	1905-6	77,136	48,728,542	632
1885-6	43,727	34,031,104	778	1910-1	87,503	52,164,454	596
1890-1	49,960	38,959,225	787	1915-6	94,177	56,288,979	593
1895-6	60,529	42,321,926	699	1917-8	96,085	57,787,075	601
1900-1	69,439	46,043,244	663				

The average area of alienated land per holding increased from 694 acres in 1881 to 787 acres in 1891, and then declined gradually to 593 acres in 1916; it has since advanced to 601 acres. In 1918 there was, on the average, an area of 961 acres of Crown lands attached to alienated holdings,

thus increasing the average area to 1,562 acres, and if holdings consisting of Crown lands only be taken into consideration the average area under all forms of tenure was 1,677 acres. Particulars for each Division of the State are shown below.

Division.	Average Size of Holding.		
	Alienated Area Only.	Alienated and attached Crown Lands.	All Tenures, including Holdings consisting of Crown Lands Only.
	acres.	acres.	acres.
Coastal Belt	189	268	272
Tableland	586	983	967
Western Declivity	834	1,135	1,136
Central Plains and Riverina	2,056	3,358	3,058
Western Plains	1,355	53,178	37,221
New South Wales	601	1,562	1,677

SIZE OF HOLDINGS.

Information regarding the size of the rural holdings has been tabulated in two distinct classifications, one in accordance with the size of the alienated area, and the other in accordance with the total area of alienated and Crown land contained in each holding. The alienated holdings numbering 96,085 as at 30th June, 1918, contained 57,787,075 acres of alienated land and 92,319,689 acres of Crown lands attached. There were also 8,065 holdings containing Crown lands only.

The following table shows the alienated area and the Crown lands attached classified according to the size of the privately-owned land at the 30th June, 1918.

Size of Holding.	Number of Holdings.	Area Occupied.			Proportion in each area group.	
		Alienated.	Crown Lands Attached to Alienated.	Total.	Holdings.	Alienated Land.
acres.		acres.	acres.	acres.	per cent.	per cent.
1— 15 ..	30,475	142,561	301,677	444,238	31·72	·25
16— 50 ...	11,117	367,440	1,660,780	2,028,220	11·57	·63
51— 100 ...	8,374	671,105	956,125	1,627,230	8·71	1·16
101— 500 ...	26,183	6,739,191	14,323,659	21,062,850	27·25	11·66
501— 1,000 ..	9,768	6,860,132	15,410,630	22,270,762	10·17	11·87
1,001— 1,500 ...	3,702	4,533,988	8,850,113	13,384,101	3·85	7·85
1,501— 2,000 ...	1,602	2,777,555	5,662,824	8,440,379	1·67	4·81
2,001— 3,000 ...	1,778	4,345,718	10,714,430	15,060,148	1·85	7·52
3,001— 4,000 ...	845	2,939,785	6,403,066	9,342,851	·88	5·09
4,001— 5,000 ...	499	2,229,790	4,533,163	6,762,953	·52	3·86
5,001— 7,500 ...	684	4,131,880	7,105,910	11,237,790	·71	7·15
7,501—10,000 ...	323	2,784,699	2,535,691	5,320,390	·34	4·82
10,001—15,000 ...	295	3,538,714	4,595,272	8,133,986	·31	6·12
15,001—20,000 ...	137	2,379,885	2,896,073	5,275,958	·14	4·12
20,001—30,000 ...	145	3,528,513	2,828,917	6,357,430	·15	6·10
30,001—40,000 ...	52	1,794,830	480,756	2,275,586	·05	3·11
40,001—50,000 ...	31	1,366,602	1,315,129	2,681,731	·03	2·36
Over 50,000 ...	75	6,654,687	1,745,474	8,400,161	·08	11·52
Total	96,085	57,787,075	92,319,689	150,106,764	100·00	100·00

The above figures show that while, on the one hand, the holders of estates exceeding 1,000 acres constitute but 10·58 per cent. of the total number of occupiers, the land held represents 74·43 per cent. of the total alienated area. It will further be noted that in the case of 75 estates of 50,001 acres and upwards, which represent only 0·08 per cent. of the total number of holdings, the area alienated in that group contains 11·52 per cent. of the total classified under this heading.

In addition to the alienated holdings—with or without Crown lands attached—there were at the 30th June, 1918, 8,065 holdings consisting of Crown lands only, the total area thus occupied being 24,514,032 acres. The total number of holdings of one acre and upwards was, therefore, 104,150, and the total area was 174,620,796 acres—consisting of 57,787,075 acres of alienated lands, and 116,833,721 acres of Crown lands.

In the next table, therefore, the results are inclusive of all holdings of one acre and upwards, the actual land being taken as the basis for each area group—whether the holdings are classed as alienated only, as alienated with Crown lands attached, or as Crown lands only.

Size of Holding.	Number of Holdings.		Total Area.		Percentage in each Series.			
					Holdings.		Area.	
	1912-13.	1917-18.	1912-13.	1917-18.	1912-13.	1917-18.	1912-13.	1917-18.
acres.			acres.	acres.				
1— 50	39,677	43,316	501,199	528,235	40·38	41·59	6·29	0·30
51— 100	8,084	8,072	629,909	628,283	8·23	7·75	0·36	0·33
101— 500	24,299	24,573	6,277,671	6,434,626	24·73	23·50	3·60	3·68
501— 1,000	9,549	10,672	6,776,643	7,607,497	9·72	10·25	3·88	4·36
1,001— 3,000	10,069	10,633	17,317,947	18,219,555	10·25	10·21	9·92	10·43
3,001— 5,000	2,480	2,645	9,578,039	10,240,704	2·52	2·51	5·49	5·86
5,001— 10,000	1,942	2,099	13,155,684	14,264,179	1·98	2·01	7·54	8·17
10,001— 20,000	964	1,002	13,097,932	13,611,999	0·98	0·96	7·50	7·89
20,001— 50,000	703	676	21,180,029	23,250,400	0·71	0·65	12·13	11·60
50,001— 100,000	225	217	15,668,791	14,933,224	0·23	0·21	8·97	8·55
Over 100,000	265	245	70,393,994	67,902,094	0·27	0·24	40·32	38·89
Total ...	98,257	104,150	174,577,838	174,620,796	100·00	100·00	100·00	100·00

The general tendency of areas in the holdings up to 20,000 acres is to increase, both absolutely and relatively. In the groups over 20,000 acres the actual reduction of area during the five years was 4,157,096 acres, but by far the greatest number of the large holdings are in the Western Plains, and consist chiefly of Crown lands.

SETTLEMENT IN LAND DIVISIONS.

The following statements show for each Division of the State the holdings of alienated land, classified according to size, and the Crown lands attached to such holdings; also the classification of all holdings, according to the total area of alienated and Crown lands.

THE COASTAL BELT.

From the metropolitan County of Cumberland settlement advanced westward, and after the alluvial lands of the Hawkesbury and the Nepean valleys

had been occupied, the lower portion of the valley of the river Hunter abounding with natural resources, agricultural as well as mineral, soon attracted settlers, so that more population is now concentrated in that district than in any other part of New South Wales outside the metropolitan area. Settlement extended gradually to the whole of the watershed of the Hunter and the Manning, particularly along the intermediate river courses, such as the Paterson, the Allyn, the Williams, the Kuruab, and the Myall.

The Division of the North Coast, occupied by an agricultural and dairy farming population, exhibits the most satisfactory results as regards settlement, which during recent years has extended very rapidly along the banks of the Hastings, the Macleay, the Bellinger, the Orara, the Clarence, the Richmond, and the Tweed.

Early in the nineteenth century settlement took a southerly direction from the metropolis, and extended along the lower river valleys of the South Coast where the best lands were alienated in grants of large areas to a few families. Later on, the nature of the country, and a more intelligent conception of the principles which should guide settlement, brought about the subdivision of some of these large estates into numerous small holdings. The development was, however, arrested about the period of the Federation of the States. Large numbers of the agricultural and dairy-farming population migrated to the North Coast, the Division losing over 2,000 of its inhabitants between the census years 1901 and 1911. The only county retaining its population, owing to the persistence of the coal-mining industry, was Camden.

The figures in the following table show the settlement of the Coastal Division in holdings of one acre and upwards at the 30th June, 1918, and are exclusive of parks and reserves within the boundaries of Sydney and suburbs.

Size of Holding.	Classified according to extent of alienated area.				Classified according to total area, alienated and Crown Land.	
	Number of alienated Holdings.	Alienated area.	Crown Lands attached to Alienated Holdings.	Total Area.	Number of Holdings.	Total area, alienated and Crown Lands.
acres.		acres.	acres.	acres.		acres.
1— 50 ...	26,387	314,013	134,447	448,460	26,402	309,251
51— 100 ...	5,216	413,400	118,519	531,919	5,003	394,242
101— 500 ...	13,027	3,003,226	1,015,871	4,019,097	13,093	3,070,806
501— 1,000 ...	2,155	1,490,295	457,844	1,948,139	2,524	1,754,515
1,001— 3,000 ...	1,062	1,688,085	734,492	2,422,577	1,621	2,570,633
3,001— 5,000 ..	165	634,032	366,708	1,000,740	228	881,755
5,001— 10,000 ...	92	635,365	301,853	937,218	148	1,013,588
10,001— 20,000 ...	31	408,566	244,794	653,360	60	829,310
20,001— 50,000 ...	12	344,937	422,968	767,905	32	990,740
50,001—100,000 ...	2	172,050	4,620	176,670	12	761,366
Over 100,000 ...	.....	.....	.....	.....	3	782,729
The Coastal Belt...	48,149	9,103,969	3,802,116	12,906,085	49,126	13,358,925

The total area of this division is 22,355,401 acres, of which 9,103,969 acres of alienated land were occupied in holdings of one acre and upwards, and 3,802,116 acres of Crown lands were held in conjunction with the alienated, making a total of 12,906,085 acres. In addition, there were 977 holdings, consisting of 452,850 acres of Crown lands only.

Holdings under 51 acres represent more than half the total number, and are generally market gardens and orchards in the vicinity of towns. The moderate-sized holdings consist mainly of dairy farms. The area under crop was 251,527 acres, including 1,812 acres of Crown land.

Rural settlement in the valleys of the northern coastal rivers, and in the country extending from the sea to the foot-hills of the Great Dividing Range, has proceeded in a way very different from that of the Tableland, which extends from north to south, and divides the rich agricultural valleys of the coastal rivers and their broken mountainous watersheds from the immense plains of the Western Division.

THE TABLELAND.

After crossing the ranges which form the western boundary of the Coastal Belt, settlement proceeded in the Central Tableland, thence south and north, and later westwards, at first following the courses of the great rivers.

On the Northern Tableland the majority of the settlers are freeholders, tenants constituting a very small section of the occupiers of alienated land. The Central Tableland has not appreciably advanced for some time, and the Southern Tableland has experienced even a decline in its population.

The following statement shows the progress of rural settlement in the three Divisions of the Tableland at the 30th June, 1918.

Size of Holding.	Classified according to extent of Alienated Area.				Classified according to total area—Alienated and Crown Land.	
	Number of Alienated Holdings.	Alienated Area.	Crown Lands attached to Alienated Holdings.	Total Area.	Number of Holdings.	Total Area, Alienated and Crown Land.
acres.		acres.	acres.	acres.		acres.
1— 50 ...	7,020	98,603	147,606	246,209	7,362	97,564
51— 100 ...	1,821	152,534	203,999	356,533	1,530	117,315
101— 500 ...	6,227	1,627,498	2,337,369	3,964,867	5,003	1,358,466
501— 1,000 ...	2,017	1,419,975	1,136,100	2,556,075	2,647	1,911,060
1,001— 3,000 ...	1,561	2,595,392	1,681,376	4,276,768	3,039	5,023,674
3,001— 5,000 ..	302	1,165,715	746,088	1,911,803	573	2,191,741
5,001— 10,000 ...	234	1,640,659	634,047	2,274,706	348	2,423,481
10,061— 20,000 ...	103	1,394,189	496,498	1,890,687	205	2,834,508
20,001— 50,000 ...	41	1,156,602	280,534	1,437,136	90	2,628,039
50,001— 100,000 ...	1	82,385	3,305	85,690	16	1,190,818
Over 100,000... ..	... ..	.....	.....	.....	3	354,794
The Tableland ...	19,327	11,333,552	7,666,922	19,000,474	20,816	20,131,460

The holdings containing alienated land numbered 19,327, and contained 11,333,552 acres of alienated land and 7,666,922 acres of Crown land ; there

were also 1,489 holdings of Crown land only, the area being 1,130,986 acres. The total area under cultivation was 388,565 acres, of which 4,834 acres were Crown lands.

THE WESTERN SLOPES.

The districts situated on the Western Slopes of the Great Dividing Range mark the transition between the agricultural settlements of the Coastal Belt and the Tableland and the purely pastoral settlements of the Great Western Plains. There is a great extent of arable land in the Western Slopes, and although the proportion devoted to cultivation is greater than in any other Division, it is inconsiderable when compared with the total area. Distance from a market has been the principal obstacle to a rapid extension of agriculture; but with expansion of the railway system during recent years, improvement in methods of wheat-growing, and a development in the practice of share-farming, a considerable impetus has been given to this branch of rural industry.

In the South-Western Slope, which is traversed by the principal permanent inland rivers of New South Wales, the land has been alienated to a large extent and immense areas of freehold estate are in the hands of a small number of holders. The progress of rural settlement in the Western Slopes at the 30th June, 1918, is shown in the following table:—

Size of Holding.	Classified according to extent of Alienated Area.				Classified according to the total area—Alienated and Crown Land.	
	Number of Alienated Holdings.	Alienated Area.	Crown Lands attached to Alienated Holdings.	Total Area.	Number of Holdings.	Total area Alienated and Crown Land.
acres.		acres.	acres.	acres.		acres.
1— 50...	5,579	68,338	93,989	162,377	6,058	75,967
51— 100...	972	76,137	57,435	133,572	954	73,239
101— 500...	4,535	1,313,811	818,211	2,192,022	4,150	1,242,263
501— 1,000...	2,743	1,914,350	1,125,382	3,039,732	2,727	1,931,930
1,001— 3,000...	2,103	3,475,109	1,238,009	4,713,118	3,076	5,381,549
3,001— 5,000...	421	1,618,017	501,741	2,119,758	737	2,824,515
5,001— 10,000...	303	2,140,863	581,761	2,725,627	496	3,343,684
10,001— 20,000...	114	1,551,355	313,836	1,865,191	109	2,343,729
20,001— 50,000...	46	1,254,185	285,413	1,539,598	86	2,485,586
50,001— 100,000...	3	199,550	7,760	207,310	10	671,402
Over 100,000...	3	426,939	32,223	459,162	4	605,751
The Western Slopes.	16,875	14,068,707	5,088,760	19,157,467	18,467	20,984,606

In the Division of the Western Slopes there were 18,467 holdings with a total area of 20,984,606 acres, including 1,592 holdings of Crown lands only. There were 1,761,631 acres of alienated land and 113,841 acres of Crown land under cultivation.

THE CENTRAL PLAINS AND THE RIVERINA.

The portion of the Central Land Division of New South Wales which lies beyond the Western Slope of the Great Dividing Range constitutes the Division known as the Central Plains and the Riverina. The latter is the southern Division of the series and may be considered as the most important agricultural region of the State, not only on account of the total area alienated, but also from the fact that it contains a considerably greater section under cultivation than any other Division, except the Western Slopes; the average size of the holdings also is comparatively large.

The following statement shows the progress of rural settlement in the Central Plains and the Riverina at the 30th June, 1918 :—

Size of Holding.	Classified according to extent of Alienated Area.				Classified according to the total area—Alienated and Crown Land.	
	Number of Alienated Holdings.	Alienated Area.	Crown Lands attached to Alienated Holdings.	Total Area.	Number of Holdings.	Total area Alienated and Crown Land.
acres.		acres.	acres.	acres.		acres.
1— 50...	1,996	22,676	214,677	237,353	2,692	38,476
51— 100...	298	23,505	67,944	91,449	519	38,077
101— 500...	2,151	713,351	812,621	1,525,972	2,193	730,316
501— 1,000...	2,740	1,956,560	2,113,720	4,070,280	2,690	1,953,759
1,001— 3,000...	2,250	3,715,665	3,428,671	7,144,337	2,796	5,077,961
3,001— 5,000...	416	1,593,478	1,070,605	2,664,083	1,061	4,153,251
5,001— 10,000...	339	2,258,398	1,547,807	3,806,205	959	6,656,119
10,001— 20,000...	15	2,293,481	1,938,267	4,231,751	341	4,621,577
20,001— 50,000...	119	3,614,805	1,529,571	5,144,376	220	6,745,818
50,001—100,000...	45	3,123,689	542,020	3,665,709	86	5,872,637
Over 100,000...	18	2,345,658	483,680	2,829,338	36	5,794,810
The Central Plains and the Riverina	10,537	21,659,270	13,729,583	35,388,853	13,633	41,683,801

In this Division there were 10,537 holdings containing alienated land, and 3,096 holdings of Crown lands only, the total area in occupation being 41,683,801 acres; the area under crop consisted of 1,732,985 acres of alienated land and 201,413 acres of Crown land.

THE WESTERN PLAINS.

In the Western Division of the State, settlement progresses slowly, and the population status is maintained by the mining communities of a few counties. The great mining centre of Broken Hill, situated close to the boundary of South Australia, has attracted a large population, and the copper-fields of Cobar and Wrightville in the region east of the Darling, with a few other places, support several thousand people, but excluding these closely-settled areas, the whole of this vast terrain, greatly exceeding in extent a third of New South Wales, is given up to the depasturing of stock.

The following statement shows the progress of rural settlement in the Western Division at the 30th June, 1918 :—

Size of Holding.	Classified according to extent of Alienated Area.				Classified according to the total area—Alienated and Crown Land.	
	Number of Alienated Holdings.	Alienated Area.	Crown Lands attached to Alienated Holdings.	Total Area.	Number of Holdings.	Total area Alienated and Crown Land.
		acres.	acres.	acres.		acres.
1— 50 ...	610	6,321	1,371,738	1,378,059	802	6,977
51— 100 ...	67	5,529	508,228	513,757	66	5,410
101— 500 ...	193	51,395	9,309,587	9,360,982	134	32,775
501— 1,000 ...	113	78,952	10,577,584	10,656,536	84	56,233
1,001— 3,000 ...	106	183,009	18,144,819	18,327,828	101	165,747
3,001— 5,000 ...	40	158,333	8,271,087	8,429,420	46	189,442
5,001— 10,000 ...	36	243,291	6,573,133	6,816,424	103	822,307
10,001— 20,000 ...	19	271,005	4,497,950	4,768,955	227	2,982,875
20,001— 50,000 ...	10	319,416	2,106,316	2,425,732	248	7,399,217
50,001—100,000 ...	1	80,534	204,344	284,878	93	6,437,001
Over 100,000 ...	2	223,882	467,522	691,404	199	60,364,010
The Western Plains	1,197	1,621,577	62,032,308	63,653,885	2,108	78,461,994

The proportion of land alienated is only 2 per cent. of the total area, being an aggregate of 1,621,577 acres out of 80,368,498 acres which the Division is estimated to contain. The land in the Western Division can be alienated only by auction, or it can be held under lease from the Crown. The area of Crown lands held is therefore very large, 62,032,308 acres being attached to 1,197 alienated holdings, and 14,808,109 acres in 911 holdings consisting of Crown lands only. The general character of the country militates against agricultural production and the successful rearing of cattle, and apart from the silver, gold, copper, and opal fields already mentioned, sheep-breeding is practically the only industry, except in the vicinity of townships, where market-gardens and fruit orchards are cultivated. The total area under crop amounted to 10,739 acres, of which 5,539 acres were Crown lands.

PURPOSES FOR WHICH HOLDINGS ARE USED.

Analysis of the main purposes for which rural holdings of one acre and upwards are used, shows that of 104,150 holdings, inclusive of 8,065, which consist of Crown lands only, 41,656 or 40 per cent. are single-purpose holdings, being devoted to one or other of the three main branches of rural industry, viz., agriculture, dairying, or grazing; of the remainder, over 27 per cent. are devoted to agriculture in conjunction with dairying or grazing or to both.

The following statement shows, according to the Divisions of the State, the number of such rural holdings in the year 1917-18, and the purpose for which they were used:—

Purpose for which used.	Coastal.	Tableland.	Western Slopes.	Central Plains and Riverina.	Western Plains.	Total.
Agriculture	4,483	1,482	1,573	1,787	115	9,190
Dairying	6,432	246	74	34	8	6,794
Grazing	8,376	7,616	4,307	4,215	1,153	25,672
Agriculture and Dairying	4,888	888	256	118	...	5,150
Agriculture and Grazing	2,149	4,615	7,770	5,227	88	19,949
Agriculture, Dairying, and Grazing	792	355	203	108	...	1,463
Dairying and Grazing	1,331	302	111	66	...	1,810
Poultry, Pig or Bee Farming	1,412	80	31	5	13	1,541
Residential, Mining, &c.	10,763	5,732	4,337	2,023	726	32,581
Total	49,126	20,816	18,467	13,633	2,108	104,150

Since 1908-09 the accretion in the total number of rural holdings amounted to nearly 18 per cent., the number returned as single-purpose holdings have increased by 27 per cent., while there has been a decrease in the number of double-purpose holdings amounting to nearly 9 per cent.

THE EXTENT OF CULTIVATION.

The total area under crops during the season 1917-18, in all classes of holdings, was, 4,460,701 acres, made up as follows:—

Division.	Area under Crops.				Balance used for Pasturage, Grazing, etc.	Proportion of Cropped Area to Total Area of Holdings.
	Alienated Lands.		Crown Lands.	Total.		
	Occupied by Owners.	Private Rented.				
	acres.	acres.	acres.	acres.	acres.	per cent.
Coastal Belt... ..	192,070	57,645	1,812	251,527	13,107,901	1.0
Tableland	345,566	38,165	4,834	388,565	19,742,895	1.0
Western Slopes	1,688,204	73,427	113,441	1,875,072	19,100,134	8.9
Central Plains and Riverina	1,637,931	64,999	201,413	1,934,398	39,749,473	7.8
Western Plains	4,899	301	5,539	10,739	78,451,255	0.0
New South Wales	3,868,725	154,537	527,439	4,460,701	110,160,588	2.6

The area under crops on alienated lands occupied by the owners represented 87 per cent. of the total area under crop, or 7.2 per cent. of the holdings of alienated lands; the area of private leasehold lands under crop as compared with the total private leasehold area was 6.1 per cent., but the area under crops on holdings of Crown lands is insignificant when compared with the total extent of rural holdings.

THE CLOSER SETTLEMENT MOVEMENT.

In discussing Land Legislation and Settlement an account was given of the progress of the movement for the extension of rural settlement on relatively small areas, which was inaugurated with the Closer Settlement Act of 1901, and adapted by subsequent Acts to prevailing conditions. In 1905 the scheme was in active operation.

The following comparative statement showing the number and area of holdings of alienated lands in area groups indicates to some extent the effect of the Closer Settlement policy upon the holdings of the State since 1905 :—

Size of Holding.	Number of Holdings.		Alienated Area.		Percentage in Each Series.			
					Holdings.		Area.	
	1905-06.	1917-18.	1906.	1917-18.	1905-06.	1917-18.	1905-06.	1917-18.
acres.			acres.	acres.				
1— 50 ...	32,413	41,592	488,622	510,001	42.02	43.29	1.00	0.88
51— 100 ...	9,217	8,374	729,306	671,105	11.95	8.71	1.50	1.16
101— 500 ...	22,268	26,183	5,508,402	6,739,191	28.87	27.25	11.31	11.66
501— 1,000 ...	6,735	9,763	4,725,720	6,830,132	8.73	10.17	9.70	11.87
1,001— 1,500 ...	2,391	3,702	2,949,188	4,533,988	3.10	3.35	6.05	7.85
1,501— 3,000 ...	1,996	3,380	4,225,260	7,123,273	2.59	3.2	8.68	12.33
3,001— 5,000 ...	798	1,344	3,086,162	5,169,575	1.03	1.40	6.33	8.95
5,001— 10,000 ...	598	1,007	4,280,967	6,916,519	0.78	1.05	8.78	11.97
Over 10,000 ...	720	715	22,734,915	19,263,331	0.93	0.76	46.65	33.33
Total ...	77,136	96,035	48,728,542	57,781,075	100.00	100.00	100.00	100.00

During the period extending from 1906 to 1918 the number of alienated holdings increased from 77,136 to 96,085, or by 24.6 per cent., and the area from 48,728,542 acres to 57,787,075 acres, or by 18.6 per cent. There have been increases in the number and acreage of all the area series, except in the groups, 51-100 acres, and over 10,000 acres. In the smaller series, the number and area of the holdings have decreased proportionately, the average area of holdings in this class remaining stationary. In the area group over 10,000 acres, the reduction of the very large holdings has been concurrent with a relative increase in all but two of the smaller groups.

If account be taken of the Crown lands held by a number of occupiers in addition to the alienated areas, the ratios of the various groups are altered considerably. The following comparative statement shows the area in occupation, inclusive of the Crown lands attached to estates in each area

series as at 31st March, 1906, and the 30th June, 1918. The estates have been classified according to the extent of private land only :—

Size of Holding.	Area Occupied, including Crown Lands Attached to Alienated Holdings.		Percentage, Area in Each Series.	
	1905-6.	1917-18.	1905-06.	1917-18.
acres.	acres.	acres.		
1— 50	1,881,648	2,472,458	1.27	1.65
51— 100	2,108,807	1,627,230	1.42	1.08
101— 500	17,323,964	21,062,850	11.65	14.03
501— 1,000	20,180,611	22,270,762	13.57	14.81
1,001— 1,500	11,760,861	13,384,101	7.91	8.91
1,501— 3,000	20,098,966	23,500,527	13.51	17.56
3,001— 5,000	16,248,004	16,105,804	10.93	10.73
5,001— 10,000	15,045,231	16,558 180	10.12	11.03
Over 10,000	44,030,630	33,124,852	29.62	22.07
Total	148,678,752	150,106,764	100.00	100.00

SHIPPING.

LEGISLATION AND SUPERVISION.

The Commonwealth has power to make laws with respect to trade and commerce, lighthouses, lightships, beacons and buoys, quarantine, navigation and shipping; and its laws are in force on all British ships whose first port of clearance and of destination is in the Commonwealth.

The shipping of New South Wales is regulated generally by the Navigation Department, but within Port Jackson control of shipping, and matters incidental thereto, are vested in the Sydney Harbour Trust.

OVERSEA AND INTERSTATE SHIPPING.

In the shipping records account is not taken of ships of war, cable-laying vessels, and yachts, nor of vessels trading between ports in New South Wales; the tonnage quoted is net. Vessels are entered at the first port of call in New South Wales, and cleared at the port from which final departure is taken from the State.

The aggregate number and tonnage of interstate and oversea vessels arriving in and departing from all ports of New South Wales at intervals since 1900, with the average tonnage per vessel, are as follows:—

Year ended 30th June.	Entries.		Clearances.		Average Tonnage per Vessel.
	Vessels.	Tonnage.	Vessels.	Tonnage.	
1900*	2,784	4,014,755	2,714	3,855,748	1,432
1905*	2,725	4,697,511	2,694	4,684,108	1,731
1910*	2,937	6,290,119	3,035	6,471,855	2,137
1915	3,000	7,051,503	3,059	7,219,914	2,355
1916	3,045	6,552,235	3,062	6,574,582	2,149
1917	2,602	5,803,451	2,613	5,802,683	2,226
1918	2,226	4,407,399	2,235	4,417,390	1,978

* Year ended 31st December.

Summarising oversea and interstate trade, the following figures are obtained for entries and clearances for the different States and the Northern Territory of Australia during 1918, and show the relative pre-eminence of New South Wales :—

State.	Oversea and Interstate.			
	Entries.		Clearances.	
	Vessels.	Tonnage.	Vessels.	Tonnage.
New South Wales	2,226	4,407,369	2,535	4,417,310
Victoria	1,721	2,871,543	1,724	2,873,770
Queensland	678	1,188,712	679	1,196,523
South Australia	587	1,234,213	593	1,245,359
Western Australia	312	1,094,000	315	1,102,595
Tasmania	818	604,732	810	600,300
Northern Territory	51	115,288	50	107,467

NATIONALITIES OF VESSELS.

The trade of the State of New South Wales is carried, to a very great extent, under the British flag, the deep-sea trade with the mother country and British Possessions being controlled by shipowners of the United Kingdom, and the interstate trade chiefly by local shipowners. The table below distinguishes British and foreign shipping at intervals since 1900.

Year ended 30th June.	Tonnage Entered and Cleared.			Percentage.	
	British.	Foreign.	Total.	British.	Foreign.
1900*	6,702,106	1,168,397	7,870,503	85·1	14·9
1905*	8,033,943	1,347,676	9,381,619	85·6	14·4
1910*	10,723,040	2,038,934	12,761,974	84·0	16·0
1915	12,712,330	1,559,087	14,271,417	89·1	10·9
1916	11,582,777	1,544,010	13,126,817	88·2	11·8
1917	10,271,791	1,334,343	11,606,134	88·5	11·5
1918	7,613,760	1,211,089	8,824,789	86·3	13·7

* Year ended 31st December.

Of the tonnage included as British, a large proportion is owned or registered in Australia and New Zealand.

In 1901, of vessels trading with this State, those owned in the Australian Commonwealth represented 39·8 per cent. of the total, and in 1918, 48·3 per cent. of the total.

The War caused a material alteration in foreign tonnage, as may be gathered from the statement below, which shows the number and tonnage of shipping of the principal nationalities that entered and cleared the ports of New South Wales in the last two financial years, as compared with 1913 :—

Nationality of Shipping.	Entries and Clearances.						Tonnage— Percentage of each Nationality.		
	1913.*		1917.		1918.		1913.*	1917.	1918.
	Vessels.	Tonnage.	Vessels.	Tonnage.	Vessels.	Tonnage.			
British—									
Australian	3,231	5,711,398	2,934	4,833,745	2,859	4,265,496	35·3	41·6	48·3
New Zealand	771	1,359,138	318	387,559	256	236,172	8·4	3·2	3·3
United Kingdom ..	1,589	6,081,117	1,256	5,040,221	711	3,000,673	37·5	43·4	34·0
Other British	22	30,459	19	30,266	31	57,359	·2	·3	·7
Total	5,613	13,182,112	4,557	10,271,791	3,860	7,613,700	81·4	88·5	86·3
Foreign—									
France	150	313,252	66	94,081	97	127,015	1·9	·8	1·4
Germany	487	1,533,728	....	....	....	....	9·5	....	....
Norway	183	353,843	39	55,947	61	107,577	2·2	·5	1·2
Sweden	23	57,643	13	34,444	20	54,129	·4	·3	·6
Netherlands	52	128,870	62	189,958	51	148,914	·8	1·6	1·7
Italy	29	47,770	10	32,418	....	....	·3	·3	....
Japan	103	332,471	210	475,186	162	432,525	2·0	4·1	4·0
United States of America ..	76	148,853	229	339,003	186	231,875	·9	3·3	3·2
Other Nationalities	52	90,080	29	63,306	24	59,054	·6	·6	·7
Total	1,155	3,006,490	658	1,334,343	691	1,211,089	18·6	11·5	13·7
Grand Total ..	6,768	16,188,602	5,215	11,606,134	4,461	8,824,789	100·0	100·0	100·0

* Year ended 31st December.

The most notable alterations in the foreign trade are the cessation of German shipping, which represented 9·5 per cent. in 1913, and the increases in the tonnage belonging to the United States of America and Japan; the percentage of foreign tonnage declined from 18·6 in 1913 to 13·7 in 1918.

DIRECTION OF SHIPPING TRADE.

Of the tonnage engaged in the outward trade of New South Wales, approximately half goes to other Australian States. The following table shows, for specified years, the tonnage entered from and cleared for the countries within the British Empire, and the principal foreign countries.

Although a vessel may have called at many ports on both the inward and outward voyages, the intermediate ports are not considered in the shipping records, only one country being regarded as that from which the vessel entered or to which it cleared.

Country.	Entered from and cleared for various Countries.					
	1900.*		1910.*		1918.	
	Vessels.	Tonnage.	Vessels.	Tonnage.	Vessels.	Tonnage.
British Empire—						
Australian States	3,082	3,861,154	3,413	6,275,901	2,907	4,899,334
United Kingdom	341	954,232	484	2,029,216	129	722,173
New Zealand	540	598,710	573	1,125,492	370	639,209
Egypt ... ..	...	...	...	...	29	161,904
India and Ceylon	57	138,993	59	178,571	77	265,233
Hong Kong	68	121,933	26	40,392	19	27,757
Canada	41	76,477	42	145,481	45	187,230
Union of South Africa—						
Cape Colony	152	240,755	16	30,127	14	37,929
Natal	40	60,701	19	46,434		
Fiji	65	64,125	66	101,754	58	141,519
Straits Settlements	19	31,212	62	151,091	28	61,722
Papua	14	11,448	20	13,657	8	3,061
Ocean Island ... ..	...	...	30	63,260	23	50,812
Other British Possessions ...	46	46,653	38	39,997	36	22,422
Unspecified ... ..	...	...	...	...	99	516,636
Total, British Countries ...	4,465	6,206,393	4,848	10,241,373	3,842	7,736,941
Foreign Countries—						
France	44	100,793	51	148,137	7	18,693
Germany	70	234,817	155	510,510	...	...
Belgium	13	28,129	12	34,126	...	...
United States of America ...	157	303,187	183	403,343	244	468,055
China	19	41,161	...	...	...	...
Japan	34	83,179	93	239,713	80	214,566
New Caledonia	118	143,867	59	107,341	121	99,530
Java	45	89,129	46	104,488	21	64,770
Philippine Islands	31	44,825	47	125,945	7	9,791
Hawaiian Islands	94	107,248	27	62,841	...	...
Peru	28	37,411	44	58,389	1	6,141
Chile	211	295,829	207	443,202	8	19,179
Other Foreign Countries ...	169	154,535	200	282,566	130	187,123
Total, Foreign Countries ...	1,033	1,664,110	1,124	2,520,601	619	1,087,848
Total	5,498	7,870,503	5,972	12,761,974	4,461	8,824,789

* Year ended 31st December.

Of the total tonnage in 1918, vessels from and to other Australian States represented 56 per cent. The United Kingdom furnished the next largest tonnage, with 8 per cent., followed by New Zealand with 7 per cent. The United States had 5 per cent., India and Ceylon 3 per cent., then Japan with 2 per cent. and Canada 2 per cent. In 1913 Germany headed the foreign tonnage, but on the declaration of war in August, 1914, the shipping trade with that country ceased. Several circumstances have contributed to the fall in the South American trade, of which the restriction of the export of coal is the most notable.

STEAM AND SAILING VESSELS.

The proportion of sailing vessels to the total tonnage, amounting to 20 per cent. in 1900, has steadily diminished during recent years, now representing only 3 per cent. The tonnage of steam and sailing vessels will be seen from the following table :—

Year ended 30th June.	Steam.		Sailing.		Ratio of Steam to Total Tonnage.	
	Entered.	Cleared.	Entered.	Cleared.	Entered.	Cleared.
	tons.	tons.	tons.	tons.	per cent.	per cent.
1900*	3,206,657	3,140,449	808,098	715,299	79·9	81·5
1905*	4,051,884	4,042,703	645,627	641,405	86·3	86·3
1910*	5,892,049	6,047,832	398,070	424,023	93·7	93·5
1915	6,892,390	7,004,886	159,113	215,028	97·7	97·0
1916	6,346,795	6,360,428	205,440	214,154	96·9	96·7
1917	5,667,671	5,670,665	135,780	132,018	97·7	97·7
1918	4,263,906	4,268,226	143,493	149,164	96·7	96·6

* Year ended 31st December.

VESSELS WITH CARGO, AND IN BALLAST.

The following statement shows the relative importance of British shipping among the number of vessels, with cargo and in ballast, entered and cleared New South Wales ports during the year ending 30th June, 1918 :—

Nationality of Shipping.	Entries.				Clearances.			
	With Cargo.		In Ballast.		With Cargo.		In Ballast.	
	Steam.	Sailing.	Steam.	Sailing.	Steam.	Sailing.	Steam.	Sailing.
British—								
Australian ...	1,030	26	365	2	1,373	32	29	2
Other ...	417	24	58	2	470	27	3	...
Foreign ...	198	71	12	21	199	90	7	3
Total ...	1,645	121	435	25	2,042	149	39	5

The majority of sailing vessels are foreign-owned, but the numbers are decreasing as is the case with sailing vessels generally among the world's shipping.

The advantage offered by the New South Wales trade to shipowners is illustrated by the large amount of tonnage entries in ballast, and the small number of clearances without cargo. Many vessels arriving in ballast come from ports of neighbouring States, where they have delivered a general cargo, and, having been unable to obtain a full return freight, have cleared for Newcastle, in this State, to load coal. In 1918 the tonnage entered in ballast amounted to 728,139 tons and the clearances to 71,575 tons.

SHIPPING ENTERED AT EACH PORT.

The following statement shows the number and tonnage of vessels, oversea and interstate, which entered the various ports of the State during the last four years :—

Year ended 30th June.	Port Jackson (Sydney).		Port Hunter (Newcastle).		Port Kembla.		Twofold Bay (Eden).		Other Ports.	
	Vessels.	Tonnage.	Vessels.	Tonnage.	Vessels.	Tonnage.	Vessels.	Tonnage.	Vessels.	Tonnage.
1915	2,032	5,399,836	765	1,487,487	50	72,990	65	64,390	88	26,800
1916	2,051	4,990,476	820	1,390,030	60	80,923	67	59,151	47	20,705
1917	1,735	4,502,758	692	1,170,368	38	59,875	49	54,607	38	15,843
1918	1,511	3,297,621	620	1,031,506	38	55,236	12	12,057	45	10,970

Sydney is one of the chief ports of the world, as appears from a comparison of its oversea and interstate shipping entries (entirely exclusive of coastal trade) with the returns of other ports.

Particulars of shipping—oversea, interstate and coastwise—which entered at each port of New South Wales are contained in the following statement for the year ended 30th June, 1918 :—

Port.	Vessels.	Tonnage.	Crews.	Port.	Vessels.	Tonnage.	Crews.
Bateman's Bay...	114	12,244	1,574	Manning River ...	111	16,234	1,561
Bellinger River ...	142	19,697	1,979	Moruya ...	54	8,436	822
Byron Bay ...	128	74,207	5,046	Nambucca River ...	134	18,529	1,744
Camden Haven...	75	10,998	865	Narooma ...	74	7,779	937
Cape Hawke ...	130	14,635	1,502	Port Hunter (Newcastle)...	4,596	2,991,679	21,421*
Clarence River ...	201	67,461	4,754	Port Jackson (Sydney) ...	7,538	5,320,400	89,043*
Coff's Harbour ...	360	115,377	8,162	Port Kembla (Wollongong)	252	61,101	3,769
Crookhaven ...	55	8,999	867	Port Macquarie ...	106	21,608	1,748
Eden ...	189	59,639	3,537	Port Stephens ...	399	32,390	3,375
Kiama ...	326	48,235	5,149	Richmond River ...	253	78,887	4,918
Lake Macquarie	168	9,787	1,560	Tweed River ...	94	13,328	1,187
Macleay River ...	224	46,936	3,697	Woolgoolga ...	97	58,164	1,956

* Exclusive of the crews of Coastwise vessels.

The total shipping tonnage—oversea, interstate, and coastwise—entering Sydney Harbour in 1918 were 7,538 vessels, having a net registered tonnage of 5,320,400, and the value of oversea, interstate, and State imports at Sydney was £55,371,749.

Appended are the latest figures, including coastwise, for the principal ports of Australasia and the United Kingdom; the figures include tonnage which arrived at the respective ports, although not recorded as entering:—

Port.	Tonnage. Arrivals incl. Coastwise.	Port.	Tonnage. † Arrivals incl. Coastwise.
<i>Australia—</i>		<i>England—</i>	
Sydney	5,320,400	London	12,709,111
Melbourne	5,337,881	Liverpool (including Birkenhead) ...	11,883,282
Newcastle	2,991,679	Cardiff	8,118,533
Port Adelaide ...	600,759*	Newcastle and Shields	7,778,511
Brisbane	1,424,000	Newport	3,016,817
Fremantle	892,300	Hull	2,812,409
Townsville	862,653	Falmouth	2,456,742
Albany	370,331	<i>Scotland—</i>	
Hobart	279,058	Glasgow	4,579,726
<i>New Zealand—</i>		Leith	1,413,516
Wellington	2,542,412	<i>Ireland—</i>	
Auckland	1,480,477	Dublin	2,846,428
Lyttelton	1,411,614	Belfast	2,734,636

* Exclusive of Coastwise Shipping—not available.
service.

† Exclusive of tonnage used for war service.

RATES OF FREIGHTS.

Distance from foreign trading centres renders freight a large item in the cost of placing the products of the State on overseas markets. Since the commencement of the war there has been a continuous rise in the rates on account of the restricted tonnage, higher insurance, and increased running costs. The following statement of the rates per steamer from Sydney to London, for the years ended 30th June, 1914, and 1916-18, shows that the increases have affected all the principal articles of export:—

Article.	Freight rate.			
	1914.	1916.	1917.	1918.
Wool (greasy) lb	¾d.	1½d. to 1¾d.	1¾d. to 2¾d.	2½d.
Wheat ton	25/- to 37/6	95/-	70/- to 120/-	70/- to 130/-
Frozen meat lb.	1¾d. to 1½d.	¾d. to 1½d.	1d. to 1½d.	1½d. to 2d.
Preserved meat per ton—40 cub. ft.	30/-	55/- to 87/-	87/- to 120/-	120/- to 130/-
Rabbits "	55/-	65/- to 100/-	100/-	100/- to 187/6
Butter 56 lb.	2/- to 2/6	2/9 to 4/-	3/9 to 4/-	3/9 to 6/3
Tallow ton	47/6	65/- to 190/-	100/- to 150/-	150/- to 235/-
Leather "	80/-	95/- to 190/-	180/- to 240/-	240/- to 292/6
Hides { lb.	50/- to 60/-	80/- 1½d.	..... 1½d. to 2d.	..... 1½d. to 2½d.
Timber 100 sup. ft.	6/9	8/6 to 15/-	15/- to 20/-	20/- to 27/6
Copra ton	42/6	32/6* to 132/-	132/- to 196/-	196/- to 277/6
Measurement goods ... 40 cub. ft.	40/- to 45/-	55/- to 87/-	87/- to 120/-	120/- to 130/-

* Plus 20 per cent.

Freights for wool to European ports, to the East Coast of the United States of America, and to Japan, were as under :—

Route.	Freight rate per lb.			
	1914.	1916.	1917.	1918.
Wool (Greasy)—	d.	d.	d.	d.
To France	$\frac{3}{4}$	$1\frac{1}{8}$ to $1\frac{7}{8}$	$1\frac{7}{8}$ to $2\frac{3}{8}$	$2\frac{1}{4}$
To Italy	$\frac{3}{4}$	$1\frac{1}{8}$ to $2\frac{1}{2}$	$2\frac{1}{2}$ to $3\frac{3}{8}$	$2\frac{7}{8}$ to $2\frac{1}{4}$
To United States of America—				
Via London or Liverpool ...	$\frac{3}{4}$ to $\frac{7}{8}$	.....	.....	.....
,, San Francisco to Boston	$\frac{3}{4}$ to $\frac{7}{8}$	.....	.....	.....
and New York.				
To Boston, direct	$\frac{3}{4}$ to $\frac{7}{8}$	1 to $1\frac{7}{8}$	.....	.....
To Japan	$\frac{1}{2}$ *	$\frac{1}{2}$ *	$\frac{3}{4}$ *	$1\frac{1}{2}$
Wool (Scoured)—				
To Japan	$\frac{5}{8}$ *	$\frac{5}{8}$ *	$\frac{3}{4}$ *	$1\frac{1}{2}$

* Plus 5 per cent primeage.

RIVER TRAFFIC.

The extent of the waterways of New South Wales has been shown in the 1914 issue of this Year Book. Relatively to other countries New South Wales has few inland waterways, but is dependent upon railways and ocean shipping as the principal agencies of transportation. On the coastal rivers, there is some traffic apart from the vessels trading between the river ports and Sydney, but its extent is not recorded.

On the inland rivers there is considerable traffic after a season of good rainfalls. The Murray River is navigable for 150 miles above Albury, or 1,590 miles from its mouth. Its tributaries, the Kyalite or Edwards River and the Wakool River, are navigable for 400 miles, as far as Deniliquin; the Murrumbidgee and the Lachlan Rivers combined provide 900 miles of navigable waterway; and the Darling is navigable in time of freshets as far as Walgett, 1,758 miles from its confluence with the Murray. Altogether, the Murray River system provides 4,200 miles of waterway more or less navigable. The volume of traffic on these rivers is not recorded.

CERTIFICATES AND LICENSES.

Department of Navigation.

The certificates issued by the Department of Navigation, to trading vessels, during the year ending 30th June, 1918, numbered 559, distributed among coastal ports as follows :—

Port.	Vessels.	Tonnage.	Passenger capacity.	Port.	Vessels.	Tonnage.	Passenger capacity.
Sea-going Steamers				Harbour and River			
Sydney	181	212,864	11,038	Steamers (<i>contd.</i>)			
				Richmond River	5	153	840
				Tweed River ...	3	122	770
				Total	100	10,862	46,695
Harbour and River				Motor Boats ...	255	...	7,839
Steamers—				Sailing Vessels—			
Sydney	61	9,653	33,946	Sydney	23	4,589	15
Newcastle	10	336	2,180	SUMMARY.			
Clarence River ...	13	374	2,300	Steamers	281	2,3726	57,733
Macleay River ...	2	113	197	Motor Boats ...	255	...	7,839
Manning River ...	2	45	76	Sailing Vessels ...	23	4,589	15
Port Macquarie ...	1	22	33	Total	559	228,315	65,587
Port Stephens ...	3	114	353				

Certificates are issued to all trading vessels, passenger or cargo, and are renewable at maximum intervals of twelve months. Watermen licensed by the Department of Navigation for 1918 numbered 87.

Sydney Harbour Trust.

On the 30th June, 1918, there were 26 watermen licensed by the Sydney Harbour Trust, while the vessels licensed by the Trust included the following :—

License.	Vessels.	Tonnage.	License.	Vessels.	Tonnage.
Lighters	492	24,968	Water Boats	18	443
Ferry Steamers	65	8,173	Hulks	26	13,404
Tugs	54	1,356	Punts	15	347
Launches—Steam	11	118			
Oil	78	.....		

WRECKS AND DISASTERS.

Wrecks and shipping casualties occurring to British merchant shipping on the coast of New South Wales are investigated by Courts of Marine Inquiry, of which some account is given in the chapter of this Year Book relating to law courts. The following statement shows such wrecks and casualties reported since 1915 :—

Year ended 30th June.	British Vessels.				Total Tonnage.	Crews and Passengers.	Lives Lost.
	Steam.	Motor.	Sailing.	Total.			
1915	3	1	6	10	1,896	117	13
1916	5	6	4	15	3,466	81	4
1917	11	...	2	13	6,554	314	6
1918	4	...	...	4	7,522	208	4

The majority of the vessels reported are small coasters under 200 tons. The figures given above do not include vessels which left the ports of the State and have apparently been lost.

Two life-boat stations are maintained, one at Sydney and the other at Newcastle; and the whaleboats at the pilot stations are fitted for rescue service. The subsidised steam tugs are available also for the purpose of assisting vessels in distress; and life-saving appliances are kept at certain places along the coast. A considerable number of vessels trading in Australian waters are fitted with wireless telegraphy apparatus.

The Royal Shipwreck Relief and Humane Society of New South Wales is maintained by public subscriptions, unsubsidised by the State, to afford relief in cases of distress to dependents of seamen belonging to New South Wales who have lost their lives or sustained injury in the discharge of their duties, to relieve crews of vessels and necessitous passengers wrecked in New South Wales waters, and to encourage acts of bravery by granting awards for meritorious deeds in saving human life. The relief granted on account of maritime disasters during the year ended 30th June, 1918, amounted to £716.

PILOT AND ROCKET STATIONS.

Pilotage on the coast of New South Wales is a State service. The services of pilots must be engaged for all vessels not specifically exempted, and certificates of exemption from pilotage for the various ports of the State are granted, after examination, only to British subjects, and may be used only in respect of British ships registered in Australia or in New Zealand, and engaged in trade in Australasia and the South Sea Islands, or in whaling.

COASTAL AND HARBOUR LIGHTS.

The coast of New South Wales, about 700 miles in length, is well provided with lighthouses and signal stations, the number of lighthouses being 28, averaging one light to 25 miles of coast line :—

Location of Lighthouse.	South Latitude.	Description of Light.	Colour of Light.	Distance visible (See note).
	° ' "			Nautical miles.
Green Cape	37 16	Flashing	White	19
Twofold Bay (Eden) (Lookout Point).	37 4	Fixed	Red	7
Montague Island—Summit.	36 15	Fixed and Flashing ...	White	20
Bateman's Bay ... ..	...	Fixed	Green ... ..	...
Ulladulla (Warden Head)	35 22	"	White	12
Jervis Bay (Point Perpendicular).	35 5	Group Flashing	"	24
Crookhaven River	34 54	Fixed	Red	7
Kiama	34 40	"	Green	9
Wollongong	34 25	Group Flashing	White	10
Bellambi	34 22	Occulting	White and Red ...	8
Cook's River (Botany Bay)	33 57	Fixed	White ... ..	...
Port Jackson, Sydney—Macquarie (Outer South Head).	33 51	Flashing	"	25
Horuby (Inner South Head).	33 50	Fixed	"	14
Broken Bay (Barrenjoey)	33 35	"	Red	10
Norah Head	33 17	Flashing	White	18
Port Hunter, Newcastle—Nobbys Head (Summit)	32 55	Double Flashing	"	17
Port Stephens—Stephens Point. }	32 45	Revolving	{ " White and Red }	W. 14 R. 8
Nelson Head (Summit)...	...	Fixed	White and Red ...	8
Sugarloaf Point (Seal Rocks) (same Tower) ...	32 26	Flashing	White	22
Forsster, Cape Hawke (anchorage).	32 11	Fixed	Green	3
" ... ..	...	" ... ..	" ... ..	6
Crowdy Head (Summit)	31 51	"	{ White and Red }	W. 12 R. 6
Tacking Point	31 29	"	White	12
Smoky Cape	30 56	Group Flashing	"	28
Monument Rock, Trial Bay. }	30 53	Fixed	{ " White and Red }	W. 6 R. 3
Coff's Harbour Jetty ...	30 18	"	Red	5
South Solitary Island (Summit).	30 12	Flashing	White	20
Clarence River	29 26	Fixed	"	12
Richmond River (2) ...	28 52	{ "	"	12
" ... ..	...	" ... ..	" ... ..	7
Cape Byron	28 38	Flashing	"	26
" (same Tower) ... ..	...	Fixed	Red	8
Tweed River (Fingal Head)	28 11	"	White	12

Distance visible.—The distance is calculated visible to an observer whose eye is elevated 15 feet from the sea-level.

Lighted beacons and leading lights are placed for the safety of harbour navigation in the ports of Sydney, Newcastle, Narooma, Port Kembla, Ulladulla, and Moruya, and on all Northern rivers.

In Port Jackson the question of efficient lighting has received considerable attention; leading lights have been erected and lights on buoys mark the channels. Electric fog-bells are used in times of fog.

In Port Hunter, leading lights have been placed, also there are fog-bells.

DOCKS AND SLIPS.

As the shipping traffic, employing vessels of considerable size, is concentrated at Sydney and Newcastle, accommodation, provided by the Government and by private enterprise, for building, fitting, and repairing ships in the State, is available at these ports. At Sydney there are four graving docks, five floating docks, and six patent slips; at Newcastle there are three patent slips. Other docking and building yards are established along the coast to meet the necessities of the smaller vessels engaged in coastal trade.

Particulars as to dock accommodation at Sydney and at Newcastle at 30th June, 1918, are supplied in the following table:—

Name of Dock.	Wheresituated.	Length.	Breadth.	Draught limits.	Lifting-power of Floating Dock or Patent Slip.
SYDNEY HARBOUR—(PORT JACKSON).					
Graving Docks—Commonwealth Government— No. 1 (Sutherland) No. 2 (Fitzroy)	Cockatoo Island.	From outer caisson, 633 " inner " 603 " outer " 506 " inner " 484	84 49½	30 19½	..........
Mort's ...	Mort's Bay, Balmain	640	69 entrance at cope, 59 on floor.	16 ft. 6 in. high water. 12 ft. 6 in. low water.	.....
Woolwich ...	Parramatta River.	850	109 at cope, 83 at entrance, 75 on floor.	28 high water 23 low "	.....
Floating Docks— Ward's ... Drake's ...	Waterview Bay White Bay, Balmain.	163 150	42 60	10½ 7½	400 300 Dead Weights, 1,400
Woolwich Pontoon Dock.	Parramatta River.	195	56 between altars.	12	
Jubilee ...	Johnston's Bay.	317	38 at entrance.	13	1,200
" Small		100	23	7½	80
Patent Slips—Commonwealth Government— No. 1 ... No. 2 ...	Cockatoo Island.	105 33	Arms, 28 Cradle, 20 Arms, 10 Cradle, 6 Arms, 17 Cradle, 10	9 4 6	250 5 100
N.S.W. Government Boatshed. Mort's No. 1	Dawes' Point	82			
" No. 2	Mort's Bay, Balmain.	270	36	11 ft. forwd. 16 ft. aft.	1,500
" No. 3		200	25	8 ft. forwd. 14 ft. aft.	800
" No. 3		58	15	4 ft. forwd. 6 ft. 6 in. aft.	40
NEWCASTLE HARBOUR—(PORT HUNTER).					
Patent Slips— O'Sullivan's ...	Stockton ...	200	40	8 ft. forwd. 12 ft. aft. up to 170 ft. 7 ft. forwd. if 220 ft. long.	800
Callen's No. 1	Stockton ...	150	30	8	100
" No. 2		150	30	8	100

Particulars as to the Government graving docks elsewhere along the coast are as follow :—

Locality.	Length on Top.	Breadth at Gates.	Draught limits.
	ft.	ft.	ft.
Tweed River	115	42	10
Richmond River	214½	45	10
Clarence River	115	42	10
Macleay River	121	32	7
Manning River	128½	40	6½
Shoalhaven River	130	26	6

Transactions at all Government docks for the years ended 30th June, 1916-18 are recorded in the following statement of vessels docked and slipped :—

Situation.	1916.		1917.		1918.	
	Vessels.	Tonnage.	Vessels.	Tonnage.	Vessels.	Tonnage.
Port Jackson	133	185,397	127	176,835	134	231,033
Tweed River	7	539	14	1,481	16	1,550
Richmond River	19	1,887	7	846	9	1,080
Clarence River	18	1,321	11	899	13	1,073
Manning River	9	194	8	45	3	235

SHIP-BUILDING.

The numbers and tonnage of steam and sailing vessels built in New South Wales are shown in the following statement for the years 1876-1918 :—

Years.	Sailing.		Steam.		Motor.		Total.	
	Vessels.	Tonnage.	Vessels.	Tonnage.	Vessels.	Tonnage.	Vessels.	Tonnage.
1876-1885	328	16,722	297	24,778	.....	.....	625	41,500
1886-1895	144	5,742	129	7,211	.....	.....	273	12,953
1896-1905	160	7,160	137	8,529	.....	.....	297	15,689
1906-1915	20	931	126	7,799	24	334	170	9,094
1916	2	184	8	355	6	146	16	685
1917	4	365	5	8,032	8	104	17	8,501
1917-18	2	300	6	4,132	5	380	13	4,812

SHIPPING REGISTERS.

Although the Act, which controls the registration of shipping in New South Wales, does not require the registration of vessels under 15 tons burthen, few of such vessels remain unregistered. The rules of yachting clubs ensure the registration of the yachts, steamers, and motor boats of the members; and, for the purpose of sale or mortgage, business is facilitated by such registration

The only ports in New South Wales at which shipping registers are maintained are Sydney and Newcastle, and the following statement shows the registration on 30th June, 1918, exclusive of lighters, classified according to tonnage :—

Tonnage.	Steam.		Motor.		Sailing.		Total.	
	Vessels.	Tonnage.	Vessels.	Tonnage.	Vessels.	Tonnage.	Vessels.	Tonnage.
Under 50	274	6,306	172	1,857	268	3,879	714	12,042
50 and under 100 ...	97	6,863	3	196	54	3,986	154	11,045
100 „ 200 ...	60	8,344	2	314	19	2,719	81	11,377
200 „ 300 ...	31	7,166	...	...	10	2,535	41	9,701
300 „ 400 ...	21	7,255	...	...	14	4,924	35	12,179
400 „ 500 ...	8	3,580	...	...	4	1,843	12	5,423
500 „ 600 ...	10	5,594	...	...	1	590	11	6,184
600 „ 1,000 ...	10	7,470	...	...	13	10,271	23	17,741
1,000 „ 1,400 ...	6	6,554	...	...	3	3,647	9	10,201
1,400 „ 1,800 ...	7	10,894	...	...	...	...	7	10,894
1,800 and over... ..	13	31,452	...	...	...	...	13	31,452
Total	537	101,478	177	2,367	386	34,394	1,100	138,239

The aggregate numbers and tonnage of steam and sailing vessels on the registers at the close of each year, since 1915, are shown in the following statement :—

Year ended 30th June.	Steam.		Motor.		Sailing.		Total.	
	Vessels.	Tonnage.	Vessels.	Tonnage.	Vessels.	Tonnage.	Vessels.	Tonnage.
1915	564	104,450	169	2,036	427	38,220	1,160	144,706
1916	551	92,579	173	2,136	418	37,250	1,142	131,965
1917	542	99,445	180	2,199	395	34,724	1,117	136,368
1918	537	101,478	177	2,367	386	34,394	1,100	138,239

The following statement shows the number and value of vessels built outside Australia and brought into New South Wales for local trade :—

Year ended 30th June.	From United Kingdom.		From Other Countries.		Total.	
	Vessels.	Aggregate Value.	Vessels.	Aggregate Value.	Vessels.	Aggregate Value.
1915	3	£ 87,096	2	£ 2,206	5	£ 89,302
1916	4	74,913	1	3,843	5	78,756
1917	4	425,861	...	...	4	425,861
1918	...	.....	1	3,362	1	3,362

Changes on the register by sales during the last four years are summarised as follows. Sales to foreigners result in removal of the vessels from the registers :—

Year ended 30th June.	To British Subjects.						To Foreigners.					
	Steam.		Motor.		Sailing.		Steam.		Motor.		Sailing.	
	Vessels.	Ton- nage.	Vessels.	Ton- nage.	Vessels.	Ton- nage.	Vessels.	Ton- nage.	Vessels.	Ton- nage.	Vessels.	Ton- nage.
1915	16	2,328	13	305	11	758	1	1,168	...	...	1	14
1916	36	6,289	6	97	19	3,408	1	917	...	...	...	...
1917	27	10,235	6	156	12	2,449	1	705	...	...	1	13
1918	54	11,174	14	256	12	860	...	...	2	44	...	...

DREDGING.

The dredging service is controlled by the Department of Public Works for the ports and rivers other than Port Jackson, where the Sydney Harbour Trust is in control.

The following statement summarises the operations of the Dredge service for the year ending 30th June, 1918, in the effort to prevent the shoaling of entrances, and to deepen existing channels wherever necessary :—

Classification.	Port Jackson (Sydney).	Other Harbours and Rivers.
Tons dredged	1,319,455	3,027,585
Hours dredging	8,066	19,877
Expenditure—		
Dredging only	£26,780	£84,013
Per ton... ..	4·87d.	6·66d.
Per hour	£3 6s. 11d.	£4 4s. 6d.
Dredging, Towing, and Re- pairs	£42,944	£97,089
Per ton... ..	7·81d.	7·70d.

The Eastern channel of Sydney Harbour maintains its depth of 40 feet, and the Western channel is being deepened similarly.

QUARANTINE.

The administration of all matters relating to seaboard quarantine is under control of the Commonwealth. The Quarantine Act, 1908-1915, defines the vessels subject to quarantine, and provides for the exclusion, detention, observation, segregation, isolation, protection, sanitary regulation, and disinfection of vessels, persons, goods, things, animals, or plants, so as to prevent the introduction or spread of diseases or pests into the Commonwealth. Particulars of vessels examined by the Government Port Health

Officers at Sydney and Newcastle, during each of the last four years, are shown in the following table :—

Year ended 30th June.	Vessels.		Persons.		
	Ex- amined.	Vessels Fumigated.	Passengers.	Crews.	Total.
1915	532	900	20,394	33,266	53,660
1916	701	937	26,409	41,403	67,812
1917	612	816	21,466	41,241	62,707
1918	431	752	15,000	25,248	40,248

Vessels arriving in Australian ports from overseas are examined at the first port of call, and in the case of vessels from places north of Australia, at the last port of call, and pratique is given ordinarily for the whole of the Commonwealth.

Stock quarantine is undertaken at Port Jackson, where 46 horses, 29 cattle, 22 sheep, 16 dogs, and 19 pigs were detained during the year ended 30th June, 1918.

Government Shipping Offices.

Government Shipping Offices are maintained at Sydney and at Newcastle to deal with matters relating to the engagement and discharge of seamen of British vessels. Following are the records of transactions at each of these shipping offices for the last four years :—

Year ended 30th June.	Engagements registered.			Discharges registered.			Licenses to ship.		
	Sydney.	New- castle.	Total.	Sydney.	Newcastle.	Total.	Sydney.	New- castle.	Total.
1915	32,370	4,844	37,214	31,419	4,150	35,569	2,551	395	2,946
1916	30,535	4,276	34,861	29,646	3,303	32,949	2,549	201	2,750
1917	26,679	4,555	31,234	27,901	3,900	31,801	1,615	214	1,829
1918	26,002	4,109	30,111	25,407	3,332	28,739	2,839	605	3,444

During the year ended 30th June, 1918, seamen reported as deserters from British vessels, trading on foreign voyages, numbered 186, viz., 143 at Sydney, and 43 at Newcastle. The wages paid to seamen through these shipping offices amounted to £151,097, of which £137,654 was paid at Sydney. Wages issued in advance notes amounted to £1,956, of which £1,529 was recorded for Sydney.

Masters of foreign vessels engage and discharge seamen at the offices of the consuls representing the countries to which the vessels belong, and no particulars are available in regard to these transactions.

In regard to the crews of vessels which arrived from and departed to countries beyond the Commonwealth, there was an excess of departures of 1,666 in 1917, and 1,710 during the year 1918.

WAGES.

The wages paid to the officers and crews of vessels in the Australian trade are regulated by Awards of the Commonwealth Court of Conciliation and Arbitration. The average wages paid per month as at 30th June, 1918 were as follows :—

Occupation.	Oversea and Inter-state.				Coastal.			
	£	s.	d.		£	s.	d.	
Officers—Chief	15	0	0	to 26 0 0	17	0	0	to 23 10 0
Second	13	0	0	„ 23 0 0	15	0	0	„ 19 0 0
Third	14	0	0	„ 20 0 0	.....		
Fourth	£13				.....		
Engineers—Chief	25	6	0	to 39 2 0	18	0	0	to 34 10 0
Second	20	2	6	„ 25 6 0	20	2	6	„ 24 3 0
Third	17	16	6	„ 20 14 0	18	8	0	„ 20 14 0
Fourth	16	2	0	„ 17 5 0	.....		
Firemen	£13				13	0	0	„ 14 1 8
Trimmers	11				£11			
Seamen—Steamers	11				11	0	0	to 12 5 0
Sailing Ships	8	0	0	to 12 0 0	£7			
Cooks	13	0	0	„ 18 0 0	9	0	0	to 14 15 0
Stewards—Chief	13	0	0	„ 18 10 0	13	0	0	„ 14 15 0
Assistant	8	0	0	„ 8 10 0	.....		
Stewardesses	4	0	0	„ 6 0 0	4	0	0	to 4 10 0

SEAMEN'S COMPENSATION ACT.

The Seamen's Compensation Act, 1911, applies to ships in the service of the Commonwealth (exclusive of naval or military service), and to ships trading with Australia, or engaged in any occupation in Australian waters, or in trade and commerce with other countries or among the States. The schedules to the Act indicate the amount of compensation payable, in case of death or total or partial incapacity, resulting from personal injury by accident to seamen in the course of their employment. Regulations also indicate methods of procedure for recovery of compensation.

COMMERCE.

Power to make laws with respect to trade and commerce with other countries and among the States was vested in the Commonwealth Parliament, and control of the Customs and Excise Department was transferred to the Commonwealth in the year 1901. Following on alterations in the financial arrangements between the Commonwealth and the States, the Federal Government ceased to collect particulars of the interstate trade from 13th September, 1910; consequently the figures shown in this chapter relate only to oversea trade—that is, to the trade of New South Wales with countries beyond Australia.

CUSTOMS AND TARIFFS.

The Customs Act of 1901 provided for the necessary machinery to administer matters relating to Customs, and prescribed the manner in which duties were to be computed and paid. The Customs (Inter-State Accounts) Act, 1910, repealed the sections of the Customs Act, 1901, which necessitated the keeping of accounts of dutiable goods passing between the States. The Customs Act, 1910, assigns to the Customs Department control over all goods for export, and, subject to restrictions under any enactment, extends the provisions of earlier Acts in regard to prohibited goods, payments of duty, weight and measurement, &c. It provides also for supervision of preparation or manufacture for export of articles used for or with food or drink for human consumption, and establishes conditions as to the purity and soundness of goods designed for export.

The various Customs Tariff Acts provide general and special tariffs, uniform for all the States. Preferential rates of duty apply to certain goods imported from, and being produced within, the Union of South Africa; and the Customs Tariff, 1908, provides preference rates of Customs duties for certain goods the produce or manufacture of the United Kingdom.

DETERMINATION OF VALUES.

The value of goods imported, as shown in the tables throughout this chapter, represents the amount on which duty is payable, or would be payable if the duty were *ad valorem*. The value of goods subject to duty is taken to be the fair market value in the principal markets of the country whence exported, plus 10 per cent. to cover the cost of packing, insurance, freight, and all other charges. The value of goods exported is the value in the principal markets of the State.

SEA CARRIAGE OF GOODS.

The Sea Carriage of Goods Act, 1904, nullifies any clause in a Bill of Lading or similar document, covenanting or agreeing—(a) that the owner, charterer, master, or agent of any ship, or the ship itself, is relieved from liability for loss or damage to goods arising from the harmful or improper condition of the ship's hold, or any other part of the ship in which the goods are carried, or arising from negligence, fault, or failure in the proper loading, stowage, custody, care, or delivery of goods which are to be carried in or by the ship; (b) to lessen any obligations of owner or charterer to exercise due diligence, and to properly man, equip, and supply the ship, to make and keep it seaworthy, and to make and keep the hold, refrigerating and cool chambers, and all other parts of the ship in which goods are carried, fit and safe for their reception, carriage, and preservation; (c) or to lessen the obligations of

master, officers, agents, and servants of any ship carefully to handle and stow goods, and to care for, preserve, and properly deliver them.

Regulations under the Commerce (Trade Descriptions) Act, 1905, prohibit the import and export of specified goods unless a trade description is applied to such goods; thus, a high standard quality of goods is assured.

Goods are inspected and examined, and in certain cases a declaration by the exporter must accompany the notice of intention to export. Approved goods for export are marked with an official stamp, butter and cheese are graded, and carcase meat, rabbits, and hares are classified and marked. Special instructions are issued to meat inspectors regarding supervision and inspection for export, and standard requirements are set for abattoirs and premises where meat is preserved for export.

AUSTRALIAN INDUSTRIES.

It is an offence for any person or corporation to make or engage or continue in any combination "to restrain trade or commerce to the detriment of the public, or to destroy or injure by means of unfair competition any Australian industry, the preservation of which is advantageous to the Commonwealth, having due regard to the interests of the producers, workers, and consumers." Monopoly of, or attempt or conspiracy to monopolise, any part of the trade of the Commonwealth, so as to control to the detriment of the public the supply or price of any service, merchandise, or commodity, is an offence, as also the payment of rebates, or the refusal to sell so as to promote exclusive dealing.

The Inter-State Commission Act, 1912, provides for the appointment by the Commonwealth Government of three Commissioners, who are charged with the duty of investigating any matter affecting trade and commerce.

CUSTOMS AND EXCISE REVENUE.

The following statement shows the gross amounts collected in New South Wales under each division of the tariff during the year ended 30th June, 1918, and shows the drawbacks, refunds, and the net collections:—

Tariff Division.	Gross Collections paid into Revenue.	Draw-backs Paid.	Refunds.	Net Collections.
	£	£	£	£
1. Stimulants, Ale, Beer, &c.	761,280	81	180	761,019
2. Narcotics	884,771	....	128,627	756,144
3. Sugar	45,271	15,351	315	29,605
4. Agricultural Products and Groceries	284,660	16,530	2,004	266,126
5. Apparel and Textiles	1,101,921	22,193	12,832	1,066,896
6. Metals and Machinery	513,527	12,297	8,857	492,373
7. Oils, Paints, and Varnishes	139,870	12,106	955	126,809
8. Earthenware, &c.	96,374	1,394	1,145	93,835
9. Drugs and Chemicals	94,141	4,788	1,051	88,302
10. Wood, Wicker, &c.	107,066	1,074	852	105,140
11. Jewellery and Fancy Goods	180,033	4,295	1,606	174,132
12. Leather and Rubber	210,634	12,087	1,416	197,181
13. Paper and Stationery	152,185	2,265	3,617	146,303
14. Vehicles	163,332	2,200	6,797	154,275
15. Musical Instruments	60,320	266	1,079	58,975
16. Miscellaneous	156,252	4,259	2,702	149,291
Customs Miscellaneous	16,082	....	32	16,050
Total, Customs Duties	£ 4,967,769	111,246	174,067	4,682,456
Excise—				
Beer	628,678	5,837	2	622,839
Spirits	400,587	79	....	400,508
Tobacco	258,467	....	....	258,467
Cigars	5,911	....	....	5,911
Cigarettes	645,390	....	....	645,390
Licenses—Tobacco	897	....	....	897
„ Other	797	....	....	797
Total, Excise Duties	£ 1,940,727	5,916	2	1,934,809
Total, Customs and Excise Duties	£ 6,908,496	117,162	174,069	6,617,265

The amounts collected in New South Wales from Commonwealth customs and excise duties, and the taxation per head of population during the last five years, appear in that portion of this Year Book which deals with Public Finance.

Sydney is a distributing centre for the whole of Australia, consequently the figures for New South Wales include customs receipts for goods which were, in the course of trade, transferred to and consumed in other States. On the other hand, they do not include receipts for goods which were transferred from other States and consumed in New South Wales.

The following table shows the overseas trade at each port and customs station in New South Wales, exclusive of gold specie and bullion, with customs and excise revenue collected for the year ended 30th June, 1918:—

Port or Station.	Oversea Trade.			Customs and Excise Revenue Collected.
	Imports.	Exports.	Total.	
	£	£	£	£
Sydney	27,941,036	36,116,642	64,057,678	6,765,622
Newcastle	506,543	804,376	1,310,919	140,933
Clarence River ... ..	.....	4,591	4,591	.....
Port Kembla ... ..	.....	3,878	3,878	.....
Allandale ... ..	.....	.....	.....	437
Broken Hill ... ..	.....	.....	.....	1,307
Corowa (Wahgunyah) ... ..	.....	.....	.....	162
New South Wales	£ 28,447,579	36,929,487	65,377,066	6,998,493

Figures regarding the value of gold specie exported during the year ended 30th June, 1917, were not supplied by the Customs Department for publication in the Official Year Book of N.S.W., 1917, but have since been furnished, and appear now in this issue of the Year Book.

All necessary amendments consequent upon the inclusion of these exports for the year 1917 have been made, but the figures in regard to both imports and exports of gold specie and bullion during the year ended 30th June, 1918, have been excluded from the returns received from the Customs Department, at the request of the British Government.

IMPORTS AND EXPORTS.

The annual values of overseas imports and exports for each year since 1910 are quoted below:—

Year ended 30th June.	Imports.	Exports.	Per head of Population.		
			Imports.	Exports.	Total Oversea Trade.
	£	£	£ s. d.	£ s. d.	£ s. d.
*1910	23,238,993	32,035,451	14 7 7	19 16 5	34 4 0
*1911	27,343,428	32,161,401	16 8 7	19 6 5	35 15 0
*1912	32,303,630	32,958,529	18 11 7	18 19 1	37 10 8
*1913	32,350,663	32,839,789	17 17 7	18 3 0	36 0 7
†1914	16,677,336	15,738,313	9 0 9	8 10 8	17 11 5
1915	27,323,243	28,107,025	14 13 6	15 1 11	29 15 5
1916	33,379,698	40,975,416	17 17 3	21 18 6	39 15 9
1917	32,742,297	50,290,824	17 11 1	26 19 2	44 10 3
1918	£28,447,579	£36,929,487	15 0 10	19 10 6	34 11 4

* Year ended 31st December.

† Half-year ended 30th June.

‡ Exclusive of gold specie and bullion.

The value of the exports from year to year in normal times forms a sure index of the progress of this country, the result of a rise or fall in the value of the staple commodities, or of a depression in production, being readily traceable in the corresponding rise or fall in the export values. Oversea exports were the highest in 1917, when the prices of wool, copper, lead, hides, &c. were abnormally high on account of the demand for war purposes. The reason for the decrease in both imports and exports in 1918 is the exclusion of gold from the totals.

Difficulty in connection with freights on account of war conditions, has been a disturbing factor in trade matters during the last four years.

DISTRIBUTION OF TRADE.

Of overseas imports, in 1918, exclusive of gold specie and bullion, according to country of origin, 50 per cent. were of British manufacture or production. Approximately 37 per cent. of the total imports were shipped from the United Kingdom, 21 per cent. from British Possessions, or a total of 58 per cent. from British countries, the difference in favour of British shipments as against those of foreign countries being attributable to the advantages of Great Britain as a transshipping country. The imports shipped from foreign countries direct represented 42 per cent. of the total. Of the exports from New South Wales, 69 per cent. were shipped to British countries, while of the total trade 64 per cent. was British.

The trade of the State is greater with the United Kingdom than with any other country. The real trade with the United Kingdom is not shown, however, because, in addition to foreign goods sent to Australia *via* London, a proportion of the goods sent from New South Wales to Victoria and South Australia is shipped eventually to the United Kingdom, also some of the goods shipped to the United Kingdom are destined for transshipment to foreign ports. The extent of the export trade with the United Kingdom may be gauged by the relation between the values of goods originating in, and the value of goods shipped from, the United Kingdom.

The volume of overseas imports divided under the heads of British Empire—i.e., United Kingdom and other British countries—and Foreign countries is shown in the following table for each year since 1910:—

Year ended 30th June.	Imports from:—			Total Imports.
	British Empire.		Foreign Countries.	
	United Kingdom.	Other British Countries.		
	£	£	£	£
*1910	14,385,633	3,240,358	5,613,002	23,238,993
*1911	15,740,509	4,284,573	7,318,346	27,343,428
*1912	18,093,957	4,970,893	9,238,780	32,303,630
*1913	18,107,133	4,804,041	9,439,484	32,350,667
†1914	9,611,134	2,493,575	4,572,627	16,677,336
1915	15,367,746	4,571,885	7,383,612	27,323,243
1916	15,608,510	6,434,638	11,336,550	33,379,698
1917	15,722,209	6,285,552	10,734,536	32,742,297
1918	‡10,514,811	‡5,858,095	‡12,074,673	‡28,447,579

* Year ended 31st December.

† Half-year ended 30th June.

‡ Exclusive of gold specie and bullion.

War conditions have caused a diminution in the imports from the United Kingdom during the last four years, but there has been an increase in the trade from other British Possessions, and from foreign countries, notably the United States of America and Japan.

Stated as proportions per cent. of the total imports the following results are obtained.

Year ended 30th June.	British Empire.			Foreign Countries.
	United Kingdom.	Other British Countries.	Total.	
	per cent.	per cent.	per cent.	per cent.
*1910	61·9	13·9	75·8	24·2
*1911	57·5	15·7	73·2	26·8
*1912	56·0	15·4	71·4	28·6
*1913	56·0	14·8	70·8	29·2
†1914	57·6	15·0	72·6	27·4
1915	56·3	16·7	73·0	27·0
1916	46·7	19·3	66·0	34·0
1917	48·0	19·2	67·2	32·8
1918	37·0	20·6	57·6	42·4

* Year ended 31st December.

† Half-year ended 30th June.

The oversea exports from New South Wales, shown under the same head and for the same periods were:—

Year ended 30th June.	Exports to—			Total Exports.
	British Empire.		Foreign Countries.	
	United Kingdom.	Other British Countries.		
	£	£	£	£
*1910	13,318,099	3,081,387	15,635,965	32,035,451
*1911	12,261,971	5,830,179	14,069,251	32,161,401
*1912	10,316,918	6,096,078	16,545,533	32,958,529
*1913	11,904,424	3,761,634	17,173,731	32,839,789
†1914	5,897,486	2,380,711	7,460,116	15,738,313
1915	16,258,252	4,580,536	7,268,537	28,107,025
1916	15,320,034	5,076,785	20,578,577	40,975,416
1917	23,902,117	12,098,164	14,286,543	50,290,824
1918	†17,233,042	†8,271,504	†11,424,941	†36,929,487

* Year ended 31st December.

† Half-year ended 30th June.

‡ Exclusive of gold specie and bullion.

The proportions per cent. of the total exports are as follow :—

Year ended 30th June.	British Empire.			Foreign Countries.
	United Kingdom.	Other British Countries.	Total.	
	per cent.	per cent.	per cent.	per cent.
*1910	41·6	9·6	51·2	48·8
*1911	38·1	18·1	56·2	43·8
*1912	31·3	18·5	49·8	50·2
*1913	36·2	11·5	47·7	52·3
†1914	37·5	15·1	52·6	47·4
1915	57·8	16·3	74·1	25·9
1916	37·4	12·4	49·8	50·2
1917	47·5	24·1	71·6	28·4
1918	46·7	22·4	69·1	30·9

* Year ended 31st December.

† Half-year ended 30th June.

In consequence of the war there have been great variations in the proportion of trade with British and with foreign countries during the last four years. In the year ended 30th June, 1918, the exports of New South Wales to the British Empire represented 69 per cent. of the total, of which 47 per cent. were exports to the United Kingdom. The proportion to foreign countries was 31 per cent.

The following table shows the volume of oversea trade since the year 1910 :—

Year ended 30th June.	Oversea Trade.			Proportion.	
	With British Countries.	With Foreign Countries.	Total.	British.	Foreign.
	£	£	£	per cent.	per cent.
*1910	34,025,477	21,248,967	55,274,444	61·6	38·4
*1911	38,117,232	21,387,597	59,504,829	64·1	35·9
*1912	39,477,846	25,784,313	65,262,159	60·5	39·5
*1913	38,577,237	26,613,215	65,190,452	59·2	40·8
†1914	20,382,906	12,032,743	32,415,649	62·9	37·1
1915	40,778,419	14,651,849	55,430,268	73·6	26·4
1916	42,439,987	31,915,127	74,355,114	57·1	42·9
1917	58,012,042	25,021,079	83,033,121	69·9	30·1
1918	†41,877,452	†23,469,614	†65,377,066	64·1	35·9

* Year ended 31st December.

† Half-year ended 30th June.

‡ Exclusive of gold specie and bullion.

ARTICLES OF IMPORT.

To show concisely the class of goods imported into New South Wales, oversea imports during the years ended 30th June, 1916-18, have been summarised, as shown in the table below. The figures represent direct imports only, as the interstate transfers are not available.

Articles of Import.	1916.	1917.	1918.
Food, Drink, Narcotics, and Stimulants—	£	£	£
Animal food	778,729	474,553	551,302
Vegetable food	4,219,287	2,089,255	1,152,149
Drinks—alcoholic	721,093	990,359	665,502
„ non-alcoholic	10,146	7,906	3,076
Tobacco and other narcotics	658,075	633,595	418,057
Other stimulants and condiments	973,895	926,477	870,937
	7,361,225	5,122,145	3,661,023
Live Animals and Plants—			
Animals of all kinds	95,189	57,822	70,053
Plants	40,355	33,994	43,061
	135,544	91,816	113,114
Textile Fabrics, Dress, and Manufactured			
Fibrous Materials—			
Silk manufactures	706,967	704,941	1,045,885
Woollen manufactures	1,462,028	1,755,149	1,116,746
Cotton and flax manufactures	2,293,321	2,764,401	2,895,787
Manufactures of mixed materials	1,435,941	1,772,587	1,667,269
Dress	2,087,305	2,140,864	1,752,735
Manufactures of fibrous materials	929,403	1,032,614	931,025
	8,914,965	10,170,556	9,409,447
Products of Arts and Manufactures, n.e.i.—			
Books, stationery and paper	1,241,599	1,751,692	1,332,387
Musical instruments	176,194	175,695	220,574
Works of art and art materials	29,841	27,944	27,296
Fancy goods	421,658	438,311	414,643
Timepieces, jewellery, and plated ware	399,920	381,228	375,724
Surgical and scientific instruments	439,698	539,437	541,656
Machines, tools, and implements	3,739,410	3,716,396	2,998,202
Harness, vehicles, and equipment	995,892	807,226	850,718
Ships, boats, and equipment	80,739	426,954	5,681
Building materials	1,094,229	1,047,132	890,597
Furniture	89,454	67,987	58,246
Arms and explosives	241,332	207,227	150,602
Drugs, chemicals, and by-products	906,446	851,553	1,077,293
Glass and earthenware manufactures	412,524	444,469	382,253
Soap, candles, and paint	334,476	350,662	274,503
Other manufactures, n.e.i.	1,300,696	1,163,891	1,081,310
	11,904,108	12,497,804	10,681,685
Staple Animal and Vegetable Substances, including Mineral Oils—			
Animal substances	615,346	967,822	480,642
Vegetable substances	764,322	745,408	1,478,801
Oils	1,075,787	1,080,826	1,234,371
	2,455,455	2,794,056	3,193,814
Staple Minerals and Metals, including Specie and Bullion—			
Specie and bullion	496,405	226,067	*141,885
Iron and steel	1,339,548	1,011,683	529,427
Other metals	504,361	574,625	438,428
Coal and shale	5,094	8,762	24,718
Stone, clay, and other minerals	113,816	114,453	97,269
	2,459,224	1,935,590	1,231,727
Indefinite articles	149,177	130,330	156,769
Total Imports	£ 33,379,698	32,742,297	*28,447,579

* Exclusive of gold specie and bullion.

In 1918 the principal articles imported from abroad were those in the class comprising the products of arts and manufactures. By far the largest item in this class was machines, tools, and implements; then followed books, stationery and paper, drugs, chemicals, and by-products; building materials harness, vehicles and equipment, surgical and scientific instruments; fancy goods, glass and earthenware manufactures, and time pieces, jewellery and plated ware. The class next in importance comprised textile fabrics and dress, in which the most important items were cotton and flax, dress, manufactures of mixed materials and woollen manufactures. The class including articles of food and drink came third, the largest item being vegetable food.

BRITISH PRODUCE IMPORTED.

The total value of the produce of the United Kingdom and of other British Possessions imported overseas into New South Wales, classified according to country of origin, are shown below for the years ended 30th June, 1915-18:—

Country of Origin.	1915.	1916.	1917.	1918.
	£	£	£	£
United Kingdom	13,016,787	12,629,280	14,250,293	9,356,652
Australian States	46,280	32,072	27,423	39,218
Canada	612,796	629,527	546,733	783,351
Ceylon	425,578	514,501	509,763	653,973
Egypt	5,370	10,110	6,569	11,826
Fiji	242,056	592,325	1,033,779	331,894
Gilbert Islands	13,443	25,252	42,680	27,234
Hong Kong... ..	1,927	5,630	2,568	6,526
India (incl. Burma)	1,262,091	1,521,452	1,509,626	1,847,825
New Zealand	984,401	1,581,567	1,280,161	705,332
Ocean Island	19,161	43,292	11,055	33,464
Papua	54,828	58,680	69,941	76,833
Solomon and Santa Cruz Islands	80,139	76,047	71,418	110,549
Straits Settlements	50,329	66,073	58,222	176,089
Union of South Africa	166,793	522,564	164,046	202,674
West Indies	26,421	23,626	20,806	26,302
Other British Possessions...	22,875	22,755	18,113	26,593
Total	£ 3,968,208	5,693,406	5,405,480	5,020,465
Total all British Countries.	£ 17,031,275	19,354,758	19,683,196	*14,416,335

* Exclusive of gold specie and bullion.

ARTICLES OF EXPORT.

Exports from New South Wales consist chiefly of goods produced or manufactured in the State. Re-exports include produce of other Australian States, and produce of other countries.

A classification of the total exports to oversea countries during the years ended 30th June, 1916-18, is shown below :—

Articles of Export.	1916.	1917.	1918.
Food, Drink, Narcotics, and Stimulants—	£	£	£
Animal food	1,688,020	4,138,344	4,777,098
Vegetable food	3,841,622	6,673,011	4,275,670
Drinks—alcoholic	132,891	140,215	165,944
„ non-alcoholic	5,868	5,060	8,677
Tobacco and other narcotics	114,251	106,311	151,539
Other stimulants and condiments	77,295	139,568	177,408
	5,859,947	11,202,509	9,536,336
Live Animals and Plants—			
Animals of all kinds	130,215	94,191	121,178
Plants	17,988	29,913	42,320
	148,203	124,104	163,498
Textile Fabrics, Dress, and Manufactured			
Fibrous Materials—			
Silk manufactures	12,519	12,957	15,185
Woollen manufactures	22,345	25,742	215,334
Cotton and flax manufactures	89,849	131,700	146,454
Manufactures of mixed materials	47,471	51,267	85,680
Dress	167,772	169,700	328,365
Manufactures of fibrous materials	25,245	29,425	46,548
	365,201	420,791	837,566
Products of Art and Manufactures, n.e.i.—			
Books, stationery, and paper	68,114	74,198	81,036
Musical instruments	2,999	3,700	2,331
Works of art and art materials	1,631	2,024	1,450
Fancy goods	23,775	30,748	40,685
Timepieces, jewellery, and plated-ware	25,071	14,137	12,179
Surgical and scientific instruments	74,451	85,094	99,952
Machines, tools, and implements	329,956	331,175	447,247
Harness, vehicles, and equipment	52,974	50,773	56,924
Ships, boats, and equipment	153,004	16,307	17,992
Building materials	182,623	155,829	190,557
Furniture	29,995	26,640	25,013
Arms and explosives	8,007	8,054	19,425
Drugs, chemicals, and by-products	231,030	221,634	367,524
Glass and earthenware manufactures	28,313	30,583	36,635
Soap, candles, and paint	71,769	75,907	170,432
Other manufactures, n.e.i.	105,890	172,393	211,113
	1,389,602	1,299,196	1,780,495
Staple Animal and Vegetable Substances, including Mineral Oils—			
Animal substances	16,156,364	16,361,862	15,585,023
Vegetable substances	105,137	171,873	247,107
Oils	245,730	187,561	277,664
	16,507,231	16,721,296	16,109,794
Staple Minerals and Metals, including Specie and Bullion—			
Specie and bullion	9,656,085	11,508,383	*726,854
Iron and steel	51,941	176,861	127,723
Other metals	5,801,907	7,696,754	6,785,788
Coal and shale	535,549	463,413	317,972
Stone, clay, and other minerals	592,044	489,643	343,766
	16,637,526	20,340,054	*8,302,103
Indefinite articles	67,706	182,874	199,695
Total Exports	£ 40,975,416	50,290,824	*36,929,487

* Exclusive of gold specie and bullion.

The principal articles of export during the year ended 30th June, 1918, consisted of staple animal substances, metals, animal and vegetable food, and specie and bullion.

EXPORTS OF AUSTRALIAN AND OTHER PRODUCE.

During the year ended 30th June, 1918, the exports of Australian produce represented 93·9 per cent., and other produce 6·1 per cent. of the total exports. The following statement shows, for each of the years, 1909–1911, the values of overseas exports under the three heads of “New South Wales produce,” “Produce of other Australian States,” and of “Other countries.” Since 1911 the distinction between New South Wales produce and produce of other Australian States has not been made by the Customs Department. The two have been included together as Australian produce; consequently the table shows, after 1911, only the exports of Australian produce.

Year ended 30th June.	New South Wales Produce.	Produce of Other Australian States.	Produce of Other Countries.	Total.	Percentage of total.	
					Australian.	Other.
	£	£	£	£		
*1909	21,771,580	2,644,381	1,628,828	26,044,789	93·7	6·3
*1910	27,677,088	2,660,263	1,698,100	32,035,451	94·7	5·3
*1911	27,491,326	2,447,089	2,222,986	32,161,401	93·1	6·9
*1912	30,661,028		2,297,501	32,958,529	93·0	7·0
*1913	31,135,169		1,704,620	32,839,789	94·8	5·2
+1914	14,518,309		1,220,004	15,738,313	92·2	7·8
1915	26,176,233		1,930,792	28,107,025	93·1	6·9
1916	38,656,163		2,319,253	40,975,416	94·3	5·7
1917	47,871,705		2,419,119	50,290,824	95·2	4·8
1918	£34,554,373		2,375,114	£36,929,487	93·6	6·4

* Year ended 31st December. † Half-year ended 30th June.

‡ Exclusive of gold specie and bullion.

EXPORTS OF AUSTRALIAN PRODUCE.

The countries to which Australian produce was exported direct during the years ended 30th June, 1915–18, may be seen in the following table. The effect of war conditions is noticeable in the large decreases in the values of products sent to European countries; on the other hand the values of Australian produce sent to the United States of America increased from £2,667,042 in 1915 to £5,526,024 in 1918, and to Japan, from £1,564,140 to £2,684,101 :—

Country to which Exported.				1915.	1916.	1917.	1918.
				£	£	£	£
United Kingdom	...	...	...	15,886,700	15,102,133	23,823,794	17,028,084
Canada	...	...	...	305,607	621,881	6,248,506	326,008
Ceylon	...	...	...	55,887	82,115	90,047	33,140
Egypt	...	...	...	58,828	126,355	74,000	1,410,270
Fiji	...	...	...	221,493	159,244	218,138	298,203
Hong Kong	...	...	...	269,155	221,638	103,416	158,566
India	...	...	...	291,344	481,521	724,369	2,266,580
Malta	...	...	...	12,920	40,440	123,768	.....
New Zealand	...	...	...	1,104,449	1,765,303	1,235,893	1,390,824
Papua	...	...	...	38,823	43,438	41,370	54,427
Solomon and Santa Cruz Islands	...	...	...	41,212	38,094	42,841	47,306
South African Customs Union...	...	...	...	725,453	121,494	149,742	365,887
Straits Settlements	...	...	...	208,814	260,454	340,721	308,076
Other British Possessions	...	...	...	45,652	58,071	42,462	47,109
British Ports (for Orders)	...	...	...	.....	.....	1,379,456	59,247
Total, British Countries				£19,266,337	19,122,181	34,638,523	*23,953,733

Country to which Exported.	1915.	1916.	1917.	1918.
	£	£	£	£
Argentine Republic	93	4	2	73,334
Austria-Hungary	791	.....	.....	.....
Belgium	202,972	420	.....	.....
Bismarek Archipelago	54,482	65,348	67,542	85,377
Chile	225,117	114,194	53,129	2,898
China	48,518	46,037	63,743	117,416
France	607,722	1,308,730	957,892	158,819
Germany	148,545	.....	.....	.....
Hawaiian Islands	114,631	41,533	29,206	23,138
Italy	570,464	1,932,414	1,273,904	203,875
Japan (including Formosa)	1,564,140	2,326,383	2,615,392	2,684,101
Java	162,568	179,169	261,229	445,241
Netherlands	27,115	.....	10	.....
New Caledonia (including Loyalty Islands)	94,844	121,508	151,903	212,861
New Hebrides (including Banks Group) ...	19,089	20,524	24,907	32,920
Peru	69,173	50,081	194,636	45,593
Philippine Islands	101,768	50,591	121,360	490,826
Russia	113,817	476,362	1,153,152	7,738
Spain ... ..	.....	75,037	.....	.....
United States of America	2,667,042	12,663,460	5,863,210	5,526,024
Other Foreign countries	117,065	68,187	119,189	161,983
Foreign Ports (for Orders) ... ..	.....	.....	282,836	323,446
Total, Foreign Countries ...	£ 6,909,896	19,533,982	13,233,182	*10,600,640
Total, all Countries ...	£ 26,176,233	38,656,163	47,871,705	*34,554,373

* Exclusive of gold specie and bullion.

The principal articles of Australian production, exclusive of gold specie and bullion, exported to various countries from New South Wales in the year ended 30th June, 1918, were as follows:—

United Kingdom—Wool, £7,803,170; copper—ingots, £2,169,024; lead—in matte, £372,718, pig, £1,949,398; wheat, £140,382; butter, £1,493,217; frozen meat—beef, £65,646, mutton and lamb, £129,119, rabbits and hares, £501,864; potted and concentrated meats, £103,576, preserved in tins, &c., £358,005; skins and hides, £341,504; flour, £326,043; silver bullion—bar, sheet, ingot, £27,542, in matte, £162,483; ores—wolfram, £161,400, molybdenite, £72,523, scheelite, £13,446; leather, £158,142; tallow, £126,582; apparel and attire, £87,178; soldiers' comforts, £55,943; jams and jellies, £83,219; milk and cream, £63,032; cheese, £48,176.

Canada—Skins and hides, £103,875; cocoanut oil, £45,607; flour, £42,810; wheat, £34,805; tin—ingots, £17,148.

Egypt—Wool, £685,906; copper—ingots, £103,779; meats—bacon and ham, £47,090, frozen mutton and lamb, £35,631, rabbits and hares, £165,118, preserved meat, £45,870; preserved milk, £74,993; jams and jellies, £51,258; biscuits, £42,693.

Fiji—Bran and pollard, £36,444; coal, £33,824.

Hong Kong—Lead, £76,679.

India—Meats—preserved in tins, &c., £718,235, potted, £27,382, bacon and ham, £99,581; copper—ingots, £559,877; silver bullion, £324,972; biscuits, £198,300; preserved milk, £110,897; horses, £80,465.

New Zealand—Coal, £143,148; fruits—dried and fresh, £71,764; manures, £69,937; soap, £65,676; timber, £58,321; flour, £53,520; salt, £49,785; rubber manufactures, £46,935; paints and colours, £42,617; metal manufactures, £40,939; tin—ingots, £34,897; wheat, £35,977.

South African Union—Rails, fishplates, &c., £55,156; leather, £49,668; wheat, £72,678; tallow, £115,279.

Straits Settlements—Flour, £213,040; meats, £42,269; butter, £41,850.

Argentina—Wheat, £73,384.

France—Wool, £109,545.

Italy—Wool, £129,290; tallow, £59,787.

Japan—Wool, £1,748,978; pig lead, £438,672; tallow, £115,279; flour, £44,336; wheat, £143,712.

Java—Sulphate of ammonia, £119,971; flour, £98,483; iron and steel, £80,587.

New Caledonia—Coke, £48,541; flour, £45,185.

Peru—Wheat, £15,483.

Philippine Islands—Flour, £395,890; jams and jellies, £51,672.

United States—Wool, £1,846,433; skins and hides, £1,451,488; tin—ingots, £933,232; pearl shell, £137,681; leather, £86,306; cocoanut oil, £80,209; timber, £75,934; butter, £69,327; jams and jellies, £44,642; wheat, £541,473; flour, £6,115.

RE-EXPORT TRADE.

There is a large re-export of wool, chiefly the produce of Queensland, and a fairly large trade in provisions and manufactured articles of British and foreign production with New Zealand, New Caledonia, Fiji, and other islands of the Pacific.

The returns do not disclose the value of the produce of the other Australian States, but the value of the other produce re-exported during the year ended 30th June, 1918, was £2,375,114. The principal items were piece goods, £216,663; rice, £181,584; copra, £184,046; tea, £111,514; tobacco, £104,523; machines and machinery, £94,927; silver specie, £94,675; silver bullion, £78,663; oils, £93,921; metal manufactures, £78,776; wool, £68,477; spirits, £56,191; films for kinematographs, £51,640; and sugar, £43,733.

SHIPS' STORES.

In addition to the values of oversea exports shown already, considerable quantities of goods are sent away from New South Wales each year in the form of ships' stores. The following statement shows the aggregate values of ships' stores exported during the last four years, classified as Australian produce, and other produce, being really re-exports:—

Year ended 30th June.	Value of Ships' Stores Exported.		
	Australian Produce.	Other Produce.	Total.
	£	£	£
1915	1,045,751	133,274	1,179,025
1916	867,193	143,401	1,010,594
1917	999,075	130,608	1,129,683
1918	852,578	113,613	966,191

Following are details of the most important items of Australian produce exported as Ships' Stores during the year 1918:—

		Quantity.	Value.			Quantity.	Value.
			£				£
Bunker coal	tons	495,467	449,788	Jams and jellies	lb.	1,437,707	26,437
Meats ...	...	.....	160,111	Milk, preserved	lb.	377,179	13,533
Butter ...	lb.	456,231	31,810	Fish, fresh	...	lb.	345,304
Flour ...	centals	41,548	27,081	Potatoes	...	cwt.	29,276
							9,911

COMMERCIAL COMMISSIONERS.

New South Wales is represented in Eastern Asia by a Commercial Commissioner, with headquarters at Kobe, Japan. The Commissioner is engaged in fostering the trade of the State in the important markets of eastern countries, and makes periodical tours of Japan, China, India, Philippine Islands, Netherlands, India, and other portions of the East, closely watching for new opportunities for trade as well as taking steps to ensure the maintenance of the existing trade.

Reports are furnished by the Commissioner, giving in much detail the market prices, &c., for each commodity exported from New South Wales and valuable advice to shippers and to the commercial community.

In addition to the assistance given to commerce the Commissioner does useful work in diverting the stream of tourists in the East towards Australia.

In connection with the British Board of Trade, a Trade Commissioner was appointed in 1908 for Australia, with an office at Sydney. He furnishes commercial information, and advises the British Board of Trade generally with regard to openings for Imperial trade.

CHAMBERS OF COMMERCE.

Chambers of Commerce have been formed in New South Wales at seventeen important trading centres, including Sydney, Newcastle, Albury, Goulburn, Orange, Parramatta and Lismore. The membership of the Sydney Chamber of Commerce as at June, 1918, was 1,500, including 132 firms and public companies.

LAW COURTS.

In New South Wales legal processes may be grouped within the original jurisdiction of the Lower or Magistrates' Courts, or of the Higher Courts presided over by appointed Judges. The subject of appellate jurisdiction will be discussed separately.

ORIGINAL JURISDICTION—LOWER COURTS.

The Lower or Magistrates' Courts include Petty Sessions, Small Debts, Licensing, and Children's Courts.

All persons arrested and charged with offences at the various Police stations—also all summoned persons—must be brought before the Magistrates' Courts to answer charges, indictable or summary, or complaints of any nature; and are either dealt with summarily, or committed to take their trial at the Court of Quarter Sessions, or at the Supreme Court in its criminal jurisdiction. Persons may be committed also to take their trial at such higher Courts by a Coroner or by a Judge.

The First Offenders' (Women) Act, 1918, provides that when any woman of or above the age of sixteen years, who has not been previously convicted of any offence, is charged before any Court with a minor offence, the hearing shall be in private, unless the defendant elects to be tried in open court.—Persons, other than those directly concerned, are not allowed to remain in the Court, and a report of the proceedings must not be published.

Certain indictable offences (larceny, stealing from the person, embezzlement, &c.) are punishable summarily by Magistrates—by consent of the accused person—if the subject matter of the charge, or value of the property involved, does not amount to £20. Persons convicted by the Magistrates under such circumstances are liable to imprisonment for six months, or to a fine of £20. The period of imprisonment that may be awarded by Magistrates for purely summary offences is fixed in each case by Statute; in some cases sentences up to two years may be imposed. Most summary offences are punishable by fine, or by imprisonment, not exceeding seven days, in default of payment, where the amount of fine and costs does not exceed 10s., and not exceeding twelve months, where the amount payable exceeds £100.

Where a person is committed to be imprisoned, and is then undergoing imprisonment for another offence, the Magistrate may order that the sentence for the subsequent offence shall commence at the termination of the period the person is then serving. Justices have no power to impose more than one sentence of imprisonment to commence at the expiration of the first sentence.

By the Small Debts Recovery Act, 1912, the jurisdiction of Magistrates' Courts is extended to include action for the recovery of a debt or liquidated demand not exceeding £30, or where the Court is constituted by a Stipendiary or Police Magistrate sitting in some place appointed in that behalf by the Governor, to an amount not exceeding £50, whether on balance of account or after admitted set-off or otherwise.

COURTS OF PETTY SESSIONS.

Courts of Petty Sessions are held by Stipendiary Magistrates in the Sydney, Parramatta, Newcastle, Broken Hill, Bathurst, and Wollongong districts, and in other districts by Police Magistrates, or Justices of the Peace, the latter being honorary officers.

The total number of offences charged at all Courts of Petty Sessions and Children's Courts during the last five years, are shown in the following table :—

Courts.	1913.	1914.	1915.	1916.	1917.
Courts of Petty Sessions ...	89,469	92,289	83,228	77,873	63,872
Children's Courts ...	2,638	2,477	3,348	4,163	4,343
All Magistrates' Courts ...	92,107	94,766	86,576	82,036	68,215

The following table summarises the operations of these Courts during 1917 :—

Procedure.	Charged before Magistrates.	Treated summarily.			Committed to higher Courts.
		Convicted.	Withdrawn or Discharged.	Total.	
By arrest...	36,610	31,776	3,553	35,329	1,281
By summons ...	31,605	24,780	6,723	31,503	102
Total ...	68,215	56,556	10,276	66,832	1,383

The cases (1,383) committed to higher Courts represent 2 per cent. of the total charges ; the remainder, representing 98 per cent., were summarily treated, convictions resulting from 82·9 per cent. of the charges. A division of accused persons, according to sexes, shows that the charges against females numbered 7,481, being only 11 per cent. of the total :—

Sex.	Charged before Magistrates.	Treated summarily.			Committed to higher Courts.
		Convicted.	Withdrawn or Discharged.	Total.	
Males ...	60,734	50,377	9,074	59,451	1,283
Females ...	7,481	6,179	1,202	7,381	100
Total ...	68,215	56,556	10,276	66,832	1,383

The following table shows the proportion of summary convictions by Magistrates, of acquittals and discharges, and the committals to higher Courts at intervals since 1870 :—

Year.	Summary Convictions.	Acquittals and Discharges.	Committals to higher Courts.
	per cent.	per cent.	per cent.
1870	69·0	24·7	6·3
1880	76·9	18·4	4·7
1890	80·4	16·0	3·6
1900	83·1	14·9	2·0
1910	86·1	12·3	1·6
1915	84·6	13·6	1·8
1916	83·6	14·3	2·1
1917	82·9	15·1	2·0

Investigation into the nature of the offences for which summary convictions were effected during 1917 shows that only a small proportion were really criminal offences, viz., offences against person or property. Following is a classification of summary convictions, showing also their ratio to the general population, during each of the last five years :—

Year.	Against the Person.	Against Property.	Against Good Order.	Under Defence Act.	Other Offences.	Total Summary Convictions.
SUMMARY CONVICTIONS.						
1913	1,913	4,244	50,109	5,123	17,690	79,079
1914	2,023	4,068	51,609	3,210	20,307	81,217
1915	1,849	4,439	41,548	2,957	22,455	73,248
1916	1,785	4,480	37,407	2,383	22,560	68,615
1917	1,460	4,033	30,211	2,668	18,184	56,556

PER 1,000 OF MEAN POPULATION.

1913	1.05	2.35	27.69	2.83	9.78	43.70
1914	1.09	2.19	27.85	1.73	10.96	43.82
1915	.99	2.38	22.24	1.58	12.02	39.21
1916	.96	2.40	20.04	1.28	12.09	36.77
1917	.78	2.15	16.12	1.42	9.70	30.17

In most instances the offences shown under the heading of "Other" offences are committed in ignorance of the law, and are met with small or nominal penalties. For instance, during 1917 there were 2,758 cases under Local Government; traffic regulations accounted for 3,184 cases, and 1,482 cases were for breaches of the Commonwealth Electoral Law.

In each of the last five years the total number of summary convictions at Courts of Petty Sessions and Children's Courts, and the proportion per 1,000 of population, were as follows :—

Year.	Summary Convictions.			Per 1,000 of mean Population.		
	Males.	Females.	Total.	Males.	Females.	Total.
1913	72,250	6,829	79,079	75.96	7.96	43.70
1914	74,572	6,645	81,217	76.81	7.53	43.82
1915	65,675	7,573	73,248	68.33	8.35	39.21
1916	60,410	8,205	68,615	64.26	8.86	36.77
1917	50,377	6,179	56,556	54.33	6.52	30.17

Summary convictions in 1917 resulted in penalties as classified below :—

Offences.	Fines Paid.	Imprisoned in default.	Imprisoned without option.	Bound over and released on probation.	Other Punishments.	Total.
Against the person ...	984	180	191	90	14	1,460
Against property ...	1,638	459	589	1,066	281	4,033
Against good order ...	18,059	9,615	795	361	1,382	30,211
Other offences ...	17,018	492	440	176	2,726	20,852
Total ...	37,699	10,746	2,015	1,693	4,403	56,556

Included under the heading, "Other punishments," are a number of cases of drunkenness in which the defendants took a pledge to abstain from intoxicating liquors, and numerous cases under the universal training section of the Defence Act in which offenders were transferred to the military authorities.

Sentences of imprisonment in default are usually commuted by subsequent payment of fine; the extent to which this practice operates is shown on a subsequent page in connection with the prison services. Per 100 cases, fines were paid in 66; imprisonment in lieu of fine, 19; imprisonment without option, 4; bound over, &c., 3; and other punishments, 8.

The fines paid amounted to £54,567, of which £27,451 were paid into Consolidated Revenue, £2,344 to Commonwealth Government Departments, £13,846 to the Police Reward Fund, £4,459 to municipalities and shires, £2,153 to Pastures Protection Boards, £1,561 were paid to hospitals, societies, &c, and £2,753 to informers.

CHILDREN'S COURTS.

Children's Courts under the Neglected Children and Juvenile Offenders Act, 1905, were established throughout the State with the object of removing children as far as possible from the atmosphere of a public court. Magistrates exercise powers in respect of children and of offences committed by and against children. They possess also the authority of a Court of Petty Sessions or Justice under the Children's Protection Act, the Infant Protection Act, and the Deserted Wives and Children Act.

Offenders against the universal training section of the Defence Act are prosecuted in the Children's Courts as far as practicable; magistrates are empowered to fine or commit them to the custody of the military authorities.

The Neglected Children and Juvenile Offenders Act is designed to remove children from association with reputed thieves, and otherwise provides for the protection and reformation of neglected or uncontrollable children, also for the supervision of the children engaged in street trading.

Information as to the number of licenses for street trading, under the Neglected Children Act, and as to permits under the Children's Protection Act to take part in public exhibitions, at theatres, &c., will be found in another chapter of this Year Book.

During the year 1917 the charges investigated in Children's Courts numbered 4,343. In addition to these cases, there were 3,028 applications for orders, relating to the disposal of neglected and uncontrollable children, and to the maintenance of children; and 1,887 were cases of non-compliance with orders.

The following table shows the cases taken at Children's Courts during 1917; and as offences committed against children are dealt with by these Courts the figures include many cases of adult offenders:—

Offences.	Summarily treated.				Committed to higher Courts.		Total.		
	Convicted.		Discharged or Withdrawn.						
	M.	F.	M.	F.	M.	F.	M.	F.	Total.
Against the person ..	46	12	64	29	52	1	162	42	204
Against property ...	1,181	43	784	21	2	1	1,967	65	2,032
Against good order ...	202	5	76	8	...	...	278	13	291
Other offences... ..	1,408	25	371	12	...	...	1,779	37	1,816
Total ...	2,837	85	1,295	70	54	2	4,186	157	4,343

The following table shows the number of convictions at Children's Courts recorded in each class during the last five years :—

Offences.	Convictions.				
	1913.	1914.	1915.	1916.	1917.
Against the person	76	73	82	62	58
Against property	826	734	990	1,356	1,224
Against good order	337	237	211	172	207
Under Defence Act	303	218	781	909	951
Other offences	278	227	229	196	482
Total	1,820	1,489	2,293	2,695	2,922

The figures shown above and other particulars of Children's Courts are included in the aggregate tables relating to Courts of Petty Sessions.

SMALL DEBTS COURTS.

The total number of cases dealt with by the Small Debts Courts during 1917 was 36,254 ; in only 252 cases was the amount claimed in excess of £30. The transactions during the last two years are shown in the following table :—

Transactions.	1916.			1917.		
	Up to £30	£30 to £50	Total.	Up to £30	£30 to £50	Total.
Cases brought before the Registrar—						
Judgments given for plaintiff...	9,704	114	9,818	8,737	108	8,845
Not proceeded with	12,221	64	12,285	10,200	48	10,248
Verdicts given by Court—						
For plaintiff	5,983	49	6,032	4,657	36	4,693
For defendant	335	10	345	264	...	264
Withdrawn or struck out	6,843	86	6,929	6,807	28	6,835
Nonsuits	312	3	315	286	1	287
Cases pending... ..	5,986	153	6,139	5,050	32	5,082
Total cases	41,384	479	41,863	36,001	253	36,254
Amount of judgments for plaintiff £	64,785	4,512	69,297	59,302	4,053	63,355
Amount of verdicts for plaintiff £	33,413	1,820	32,233	23,932	1,289	25,221

In garnishee cases the Court may order that all debts due by a garnishee to the defendant may be attached to meet a judgment debt, and by a subsequent order, may direct the garnishee to pay so much of the amount owing as will satisfy the judgment debt. In respect of wages or salary, garnishee orders may be made only for so much as exceeds £2 per week. The garnishee cases in 1917 numbered 1,275.

Oral examinations of judgment debtors as to debts due to them, ordered on the application of a judgment creditor, numbered 1,024 in 1917. Interpleader cases, as to claims made to goods held under a writ of execution, by a person not party to the suit, numbered 27.

LICENSING COURTS.

In the metropolitan district of the State, the Court for granting licenses to sell intoxicants consists of three Stipendiary Magistrates. In country districts the local Police Magistrate and two Justices of the Peace, specially appointed, constitute the Court; if there is no Police Magistrate resident within 10 miles of the courthouse a licensing magistrate may be appointed. In 1882 the number of licensed houses was 3,063; in 1907, it was 3,022; and in 1917, 2,589, the decrease being 433, or 14 per cent. since 1907.

The Liquor Act, 1912, and its amendments, regulate the sale of intoxicating liquor, and facilitate the exercise of the principle of local option. In addition to stringent regulations regarding the licensing and management of hotels, the registration of clubs in which liquor is sold is compulsory. Registration is granted only to properly-conducted associations, established for a lawful purpose, on suitable premises.

On 17th February, 1916, the Minister for Defence, in the exercise of powers conferred under the provisions of the War Precautions Act, ordered that all licensed premises in the county of Cumberland, and in places within five miles of any military training camp in the State, should be closed at 6 p.m. On 24th February the order was varied, making the closing hour 8 o'clock.

Subsequently an Act was passed in the State Parliament authorising a referendum, when the electors were enabled to vote for the hour of their choice, ranging from 6 p.m. to 11 p.m., both inclusive. At the referendum taken on 10th June, 1916, an absolute majority of votes was recorded for six o'clock, and since 21st July, 1916, all the licensed premises have been closed at that hour. Particulars of the voting on 10th June, 1916, are shown below:—

Districts.	Votes Recorded for—						Informal Votes	Total.
	6 o'clock.	7 o'clock.	8 o'clock.	9 o'clock.	10 o'clock.	11 o'clock.		
City	10,686	216	1,388	14,952	87	94	1,107	28,530
Suburban ...	172,067	2,294	8,994	65,505	347	460	7,198	256,865
Country ...	164,741	2,320	10,752	98,385	971	2,639	13,903	293,711
Total ...	347,494	4,830	21,134	178,842	1,405	3,193	22,208	579,106

Local Option

The Liquor Act of 1912 provides that the local option vote be taken at each general election of the State Parliament, unless the election be held within eighteen months of the previous polling-day. In view of the reduction in trading hours after the Referendum, special provision was made under the Liquor Amendment Act, 1916, to suspend the taking of the local option vote at the general election in 1917. Publicans' or colonial wine licenses in any electorate may not exceed the number existent on 1st January, 1906, unless an increase be granted on account of growth of population. Clubs may not exceed the number formed before November, 1905, and registered before March, 1906.

Following are the propositions submitted to electors at each general election in this connection—

- (a) That the number of existing licenses be continued;
- (b) That the number of existing licenses be reduced;
- (c) That no licenses be granted in the electorate;
or where resolution (c) has been previously carried—
- (d) That licenses be restored in the electorate.

To carry resolution (c) or (d) the votes in favour must represent three-fifths of the total votes polled, and 30 per cent. of the electors on the roll. Where resolution (c) is not carried the votes are added to those given for resolution (b).

In electorates where a majority of electors vote for reduction, licenses may be reduced by one-fourth. Where the "no license" resolution is carried, licenses in the electorate cease to operate within three years.

Particulars of the local option vote are shown in the following statement:—

Year.	Electorates in which Electors carried—		Votes recorded for—			Percentage of Total Votes.		
	Con- tinuance.	Reduction.	Con- tinuance.	Reduction.	No-license.	Con- tinuance.	Reduction.	No-license.
1907	25	65	209,384	75,706	178,580	45	16	39
1910	76	14	324,973	38,856	212,889	56	7	37
1913	75	15	380,707	44,453	245,202	57	7	36

The proposition that no licenses be granted has not been carried in any electorate, consequently no vote has yet been taken on the question of "Restoration"

Special Courts are constituted to effect the reductions in accordance with the Act. The time at which the reduced licenses will cease varies from six months to three years, according to the character of the house.

When the first local option vote was taken in September, 1907, there were 3,023 hotels in existence; of this number it was ordered that 293 be closed at dates varying from 10th September, 1908, to 31st December, 1913. At the second local option vote on 14th October, 1910, there were 2,869 hotels, and as a result of the vote the closing of 28 was ordered. On the day of the election, 6th December, 1913, there were in existence 2,719 hotels, of which 23 were ordered to close at a fixed date. The licenses in force during 1917 numbered 2,589.

The number of Wine licenses in operation at the time of the vote of 1907 was 633, of which 46 have been abolished. In 1910, of the 565 licenses in existence, orders were made in 5 cases; while in 1913, in respect of the 514 existing, 7 closing orders were made.

Liquor Licenses.

The following table gives particulars respecting the number of hotels in the State, and the average population to each:—

Year.	Licenses Issued.	Average Population to each Hotel.	Year.	Licenses Issued.	Average Population to each Hotel.
1890	3,428	321	1912	2,723	638
1895	3,238	386	1913	2,717	666
1900	3,163	428	1914	2,658	697
1905	3,063	475	1915	2,640	708
1910	2,865	564	1916	2,617	713
1911	2,775	600	1917	2,589	724

The annual fee for a Publican's license is regulated by the annual assessed value of the hotel. During the year 1917, an amount of £83,028 was collected on account of such licenses.

The Liquor Act which regulates the issue of hotel licenses provides also for the issue of "Additional Bar" licenses where liquor is sold in more than one room in the licensed premises, and of booth or stand licenses for places of public amusement for a period not exceeding seven days.

Licenses are allowed for the sale of liquor in club premises, and packet licenses to Masters of steamers engaged in the coastal trade of the State.

Colonial Wine, Cider, and Perry licenses are held chiefly by grocers and keepers of restaurants, oyster saloons, and wine and fruit shops; the liquor sold must be the produce of fruit grown in Australasia, and the quantity sold at one time must not exceed 2 gallons.

Spirit Merchants' and Brewers' licenses do not come under the operation of the Local Option vote. Holders of Spirit Merchants' licenses are not permitted to sell a quantity less than 2 gallons of liquor of the same kind at one time.

Railway Refreshment Room licenses are issued under Executive authority and not by Magistrates.

The following statement shows the number of licenses for the sale of intoxicating liquor issued during 1917 :—

License.					Annual Fee.	Number of Licenses.	Fees Collected.
					£		£
Publicans'	...	...	...	...	Regulated by assessed value.	2,589	83,928
Additional Bar	...	...	...	...	20	133	2,647
Club	...	...	...	...	£5 and upwards.	73	852
Packet	...	...	...	...	3-15	17	142
Booth or Stand	...	...	...	...	2*	1,574	3,148
Colonial Wine, Cider, and Perry	...	...	...	...	3	463	1,389
Brewers'	...	...	...	...	20-30	23	4*0
Spirit Merchants'	...	...	...	...	20-30	179	4,340
Railway Refreshment Room	...	...	...	...	30	27	810

* For period of issue not exceeding seven days.

Other Licenses.

The other licenses issued by Magistrates are Billiard and Bagatelle Auctioneers', Pawnbrokers', Hawkers' and Pedlers', Collectors', Second-Hand Dealers', and Sunday Trading. The fee for Billiard and Bagatelle licenses is £10 per annum, and during 1917 there were 733 in force, the total fees collected being £7,195.

Auctioneers' licenses are divided into two classes, viz., General and District. The annual fee for a general license is £15, and for a district £2, and provision is made for a *pro rata* payment for licenses issued after the commencement of the year. There were 287 of the former and 1,745 of the latter current in 1917, the fees received being £7,575. General licenses are available for all parts of the State; district licenses only cover the Police district for which they are issued, but they are not issued for the Metropolitan District. Sales by auction are illegal after sunset or before sunrise, except in the Municipality of Albury, where, under the Auctioneers' Licensing (Amendment) Act, 1915, wool may be put up to sale or sold after sunset.

In 1917 there were 102 Pawnbrokers' licenses current in New South Wales, for each of which an annual fee of £10 is payable. The hours for receiving pledges by pawnbrokers are limited, with certain exceptions, to between 8 a.m. and 6 p.m., but no restriction is placed on the rate of interest charged.

The annual license fee for a hawker trading on foot is £1, and if with pack animals or vehicles the charge is £2; the total amount of fees received during 1917 was £1,528.

The fee for a Collectors' license is 1s., Second-hand Dealer, £1, and Sunday Trading, 5s.

The following table shows the principal licenses issued in 1905, and in the last five years:—

License.	1905.	1913.	1914.	1915.	1916.	1917.
Publicans'	3,063	2,717	2,658	2,640	2,617	2,589
Additional Bar ... ..	...	127	140	141	132	136
Club ... ..	...	76	76	73	76	73
Railway Refreshment	24	27	27	27	27	27
Booth or Stand	1,915	2,049	2,126	1,955	1,816	1,574
Packet	24	19	20	19	21	17
Colonial Wine, Cider, and Perry	682	515	506	497	487	463
Spirit Merchants'	205	207	205	192	193	179
Brewers'	40	29	26	26	24	23
Auctioneers'—General	222	309	318	289	303	287
District	1,064	1,586	1,631	1,540	1,683	1,745
Billiard and Bagatelle	698	973	934	831	838	783
Tobacco	*	*	*	13,014	13,179	13,089
Pawnbrokers'	66	80	100	96	99	102
Hawkers' and Pedlers'	*	*	1,473	1,354	1,178	1,149
Collectors ... ..	...	*	1,797	1,731	1,852	2,092
Second-hand Dealers ... ..	...	*	793	793	946	913
Stage Carriage	*	*	281	224	222	193
Sunday Trading ... ..	...	...	...	...	4,604	4,826

* Not available.

Registration of Dogs.

The Dog and Goat Act, 1898, prohibits the use of dogs or goats for the purpose of drawing or helping to draw any cart, carriage, truck or barrow. All dogs must be registered annually at a fee of 2s. 6d., with a reduction to 1s. 3d. for latter six months of year. During 1917 there were 128,758 dogs registered in New South Wales, the fees collected amounting to £16,075. Additional revenue to the extent of £273 was obtained from searches, copies of registration, sale of forms, &c. In the same year 2,953 stray dogs were destroyed by the Metropolitan police, the expenditure being £369.

CORONERS' COURTS.

Under the Coroners Act, 1912, every stipendiary or police magistrate has the powers and duties of a coroner in all parts of the State, except the Metropolitan Police District, which is under the jurisdiction of the City Coroner.

Inquiries are held in all cases of violent or unnatural death; and, at the discretion of the Coroner, in cases of destruction or damage to property by fire; and on the evidence the Coroner is empowered to commit for trial persons judged guilty of manslaughter, murder, or arson.

The transactions of Coroners' Courts during 1917 resulted in 43 persons, 33 males and 10 females, being committed for trial to higher Courts; the offences charged being murder, 11 males and 6 females; manslaughter, 12 males and 2 females; arson, 10 males and 2 females.

Inquests upon Deaths.

Under the Coroner's Court Act, 1904, a Coroner may hold an inquest, sitting alone; but upon request of a relative, of the secretary of any society of which the deceased was a member, or on the order of the Minister of Justice, a jury of six is called. The number of deaths of which the causes were investigated by Coroners or Magistrates, during 1917, was 1,317—males 1,011, and females 306; the verdicts were that 1,030 deaths were caused by violence. The deaths of 607 males and 153 females were the results of accidents, and 132 males and 39 females were found to have committed suicide.

Inquests upon Fires

During 1917 inquiries were held into the origin of 142 fires; accident was ascribed as the cause in 7 cases, arson in 24; in 111 instances there was insufficient evidence.

DISTRICT COURTS.

District Courts are held for the trial of civil causes where the property involved or the amount claimed does not exceed £400, and in cases where a title to land not exceeding £200 in value is in question. These Courts are presided over by Judges, who also perform the duties of Chairmen of Quarter Sessions for the trial of prisoners, except those charged with capital crimes. District Courts are held during ten months of the year in the metropolis, and three or four times a year in all important country towns. The Judge is not usually assisted by a jury; but in cases where the amount in dispute exceeds £20, either of the parties, by giving notice to the Registrar of the Court, may have a jury consisting of four men, and under the Matrimonial Causes Act, 1899, twelve men. On questions of law, and in respect of admission or rejection of evidence, appeal lies to the Supreme Court. At the end of 1917 there were 69 District Courts in the State.

The several District Court Judges, are also Chairmen of Courts of Quarter Sessions and Judges of the Court of Review within their respective districts, as well as Judges of the Court of Marine Inquiry.

Particulars of suits brought in District Courts during the last five years are given in the following table:—

Year.	Total Suits.	Causes tried.		Causes discontinued or settled without bearing.	Judgment for Plaintiff by default, or confession, or agreement.	Causes referred to Arbitration.	Causes pending and in arrears.	Total amount of Claims.	Court Costs of Suits.
		Verdict for Plaintiff.	Verdict for Defendant (including non-suit, etc.)						
1913	6,058	527	221	1,828	1,993	8	1,481	£ 290,776	£ 16,468
1914	6,788	464	242	1,868	2,295	7	1,912	328,429	18,062
1915	6,180	427	224	1,698	2,174	2	1,655	293,697	16,846
1916	6,126	440	195	1,655	2,266	7	1,563	290,642	21,072
1917	5,568	429	205	1,539	1,882	2	1,511	274,646	14,570

Of the causes heard during 1917, only 78 were tried by jury. During the same period there were 7 appeals from judgments given in District Courts; there were 11 motions for new trials, of which 4 were granted. The amount of judgment for plaintiffs during the year was £95,416.

INDUSTRIAL ARBITRATION.

The Court of Industrial Arbitration is a superior court, and a court of record, having jurisdiction and powers conferred on it by the Industrial Arbitration Act, 1912. There are four judges of the Industrial Court.

The Court or an Industrial Board exercising the jurisdiction under the Act is governed in its procedure and in its decisions by equity and good conscience, and is not bound to observe the rules of law governing the admissibility of evidence.

Particulars of the transactions of the Court will be found in the chapter relating to Employment and Industrial Arbitration.

THE SUPREME COURT.

The Supreme Court of New South Wales, which was constituted under the Charter of Justice of 13th October, 1823, is under the presidency of the Chief Justice, who is assisted by not more than seven Puisne Judges.

The Court and its Judges have, in effect, the same jurisdiction as the Courts and Judges at Westminster had on 25th July, 1828, together with any additional jurisdiction conferred since that date by State, Federal and Imperial legislation. The jurisdiction conferred upon the Court may be exercised by two or more Judges in all cases unless otherwise provided, and in certain specified cases may be exercised by one Judge.

The Chief Justice and three Puisne Judges are engaged ordinarily in matters in the Common Law and Criminal jurisdictions, the other Judges attending to matters in the Equity, Bankruptcy, Probate, and Matrimonial Causes jurisdictions.

A Puisne Judge must be a barrister of at least five years' standing, and his commission is dependent upon his good behaviour, revocable only upon address of both Houses of the Legislature.

Any Judge of the District Court, or any barrister or solicitor of at least seven years' standing, may be appointed as Acting Judge for a period not exceeding six months.

The year is divided into four terms, with two vacations; during the terms causes and matters in the various jurisdictions are considered and determined, but during the vacations only such applications are taken in chambers as are incidental to causes or are urgent matters. During vacation a Judge may exercise, in matters of exigency, all the powers of the Court, but any order made by him must be confirmed subsequently by the Court. All the necessary steps to prepare causes and matters for hearing may be taken at any time, except that between Christmas and the end of January steps in certain classes of business may be taken only by leave of a Judge. Except in certain specified cases the Prothonotary is authorised to make all orders that a Judge can make in Chambers.

The procedure and practice of the Court are defined by statute or regulated by rules which may be made by any three or more Judges.

COMMON LAW JURISDICTION.

Actions are tried usually before a judge and jury; but no jury is required where both parties consent to the cause being tried by a Judge alone, or where in accordance with the provisions of certain statutes the right to have a jury has been taken away. Ordinarily a jury consists of four persons but either party may require a jury of twelve. The jury find only as to the facts of the case, being bound by the ruling of the Judge on points of law. From the Court thus constituted appeal lies to the "Full Court," sitting *in Banco*, which is composed generally of at least three of the Judges. The Chief Justice, or in his absence the senior Puisne Judge, presides

over the Full Court, which gives its decision by majority. New trials may be granted where the Judge has erroneously admitted or rejected material evidence; where he has directed the jury wrongly on a point of law; where the verdict of the jury is clearly against evidence; or where, from some other cause, there has been a miscarriage of justice.

An appeal to the High Court may be made in cases where the amount involved exceeds £300, or, in any case, with the permission of the High Court.

Provision is made for appeal by a suitor to the Privy Council, subject to leave from the Supreme Court. The dispute must involve a minimum amount of £500. In other cases, application for leave to appeal must be made directly to the Privy Council.

The following table gives the number of causes set down and writs issued in the Supreme and Circuit Courts (Common Law Jurisdiction) during the last five years. The number of writs issued includes cases which were settled subsequently by the parties. During 1917 the total bills of costs amounted to £36,256 but from this a sum of £9,620 was taxed off, leaving the net costs at £26,636. The Court costs of taxation amounted to £538:—

Particulars.	1913.	1914.	1915.	1916.	1917.
Causes tried—					
Verdict for plaintiff	128	122	146	120	102
Verdict for defendant	39	32	43	32	36
Jury disagreed ... ..	.....	.....	.....	1	.....
Non-suit	11	4	4	8	10
Total	178	158	193	161	148
Not proceeded with	128	103	96	104	77
Referred to arbitration	6	5	.....	2	3
Total	312	266	259	267	228
Writs issued	2,842	3,103	2,884	2,677	2,304
Fees paid into Consolidated Revenue Fund	£ 9,227	£ 9,508	£ 9,510	£ 8,675	£ 7,925
Cost of litigation—					
Brought in at	43,031	52,030	44,549	39,673	36,256
Taxed off	12,906	18,454	11,986	11,317	9,620
Amount allowed	30,125	33,576	32,563	28,356	26,636
Court costs of taxation	580	675	649	596	538

The small number of causes set down for hearing in comparison with the number of writs issued indicates the extent to which judgment is obtained before trial or cases are settled out of Court.

The Commercial Causes Act, 1903, provided an expeditious method for the trial of commercial causes, which include matters relating to the ordinary transactions of merchants and traders, the construction of mercantile documents, affreightment, insurance, banking, and mercantile usages. The parties to a Supreme Court common law action may secure the Judge's order to have it brought upon the list of Commercial Causes, and from this order there can be no appeal. To secure speedy settlement in accordance with the aim of the Act the Judge is empowered to dispense with juries, pleadings, and technical rules of evidence, and with proofs of writing and documents, and to order inspections and admissions; he may also settle the issues for trial, and state a case on points of law for the Full Court.

ADMIRALTY COURT.

The Supreme Court of the State has been constituted a Colonial Court of Admiralty, with power to hear and determine matters which, prior to 1st July, 1911, had been determined by the Vice-Admiralty Court. During 1917, one cause for loss by collision and two for salvage were taken in the Admiralty Court.

SHERIFF'S OFFICE

The transactions of the Sheriff's Office during 1917 included the service of 1,430 writs of summons issued in the Supreme Court, as against 1,551 in 1916; the money value involved is not recorded. Other writs issued included 306 *fiери facias*, involving amounts aggregating £37,796, and fines and estreats, 274, amounting to £5,988 in value.

EQUITY JURISDICTION.

The Equity Act, 1901, consolidated enactments relating to the practice, procedure, and powers of the Supreme Court in matters calling for equitable relief, including the appointment of guardians of infants and the administration of their estates. Equitable relief may be given on an originating summons in respect of the construction of wills, foreclosure of mortgages, disputes between vendor and purchaser, and matters of account and administration. When the Judge in Equity has the assistance of two other Judges, the decision of the majority has the effect of a Full Court decision. The Court, in making binding declarations of right, may call for the assistance of actuaries, engineers, merchants, or any other persons; has power to grant injunctions or specific performance, or to award damages in addition to or in place thereof; and exercises all the powers of the Common Law Jurisdiction of the Supreme Court in deciding legal rights which arise incidentally; also the Court may delegate investigations to the Master in Equity, who is also the Master in Lunacy. There is an appeal to the High Court or Privy Council as in the case of Common Law matters. On 31st December, 1917, the Master in Lunacy held Trust Funds amounting to £282,839. The following is a statement of the transactions in Equity jurisdiction during the last five years:—

Year.	Statements of Claims.	Statements of Defence.	Petitions.	Summonses.	Motions.	Decrees, Orders, and Certificates.
1913	196	128	132	147	162	1,010
1914	222	122	87	153	204	1,100
1915	175	108	66	93	149	800
1916	180	107	84	132	152	980
1917	189	85	95	92	209	1,048

The amount of Trust Funds invested under Equity Jurisdiction in 1917 was £748,806, the investments being made at interest rates ranging from 3 to 6 per cent.

PROBATE JURISDICTION.

The jurisdiction of the Supreme Court in respect of the estates of deceased persons is vested in and exercised by the Probate Judge, formal duties in the granting of probates and letters of administration being delegated to the Registrar of Probates, subject to right of appeal to the Judge. In estates of less value than £300 the intervention of a solicitor is unnecessary; in 1917 probate or letters of administration were granted for 459 such estates valued at £66,649.

The number of probates and letters of administration granted by the Supreme Court in its testamentary jurisdiction for the last five years is

shown in the following table; the figures for the last four years include estates administered by the Public Trustee:—

Year.	Probates granted.		Letters of Administration.		Total.	
	Number of Estates.	Value of Estates.	Number of Estates.	Value of Estates.	Number of Estates.	Value of Estates.
		£		£		£
1913	3,011	10,716,922	1,268	1,038,627	4,279	11,755,549
1914	2,767	10,973,225	1,656	1,004,219	4,423	11,977,444
1915	3,028	10,703,553	1,762	1,282,750	4,790	11,986,303
1916	3,535	11,891,119	2,314	1,771,554	5,849	13,662,673
1917	6,036	12,583,840	2,083	1,477,852	8,119	14,061,692

These figures represent the gross values of estates, inclusive of those not subject to duty.

PUBLIC TRUST OFFICE.

On 1st January, 1914, the functions of the Curator of Intestate Estates were taken over by the Public Trustee, who may act as executor or trustee either by will or by appointment, also as agent or attorney.

The Public Trustee is not allowed to make profits, and the commission and fees chargeable against estates are arranged from time to time to produce an annual amount sufficient to defray working expenses. Special provision has been made for the deposit of wills with the Public Trustee, and transfers of property to him as Public Trustee are exempt from stamp duty.

In the following table is shown the business transacted at the Public Trust Office during the last five years:—

Particulars.	1914.	1915.	1916.	1917.	1918.
New estates administered—					
As administrator ...	1,256	1,790	2,110	3,187	4,353
As Executor or Trustee ...	21	86	80	101	135
As Attorney or Agent ...	2	8	21	27	37
	£	£	£	£	£
Amount received ...	174,750	266,277	323,966	438,995	711,000
Amount paid ...	150,774	205,181	337,524	413,641	601,878
Commission and fees ...	7,226	7,890	10,126	13,789	16,378
Unclaimed Money—					
Paid into Treasury ...	7,477	8,408	16,343	7,056	4,814
Subsequently claimed ...	3,210	783	448	562	274

BANKRUPTCY JURISDICTION.

Any person unable to meet his debts may surrender his estate for the benefit of his creditors, or the latter may apply for a compulsory sequestration under certain specified conditions, the case coming under the Bankruptcy Jurisdiction of the Supreme Court.

Certain of the powers vested in the Judge in Bankruptcy are delegated to the Registrar in Bankruptcy, and in country districts to Police Magistrates and Registrars of District Courts; but appeal from a decision of the Registrar, or of a District Registrar, lies to the Judge in Bankruptcy, who deals also with questions relating to priority of claims.

An official assignee, deputed by the Judge to manage the estates of insolvents, receives $2\frac{1}{2}$ per cent. commission on the amount realised, and $2\frac{1}{2}$ per cent. on the amount of dividends declared, and in some cases special remuneration awarded by the Court. Creditors may accept, and the Court endorse, a proposal for a composition, or for a scheme of arrangement, subject to the approval of a majority representing three-fourths of the value of all

approved claims. Such a proposal having been accepted, one or two trustees may be appointed in place of, or in addition to, the official assignee. After acceptance of a composition, or approval of a scheme of arrangement, a bankrupt's estate may be released from sequestration. Release may be effected when all creditors have been paid in full, or when they have given a legal quittance of the debts due. In other cases, a bankrupt may give notice, by advertisement, three months from the time of sequestration, of his intention to apply for a certificate of discharge, whereupon the Court receives a report from the official assignee, and may either grant or refuse an absolute order of discharge, suspend the operation of the order for a certain time, or grant an order subject to conditions respecting the future earnings or income of the bankrupt. Operations in the Bankruptcy Court are discussed in detail in the chapter of this volume relating to Private Finance.

The sequestrations during the year 1917 numbered 267; according to Bankrupts' Statements of Affairs, the liabilities of the estates sequestrated amounted to £227,663, and the assets to £208,093, thus leaving a deficiency of £19,570.

The Court Fees paid to the Treasury were £3,464.

DIVORCE AND MATRIMONIAL CAUSES JURISDICTION.

The Supreme Court of New South Wales has jurisdiction in divorce, dating from the Matrimonial Causes Act, 1873, under which the principal grounds for divorce were adultery on the part of the wife, and adultery and cruelty on the part of the husband. The present law is contained in the Matrimonial Causes Act, 1899, under which jurisdiction is vested in the Supreme Court in respect of all causes, suits, and matters matrimonial, excepting in respect of marriage licenses. Dissolution of marriage may be granted on petition as under—

Husband v. Wife.—Adultery, desertion, or habitual drunkenness and neglect of domestic duties, for three years; refusal to obey an order for restitution of conjugal rights; imprisonment for three years and upwards under sentence for at least seven years; conviction for attempt to murder or to inflict grievous bodily harm; repeated assaults and cruel beatings during one year preceding the date of the filing of the petition.

Wife v. Husband.—Adultery; desertion, or habitual drunkenness, coupled with neglect to support or cruelty, for three years; refusal to obey an order for restitution of conjugal rights; imprisonment for three years and upwards under sentence for at least seven years; imprisonment under frequent sentences aggregating three years, within a quinquennial period; conviction for attempt to murder or to inflict grievous bodily harm; repeated assaults and cruel beatings within one year of petition.

The petitioner must have been domiciled in the State at the time of instituting the suit, and in most cases must have been so domiciled for three years. No relief is, however, granted to a petitioner who has resorted to New South Wales for the purpose of instituting proceedings.

Judicial separation may be sought on grounds of cruelty or desertion without cause extending over two years, and nullity may be declared in cases of marriages which are void.

Suits may be instituted for the purpose of obtaining restitution of conjugal rights, and failure to comply with a decree made in such a suit is desertion upon which a suit for divorce may be brought. Marriages may be declared null and void on the grounds that the respondent is incapable of consummating it, that the parties to the marriage are within the prohibited degrees of consanguinity, or that the parties are unable to contract a valid marriage. Such inability may arise from one of the parties being already married, under duress, or under marriage age.

PETITIONS FOR DIVORCE, &c.

The first Divorce Act in New South Wales was passed in 1873.

The following statement shows the divorces, judicial separations, and decrees of nullity of marriage granted in New South Wales in the last five years :—

Year.	Divorces.		Judicial Separation granted.	Nullity of Marriage.	
	Decrees nisi.	Decrees absolute.		Decrees nisi.	Decrees absolute.
1913	360	313	9	3	4
1914	363	295	6	4	2
1915	408	346	6	...	3
1916	385	347	12	4	1
1917	433	372	13	5	3

In 1914 one decree for jactitation was granted.

The following statement shows the sexes of petitioners for divorce in the cases of decrees made absolute during the past ten years :—

Year.	Petitions for Divorce.		Year.	Petitions for Divorce.	
	Husband.	Wife.		Husband.	Wife.
1908	68	138	1913	129	184
1909	85	202	1914	125	170
1910	81	176	1915	132	214
1911	64	142	1916	132	215
1912	116	227	1917	143	229

The majority of petitions are lodged by the wife, the proportion being approximately 64 made by the wife to 36 lodged by the husband.

In regard to judicial separations during the same period, 9 were granted on petition of the husband, and 98 on petition of the wife.

The grounds of suits for divorce made during each year since 1913 were as follow :—

Ground of Suit.	1913.	1914.	1915.	1916	1917.
Adultery	97	102	108	99	102
„ coupled with bigamy, cruelty, and desertion	5	5	5	4	4
Attempt to murder	1	...	...	...	...
Cruelty and repeated assaults ... ..	...	...	2	...	...
„ „ habitual drunkenness... ..	6	5	3	7	10
Desertion	195	158	183	192	202
Habitual drunkenness and neglect to support	2	10	9	12	8
Habitual drunkenness and neglect of domestic duties ... ..	...	3	1	5	2
Imprisonment of husband for three years... ..	2	...	...	1	2
Non-compliance with order for restitution of conjugal rights	5	12	35	27	42
Total	313	295	346	347	372

As to the grounds in support of applications for divorce, the majority of petitions granted were made on issues of desertion, a lesser proportion including habitual drunkenness as a causative factor in the conditions upon which the application was based. The following statement shows the proportions of petitions based on these grounds, viz., desertion and habitual drunkenness, during the six years, 1912-1917 :—

Year.	Causes based on—		Other.	All Causes.	Year.	Causes based on—		Other.	All Causes.
	Desertion.	Drunkenness				Desertion.	Drunkenness		
1912	236	15	92	343	1915	218	13	115	346
1913	200	8	105	313	1916	219	24	104	347
1914	170	18	107	295	1917	244	20	108	372

It will thus be seen that 60 per cent. of divorces granted are allowed on these two counts. In cases of judicial separations, cruelty and repeated assaults are prominent factors.

The records for 1917 show that the average duration of the marriages dissolved was 12·7 years, and the average number of children per family was 1·5.

COURTS OF MARINE INQUIRY.

A Court of Marine Inquiry is constituted of one or more District Court Judges assisted by assessors appointed under the Navigation Act, who have power only to advise, and not to adjudicate, upon any matter before the Court.

Such a Court hears and determines inquiries as to wrecks, shipping casualties, charges of incompetency or misconduct of officers, and appeals and references under the Navigation Act. Inquiries held during 1917 numbered 7, of which 2 were as to collisions, 4 shipwreck, and one charge of misconduct against officers. The Courts found in four cases that blame was not attachable to any particular person; in 5 cases the master was exonerated; in 3 cases masters were found at fault, and one certificate was suspended; and in one case the mate was exonerated.

CRIMINAL JURISDICTION.

A Judge of the Supreme Court presides over the Central Criminal Court of Gaol Delivery held quarterly at Sydney, when all accused persons are tried by a jury of twelve, chosen by lot from the panel provided by the Sheriff. In capital cases the right to challenge, both by the Crown and by the accused, is limited to twenty jurors, except for cause shown; and in cases other than those in which the sentence of death may be imposed, whether felonies or misdemeanours, the number challenged may not exceed eight. At the close of the case for the prosecution, an accused person may give evidence on his own behalf without rendering himself liable to examination thereupon either by counsel for the Crown or by the Court, or make a statement in his defence. The Accused Persons Evidence Act, 1898, provides that it shall not be lawful to comment at the trial of any person upon the fact that he has refrained from giving evidence on oath on his own behalf. The verdict of the jury must be unanimous, and they may be detained until they give a verdict or are discharged by the Court. If no verdict is returned, the accused may be tried again before another jury.

CIRCUITS.

Formerly the Supreme Court Judges had sittings in various country towns as a Circuit Court, which was distinct from the Supreme Court, although

the powers and jurisdictions of the two Courts were practically identical. Since the Supreme Court and Circuit Courts (Amendment) Act of 1912, Circuit Courts have been abolished, and sittings of the Supreme Court in civil and criminal jurisdictions at country towns have been substituted. The places and times of such Courts are fixed by proclamations.

QUARTER SESSIONS.

The Courts of Quarter Sessions are held by Chairmen, who perform also the duties of Judges of the District Courts. There are six Chairmen of Quarter Sessions; two of these preside over the Courts in the metropolitan district, and one each in the following districts:—Southern and Hunter, south-western, northern, and western. All offences, except those involving the capital penalty, are within the jurisdiction of the Court. On the trial of prisoners at Quarter Sessions, at the request of the prisoner's counsel, the Chairman must reserve questions of law for the consideration of the Supreme Court.

CHARGES BEFORE HIGHER COURTS.

During the year 1917 there were 742 persons, viz., 680 men and 62 women, charged before the higher Courts of the State. The following table shows the results in the cases of these accused persons for 1916 and 1917 in comparison:—

Sex.	1916.			1917.		
	Charged.	Convicted.	Withdrawn, discharged, &c.	Charged.	Convicted.	Withdrawn, discharged, &c.
Males	1,236	751	485	680	602	78
Females	107	64	43	62	59	3
Total	1,343	815	528	742	661	81

Classifying accused persons according to the nature of the offences, it is found that, in cases both of males and females, offences against property are the most numerous. A statement is given below of the principal offences of the persons convicted in higher Courts:—

Offences.	1913.	1914.	1915.	1916.	1917.		
					Males.	Females.	Total.
Against the person	189	180	160	129	148	15	163
Against property	478	537	564	584	393	33	426
Forgery and offences against the currency	60	61	59	51	30	3	33
Against good order	11	7	11	4	3	...	3
Other offences	34	25	49	47	28	8	36
Total	772	810	843	815	602	59	661

POOR PERSONS' LEGAL EXPENSES.

Under the Poor Prisoners' Defence Act, 1907, any person committed for trial for an indictable offence may apply for legal aid for his defence before the jury is sworn. If the judge or committing magistrate considers that the person is without adequate means, and that such legal aid should be

supplied, the Attorney-General may arrange for the defence of the accused and for payment of expenses of all material witnesses.

The Poor Persons' Legal Remedies Act, 1918, authorises Judges to make rules regulating the practice and procedure, and the costs and fees payable in respect of proceedings to which poor persons are parties. Such proceedings may not be instituted without permission, and Judges to whom applications for permission are made are authorised to act as conciliators. The rules made under this Act do not apply to criminal proceedings.

LAND APPEAL COURT.

For the year ended 30th June, 1918, the cases referred to the Court numbered 44, of which 41 were referred by the Minister for Lands, and 3 by local Land Boards. Of the cases heard during the period, 16 resulted in the appeal being upheld, and 10 were sent back for rehearing, 13 were dismissed, and 3 were withdrawn.

HIGH COURT OF AUSTRALIA.

Under the Commonwealth Constitution Act, the judicial power of the Commonwealth, both in original and appellate jurisdiction is vested in the High Court of Australia. Its original jurisdiction extends to matters in which the Commonwealth is a party, or which lie between States or residents of States. Its appellate jurisdiction extends to the hearing and determination of appeals from all judgments, decrees, orders and sentences of any justice exercising the original jurisdiction of the High Court or any other Federal Court, or from judgments, &c., of the Supreme Court or any other Court of any State from which an appeal lay previously to the King in Council. The judgment of the High Court, in all such cases, is final, subject to the right of the Privy Council to grant leave to appeal to it; its sittings are held in the capitals of the States, as may be necessary. Hitherto the majority of actions brought before the High Court have related to its appellate jurisdiction.

APPELLATE JURISDICTION.

Courts having Appellate Jurisdiction are the following:—Courts of Quarter Sessions, the Supreme Court, the Full Court, the High Court of Australia, and, finally, the Privy Council. A Court of Criminal Appeal was established in 1912.

Courts of Quarter Sessions.

The right of appeal from Courts of Petty Sessions to Courts of Quarter Sessions lies against all convictions or orders by Magistrates, excepting adjudication to imprisonment for failure to comply with an order for the payment of money, for the finding of sureties for entering into a recognisance or for giving security, and orders for the payment of wages and convictions for breaches of discipline under the Seamen's Act, 1898. The Appeal Court rehears the cases, deciding questions of fact as well as of law.

The results of appeals from Courts of Petty Sessions during the last five years are shown below:—

Year.	Not concluded.	Conviction or order.			Total.
		Confirmed.	Varied.	Quashed.	
1913	9	291	58	104	462
1914	80	208	39	71	398
1915	93	240	55	89	477
1916	64	298	44	91	497
1917	93	305	34	106	538

Appeals to Supreme Court.

In connection with appeals from Magistrates and Wardens' Courts, applications for prohibition or mandamus are made either to a Judge in Chambers or to the Full Court; appeals from decisions of District Court Judges sitting in the Mining Appeal Court are made to the Supreme Court, and appeals by way of special case from Warden's Courts are determined by a Judge in Chambers.

During 1917, applications for writs of prohibition and mandamus numbered 26, of which 9 were to Judges in Chambers, and 17 to the Full Court. Writs granted were 12, viz., 3 of mandamus and 9 of prohibition.

The special cases numbered 13; decisions were sustained in 3 and reversed in 6 from the Magistrates' Courts, and one case was not proceeded with. Of appeals in Land cases, 2 decisions were sustained and one case was not proceeded with.

Appeals to Full Court.

In Common Law 20 cases were taken during 1917, all of which were civil cases, consisting of new trial motions; 7 were granted and 8 refused, and 5 were not proceeded with. There were 5 appeals in Equity; 3 were sustained and 2 disallowed. One appeal in Divorce was disallowed. There were no appeals in Bankruptcy or Probate. Appeals from District Courts numbered 7, of which 2 were allowed, 3 refused, and 2 were not proceeded with.

Court of Criminal Appeal.

The Court of Criminal Appeal was established by the Criminal Appeal Act of 1912, which prescribes that the Supreme Court shall be the Court of Criminal Appeal, constituted by three or more Judges of the Supreme Court as the Chief Justice may direct. Any person convicted on indictment may appeal to the Court against his conviction (1) on any ground which involves a question of law alone, or (2) with the leave of the Court or upon the certificate of the judge of the court of trial, on any ground which involves a question of fact alone, or of mixed law and fact, or any other ground which appears to the Court to be sufficient. A convicted person may also, with the leave of the Court, appeal against the sentence passed on conviction; in such appeal the Court may quash the sentence and substitute another either more or less severe.

In addition to determining appeals in ordinary cases the Court has power, in special cases, to record a verdict and pass a sentence, in substitution for the verdict and sentence of the court of trial; it may also grant a new trial, either on its own motion or on application of the appellant.

The result of appeals since the inception of the Court are shown hereunder:—

Year.	Applications to Judge.		Applications to Court.				Sentences Varied (included with Convictions Affirmed).
	Granted.	Refused.	Convictions.		New Trials Granted.	Total Cases.	
			Affirmed.	Quashed.			
1913	3	20	46	2	8	56	2
1914	1	18	42	4	...	46	1
1915	1	11	50	1	6	57	...
1916	3	12	55	6	12	73	2
1917	1	8	62	4	3	69	2

Appeals to High Court of Australia.

During 1917 appeals made from decisions of Judges of the Supreme Court of New South Wales were decided as follows:—In Common Law, 1 allowed; in Equity, 5 allowed and 3 dismissed.

In addition, appeals from the Full Court of the Supreme Court of New South Wales numbered 11, of which 5 were allowed, 5 dismissed, and 1 settled. Six appeals from assessments under the Federal Land Tax Assessment were allowed.

Eight applications for leave to appeal from judgments of the Supreme Court of New South Wales were refused, and 3 appeals from a Magistrate exercising Federal jurisdiction were dismissed.

Appeals to Privy Council.

During 1917, one application for leave to appeal in Common Law was granted, and one appeal to the Privy Council was dismissed and one not concluded, and 2 in Admiralty (in Prize) were dismissed.

WOMEN'S LEGAL STATUS.

The Women's Legal Status Act, 1918, provides that women shall not by reason of sex be disqualified from holding any of the following positions:—Member of the Legislative Assembly, Mayor or Member of a Local Government Council, judge of the Supreme Court or of a District Court, chairman of Quarter Sessions, stipendiary or police magistrate, justice of the peace, barrister or solicitor of the Supreme Court, or conveyancer.

SOLICITORS AND BARRISTERS.

A solicitor has the right of audience in all Courts of New South Wales, and the Supreme Court may suspend or remove from the roll any solicitor who has been guilty of misconduct or malpractice.

A candidate seeking admission as solicitor in New South Wales, provided he has not been admitted in the United Kingdom, or in any State of Australia, must have qualified by passing examinations as outlined elsewhere in this Year Book. A solicitor who ceases to practise for two years continuously is allowed to resume practice only under an order from the Court; and a barrister who has been in practice for five years, having caused himself to be disbarred, may be admitted as a solicitor without examination.

The Board for admission of barristers consists of the Judges of the Supreme Court, the Attorney-General, and two elected members of the Bar. Applicants for admission must have been students-at-law for three, or, in the case of graduates, for two years, and have passed all prescribed examinations. A solicitor who has been in practice for at least five years, and who has removed his name from the roll of solicitors, may be admitted as a barrister without examination.

At the end of 1918 there were 169 barristers practising in New South Wales, and the number of solicitors was 1,058; of the latter, 629 were in the Metropolis.

PATENTS.—COPYRIGHTS.—TRADE MARKS AND DESIGNS.

The administration of the statutes relating to Patents, Copyrights, Trade Marks and Designs devolves upon the Federal authorities, and a patent granted under the Commonwealth law is thus afforded protection in all the States, and in the Territory of Papua, for fourteen years. The copyright in a book, the performing right in a dramatic or musical work, and the lecturing right in a lecture, continue for the author's life and fifty years after his death. The British Copyright Act, subject to certain modifications, is in force in the Commonwealth under the Copyright Act, 1912.

The registration of a trade-mark protects it for fourteen years, but may be renewed from time to time. An industrial design may be protected for five years, and the period extended to fifteen years, provided it is used in Australia within two years of registration.

Under the various Federal acts, arrangements may be made for the protection in other countries of patents, copyrights, trade-marks, and designs. In all cases the rights of holders under the legislation of a State were conserved.

The Patents Trade Marks and Designs Act, 1914-15, empowers the Minister to suspend the registration of any patent or trade mark, the proprietor whereof is a subject of a State at war with the King; a large number of such registrations have been suspended in favour of the Minister for Trade and Customs, and other persons approved by the Attorney-General of the Commonwealth.

POLICE AND PRISON SERVICES.

POLICE FORCE.

In 1917 there were 672 police stations and a force numbering 2,596 was maintained under the immediate control of an Inspector-General. The following statement shows the distribution of the establishment at 31st December, 1917:—

Classification.	Inspector Gen. and Superin- tendents.	In- spectors.	Ser- geants.	Con- stables.	De- tectives.	Track- ers.	Total.
Police : General	15	59	559	1,832	...	39	2,504
Detective ... ..	...	3	14	13	11	...	41
Water ... ..	...	1	9	23	...	...	33
Traffic	1	1	5	11	...	...	18
Total	16	64	587	1,879	11	39	2,596

In addition to the above, there are five women attached to the police stations as searchers.

Two women police were appointed during 1915; they perform useful duty in regard to women and children.

The Police Regulation (Superannuation) Act, provides that the age of retirement from the police force shall be 60 years, except in the case of the Inspector-General of Police. Under certain circumstances, however, any member of the force may be retained until he reaches the age of 65 years.

The following statement shows that the increases in the strength of the police establishment, exclusive of trackers, have not been proportionate to the extension of population; the ratio of one policeman to 640 inhabitants in 1906 has changed gradually, so that in 1917 the ratio was one policeman to 739 inhabitants:—

Year.	Police.*	Inhabitants to each Policeman.	Year.	Police.*	Inhabitants to each Policeman.
1896	1,874	682	1913	2,582	710
1901	2,172	635	1914	2,627	709
1906	2,342	640	1915	2,613	716
1911	2,487	683	1916	2,586	718
1912	2,554	696	1917	2,557	739

*Exclusive of Trackers.

REGULATION OF TRAFFIC.

In the metropolitan district the Traffic Police inspect public vehicles, test taximeters, regulate and control the use of motor vehicles upon public streets, besides exercising a general control over all street traffic. The number of persons taken to hospitals by the police in the Metropolitan District as the result of accidents, or illness in the streets, was 1,013.

As regards the services of the police in cases of accident, it is of interest to note that of the total police force of 2,557 men, 625 held First Aid Certificates, and 271 Life saving Certificates.

Traffic Licenses.

The following table shows licenses granted for vehicles and drivers under the Metropolitan Traffic Act and the Motor Traffic Act during the years 1916 and 1917 :—

License.	1916.	1917.	License.	1916.	1917.
Metropolitan Traffic Act—			Metrop. Traffic Act— <i>ctd.</i>		
Horse cab... ..	708	706	Motor-van driver ...	47	69
Motor cab... ..	268	311	Horse-bus driver ...	43	46
Horse van	1,442	1,457	Motor-bus driver ...	21	57
Motor van	32	44			
Horse omnibus	28	26	Motor Traffic Act—		
Motor omnibus	12	28	Motor vehicle	15,020	18,844
Horse-cab driver	779	772	Motor vehicle driver ...	22,598	27,958
Motor-cab driver	387	481	Motor cycle	7,070	8,087
Horse-van driver	1,620	1,690	Motor cycle rider	9,444	10,967

The revenue obtained under the Metropolitan Traffic Act was £3,486 in 1916 and £3,879 in 1917.

The revenue obtained under the Motor Traffic Act was £24,083 in 1916, and £29,986 in 1917. In 1914 an Act was passed imposing a tax on motor vehicles. The revenue obtained from this source in 1917 amounted to £73,854.

PRISONS.

Grading of Establishments.

The prison establishments are graded with a view to the concentration of prison population in institutions large enough to ensure efficiency of supervision with economy of administration, and the maintenance of a strict and disciplinary organisation conducive to the highest ideals of reform.

The State Reformatory for Women at Long Bay is occupied by prisoners of all classes, and the State Penitentiary for Men at Long Bay is used as a place of detention for incapables from the city, and as a centre from which long-sentence prisoners are distributed to the principal country establishments, while at the police gaols and lock-ups are detained only prisoners with sentences of less than fourteen days. The Prisoners' Afforestation Camp, Tuncurry, receives selected prisoners (first offenders) after portion of their sentence has been served; and at the Emu Plains Prison Farm, young industrious prisoners, with suitable qualifications are treated on somewhat similar lines.

Classification of Prisoners.

In all the large establishments an inter-classification system is operative which assures the segregation of the inmates in various classes as to age and conduct.

For several years the principle of restricted association has been in operation, and has yielded results which demonstrate its success. Under present conditions association while at work, at exercise, and at religious instruction, is subject to the closest supervision. Cells are lighted, and literature is provided from the prison libraries.

PRISON POPULATION.

At the end of 1917 there were in New South Wales 26 gaols; of these, 5 were principal, 7 minor, and 14 police gaols.

The number of prisoners in gaol, exclusive of Inebriates, at the close of each year, during the last five years, will be found below:—

Year.	Under Sentence.		Awaiting Trial.		Total.		
	Males.	Females.	Males.	Females.	Males.	Females.	Total.
1913	1,295	161	86	9	1,331	170	1,551
1914	1,497	146	86	11	1,583	157	1,740
1915	1,397	185	83	6	1,485	191	1,676
1916	1,251	200	64	10	1,315	210	1,525
1917	1,155	138	81	4	1,236	142	1,378

The following comparison shows that though the general population has more than trebled since 1875, the gaol population has decreased by 5 per cent. The gaol entries shown in the table represent convicted persons, persons awaiting trial, debtors, naval and military offenders, and persons on remand:—

Year.	General Population at 31st December.	Gaol Entries during Year.	Gaol Population at 31st December.	
			Number.	Per 1,000 of General Population.
1875	594,297	11,832	1,453	2.44
1885	949,570	20,740	2,562	2.70
1895	1,262,270	18,552	2,460	1.95
1905	1,469,153	13,380	1,678	1.14
1910	1,638,220	9,849	1,323*	.81
1915	1,870,415	10,928	1,676*	.90
1916	1,857,920	9,999	1,525*	.82
1917	1,889,129	8,169	1,378*	.73

* Exclusive of inebriates detained.

TERMS OF SENTENCES.

The following statement shows the terms of sentences of convicted persons received into penal establishments during the year 1917 :—

Term of Sentence.	Males.	Females.	Total.
1 month and under	2,526	1,073	3,599
From 1 to 3 months	1,007	393	1,400
„ 3 to 6 „	519	107	626
„ 6 to 12 „	203	14	217
„ 1 to 2 years	153	4	157
„ 2 to 5 „	114	2	116
„ 5 to 10 years	15	1	16
Death and Death recorded	8	...	8
Unspecified	283	2	285
Total	4,828	1,596	6,424

Cumulative sentences have been taken as in the aggregate, and concurrent sentences as equal to the longest term. It is noticeable that 56 per cent. of sentences are for periods not exceeding one month; and 91 per cent. do not exceed one year. The majority of short sentences have been imposed for breaches of good order, the imprisonment being served in default of fines.

On 31st December, 1917, there were 59 men serving life sentences and 23 men sentences of various periods over 10 years. In most of these cases the sentences have been imposed by the Executive authority in lieu of capital punishment. A "Life Sentence" does not mean any fixed term, but a prisoner may petition for release after serving twenty years; if at the time of conviction his expectation of life is less than twenty-two years, the date of petition is in accordance with a fixed scale.

Prisoners Released on License.

Persons eligible for remission of sentence for good conduct and industry may be released on license to be of good behaviour.

Licenses operate for the unexpired portion of the sentence and sureties are required. The licensee is required to report periodically, and a breach of the conditions of release may be punished by the cancellation of the license, and recommitment to gaol for the balance of the sentence. During 1917 licenses were granted to 466 men and 31 women.

IMPRISONMENT IN LIEU OF FINE.

Imprisonment for non-payment of an amount adjudged to be paid on order of a Justice may be curtailed by payment of a portion of the fine, for which a proportionate part of the sentence may be remitted, and provision is made

for the payment of fines in instalments. The following table shows the extent to which diminution in the term of confinement was commuted by money payment during the past five years :—

	1913.	1914.	1915.	1916.	1917.
Persons committed to gaol in default of payment of fines	6,016	6,299	5,050	4,403	3,732
Prisoners subsequently released after paying portion of fines	1,407	1,461	1,193	1,082	876
Days prisoners would have served if portion of fines had not been paid ...	46,031	57,914	40,505	47,824	27,322
Days remitted by part-payment of fines ..	32,042	25,134	25,950	23,054	17,864
Amount received at gaol as part-payment of fines £	3,387	3,343	2,913	2,721	2,253

In the year 1917, 58 per cent. of the total persons received into gaol were detained in default of payment of fines at the lower courts; 876 subsequently obtained release by paying part fines proportionate with unserved balance of sentence, and an amount of £2,253 was received at the gaols.

IMPRISONMENT FOR DEBT.

During 1917, 27 men and 1 woman were imprisoned for debt, but the time of detention, as a rule, extended over a short period, and the number of debtors in confinement at any given time was not large. At the end of the year 1917 there was one debtor in gaol.

CAPITAL PUNISHMENT.

The following table shows the total number of death sentences pronounced, and sentences of death recorded, also executions during the years 1912-1917 :—

Year.	Death Sentences Pronounced and Sentences of Death Recorded.	Executions.	Year.	Death Sentences Pronounced and Sentences of Death Recorded.	Executions.
1912	9	1	1915	9	...
1913	10	...	1916	5	2
1914	13	...	1917	8	2

SPECIAL TREATMENT.

Upon the recommendation of the Judge before whom they have been tried, prisoners convicted of a misdemeanour under sentence of imprisonment without hard labour may be placed in a special class and treated similarly to those confined under civil process. Such prisoners are segregated and are allowed privileges regarding food, clothing, &c.

First Offenders.

When any person, not previously convicted of an indictable offence is convicted for a minor offence and sentenced, the Court may suspend the sentence upon a recognisance, without sureties, for good behaviour during the period covered by the sentence, the probationary term being, however, not less than one year. An examination is made for purposes of

identification, and the offender is required to report himself periodically. If his conduct be not satisfactory he becomes liable to imprisonment for the unexpired portion of the sentence; but good behaviour during the whole probationary period will cancel the conviction.

During 1917, there were 303 persons, viz., 219 at Magistrates', and 84 at Higher Courts, released as first offenders; of these, 236 were men, and 67 women. These figures do not include children released on probation from the Children's Court, under the Neglected Children and Juvenile Offenders Act, 1905.

The records of 661 persons convicted at the higher courts during 1917 show that 342 had not been convicted previously.

At Goulburn Gaol special reformatory treatment is provided for first offenders—useful employment, educational facilities, physical drill, and strict classification in order to prevent the association of prisoners of vicious tendencies. That this plan is an important factor in the deterrent influence of the prison system, is evinced by the small proportion of re-convictions of prisoners passing through the treatment.

Youthful Offenders.

In England, the ages between 16 and 21, or in certain cases 23 years are regarded as the critical period during which temptation is hardest to resist, and young offenders may reap most benefit from disciplinary and moral influences and industrial training. In New South Wales the upward limit is set at age 25, and a strict line of demarcation is drawn between offenders over and under that age. Offenders under age 25 are classified in age-groups, also according to length of sentence over or under 12 months, and divisional treatment is accorded. Special disciplinary, scholastic, religious, physical training and industrial courses are provided, for the last of which facilities in the form of workshops are available. Great discrimination and special care are necessary to prevent such youthful offenders from becoming confirmed criminals.

Maintenance Confines.

The Deserted Wives and Children Amending Act, 1913, empowers the Comptroller-General of Prisons to direct a prisoner committed to prison under the Deserted Wives and Children Act, 1901, or the Infant Protection Act, 1904, to perform any specified class of work. An estimate is made of the value of the work performed, and after a deduction for the prisoner's keep, the remainder is applied towards satisfaction of the order for maintenance under the Deserted Wives and Children Act 1901, or for maintenance or expenses under the Infant Protection Act, 1904.

During 1917 the number of maintenance confinees received into gaol was 245, as compared with 238 in the previous year.

WOMEN IN PRISONS.

In August, 1909, the State Reformatory for Women was opened at Long Bay, and to this central institution are sent all prisoners from the metropolitan district, and all long-sentence prisoners from extra-metropolitan districts. At Long Bay an exhaustive system of classification is in force, accommodation being provided by means of 290 separate rooms.

During 1917, 1,787 women were received and 1,855 discharged from Long Bay, the number remaining at end of the year being 133.

The industrial activity of the institution resulted in an output of manufactures, which, with the work of gardening and domestic services, was valued at £2,176. During 1917 the daily average at the Long Bay State Reformatory for Women was 170; and 2 prisoners were punished for breaches of regulations.

In 1917, at all gaols of New South Wales, 1,596 female prisoners were received under sentence, the daily average number, including untried prisoners, being 178.

Approximately 67 per cent. of the women received at all gaols were committed on sentences of one month and less, and consequently presented little opportunity for the application of reformatory measures.

HABITUAL CRIMINALS AND PREVENTIVE DETENTION.

The Habitual Criminals Act, 1905, empowers a judge to declare as an habitual criminal any person convicted for the third or, in some cases, the fourth time, on account of certain criminal offences, as specified in the Act. A definite sentence is served on account of the offence charged, and subsequently the offender is detained for an indefinite term, until he is deemed fit for freedom.

This system of treatment acts as a deterrent to the existence of professional criminals, and moreover confers an incalculable benefit on society by removing the force of example of criminality. The benefits accruing from the system of indeterminate sentences, as initiated in New South Wales, have led to its adoption in other communities.

Three men were declared to be habitual criminals during 1917—making a total of 71 men and 1 woman so declared since the inception of the Act. Of this number, 36 men and 1 woman were released on probation, 7 being recommitted to gaol, 5 died, 3 were released on medical grounds, 2 were removed to the Hospital for Criminal Insane, and in 7 cases the declaration of an habitual criminal was remitted. At the end of 1917 there were under detention 13 men who had not yet completed the definite period, and 12 men who had passed into the indeterminate stage.

On the completion of the definite term under the ordinary prison regulations, the habitual criminal passes to the indeterminate stage, which is divided into three grades—intermediate, higher, and special; a minimum period of 4 years and 8 months must be spent in the lower grades before the prisoner can gain admission to the special grade wherein cases may be brought under consideration with a view to release. At the end of 1917, ten prisoners were in the intermediate grade, and two were in the higher grade.

An important proviso of the Habitual Criminals Act prescribes that while under detention as an habitual criminal every prisoner must work at some useful trade, and receive at least one-half of the proceeds of his work. As the majority of these persons have not been trained in any branch of skilled labour, facilities are afforded them, while serving the definite term, to acquire training in some remunerative employment.

DRUNKENNESS.

During 1917 the total convictions for drunkenness numbered 17,459. The following table shows the total convictions—that is cases in which convictions were recorded, not distinct persons convicted—during each of the last ten years, and their ratio to the mean population. In September, 1916, a new method of dealing with persons charged with drunkenness was adopted in the metropolitan police district. Such persons may now be released upon depositing an amount equal to the usual penalty imposed, and in the event of non-appearance at the Court the deposits are forfeited and no further action is taken. In 1916 there were 446 cases (407 men and 39 women) and in 1917 there were 3,443 cases (3,130 men and 313

women) in which bail was estreated. These have been excluded from the table :—

Year.	Total Convictions.			Convictions per 1,000 of—		
	Males.	Females.	Total.	Male Population.	Female Population.	Total.
1908	23,730	4,087	27,817.	29.59	5.49	18.00
1909	23,616	3,747	27,363	28.86	4.94	17.35
1910	24,450	2,930	27,380	29.10	3.78	16.94
1911	26,295	3,004	29,299	30.28	3.77	17.60
1912	29,264	3,456	32,720	32.05	4.19	18.82
1913	29,153	3,314	32,467	30.65	3.86	17.94
1914	30,135	3,073	33,208	31.04	3.48	17.92
1915	23,224	2,639	25,863	24.16	2.91	13.84
1916	20,579	2,438	23,017	21.89	2.63	12.33
1917	15,421	2,038	17,459	16.63	2.15	9.31

It will be seen that there has been a decided decrease in the convictions of women; this has been most marked in the years immediately succeeding the enactment of the Liquor Amendment Act of 1905, and the establishment of State institutions for treatment of inebriates in 1907. There is no doubt that the proportions have been appreciably lowered by the detention of women who, though few in number, swelled the record of cases by repeated convictions on the charge of drunkenness.

With regard to the men, the rate in 1917, viz., 16.63 per 1,000, was the lowest during the period. The offences of soldiers, dealt with by military authorities, are not included in these figures.

THE TREATMENT OF INEBRIATES.

The Inebriates Act was designed to provide treatment for two classes of inebriates—those who have been convicted of an offence and those who have not in this way come under the cognisance of the law.

For the care and treatment of the latter class, the Act authorises the establishment of State institutions under the control of the Inspector-General of Insane. Judges, police magistrates, and the Master-in-Lunacy may order that an inebriate be bound over to abstain, or that he be placed in a State or licensed institution, or under the care of an attendant controlled by the Master-in-Lunacy, or of a guardian, for a period not exceeding twelve months. Provision is made also to enable an inebriate to enter voluntarily into recognisances to abstain.

With regard to inebriates of the criminal class, the records of the State over a period of years show that practically half the persons who constitute the gaol population at any given date have commenced their criminal career on a charge of drunkenness, and there are many offenders frequently convicted on this charge for whom the short sentence or the imposition of a fine is quite useless as a deterrent.

To meet such cases the Acts provide that where an inebriate is convicted of an offence of which drunkenness is a factor, or, in certain cases, a contributing cause, he may be required to enter into recognisances for a period not less than twelve months, during which he must report periodically to the police; or he may be placed in a State institution under the direction of the Comptroller-General of Prisons.

Any person detained in a State institution may be released on license, the conditions imposed on the licensee being good behaviour and abstinence for a stated period; if re-convicted within a year an inebriate may be committed to an institution for a period ranging up to three years.

Special provision has been made at the State Penitentiary for men, and at the State Reformatory for women, detained under the Inebriates Act, who have been convicted previously for other offences; since March, 1915, those of the non-criminal class have been treated at a separate establishment, the Shaftesbury Inebriate Institution.

In 1917 arrangements were made for the admission of voluntary paying patients to the Shaftesbury Institution; these patients may, under certain conditions, leave the Institution daily to follow their usual occupation. During 1917 11 men and 5 women were admitted as voluntary patients, and 4 men were remaining on 31st December.

Transactions at State Inebriate Institutions.

The power of detaining inebriates in State Institutions was first exercised in 1907, and the majority of admissions have been of chronic offenders over 40 years of age who for many years prior to admission had served frequent sentences under the repeated short sentence system, and who in consequence had drifted into a condition from which reformation seemed almost hopeless. In view of this fact the results attained by the operation of the Acts may be considered encouraging.

During the period dating from the first reception in August, 1907, to 31st December, 1917, the total number of original receptions amounted to 713—322 men and 391 women; 943 licenses for release were issued—366 to men, and 577 to women; 137 issued to men, and 259 to women, have been cancelled, and the licensees recommitted to institutions.

At the beginning of the year 1917 there were, exclusive of voluntary patients, 54 persons (23 males and 31 females) in custody at the inebriate institutions; 73 were received during the year, 8 were discharged, and 71 released on license, leaving 48 at the end of the year.

Of the 71 persons released on license during 1917 from the institutions, 29 obtained employment, 23 were admitted to homes, 1 to hospital, 17 were released to care of friends, and 1 was sent to other States.

The total expenditure on inebriate institutions during the year amounted to £2,328.

INDUSTRIAL ACTIVITY IN PRISON ESTABLISHMENTS.

Ability to perform useful and remunerative labour is recognised as of equal importance with good conduct in demonstrating fitness for freedom; and to encourage some degree of skill, employment at industries calculated to inspire interest, and subsequently to prove remunerative, is provided under the supervision of competent instructors.

In 1917 the value of prisoners' labour amounted to £50,583, viz.: manufactures for gaols £14,553, and for other Government departments £13,080; in buildings £10,984, and domestic employment £11,966.

Agriculture and Out-door Work.

Where land is available, considerable attention is given to agriculture, and offenders under age 25 are specially detailed for this work, which from its nature is recognised as particularly conducive to physical and moral improvement.

A Prison Farm, containing about 107 acres, has been established on the banks of the Nepean River at Emu Plains, where selected first offenders under the age of 25 years are given training in vegetable-growing and in general farm work.

Afforestation by Prisoners.

The efficiency of the system of tree planting by prison labour as carried on in New Zealand has led to its inauguration in New South Wales.

Owing to the slow growth of the native trees in New Zealand afforestation has been adopted, but in New South Wales, where the hardwoods and inland cypress pines reproduce naturally, re-afforestation is the most suitable method.

The site chosen for the prisoners' camp is near Tuncurry, in the North Coast district, where an area of 6,000 acres was selected. Operations were commenced in October, 1913, and 563,000 pine trees have been planted. To the 31st December, 1917, 205 prisoners had been sent to the camp and 185 had been discharged, the number reconvicted being 15.

BREACHES OF PRISON REGULATIONS.

A Visiting Justice is appointed to visit each prison at least once in every week, and Judges of the Supreme Court and Justices of the Peace may at any time visit and examine any prison. The Visiting Justice is empowered to hear and determine all complaints made against a prisoner for disobeying the rules of the gaol, or for having committed any offence, and to pass sentence of solitary confinement for a term not exceeding seven days. Drastic forms of punishment have been replaced by a policy of deprivation of privileges, and experience shows that the latter method is effective. No corporal nor "dark-cell" punishments have been inflicted for prison offences in New South Wales since May, 1900.

The punishments imposed for breaches of prison regulations affect only 1 per cent. of the total number of prisoners received into the gaols during the year 1917; of a total of 166 breaches, 3 were cases of violence to officers, and 19 of idleness. This satisfactory record is attributed to the fact that as far as practicable all the prisoners have been engaged in strenuous manual labour.

SICKNESS AND MORTALITY IN GAOLS.

Visiting surgeons are attached to the various important establishments of which the sanitation and hygiene are on modern lines. Among the persons received into the institutions are included many whose physical condition is deplorable, persons in the last stages of disease, and aged and infirm persons, for whom a hospital or asylum is the befitting destination. Prisoners suffering from tuberculosis receive special treatment.

The medical statistics of prisons show that, with an average daily number of 1,429 inmates during 1917, the total number of cases of sickness treated in hospital was 473; 11 prisoners died, and 36 were released on medical grounds. The death rate per 1,000 of the average number of inmates was 7.6.

INSANITY IN GAOLS.

During 1917, 42 cases of insanity were diagnosed among the gaol inmates; of which number 30 showed symptoms on reception, and 7 developed them within one month of admission. Thirteen prisoners were sent to observation wards, 63 persons were received for protection or on charges of mental defectiveness, and 6 were received suffering from the effects of alcoholism.

CONTAGIOUS DISEASES.

Under the Prisoners Detention Act, 1908, prisoners found to be suffering from certain contagious diseases may be detained in Lock Hospitals attached to the gaols. In cases of imprisonment without option of fine, a stipendiary magistrate may cause the prisoner to be detained until certified by the medical officer as free from disease even after the definite sentence is served; but in the case of imprisonment in lieu of payment of a fine, the Act did not provide for detention beyond the specified term of imprisonment.

Owing to this limitation of the Act, no less than 525 cases, or more than 28 per cent., were discharged from prison while possibly in a contagious state. In 1918, however, an Act was passed to remedy this defect, and all such prisoners may now be treated in the Lock Hospitals until free from contagion.

During 1917, orders for detention in the Lock Hospitals were obtained in the cases of 56 men and 50 women, and, in addition, treatment was given to 68 men and 21 women, for whom orders were not obtained; 37 men and 17 women were discharged uncured.

FUGITIVE OFFENDERS AND EXTRADITION.

The Imperial statutes in force in New South Wales for the surrender of fugitive criminals are the Fugitive Offenders Act, 1881, and the Extradition Act.

Under the Fugitive Offenders Act, 1881, provision is made for the surrender from the United Kingdom to a British possession or *vice versa*, or from one British possession to another, of fugitives charged with the perpetration of crimes which, in the part of His Majesty's dominions where they are committed, are punishable by a minimum penalty of imprisonment with hard labour for twelve months. Persons apprehended under this Act are brought before a Magistrates' Court, and their cases are included in the figures relating to the business transacted at such courts.

During 1917, 29 persons—26 males and 3 females—were arrested in other countries as fugitive offenders, and returned to New South Wales. Of these 4 were discharged, 3 were summarily convicted, and 12 were committed to higher courts; in 7 cases maintenance orders were made, and the remaining cases were otherwise treated.

The number of persons arrested in New South Wales during 1917 as fugitives from other parts of the British Empire was 31, of whom 29 were males. Of the total, 27 were remanded to other States of the Commonwealth and 2 to New Zealand; and one was discharged.

The Extradition Act provides for the surrender to foreign States of persons accused or convicted of committing crimes within the jurisdiction of such States, and for the trial of criminals surrendered to British dominions. Treaties for the extradition of fugitives subsist between the United Kingdom and the majority of foreign countries. In proceedings taken in New South Wales under the Extradition Act the fugitive may be brought before a Stipendiary or Police or Special Magistrate, who hears evidence on oath, and, if satisfied, makes out a warrant for the extradition. At the hearing, the Consul for the country of which the person charged is a subject, the Crown Solicitor, and the Inspector-General of Police are represented. If a warrant be granted, the prisoner is detained for fifteen days prior to extradition, during which interval he may apply to the Supreme Court for a writ of *habeas corpus*. During the year 1917 there was one extradition to New Caledonia.

PREVENTION OF INFLUX OF CRIMINALS.

In the Commonwealth Immigration Act, 1912, special clauses have been inserted vesting powers in the States to prevent the landing of criminals.

AUXILIARY AGENCIES.

The Prisoners' Aid Association assists released persons to find suitable employment, acts as trustees of gratuities and moneys earned while in prison, and assists first offenders with advice or help in obtaining sureties; and the principal religious bodies delegate special officers for police court duty.

Upon external agencies depend the provision of lectures, entertainments, &c., at the various institutions, but religious and educational work, as already noted, are functions of the system.

The *Compendium*, a monthly newspaper for issue to well-conducted prisoners in the gaols of New South Wales, has been published since 1912. This paper is edited and compiled under the supervision of the Comptroller-General of Prisons.

COST OF POLICE AND PRISON SERVICES.

The following table shows the amount expended in maintaining the police and prison services of New South Wales during the last five years, also the amount of fines paid into the Consolidated Revenue, and the net return from prison labour :—

Expenditure and Revenue.	1913.	1914.	1915.	1916.	1917.
Expenditure—	£	£	£	£	£
*Police	574,806	581,044	579,225	575,367	622,532
Penal establishments	106,825	113,305	103,843	102,641	97,983
Total	681,631	694,349	683,068	678,008	720,515
Revenue—					
Fines paid to Consolidated Revenue	29,868	31,350	27,741	28,640	27,451
Net value of prison labour of a productive character	22,614	28,978	38,482	41,904	38,645
Total	52,482	60,328	66,223	70,544	66,096
Net Expenditure	629,149	634,021	616,845	607,464	654,419
Per Head of Mean Population—	s. d.	s. d.	s. d.	s. d.	s. d.
Police	6 4	6 0	5 11	5 10	6 4½
Penal establishments	0 11½	0 11½	0 8½	0 7¾	0 7½

* Financial year ending 30th June.

AGRICULTURE.

In New South Wales the cultivation of plants indigenous to cold, temperate, and even tropical regions is possible, on account of the wide range of climate and the diversity of fertile soils of varying characteristics in well-defined regions of coast, tableland, slopes, and plain.

Very few parts of the State are so barren or so little watered as to be unsuitable for cultivation, though the country best adapted to farming operations is situated in the Eastern and the Central Land Divisions. The ample rainfall within this region favours the successful cultivation under ordinary conditions of about 50,000,000 acres. Wherever methods of irrigation are capable of application, semi-arid districts have proved fertile. There is, of necessity, a limit to the possibilities of efficient irrigation, but New South Wales has entered only upon the experimental stage.

The rainfall of the Western Land Division is uncertain, and no reliance can be placed upon attaining payable results from agricultural pursuits; moreover, from the point of view of the grazier regarding outlay, results, and markets, the pastoral industry presents superior attractions in this part of the State.

The statistics shown in this chapter are inclusive of figures relating to the Federal Capital Territory.

AREA UNDER CULTIVATION.

During the season 1917-18 an area of 5,850,341 acres, including grassed lands, was under cultivation, of which total the area under crops contained 4,460,701 acres, and that sown with grasses, 1,389,640 acres.

The progress of cultivation since 1891 is shown in quinquennial periods in the following table :—

Seasons ended June.	Average Area under—		Acres per Inhabitant under—	
	Cultivation, including Grasses.	Crops.	Cultivation.	Crops.
	acres.	acres.		
1891-95	1,398,199	1,048,554	1·18	0·88
1896-1900	2,252,649	1,894,857	1·73	1·46
1901-05	2,942,506	2,436,765	2·10	1·74
1906-10	3,575,873	2,824,253	2·34	1·84
1911-15	5,187,850	4,025,165	2·87	2·23
1916	7,041,934	5,794,835	3·77	3·10
1917	6,520,187	5,163,030	3·51	2·77
1918	5,850,341	4,460,701	3·10	2·36

Prior to 1891, exceedingly slow progress was made in agricultural development; the average cultivation per inhabitant in 1891-5, even including grass lands, was only a little over 1 acre, and the total area under crop did not reach a million acres until the season 1892-3. During the next six seasons expansion was considerably accelerated, and the recorded area increased to 2,000,000 acres. Since 1899 the rate of growth has been markedly slower; but for the season 1915-16 the area amounted to 7,041,934 acres, an advance of 2,604,710 acres, or 58·7 per cent., over 1911. The increase was due mainly to the patriotic response of the agricultural community to the appeal from the Imperial authorities for an increased supply of wheat, in order to carry on the war efficiently, to the favourable ploughing

seasons, to the high prices of agricultural produce, and to the subdivision of large estates. The wheat yield was abnormally high, namely, 66,764,910 bushels, exceeding by 28,744,529 bushels that of 1914, the highest previous record, when the yield was 38,020,381 bushels. Unfavourable conditions in the following seasons caused a considerable diminution in the area sown for wheat, and the total area under cultivation was reduced by 521,747 acres in 1916-17, and further by 669,846 acres in 1917-18.

The following statement gives particulars of the area under crops in the seasons 1897-98, 1907-08, and 1917-18, and shows the districts in which the greatest advances have been made.

Division.	Actual Area under Crops.			Index Numbers. (1897-98=1,000).	
	1897-98.	1907-08.	1917-18.	1907-08.	1917-18.
Coastal—	acres.	acres.	acres.		
North Coast	103,864	91,781	79,506	884	765
Hunter and Manning ..	109,596	104,166	96,962	951	885
Cumberland	48,439	42,822	34,296	884	708
South Coast	52,963	46,470	40,763	877	770
Total	314,862	285,239	251,527	906	798
Tableland—					
Northern	65,872	60,468	61,174	918	929
Central	207,496	198,361	266,662	956	1,285
Southern	63,633	48,893	60,729	768	954
Total	337,001	307,722	388,565	913	1,153
Western Slopes—					
North	88,820	273,794	402,691	3,083	4,534
Central... ..	155,505	402,090	673,613	2,586	4,332
South	286,919	404,293	799,168	1,409	2,785
Total	531,244	1,080,177	1,875,472	2,033	3,530
Central Plains—					
North	2,644	7,975	37,403	3,016	14,146
Central... ..	52,783	231,001	465,499	4,376	8,819
Total	55,427	238,976	502,902	4,312	9,073
Riverina	564,357	645,801	1,431,496	1,144	2,537
Western	18,938	12,222	10,739	645	567
All Divisions	1,821,829	2,570,137	4,460,701	1,411	2,448

It is evident from these figures that there has been a general increase except in the Coastal Division and in the northern and southern portions of the Tableland Division.

The largest aggregate increase as compared with the figures shown for 1897-8, took place in the Division of the Riverina, and amounted to 867,139 acres of additional area brought under cultivation, which represented an advance of 154 per cent. The next largest aggregate increases were recorded for the Central and the South-western Slopes, and amounted to 518,108 acres and 512,249 acres respectively. Taken as a whole, the territorial area of the Western Slopes showed an advance of 1,344,228 acres. The districts exhibiting the heaviest proportion of total cultivation in the year 1917-18 were the Riverina with 32 per cent., and the Western Slopes, with an aggregate

of 42 per cent. in its three Divisions. The remaining 26 per cent. was distributed over the Coastal Belt, the Tableland, the Central Plains, and the Western Division, only 0·2 per cent. of the area under crop throughout the State being credited to the last-named Division.

The great extension of cultivation since 1892 has been fostered by wheat-growing on large estates formerly devoted almost exclusively to grazing, by the added security against bad seasons afforded by wool and wheat-farming in conjunction, by the adoption of the system of farming on shares, and, more recently, by the subdivision of large holdings for closer settlement.

CULTIVATION IN EACH DIVISION.

The following table shows the total area under crops, together with the total area of each Division, and the area in occupation, during the season 1917-18.

Division.	Total Area of Division.	Area under—			Proportion of area under Crops to—	
		Occupation in Holdings of 1 acre and over.	Crops.	Sown Grasses.	Total Area.	Area under Occupation.
Coastal—	acres.	acres.	acres.	acres.	per cent.	per cent.
North Coast	5,409,370	4,094,996	79,506	982,021	1·5	1·9
Hunter and Manning	10,390,920	6,334,680	96,962	192,364	0·9	1·5
Cumberland	1,074,189	516,757	34,296	4,128	3·2	6·6
South Coast	5,484,122	2,412,995	40,763	178,408	0·7	1·7
Total	22,358,601	13,359,428	251,527	1,356,921	1·1	1·9
Tableland—						
Northern	8,928,487	7,432,523	61,174	9,425	0·7	0·8
Central	8,989,259	6,274,441	266,662	4,961	3·0	4·2
Southern	7,913,500	6,424,496	60,729	2,174	0·8	0·9
Total	25,831,246	20,131,460	388,565	16,560	1·5	1·9
Western Slopes—						
North	9,813,555	8,863,460	402,691	5,115	4·1	4·5
Central	6,252,567	5,162,985	673,613	1,743	10·8	13·0
South	8,185,759	6,958,161	799,168	4,582	9·8	11·5
Total	24,251,881	20,984,606	1,875,472	11,440	7·7	8·9
Central Plains—						
North	10,030,901	8,233,243	37,403	25	0·4	0·5
Central	16,029,880	15,139,848	465,499	550	2·9	3·1
Total	26,060,781	23,373,091	502,902	575	1·9	2·2
Riverina	19,767,073	18,310,710	1,431,496	4,094	7·2	7·8
Western	80,368,498	78,461,994	10,739	50	...	...
All Divisions	198,638,080	174,621,289	4,460,701	1,389,640	2·2	2·6

The figures shown above include particulars relating to Lord Howe Island, total area 3,200 acres, and to the Federal Capital Territory, total area 593,920 acres. Lord Howe Island is included in the Cumberland Division.

During the year 1917-18 about 2·2 per cent. of the total area of New South Wales was actually devoted to the growth of agricultural produce; and if the small extent of land upon which grasses had been sown for dairy-farming purposes be added to the area under crops, the proportion reaches only

3·9 per cent., and represents about 3·10 acres per head of population. The proportion of the cultivated area on alienated holdings was 7·15 per cent. of the total area of alienated rural lands in holdings of 1 acre and over; of the area in occupation, 57,787,075 acres were alienated and 116,834,214 acres were leased from the Crown. The area of Crown lands under crops amounted to 327,439 acres only.

Of the total area under crop, 3,898,725 acres, or 87·4 per cent., were cultivated by owners, and 561,976 acres, or 12·6 per cent., were cultivated by tenant occupiers, including Crown land lessees.

In addition to the area shown as cultivated and under sown grasses, 80,269,389 acres were ringbarked and partly cleared and under native grasses; and 2,755,201 acres were ready for cultivation on alienated holdings, including 2,453,890 acres which had been cropped previously, 108,571 acres of new land cleared and prepared for ploughing, and 192,740 acres in fallow.

The Riverina shows the largest area under cultivation, followed in order by the Southern and Central Divisions of the Western Slopes, the Central Plain, the North-western Slope, and the Central Tableland. There was an increasing but not relatively important area cropped in the Division of the North-central Plain, but in the Western Division there was practically no cultivation.

RELATIVE IMPORTANCE OF EACH CROP.

The largest proportion of the area under crops is devoted to the cultivation of wheat, which in 1917-18 represented 74·6 per cent. of the total; the area for hay was 13·9 per cent., for green food 3·4 per cent., maize 3·3 per cent., and oats 1·9 per cent.

The following statement shows the cultivated area for each of the principal crops, at intervals since 1897-8, and the relative importance of each crop.

Crop.	Area.			Proportion per cent.		
	1897-8	1907-08.	1917-18.	1897-8.	1907-08.	1917-18.
	acres.	acres.	acres.			
Wheat ...	993,350	1,390,171	3,329,371	54·5	54·0	74·6
Maize ...	209,588	160,980	145,754	11·5	6·3	3·3
Barley ...	5,151	11,890	6,370	0·3	0·5	0·1
Oats ...	28,605	75,762	82,591	1·6	3·0	1·9
Hay ...	401,073	542,761	620,644	22·0	21·1	13·9
Green Food ...	62,145	260,810	152,519	3·4	10·1	3·4
Potatoes ...	23,816	31,917	22,580	1·3	1·2	0·5
Sugar-cane ...	25,865	17,953	10,596	1·4	0·7	0·2
Vines ...	8,083	8,483	8,594	0·4	0·3	0·2
Orchards ...	44,962	46,714	61,349	2·5	1·8	1·4
Market-gardens ...	6,384	10,052	10,139	0·4	0·4	0·2
Other Crops ...	12,807	15,380	12,409	0·7	0·6	0·3
Total ...	1,821,829	2,572,873	4,462,916	100·0	100·0	100·0

The figures for 1908 and 1918 include areas double-cropped, viz., 2,736 acres and 2,215 acres respectively.

The area devoted to wheat has always exceeded that given to other crops, and usually represents from two-thirds to three-fourths of the total area cropped, according to the climatic conditions prevailing during the year. The proportion under maize decreased from 11·5 per cent. in 1897-8 to 3·3 per cent. in 1917-18.

CULTIVATED HOLDINGS.

The number of holdings on which the principal crops were cultivated at intervals since 1897-8 is shown below.

Crop.	Number of Holdings.				
	1897-8.	1900-01.	1905-06.	1915-16.	1917-18.
Wheat	19,167	20,149	19,049	22,453	19,252
Maize	19,350	17,569	17,475	14,869	14,695
Barley	3,196	2,246	1,755*	2,538	1,849
Oats	14,361	11,547	10,740	13,723	12,787
Potatoes	8,768	9,521	8,552	4,643	4,334
Tobacco	242	31	98	97	80
Sugar-cane	1,487	1,214	1,113	694	671
Grapes	1,934	1,832	1,530	1,292	1,410
Fruit—Citrus	2,102	1,905	2,385	5,787	6,221
Other	8,485	8,064	6,846	8,760	8,777
Market Garden Produce ...	1,824	2,266	2,842	3,301	2,931
Total Cultivated Holdings	*.....	45,828	46,349	50,632	47,275

* Not available.

Until 1913-14 the increase in wheat-holdings was pronounced, but during the following season there was a falling-off in their number, because ploughing operations were restricted considerably as a result of inadequate rainfall. During 1915-16 the number of wheat-holdings increased to 22,453, but declined in 1917-18 to 19,252. Relatively to the area cultivated, the number of maize-holdings is greatly in excess of those of wheat, owing to the fact that many dairy-farmers crop small areas for use on the farms; whereas much of the area under wheat—over one-fourth—is cultivated on the “shares” system, by which a number of growers cultivate one holding.

VALUE OF PRODUCTION.

The average value of the principal crops during the last five years, with the proportion of each to the total value, is shown in the following table, the values being based on prices realised on the farm and not in the Sydney market.

Crop.	Value.					Proportion per cent.				
	1913-14.	1914-15.	1915-16.	1916-17.	1917-18.	1913-14.	1914-15.	1915-16.	1916-17.	1917-18.
Wheat	£ 5,988,200	£ 3,274,450	£ 13,352,980	£ 5,642,190	£ 7,385,140	44.3	32.6	65.6	49.1	54.0
Maize	760,770	767,030	723,270	722,250	875,220	7.4	7.7	3.6	6.3	6.4
Barley	61,670	9,970	20,630	12,600	19,280	0.5	0.1	0.1	0.1	0.1
Oats	214,130	111,350	173,820	128,840	266,720	1.9	1.1	0.9	1.1	2.0
Hay and Straw ..	3,220,170	3,643,650	3,897,910	3,016,400	2,774,260	27.6	36.3	19.1	26.2	20.2
Green Food	348,820	513,000	367,820	281,170	296,460	3.0	5.1	1.8	2.4	2.2
Potatoes	348,930	277,270	294,390	196,910	222,900	2.9	2.8	1.4	1.7	1.6
Sugar-cane	179,820	190,130	205,070	203,160	264,500	1.2	1.9	1.0	1.9	1.9
Grapes	91,060	74,800	98,400	68,260	53,860	0.8	0.7	0.5	0.6	0.4
Wine and Brandy ..	46,490	45,120	47,840	54,850	50,690	0.5	0.5	0.2	0.5	0.4
Fruit—Citrus	219,820	257,870	252,170	254,120	384,660	2.1	2.6	1.2	2.2	2.8
Other	244,950	233,130	243,210	280,990	376,300	2.6	2.3	1.2	2.4	2.8
Market-gardens ..	401,060	405,280	400,860	398,700	409,380	3.1	4.0	2.0	3.5	3.0
Other Crops	251,760	228,710	283,990	222,390	305,500	2.1	2.3	1.4	2.0	2.2
Total	12,377,650	10,031,760	20,362,360	11,487,830	13,684,900	100	100	100	100	100

The value of agricultural production in the season 1914-15 was not so high as in that of the two preceding seasons, owing to drought conditions, but the enhanced value arising from war conditions largely compensated

growers for diminished production. The year 1915-16 showed a total increase in the value of all agricultural production amounting to nearly 103 per cent. on the figures of the preceding year, wheat increasing in value by nearly 308 per cent., barley by nearly 107 per cent., and oats by over 56 per cent. In 1916-17 the value of agricultural production dropped back to the normal figures which prevailed prior to the phenomenal returns of 1915-16. In 1917-18 the total value increased considerably, owing to a rise in the price of wheat.

The agricultural wealth of New South Wales at present depends mainly on the return from wheat and hay, the value of these crops in 1917-18 being £10,159,340, or nearly 75 per cent. of the total. Maize is next in importance, and the returns from other crops are comparatively of much smaller value.

The next table shows the area cultivated and the value of production from agriculture, together with the average value per acre over five-year periods since 1887.

Seasons ended June.	Average Annual Area Cultivated.	Average Annual Value of Production.	Value per Acre.
	acres.	£	£ s. d.
1887—1891	858,367	4,030,611	4 13 11
1892—1896	1,147,733	3,812,393	3 6 5
1897—1901	2,114,250	5,592,620	2 12 11
1902—1906	2,515,268	6,302,903	2 10 1
1907—1911	2,933,021	8,565,164	2 18 5
1912—1916	4,507,748	12,867,474	2 17 1
1917	5,163,030	11,487,830	2 4 6
1918	4,460,701	13,684,900	3 1 4

During the quinquennial period 1912-16 the average number of acres placed under cultivation increased by 1,574,727, and the annual value of production by £4,302,312, but the value per acre decreased by 1s. 4d. as compared with the figures of the previous quinquennium.

In 1916-17, owing to the decline in wheat cultivation and the failure of a considerable portion of the crop, there was a decrease in the acreage and in the value of production, the yield per acre being 12s. 7d. below the average of the five years 1912-16.

In 1917-18 there was a further decrease in the acreage, but the value of production rose considerably, and the yield per acre increased by 16s. 10d.

AVERAGE VALUE PER ACRE.

The average value per acre of various crops during each of the last four seasons is shown below in comparison with the average for the last ten years :—

Crop.	Average Values per Acre.				Average Value for 10 Years 1909-18.
	1914-15.	1915-16.	1916-17.	1917-18.	
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Grain—					
Wheat ..	1 3 9	3 3 9	1 9 8	2 4 4	2 1 9
Maize ...	5 6 9	4 13 10	4 13 0	6 0 1	4 15 9
Oats ...	2 11 3	2 19 3	1 18 5	3 4 7	2 8 8
Hay ...	4 11 6	3 9 9	3 9 5	4 8 10	3 14 3
Potatoes ...	9 2 4	15 0 7	8 15 5	9 17 5	11 1 3
Sugar-cane ...	31 12 6	34 0 2	39 17 1	47 6 8	29 3 0
Vineyards ...	17 15 0	23 10 5	19 18 8	16 3 6	18 6 2
Orchards ...	13 19 2	13 11 1	13 19 5	18 8 11	13 17 9
Market-gardens ...	38 11 10	36 11 0	37 4 6	40 7 6	35 18 0

SHARE-FARMING.

The system of agriculture known as share-farming has reached important dimensions. It is applied to dairy-farming also, especially in certain of the coastal districts, but in comparison with the area cultivated, that devoted to dairying is inconsiderable. During 1917-18 the share-farming system affected 1,950 holdings, of which 1,803 were cultivated exclusively for crops, and 147 were used for dairy-farming. In agriculture as an exclusive pursuit 3,208 farmers cultivated 858,474 acres, and in dairy-farming 253 farmers utilised 80,647 acres for purposes of depasturing their stock, and 3,099 acres for the production of crops.

The following table shows particulars regarding the area cultivated on shares during each of the last five years:—

Season.	Holdings.	Share Farmers.	Total Area farmed on shares.	Area under various Crops.				
				Grain.		Hay.	Green food.	Other Crops.
				Wheat.	Other.			
	No.	No.	acres.	acres.	acres.	acres.	acres.	acres.
1913-14	2,010	3,885	1,002,144	875,951	22,026	100,462	1,774	1,931
1914-15	2,090	4,213	1,073,580	778,808	8,553	95,563	189,217	1,439
1915-16	2,305	4,462	1,297,269	1,148,578	9,986	130,406	6,090	2,209
1916-17	2,224	4,046	1,130,676	1,028,697	9,525	81,914	9,671	869
1917-18	1,803	3,208	861,573	793,584	9,751	53,589	4,190	459

Wheat is the principal crop grown under the shares system, and a considerable portion of the new area which is being brought under the cereal is cultivated on shares, especially in the southern and western districts.

The owner leases his land, which is cleared, fenced, and ready for the plough, to the agriculturist for a period, and for the purpose of wheat-growing only, the farmer tenant possessing the right of running upon the estate the horses necessary for working the farm, and the owner retaining the right of depasturing his stock when the land is not in actual cultivation. It is usual for the owner to provide the seed-wheat, the bluestone for pickling the seed, bags and twine for his own share of the crop, and sometimes the whole or half the fertiliser when used; while the tenant supplies the machinery, horses, and labour necessary to work the land, and the bags and twine for his own share of the crop; he must also keep gates and fences in good repair. Up to a specified yield the parties to the agreement take equal shares of the produce, any excess going to the farmer as a bonus; the system, however, is subject to local arrangements.

Of the wheat areas cultivated in 1917-18 on the shares system, 430,260 acres were in the Western Slopes Division and 264,019 acres were in the Riverina.

AREA UNDER WHEAT.

In New South Wales, as in most other countries, the area devoted to wheat far exceeds that used for any other cereal, and it is in this form of cultivation that the returns of the State show the greatest expansion. The total area sown with wheat in the season 1917-18 amounted to 3,828,436 acres, or a decrease of 669,874 acres as compared with the preceding season; the area harvested for grain comprised 3,329,371, that reaped for hay 435,180, and that eaten-off by stock or used as green food, 63,885 acres.

Ultimate production as grain-crop is largely a matter of season, of failure through undue aridity, or through excessive rains which result in rust and other damage.

The year 1897-8 may be said to mark the beginning of the present era of wheat-growing in New South Wales, for it was in that year that the production for the first time exceeded the consumption, and left a surplus available for export.

The following statement shows the area under wheat in Divisions of the State during the seasons 1907-8 and 1917-18 in comparison with 1897-8.

Division	Area under Wheat for Grain.			Proportion in each District.		
	1897-8.	1907-8.	1917-18.	1897-8.	1907-8.	1917-18.
	acres.	acres.	acres.	per cent.	per cent.	per cent.
Coastal	16,192	4,940	4,943	1·6	0·4	0·2
Tableland—						
Northern	20,686	6,362	5,727	2·1	0·4	0·2
Central	80,318	62,587	126,661	8·1	4·5	3·8
Southern	22,421	4,990	17,905	2·2	0·4	0·5
Total	123,425	73,939	150,293	12·4	5·3	4·5
Western Slopes—						
North	59,330	172,907	309,988	6·0	12·4	9·3
Central	102,136	273,025	549,763	10·3	19·6	16·5
South	198,268	274,950	659,233	19·9	19·9	19·8
Total	359,734	720,882	1,518,984	36·2	51·9	45·6
Central Plains	31,589	142,979	437,616	3·2	10·3	13·1
Riverina	460,474	445,537	1,214,609	46·4	32·0	36·5
Western	1,936	1,894	2,926	0·2	0·1	0·1
All Divisions	993,350	1,390,171	3,329,371	100·0	100·0	100·0

As might be expected, the proportions of land under wheat in each Division generally followed the same order as shown in a previous table for the total area under cultivation. Between 1898 and 1918, however, the proportions in each Division changed considerably. The Tableland, for instance, in 1917-18 included only 4·5 per cent. of the whole area, as against 12·4 per cent. in 1898, and the Riverina 36·5 per cent., as against 46·4 per cent., while the Western Slopes increased from 36·2 per cent. to 45·6 per cent., and the Central Plains from 3·2 per cent. to 13·1 per cent. The largest relative increase in area was in the Central Plains, where the area was nearly fourteen times that of 1898. The Central-western Slope came next, followed by the North-western and South-western Slopes.

Since the year 1898 wheat-growing in the Tableland Division has not been so greatly in favour as the conditions of soil and climate, together with the relative nearness to a metropolitan market, might appear to warrant. The area fell to less than a third of that formerly cultivated in the Northern Tableland, though the Central Tableland, after a decline, showed a recuperation as a wheat-growing region.

The great bulk of the wheat is grown on the Western Slopes and in the eastern part of the Riverina, these Divisions together contributing over 82 per cent. of the whole. On the Coast, on the Western Plains, and in the

Central Plain, with the exception of the eastern fringe, the wheat area and the yield are very small. The expansion in the Central Plains is attributable to the increase around Narromine.

The crude methods of farming practised in many of the outlying districts are being replaced gradually, and it is therefore confidently expected that future yields will be considerably increased. The lack of system in farming is almost necessarily characteristic of pioneers in new countries, and in many instances settlers have engaged in the work of agricultural production with insufficient capital and with very little experience or practical knowledge.

WHEAT YIELD.

The next statement shows the yield in each of the Divisions in the decennial years 1897-8, 1907-8, and 1917-18,

Division.	Yield of Grain.			Average Yield per Acre.		
	1897-8.	1907-8.	1917-18.	1897-8.	1907-8.	1917-18.
	bushels.	bushels.	bushels.	bushels.	bushels.	bushels.
Coastal	329,274	23,996	42,091	20·3	4·9	8·5
Tableland—						
Northern	300,215	90,728	64,399	14·5	14·3	11·2
Central	933,296	479,404	1,484,526	11·6	7·7	11·7
Southern	242,556	42,176	206,505	10·8	8·5	11·5
Total... ..	1,476,067	612,308	1,755,430	12·0	8·3	11·7
Western Slopes						
North	1,208,859	1,070,344	2,766,185	20·4	6·2	8·9
Central	1,398,967	2,033,284	6,658,739	13·7	7·4	12·1
South	1,849,521	2,482,004	6,490,266	9·3	9·0	9·8
Total	4,457,347	5,585,632	15,915,190	12·4	7·7	10·5
Central Plains	563,066	611,852	5,066,480	17·8	4·3	11·6
Riverina	3,725,421	2,306,188	14,905,969	8·1	5·2	12·3
Western	8,936	15,908	26,840	4·6	8·4	9·2
All Divisions	10,560,111	9,155,884	37,712,000	10·6	6·6	11·3

In 1917-18 the average yield per acre was highest in the Riverina, 12·3 bushels, in the Central-western Slopes the average was 12·1 bushels, in the Central Tableland 11·7 bushels, and in the Central Plains 11·6 bushels, while the average of New South Wales was 11·3 bushels. The Riverina and the Central and South-western Slopes, which yield the largest aggregate crops, control the general average of the State.

As a further illustration of the relative extent of the acreage under wheat for grain, and the resultant yield during 1907-8, 1916-17, and 1917-18, the following table shows the index numbers of those years in relation to 1897-8, the results for which are called 1,000.

Division.	Area under Wheat.			Yield.		
	1907-8.	1916-17.	1917-18.	1907-8.	1916-17.	1917-18.
Coastal	305	379	305	73	168	128
Tableland—						
Northern	307	469	277	302	320	215
Central	779	1,901	1,577	514	1,381	1,591
Southern	223	969	799	174	926	851
Total	599	1,492	1,218	415	1,090	1,189
Western Slopes—						
North	2,914	6,643	5,225	885	2,653	2,283
Central	2,673	6,151	5,383	1,453	3,539	4,760
South	1,387	3,958	3,325	1,342	3,503	3,509
Total	2,004	5,024	4,223	1,253	3,284	3,571
Central Plains	4,526	15,516	13,853	1,087	7,206	8,998
Riverina	968	2,861	2,638	619	4,355	4,001
Western	978	790	1,511	1,780	1,831	3,004
All Divisions	1,399	3,832	3,352	867	3,466	2,371

A great portion of the immense area of the State, hitherto devoted exclusively to pastoral pursuits, consists of land which could be utilised profitably for agriculture, much of it being more suitable for the cultivation of wheat than some of the land now under crop; and the returns show that wheat-growing, which was confined formerly to small farmers, is engaging the attention of a number of the large landholders, who cultivate extensive areas, and use the most modern and effective implements and machinery for ploughing, sowing, and harvesting.

The following statement shows the area under wheat for grain and for hay since 1897-98, together with the total production and average yield per acre; information is not available to show the area fed off or used as green food for stock prior to 1906-07.

Season.	Area under Wheat.				Yield.		Average yield per acre.	
	For Grain.	For Hay.	Fed off.	Total.	Grain.	Hay.	Grain.	Hay.
	acres.	acres.	acres.	acres.	bushels.	tons.	bushels.	tons.
1897-98	993,350	213,770	*	1,207,070	10,560,111	181,645	1076	85
1898-99	1,319,503	312,451	*	1,631,954	9,276,216	177,002	770	57
1899-1900	1,426,166	414,513	*	1,840,679	13,604,166	341,200	975	82
1900-01	1,536,609	332,143	*	1,868,752	16,173,771	347,743	1076	105
1901-02	1,392,070	312,558	*	1,704,628	14,508,705	286,793	1076	92
1902-03	1,278,760	320,588	*	1,600,348	1,585,097	75,892	12	24
1903-04	1,561,111	286,702	*	1,847,813	27,334,141	452,484	175	158
1904-05	1,775,955	284,367	*	2,060,322	16,464,415	207,439	973	73
1905-06	1,939,447	315,582	*	2,255,029	20,737,200	304,714	1077	97
1906-07	1,866,253	316,945	16,744	2,199,942	21,817,983	403,109	117	127
1907-08	1,390,171	365,925	123,813	1,885,909	9,155,854	198,230	676	54
1908-09	1,394,056	490,828	104,202	1,989,086	15,483,276	426,916	117	87
1909-10	1,990,180	380,784	5,825	2,376,789	28,532,029	565,549	143	149
1910-11	2,128,826	422,972	61,458	2,613,256	27,913,547	467,669	137	171
1911-12	2,380,710	440,243	80,731	2,901,684	25,988,102	423,262	1075	96
1912-13	2,231,514	704,221	81,557	2,967,292	32,487,336	779,500	146	171
1913-14	3,205,397	534,226	23,393	3,763,016	38,020,381	588,127	119	170
1914-15	2,758,024	569,481	815,561	4,143,016	12,830,530	354,531	47	62
1915-16	4,188,865	879,678	53,702	5,122,245	66,764,910	1,211,677	159	138
1916-17	3,806,604	633,605	53,101	4,493,310	36,598,000	813,763	976	128
1917-18	3,329,371	433,180	63,855	3,826,406	37,712,000	484,708	113	171

* Information not available.

The area under wheat increased from 1,207,070 acres in 1897-8 to 2,253,029 acres in 1905-06. In the following seasons the area declined but a marked improvement took place in 1909-10, and thereafter the area increased rapidly, especially in the period 1912-15, till the maximum of 5,122,245 acres was reached. The decreases in the last two seasons were due mainly to the shortage of labour, the unfavourable ploughing seasons, and the difficulties in regard to the disposal of the harvest; moreover, the high prices obtainable for sheep and wool caused many farmers to substitute stockraising for wheat-farming. A better yield from equal qualities of soil is now obtained than was realised twenty years ago—a result due largely to extension of agricultural education, to the use of fertilisers, and to more economical harvesting appliances; furthermore, rust, smut, and other forms of disease in wheat have been less frequent and less general in recent years.

The highest average yield of grain, 17·5 bushels, was recorded in 1903-4, and the lowest, 1·2 bushels, in 1902-3; the average yield during the last ten years was about 12 bushels per acre.

The area suitable for wheat-growing may be defined roughly as that part of the State which has sufficient rainfall (*a*) to admit of ploughing operations at the right time of the year, (*b*) to cover the growing period of the wheat-plant—April to October inclusive, and (*c*) to fill the grain during the months of September and October; or, in the case of districts where the rainfall in these months is light, to counteract the deficiency by the increased falls in the earlier or later months.

In some of the northern districts much of the land is unsuited to wheat-growing, because it consists of stony and hilly country, too rough for cultivation, and of black-soil plains which bake and crack, and which present mechanical difficulties to tillage. The rich soils of river-flats also must be omitted from good wheat-growing areas, because such land has a tendency to produce excessive straw-growth, although it can produce excellent hay.

South of the Murrumbidgee, on the average, from 65 to 70 per cent. of the rain falls between the beginning of April and the end of October; in the central wheat areas (*i.e.*, the Central-western Slope and parts of the Central Plain) the percentage for this period drops to 50 or 60, and in the northern wheat country it ranges from 45 to 55.

The annual rainfall gradually diminishes towards the western limits of the State, the figures ranging from a mean of about 50 inches on the seaboard to 10 inches on the western boundary.

Until recently, land with an average rainfall of less than 20 inches had been excluded from the area considered safe for profitable wheat-growing; and it had been estimated that with the exceptions of the coastal and certain unsuitable northern districts, the area with an average annual rainfall of not less than 20 inches, suitable for wheat-growing, covered from 20 to 25 million acres.

Since 1904 it is estimated that the wheat belt has been increased by about 13,430,000 acres. Of this increase the greatest extension has taken place in the southern wheat areas, especially in the Riverina Division, where the spring rainfall is more suited than on the North-central Plain to filling and maturing the grain.

Assuming that wheat could be grown profitably in New South Wales in areas with an annual fall of 16 inches, another 9,000,000 acres would be added to the wheat belt.

The adoption of improved methods of wheat culture in the districts of scanty rainfall has enabled farmers to secure profitable returns with a

precipitation much less than that required formerly; consequently the boundary of successful wheat production, as laid down in 1904, has been extended further westward.

The conservation of moisture in the subsoil by fallowing, and by proper treatment of the fallows, may carry over an equivalent of 5 to 8 or 10 inches of rain to supplement the falls during the growing season; and the risk of failure, in the drier western districts especially, may be greatly diminished, if not entirely eliminated, by these means.

The experience of what was long designated the "arid region" of California is adduced as evidence of what may be accomplished in the more sparsely watered parts of New South Wales by the system of "Campbellising," or the cutting of the subsoil with a blade having a bulb-end attached to the ploughshare to a depth of 10 inches below the furrow, and the formation of a tunnel which receives the lightest of rains, and holds the moisture in storage for feeding grain rootlets sufficiently below the surface to escape excessive evaporation by the action of the sun.

The term "dry-farming," in its general significance, is applied to any method founded on scientific principles for the production of crops without irrigation in arid or in semi-arid districts. Dry-farming has been practised for many years; but advanced methods have not been adopted generally in this State, although conditions are steadily improving, and the problem of effective utilisation of the dry districts is now attracting considerable attention in agricultural and in scientific circles.

Farmers' wheat experiment plots are conducted by the Department of Agriculture and excellent object lessons are furnished as to the benefits to be derived from a proper system of fallowing, from the systematic working of the land, and from the scientific use of fertilisers. The conditions under which these plots are cultivated are shown on a later page.

In the season 1918-19, notwithstanding the exceptionally dry conditions prevailing during practically the whole period of growth, the yield from fallowed and properly cultivated land was as high as 34 bushels per acre, while the average from the experiment plots was $12\frac{1}{2}$ bushels as compared with the general average for the State, which is estimated at 7.4 bushels. The general average yield suffers by reason of the large proportion of poor crops from stubble land, and farmers generally should adopt other methods of cultivation, since it has been proved by practical experience that fallowed and properly worked land will give far better results. Farmers who require financial assistance to enable them to fallow their land may obtain from the Government an advance of 5s. per acre; in 1919 a sum of £11,000 was advanced in respect of 44,000 acres of fallowed land.

The results obtained from the plots, as compared with the average yield for the State during the same period, are most instructive, and are shown in the table.

Season.	State Average.	Average of Experiment Plots.
	bush. lb.	bush. lb.
1909-10	14 20	24 23
1910-11	13 7	18 45
1911-12	10 32	20 17
1912-13	14 34	24 8
1913-14	11 52	21 3
1914-15	4 39	13 0
1915-16	15 56	17 51
1916-17	9 37	16 31
1917-18	11 20	24 23
1918-19	7 24	12 22

On the map attached to this Year Book are shown the experience lines of profitable wheat cultivation, that is, the western boundaries of the area in which wheat has been successfully cultivated, as determined in 1904 and in 1912, the western boundary of the area over which the average rainfall is not less than 10 inches during the wheat-growing period being defined also.

In determining the present wheat experience line, due consideration was given to low yields attributable to bad farming, and other preventable causes. This is a very necessary precaution, as the average wheat yields for various districts do not always accurately disclose the possibilities of the region. Notwithstanding the improvement made during recent years in cultural methods generally, the majority of farmers do not obtain the maximum results possible under good treatment. The conservation of moisture by fallowing and by subsequent cultivation has not received sufficient attention, and the use of artificial manures should be general.

It must not be concluded that the wheat line as now laid down will remain stationary. There are still large areas, especially in northern and western Riverina, admirably suited to wheat production, and with the advance of settlement, the subdivision of large estates, and the extension of railway communication, there is every reason to believe that the area now known as the wheat belt will be extended considerably in the early future, provided that the farmers are prepared to adopt the latest approved methods of cultivation.

MILLING QUALITIES OF NEW SOUTH WALES WHEAT.

Since 1897 Government agricultural experts have been experimenting in order to determine the varieties of wheat most suitable for various districts, and to secure new types which will return the best milling results under local conditions. It is gratifying to record that their efforts have been attended with marked success.

In connection with this branch of agricultural science the name of the late William J. Farrer, Wheat Experimentalist of the Department of Agriculture of New South Wales, has become world-famous. His efforts were directed towards the production of new varieties of greater milling value and more resistant to rust than the old; and his wheats, which rank amongst the most prolific grain varieties, are largely cultivated throughout the State. He and his successors have proved that Australia can produce strong white wheat, equal in flour production to the old varieties, and equal in strength to the famed standard Manitoba wheat which had hitherto been imported for blending with Australian soft wheats.

The Department of Agriculture has conducted investigations regarding the milling quality of the various classes of New South Wales wheats; tests were made of five samples, which represent fairly the typical wheats:—

1. *Farrer wheats, strong flour varieties*, including such crosses as Bobs, Comeback, Cedar, and similar varieties, as well as Departmental crosses not at present in general cultivation.
2. *Farrer wheats, medium strong flour varieties*, including Federation, Bunyip, Florence, Rymer, Yandilla King, and other varieties, as well as Departmental crosses not in general cultivation.
3. *Farmers' wheats*.—Farmers' wheats under general cultivation, including some of the Purple Straw and Steinwedel type, which are being gradually replaced by the newer varieties.

4. *F.A.Q. wheat*.—Part of the sample taken annually by the Sydney Chamber of Commerce for the convenience of shippers, and representing the fair average quality of the wheat grown in the State.
5. *Millers' Flour*, including typical samples from both Sydney and country millers.

In this connection it is interesting to cite the British milling order issued by the Board of Trade in 1916, and determining the percentage of flour that must be extracted from wheat of various qualities. Under this regulation two world wheats stand at the head of the gradation, and these are Australian and choice Bombay, each with 78 per cent. of flour-yield to the quantity of grain milled.

The figures under the term "strength" in the table below indicate the number of quarts of water required by 200 lb. of flour to make a dough of the proper consistency for baking, and it is to be understood that a high figure means not only more loaves from the quantity of flour, but loaves of better texture, lighter, and more nutritious. The figures under "gluten" are the percentages of dry gluten in the flour. The particulars are for ten years ended March, 1919.

Class of Wheat.	Flour.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.	1919.
Farrer wheats, strong flour varieties.	Strength	51.9	53.2	52.5	53.3	51.0	54.1	53.0	50.3	52.1	52.0
	Gluten	14.1	13.2	13.8	14.5	14.3	14.4	13.8	12.7	11.8	11.5
Farrer wheats, medium strong flour varieties.	Strength	47.5	47.1	46.8	47.0	46.6	44.9	49.0	45.7	45.7	47.1
	Gluten	12.1	13.3	12.6	12.2	12.9	10.0	14.6	11.2	10.8	11.3
Farmers' wheats	Strength	49.1	45.8	44.9	45.0	45.2	45.7	47.8	43.2	44.7	43.6
	Gluten	14.2	11.3	10.4	11.8	10.1	12.3	11.5	10.1	9.6	8.9
F.A.Q. for NewSouth Wales	Strength	48.0	45.0	45.0	46.0	45.0	47.0	45.0	41.5	43.8	44.6
	Gluten	10.4	10.2	11.9	11.9	11.5	12.9	11.4	8.3	9.1	10.1
Millers' flour	Strength	48.5	46.7	47.9	47.4	49.8	47.4	44.9	45.9	44.4	46.7
	Gluten	10.2	9.8	11.4	11.4	11.5	12.0	12.4	11.5	8.8	9.2

COST OF GROWING WHEAT.

Various attempts have been made to secure data to form an accurate estimate of the cost of production; but as, either for grain or for hay, this depends largely upon the methods of culture, the area cultivated, the distance from the railway, and the soil conditions, the experiences of individual farmers have caused a wide diversity of opinion.

The factor which is probably the main cause of these differences is the efficiency of the producers. Wheat being the product of a large number of farmers working independently, it is natural that there should be greater variation in regard to efficiency than in other industries, where the producers are assembled under the supervision of experts and there are greater facilities for improving methods of production and for utilising labour and materials on the most economical basis.

The following estimates have been provided by the Department of Agriculture to indicate the average cost of producing wheat on unfallowled and on fallowed land. For the purposes of the estimates the area cropped annually is taken at 250 acres, viz., 230 acres for grain, and 20 acres for hay for horse feed; to crop this area in alternate seasons under the system of fallowing, the total area of the farm would be 500 acres. The value of the land is assumed to be £6 per acre and the value of the plant £680; as the farmer is engaged throughout the year in cultivating and other operations in connection with wheat-growing an amount of £200 per annum is added as a fair living allowance for him and his family. Experiments made by the Department of Agriculture indicate that an average yield of 20 bushels per acre may be obtained from fallowed land and the cost of pro-

duction under the fallowing system is calculated on this basis; and the general average for the State—12 bushels per acre—is taken as the yield from unfallowed land; in each case one bushel per acre is deducted for seed wheat.

The costs of production were estimated as follows :—

	Unfallowed land.	Fallowed land.
	£	£
Interest on land at 6 per cent.	90	180
Plant—Interest and depreciation	90	90
Repairs	20	20
Living allowance for farmer	200	200
Wages—extra help... ..	40	40
Fertilisers	37	37
Bags	46	72
Cartage of wheat, at 9d. per bag... ..	32	55
Total cost	555	694
Cost, per acre (250 acres)	£2 4s. 5d.	£2 15s. 6d.
Cost, per bushel	4s. 5d.	3s. 2½d.

The total cost of producing a crop of wheat on 250 acres of unfallowed land is estimated at £555 or £2 4s. 5d. per acre; with an average yield of 12 bushels per acre from 230 acres the result, after deducting the seed wheat, would be 2,510 bushels at a cost per bushel of 4s. 5d. On the fallowed land the total cost is estimated at £694, or £2 15s. 6d. per acre, the cost per bushel for an average yield of 20 bushels per acre being 3s. 2½d. In the case of the fallowed land, however, the farmer may utilise the stubble for depasturing stock for a period of about six months from the time of harvesting in December until the land is ploughed for fallowing in June or July. It is difficult to estimate the value of this pasturage, but it may be fairly assumed as equivalent to the amount of interest payable for the period, *i.e.*, £45 for 250 acres. Allowing for this return, the net cost of producing wheat on fallowed land would be reduced to £649, or £2 11s. 11d. per acre, or 2s. 11¾d. per bushel. When the land is not fallowed the stubble is usually burnt and the ploughing is commenced in February.

GRADING, HANDLING, AND MARKETING WHEAT.

The development of the wheat industry is dependent largely upon the facilities for cheap transportation to the world's markets; and at the present time, when combined efforts are being made by scientists and practical farmers to extend the cultivation and to improve the quality of the cereal, the co-operation of commercial and transport agencies by the introduction of improved methods of handling grain is necessary for the success of the industry.

Grading.

Australian wheat for export is marketed on the basis of a single standard known as f.a.q., or fair average quality. In New South Wales the standard is fixed annually by a committee of members of the Sydney Chamber of Commerce and of two Government representatives. Samples obtained from each of the wheat districts are weighed on McQuirk's patent scale, and an average struck, which is used as a standard in all wheat export transactions.

The proportions of six different grades of wheat, as well as the amounts of broken and pinched grain, oats, whiteheads, &c., in a standard bushel of f.a.q. wheat from the wheat-producing districts of New South Wales for the last five harvests, were as follows :—

Grade.	Harvest.				
	1914-15.	1915-16.	1916-17.	1917-18.	1918-19.
	lb. oz.	lb. oz.	lb. oz.	lb. oz.	lb. oz.
3·00 millimetre mesh ...	0 12	0 10½	0 3¾	1 7¾	0 6¼
2·75 " " ...	12 1·5	5 8¾	4 2½	9 5	13 1½
2·50 " " ...	17 0·25	18 11¼	10 3¾	12 7¼	33 15¾
2·25 " " ...	21 2·75	26 3¼	11 0	25 13	7 13
2·00 " " ...	7 3	5 11¾	23 5½	6 5½	2 8½
Broken and pinched grain	1 8·5	3 8¼	7 3	2 2¾	4 4¾
Oats, whiteheads, etc. ...	0 12	0 10½	0 9¾	0 15	0 6¼
	60 8	61 0	56 12	58 8	62 8

The f.a.q. standard of New South Wales for the 1918-19 harvest was fixed at 62½ lb. per bushel.

The chief objection raised by wheat-growers to this method of grading on a single standard is that it discourages the cultivation of grain of superior quality which does not command a price commensurate with its greater value as compared with wheat which just reaches the standard. Moreover, it is stated that the weight of the grain is not a true indication of its quality, the standard varying in accordance with the purpose for which it is required.

The following comparison shows the standard in New South Wales for each season since 1909-10, and the date on which it was fixed in each year.

Year.	Date Fixed.	Standard.	Year.	Date Fixed.	Standard.
		lb.			lb.
1909-1910	31st Jan., 1910	62	1914-1915	15th Feb., 1915	60½
1910-1911	13th Feb., 1911	62½	1915-1916	21st ,, 1916	61
1911-1912	1st ,, 1912	61½	1916-1917	12th Mar., 1917	56¾
1912-1913	31st Jan., 1913	62½	1917-1918	26th Feb., 1918	58½
1913-1914	19th ,, 1914	64	1918-1919	30th Jan., 1919	62½

Methods of Transport.

Under the present system the wheat is bagged on the farm and brought to the nearest railway station, whence that intended for export is carried in bags by rail to Sydney for shipment. At some of the stations the Railway Department has erected sheds, and a small charge is made for storage. At Darling Harbour, Sydney, where all the grain ships are loaded, sheds and bag elevators have been provided. As compared with bulk handling and the employment of elevators, this system has many disadvantages, apart from the cost of bags and the great amount of labour required for handling bagged grain.

Bulk Handling.

Though the annual production in the wheat-producing States of Australia cannot yet be compared with that of the United States, Canada, or other

large wheat countries, it has reached already the stage when the adoption of the bulk-handling system is necessary for its advantageous development. This matter has been the subject of many inquiries and investigations, which have been discussed in former issues of this Year Book, but a scheme was not put into operation until recently, when it was decided, at the request of the Commonwealth Government, to provide silos for the storage of wheat awaiting shipment. In the country districts arrangements have been made for the construction of silos at sixty-six stations, with capacity ranging from 50,000 bushels to 500,000 bushels, the total capacity being 14,350,000 bushels. In September, 1919, emergency storage silos with a capacity of 4,850,000 bushels had been erected at twenty-six country stations; work has been commenced also on a terminal elevator at Sydney, capable of holding 6,332,000 bushels.

The capacity of the country elevators is shown hereunder:—

Elevator.	Capacity.	Elevator.	Capacity.
	bushels.		bushels.
Bogan Gate	150,000	Milbrulong	200,000
Boree Creek	300,000	Molong	200,000
Brooklesby	200,000	Narromine	50,000
Burrumbulla Creek	150,000	Oaklands	300,000
Calcairn	150,000	Parkes	250,000
Cullivel	50,000	Peak Hill	50,000
Dubbo	50,000	Temora	500,000
Eumungerie	100,000	The Rock	300,000
Forbes	300,000	Trundle	200,000
Geurie	200,000	Urana	50,000
Gilgandra	50,000	Uranquinty	100,000
Lockhart	300,000	Walla	200,000
Manildra	150,000	Wellington	300,000

GOVERNMENT WHEAT-MARKETING SCHEME.

The wheat-marketing scheme, which has been explained in former issues of this Year Book, was formulated by the Governments of the Commonwealth and of the wheat-producing States—New South Wales, Victoria, South Australia, and Western Australia. Matters relating to shipping and finance, as affecting the general scheme, are decided by the Australian Wheat Board, consisting of Ministerial representatives of the various Governments, with the assistance of an Advisory Board representing the farmers, the wheat exporting firms acting as Government agents in the States, the Commonwealth chartering agents, and the associated Banks of Australia.

Oversea sales are arranged generally by a Board in London, which consists of the High Commissioner for Australia and the Agents-General for each of the States, co-operating with London representatives of the Australian wheat-buying firms. Arrangements for the internal management of the scheme in each State are made by the State Government. In New South Wales the principal wheat-shipping firms acted as agents to handle and ship the grain on behalf of the wheat pool until 31st December, 1917, when the State Wheat Office assumed control of the stacks and appointed its own agents in the country to supervise the handling of the wheat. The flour millers also act as Government agents, receiving wheat for trade requirements, and issuing certificates.

All banking arrangements are with the Commonwealth Bank, which makes subsidiary arrangements with other banks. Advances are made to the growers on certificates issued by the agents upon delivery of the crops.

The quantity of wheat handled by the Australian Wheat Board from its formation to 8th September, 1919, was 468,628,000 bushels, of which 138,230,000 bushels were pooled in New South Wales. Particulars regarding the disposal of New South Wales wheat are shown below :—

Season.	Wheat Shipped.	Wheat Sold Locally.	Shippers' Stocks.	Millers' Stocks.	Total.
	bushels.	bushels.	bushels.	bushels.	bushels.
1915—16	28,977,000	29,597,000	.....	.....	58,574,000
1916—17	6,887,000	21,897,000	3,114,000	152,000	32,050,000
1917—18	11,373,000	21,046,000	845,000	451,000	33,715,000
1918—19	111,000	4,119,000	6,268,000	3,393,000	3,891,000
Total as at 8-9-19	47,348,000	76,659,000	10,227,000	3,996,000	138,230,000

The expenditure by the Australian Wheat Board to 8th September, 1919, was £102,662,000, advances to farmers amounting to £84,456,000, and expenses to £18,206,000; the amount expended in New South Wales was £30,291,000 as follows :—

Season.	Advances to Farmers.	Expenses.	Total Expenditure in N.S.W.
	£	£	£
1915—16	12,139,000	1,591,000	13,730,000
1916—17	4,990,000	1,837,000	6,827,000
1917—18	5,398,000	1,263,000	6,661,000
1918—19	2,767,000	306,000	3,073,000
Total to 8-9-19	25,294,000	4,997,000	30,291,000

The receipts during the same period amounted to £92,447,000, of which £29,627,000 were credited to New South Wales, viz., wheat shipped £11,356,000, local sales £16,221,000, payments in anticipation of shipment £1,670,000, and storage charges £380,000.

Farmers may dispose of their interest in wheat certificates, the transfer of ownership being effected by means of the issue of negotiable scrip to the purchaser.

The wheat pool has supplied seed wheat for the present sowing season on terms to farmers in necessitous circumstances, and arrangements are being made to distribute cornsacks per the State Wheat Office for the next harvest.

PRICES OF WHEAT.

The following table gives the average rates ruling in the Sydney market during the months of February and March of each year since 1865. The figures exhibit clearly the tendency towards a gradual reduction in the value of the cereal down to 1895, when the price was the lowest of the series. In 1896, however, owing to a decrease in the world's supplies, the price rose considerably, and led to an extension of cultivation in Australasia. In the early years, with a deficiency in the local production, the price in Sydney was generally governed by the rates obtained in the neighbouring Australian markets where a surplus had been produced. These, however, are now determined by the figures realised in London, which are usually equal to those ruling in Sydney, plus freight and charges.

The prices shown in the table are for an imperial bushel of 60 lb., and being for new wheat are slightly below the average for the year.

Year.	February.	March.	Year.	February.	March.	Year.	February.	March.
	per bushel.	per bushel.		per bushel.	per bushel.		per bushel.	per bushel.
	s. d.	s. d.		s. d.	s. d.		s. d.	s. d.
1865	9 6	9 7½	1884	4 3	4 3	1903	*5 11½	*5 9¼
1866	8 4½	8 0	1885	3 10½	3 7½	1904	3 0½	3 0¾
1867	4 3	4 4	1886	4 3½	4 5	1905	3 4½	3 3¾
1868	5 9	5 9	1887	3 10	3 11	1906	3 1½	3 2¼
1869	4 9	4 10	1888	3 6	3 6½	1907	3 0½	3 1½
1870	5 0	5 1½	1889	4 9	5 3	1908	4 4	4 5½
1871	5 7½	5 9	1890	3 6	3 6	1909	4 0¾	4 6½
1872	5 0½	5 3	1891	3 7½	3 10	1910	4 1¾	4 1
1873	5 1	5 8½	1892	4 9	4 9	1911	3 7¾	3 5
1874	6 9	6 1½	1893	3 6½	3 6	1912	3 9¼	3 8½
1875	4 7½	4 6	1894	2 11	2 8	1913	3 6½	3 7
1876	5 1½	5 6	1895	2 7	2 7	1914	3 8	3 9¼
1877	6 1½	6 6	1896	4 4½	4 5	1915†	5 6	5 6
1878	6 1½	5 7½	1897	4 8	4 6½	1916†	5 1¾	5 0¼
1879	5 0	4 9½	1898	4 0	4 0	1917‡	4 9	4 9
1880	4 8	4 9	1899	2 7½	2 9	1918‡	4 9	4 9
1881	4 1	4 3	1900	2 9	2 8	1919‡	5 0	5 0
1882	5 5	5 6	1901	2 7	2 7			
1883	5 1½	5 2	1902	3 2	3 2½			

* Imported Californian wheat—quotations for South Australian wheat were about 5d. per bushel higher. † Officially fixed. ‡ Official price on trucks of wheat for flour for home consumption.

With regard to recent years, prices did not vary greatly prior to 1903, when, owing to the almost universal failure of the season's crop, there were no quotations, though imported wheat was sold at from 5s. 8d. to 6s. 3d. per bushel during the months of February and March. In 1908-9-10 the prices were higher than in any year since 1897. During the period 1911-14 the prices were considerably lower than those of the previous three years, but since 1915, owing to the abnormal conditions due to drought and to the War, prices have been higher, and have been regulated by the Government, varying from 4s. 9d. to 5s. 6d. per bushel.

The Government of New South Wales has guaranteed to the farmers a minimum price of 4s. per bushel of f.a.q. wheat of the seasons 1918-19 and 1919-20, delivered at country stations, and 5s. per bushel for the 1920-21 crop.

Since 25th March, 1916, the official f.o.b. price per bushel of wheat for flour for home consumption has been 4s. 10¾d.; but city millers handling their own supplies obtained the wheat at 1¾d. per bushel less than the f.o.b. price. On 1st February, 1919, the price was raised to 5s. per bushel, and on 1st October to 5s. 6d.

A statement published by the Bureau of Markets of the Department of Agriculture of the United States shows the guaranteed price of wheat in various countries for the years 1918 and 1919 :—

Country.	Price per bushel.	Country.	Price per bushel.
	s. d.		s. d.
Australia	4 9	Canada	9 4
Argentina	6 5½	United States	9 5
Germany	8 9	Brazil	11 0
United Kingdom	9 0	France	16 5
Belgium... ..	9 0	Spain	16 6
Austro-Hungary	9 2½	Italy	18 0

PRINCIPAL WHEAT-GROWING COUNTRIES.

A comparison of the production of this cereal in the principal wheat-growing countries would be misleading if based solely on the yields obtained since 1914. Owing to the disturbed conditions in Europe, the returns for these years are mainly estimates based upon fragmentary data, and do not give an accurate indication of the productivity of the various countries to which they relate. The following table presents statistics of the latest recorded annual production, together with the average production during the last three years.

Country.	Production.		Country.	Production.	
	Season, 1917-18.	Average 3 seasons, 1915-16 to 1917-18.		1918.	Average 3 years (1916-1918).
	bushels.	bushels.		bushels.	bushels.
New South Wales	37,712,000	47,024,900	United States ...	918,923,000	736,553,000
Victoria	37,737,500	49,140,500	British India ...	379,829,000	359,968,000
South Australia ...	28,692,600	36,190,700	Canada	189,301,000	228,608,000
Western Australia	9,303,800	14,547,800	Argentina	*218,600,000	+152,825,000
Queensland	1,035,300	1,304,300	France	*144,150,000	+195,625,000
Tasmania	252,400	531,500	Spain	133,232,000	142,746,000
			Italy	176,370,000	163,504,000
Total, Australia	114,733,600	148,739,700	United Kingdom	93,100,000	72,398,000
			Egypt	32,558,000	32,979,000
New Zealand	6,807,536	6,853,500	Japan	31,127,000	30,720,000

* Year 1917. † Period 1915 to 1917.

From the estimated figures, which constitute the only data available, it would appear that the world's wheat harvest for 1918 was better than that of the previous season, and showed a considerable increase when compared with the average of the three years 1916 to 1918. It must be remembered, however, that a condition of war in many countries prevented the collection of statistics.

Certain foreign countries which appeared in the table in former years are not included in the preceding statement, notably Russia, Roumania, Austria-Hungary, Germany, Turkey (in Europe and in Asia), Algeria, and Belgium, as well as Persia and Chile.

It has been shown that the area under wheat for grain in New South Wales in 1917-18 was 3,329,371 acres, which was a small portion of the total area available, and even this area was not worked as profitably as it might have

been. Compared with the principal wheat-growing countries of the world, an average yield of 11·3 bushels per acre is low, as will be seen from the following table, the averages shown being based on the latest available returns.

Country.	Period.	Average Yield per Acre	Country.	Period.	Average Yield per Acre.
		bushels.			bushels.
Germany	1912-14	32·3	United States ..	1916-18	14·0
United Kingdom ...	1916-18	31·3	Italy	1916-18	14·9
Canada	1916-18	14·4	Russia	1914-16	11·4
Hungary	1913-15	17·1	India	1916-18	10·9
France	1915-17	15·9	Argentina	1915-17	9·2

A bare statement of average yield is, however, not entirely conclusive, as the relative cost of production also should be taken into consideration. Moreover, in the older countries, the efforts of farmers are more concentrated, and more intensive cultivation is necessary.

MAIZE.

Maize ranks second in importance amongst the crops of New South Wales, but its cultivation is small in comparison with that of wheat, and sufficient is not grown for local consumption.

Maize is cultivated chiefly in the valleys of the coastal rivers, where both soil and climate are peculiarly adapted to its growth. On the Tableland also good results accrue.

The following statement shows the distribution of the area under maize for grain during the season 1917-18, with the production and average yield in each Division.

Division.	Area under Maize for Grain.		Yield.	
	Total.	Proportion in each Division.	Total.	Per Acre.
	acres.	per cent.	bushels.	bushels.
Coastal—				
North	50,465	34·6	1,225,941	24·3
Hunter and Manning	30,263	20·8	803,067	26·5
Cumberland	2,787	1·9	86,408	31·0
South	11,826	8·1	410,823	34·7
Total	95,341	65·4	2,526,239	26·5
Tableland—				
Northern	15,607	10·7	253,263	16·2
Central	7,316	5·0	197,877	27·0
Southern	343	0·3	8,697	25·4
Total	23,266	16·0	459,837	19·8
Western Slopes... ..	25,852	17·7	500,709	19·4
Central Plains, Riverina, and Western Divisions... ..	1,295	0·9	13,173	10·2
All Divisions..	145,754	100·0	3,499,958	24·0

The North Coast, the most important maize-growing district in the State, in 1917-18 yielded 35 per cent. of the total production, the average yield being 24·3 bushels per acre. After the North Coast, the Hunter and Manning Division showed the largest area under crop. On the North Coast

the best counties were Dudley and Clarence, which gave 32.1 and 28.4 bushels per acre respectively. In 1917-18 the average yield on the tableland was 19.8 bushels per acre, compared with 22.3 for 1916-17. On the Western Slopes the yield was 19.4 bushels per acre, the corresponding figure for 1916-17 being 21.2 bushels.

The following statement exhibits a comparative review of the maize crop since the season 1897-8.

Season.	Area under Maize for Grain.	Production.		Season.	Area under Maize for Grain.	Production.	
		Total.	Average per Acre.			Total.	Average per Acre.
	acres.	bushels.	bushels.		acres.	bushels.	bushels
1897-8	209,588	6,713,060	32.0	1913-14	156,820	4,453,309	28.4
1900-1	206,051	6,292,745	30.5	1914-15	143,663	3,174,825	22.1
1905-6	189,353	5,539,750	29.3	1915-16	154,130	3,773,600	24.5
1910-11	213,217	7,594,130	35.6	1916-17	155,378	4,333,480	27.9
1912-13	176,471	5,111,990	29.0	1917-18	145,754	3,499,958	24.0

During the last twenty years there have been several fluctuations in the area under cultivation. The largest area—226,834 acres—was cropped in 1903-4, but the largest yield was produced in 1910-11. The yield per acre is somewhat variable, ranging from 15.1 bushels in 1902-3 to 35.6 bushels in 1910-11, though the average has a tendency to decrease, owing to the reduction of the area cultivated in the coastal districts, where the average yield is highest, the most favourable localities yielding as much as 80 to 100 bushels per acre. The yields during the past four years have been below the average for the decennial period ended 1918.

The work of maize-breeding is conducted on the State experiment farms, with a view to raising improved pure seed maize; to prevent crossing, only one variety is grown on each farm, except at Grafton, where an early and a late variety may be grown without risk. Maize differs from most other crops in being readily cross-fertilised, and the initial work in breeding consists largely in eliminating the impurities represented by previous crossing with other varieties.

In order to extend the system of selection and breeding to districts in which no experiment farms are situated, arrangements are made with reliable farmers to grow a special seed-plot of a suitable variety, so that pure seed may be distributed to growers throughout the district.

OATS.

The production of oats in New South Wales is not sufficient to supply the local demand, although where cultivation has been undertaken the return has been satisfactory. The elevated districts of Monaro, Argyle, Bathurst, and New England contain large areas of land on which oats could be cultivated with excellent results, as it thrives best in regions which experience a winter of some severity.

The area under crop for grain in 1917-18 was 82,591 acres, which produced 1,455,111 bushels, being 17.6 bushels per acre, as compared with 67,111 acres, which yielded 1,084,980 bushels in the previous year. During the 1915-16 season, wheat was in great demand owing to the European War, and to the depletion of local stocks due to the low production in the previous year, and the cultivation of oats—in common with that of other cereals—was not undertaken to the extent it had been in normal ante-bellum years. During the two succeeding years, however, there was an increase in the acreage sown for grain.

The Northern Tableland gave the best average, with 24 bushels per acre. In the whole of the Tableland Division 17,953 acres were under crop, and yielded 321,771 bushels, or 17·9 bushels per acre; on the Western Slopes, 31,228 acres gave 520,824 bushels, or 16·7 bushels per acre, while in the Riverina the production was 552,093 bushels from 30,631 acres, or 18·0 bushels per acre. These three Divisions accounted for about 96 per cent. of the total production.

The following table gives statistics of the cultivation of oats for grain since 1897-8.

Season.	Acres under Oats for Grain.	Production.		Season.	Acres under Oats for Grain.	Production.	
		Bushels.	Bushels per Acre.			Bushels.	Bushels per Acre.
1897-8	28,605	543,946	19·0	1913-14	103,416	1,835,406	17·7
1900-1	29,383	593,548	20·2	1914-15	43,476	513,910	11·8
1905-6	38,543	883,081	22·9	1915-16	58,636	1,345,698	23·0
1910-11	77,991	1,702,706	21·8	1916-17	67,111	1,084,980	16·2
1912-13	85,175	1,674,075	19·7	1917-18	82,591	1,455,111	17·6

The area under oats for grain, with slight fluctuations, remained practically stationary for a number of years, but in 1913-14 it reached 103,416 acres. The average yield varied considerably, in a fair season exceeding 20 bushels per acre, and in a bad year falling below half that rate, but the average for the last ten years was nearly 19 bushels. The lowest average yield was 8·2 bushels per acre in 1903, when the crop almost failed, owing to the unfavourable season; and the highest was 24·9 bushels in 1907.

The market for oats is chiefly in the metropolitan district, and the demand depends mainly on the price of maize. Large quantities are imported from Victoria, Tasmania, and New Zealand.

BARLEY.

Barley is an important crop, but at present it is produced only on a moderate scale, although there are several districts where the necessary conditions as to soil and drainage present inducements for cultivation, particularly with regard to the malting varieties. Barley is grown mainly in the North-Western Slope and the Riverina divisions. The areas under crop in other districts are small, and do not call for special notice. The following table shows the area under barley for grain, together with the production at intervals since 1897-8.

Season.	Area under Barley for Grain.	Production.		Season.	Area under Barley for Grain.	Production.	
		Total.	Average per Acre.			Total.	Average per Acre.
	acres.	bushels.	bushels.		acres.	bushels.	bushels.
1897-98	5,151	99,509	19·3	1913-14	20,610	303,447	14·7
1900-01	9,435	114,228	12·1	1914-15	4,861	46,500	9·6
1905-06	9,519	111,266	11·7	1915-16	6,369	114,846	18·0
1910-11	7,082	82,005	11·6	1916-17	5,195	73,370	14·1
1912-13	16,916	289,682	17·1	1917-18	6,370	97,824	15·5

The table shows considerable fluctuation as to the area cultivated, while the grain yield has varied greatly, ranging from 4 bushels per acre in 1902-3, when the crop practically failed, to the excellent rate of 21·9 bushels in 1886-7. The average crop during the last ten years has been 16·3 bushels per acre.

RYE.

Rye is cultivated to a very limited extent, the supply for grain being grown mainly on the Tableland. The area during 1917-18 was 1,677 acres, with a total yield of 19,296 bushels, at the rate of 11·5 bushels per acre. In 1904 an average of 16·3 bushels was obtained.

BROOM MILLET.

Broom millet is a small but valuable crop, and during the last ten seasons the return from fibre alone gave an average of £21,706 per season. In 1917-18, owing to unfavourable conditions, the area under broom millet and the average production per acre were much smaller than in previous years; 1,918 acres were cultivated, 20 acres being cropped for grain, 1,214 acres for fibre, and 684 acres for both fibre and grain. The yield was 7,163 bushels of grain, or 10·2 bushels per acre, and 9,261 cwt. of fibre, or 4·9 cwt. per acre; the grain and fibre were valued at £1,790 and £25,470 respectively. The average yield of fibre during the last ten seasons was 6·9 cwt per acre. The greater part of the crop is grown in the valleys of the Hunter and the northern coastal rivers. The experimental cultivation of broom millet on the irrigation areas has proved even more successful, as the plant grown there does not appear to be subject to certain fungoid troubles which are occasionally encountered in the districts of the eastern littoral.

HAY.

A very considerable portion of the areas under wheat, oats, barley, and lucerne is utilised for the production of hay for farm stock and of cut chaff for the market. This proportion is increasing, but the extent of the increase depends on the climatic conditions of the season.

The following statement shows the area under each crop for hay, the total production, and the average return per acre during the last seven seasons.

Type of Hay.	1911-12.	1912-13.	1913-14.	1914-15.	1915-16.	1916-17.	1917-18.
AREA.							
	acres.	acres.	acres.	acres.	acres.	acres.	acres.
Wheaten ...	440,243	704,221	534,226	569,431	879,678	633,605	435,180
Oaten ...	147,710	182,955	211,606	161,320	176,183	161,723	118,917
Barley ...	1,246	1,708	1,395	1,179	1,348	866	844
Lucerne ...	63,824	56,420	52,479	52,582	50,544	61,584	64,708
Rye, etc. ...	1,126	1,762	1,424	1,432	1,166	754	995
Total ...	654,149	947,066	801,130	785,944	1,108,919	858,532	620,644
PRODUCTION.							
	tons.	tons.	tons.	tons.	tons.	tons.	tons.
Wheaten ...	423,262	779,500	588,127	354,531	1,211,677	813,768	484,708
Oaten ...	155,653	212,266	256,814	147,420	259,476	210,953	150,097
Barley ...	1,201	2,108	1,552	1,112	1,575	1,205	1,083
Lucerne ...	147,423	112,761	107,045	108,934	100,075	147,365	147,172
Rye, etc. ...	935	1,640	1,509	1,238	1,135	759	1,146
Total ...	728,474	1,108,275	955,047	613,235	1,573,938	1,174,050	784,206
AVERAGE PRODUCTION PER ACRE.							
	tons.	tons.	tons.	tons.	tons.	tons.	tons.
Wheaten ...	0·96	1·11	1·10	0·62	1·38	1·13	1·11
Oaten ...	1·05	1·16	1·21	0·91	1·47	1·30	1·26
Barley ...	0·96	1·23	1·11	0·94	1·17	1·39	1·28
Lucerne ...	2·31	2·00	2·85	2·07	1·98	2·39	2·27
Rye, etc. ...	0·83	0·93	1·06	0·86	0·96	1·01	1·15

In 1917-18 about 70 per cent. of the total area under cultivation for hay was taken up by the wheaten variety. Until 1894 the area reaped for wheaten hay increased at a much greater rate than that for grain, but during subsequent years there has been a greater development in the cultivation of wheat for grain. But as already pointed out, the ultimate treatment of a grain crop is largely a matter determined by the characteristics of the season.

In general, oaten crops are grown in parts of the State which, on account of the climate, are unsuitable for maturing the grain, and preference is given to cultivation for hay; moreover, the prices obtainable for the hay are usually so profitable as to prejudice any material development of the grain harvest.

The area under barley for hay is inconsiderable. Lucerne is always in demand, and consequently realises remunerative prices. It gives the best return of all hay crops, the average yield during the last ten years having been 2·2 tons per acre for lucerne, and a little over a ton each for oaten, barley, and wheaten hay. In favoured districts, and with careful attention, lucerne grows so rapidly that, from a series of crops, even as many as eight cuttings may and have been procured, with an average result of 1 ton per acre for each.

GREEN FOOD AND SOWN GRASSES.

The great advance in dairy-farming has caused a corresponding increase during recent years in the cultivation of cereals, lucerne, and grasses, for green food. The cultural development of grasses has received great attention particularly in the northern and southern coastal districts, the great centres of dairy farming in the State. Considerable areas have been sown also in the Central Tableland, and smaller cultivations in the Northern and Southern Tablelands and in the Murray Valley.

The following statement shows the increase in the area cropped for green food and sown with artificial grasses in various seasons since 1897-8:—

Season.	Area Cultivated for Green Food.	Area Sown with Grasses.	Season.	Area Cultivated for Green Food.	Area Sown with Grasses.
	acres.	acres.		acres.	acres.
1897-8	62,145	376,402	1913-14	146,239	1,234,455
1900-01	78,144	422,741	1914-15	949,619	1,251,453
1905-06	95,058	627,530	1915-16	162,945	1,247,099
1910-11	179,382	1,055,303	1916-17	149,873	1,357,157
1912-13	154,535	1,152,449	1917-18	152,519	1,389,640

The largely-increased area under green food during 1914-15 was due entirely to drought, as the crops on numerous holdings failed to mature either for grain or for hay. No less than 815,561 acres sown with wheat

were fed-off by stock, or otherwise used for green food; but in 1917-18 the area so treated comprised only 63,885 acres.

Lucerne is grown in considerable quantities on the Hunter River flats, and the cultivation of this fodder plant is extending throughout the country, principally along the banks of the rivers flowing from the western watershed of the Dividing Range. During 1917-18 there were 32,720 acres grown for green food, and if to these be added the area cropped for hay there were altogether 97,428 acres under lucerne.

ENSILAGE.

New South Wales is liable, at irregular and indeterminate intervals, to long periods of dry weather, hence the necessity for the conservation of green foods in the form of ensilage. The possession of stocks of ensilage is highly advantageous also to the prosecution of dairy farming in the districts of the coast, where the climatic conditions are unfavourable to the growth of winter fodder.

The quantity of ensilage made at intervals since 1897-8 is shown in the following table.

Division.	Ensilage Prepared.					
	1897-8.	1900-01.	1905-6.	1910-11.	1915-16.	1917-18.
	tons.	tons.	tons.	tons.	tons.	tons.
Coastal	1,523	1,694	1,414	18,125	7,028	8,586
Tableland	2,012	3,753	1,430	2,328	800	259
Western Slopes	424	847	2,250	2,654	5,788	3,594
Central Plains and Riverina ... ..	...	460	4,227	6,409	4,595	2,190
Western ... ..	...	100	...	100	300	160
Total	3,959	6,854	9,321	29,616	18,511	14,789

The quantity of ensilage made each year during the last decade has varied considerably, especially during the first half of the period. The year of maximum production was 1909, when 34,847 tons were made on 364 farms. The production then decreased steadily until, in 1914-15, the quantity made was only 10,963 tons; this amount was made on 83 farms, and was valued at £18,014. In 1917-18 the production was 14,789 tons made on 116 farms and valued at £18,828.

POTATOES.

Potatoes are grown mostly on the Tableland, where, in 1917-18, there were 18,412 acres under cultivation and the yield was 39,777 tons. In the coastal division there were 3,345 acres, yielding a total of 7,936 tons.

The following statement shows the area under cultivation and the production at intervals since the season 1897-8 :—

Season	Area under Crop.	Production.		Season.	Area under Crop.	Production.	
		Total.	Average per Acre.			Total.	Average per Acre.
	acres.	tons.	tons.		acres.	tons.	tons.
1897-98	23,816	55,332	2·32	1913-14	38,725	106,849	2·76
1900-01	29,408	63,253	2·15	1914-15	30,418	40,709	1·34
1905-06	26,374	50,386	1·91	1915-16	19,589	44,445	2·27
1910-11	44,452	121,033	2·72	1916-17	22,449	45,331	2·02
1912-13	34,124	91,642	2·69	1917-18	22,580	49,984	2·21

The continuous fluctuation in the area from year to year since that time clearly shows that the possible advantages of this crop have been much neglected.

The average yield during the last ten years has been 2·35 tons per acre, and the highest 2·8 tons per acre in 1909-10. The small production per acre during 1914-15 was due mainly to the effects of the dry season, but that of the succeeding years showed an approximation to the general average of the decennium.

The average wholesale prices per ton of potatoes at Sydney during the season 1917-18 are shown below.

Month.	Local.	Victorian.	Tasmanian.	Month.	Local.	Victorian.	Tasmanian.
1917.	£ s. d.	£ s. d.	£ s. d.	1918.	£ s. d.	£ s. d.	£ s. d.
July ...	4 13 0	5 5 6	5 18 9	January ...	5 15 0	6 13 6	7 14 3
August ...	6 13 3	6 3 6	7 11 0	February...	5 0 0	6 1 0	8 1 3
September...	6 1 9	6 18 9	9 0 0	March ...	6 13 3	6 6 6	7 6 6
October ...	7 18 3	7 11 9	8 18 9	April ...	5 3 3	5 1 3	6 10 3
November...	5 14 3	5 19 9	9 8 6	May ...	4 15 0	4 14 6	5 11 0
December ...	4 6 9	4 12 3	8 6 0	June ...	4 16 3	4 10 0	5 17 9

MINOR ROOT CROPS.

The cultivation of root crops other than potatoes requires only brief notice, as, in addition to those included in market gardens, only 989 acres were planted with onions, turnips, mangel-wurzels, carrots, sweet potatoes, arrowroot, and artichokes. The area under turnips was 419 acres, which yielded 1,670 tons, or 3·99 tons per acre. The probable reason for the small attention paid to the growth of onions, of which there were only 163 acres yielding 784 tons, is the uncertainty as to the price obtainable for the produce, there being no lack of soil suited to the cultivation of this edible bulb. Consequently, large importations are necessary to meet the local demand. The State Department of Agriculture, in order to encourage the cultivation of the onion, has introduced experiment plots to farm-holdings, and the results have been highly satisfactory.

The area under sweet potatoes was 362 acres, and the estimated yield 2,005 tons. Of mangel-wurzels there were under cultivation only 25 acres, which yielded 281 tons, and in some of the more elevated dairying districts this crop is grown as winter fodder for cattle. Excellent results in the cultivation of arrowroot have been obtained at the Wollongbar experiment farm, near Lismore.

TOBACCO.

Tobacco culture is confined practically to the northern and southern portions of the Western Slopes and the Central Tableland.

The following statement shows the extent of the cultivation of tobacco, since 1897-8, during various seasons.

Season.	Area.	Production of Dried Leaf.		Season.	Area.	Production of Dried Leaf.	
		Total.	Average per Acre.			Total.	Average per Acre.
	acres.	cwt.	cwt.		acres.	cwt.	cwt.
1897-98	2,181	19,718	9.0	1913-14	1,992	18,117	9.1
1900-01	199	1,905	9.6	1914-15	1,563	10,065	6.4
1905-06	809	7,327	9.1	1915-16	1,277	9,563	7.5
1910-11	959	8,513	7.8	1916-17	952	921	1.0
1912-13	1,914	13,863	7.2	1917-18	791	2,609	3.3

For several years prior to 1889 the area under cultivation grew steadily, and in that year it reached the maximum of 4,833 acres. As, however, the local product did not compare favourably with the American leaf, it could not be treated profitably, and a large proportion of the crop remained upon the farmers' hands; so that many growers abandoned tobacco in favour of other crops. The area had declined by 1907-8 to 533 acres, but subsequently it increased, owing to the greater attention paid to the processes of curing, and tobacco manufacturers endeavoured to stimulate the industry by paying adequate prices for good leaf, and by employing expert assistance to instruct growers. In 1917 and 1918 the seasons were unfavourable, owing to the continuous rains in the early spring, which caused an outbreak of blue mould in the seed beds.

SUGAR-CANE.

Sugar-cane was cultivated in New South Wales as early as the year 1824, but it was not until 1865 that systematic attention was given to this industry. Within a few years the richest portions of the lower valleys of the Clarence, the Richmond, the Tweed, and the Brunswick were occupied by planters. Mills were erected in the chief centres of the industry, and cane-growing and sugar-manufacturing became established industries in the north-eastern portion of the State, where the soil and the climate are in most respects well adapted to successful cultivation.

The yield of sugar from the cane crushed varies considerably, the variation approximating, between a maximum and a minimum year, to 1 ton of cane in the quantity required to produce 1 ton of sugar, measured by the saccharine density of the cane. As compared with Queensland, where the average yield of cane per acre for 1917 was 24.9 tons, the yield for this State, 31.3 tons, may be regarded as satisfactory, but as compared with the produce which could be gathered by the application of more scientific methods of culture, there is evidence that considerable improvement is possible.

The following table shows the area and production since the season 1897-8. As sugar-cane is not productive within the season of planting, the area under cultivation has been divided, as far as practicable, into productive and non-productive, the former representing the number of acres upon which cane was cut during the season, and the latter the area either newly planted, or during which it was not sufficiently matured for milling,

and was on that account allowed to stand for another year. On the average the area cut for cane represented about one-half of the total area planted.

Season.	Area.			Production of Cane.	
	Cut for Crushing.	Not cut.	Total.*	Total.	Average per Acre.
	acres.	acres.	acres.	tons.	tons.
1897-98	12,936	12,929	25,865	269,068	20·80
1900-01	10,472	11,642	22,114	199,118	19·01
1905-06	10,313	11,492	21,805	201,998	19·59
1910-11	5,596	8,167	13,763	160,311	28·65
1912-13	6,137	7,777	13,914	140,914	22·96
1913-14	6,198	7,034	13,232	185,970	30·00
1914-15	6,012	5,409	11,421	181,606	30·21
1915-16	6,030	5,228	11,258	157,748	26·16
1916-17	5,223	5,746	10,969	143,558	27·49
1917-18	5,588	5,008	10,596	174,881	31·30

* Exclusive of areas cut for green food or plants.

The largest area on record, consisting of 32,927 acres, was planted in the year 1895-6; but about that time alterations were made in the Customs tariff with regard to sugar and there were great developments in the dairy-farming industry on the Northern Rivers, and both causes diverted attention from sugar-planting. From 1900-1 the area remained practically stationary for six years at a little over 20,000 acres; but a further diminution followed, and in 1917-18 there were only 10,596 acres under cultivation.

In 1896-7 the highest production of 320,276 tons of cane was obtained, but the average production per acre was only 17·6 tons. In the 1916-17 season 5,223 acres were cut for crushing, the production of cane being 143,558 tons. The average yield per acre was 27·49 tons, or about 26 cwt. per acre higher than in the previous season. The returns for 1917-18 indicate further improvement, the yield per acre being 31·3 tons; the area cut for crushing was 5,588 acres and the production 174,881 tons.

The county of Clarence contains the largest area devoted to the production of sugar, viz., 4,361 acres in 1917-18. The yield obtained from 2,243 acres of productive cane amounted to 53,664 tons, showing an average of 23·92 tons per acre. In the county of Rous cane was grown on 3,752 acres, and the yield was 63,332 tons, or an average of 31·78 tons per acre, cut on an area of 1,993 acres. In the county of Richmond the area under sugar-cane was 2,483 acres, of which 1,352 acres were cut, giving a total yield of 57,885 tons of cane, or an average of 42·81 tons to the acre.

Cane was grown during 1917-18 on 671 holdings; the majority of the farmers cultivate it in conjunction with dairy-farming, and only a few estates are devoted entirely to its production.

Sugar manufacturers invariably purchase the year's crop of cane as it stands, and cut it at their own cost. From plantations in full bearing the average weight of the cut cane varied from 25 to 32 tons, and the value received by the grower was, in 1917-18, about £1 3s. 9d. per ton of uncut cane. An additional 6s. 6d. per ton was paid for cutting, which in most cases was done by the growers. The field work on the sugar plantations of New South Wales has been performed generally by white labour, and in 1913 the number of farmers employing black labour represented only 1·5 per cent. of the total; since that year figures have not been available.

GRAPE VINES.

The principal vineyards of the State are situated in the valleys of the Murray and the Hunter Rivers, where capital has been generously expended to introduce skilled labour, and to provide manufacturing appliances.

The great irrigated areas in the Murrumbidgee Valley are now rapidly growing in the favour of vignerons, and they may within a few years become the most important wine-producing districts of the State. Several hundred acres have already been planted with vines, and the results of the culture have proved highly satisfactory.

The vine-growing and wine-manufacturing industries are still, however, in their infancy, but with an increasing local demand, and with the establishment of a market in England, where the wines of New South Wales have gained high appreciation, the future of grape culture appears to be fairly assured. At present the production is, speaking comparatively, insignificant.

The following table shows, at intervals since 1897-8, the total area under vines in this State, the area devoted to the wine-making industry only, the total production of wine in gallons, and the average number of gallons to the acre.

Season.	Total Area under Vines.	Area under Vines for Wine-making only.	Production of Wine.		Season.	Total Area under Vines.	Area under Vines for Wine-making only.	Production of Wine.	
			Total.	Average per Acre.				Total.	Average per Acre.
	acres.	acres.	galls.	galls.		acres.	acres.	galls.	galls.
1897-98	8,083	4,490	864,514	193	1913-14	8,153	4,498	561,100	125
1900-01	8,441	4,534	891,190	197	1914-15	7,985	4,113	549,140	134
1905-06	8,754	5,279	831,700	157	1915-16	7,883	3,501	571,000	163
1910-11	8,321	4,354	805,600	185	1916-17	8,666	3,442	628,950	183
1912-13	8,163	4,403	719,100	163	1917-18	8,594	3,839	538,210	140

The production of wine has declined during the last six years. The total number of vineyards in 1918 was 1,304, in 240 of which wine-grapes were grown. The average area of each vineyard was $6\frac{1}{2}$ acres, and the total planted with vines still in an unproductive stage was 2,132 acres. The average yield in 1917-18 was 140 gallons per acre, and during the last ten years 163 gallons. The wine produced in New South Wales during the year 1917-18 was valued at £47,090, and the brandy distilled by vignerons for fortifying purposes at £3,600.

The necessity for the application of scientific methods to wine-making for the general cultivation of the vine, and for the extirpation of the phylloxera disease, has led to the establishment of viticultural stations at Howlong, Narara, and Mirrool; and at the Wagga and Yanco experiment farms for the propagation of resistant stocks, and for the conduct of various researches in connection with wine-growing.

Phylloxera has not affected the Hunter Valley District, and the station at Narara was established to supply the demands of clean vineyards there and in other districts.

Arrangements are being made by the Department of Agriculture to conduct a systematic examination of the wines of the State in order to determine the nature of vintages from different varieties of grapes and from a number of districts, also to compare them with those of other countries.

The culture of grapes is not restricted to the production of fruit for wine manufacture, but a considerable area is devoted to their production for table use, particularly in various parts of Central Cumberland, and in the Orange, Yanco, and Mirrool Districts. The extent of land devoted to this branch of the industry in 1917-18 included 2,081 acres, with a production of 1,710 tons of grapes, or an average of 0.82 tons of fruit per acre.

Although there is a large local demand, and a possibility of an export trade for raisin fruits, no extensive areas have as yet been planted. In 1917-18 there were 542 acres cultivated for drying purposes, and the yield was 5,412 cwt., comprising 2,814 cwt. of sultanas, 694 cwt. of raisins, and 1,904 cwt. of currants. At the vineyards conducted in connection with the Wagga experiment farm and the Hawkesbury Agricultural College raisins and sultanas are dried every season and placed on the local market, where they are regarded as equal in every respect to the imported article.

The cultivation of vines is conducted also in the Murrumbidgee Irrigation area.

ORCHARDS.

The cultivation of fruit does not receive sufficient attention, as both the soil and the climate of large areas throughout the State are well adapted to fruit-growing. A larger area of land is, however, being brought each year under fruit culture, and orchardists can ascertain from the Department of Agriculture the varieties which are recommended for planting in specified districts, and the prospects of ultimate success are thus greatly enhanced. With large areas of suitable soil and with climatic conditions ranging from comparative cold on the highlands to semi-tropical heat on the North Coast, a large variety of fruits can be cultivated. In the vicinity of Sydney, oranges, peaches, plums and passion-fruit are most generally planted. On the Tableland, apples, pears, apricots, and all the fruits from cool and temperate climates thrive well; in the west and in the south-west, figs, almonds, and raisin-grapes can be cultivated; and in the north coastal districts, bananas, pine-apples, and other tropical fruits grow excellently.

Inspectors have been appointed to the several fruit-growing districts, who advise growers in the methods of combating the various diseases that affect orchards; in the extirpation of pests, in the adaptation of varieties of fruit-trees to distinct classes of soil, in spraying and pruning trees according to modern scientific methods, and in grading and packing fruit. Experiments are being conducted for the treatment of fungus diseases and insect pests in the fruit-growing centres of the State.

Citrus Orchards.

Orange groves were planted first near the town of Parramatta, and afterwards in the neighbouring districts of Ryde, Pennant Hills, Lane Cove, throughout Central Cumberland, in the valleys of the Hawkesbury and the Nepean Rivers, and on the slopes of the Kurrajong Mountains. Large areas destined to the cultivation of citrus fruits are being planted at Yanco

and Mirrool, and with the results and experience of Pera Bore in support of the enterprise, good oranges and lemons produced under irrigation are expected.

Statistics relating to citrus orchards are shown in the following statement.

Season.	Area under Cultivation.			Production.	
	Productive.	Not bearing.	Total.	Total.	Average per Acre.
	acres.	acres.	acres.	bushels.	bushels.
1897-98	10,097	3,846	13,943	633,010	63
1900-01	11,013	3,952	14,965	648,628	59
1905-06	15,054	2,795	17,849	886,493	59
1910-11	17,465	2,643	20,108	1,478,306	85
1912-13	17,213	3,360	20,573	1,534,000	89
1913-14	16,643	3,800	20,443	1,153,980	69
1914-15	16,675	5,237	21,912	1,445,624	87
1915-16	17,542	5,717	23,259	1,360,898	78
1916-17	17,542	6,306	23,848	1,559,835	89
1917-18	19,133	6,311	25,444	1,737,107	91

In 1900-1 the area under citrus fruit was 14,965 acres; in 1917-18 this had increased to 25,444 acres, of which 19,133 acres were productive, and the production was equal to 91 bushels per acre. The number of orchards in which citrus fruit was cultivated during the year 1917-18 was 6,221, and of these the average area was 4 acres.

The citrus production of 1917-18 represented 1,037,416 bushels of oranges, 250,600 bushels of lemons, 445,264 bushels of mandarins, and 3,827 bushels of other citrus fruits, namely, pomeloes (or citron apples), shaddockes and limes. The trees of bearing age included 1,058,663 orange-trees, 242,546 lemon-trees, 442,843 mandarin-trees, and 3,619 other citrus-trees; whilst the young trees which had not yet reached the age of bearing included 406,318 orange-trees, 93,553 lemon-trees, 80,567 mandarin-trees, and 1,890 other citrus-trees.

The production of oranges has attained such proportions that the growers are obliged to seek oversea markets, the supply, both in New South Wales and in the adjacent States, exceeding in some seasons the local demand. The principal market outside Australia is provided by New Zealand. Efforts are being made to establish a trade with the United Kingdom and with America, and in view of the success that has been attained in other countries in carrying citrus fruits long distances by sea, there is assurance that a profitable export trade in Australian-grown products will be established.

Other Orchards.

The principal crops of fruit other than citrus products, which are more intensively cultivated in the neighbourhood of Sydney, range from natives of comparatively cold to those of temperate and semi-tropical climates, but their successful culture is determined by altitude as well as by parallels of latitude. Apples showed the greatest measure of production, the output for the year 1917-18 reaching 616,001 bushels from 633,761 trees of bearing age. Peaches and nectarines came next, with an output of 598,440 bushels

from 643,262 trees; followed by pears, with 174,714 bushels from 167,613 trees; by plums and prunes, with 140,978 bushels, from 131,066 trees; by apricots with 85,885 bushels from 97,628 trees; by passion-fruit, with 52,670 bushels from 110,528 vines; by cherries, with 68,536 bushels from 142,387 trees; and by quinces, with 36,438 bushels from 31,290 trees, besides some smaller yields from minor fruit crops.

The following table shows the area under orchards and fruit-gardens, exclusive of orangeries, together with the total value of each season's yield, at intervals since 1897-8.

Season.	Area of Productive Fruit-gardens and Orchards.	Area of Fruit-Gardens and Orchards not Bearing.	Total Area Cultivated for Fruit-gardens and Orchards.	Total Value of the Production of Fruit-gardens and Orchards.	Approximate Average Value per Acre.
	acres.	acres.	acres.	£	£ s. d.
1897-98	23,965	7,054	31,019	155,534	6 10 0
1900-01	25,766	5,503	31,269	270,081	10 10 0
1905-06	25,189	3,577	28,766	189,195	7 10 0
1910-11	20,498	6,748	27,246	271,930	13 5 4
1912-13	19,375	9,109	28,484	305,660	15 15 6
1913-14	19,248	11,238	30,486	244,950	12 14 6
1914-15	18,500	12,567	31,067	233,130	12 12 0
1915-16	19,006	13,173	32,179	243,210	12 16 0
1916-17	20,761	13,359	34,120	280,990	13 11 0
1917-18	22,121	13,784	35,905	376,090	17 0 0

Owing to the subdivision of orchards for residential and other purposes the area under fruit declined from 32,346 acres in 1901-2 to 25,859 acres in 1909-10; since that season it has increased, and in 1917-18 was the highest on record.

Nearly one-third of the area devoted to fruit culture is in the county of Cumberland, the actual acreage in 1917-18 being citrus, 10,529 acres; fruits other than citrus, 7,855 acres. At the Murrumbidgee irrigation settlement fruit-trees are being planted very extensively, especially peaches, apricots and oranges.

With the exception of oranges, the fruit-production of New South Wales is far below average demands. The State is, therefore, obliged to import large quantities, the greater portion of which could be grown within its own boundaries. As a matter of fact, vast quantities of fruit produced in New South Wales never reach the consumer. This is due to faults of marketing, and to lack of co-operation among growers. Good seasons are rewarded by a glut of fruit, for which, apparently, there is no system of efficient handling; and while consumers are anxious to secure supplies of sound fruit, much of the produce is allowed to be wasted.

After citrus fruits, apple and peach trees are the most numerous, and peaches are largely preserved by canning. Efforts have been made to establish an export trade, principally in apples, but during recent seasons satisfactory prices have been obtained in the local markets, and only small quantities have been exported.

The extent of cultivation of each kind of fruit is shown in the following table for the seasons 1916-17 and 1917-18.

Fruit.	1916-17.				1917-18.			
	Number of Trees not yet Bearing.	Trees of Bearing Age.			Number of Trees not yet Bearing.	Trees of Bearing Age.		
		Number.	Yield.			Number.	Yield.	
			bushels.				bushels.	
Oranges	400,416	961,842	910,777	406,318	1,058,663	1,037,416		
Lemons	80,277	228,325	230,830	93,553	242,546	250,600		
Mandarins	91,390	416,846	413,828	80,567	442,843	445,264		
Other citrus	2,682	3,720	4,400	1,890	3,619	3,827		
Apples	389,175	589,142	533,026	374,485	633,761	616,001		
Peaches and Nectarines ...	315,262	580,820	559,819	285,626	643,262	598,440		
Pears	143,395	153,401	152,241	166,386	167,613	174,714		
Cherries	97,480	121,752	47,010	119,782	142,387	68,536		
Apricots	63,784	89,566	80,577	59,222	97,628	85,885		
Plums and Prunes ...	127,143	121,129	123,874	151,286	131,066	140,978		
Quinces	13,037	31,298	40,018	14,250	31,290	36,438		
Persimmons	2,549	9,266	9,359	3,037	9,397	10,262		
Passion Fruit	*30,667	*107,991	53,767	*23,176	*110,528	52,670		
All other	22,999	20,696	25,512	42,003	27,894	30,310		

* Vines.

In 1917-18 the number of passion-fruit vines was stated as 133,704, of which 110,528 were bearing fruit, the vines being frequently planted among the trees of other fruits, especially in young citrus orchards. The passion-vine is easily grown and cheaply maintained, and on account of its early maturity forms a valuable means of profit to the grower until the fruit-bearing trees become productive.

"All other" included a variety of berry, nut, ficus, stone, pulp, and jelly fruits, of which the more important were loquats, almonds, figs, walnuts, and guavas; the remainder included small quantities of mulberries, mangoes, pomegranates, paw-paws, olives, custard apples, chestnuts, and medlars. Of the foregoing, loquats showed the greatest measure of production, the output for the year 1917-18 being 10,400 bushels from 7,052 trees of bearing age. Almonds came next, with an output of 11,933 bushels from 9,769 trees. The production of figs was 5,672 bushels from 4,939 trees; of guavas, 840 bushels from 756 trees; and of walnuts, 505 bushels from 432 trees. The following figures represent the number of young trees not then of bearing age, namely, loquats 2,065, almonds 11,636, figs 9,343, guavas, 326, and walnuts 2,831.

OTHER FRUIT CROPS.

Banana culture is becoming an important industry in the Tweed River district of the North Coast division. In 1916-17 an area of 2,352 acres was cultivated; 1,165 acres were productive and the crop was valued at £42,920. In 1917-18 the total area was 2,691 acres; 1,944 acres were productive and yielded 200,131 cases of bananas, valued at £89,040.

Pine-apples were grown on 48 acres, of which the productive area, 33 acres, yielded fruit to the value of £760. Statistics relating to the total production of strawberries, gooseberries, loganberries, and currants are not available.

MARKET GARDENS.

In 1917-18 there were in the State 2,931 holdings, comprising 10,139 acres, cultivated as market-gardens, the average size of each being 3·5 acres. The value of the production for the year was £409,380. Nearly one-sixth of the total area laid down for market-gardens is in the County of Cumberland, and until recent years the industry was almost entirely in the hands of the Chinese, but latterly it has received more attention from the farmers of the metropolitan districts.

The following statement gives the number and area of market-gardens, and the value of the produce in various seasons since 1897-98.

Season	Market-gardens.	Area.	Value of Production.	
			Total.	Average per Acre.
	No.	acres.	£	£ s. d.
1897-98	1,824	6,384	151,919	23 16 0
1900-01	2,266	7,764	189,448	24 8 0
1905-06	2,842	9,119	242,405	26 11 8
1910-11	3,598	9,813	333,820	34 0 4
1912-13	3,581	9,847	369,480	37 10 6
1913-14	3,373	10,607	401,060	37 16 2
1914-15	2,972	10,502	405,280	38 11 10
1915-16	3,301	10,967	400,860	36 11 0
1916-17	3,158	10,710	398,700	37 4 6
1917-18	2,931	10,139	409,380	40 7 6

One branch of gardening—tomato culture—is particularly remunerative, and the vegetable can be grown by persons unaccustomed to heavier labour on farms. In 1917-18 there were 487 acres, exclusive of market-gardens, under cultivation for tomatoes, which yielded 139,470 half-cases, or 286 half-cases per acre. Settlers on irrigation areas cultivate tomatoes as a stock product whilst their orchards are maturing.

NURSERIES.

Nurseries for raising flowers, plants, trees, &c., covered an area of 618 acres during 1917-18. The value of the output was £66,500. The State Forest Nurseries are not included, particulars being shown in the chapter relating to Forestry. At the State Nursery at Campbelltown flowers and ornamental trees and shrubs are propagated for distribution to the public parks and recreation reserves.

MINOR CROPS.

In addition to the crops already specified, there are small areas under various other products, such as pulse and cucurbit crops.

Pulse.—During the season 1917-18 there were 319 acres under crop for peas and beans, which gave a total yield of 8,337 bushels, being 26·1 bushels per acre.

These peas and beans were grown mainly as hard fodder for horses and pigs, and must not be confounded with the legumes cultivated in the kitchen and market gardens for table use as green vegetables.

Cucurbit Crops.—The area devoted to pumpkins and melons during the season 1917–18 was 2,805 acres, and the yield 10,692 tons, being 3·81 tons per acre. The principal places of cultivation are the maize-growing districts and the metropolitan county.

Pumpkins are grown for table use as vegetables, and are cropped extensively as fodder for cattle and pigs. The number of acres under gourd-vines mentioned above is somewhat below the true figures, as crops of pumpkins and melons are occasionally raised in market-gardens also, and statistics respecting the production are not available.

MACHINERY AND LABOUR.

For harvesting grain-crops the reaper and binder, the stripper, and the harvester are used, and there is considerable difference of opinion regarding the relative efficiency of these different implements. The reaper and binder is employed almost exclusively in moist districts, but over the greater portion of the wheat areas conditions are favourable to the use of the harvester. A modern type of harvester, particularly adapted to Australian conditions, produced and developed locally, has largely contributed to the expansion of wheat cultivation.

The estimated value of the agricultural machinery in use during the 1917–18 season was £5,615,995, or an average of £1 5s. 2d. per acre cultivated.

The following statement shows the area farmed, the value of the machinery used, and the value of the machinery used per acre, in Divisions of the State.

Division.	Area Farmed.	Value of Machinery.	Value of Machinery per Acre.
	acres.	£	£ s. d.
Coastal	251,527	654,733	2 12 1
Tableland	388,565	714,649	1 16 8
Western Slopes	1,875,472	2,227,934	1 3 10
Central Plains and Riverina	1,934,398	1,968,935	1 7 6
Western	10,739	49,744	4 12 6
Total	4,460,701	5,615,995	1 5 2

A comparison of the value of farming implements and machinery in use during various years since 1897–8 in each of the rural industries is shown in the following table.

Season.	Farming.	Dairying	Pastoral.*	Total Value.
	£	£	£	£
1897–98	1,656,132	157,589	695,687	2,509,408
1900–01	2,065,776	237,221	754,055	3,057,052
1905–06	2,557,262	365,436	1,120,991	4,043,689
1910–11	3,414,621	534,745	1,483,081	5,432,447
1912–13	4,633,809	575,637	1,514,636	6,724,082
1913–14	5,029,938	617,109	1,744,891	7,391,938
1914–15	5,159,959	589,593	1,864,034	7,613,586
1915–16	5,362,027	570,955	2,015,048	7,948,030
1916–17	5,449,657	595,838	2,124,246	8,169,741
1917–18	5,615,995	659,059	2,316,518	8,591,552

* Includes in many cases farming implements used on pastoral holdings.

The following statement gives a comparative view of the machinery used and of the labour employed in agricultural pursuits.

Season.	Area farmed.	Value of Machinery.	Persons Employed.			Per 100 acs. Machinery.
			Males.	Females.	Total.	
	acres.	£				£
1897-98	1,821,829	1,656,132	62,114	5,437	67,551	91
1900-01	2,445,564	2,065,776	62,869	4,267	67,136	84
1905-06	2,838,081	2,557,262	62,419	5,608	68,027	90
1910-11	3,381,921	3,414,621	57,491	3,228	60,719	101
1912-13	3,737,269	4,633,809	57,209	2,848	60,057	124
1913-14	4,568,841	5,029,938	59,337	2,699	62,036	110
1914-15	4,808,627	5,159,959	57,602	3,356	60,958	107
1915-16	5,794,835	5,362,027	56,474	3,759	60,233	93
1916-17	5,163,030	5,449,657	52,259	3,647	55,906	106
1917-18	4,460,701	5,615,995	47,858	3,494	51,352	126

The figures for "persons employed" in the first three years under review are not comparable with those of subsequent years, as the former include those engaged in pig, bee, and poultry farming, while the latter exclude them.

The decline in the number of persons employed per acre has been continuous since the year 1910-11, and the application of machinery to the pursuits of agriculture has been progressively increasing during the same period. In 1910-11 the total value of machinery employed amounted to £3,414,621, and in 1917-8 to £5,615,995, or an increase of over 64 per cent.; the number of persons employed in the same years was respectively 60,719 and 51,352, or a decrease of nearly 16 per cent.; but in the meanwhile the area farmed expanded from 3,381,921, acres, to 4,460,701 acres, or 31 per cent.; and shows therefore the increasingly large part taken by machinery in its application to agriculture.

The decrease in the number of workers during the period of the war amounted to 10,684 on the figures of 1913-14, or to 1,078 in 1914-15, to 725 in 1915-16, to 4,327 in 1916-17, and to 4,554 in 1917-18; but whereas there was a decline in the number of males employed during the same period of 11,479, or of 1,735 in 1914-15, and of 1,128 in 1915-16, and of 4,215 in 1916-17, and of 4,401 in 1917-18, there was an increase in the number of females of 795, or of 657 in 1914-15 and of 403 in 1915-16, with a decrease of 112 in 1916-17, and of 153 in 1917-18. The decline in the number of males engaged in agriculture may not have been due entirely to enlistment for military service abroad, because a period of drought synchronised with the first two years of the War; but military service had undoubtedly a great influence in accentuating the decline of adult male employment in every branch of industry.

Prior to the War the majority of the females were engaged only partly in agricultural work, portion of their time being occupied with the discharge of domestic duties. At the census of 1911, there were 79,235 persons—77,599 males and 1,636 females—who were returned as engaged in agricultural pursuits.

The labour employed in all rural industries is discussed in the chapter on Employment and Industrial Arbitration.

FERTILISERS.

In New South Wales superphosphate is the only artificial fertiliser used in any considerable quantity, the soils in the wheat areas being generally

deficient in phosphoric acid. Tests of manure conducted on the farmers' experiment plots indicate that the benefits derived from the application of superphosphates to wheat-lands, as a general rule, are most marked in the southern portion of the wheat-belt, viz., the South-western Slope and the Riverina. The beneficial results gradually diminish throughout the western districts which form the central portion of the wheat-belt, and in the north-western districts no advantage is gained by the use of this fertiliser. The results may be affected, however, by the fact that fallowing is more common in the south than in the west, and much more than in the north.

The following table shows the area of land and the quantity of manure used during the year 1917-18.

Division.	Total Area Manured.	Quantities of Manure used.	
		Natural (Stable-yard, etc.).	Artificial (Superphosphates, Bone-dust, etc.).
Coastal—	acres.	loads.	cwt.
North Coast	628	844	680
Hunter and Manning	3,750	11,506	10,851
County of Cumberland	17,447	131,340	84,354
South Coast	7,208	16,609	10,229
Total	29,033	160,299	106,114
Tableland—			
Northern	334	415	268
Central	46,342	8,008	37,363
Southern	17,230	2,363	10,433
Total	63,906	10,786	48,064
Western Slopes—			
North	35	250	.....
Central... ..	84,905	444	33,004
South	580,272	1,535	238,450
Total	665,212	2,229	271,454
Central Plains—			
North ... ..	.....	.....	.....
Central... ..	88,889	540	28,580
Total	88,889	540	28,580
Riverina	1,127,264	4,981	442,805
Western—			
East of Darling	359	1,596	721
West of Darling	28	621	.....
Total	387	2,217	721
Total, New South Wales	1,974,691	181,052	897,738

The proportion of manured land in relation to the total cultivated in 1917-18 was only 44·3 per cent.; but, as shown in the following table, a steady increase in the use of fertilisers has taken place since 1907, when the

proportion was only 16·5 per cent.; so that, considerable as the increase of manured land in proportion to the total cultivated area may appear, the figures fall far short in the interpretation of the facts of the case. In 1917-18 the total number of cultivated holdings was recorded as 47,275, but the number on which manure was used was only 9,910, or 21 per cent.

The following table shows the total area cultivated, the total area manured, and the nature of the manures employed, for the various years between 1907-8 and 1917-18.

Season.	Total Area Cultivated.	Total Area Manured.	Manures Used—		Area Manured per cent. of Total Cultivated.
			Natural.	Artificial.	
	acres.	acres.	loads.	cwt.	
1907- 8	2,570,137	423,678	144,021	276,120	16·5
1910-11	3,381,921	1,030,536	186,204	500,342	30·5
1912-13	3,737,269	1,643,788	170,312	779,123	44·0
1913-14	4,568,841	2,226,742	166,753	1,010,596	48·7
1914-15	4,808,627	2,331,239	175,088	1,104,174	48·5
1915-16	5,794,835	2,753,431	177,788	1,132,446	47·5
1916-17	5,163,030	2,352,460	166,374	1,014,213	45·6
1917-18	4,460,701	1,974,691	181,052	897,738	44·3

The area on which only natural manure is used is comparatively small, comprising in 1917-18 but 6,378 acres, the quantity applied amounting to 65,718 loads. In conjunction with 80,087 cwt. of artificial fertilisers, 115,334 loads of natural manure were used on 18,206 acres, while the balance of the area manured—1,950,107 acres—was treated exclusively with 817,651 cwt. of artificial fertilisers.

The sale of artificial manures is regulated by the Fertilisers Act of 1904, under the provisions of which measure the vendor is required to furnish to the purchaser a statement as to their nature and chemical composition.

THE DEPARTMENT OF AGRICULTURE.

The Department of Agriculture, created in 1890 to advance the interests of the farmers and fruit-growers of New South Wales, deals with all matters essential to agriculture; and its practical functions include the collection of information by scientific investigation and practical experiments relating to the causes of the failure of crops, improved methods of cultivation, means of combating pests, fertilisers, drainage and irrigation, new plants and new implements, and to the disposal of surplus products, and transport of produce. Such information is placed at the disposal of the agricultural producers of the State, and every other kind of assistance is rendered to them.

The Department, in conjunction with the Stock Branch and the Water Conservation and Irrigation Commission, is administered by a Minister of the Crown. The scientific staff has been completely organised, and experts have been appointed to direct operations in agricultural chemistry, viticulture, entomology, botany, irrigation, fruit-growing, tobacco-growing, veterinary science, biology, poultry-farming, apiculture, dairying, cattle and

sheep breeding, and cold storage and export; and there are also a number of experimenters, inspectors, and instructors. The Agricultural College and the experiment farms are controlled by the Minister.

The Stock Branch conducts investigations in animal pathology, while similar investigations relating to plant diseases, and to the bacteriology of soils, milk, cheese, wines, &c., are made by the Biological Branch.

Bulletins are issued for the guidance of various classes of rural workers, and most of the publications of the Department are supplied free to persons engaged in rural industry. The officials answer all inquiries for advice or assistance, and visit various parts of the country throughout the year to give demonstrations to the farmers, to conduct experiments, and to advise generally regarding agricultural methods.

The *Agricultural Gazette*, the official organ of the Department, is issued monthly. It presents to the farmers of the State the results of scientific researches and of the investigations of official experts; it gives practical advice on the economic results dictated by these investigations, and supplies seasonable notes on matters of scientific, practical, and industrial interest.

Country newspapers are furnished weekly with notes describing the investigations and educational operations of the Department with respect to improved methods of agriculture, dairying, stock-raising, &c.; and efforts have been made to develop many phases of primary production, fallowing, rotation in cropping, and the cultivation of maize being specially treated.

The revenue and expenditure of the Department of Agriculture during the year ended 30th June, 1918, were as follow:—

Revenue.	£	Expenditure.	£
Agricultural College, Experiment Farms, etc.	59,662	Agricultural College, Experiment Farms, etc.	128,449
Repayments for Seed-wheat	100	Clearing Crown Lands, Tottenham, etc., Preparation of Share Farms, Forest Vale ...	1,755
Fees for fumigation, etc.	6,408	Bulk Handling of Wheat; Grain Elevators	40,797
Botanic Gardens, etc.	390	Departmental	55,357
Miscellaneous	1,072		226,358
Stock Branch	6,863		11,979
	74,495		214,379
Less Refunds	220	Stock and Brands, Pastures Protection	48,600
		Botanic Gardens, etc.	29,865
		Commercial Agents	3,349
			£296,193
Total	£74,275	Total	

AGRICULTURAL BUREAU.

The Agricultural Bureau was established under the direction of the Department of Agriculture. Its objects are to collect and to disseminate information respecting plants, animals, or products likely to prove of value to cultivators; to discover the best methods of cultivating suitable economic crops, the breeding and feeding of domestic animals, and the preparation of products for market; to settle for each district the best times for fallowing, sowing, and harvesting; to prevent the introduction and dissemination of insect and fungus pests; to encourage social intercourse; and generally to advance the interest of persons engaged in rural industries. Government assistance is granted in the form of subsidies payable to each branch at the rate of 10s. for every £ membership fees; by lectures and demonstrations by

the Departmental experts; and by the supply, free of charge, of the publications of the Department, including the *Agricultural Gazette* and Farmers' Bulletins. The Bureau was established in 1911, and at the 30th June, 1918, there were 135 branches, as compared with 123 twelve months earlier.

AGRICULTURAL EDUCATION AND EXPERIMENTS.

In order to obtain a thorough knowledge of local conditions and to afford an education in agriculture on scientific bases, the Government has established the Hawkesbury Agricultural College, thirteen experiment farms, three viticultural nurseries, an apiary, a stud-horse farm, and an agricultural training farm, besides farmers' experiment plots throughout the State. The agricultural training at the University and in the State schools, including the Hurlstone Agricultural High School, has been described in the chapter relating to Education.

Farm schools are in operation at Wagga and Bathurst experiment farms; the fee is £15 for the first year and £10 for the second year. Farm-apprentice schools have been established at the Wollongbar, Glen Innes, and Grafton farms. The course enables students to qualify as farm labourers and small farmers, and the fee is £5 for six months, while a second half-year's training may be given in return for labour.

Schools of instruction for dairy-factory workers are held periodically in dairying districts. During the year 1917-18 two schools for cream-graders and testers were held, and 56 students attended.

In order to secure the maximum advantage of experimental work and to co-ordinate the methods employed, a committee of experts was appointed to supervise all scientific farming investigations and field experiments.

The total area of experiment farms was 34,993 acres, of which 5,912 acres were under crop and 1,074 acres were under artificially-sown grasses during the season 1917-18, the proportion for various crops being as follows:—

	acres.
Cereals and hay	4,328
Fruit-trees and vines	385
Green fodder	1,075
Root and other crops	134

Much of the remaining area allotted to these farms was partially cleared, a portion was under fallow, and another portion was ready for ploughing.

The winter schools at the Hawkesbury Agricultural College include a special course in poultry-farming, and in other subjects useful to those engaged in this industry, to which students of both sexes are admitted. During the year 1917-18 the attendance at the ordinary winter school was 61, and at the poultry-farmers' school 22.

The Department of Agriculture has made special provision for the instruction of women in suitable branches of rural work. In addition to the facilities afforded by the summer and winter schools at the Agricultural College, instruction in all branches of agriculture is provided for women at the Cowra Experiment Farm. A fee of £5, which covers board, lodging, and instruction, is charged for the first six months, and a similar period of training may be given free.

Arrangements have been made for the specialised training of returned soldiers desirous of settling in rural life. Courses of instruction in various branches for a period of six months are provided at the Hawkesbury Agricultural College, Wagga, Bathurst, Yanco, Trangie, Wollongbar, Grafton, and Glen Innes Experiment Farms. At these institutions instruction and board and lodging are free, and sustenance is paid by the Repatriation Department.

HAWKESBURY AGRICULTURAL COLLEGE.

The Hawkesbury Agricultural College provides accommodation for resident students, and imparts theoretical and practical instruction in a three-years' course, which embraces every department of agriculture. Instruction is given also in dairying, pig-raising, horse, sheep, and poultry breeding, and experimental research work is conducted in connection with cereal and other crops, in cultivation with fertilisers, and in soil culture. All subsidiary branches of farm labour are taught, including blacksmithing, carpentry, sheep-killing, bee-keeping, and other occupations incidental to the pursuit of agriculture. An area of 116 acres has been leased on the banks of the Hawkesbury River, on which a complete system of irrigation is being installed. The education and maintenance fee is £28 per annum, payable half-yearly in advance, and it includes the tuition, board and lodging of the student, medical, dispensing, and sports fees, but not the purchase of text-books and apparatus, or the cost of laundry work. Special courses of instruction are also provided, notably at the winter school for farmers and poultry-keepers of both sexes. In June, 1918, there were 148 regular students in residence, and 616 acres out of the total of 3,430 acres attached to the College were under crop, and 300 acres were under sown grasses.

Jersey dairy cattle and Romney Marsh sheep are bred, also stud pigs of various breeds, which are distributed to farmers throughout the Commonwealth and New Zealand. In the poultry section the egg-laying competitions attract a large number of competitors.

EXPERIMENT FARMS.

Experiment farms have been established in various districts of the State, with varying curricula adjusted to the particular local climatic conditions. At the Wagga farm the specialities are seed wheats, fruits, Jersey cattle, swine (Berkshire), sheep, and poultry. The area under crop in 1917-18 was 946 acres out of 3,220 acres. The course is for two years, a fee of £15 being charged for the first year, and £10 for the second. At 30th June, 1918, there were in attendance 13 students.

At Bathurst, particular attention has been devoted to the orchard, and to mixed farming and irrigation. A system of soil culture has been adopted by which a fodder crop rotates with a cereal crop, and a short summer fallow is allowed before sowing the cereal. Experiments with the cross-breeding of sheep are conducted, and a dairy herd of Jersey cattle is maintained. Of the total area of 752 acres, 363 were under crop in 1917-18. The fees are similar to those charged at Wagga, and there were 17 students in attendance in June, 1918.

The Wollongbar farm, with an area of 264 acres, situated about 7 miles from Lismore, is utilised mainly as a stud dairy farm, its chief purpose being to impart instruction in dairying in all its branches, and in mixed farming suitable to the district. A herd of 142 pure-bred Guernsey cattle, one of the largest stud herds of this variety in the world, was on the farm at 30th June, 1918. The nucleus of a stud of pure Berkshire pigs has been obtained, and the Tamworth breed will be introduced, as the Berkshire-Tamworth crosses are gaining in popularity. Experiments are conducted in the cultivation of maize, lucerne, and other fodder crops, in the conservation of fodder, and with the growing of sub-tropical fruits, such as bananas, pineapples, passion-fruit, etc. The average annual rainfall at the Wollongbar farm is about 60 inches. The establishment is provided with accommodation for twenty apprentices. The branch farm of 470 acres is situated at Duck

Creek, and is devoted chiefly to the cultivation of sugar-cane and to experiments with it, and with maize and grasses.

At the Grafton experiment farm, which has an area of 1,075 acres, accommodation has been provided with the view of training apprentices in the mixed farming suited to sub-tropical districts, special attention being given to the improvement of maize by selection and cross-fertilisation, and to experiments regarding methods of cultivation and the adoption of commercial fertilising. Pigs, poultry and Ayrshire dairy cattle are bred, and potatoes and fodder crops are grown.

High-class stock is bred at the Berry experiment farm of 403 acres, situated 84 miles south from Sydney in the centre of the South Coast dairying district. The greater portion of the land consists of river-flats, the soil of which comprises rich loam and heavy clay. The farm is devoted mainly to the breeding of Shorthorn and Holstein cattle, the herds consisting of 177 head at 30th June, 1918. As the experience of dairy-farmers on the South Coast District has emphasised the need of conserving fodder, in order to meet periods of dry weather, silos and hay-sheds have been constructed. Experiments in the growing of maize, millet, sorghum, grasses, wheat and other cereals for fodder, are also conducted.

The Glen Innes farm, which has an area of 1,073 acres, is devoted to instruction in the mixed farming and fruit-growing suited to the northern tablelands. The stock includes Clydesdale horses, pure-bred Lincoln sheep, Ayrshire cattle, and Berkshire pigs.

The Cowra farm, comprising approximately 1,011 acres, specialises in the production of seed-wheat, with subsidiary undertakings, such as cross-breeding experiments with sheep. The live-stock kept there include Jersey dairy cattle, crossbred sheep, and Berkshire pigs. Experiments are made also in miscellaneous cropping, and with a small orchard of varied fruits. As stated above, a training school is maintained for women students who were transferred from the Pitt Town Agricultural Training Farm during 1917. The Cowra farm is the principal experimental wheat-breeding station in the State.

At Pera Bore farm, which has an area of 1,183 acres, experiments have been made with artesian-bore water applied to agriculture, and with methods of neutralising its chemical constituents. Citrus fruits are cultivated, and a small flock of merino sheep is maintained.

The Yanco experiment farm was established in 1908 in connection with the Murrumbidgee irrigation scheme, for the purpose of testing the suitability of soil and climate to the various crops to be grown under irrigation. The area of the farm is 2,045 acres, of which 500 acres are irrigable. A large portion of the farm is devoted to raising crops for the breeding stock and for the working horses. Ostrich-farming and mule-breeding are important features of the work at this farm, and a number of imported ostriches and donkeys are maintained there. The dairy cattle are Ayrshires, and the pigs are Berkshires.

In March, 1911, an experiment farm, with an area of 1,945 acres, was established at Coonamble in connection with dry-farming. Wheat cultivation and sheep-farming are there combined, and results indicate that profitable crops can be obtained on the black-soil plains by early sowing of quick-maturing varieties on well-fallowed land. An artesian bore has been sunk, and experiments in connection with the growth of crops by means of irrigation with bore-water are being carried out.

The Trangie experiment farm, with an area of 9,736 acres, was established in 1914; part of the area, which has a frontage to the Main Western Railway, will be devoted to wheat experiments on a large scale, and the remainder will be used for the purpose of a stud-merino farm.

At the Nyngan experiment farm, established in 1909, part of the area is used for experiments relating to problems of dry-farming. Investigations are carried on also in connection with merino sheep, with the object of originating a strain specially suitable for farmers and small landholders in the dry Western areas. Swiss milch goats imported in 1914 were stationed at the Nyngan farm.

The Temora experiment farm, established in May, 1912, is situated in the Riverina wheat belt, on a branch of the Main Southern Railway, and has an area of 1,606 acres. The conditions are specially suitable for the production of seed-wheat, and an area has been selected for the purpose of experiment. A flock of Border Leicester sheep is located at this farm.

The Condobolin experiment farm has an area of 1,348 acres, and is situated on a branch of the Main Western Railway. It was established for the purpose of demonstrating modern methods of dry-farming and the use of suitable varieties of wheat, the soil being typical of a large portion of the western districts of the State.

EMU PLAINS IRRIGATION FARM.

The Emu Plains irrigation farm was acquired in 1914, and is utilised for vegetable-growing and general farm work by prison labour. The area is 107 acres, and the greater portion is watered by sprinklers, by flooding, or by furrowing systems. The farm is controlled by the Prisons Department for the special training of youthful delinquents.

FARMERS' EXPERIMENT PLOTS.

A number of experiment plots, ranging from 1 to 20 acres, have been established throughout the State in order to give practical demonstrations to farmers regarding advanced methods of agriculture, improved varieties of seed, comparative value of manures, and new crops for respective soils and climates. The State has been divided into seven districts, and in each an inspector supervises the plots, gives lectures and demonstrations, and advises the farmers generally on agricultural matters. This system has been extended to the Murrumbidgee irrigation area.

With the establishment of the plots, in 1908, they were conducted on the following terms:—The land was provided by the farmer, the seed and the manure by the Department of Agriculture. The Department paid the farmer for the work of preparing the land, and for sowing, cultivating, and harvesting the crops, the farmer taking two-thirds, and the Department one-third of the resulting produce. It has now become a general rule that the farmer carries out the work without cost to the Department other than for seed, manure, and supervision, and receives the whole of the resultant crop.

These plots have proved valuable media of practical education for the farming community, special attention being directed towards the improvement of cultural methods of wheat and other cereals, potatoes, and grasses; and to the extension of the cultivation of leguminous plants, either in combination with cereals or separately, with the object of improving the food value of the green fodder, ensilage, and hay to the farmers' stock, and of increasing the fertility of their soils.

In 1917–18 the number of plots cultivated was 196, and the total area was 1,024 acres.

VITICULTURAL NURSERIES.

The Narara viticultural nursery has an area of 100 acres, and is situated on the Main Northern Railway line, 52 miles north from Sydney. The nursery was established mainly for the purpose of supplying vigneron with vines grafted upon phylloxera-resistant stocks.

The Howlong viticultural nursery is devoted mainly to the growth of resistant wood for the purpose of supplying Narara with cuttings for grafting. The area of the nursery is 224 acres; 32 acres are devoted to the growing of phylloxera-resistant vines; 6 are used for growing wine and table grapes for experimental purposes, and the balance is under grass.

In order to increase the output of grape-vines grafted on phylloxera-resistant stocks a nursery has been established at Mirrool, in the Murrumbidgee irrigation area. It is proposed to conduct experimental work also with resistant stocks under irrigation.

At the Wagga experiment farm an area of 30 acres has been planted with mother vines in order to supply clean wood to the Narara and Mirrool nurseries.

STATE APIARY.

During the year 1915-16 the Department of Agriculture decided to establish an apiary, capable of being conducted on a commercial basis, which could be utilised for the study of diseases among bees. For this purpose a site was chosen on Crown lands situated $3\frac{1}{2}$ miles from Wauchope, in close proximity to a forest reserve of some 60,000 acres, heavily timbered with different varieties of eucalypts (principally ironbark and grey-gum), and with some brush-box, all bearing honey-making bloom. The apiary consists of 36 acres, which will be only partially cleared at the beginning of occupation, and it is intended at first to carry about 150 hives, out-apiaries being established at suitable centres on adjoining Crown lands, as opportunity offers. A small number of students, mostly returned soldiers, have been admitted to a course of training.

Under the provisions of the Apiaries Acts, inspectors have been appointed and penalties may be inflicted on bee-keepers who wilfully transgress the clauses for combating the disease peculiar to bees. The Act further provides that any person keeping bees (other than native or indigenous) in any hive other than a frame hive, will be liable to a penalty not exceeding £20. This clause is levelled especially at the continuance of the use of box-hives, as diseases peculiar to bees are harboured and propagated by this type of apiary.

DREADNOUGHT FARM TRUST.

An agreement was made early in 1911 between the Government of New South Wales and the trustees of the Dreadnought farm fund as to the introduction of a number of lads from 17 to 20 years of age to this State for the purpose of following rural pursuits.

Upon arrival, the boys were either placed in employment with farmers or sent to the Pitt Town training farm, or one of the experiment farms for instruction prior to employment. From April, 1911, to 30th June, 1916, the boys who arrived numbered 2,164, of whom 1,268 were sent out as workers, 772 as trainees at Pitt Town farm, and 124 as students and apprentices at agricultural colleges and experiment farms. Owing to the war, arrangements for immigration have since been suspended.

The total amount of contributions to 30th June, 1919, was £81,322, and with accrued interest, £17,054, the fund increased to £98,376. Of this amount £40,000 was donated towards the establishment of the Royal

Australian Naval College at Jervis Bay. The total cost of the management of the fund has been only £1,206. Other payments include passage money, etc., £10,235, fees for students and apprentices at the Pitt Town training farm and the Government experiment farms, £4,663; loan to British Immigration League towards purchase of an immigrants' home at the Glebe, £5,342; and patriotic subscriptions, £155. The balance in hand at the 30th June, 1919, was £36,775.

FARRER SCHOLARSHIPS.

The Farrer memorial fund was established by public subscription in honour of the late William J. Farrer, whose work in the production of new wheats has afforded great benefit alike to the industry and to the community. The money subscribed has been invested in trustees, and the interest is used for the Farrer research scholarship, the specific object of which is the improvement of wheat cultivation. The scholarship is granted to a candidate selected by the trustees from applicants possessing one of the following qualifications:—

- (a) A graduate in science, to pursue studies with original research in the Cambridge University Laboratory, or elsewhere outside the State. In such a case, the revenue for two years may be given for one year's research.
- (b) Graduate or undergraduate, to pursue the study of plant-breeding in University laboratories under the supervision of the Science Faculty.
- (c) Student who has taken a diploma from the Hawkesbury Agricultural College, or similar institution, to pursue the study of plant-breeding in the field, or in any other approved way.
- (d) A young farmer, or other person, possessing necessary qualifications and aptitude for investigating this subject in the field under supervision of the trustees.

The selected scholar presents his results at the close of the year in the form of a paper to be published by the trustees. At the end of the year the holder of the scholarship may be re-appointed, or a new selection made.

The Government Farrer scholarship is offered for competition amongst students wishing to enter the Hawkesbury Agricultural College with a special view to study wheat cultivation. The value of the scholarship is £100; it is awarded after competitive examination, and provides for the full education of the recipient during the three years' course, for the purchase of books and apparatus, and for the payment of medical, sport, and other fees. The trustees of the Farrer memorial fund are authorised specially to give priority in the matter of the Farrer research scholarship to a Government Farrer scholar at the close of his college course if he shows special aptitude for research work in connection with wheat cultivation.

The *Daily Telegraph* Farrer scholarship consists of a grant of books, apparatus, etc., to the value of £10, given each year by the *Daily Telegraph* Newspaper Co., Ltd., to the best wheat student at the Bathurst or Wagga experiment farm.

STATE ADVANCES TO SETTLERS.

To meet the demand for capital, and impelled by the necessity for affording assistance to settlers whose prospects had been affected by prevalent drought conditions, the Government inaugurated a system in 1899, by which advances are made to settlers on the basis of the French

Crédit Foncier, at rates of interest and of repayment which are intended to be available for the benefit of every settler offering adequate security. The original Act of 1899 has received several amendments, and in 1906 the powers of the Advances to Settlers Board were transferred to the Commissioners of the Government Savings Bank of New South Wales, the maximum and minimum advances being fixed at £2,000 and £50 respectively.

On the 30th June, 1918, the advances made to settlers numbered 15,442 and amounted to £4,514,158, equivalent to £292 per loan, of which 9,340, representing £1,970,103, were repaid, leaving 6,102 advances current at that date, the average balance of the principal being £417 per loan.

The operations of the bank relating to advances to settlers, since 1911, have been as follow :—

Year.	ADVANCES MADE.			REPAYMENTS.		BALANCES REPAYABLE.		
	Number.	Total Amount.	Average.	Number.	Total Amount.	Number.	Total Amount.	Average
		£	£		£		£	£
1911	838	331,693	395	743	185,420	3,754	1,074,359	286
1912	940	475,070	505	572	153,093	4,122	1,396,336	339
1913	1,386	771,272	556	414	116,476	5,094	2,051,132	403
1914*	602	333,035	558	260	89,186	5,436	2,297,981	423
1915†	860	387,715	451	436	171,617	5,860	2,514,078	429
1916†	686	200,865	293	501	201,611	6,045	2,513,332	446
1917†	501	161,855	323	384	152,513	6,162	2,522,674	409
1918†	515	232,460	451	575	211,079	6,102	2,544,045	417

* Half-year ended 30th June. † Year ended 30th June.

The Commissioners are empowered to make advances upon mortgages of land in fee-simple, and of land held under conditional purchase, or lease, settlement purchase or lease, and homestead grant or selection. The advances are made to repay existing encumbrances, to purchase land, to effect improvements, to utilise resources, or to build homes.

The conditions under which loans are repayable vary according to the circumstances of the individual case; the maximum loan to any one person is £2,000, the rate of interest ranges between $4\frac{1}{2}$ and 5 per cent., and the maximum period of repayment is thirty-one years.

The system affords material assistance to prospective settlers, as well as to those already engaged in the pursuit of agriculture.

ADVANCES ON IRRIGATION FARMS.

In terms of the Savings Banks Amalgamation Act, 1914, the Commissioner of the Government Savings Bank may make advances upon mortgage of irrigation farm leases, up to a maximum amount of three-fourths of the value of the interest of the holder in permanent or prospective improvements; the repayment of these loans is guaranteed by the Government.

The advances made to 30th June, 1918, numbered 122, the total amount being £20,805, of which 27 advances, representing £5,146, had been repaid. Only one advance was made by the Bank in the year 1917–18, as the settlers on the irrigation areas may now obtain advances directly from the Water Conservation and Irrigation Commission.

WATER CONSERVATION AND IRRIGATION.

THE provision of a water supply for irrigation purposes is essential in a country liable to dry seasons which affect extensive areas, and a recognition of this fact has induced the Government to undertake various schemes, which will constitute portion of an irrigation system to serve the whole State.

The Control of Water Conservation and Irrigation Works.

The system and the works necessary for its maintenance and development 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 and Wentworth, natural 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 storages and diversions of water by private persons for purposes of conservation and irrigation.

The Murrumbidgee Irrigation Scheme.

Under this scheme a storage dam across the Murrumbidgee River has been constructed. This will retain the flood water which will be released for use lower down the river during dry periods. Provision has been made for a movable diversion weir 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 through 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 included in this scheme.

The site of the storage dam is at Burrinjuck, 3 miles below the confluence of the Murrumbidgee and the Goodradigbee Rivers. The dam-wall, when complete, will have a maximum height of 240 feet, and will impound the waters in a lake covering 12,740 acres. The reservoir will have a capacity of nearly 33,612 million cubic feet or 771,641 acre-feet, the catchment area being about 5,000 square miles, drained by three principal streams—the Murrumbidgee, the Goodradigbee, and the Yass Rivers—up which the water will be backed, when the dam is full, to distances of 41 miles, 15 miles, and 22 miles respectively above the dam. Direct communication between Burrinjuck and the Main Southern Railway has been provided by the construction of a 2-foot gauge line from Goondah, a distance of 26 miles.

The irrigation areas are situated on the northern side of the Murrumbidgee River, and when fully developed it is estimated that there will be over 200,000 acres under irrigation in blocks devoted to fruit and vegetable growing, dairying and stock raising, &c. With the aid of irrigation the soil and climate are suitable for the production of apricots, peaches, nectarines, prunes, pears, plums, almonds, melons, cantaloupes, and citrus fruits, also wine and table grapes, raisins, sultanas, figs, olives, and most varieties of vegetables and fodder crops. Dairying and pig-raising are already being conducted successfully by settlers in the areas.

The first area made available for settlement was in the vicinity of Yanco siding, on the Hay Railway line. The second, which is situated on the northern side of Mirrool Creek, is served by an extension of the railway from Barellan to Griffith. Further areas are being offered for settlement as the construction works are completed.

Farms varying in size from 2 acres to 200 acres have been made available. The average "all-irrigable" farm is about 50 acres; but dairymen and other stock-farmers may obtain, in addition, areas of non-irrigable or "dry" land. Some of these mixed farms are 200 acres and upwards in extent. A "water right" or number of "acre-feet" of water is allotted to each holding. An "acre-foot" of water means such a quantity as would cover one acre with water 12 inches deep. The cost of water is 5s. per acre-foot; but the charge is reduced during the early years of occupation.

The conditions for the disposal of irrigation blocks are contained in the Crown Lands Consolidation Act of 1913 and in its amending Acts. Any person of or over the age of 16 years if a male, or 18 years if a female (other than a married woman not living apart from her husband under decree of judicial separation), or two or more such persons jointly, may apply for a farm or block. A married woman not judicially separated from her husband, or subject to any other statutory disqualification, may (a) acquire by way of transfer, with the consent of the Minister, out of her own moneys, a lease within an irrigation area; (b) continue to hold a lease which she held before her marriage; and (c) hold a lease which may devolve on her by will or intestacy of a deceased person. The tenure is perpetual leasehold.

The improvement conditions attached to the farm holdings include fencing, planting of trees for wind-breaks, construction of dwellings, and the destruction of noxious plants.

Subject to such conditions as to security and terms of repayment as the Commission may require, settlers may obtain an advance, or have suspended the payment of amounts owing. Such advances are limited to the total amount of funds made available by Parliament for this purpose. The Government Savings Bank Commissioners also have statutory powers to make loans upon mortgage of irrigation farm leases.

A large area of land in the Mirrool subdivision has been reserved for discharged soldiers; a camp has been established for the accommodation of selected applicants, who are granted farms after three months satisfactory service. While in camp the men are employed upon developmental work in connection with their blocks, and are paid wages at award rates.

Upon taking up residence on their farms these settlers may obtain advances up to £625 for the development of their blocks, and subsequently such additional amounts as may be necessary to bring their land to the stage of productiveness. Payments for rent, &c., and repayments of advances will be suspended for five years in the case of fruit farms, and for two years in the case of dairy farms. The total indebtedness, including interest, will then be payable by instalments extending over a period of twenty years.

Towns and villages have been established at the centres of the Yanco and Mirrool irrigation areas, and the Commission is empowered to construct streets and to provide water-supply, sanitary, and other services.

Factories for butter, cheese, bacon, and for fruit and vegetable canning have been established on the areas to treat the produce of the settlers, also abattoirs to supply meat for local consumption, and an electric power station from which light and power are supplied to the various factories and to residents.

The State nurseries at Leeton and Griffith supply fruit and other trees to the settlers, and an experiment farm is maintained at Yanco under the control of the Department of Agriculture; also a viticultural nursery at Griffith (in the Mirrool irrigation area) for the propagation of vines on phylloxera-resistant stocks.

During the year 1917-18 a total area of 25,527 acres was irrigated and 18,610 acres were under crop; 7,719 acres were cropped for hay and green

food, 1,127 acres were under grape vines, and 5,539 acres under other fruit trees; wheat, 2,205 acres, and oats, 1,198 acres, were the principal grain crops. The production of fruit included 49,959 bushels of peaches and nectarines from 67,537 trees, 10,723 bushels of apricots from 20,897 trees, and 6,903 bushels of oranges from 16,755 trees. The majority of the fruit trees had not reached the productive stage, viz., peach and nectarine 116,459 trees, apricot 46,064 trees, and orange 112,543 trees; also a large number of lemon, pear, prune, almond and other fruit trees. The live stock at 30th June, 1918, consisted of 3,120 horses, 5,611 cattle, 32,673 sheep, 6,889 pigs, 27 goats, 84 mules and donkeys, and 112 ostriches.

Hay Irrigation Area.

The irrigation area at Hay, on the Murrumbidgee River, consists of about 4,160 acres; prior to 1913 it was controlled by a trust appointed in 1897. On 30th June, 1918, the area held and used for irrigation purposes was 1,002 acres in 105 blocks, ranging from 3 acres to 34 acres in size; generally the term of lease is thirty years, and the annual rental from 5s. to 12s. per acre. In addition, 2,040 acres of non-irrigated land had been taken up in 43 blocks, as permissive occupancies. The water-rate is fixed from time to time; during 1917 it was 25s. an acre per annum. The pumping machinery is similar to that at Curlwaa, the capacity of the pumps being 4,000 gallons per minute. Dairying is the principal industry, the cultivation of fruit being very limited.

Curlwaa Irrigation Area.

The Curlwaa irrigation area, situated at Wentworth, consists of 10,600 acres, of which 1,373 acres have been subdivided in 95 irrigable blocks. On 31st December, 1918, 92 blocks, containing 1,369 acres, had been taken up in areas varying from $1\frac{1}{2}$ acres to 37 acres. There are also 92 non-irrigated blocks, ranging in size from $\frac{3}{4}$ of an acre to 336 acres, and containing 7,119 acres; and at the end of 1918, 89 blocks, representing an area of 7,100 acres, were in occupation. An area of 1,290 acres has been reserved as a common. During the year 1917-18 an area of 997 acres was under cultivation, the area under fruit being 794 acres, of which 577 acres were bearing. Oranges, peaches, apricots, nectarines, pears, grapes, sultanas, and currants are grown, and it has been proved that the Curlwaa soil is eminently suited to fruit culture, some of the finest oranges grown in New South Wales being the product of this locality.

The estimated weight of dried fruits, the production of Curlwaa irrigation area, during the season 1917-18 included 2,319 cwt. of sultanas, 1,526 cwt. of currants, and 592 cwt. of raisins.

The value of the dried-fruit production for the twelve months ended the 30th June, 1918, was estimated at £20,173, and fresh fruit and other produce were valued at £8,923.

The pumping machinery consists of a suction-gas plant, supplying two engines of about 55-brake horse-power each, working two centrifugal pumps, with an average combined capacity of about 4,600 gallons per minute. The main channels measure about 8 miles and 55 chains in length.

The land may be leased for periods not exceeding thirty years, the annual rent at the present time varying from 1s. to 10s. per acre. The rate for water is fixed from time to time by the Commission, and is at the present 20s. per acre per annum, except in a few special cases. Each lessee is entitled to receive a quantity of water equivalent to a depth of 30 inches per annum, limited to 4 inches in any one month.

PROGRESS OF IRRIGATION SETTLEMENTS.

Comparative statistics of the irrigation settlements in New South Wales are shown in the following statement; the particulars for 1910-11 relate to the Hay and Curlwaa settlements only, as farming on the Murrumbidgee area was not in operation until the season 1912-13:—

			1910-11.	1915-16.	1917-18.			
					Murrumbidgee.	Hay.	Curlwaa.	Total.
Cultivated Holdings	No.		86	771	724	35	62	821
Area irrigated	Ac.		1,127	33,434	25,527	887	1,038	27,452
Area under crop	"		862	22,488	18,610	204	997	19,811
Grain	"		2	4,287	3,933	.....	.....	3,933
Hay and Green food	"		399	13,631	7,719	161	203	8,083
Grape vines—Bearing	"		186	353	412	4	257	673
Not yet bearing	"		74	486	715	.....	29	744
Orchards — Bearing	"		58	440	1,266	30	320	1,616
Not yet bearing	"		139	2,896	4,273	8	188	4,469
Livestock—Horses	No.		239	3,300	3,120	187	184	3,491
Cattle—Dairy	"		484	2,461	3,472	533	7	4,012
Other	"		530	1,488	2,139	420	116	2,675
Sheep	"		703	32,440	32,673	947	428	34,048
Swine	"		134	2,799	6,889	323	70	7,282
Production—Wine	gal.		.....	560	28,300	.....	.....	28,300
Sultanas	cwt.			2,778	24	14	2,319	2,357
Raisins	"		1,009	1,499	15	.....	592	607
Currants	"			1,848	132	.....	1,526	1,658
Oranges	bush.		273	4,988	6,903	550	7,832	15,285
Peaches and Nectarines	"		2,467	25,861	49,959	1,770	23,177	74,906
Apricots	"		2,905	10,690	10,723	1,167	11,203	23,093
Milk	gal.		171,619	504,181	949,464	128,728	.....	1,078,192
Butter	lb.		5,100	12,923	25,392	4,030	.....	29,422
Bacon and Ham	"		820	8,865	5,008	.....	6,524	11,532

The area devoted to fruit growing has increased considerably since 1915-16, but the orchards planted on three-fourths of the area have not yet reached the stage of production. Oranges, peaches, nectarines and apricots are the principal kinds of fruit produced, but the yield is small in comparison with that which may be expected in a few years as the young trees become increasingly productive.

The following statement shows the number of fruit trees of the principal varieties, distinguishing the productive from those not yet bearing:—

Fruit Trees.	1910-11.		1915-16.		1917-18.	
	Pro-ductive.	Not yet Bearing.	Pro-ductive.	Not yet Bearing.	Pro-ductive.	Not yet Bearing.
Oranges	202	3,606	6,509	67,020	24,360	121,822
Other Citrus	119	136	439	9,388	3,469	26,051
Peach and Nectarine	1,752	4,503	16,812	101,113	87,824	118,697
Apricot	2,033	2,969	5,927	42,066	26,236	46,642
Prune ... ..	.....	.....	.....	10,290	2,229	34,847
Plum	98	282	682	5,897	1,587	14,958
Pear	165	1,096	2,278	14,336	3,153	26,982
Apple	400	718	1,256	3,065	1,273	5,056
Fig	201	38	303	3,395	1,111	7,275
Almond ... ..	.....	140	582	5,446	1,802	10,070

WATER RIGHTS.

The Water Act, 1912, consolidates the Acts relating to water rights, water and drainage, drainage promotion, and artesian wells. Part II of the Act vests in the Crown the right to the use, flow, and 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. Private rights were abolished, and a system of licenses was established for the protection of private works of water conservation, irrigation, and drainage, and the prevention of inundation of land. During the year ended 30th June, 1918, 102 applications were made for new licenses, and 102 for the renewal of existing licenses; at the date mentioned, 1,229 licenses were in force.

Water Trusts and Bore Trusts.

Part III of the Water Act, 1912, provides for the supply of water for irrigation, stock, or domestic purposes, and for drainage, the liabilities on which are repaid to the Crown with interest spread over a period of years; the works are administered by trustees appointed from among the beneficiaries under the Act, except in the case of trusts in the Western Division, when the Western Land Board is appointed as trustee.

For the supply of water, trusts have been constituted in connection with (a) seventy-five artesian wells; (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 four instances for the construction of weirs across stream channels, including one since dissolved; and (d) two pumping schemes—one from a natural watercourse, and one from a well.

The total area included within these trusts amounts to 6,726,382 acres.

Artesian Bores.

That portion of the great Australian artesian basin which extends into New South Wales covers approximately 70,000 square miles, and is situated in the north-western portion of the State.

The first artesian bore was sunk in 1879 on the Kallara pastoral holding, between Bourke and Wilcannia, and the first Government bore was completed in 1884 at Goonery on the Bourke-Wanaaring road.

The following statement shows the extent of the work which has been successfully effected by the Government, and by private owners, up to the 30th June, 1918 :—

Bores.	Flowing.	Pumping.	Total.	Total Depth.
				feet.
For Public Watering-places, Artesian Wells, etc.	123	31	154	319,028
For Country Towns Water Supply	2	1	3	4,354
For Improvement Leases	39	3	42	66,287
Total, Government Bores	164	35	199	389,669
Private Bores... ..	223	71	294	428,169

The average depth of Government bores is 1,958 feet, and of private bores 1,456 feet, and they range from 89 to 4,338 feet.

The deepest wells in New South Wales are in the county of Stapylton, one at Baronga having a depth of 4,338 feet and a daily outflow of 941,887 gallons; and another at Dolgelly having a depth of 4,086 feet, and an outflow of 563,366 gallons per day. The largest outflow at the present time is at the Wirrah bore, in the county of Benarba, which yields 1,186,950 gallons a day, and has a depth of 3,578 feet.

Of the 544 bores which have been sunk, 387 are flowing, and give an aggregate discharge of 93,852,196 gallons per day; 106 bores give a pumping supply, the balance of 51 being failures.

The flow from 72 bores is utilised for supplying water for stock on holdings served in connection with bore water trusts or artesian districts under the Water Act of 1912. The total flow from these bores amounts to 37,143,478 gallons per day, watering an area of 4,342,247 acres by means of 2,666 miles of distributing drains. 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 utilised in connection with country towns.

The watering of the north-western country by means of bore water has largely increased the carrying capacity of the land; but, what is perhaps of greater importance, it has made comparatively small pastoral settlement practicable in country previously confined almost entirely to the operations of companies holding immense areas.

It has been determined that the multiplicity of bores is the chief factor governing the annual decrease in bore flows, also that the limitation of the discharge of water from a bore will prolong its existence as an efficient flow; action has been taken, therefore, to prevent any waste by the control of the bore flow, and by its adjustment to actual needs. It is anticipated that this action will materially reduce the rate of decrease in the future.

Shallow Boring.

Arrangements were made in 1912 to assist settlers by sinking shallow bores, and the scheme, which was described fully in the 1916 issue of this Year Book, has met with considerable success.

Operations were commenced with one plant only, and the number has been increased gradually until 15 are at work; but it is probable that these will be insufficient to cope with the demand, owing to the large number of applications from settlers wishing to take advantage of the liberal conditions offered under the regulations.

Up to the 30th June, 1918, 232 bores were undertaken, but 27 proved failures.

In addition to the work conducted under the shallow boring regulations, 18 bores have been sunk in the Pilliga Scrub and on Crown lands for the Lands Department and Forestry Commission. The fact that 38 of the bores put down in the Pilliga Scrub are giving a flowing supply is of special interest, as it indicates the possibility of tapping a small and hitherto unknown artesian basin.

Private Artesian Bores.

Much has been done in the way of artesian boring by private enterprise. As far as can be ascertained, 321 private bores have been undertaken in New South Wales, of which 27 were failures. The yield of the flowing bores is estimated at over 40 million gallons per day. No data are available regarding the pumping bores.

THE MURRAY RIVER IRRIGATION SCHEME.

The River Murray Waters Act was brought into operation on the 31st January, 1917. Its principal objective is the storage of 1,000,000 acre-feet of water in a dam to be constructed on the Upper Murray, above the town of Albury, conjointly by the Governments of New South Wales and Victoria.

The effect of creating the River Murray storage system will be to ensure at all times sufficient flow below Albury for diversions for irrigation, and for stock and domestic supplies, besides making good the losses in the water 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 the tributaries of the parent stream 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-dam, will amount at least to 120,000 acre-feet per month at Albury during the irrigating season. An investigation is now being made in order to ascertain the methods by which the New South Wales proportion of the Murray waters can be most profitably applied.

PASTORAL INDUSTRY

LIVE STOCK.

No systematic record of the arrival of live stock was kept in the early days of settlement in New South Wales; but it appears that in the period between Governor Phillip's landing in 1788 and the year 1800 there were some small importations, chiefly of sheep from India. The numbers of each class of stock at various periods up to 1850, prior to the separation of Victoria, were as follow :—

Year.	Horses.	Cattle.	Sheep.	Pigs.
1788	7	6	29	12
1792	11	23	105	43
1796	57	227	1,531	1,869
1800	203	1,044	6,124	4,017
1825	6,142	134,519	237,622	39,006
1842	56,585	897,219	4,804,946	46,086
1850	132,437	1,738,965	13,059,324	61,631

In 1851 the severance of Victoria from New South Wales reduced the number of stock considerably; the separation of Queensland at the close of 1859 involved a further reduction, and at the end of the latter year the numbers of each kind of live stock within the existing boundaries of New South Wales were 214,684 horses, 2,190,976 cattle, 5,162,671 sheep, and 119,701 pigs.

The following table shows the number of stock at the end of each decennial period from 1861 to 1911, also at the 30th June, 1918 :—

Year.	Horses.	Cattle.	Sheep.	Pigs.
1861	233,220	2,271,923	5,615,054	146,091
1871	304,100	2,014,888	16,278,697	213,193
1881	398,577	2,597,348	36,591,946	213,916
1891	469,647	2,128,838	61,831,416	253,189
1901	486,716	2,047,454	41,857,099	265,730
1911	689,004	3,194,236	44,947,287	371,093
1918*	742,247	3,161,717	38,621,196	396,157

* At 30th June.

In addition to the live stock shown above at the 30th June, 1918, there were 38,904 goats (including 8,015 Angora), 2,050 camels, 146 donkeys, 225 mules, and 494 ostriches. Since 1891 the sheep have diminished in

number to the extent of nearly 23 millions, but the other classes of stock show the following increases, namely :—Horses 273,000, cattle 1,033,000, and pigs 143,000.

In order to indicate the Divisions in which the changes in flocks and herds have occurred, the following table has been prepared, showing the number of live stock in each Division at the end of various years since 1901 :—

Division.	1901.	1906.	1911.	*1916.	*1918.
SHEEP—					
Coastal Belt	1,097,471	1,316,580	1,433,037	1,110,511	956,134
Tableland	8,859,039	8,842,352	8,961,344	6,583,312	6,725,712
Western Slopes	11,671,524	11,675,425	11,198,021	8,655,530	9,593,702
Central Plains and Riverina...	14,578,523	15,998,996	16,048,376	12,047,361	15,260,531
Western Plains	5,522,953	6,299,068	7,305,909	4,204,015	6,085,117
Unclassified	127,559	.....	.....	.....	.....
Total	41,857,099	44,132,421	44,947,287	32,600,729	38,621,196
DAIRY COWS IN MILK—					
Coastal Belt	284,099	355,238	492,242	345,398	435,070
Tableland	70,224	66,745	70,571	31,875	35,512
Western Slopes	39,732	49,002	48,669	28,877	32,921
Central Plains and Riverina...	19,790	21,178	24,137	18,123	23,681
Western Plains	3,990	2,657	2,906	1,954	2,512
Total	417,835	494,820	638,525	426,227	429,556
OTHER CATTLE.					
<i>Coastal Belt—</i>					
Dry Cows	607,282 {	100,919	136,790	203,826	233,311
Heifers (springing)		25,652	23,755	50,537	60,423
All other		709,484	915,602	786,534	936,776
Total	607,282	836,055	1,076,147	1,040,897	1,230,510
<i>Tableland—</i>					
Dry Cows	500,974 {	26,440	31,207	50,111	49,990
Heifers (springing)		7,213	5,178	18,010	17,844
All other		468,574	549,874	330,451	489,166
Total	500,974	502,227	586,259	398,572	557,000
<i>Western Slopes—</i>					
Dry Cows	305,789 {	25,199	26,112	33,697	37,100
Heifers (springing)		7,051	3,849	12,690	18,759
All other		365,980	422,273	231,754	393,364
Total	305,789	398,230	452,234	278,141	449,223
<i>Central Plains and Riverina—</i>					
Dry Cows	114,327 {	15,409	20,153	23,670	23,162
Heifers (springing)		4,367	3,437	9,487	11,512
All other		204,901	302,103	159,310	351,585
Total	114,327	224,677	325,693	192,467	386,259
<i>Western Plains—</i>					
Dry Cows	41,247 {	4,021	4,331	6,064	4,271
Heifers (springing)		1,058	1,407	1,400	2,289
All other		87,956	109,640	62,002	102,609
Total	41,247	93,935	115,378	69,466	109,169
<i>New South Wales—</i>					
Dry Cows	1,629,619 {	172,888	218,593	317,368	347,834
Heifers (springing)		45,341	37,626	92,124	110,827
All other		1,836,895	2,299,492	1,570,051	2,273,500
Total	1,629,619	2,055,124	2,555,711	1,979,543	2,732,161
HORSES—					
Coastal Belt	160,704	171,485	207,073	221,538	218,915
Tableland	112,294	110,077	126,602	125,070	127,516
Western Slopes	110,845	130,947	179,728	187,306	191,767
Central Plains and Riverina...	77,650	97,009	140,140	154,744	170,532
Western Plains	25,223	28,244	35,460	30,884	33,517
Total	486,716	537,702	689,004	719,542	742,247

* At 30th June.

SHEEP.

The following table shows the number of sheep at the close of each quinquennial period from 1861 to 1918, and illustrates the progress of sheep-breeding in New South Wales.

Year.	Sheep.	Year.	Sheep.	Year.	Sheep.
1861	5,615,054	1881	36,591,946	1901	41,857,099
1866	11,562,153	1886	39,169,304	1906	44,132,421
				1911	44,947,287
1871	16,278,697	1891	61,831,416	1916*	32,600,729
1876	25,269,755	1896	48,318,790	1918*	38,621,196

* At 30th June.

The number of sheep in New South Wales reached the maximum of nearly 62,000,000 in 1891, but it became apparent that the State was overstocked, and in the unfavourable seasons which followed the pastoral industry suffered severely.

In 1901 the number of sheep was under 42 millions; during the succeeding decade there was an increase to 45,000,000, notwithstanding the disastrous year 1902, when the number declined to 26,600,000. From 1909 to 1916 the flocks decreased considerably, the principal causes being heavy losses in lambs and grown sheep through drought, the subdivision of large holdings, and the development of the dairy industry. Since 1916 there has been an increase of 6,000,000 and the number of sheep in the State at 30th June, 1918 was 38,621,196.

After allowing for the causes which naturally impede the increase, such as the demands of the local meat supply, the requirements of the neighbouring States and countries overseas, and the losses occurring from causes other than drought, it is found that the rate of annual increase has been as high as 20 per cent., for instance, in 1904, and in several of the earlier periods. The rate of increase during the year ended June, 1918, was nearly 7 per cent., as compared with 11 per cent. in the previous year.

The decrease in the total number of sheep after 1891 was accompanied by great changes in the size of individual flocks, and these changes may be traced in the following table, which gives an approximate classification of the flocks for various years, from 1891 to 1918.

Size of Flocks.	Number of Flocks.				Number of Sheep.			
	1891.	1901.	1911.	1918.†	1891.	1901.	1911.	1918.†
1—1,000 ...	7,606	11,800	17,773	17,865	2,794,751	3,797,114	5,252,546	5,398,085
1,001—2,000 ...	1,954	2,351	3,510	3,448	2,979,168	3,560,349	5,149,618	4,872,996
2,001—5,000 ...	1,696	1,722	2,735	2,593	5,493,942	5,519,008	8,554,299	7,915,245
5,001—10,000 ...	686	729	847	826	4,943,221	5,210,117	5,977,233	5,650,751
10,001—20,000 ...	495	465	507	416	7,056,580	6,666,420	7,143,273	5,858,824
20,001—50,000 ...	491	344	296	217	15,553,774	10,552,373	8,737,927	6,331,867
50,001—100,000 ...	186	76	53	33	12,617,206	4,835,547	3,434,698	2,165,542
100,001 and over ...	73	12	6	4	10,392,774	1,588,103	697,693	427,786
Total ...	13,187	17,499	25,727	25,402	61,831,416	41,857,099*	44,947,287	38,621,196

* Includes 127,559 sheep in unclassified flocks.

† 30th June.

In 1891 there were only 13,187 holdings, but at 30th June, 1918, they numbered 25,402, although the sheep had decreased by over 23 millions.

It is significant that while in 1891 there were 73 holdings which each carried over 100,000 sheep, the number of such in 1901 was 12, and in 1918 only 4. The sheep in flocks of over 20,000 comprised 62 per cent. of the total in 1891, but only 23·1 per cent. in 1918, while in 1891 the flocks under 2,000 comprised 9·3 per cent. of the total sheep compared with 26·6 per cent. in 1918. The greatest change has occurred since 1894, when a very large number of sheep perished, and pastoralists realised that the best method of meeting seasons of drought lay in the subdivision of their large flocks. Since 1904 the application to large estates of the closer settlement policy has caused a further subdivision of the flocks.

The following statement shows the flocks and the number of sheep at 30th June, 1918, classified according to the size of the holdings on which they were depastured, and for purposes of comparison similar information is shown for 1908.

Area Groups.		Number of Flocks.		Number of Sheep.		Proportion to total Flock.		Proportion to total Sheep.	
		1908.	1918.	1908.	1918.	1908.	1918.	1908.	1918.
acres.						per cent.	per cent.	per cent.	per cent.
1 and under	51 ...	1,230	670	22,402	21,587	5·2	2·7	·1	·1
51 " "	101 ...	884	655	47,977	33,599	3·7	2·6	·1	·1
101 " "	501 ...	5,850	5,491	1,032,719	955,392	24·7	22·0	2·4	2·5
501 " "	1,001 ...	4,586	5,433	1,926,713	1,965,080	19·3	21·7	4·5	5·1
1,001 " "	5,001 ...	7,931	9,361	10,539,309	10,527,174	23·4	37·4	24·4	27·3
5,001 " "	10,001 ...	1,436	1,713	5,128,683	5,720,689	6·1	6·9	11·9	14·8
10,001 " "	20,001 ...	744	808	4,917,543	4,846,389	3·1	3·2	11·4	12·6
20,001 " "	50,001 ...	584	503	7,262,302	5,340,007	2·5	2·0	16·8	13·8
50,001 " "	100,001 ...	212	172	4,117,339	3,309,056	·9	·7	9·6	8·6
100,001 and upwards	... ..	256	197	8,114,881	5,823,237	1·1	·8	18·8	15·1
Ill-defined areas	... ..	180	399	260,929	73,986	...	...	...	...
Total	... ..	23,893	25,402	43,370,797	38,621,196	100·	100·	100·	100·

Since 1908 the number of flocks on holdings under 501 acres and on those over 20,000 acres has declined considerably, while the number on areas from 501 to 20,000 acres has increased. The number of sheep depastured on holdings in each area group up to 10,000 acres was practically the same in 1918 as in 1908, though the total number of sheep had declined by 4 $\frac{3}{4}$ millions, the decrease being in the number on areas over 10,001 acres in extent. The holdings of 1,001 to 5,000 acres carried over 27 per cent. of the total number of sheep in 1918, the proportion having increased from 24 per cent. in 1908.

The principal breeds of sheep in New South Wales are the celebrated short-woolled Merino strain, Downs, and varieties of long-woolled English sheep, notably the Lincoln, the Leicester, the Border Leicester, and the Romney Marsh, together with crosses of the long-woolled breeds, mainly with the

Merino. Suffolk sheep, which appear to be pre-eminently adapted for farming purposes, and for the production of weighty lambs for the export trade, were introduced into the New England district during 1904, but in the majority of the districts in which raising of early-maturing lambs is an important factor, the Dorset Horn breed has given exceptionally good results. At the close of 1918, the numbers of merino and cross-breds were as shown below; the figures are based on returns collected for assessment purposes by the Chief Inspector of Stock, are apparently below the actual number depastured.

Class of Sheep.	Rams.	Ewes.	Wethers.	Lambs.	Total.
Merino	395,898	14,645,090	6,964,276	4,780,855	26,786,119
Other Breeds— Coarse Wool...	153,832	5,938,954	2,783,275	3,356,748	12,232,809
Total	549,730	20,584,044	9,747,551	8,137,603	39,018,928

Lincolns, and their crosses with Merinos, constitute the largest proportionate number of coarse-woolled varieties. The proportion of English and cross-bred sheep has increased considerably during more recent years. In 1893 the ratio of coarse-woolled and cross-breds rose from about $2\frac{1}{2}$ to 4.3 per cent., but with the development of the meat-export trade it has since advanced to 31.4 per cent.

On account of the mildness of the climate the necessity of housing stock during the winter months, except on the highlands, does not exist in New South Wales. The sheep are kept either in paddocks or under the care of shepherds, although on some stations both methods are followed concurrently. The paddocking system has many advantages, which are now fully recognised by stockowners.

The increased attention paid to cross-breeding in order to supply the demands of the frozen-mutton trade, and the large increase in the number of settlers on small and moderate-sized holdings who combine grazing with agriculture, have together emphasised the necessity of conducting experimental breeding on a scientific basis, and of providing instruction for sheep-farmers. To meet this necessity a sheep and wool expert of the Department of Agriculture organises the class work conducted at State experiment farms, delivering lectures and giving demonstrations in country centres.

Cross-breeding experiments, which were commenced during 1910, are proceeding on a comprehensive scale at the Wagga Wagga, Cowra, Bathurst, and Glen Innes Experiment Farms, the work being carried out especially in the interests of the farmer or small grazier, who has the facilities for breeding high-priced lambs. Both the long and the short woolled breeds have been crossed with the Merino with the object of obtaining the most desirable characteristics of each group, so that all these qualities may be incorporated in a single strain. In the first step in the evolution of a dual-purpose sheep for wool and for mutton long-woolled rams were mated with Merino ewes. Then the early maturing and exceptional mutton qualities of the short-woolled varieties—Southdowns, Shropshires, and Dorset Horns—were utilised by mating rams of these breeds with the cross-bred ewes, for the production of a lamb suitable both for local consumption and for shipping. The experiments have received considerable attention and are now reaching finality.

WOOL.

The prosperity of New South Wales depends very largely on the conditions of the wool market of the world, hence the wool-clip constitutes the most important event of the year in the production of the State.

The following table shows the production in quinquennial periods since 1876, distinguishing the exports and the local consumption. The exports comprise both washed and greasy wool, but the actual weight of exports does not show the production clearly with regard to quantity. The proportion of washed and greasy wool varies with each year, and the washed wool should be stated, therefore, as in grease; this course has been followed in the table, and the quantity of the staple used locally in woollen mills has been added to ascertain the total production, stated as in the grease.

The amount of wool used locally is known, so that the difference between this quantity and the total production represents the quantity exported, or available for export, either to oversea ports or to the other Australian States. It does not follow that the wool of any particular season is exported during that season, and this applies more particularly to the last four years, during which shipping facilities have been limited, and large quantities of wool have been held in store pending opportunities of shipment. The particulars of wool production (stated as in grease) are as follow :—

Period.	New South Wales Wool.—Quantity.			Value.		
	Exported, or available for Export.	Used Locally.	Total Production.	Exported, &c.	Used Locally.	Total Value (F.O.B., Sydney).
	lb.	lb.	lb.	£	£	£
1876-1880	713,518,500	4,878,500	718,397,000	31,076,350	222,250	31,298,600
1881-1885	939,605,700	4,208,300	943,814,000	40,381,380	181,720	40,563,100
1886-1890	1,290,919,900	3,861,100	1,294,781,000	44,641,580	130,920	44,772,500
1891-1895	1,808,007,600	5,622,400	1,813,630,000	48,893,010	131,590	49,024,600
1896-1900	1,401,170,000	7,070,000	1,408,240,000	42,782,450	201,250	42,983,700
1901-1905	1,297,118,300	5,466,700	1,302,585,000	46,528,630	190,470	46,719,100
1906-1910	1,811,746,400	5,415,600	1,817,162,000	73,437,200	172,800	73,610,000
1911	369,144,000	2,402,000	371,546,000	13,178,000	86,000	13,264,000
1912	324,384,000	2,420,000	326,804,000	12,727,000	96,000	12,823,000
1913	355,501,000	2,484,000	357,985,000	14,237,500	99,500	14,337,000
1914*	130,310,000	1,500,000	131,810,000	5,244,000	60,000	5,304,000
1915†	314,765,000	4,170,000	318,935,000	12,058,000	170,000	12,228,000
1916†	255,578,000	6,467,000	262,045,000	12,010,000	281,000	12,291,000
1917†	263,968,000	6,557,000	270,525,000	17,453,000	297,000	17,750,000
1918†	278,521,000	5,665,000	284,186,000	19,253,000	285,000	19,538,000

* Six months—January to June. † Year ended 30th June.

The values given in this table represent the export values free on board, Sydney, and consequently differ from those on a later page, which show the values at the place of production.

Prior to 1876 no distinction was made between washed and greasy wool, so that any attempt to estimate the production is surrounded with difficulty. From the information available, it would appear however, that the production in 1861 was 19,254,800 lb., and in 1871 the weight in grease was 74,401,300 lb.

The above figures show how greatly the prosperity of the State is affected by fluctuations in the market value of its staple export.

Prior to the initiation of the Imperial Wool Purchase Scheme, described below, about 85 per cent. of the wool produced in New South Wales was

sold in Sydney, where the wool sales in each year were attended by purchasers from Great Britain and the foreign countries where woollen goods are manufactured on an extensive scale.

The great bulk of wool sold in New South Wales is merino, and during 1917-18 it represented 75 per cent. of the total.

The average prices of wool, f.o.b. Sydney, in each year since 1901, are shown in the following table:—

Year.	Average Prices per lb.		Year.	Average Prices per lb.		Year.	Average Prices per lb.	
	Greasy.	Scoured.		Greasy.	Scoured.		Greasy.	Scoured.
	d.	d.		d.	d.		d.	d.
1901	7½	13½	1907	11½	20½	1913	9½	16
1902	8½	16½	1908	9½	16½	1914*	9½	14½
1903	9½	18	1909	9½	14½	1915†	9	15
1904	8½	18½	1910	9½	15½	1916†	10½	16½
1905	10½	18½	1911	9½	14½	1917†	15½	21½
1906	10½	19½	1912	9½	14½	1918†	16½	24½

* Six months, January-June.

† Year ended 30th June.

THE IMPERIAL WOOL PURCHASE SCHEME.

Details of the scheme under which the Imperial Government purchased Australian wool during 1916-17 were shown in the 1916 issue of this Year Book; similar arrangements were made for the acquisition of the wool of the season 1917-18; and subsequently the Imperial Government decided to extend the purchase of the Australian wool clip for the period of the war and for one wool year thereafter.

The management of the scheme in Australia is controlled by the Central Wool Committee, consisting of a chairman, nominated by the Commonwealth Government, two representatives of the wool-growers, three representatives of the selling brokers, respectively of Sydney, Melbourne, and Adelaide, one representative each of the manufacturers, the scourers, and the buyers, and a secretary. Committees have been formed in each State also on a similar basis.

The wool is purchased by appraisement at a price which was decided at the initiation of the scheme by representatives of the various interests concerned, and was fixed at 15½d. per lb. in the grease, but it is understood that any wool not required by the Imperial Government will be sold, and any surplus over 15½d. per lb. will be divided equally between the Imperial and Commonwealth Governments; thus an additional payment may be made to the wool-growers.

With the object of returning to the wool-growers the fixed average rate, a Clean Cost Basis, divided into 381 different types of wool, was established; but at the commencement of the 1917-18 season it was superseded by a Table of Limits, consisting of 848 distinct types, which allows more accurate classification of the various types, and at the same time makes provision for any unusual features in the clip.

Payment for the wool is made shortly after appraisement, an amount equal to 10 per cent. of the appraised value being retained to meet any contingency that may arise from over-valuation of the wool. Sales of interest in the wool pool and speculation in wool equities are not permitted.

The total quantities of greasy and scoured wool submitted for appraisement in Australia during the 1918-19 season and the appraised value are shown below :—

Wool.	Quantity of Wool Appraised.				Appraised Value.	
	Bales.	Fadges.	Sacks.	Total Weight.	Total.	Average per lb.
	No.	No.	No.	lb.	£	d.
Greasy ..	1,759,054	23,182	246,285	599,447,103	38,310,763	15·34
Scoured ..	223,530	882	669	52,662,569	5,670,405	25·84
Total ...	1,982,584	24,064	246,954	65,109,672	43,981,168	14·98

Thus the average price of wool appraised in a greasy state was 15·34d. per lb. and of scoured wool 25·84d. per lb.; the average appraised price of all wool, calculated as in grease, was 14·98d. per lb. Assuming that, on the average, 2 lb. of greasy wool are required to produce 1 lb. of scoured, the wool appraised was equal to 704,724 lb. as in grease, and the total value at the flat rate of 15½d. per lb. would be £45,516,540; thus the appraised value was deficient by £1,535,372 or 3·4 per cent. A dividend of 3½ per cent. will therefore be paid to the wool-growers, in addition to 10 per cent. of the appraised value which had been retained to provide against over-valuation.

The quantity of wool appraised in New South Wales in 1918-19 was 247,673,069 lb., and the appraised value was £16,288,085, or 14·5d. per lb.; particulars regarding the appraisements in each of the States in 1918-19 are as follow :—

State.	Weight.	Appraised Value.	
		Total.	Average per lb. as in grease.
	lb.	£	d.
New South Wales	247,673,069	16,288,085	14·50
Victoria	187,668,698	12,864,946	15·35
Queensland	99,455,615	7,684,804	16·07
South Australia	61,426,580	3,689,642	14·08
Western Australia	45,403,045	2,680,071	13·98
Tasmania	10,482,665	773,620	17·65
Total	652,109,672	43,981,168	14·98

To meet the requirements of local manufacturers 20,278,476 lb. of greasy and 1,540,725 lb. of scoured wool were purchased. Woollen manufacturers were required to pay only the appraised value for their purchases, which amounted to 13,189,300 lb. of greasy wool and 1,108,427 lb. of scoured; the appraised value, at an average price of 13·8d. per lb. (greasy), amounted to £839,756 or £29,316 less than the flat rate value.

Manufacturers of wool tops for export, who carry on operations under arrangements with the Commonwealth Government, whereby the latter receives a percentage of the profits, are required to pay the flat rate value for wool, the products—wool tops, noils, and waste—being sold on the parity of prices fixed by the Director of Raw Materials, London. During 1918–19 these manufacturers purchased 7,089,176 lb. of greasy and 432,298 lb. of scoured wool, the flat rate value being £684,120 or 20·64d. per lb. (greasy). This quantity is exclusive of skin wool, the product of fellmongering operations, used in the manufacture of wool tops.

Particulars regarding the distribution of the 1918–19 wool are shown in the following statement:—

Purchased by—	Quantity of Wool.			Appraised Value.	
	Greasy.	Scoured.	Total weight, as in grease.	Total.	Average per lb. (as in grease)
	lb.	lb.	lb.	£	d.
Local Manufacturers of—					
Woolens	13,189,300	1,108,427	15,406,154	839,756	13·08
Wool Tops	7,089,176	432,298	7,953,772	661,044	19·95
Imperial Government ...	579,168,627	51,121,844	681,412,315	42,480,368	14·96
Total	599,447,103	52,662,569	704,772,241	43,981,168	14·98

The quantity of wool sold to the Imperial Government was 681,412,315 lb. as in grease, which at 15½d. per lb. amounted to £44,007,879, and an amount of £44,531 was deducted on account of the wool being of inferior quality to the general average of the whole clip. Charges to cover handling costs from warehouse to f.o.b., salaries of Government appraisers, remuneration of shipping houses, and other incidental expenses, amounted to £1,969,658.

The wool and other credits for the 1918–19 season were as follow:—

Imperial Government—	£
Wool Account	44,007,879
Handling Charges	1,969,658
Sheep-skins Accounts	1,767,819
Australian Manufacturers	1,523,877
Interest to 31st July, 1919	61,506
	£49,330,739
Less Cost of Exchange	100,010
	£49,230,729

The quantity of Australian wool exported overseas since the commencement of the Imperial purchase scheme amounted to 3,431,018 bales, of which 2,721,166 bales were sent to the United Kingdom, 396,659 bales to the United States, and 155,084 bales to Italy. In addition, 24,597 bales of wool, and wool tops and noils equivalent to 67,939 bales, were exported to Japan. The quantity of appraised wool in the Commonwealth awaiting shipment in July, 1919, was 1,338,693 bales, valued at £28,772,027 approximately.

The appraisalment of sheep-skins was undertaken by the Central Wool Committee during the seasons 1916-17 and 1917-18, but it was decided to suspend this method and to purchase in the open market such skins as are required for naval and military purposes by the Director of Raw Materials. Sheep-skins, weighing 38,264,585 lb., were purchased during 1918-19 at a total value of £1,668,172, the quantity purchased in New South Wales being 8,610,343 lb., valued at £380,617.

Particulars regarding the wool and sheepskins appraised in the Commonwealth since the inception of the Imperial purchase scheme are shown in the following statement :—

Season.	Wool.				Sheepskins.	
	Greasy.	Scoured.	Total Weight.	Value.	Weight.	Value.
	lb.	lb.	lb.	£	lb.	£
1916-17	323,752,519	34,307,991	358,060,510	25,340,466	11,542,325	433,603
1917-18	569,616,406	47,340,333	616,956,709	42,902,516	24,241,856	1,031,414
1918-19	599,447,103	52,662,569	652,109,672	45,516,540	38,264,585	1,668,172
Total ...	1,492,816,028	134,310,863	1,627,126,891	113,759,522	74,048,766	3,133,189

CATTLE.

Though still a very important industry, cattle-rearing does not now occupy so prominent a position as formerly. The number of cattle returned shows that there was a great decline in the total from 1876 to 1886, that the number steadily increased from 1886 to 1896, when it stood at 2,226,163, and that subsequently, owing to unfavourable seasons, the number decreased until in 1902, the total fell to 1,741,226. From 1902 the number increased to 3,194,236 in 1911, but declined to 2,405,770 in June, 1916. In the succeeding two years the number increased considerably, and in June, 1918, amounted to 3,161,717, showing an increase of 395,774 as compared with the previous year.

The following table shows the number of cattle depastured in the State at the close of each quinquennial period from 1861 :—

Year.	Cattle.	Year.	Cattle.	Year.	Cattle.
1861	2,271,923	1886	1,367,844	1906	2,549,944
1866	1,771,809	1891	2,128,838	1911	3,194,236
1871	2,014,888	1896	2,226,163	1916*	2,405,770
1876	3,131,013	1901	2,047,454	1918*	3,161,717
1881	2,597,348				

* At 30th June.

The principal breeds of cattle now in the State are the Durham or Shorthorn, Hereford, Jersey, Ayrshire, and Devon, besides crosses from these breeds. At the close of the year 1918 the numbers of each breed, as far as could be ascertained, were :—

Breed of Cattle.	Pure and Stud.	Ordinary.	Total.
Shorthorns	112,266	661,872	774,138
Hereford	36,190	143,305	179,495
Devon	7,830	31,971	39,801
Black-polled	2,891	12,196	15,087
Red-polled	1,256	3,034	4,290
Ayrshire	6,928	55,978	62,906
Alderneys	1,042	7,112	8,154
Guernseys	1,561	13,093	14,654
Holstein	792	3,469	4,261
Jersey... ..	18,455	86,411	104,866
Kerry... ..	25	57	82
Highland	40	120	160
Crosses (first) ... ..	.....	1,869,218	1,869,218
	189,276	2,887,836	3,077,112
The crosses are estimated as follow :—			
Shorthorn—Hereford ... ..	.....	.....	335,930
Shorthorn—Devon ... ..	.....	.....	113,840
Shorthorn—Red-polled ... ..	.....	.....	8,405
Shorthorn—Guernsey ... ..	.....	.....	14,586
Hereford—Devon ... ..	.....	.....	59,544
Hereford—Black-polled ... ..	.....	.....	8,893
Hereford—Red-polled... ..	.....	.....	1,668
Ayrshire—Shorthorn ... ..	.....	.....	203,949
Ayrshire—Jersey ... ..	.....	.....	55,979
Ayrshire—Devon ... ..	.....	.....	18
Black-polled—Shorthorn ... ..	.....	.....	25,080
Jersey—Shorthorn ... ..	.....	.....	238,963
Holstein—Jersey ... ..	.....	.....	2,395
Holstein—Ayrshire ... ..	.....	.....	1,870
Holstein—Shorthorn ... ..	.....	.....	100
Devon—Red-polled ... ..	.....	.....	245
Dexter—Kerry... ..	.....	.....	12
Unrecognisable... ..	.....	.....	797,741
Total ... ..	.....	.....	1,869,218

The foregoing table does not include the whole of the cattle, as large numbers, principally in the metropolitan centres and in the vicinity of towns, are not returned.

There has been an appreciable increase in the number of dairy cattle, many of the farmers in the coastal districts having turned their attention to the dairying industry with very satisfactory results. The number of milch cows at 30th June, 1918, was 429,556, and there were 347,834 dry dairy cows, 110,827 heifers within 3 months of calving, and 177,872 other heifers.

During 1917–18 the number of calvings recorded was 819,080, and 633,241 or 77 per cent. were surviving at the end of the year.

As a result of investigations into the industry, the Government established two calf-rearing depôts in September, 1918, one at Albion Park, the other

at Raymond Terrace. The waste products of butter and cheese factories are utilised in feeding the calves, and the number reared up to June, 1918, was 473.

In order to encourage and assist dairy farmers in improving their breeds, the Government imported some high class stud-bulls from England, and these and their progeny are sold, or they are kept for service at their State farms.

The exports of New South Wales cattle to countries oversea during 1917-18 numbered 200. Of these 107, valued at £1,975, were ordinary cattle, and 93, valued at £3,919, were cattle for stud purposes.

HORSES.

Australian horses have acquired a high reputation. At an early period the stock of the country was enriched by the importation of some excellent thoroughbred Arabs, and it is constantly being improved by the importation of high class stock from Great Britain. The number of horses in the State steadily increased from 233,220 in the year 1861 to 518,181 in 1894; but owing to the drought, the total had fallen in 1901 to 486,716; since that year there has been a substantial increase, and the number at the end of 1911 reached 689,004. There was a great advance in horse breeding between 1910 and 1914, owing to the increased demand which arose as a consequence of widening settlement, prosperous seasons, and, more recently, to defence requirements; the number on 30th June, 1918, was 742,247.

The following table shows the number of horses in New South Wales at the end of quinquennial periods since 1861:—

Year.	Horses.	Year.	Horses.	Year.	Horses.
1861	233,220	1886	361,663	1906	537,762
1866	274,437	1891	469,647	1911	689,004
1871	304,100	1896	510,636	1916*	719,542
1876	366,703	1901	486,716	1918*	742,247
1881	398,577				

* A 30th June.

For purposes of classification the horses have been divided into draught and light, and the number of each particular kind, at the 31st December, 1918, so far as could be ascertained from returns collected by the Stock Department, was as follows:—

Class.	Thoroughbred.	Ordinary.	Total.
Draught	32,346	264,178	296,524
Light	35,632	290,150	325,782
Total	67,978	554,328	622,306

New South Wales is specially suited to the breeding of saddle and light-harness stock, and it is doubtful whether, in these particular classes, the Australian horse can be surpassed anywhere. Thoroughbred sires are kept on many of the large holdings and the progeny of these stallions combine speed with great powers of endurance. Although fed only on the ordinary herbage, these animals constantly perform long journeys across difficult country, and become hardy and sure-footed to a high degree. The possession of these qualities gives them great value as army remounts.

The approximate number of animals fit for market is as follows :—Draught, 60,945; light, 56,880; total, 117,825. Of these it is estimated that about 25,076 are suitable for the Indian and other markets.

There is a considerable exportation annually to countries outside Australia, and the following table shows the number and the value of horses bred in New South Wales and sent to countries outside Australia in the years 1900, 1910, 1914-15, and 1917-18 :—

Countries.	Number.				Value.			
	1900.	1910.	1915. *	1918. *	1900.	1910.	1915. *	1918. *
Burmah ... ..	...	85	...	...	£	£	£	£
Fiji	48	190	215	150	1,220	4,566	5,036	3,765
India	1,688	925	411	3,605	18,521	20,522	10,955	80,465
New Zealand... ..	189	106	62	17	3,276	6,460	9,750	9,200
South Africa	7,714	1	1	...	124,485	25	20	...
Straits Settlements	295	42	1	19	7,440	6,645	50	500
China	1,489	1	...	...	41,600	60	...	...
Japan ... ..	...	31	46	15	...	1,620	2,400	750
Java	36	98	34	...	720	2,747	1,085	...
Philippine Islands	35	397	...	...	1,060	9,985	...	...
Other Countries	78	50	82	23	4,963	1,743	5,003	744
Total	11,572	1,926	852	3,834	203,285	57,116	34,299	94,424

* Twelve months ended 30th June.

The horses sent to South Africa in 1900 were for the use of mounted troops in the war; since 1914, also, large numbers have been despatched oversea for military purposes, but they have not been included in the table, as particulars are not available. During 1904 agents from Japan purchased a large number of horses on behalf of the Japanese Government, but the trade in recent years has not been important. There is a regular export trade to India, where the horses are required as remounts for the Indian Army; this trade has shown a marked increase since 1914.

LIVE STOCK IN PRINCIPAL COUNTRIES.

A comparison of the numbers of horses, cattle, sheep and swine, in New South Wales and other countries, is afforded by the following table, the figures being the latest available.

Country.	Horses.	Asses and Mules.	Cattle.	Sheep.	Goats.	Swine.
Australia—						
New South Wales	742,247	371	3,161,717	38,621,196	38,904	396,157
Victoria	523,788	*33	1,596,544	15,773,902	*27,939	267,819
Queensland	759,726	1,037	5,786,744	18,220,985	132,947	140,966
South Australia	262,840	4,462	313,245	6,229,519	9,315	110,353
Northern Territory	26,231	250	638,431	54,709	7,514	124
Western Australia	180,086	6,413	943,793	7,161,402	35,421	85,822
Tasmania	42,396	.....	197,938	1,711,116	2,566	54,653
Total	2,537,314	12,566	12,638,412	87,772,829	254,606	1,055,894

* Census, 1901.

LIVE STOCK IN PRINCIPAL COUNTRIES—continued.

Country.	Horses.	Asses and Mules.	Cattle.	Sheep.	Goats.	Swine.
New Zealand ...	378,050	253	2,869,465	26,538,302	17,730	258,694
United Kingdom...	1,916,347	258,000	12,311,149	27,062,681	277,000	2,809,215
British India ...	1,680,946	1,605,281	129,872,589	22,894,571	33,165,506	*
Argentina ...	8,323,815	929,146	25,866,763	43,225,452	4,563,808	3,197,337
Austria ...	1,802,848	73,408	9,160,009	2,428,101	1,256,778	6,432,080
Belgium ...	267,160	11,000	1,849,484	185,000	218,000	1,412,293
Brazil ...	7,289,690	3,207,940	30,705,400	10,949,930	10,048,570	18,400,530
Bulgaria ...	478,222	130,726	1,606,363	8,669,260	1,464,719	527,311
Canada ...	3,609,257	10,261	10,050,867	3,052,748	*	4,289,682
Ceylon ...	3,986	*	1,577,464	86,103	193,204	62,721
Chile ...	403,013	88,204	2,029,942	4,182,910	375,825	300,832
Denmark ...	544,999	*	2,123,722	470,051	41,411	620,880
Egypt ...	34,403	543,447	492,650	687,696	263,200	8,580
France ...	2,282,560	474,695	13,314,856	9,496,315	1,177,000	4,020,897
Germany ...	3,341,624	13,000	21,462,071	6,167,469	3,438,296	2,763,610
Hungary ...	2,005,019	17,062	6,045,000	6,659,858	268,752	6,824,657
Italy ...	804,168	1,253,486	6,162,259	11,751,575	3,082,554	2,337,304
Japan ...	1,572,500	*	1,342,990	3,370	109,353	327,891
Mexico ...	859,217	622,426	5,142,457	3,424,430	4,206,011	616,139
Morocco ...	119,045	384,253	1,172,891	4,194,040	1,258,327	102,745
Netherlands ...	362,011	232,000	1,968,609	437,075	232,478	449,829
Norway ...	220,900	*	1,053,743	1,216,291	203,852	224,803
Roumania ...	299,402	12,000	1,049,702	1,655,110	84,197	371,205
Russia in Asia ...	11,346,000	*	17,334,000	34,468,000	4,791,000	2,962,000
Russia in Europe...	22,529,000	13,000	32,704,000	37,240,000	873,000	11,581,000
Russia—Poland ...	1,098,000	.....	2,014,000	565,000	9,000	452,000
Spain ...	557,676	1,966,890	3,233,200	17,227,019	4,181,942	3,929,449
Sweden ...	714,822	*	2,584,159	1,409,473	133,304	633,862
Switzerland ...	128,644	4,096	1,530,165	225,081	354,716	364,468
Tunis ...	35,831	100,975	251,490	1,124,998	548,912	14,596
Union of South Africa ...	781,022	638,875	6,851,924	29,914,035	8,018,871	1,043,224
United States of America ...	21,534,000	4,925,000	67,866,000	49,863,000	*	75,587,000
Uruguay ...	567,154	16,663	7,802,442	11,472,852	12,218	303,958

* Not available.

The statistics relating to oversea countries are for the year 1918, with the exception of those relating to the Netherlands, which are for 1919; to Brazil, Ceylon, Chile, Germany, Roumania and Spain, for 1917; to Argentina, Egypt, Japan, and Uruguay, for 1916; and to Austria, Belgium, Bulgaria, Hungary, Mexico, and Russia, for pre-war years.

GOATS AND OTHER LIVE STOCK.

The number of goats in New South Wales in June, 1918, was 38,904, including 8,015 Angora goats, which are valued by pastoralists chiefly as effective scrub exterminators, although the dry climate of the western districts is eminently suited to the production of fine mohair.

Camels are used as carriers on the Western Plains. the number in June, 1918, being 2,050, compared with 1,792 at the close of the year 1913.

Donkeys and mules are not extensively used in New South Wales, the numbers in 1918 being 146 of the former and 225 of the latter. It is claimed that mules have many points of advantage over horses for farm work, especially in areas of limited rainfall—for instance, longer period of utility, smaller cost of maintenance, greater adaptability to untoward conditions of labour, and comparative freedom from disease.

The climate of certain portions of the State is considered specially suitable for ostrich farming, though it is not conducted on an extensive scale. The number of ostriches at the end of June, 1918, was 494, as compared with 662 at the close of the year 1913.

PRICES OF STOCK.

The following table shows the prices of fat stock during 1918. The considerable variations enumerated are to be assigned to the fluctuations of supply and demand, to difference of quality, and in the case of sheep, to woolly or shorn skins. The months during which maximum and minimum average prices prevailed are shown also.

Class of Stock.	Highest Price.		Lowest Price.		Fair Average.
	£ s. d.	Month.	£ s. d.	Month.	
Fat Stock—					
Bullocks and Steers—					
Extra Heavy ...	32 12 0	September	23 14 0	March ...	26 16 0
Prime Heavy ...	27 2 0	September	20 6 0	April ...	23 3 0
Prime Medium Weight ...	23 5 0	September	17 9 0	March ...	20 3 0
Prime Handy Weight ...	21 13 0	September	16 7 0	April ...	18 10 0
Prime Light ...	19 13 0	September	14 5 0	April ...	16 9 0
Good Light ...	18 13 0	September	12 8 0	December	15 1 0
Medium Light ...	17 13 0	September	11 6 0	December	13 14 0
Other ...	13 5 0	September	7 13 0	December	9 17 0
Cows—					
Extra Prime ...	20 13 0	September	15 10 0	December	18 0 0
Prime ...	18 3 0	September	13 0 0	December	15 6 0
Good ...	16 0 0	August ...	10 15 0	December	13 4 0
Medium ...	13 4 0	September	8 0 0	December	10 18 0
Light and Inferior ...	10 0 0	August ...	6 10 0	December	8 1 0
Sheep—					
Merinos—					
Wethers and Hoggets—					
Extra Prime ...	2 6 6	September	1 6 9	December	1 18 0
Prime ...	2 1 0	September	1 3 3	December	1 13 6
Good ...	1 14 6	September	0 19 6	December	1 8 6
Medium ...	1 8 9	September	0 17 6	December	1 4 6
Ewes—					
Extra Prime ...	1 16 0	September	1 2 0	December	1 10 6
Prime ...	1 11 0	September	0 19 3	December	1 6 0
Good ...	1 6 3	September	0 15 3	December	1 2 0
Medium ...	1 2 0	September	0 11 3	December	0 18 0
Crossbreds—					
Wethers and Hoggets—					
Extra Prime ...	2 10 0	September	1 11 6	December	2 1 0
Prime ...	2 3 6	September	1 6 6	December	1 15 9
Good ...	1 16 3	September	1 3 0	December	1 11 0
Medium ...	1 10 6	September	0 19 3	December	1 5 9
Ewes—					
Extra Prime ...	2 3 3	September	1 9 9	December	1 16 6
Prime ...	1 18 3	September	1 5 3	December	1 12 3
Good ...	1 13 3	September	1 2 0	December	1 9 0
Medium ...	1 8 6	September	0 19 0	December	1 4 6
Lambs—Suckers and Woolly					
Extra Prime ...	1 15 9	September	1 5 9	December	1 11 9
Prime ...	1 10 9	September	1 0 3	December	1 6 9
Good ...	1 7 9	September	0 18 0	December	1 3 6
Medium ...	1 3 0	September	0 13 9	December	0 19 0

The prices, during 1918, of general live stock, inclusive of equine and dairy stock, swine, goats, and animals of draught and traction, were as follows :—

Class of Stock.	Estimated fair average Price.	Class of Stock.	Estimated fair average Price.
Horses—	£ s. d.	Pigs—	£ s. d.
Draught—Extra Heavy ...	22 10 0	Baconers—Best ...	4 13 6
Medium ...	14 0 0	Good ...	4 3 3
Light ...	8 0 0	Medium ...	3 12 3
Saddle and Harness ...	8 0 0	Prime Light and Light } ...	3 3 9
Working Bullocks—Best ...	14 0 0	Backfatters—Best ...	7 9 0
Other ...	11 0 0	Good ...	6 10 3
Dairy Cattle—		Medium ...	5 8 0
Milkers—Best ...	21 0 0	Prime Light and Light } ...	4 2 6
Good ...	16 0 0	Suckers ...	0 15 0
Inferior ...	9 0 0	Stores... ...	1 10 0
Springers—Best ...	17 0 0	Goats—Angora ...	4 0 0
Other ...	10 0 0	Other ...	0 15 0
Pigs—		Camels ...	14 0 0
Porkers—Best ...	2 18 9	Mules ...	20 0 0
Good ...	2 19 6	Donkeys—Jacks (for breeding)	40 0 0
Medium ...	2 1 6	Jennies ...	30 0 0
Prime Light and Light } ...	1 12 9		

With regard to equine stock, the average maximum price was £33 for extra heavy draught horses, and the minimum £5 for light draught and saddle and harness horses. With fat cattle, £28 was the average maximum for extra heavy bullocks, and the minimum for extra prime cows, £17 3s. Working bullocks ranged from £10 to £16. For dairy cattle the maximum for best milkers was £27, and the minimum for good milkers, £14. Pigs brought prices ranging from £7 14s. for backfatters to £1 10s. for light porkers. The maximum price of angora goats was £6 6s.; of camels, £16; and of donkeys, £50.

VALUE OF PASTORAL PRODUCTION.

The grazing industry long constituted the greatest source of wealth in New South Wales, and information relating to pastoral returns and income is therefore of interest. Unfortunately it is not possible to ascertain with precision the value of holdings occupied for pastoral purposes alone, nor can the worth of the improvements be estimated.

It is difficult, from the nature of the industry, to estimate the return from pastoral pursuits as at the base of production; but taking the Sydney prices as a standard, and making due allowance for incidental charges, such as

agistment, railway carriage or freight, and commission, the value during the season 1917-18 would appear as £28,435,000. The returns received from the different kinds of stock during the years 1891-1918 are shown in the following table.

Year.	Annual Value of Pastoral Production.					
	Sheep for Food.	Wool.	Cattle.	Horses.	Total.	Per Head of Population.
	£	£	£	£	£	£ s. d.
1891	2,367,000	9,996,000	1,535,000	827,000	14,725,000	12 17 10
1896	1,745,000	8,619,000	990,000	420,000	11,774,000	9 5 4
1901	2,071,000	8,425,000	1,374,000	682,000	12,552,000	9 3 8
1906	3,514,000	13,792,000	1,592,000	845,000	19,743,000	13 6 0
1911	2,811,000	12,933,000	1,689,000	2,001,000	19,434,000	11 13 6
1912	3,127,000	12,497,000	1,754,000	2,062,000	19,440,000	11 3 8
1913	2,885,000	13,620,000	2,041,000	2,192,000	20,738,000	11 9 3
1914-15	3,004,000	11,250,000	2,498,000	2,096,000	18,848,000	10 2 3
1915-16	4,295,000	11,380,000	3,729,000	2,172,000	21,576,000	11 10 10
1916-17	4,617,000	16,435,000	4,025,000	1,765,000	26,842,000	14 7 11
1917-18	3,918,000	13,091,000	4,020,000	1,664,000	28,435,000	15 0 8

The value of the pastoral production depends mainly upon the price obtainable for wool in the world's markets, the volume of production being dependent upon the seasons experienced in the State. The prices of wool have risen considerably since 1914, so that, while the quantity produced in 1917-18 was 11 per cent. less than in 1914-15, the total value was 61 per cent. higher.

The prices of live stock generally decline in a dry season as graziers are forced to sell, owing to scarcity of pasturage, and with an improvement in climatic conditions the prices rise again, owing to the demand for re-stocking. The export prices of frozen meat have risen steadily since 1911, especially during the last five years.

PASTORAL IMPLEMENTS AND MACHINERY.

A list of the implements and machinery in use on pastoral holdings appeared in the 1912 edition of this Year Book. The aggregate value of the implements and machinery at the 30th June, 1918, was £2,316,518.

Shearing machines have been installed on all the large holdings devoted to wool-growing. In addition to shearing their own sheep, many owners of machines contract for the treatment of small flocks in the vicinity. The carts and waggons used on all rural holdings are included with farming machinery, as stated in the chapter on Agriculture, in which a comparative table of the value of farming, dairying, and pastoral machinery was shown.

MEAT SUPPLY.

The slaughter of live stock for food is permitted only in places licensed for the purpose. Of such establishments there are in the metropolis 49, and in the country districts 838, employing respectively 971 and 2,241 men; in all, 887 establishments and 3,212 men employed.

The following table shows the number of stock slaughtered during the year ended 30th June, 1918 :—

Stock.	Metropolis.	Country.	Total.
Sheep	1,603,617	1,475,902	3,079,519
Lambs	67,715	54,944	122,659
Bullocks, &c. ...	134,112	124,018	258,130
Cows	21,948	68,691	90,639
Calves	24,339	4,915	29,254
Swine	160,933	168,934	329,867

These figures represent the stock killed for all purposes. Of the sheep and lambs, 2,436,394, including 947,443 killed on stations and farms, represent the local consumption; 437,577 were required by meat-preserving establishments; 305,930 for freezing for export; 3,734 were boiled down for tallow; and 18,543 carcasses were exported to Victoria. All the cattle killed were required for local consumption, except the equivalent of 45,403 carcasses treated in the meat-preserving works, 23,289 (including 319 calves) exported frozen, 451 exported to Victoria, and 1,320 boiled down.

The following table shows the stock slaughtered in the various establishments at intervals since 1896. The figures relating to the establishments and employees are somewhat in excess of the actual number as they include a number of butchers' shops in country districts and the shop hands employed therein.

Year.	Establishments.	Employees.	Stock Slaughtered.					
			Sheep.	Lambs.	Bullocks. †	Cows.	Calves.	Swine.
1896	1,904	5,959	6,077,420	110,329	232,875	98,910	19,461	197,971
1901	1,642	4,675	4,372,016	147,117	202,795	113,374	19,654	248,311
1906	1,522	4,391	4,229,407	252,648	237,722	94,955	26,200	281,650
1911	1,287	4,313	6,146,739	400,186	306,773	182,178	59,969	316,331
1916*	1,071	3,722	3,815,477	361,831	187,882	165,134	31,986	219,806
1918*	887	3,212	3,079,519	122,659	258,130	90,639	29,254	329,867

* Year ended 30th June. † Includes a small number of bulls.

The stock for the supply of meat for Sydney and suburbs is for the most part sold at the Flemington saleyards, near Sydney, and slaughtered in abattoirs at Homebush Bay. Animals sold at Flemington are inspected *ante mortem*, and the diseased are destroyed, while "doubtful" beasts are marked for further special attention at the abattoirs. The Inspecting Staff at the State abattoir consists of a Chief Inspector, sixteen assistants and three branders. Inspectors are stationed also at private slaughtering premises throughout the County of Cumberland. The operations of the inspectorial staff are supervised by the Veterinary officers of the Metropolitan Meat Industry Board, who pay regular visits to the different establishments.

The carcase meat for food is conveyed from the slaughtering premises in covered louvered vans for distribution to retail shops, which are regulated by the municipal authorities.

The particulars of operations at the State Abattoir, Homebush Bay, during the years ended 30th June, 1917, and 1918, are shown in the following statement :—

Animals.	Year ended 30th June, 1917.			Year ended 30th June, 1918.		
	Slaughtered.	Condemned.		Slaughtered.	Condemned.	
		Number.	Per cent.		Number.	Per cent.
Cattle	95,091	1,188	1.25	101,084	776	0.76
Calves	29,936	1,032	3.45	23,132	430	1.85
Sheep and lambs	145,511	201	0.14	1,061,471	411	0.04
Pigs	71,488	1,178	1.65	93,567	861	0.92

Further particulars relating to the operations of the Metropolitan Meat Industry Board have been shown in the chapter "Food and Prices," also a comparative review of the prices of meat.

The average wholesale prices of the best beef, during 1917, ranged from 50s. 3d. per cwt. in May to 63s. in September, and during 1918 from 50s. 6d. in December to 65s. in March.

MEAT EXPORT TRADE.

It has been proved that a great expanse of country is suited to the breeding of large-carcase sheep, and pastoralists have turned their attention in this direction with a view to securing a greater share in the meat trade of the oversea countries. The quantity of frozen meat exported oversea in 1889 amounted to 37,868 cwt., valued at £33,426; two years later it had increased to 105,013 cwt., valued at £101,828; its subsequent development may be seen in the following table. The quantity of preserved meat exported was first recorded in 1887, when 9,701,812 lb., valued at £149,287 were exported; the trade in preserved meat is subject to considerable fluctuation.

Year.	Frozen or Chilled.				Preserved.	
	Beef.	Mutton and Lamb.	Total Weight.	Total Value.	Weight.	Value.
	cwt.	cwt.	cwt.	£	lb.	£
1891	*	*	105,013	101,828	6,509,928	85,629
1896	26,529	559,507	586,036	594,596	14,365,300	187,657
1901	115,050	351,516	466,566	541,525	10,086,940	209,697
1906	32,640	455,165	487,805	579,294	3,121,933	62,307
1911	65,097	535,259	600,356	758,155	20,783,779	401,384
1915-16	7,000	236,099	243,099	562,262	4,087,618	159,711
1917-18	36,464	77,864	114,328	302,846	21,522,696	1,230,083

* Not available.

In the foregoing table, ships' stores, amounting annually to several millions of pounds in weight, are not included.

There was, prior to the War, an encouraging development in the meat export trade, and the prospects of its establishment on a stable foundation appeared highly favourable. European countries were gradually opening their ports to frozen meat, and the trade in the East was increasing. The War, however, closed many markets, and through the tremendously augmented value of freight-space it seriously hampered exports. Early in 1915 arrangements were made in terms of the Meat Supply for Imperial Uses Act, for the purchase by the Imperial Government of all the beef and mutton available

for export during the period of the War; details have been shown in the chapter relating to "Food and Prices." With the restoration of normal peace conditions the trade will doubtless experience a great revival, because the demand for foodstuffs will be considerable.

In order to establish a high reputation for this product it is necessary for exporters to exercise the greatest care in preparation and transport. Stringent regulations have been issued by the Department of Trade and Customs regarding inspection and shipment, which work was carried out by the Commonwealth authorities. All stock killed for export are examined in a manner similar to that for local consumption, and carcasses which have been in cold storage are re-examined immediately before shipment. In all the large modern steamers visiting the ports of New South Wales, accommodation has been provided for this class of trade.

The following statement, compiled from the British trade returns, shows the imports of frozen mutton into the United Kingdom during the last ten years, for which information is available, and the quantity imported from New South Wales.

Year.	Total Imports.	Imports into the United Kingdom from New South Wales.	Year.	Total Imports.	Imports into the United Kingdom from New South Wales.
	cwt.	cwt.		cwt.	cwt.
1908	4,385,771	315,998	1913	5,204,257	695,955
1909	4,761,838	448,011	1914	5,049,236	603,435
1910	5,405,923	776,084	1915	4,658,918	550,820
1911	5,330,070	612,620	1916	3,620,637	208,973
1912	5,021,529	342,422	1917	2,542,446	220,443

Since the outbreak of the War, the operations of the frozen-meat trade in the United Kingdom have been abnormal, as practically the whole trade was taken out of commercial hands and placed under official control. In this way the British Government was able to deal effectively with the shipping and other difficulties affecting the maintenance of supplies, a policy of continuous administration which would have been altogether impossible under the control of private traders. The annual importations into the United Kingdom, subsequent to 1913, were less than formerly, but large quantities of frozen meat were diverted to the continent of Europe and elsewhere for the use of the British forces engaged in the different theatres of the War.

The following statement shows the average wholesale prices obtained during the past ten years for Scottish and frozen mutton sold in London.

Year.	Best Scottish.	New Zealand.	Australian.	River Plate.	Year.	Best Scottish.	New Zealand.	Australian.	River Plate.
	d.	d.	d.	d.		d.	d.	d.	d.
1909	6½	3½	3	3½	1914	8½	5½	4½	4½
1910	7½	4½	3½	3½	1915	9½	6½	5½	6½
1911	6½	4½	3½	3½	1916	12½	8½	7½	9
1912	7½	4½	3½	3½	1917	14½	8½	8½	10½
1913	7½	4½	4	4½	1918	13½	9	9	13½

The frozen beef imported into England from New South Wales, in 1916, amounted to 44,574 cwt., valued at £148,650; but in 1917 it amounted to 163,009 cwt., valued at £559,613. The value of rabbits imported was

£514,989, as compared with £910,047 in 1916, while preserved meat, other than salted, was valued at £335,448 in 1917, as compared with £120,640 during the previous twelve months.

OTHER PASTORAL PRODUCTS AND BY-PRODUCTS.

The minor products accruing from pastoral occupations include skins and hides, tallow, lard and fat, furs, hoofs, horns, bones, bone-dust, glue pieces and hair. Some of these are discussed in the chapter relating to the Manufacturing Industry, and will be given only brief mention here.

The overseas trade in these products is considerable, and though there has been a marked decline in the volume of exports of many of the commodities owing to restrictions arising from war conditions, there has been an increase in the total value, as higher prices were obtainable.

The following table shows the overseas exports of various pastoral products at intervals since 1901 :—

Products.	Value of Oversea Exports.				
	1901.	1906.	1911.	1915-16.	1917-18
Skins and hides—					
Cattle No.	91,084	72,743	263,306	431,731	73,373
Horse No.	473	722	1,392	706	16
Rabbit and hare ... lb.	*	7,380,455	5,795,839	4,352,640	6,986,837
Sheep No.	*	2,706,027	2,410,543	3,447,212	1,041,625
Other £	184,522	140,050	296,672	272,622	487,704
Bonedust cwt.	66,473	56,415	116,733	71,795	17,049
Bones cwt.	3,207	2,431	6,807	6,963	8,988
Furs £	767	180	117	.....	26,466
Glue pieces and sinews ... cwt.	12,862	11,003	20,580	13,276	7,522
Glycerine and lanoline ... lb.	*	336,586	138,347	218,673	697,479
Hair lb.	165,562	142,636	255,819	336,765	232,588
Hoofs cwt.	2,215	2,839	3,733	4,518	2,696
Horns £	12,532	11,979	13,475	3,455	11,815
Lard and animal fats ... lb.	13,633	56,737	227,000	73,461	717,361
Sausage casings £	2,567	17,033	52,562	31,595	36,389
Tallow cwt.	305,227	357,031	612,911	128,290	166,500
Total value £	849,197	1,369,436	2,151,496	1,625,812	2,473,539

* Not available.

NOXIOUS ANIMALS.

The only large carnivorous animals dangerous to stock in Australia are dingoes or so-called native dogs, and foxes; but graminivorous animals, such as kangaroos, wallabies, hares, and rabbits, particularly the last-named, are deemed by the settlers even more noxious.

The estimated losses in sheep by native or other dogs and foxes during the three years ended 30th June, 1919, were as follow :—

Destructive Agents.	Losses in Sheep.					
	Number.			Value.		
	1917.	1918.	1919.	1917.	1918.	1919.
Native Dogs	52,346	41,588	58,154	£ 59,900	£ 50,646	£ 86,075
Tame Dogs	11,383	12,803	11,584	13,358	15,181	13,338
Foxes	116,825	124,588	158,504	99,189	90,713	107,015
Total	180,554	178,984	228,242	172,447	156,540	206,428

Rabbits, which are the greatest pest to the pastoralists, found their way into this State from Victoria; their presence first attracted serious attention in 1881, and they multiplied so rapidly, that, in 1882, they were to be met on most of the holdings having frontages on the Murray River. Attempts to cope with them under the Pastures and Stock Protection Act proved ineffectual, and the Rabbit Nuisance Act was passed, which provided for the compulsory destruction of rabbits by the occupiers of the land, who were to receive a subsidy from a fund raised by an income tax upon stock-owners, but the fund soon proved inadequate, and from the 1st May, 1883, to the 30th June, 1890, when the Act was repealed, it was supplemented by £503,786 from the Consolidated Revenue. The tax upon stockowners yielded £831,457, and landowners and occupiers contributed £207,864, so that the total cost during the whole period exceeded £1,543,000.

The Rabbit Act of 1890 repealed the 1883 Act, and these provisions of the Pastures and Stock Protection Act relating to rabbits. It provided, moreover, as occasion required, for the proclamation of land districts as "infested," and for the construction of rabbit-proof fences. From the 1st July, 1890, to the 30th April, 1902, the State expenditure under this Act was £41,620, nearly all of which was devoted to the erection of rabbit-proof netting. From May, 1902, to December, 1903, the expenditure amounted to £10,548.

Under the Pastures Protection Act of 1902 the State was divided into districts, the protection of the pastures being supervised by a board in each district elected by the stockowners. The pastures protection boards were empowered to levy a rate upon the stock, and to erect rabbit-proof fences on any land, to take measures to ensure the destruction of all noxious animals and to pay rewards for such destruction. The State expenditure on rabbit extermination since the establishment of the boards, consisted mainly of payments to the Railway Commissioners for the maintenance of rabbit-proof fences, and amounted to £13,414 to the end of June, 1918.

In order to prevent the spread of this pastoral pest the Government has erected rabbit-proof fences at numerous places. The longest of these traverses the western side of the railway line from Bourke, *via* Blayney and Murrumburrah, to Corowa, in the extreme south of the State, a distance of 612 miles; and the Railway Commissioners have undertaken the work of its maintenance. A fence extends from the Murray River northwards, 350 miles along the border between New South Wales and South Australia. On the Queensland border a fence has been erected between Barrington and the river Darling, at Bourke, 84 miles; another, built at the joint expense of the Governments of Queensland and New South Wales, extends from Mungindi to the Namoi River, about 115 miles. The total approximate length of rabbit-proof fences erected by the State up to the 30th June, 1919, was 1,332 miles, at a cost of £69,888; by private persons, 104,784 miles, at a cost of £6,162,211; and by pastures boards, 682 miles, at a cost of £26,834.

Bonuses are offered by the pastures protection boards for the destruction of noxious animals, and during the year ended the 30th June, 1919, the total amount paid as bonus was £11,850.

Although the damage caused by rabbits is considerable it is compensated to some extent by their use as food, and for manufacturing purposes, and the value of the export trade is increasing rapidly.

Within the State these animals form a common article of diet, both in the metropolis and in the country, especially during the winter months, when large numbers of men are engaged in their capture and treatment, the

consumption being estimated at 60,000 pairs per week. The fur of rabbits and hares is used largely in the manufacture of hats, of boots and of ladies' furs.

The following table shows the exports of frozen rabbits and hares, and of rabbit and hare skins, from New South Wales to countries outside Australia :—

Year.	Value of Exports.				
	Frozen Rabbits and Hares.		Rabbit and Hare Skins.		Total.
	Quantity.	Value	Quantity.	Value.	
1901	*	£ 6,158	*	£ 9,379	£ 15,537
1906	5,938,518	246,803	7,380,455	293,260	540,063
1911	6,806,246	330,741	5,795,839	295,476	626,217
1915-16	9,487,687	607,711	4,352,640	210,935	818,646
1917-18	8,978,377	670,269	6,986,837	1,036,188	1,706,457

* Not available.

The figures show the importance of the export trade in rabbits and hares. There has been a considerable rise in the prices obtainable for skins, and the value in 1917-18 was three times greater than in 1906, though a smaller quantity was exported.

DAIRYING INDUSTRY.

DAIRY FARMING.

THE dairying industry is a very important factor in the wealth and prosperity of New South Wales. Although the first dairy farm for the manufacture of butter was established on the Nepean River, dairying as a profitable pursuit was in later years conducted mainly on the South Coast, in the Shoalhaven and Illawarra Districts, and subsequently the North Coast became the chief source of supply. It was not until the introduction of the creamery and factory system that any great development occurred, and with the manufacture of butter by machinery, and the perfection of the cold-storage system, the business of dairying was established on a firm basis.

The following figures show the dairy production in each Division of the State during the season ended the 30th June, 1918:—

Division.	Average No. of Dairy Cows in Milk during year.	Total yield of Milk.	Butter made.	Cheese made.
Coastal—	No.	gallons.	lb.	lb.
North Coast	309,347	117,538,582	44,196,956	1,489,517
Hunter and Manning ...	107,810	44,979,231	15,745,601	1,257,413
County of Cumberland ...	22,820	11,141,366	942,438	4,944
South Coast	77,678	33,045,295	9,842,532	4,186,290
Total	517,655	206,704,474	70,727,527	6,938,164
Tableland—				
Northern	19,905	6,435,776	1,732,166	95,778
Central	15,320	5,495,153	1,308,860	135,420
Southern	12,113	4,257,817	1,220,186	20,280
Total	47,338	16,188,746	4,261,212	251,478
Western Slopes—				
North	14,222	5,200,878	1,491,467	153,610
Central	6,923	2,317,720	545,733	.....
South	18,487	6,749,245	1,960,865	54,920
Total	39,632	14,267,843	3,998,065	208,530
Central Plains—				
North	2,257	623,380	38,702	.....
Central	8,018	2,524,296	187,854	.....
Total	10,275	3,147,676	226,556	.....
Riverina	16,110	6,349,963	1,219,785	401,504
Western Plains	2,990	870,298	34,862	.....
Total, New South Wales...	634,000	247,529,000	80,468,007	7,799,676

Although dairying is confined mainly to the coastal regions, where grass is available throughout the year, it is also pursued actively in the more favoured inland parts to supply local wants, and in places remote from the metropolis well-equipped factories have been established. In these localities the industry is conducted in conjunction with wheat-farming and sheep-breeding, and sufficient fodder to carry the cattle through the winter months is a prime requirement upon tillage.

The system of share-farming has been applied to dairying, chiefly in the northern coastal districts. As a general rule, one party to the arrangement supplies the land and the stock, and the other conducts the farm-work. The area farmed on shares by dairy farmers during the last four seasons is shown below :—

Season.	Holdings.	Share-farmers.	Area farmed on Shares.		
			Grazing.	Cultivation.	Total.
	No.	No.	acres.	acres.	acres.
1914-15	144	283	83,825	5,393	89,218
1915-16	174	319	83,668	7,661	91,329
1916-17	169	312	91,331	6,132	97,463
1917-18	147	253	80,647	3,099	83,746

During the 1917-18 season dairy share-farming was conducted on 147 holdings, on which 253 share-farmers and their families were employed; the area of dairy farms under this system was 83,746 acres, of which 3,099 acres were devoted mainly to the production of fodder crops, and 80,647 acres were used for grazing. Of the total area 45,892 acres were in the Hunter and Manning Division, 13,002 acres in the North Coast Division, and 11,830 in the South Coast Division.

Most of the native grasses of the State are particularly suitable for dairy cattle, as they possess milk-producing as well as fattening qualities. In the winter the natural herbage is supplemented by fodder, such as maize, barley, oats, rye, lucerne, and the brown variety of sorghum, or the planter's friend. Ensilage also is made for food, but not so generally as it should be, and the quantity made in each year varies considerably. The area of land devoted to sown grasses has been extended largely during recent years, and in June, 1918 amounted to 1,389,640 acres. The produce of this land is used mainly as food for dairy cattle, and as the area is still below the present requirements, an extension of this form of cultivation may be anticipated.

The number of dairy cows in milk, and the area under sown grasses at the end of the year, together with the quantity of ensilage made in each district

of the State during the season ended the 30th June, 1918, were as follow :—

Division.	Dairy Cows in Milk at 30th June, 1918	Area of Land under Sown Grasses.	Ensilage made.
Coastal—	No.	acres.	tons.
North Coast	175,753	982,021	110
Hunter and Manning	79,715	192,364	325
County of Cumberland	19,525	4,128	1,440
South Coast	60,077	178,408	6,711
Total	335,070	1,356,921	8,586
Tableland—			
Northern	13,538	9,425	5
Central	12,935	4,961	129
Southern	9,049	2,174	125
Total	35,572	16,560	259
Western Slopes—			
North	11,342	5,115	701
Central	6,836	1,743	150
South	14,743	4,582	2,743
Total	32,921	11,440	3,594
Central Plains—			
North	1,892	25	.....
Central	6,190	550	120
Total	8,082	575	120
Riverina	15,599	4,094	2,070
Western Plains... ..	2,312	50	160
Total, New South Wales ...	429,556	1,389,640	14,789

YIELD OF MILK.

The number of dairy cows shows a considerable increase since 1908, and there has been a corresponding expansion in the milk supply, as shown in the following table :—

Year.	Dairy Cows in Milk at end of year.	Total Yield of Milk. (000 omitted.)	Average Yield of Milk Per Cow.	Year.	Dairy Cows in Milk at end of year.	Total Yield of Milk. (000 omitted.)	Average Yield of Milk per Cow.
	No.	gallons.	gallons.		No.	gallons.	gallons.
1908	527,843	188,519	357	1913	600,420	231,592	386
1909	566,378	201,183	355	1915†	513,420*	237,930	442
1910	632,786	235,578	372	1916†	465,044*	184,014	396
1911	638,525	237,623	372	1917†	551,623*	226,004	410
1912	620,730	225,446	363	1918†	634,000*	247,529	390

* Estimated average number in milk during season.

† Year ended 30th June.

The dry dairy cows on the 30th June, 1918, numbered 317,834, as compared with 319,230 twelve months earlier, and 189,769 at the end of 1913. During the past four seasons dairying operations have been restricted considerably owing to the dryness of the seasons, especially during the first half of 1916; and large numbers of dry dairy cattle have been fattened and sold for beef. Under normal conditions an average yield of about 450 gallons is probably a fairly accurate estimate of the milking capabilities of local dairy cattle. The average yield during the season 1914-15 very nearly reached this figure, but as the seasonal conditions in the following years were less favourable, the average yields of milk per cow were lower, but nevertheless they compare favourably with the results obtained in earlier years.

Almost as important as the average yield of milk is the percentage of butter-fat, and it is satisfactory to note that this has been well maintained throughout the period reviewed in the following table, which shows the quantity of butter made per 100 gallons of milk treated on farms and in factories.

Year.	Quantity of Butter per 100 gallons of Milk treated.		
	On Farms.	In Factories.	On Farms and in Factories.
	lb.	lb.	lb.
1908	33.6	40.2	39.6
1909	33.2	38.7	38.2
1910	32.5	39.8	39.2
1911	33.0	42.9	42.2
1912	33.1	42.4	41.8
1913	33.6	42.5	41.9
1915*	33.8	44.3	43.7
1916*	33.9	43.5	42.6
1917*	34.0	45.2	44.4
1918*	35.2	44.5	43.8

* Year ended 30th June.

The following statement shows the purposes for which the milk was treated in 1913, and during the year ended 30th June, 1918.

Purpose for which treated.	1913.	1917-18.
	gallons.	gallons.
Used on farms for making butter	13,484,060	13,009,177
" " " cheese	3,244,531	1,744,998
Separated on farms, cream being sent to factories	171,136,221	170,164,973
Sent to butter factories or separating stations for butter	1,109,094	446,350
Sent to butter factories or separating stations for sweet cream	298,532	435,830
Sent to cheese factories	3,657,979	6,295,452
" condensers	1,062,270	2,366,330
Pasteurised at factories for metropolitan market	10,694,468	11,567,163
Balance sold or otherwise used	26,904,845	41,498,727
Total	231,592,000	247,529,000

As already stated, it was the manufacture of butter by machinery which made the dairying industry more than locally important, and it is to the introduction of the factory system in convenient centres that it owes its present development. When the factory system was introduced, the processes

of cream separation and butter-making were carried on together. This arrangement was improved by the establishment of public "creameries" or separating stations, where the cream was separated and then sent to the factories. In recent years there has been another great change, and most of the farmers now treat the milk in their own dairies by means of hand separators.

The following table shows the development of this system since 1908.

Year.	Milk Separated for making Butter.			
	On Farms.		In Public Separating Stations.	Total.
	By hand.	By steam, etc.		
	gallons.	gallons.	gallons.	gallons.
1908	145,623,868	5,352,269	3,896,794	154,872,931
1909	156,189,009	5,962,492	2,302,239	164,453,740
1910	181,281,265	11,589,744	2,715,550	195,586,559
1911	176,983,192	17,835,035	2,162,984	196,981,211
1912	165,341,882	16,811,648	1,175,404	183,328,934
1913	165,898,111	18,722,170	1,109,094	185,729,375
1915*	176,716,152	14,957,125	792,603	192,465,881
1916*	125,759,248	13,651,598	505,406	139,916,252
1917*	161,300,970	17,014,393	419,537	178,734,900
1918*	163,133,820	20,035,330	446,350	183,620,500

* Year ended 30th June.

PRODUCTION OF BUTTER.

The following statement shows the quantity of butter made, and the milk used for that purpose, at intervals since 1901. In distinguishing between the milk treated on farms and in factories, the quantity used in farm-factories, whether worked by a separate staff or by farm employees, has been included in the statistics relating to factories.

Year.	On Farms.		In Factories.		Total.	
	Milk used.	Butter made.	Milk used.	Butter made.	Milk used.	Butter made.
	gallons.	lb.	gallons	lb.	gallons.	lb.
1901	14,168,060	4,774,664	82,304,013	34,282,214	96,472,073	39,056,878
1906	14,288,379	4,636,642	141,760,969	54,304,495	156,049,348	58,941,137
1911	14,934,132	4,631,585	182,947,079	78,572,983	196,981,211	83,204,568
1916*	12,593,281	4,258,064	127,322,971	55,373,479	139,916,252	59,631,543
1918*	13,009,177	4,579,757	170,611,323	75,888,250	183,620,500	80,468,007

* Year ended 30th June.

The proportion of factory-made butter in the total production has increased from 72 per cent. in 1895 to over 94 per cent. during 1917-18—a result of the decrease in the cost of production in factories as compared with farms. Nearly all the factories dealing with dairy produce are established on the co-operative system.

The combined effects of drought conditions and scarcity of shipping-space for export trade caused a marked decrease in the butter produced in 1916. In the following year a most successful season was experienced, and the output rose to 79,364,471 lb., or 33 per cent. higher than in 1916. The improvement was maintained in 1918 when the production amounted to 80,468,007 lb., or only 4 per cent. below the production in 1915, which was the highest on record.

Further particulars regarding dairy factories are given in the chapter relating to Manufacturing Industry.

CHEESE-MAKING.

The advance in cheese-making has been by no means commensurate with the expansion of the butter trade, but during each of the years ended the 30th June, 1917 and 1918, the quantity made was nearly 8 million pounds. A large proportion of this was purchased by the Imperial Government for the use of troops, particulars of which are shown in the chapter relating to Food and Prices. Under normal conditions the demand for cheese is limited, and the local production has invariably failed to supply the requirements of the State, so that the manufacture of butter has been found more profitable. Moreover, the manufacture of cheese is retarded by its great disadvantages as an article of export. Cheese matures quickly, and unlike butter cannot be frozen, and after a certain period it decreases in value. It represents, in addition, only half the money value of butter, while the cost of freight is practically the same: therefore it is not surprising that even where cheese can be produced in New South Wales under excellent conditions, its manufacture prior to 1916-17 had not extended greatly.

From a previous table showing the cheese industry according to Divisions of the State, it will be seen more than half of the total production during the 1917-18 season was made in the South Coast Division.

The following table shows the production of cheese in factories and on farms at intervals since 1891:—

Year.	Production of Cheese.		
	In Factories.	On Farms.	Total.
	lb.	lb.	lb.
1891	3,592,717	1,203,850	4,796,567
1896	1,887,106	2,132,738	4,019,844
1901	2,428,599	1,410,236	3,838,835
1906	3,459,641	1,999,004	5,458,645
1911	4,617,387	843,265	5,460,652
1912	4,428,304	1,026,381	5,454,685
1913	4,872,165	1,748,483	6,620,648
*1915	5,314,494	1,042,133	6,356,627
*1916	4,969,374	1,010,262	5,979,636
*1917	6,946,956	883,283	7,830,239
*1918	7,120,770	678,906	7,799,676

* Year ended 30th June.

OTHER MILK PRODUCTS.

Condensed milk is produced in four factories in New South Wales, situated at Bomaderry, Singleton, Smithtown, and Windsor. A somewhat similar product, known as concentrated milk, is made also at three of the factories, and it is used principally on ocean-going steamers. The total quantity of milk treated by these factories during 1917-18 was 2,366,330 gallons, and the output totalled 8,973,916 lb., valued at about £206,250; the production during the last five years is shown below :—

Year.	Milk treated.	Condensed and concentrated milk produced.	
		Quantity.	Value.
	gal.	lb.	£
1913	1,062,270	3,682,812	52,734
1914-15	1,600,984	6,002,593	99,634
1915-16	1,399,866	4,918,064	91,704
1916-17	1,693,340	5,829,990	125,120
1917-18	2,366,330	8,973,916	206,250

SWINE.

The breeding of swine, which is usually carried on in conjunction with dairy-farming, has been much neglected in New South Wales, as the fluctuations in the following table show.

At 31st December.	Swine.	At 31st December.	Swine.	At 31st December.	Swine.
	No.		No.		No.
1861	146,691	1886	203,576	1911	371,093
1866	137,915	1891	253,189	1916*	281,158
1871	213,193	1896	214,581	1917*	359,763
1876	173,604	1901	265,730	1918*	336,157
1881	213,916	1906	243,370		

* At 30th June.

Stock from the best imported strains can be purchased at the Government experiment farms and other institutions. The breeds are the improved Berkshire, Tamworth, Poland China, and Yorkshire strains.

The following statement shows the number of pigs in each division of the State at the end of June, 1918, and the production of bacon and ham during the year.

Division.						Swine.	Bacon and Ham cured.
						No.	lb.
Coastal—							
North Coast ...	...	...	...	...	...	104,262	7,008,463
Hunter and Manning .....	...	...	...	...	...	65,822	420,759
County of Cumberland ...	...	...	...	...	...	23,019	7,216,021
South Coast ...	...	...	...	...	...	29,596	587,340
Total ...	...	...	...	...	...	222,699	15,232,583
Tableland—							
Northern ...	...	...	...	...	...	13,490	497,628
Central ...	...	...	...	...	...	22,872	468,926
Southern ...	...	...	...	...	...	9,994	309,061
Total ...	...	...	...	...	...	46,356	1,275,615
Western Slopes—							
North ...	...	...	...	...	...	21,023	175,860
Central ...	...	...	...	...	...	18,541	219,897
South ...	...	...	...	...	...	33,315	425,805
Total ...	...	...	...	...	...	72,879	821,562
Central Plains—							
North ...	...	...	...	...	...	3,707	10,538
Central ...	...	...	...	...	...	10,300	143,187
Total ...	...	...	...	...	...	14,007	153,725
Riverina ...	...	...	...	...	...	35,407	1,036,076
Western Plains ...	...	...	...	...	...	4,809	35,583
Total, New South Wales ...	...	...	...	...	...	396,157	18,555,144

BACON AND HAMS.

The production of bacon and hams should be increased largely, as very rarely has it been sufficient to meet local requirements.

The following table shows the output of bacon and ham from factories and farms at intervals since 1891.

Year.	Production of Bacon and Ham.		
	Factory.	Farm.	Total Production.
	lb.	lb.	lb.
1891	2,120,269	3,889,331	6,009,600
1896	2,902,987	2,400,776	5,303,763
1901	7,392,060	3,688,831	11,080,891
1906	7,337,910	4,505,685	11,843,595
1911	13,393,536	2,709,291	16,102,827
1916*	11,637,865	1,938,746	13,576,641
1918*	15,602,919	2,952,225	18,555,144

* Year ended 30th June.

The output of bacon and hams during 1917-18 showed an increase on that of 1916-17, amounting to 2,766,988 lb., or 17·5 per cent. The production during the year, 18,555,144 lb., constitutes a record for the State, being two million pounds in excess of the year 1912, previously the best recorded. The curing of bacon and ham is confined chiefly to the coastal districts of the State, but the breeding of pigs is distributed throughout New South Wales.

LARD.

Statistics showing the total production of lard are not available. During the year ended the 30th June, 1918, the quantity extracted in bacon factories amounted to 811,061 lb., valued at £23,464; but as the manufacture of this product is conducted in many other establishments as well as on farms, this quantity represents only a portion of the total output.

During the twelve months ended 30th June, 1918, the oversea exports of lard and refined animal fats produced in Australia amounted to 717,361 lb., valued at £2,696, as compared with the direct imports from oversea countries to 3,768 lb., valued at £220.

THE DAIRY INDUSTRY ACT.

The Dairy Industry Act, which was passed in December, 1915, provides for a complete inspection by officers of the Dairy Branch of the Department of Agriculture, of factories devoted to the making of butter and cheese. The Act provides also for the compulsory uniform grading of butter, both for exportation and for local consumption. The grading of cream at butter factories is likewise compulsory, and those desirous of qualifying for this class of work must fulfil the conditions of a test examination before being permitted to grade cream under the provisions of the Act. It is required, moreover, that all butter be packed into boxes bearing registered brands, indicative of the quality of the product contained therein, the responsibility of truth to description resting in the first instance on the manager of any specified factory. The supervision of the details involved in this work is vested in an experienced dairy instructor, who is appointed to each of the dairying districts of the State. This officer acts also as an inspector, and he is constantly in communication with the factory managers and cream graders of his administrative area, and is consequently engaged in continual instruction in matters connected with the industry. The teaching of the dairy instructor is necessarily co-ordinated with the grading conducted in Sydney, where all butter intended for exportation oversea is examined by Commonwealth graders, and for interstate trade by State officials. Grade certificates recording the quality of the article are forwarded to the manufacturer, and copies are given also to the dairy instructor for the district, who is thereby informed of the Sydney grade-standard of the butter made under his supervision.

Since the Dairy Industry Act came into force the quality of factory butter has shown a marked improvement, and in the year ended 30th June, 1919, 96 per cent. of the total output was classed as choicest or first-grade, whereas, formerly, only 50 per cent of the quantity exported reached this standard.

DAIRY INSTRUCTION.

Educational and experimental work relating to dairying is conducted by the Department of Agriculture at several of the State institutions, including the Hawkesbury Agricultural College, the experiment farms at Wagga, Bathurst, and Grafton, the dairy farm at Wollongbar, on the North Coast, and the stud farm at Berry, on the South Coast.

The farm at Berry is devoted to the breeding and raising of Shorthorn milking stock; at Wollongbar are reared stud Guernseys; at Grafton, Glen Innes, and Yanco, Ayrshires; at Wagga Wagga, Bathurst, and Cowra, Jerseys; at Nyngan, Red-polls; and at Trangie, Kerries. Among other pure-bred stock raised at the Hawkesbury Agricultural College, Jerseys hold a prominent place and there are a number of Red Polls.

In order to enable factory managers and butter-makers to improve their scientific knowledge, dairy-science schools are held for short terms at different dairying centres, and certificates are given to those who pass successfully examinations in the grading of cream, and in the testing of milk and cream.

It is intended to give a regular course of scientific instruction, commencing at the factory and to be continued by means of bursaries at the Hawkesbury College; for those showing especial fitness an advanced course in dairy chemistry and bacteriology may be provided. During the year 1917-18 two dairy science schools were held and 56 students attended.

Instructors travel throughout the principal dairying districts during each year in order to give instruction and advice in cream-grading, butter and cheese making, and in all other matters connected with the industry.

HERD-TESTING.

For the purpose of assisting dairy-farmers to improve their herds by the introduction of pure-bred cattle from high-class stock, a valuable educational process is conducted in the form of herd-testing. This section consists of two branches, namely, the testing of pure-bred dairy cattle by the officers of the Department of Agriculture, and the testing of a large number of dairy cattle through local associations organised by the Department. Over 1,700 pure-bred stud stock had been tested to March, 1919. In the Herd Testing Associations conducted by the farmers, some 50,000 cows have been tested. On account of the war this section of testing has been restricted, and the milk and butter yields of only 1,500 cows per annum are being recorded. When conditions become normal it is expected that testing units will be established in nearly all dairying centres.

EXPORTS OF DAIRY PRODUCTS.

Under the Customs Regulations dairy produce for export must be submitted to inspection and must be graded prior to acceptance for shipment, the exportation of inferior products being prohibited unless the goods are labelled as below standard.

The following table shows the overseas exports of butter, cheese, and bacon from New South Wales, inclusive of ships' stores, at intervals since 1891. The particulars for 1906 and earlier years relate to New South Wales produce only, but for later years the produce of other Australian States is included, as it cannot be separated. The quantity included, however, is not large.

Year.	Overseas Exports.					
	Butter.		Cheese.		Bacon and Ham.	
	lb.	£	lb.	£	lb.	£
1891	10,510	478	17,624	411	9,099	380
1896	1,912,083	75,994	44,621	821	40,041	994
1901	8,699,817	379,342	173,892	4,359	95,666	3,007
1906	23,362,140	978,725	122,629	3,268	141,052	4,996
1911	33,044,324	1,518,993	127,380	3,723	618,056	17,561
1916*	4,305,927	259,834	191,200	9,767	223,761	11,279
1918*	25,694,697	1,738,206	1,659,274	72,341	2,808,859	173,064

* Year ended 30th June.

The decline in exports of dairy products in 1915-16 must be attributed to the incidence of the war, and the consequent great shortage of freight-space, but during the last two years large quantities were exported for war purposes and the figures show remarkable increases, especially in the case of cheese and bacon.

The export trade in butter is almost entirely with the United Kingdom, where there is a ready market for all the products of the dairying industry. The bulk of the cheese exported during the last two years was sent to the United Kingdom, and during 1917-18 large shipments of bacon were sent to India and to Egypt.

The imports of butter, the production of New South Wales, into the United Kingdom during the last ten years are shown hereunder.

Year.	Imports of Butter from New South Wales.	Proportion of Total Butter imported into United Kingdom.	Year.	Imports of Butter from New South Wales.	Proportion of Total Butter imported into United Kingdom.
	cwt.	per cent.		cwt.	per cent.
1908	138,953	3.30	1913	155,936	3.77
1909	132,708	3.27	1914	122,528	3.08
1910	217,780	5.03	1915	158,222	4.16
1911	281,588	6.54	1916	32,575	1.50
1912	186,695	4.61	1917	169,024	9.36

In earlier years there was difficulty in securing ocean freights during the export season, but the trade ultimately assumed such important dimensions that, prior to the beginning of hostilities in Europe in 1914, it became the subject of keen competition among shipping companies.

The freight on butter forwarded from Sydney to London during the months January to October, 1919, was 5s. 3d. per box of 56 lb., plus 5 per cent. primage; the rate has been increased considerably since June, 1914, when it ranged from 2s. to 2s. 6d. per box.

The price of Australian butter in London was fixed by Government proclamation in September, 1917, at £10 6s. per cwt., in November of that year the price was raised to £11, and in the following month to £12 12s. per cwt. No variation from this rate had been recorded up to July, 1919.

DAIRYING INDUSTRY.—VALUE OF PRODUCTION.

The value of the production from the dairying industry during 1917-18 was £7,490,000, to which may be added £990,000 obtained from the sale of swine, making a total of £8,480,000, as under:—

	£
Butter	4,954,000
Cheese	250,000
Milk (not used for butter or cheese)	1,618,000
Milch cows	668,000
Swine	990,000
Total	8,480,000

The value of farm implements and machinery used in the dairying industry during 1917-18 was £659,039.

A comparison of machinery used in the rural industries is shown in the chapter on Agriculture.

POULTRY-FARMING.

Poultry-farming was conducted formerly in conjunction with dairying; but the interests involved became so important commercially that a distinct industry dealing with poultry alone has been developed. Every effort is made to obtain the benefits of modern methods of poultry-farm management, and to secure the best egg-laying and table breeds. Statistics of production are not available, but a general estimate based on accessible returns shows the value during 1917-18 to be approximately £2,082,000.

The following statement contains particulars for five years regarding poultry of all descriptions on farms or holdings of one acre and upwards. The absence of information as to the poultry kept on areas of less than one acre detracts, however, considerably from the value of the statement.

Year.	Poultry of all Descriptions on Farms or Holdings of 1 acre and upwards at end of year.					Eggs obtained during year. All kinds.
	Fowls, Chickens, &c.	Ducks, &c.	Geese, &c.	Turkeys, &c.	Guinea Fowls.	
	No.	No.	No.	No.	No.	dozen.
1913	3,878,234	273,919	24,545	245,693	5,920	15,136,938
1915*	3,140,635	182,141	17,996	152,181	5,924	12,437,993
1916*	3,208,474	159,516	17,191	146,732	5,415	13,628,385
1917*	3,729,201	197,757	19,543	182,825	6,181	14,313,825
1918*	3,731,730	213,509	20,160	147,982	5,299	15,122,317

* Year ended 30th June.

Since 1901, egg-laying competitions organised by private subscription have been conducted at the Hawkesbury Agricultural College, with the object of stimulating the poultry industry. These competitions have attracted widespread interest, and birds for competition are sent from all parts of New South Wales, from the other Australian States, from New Zealand, and some from America.

By this means much valuable information has been gained from practical experiment and research; tests are arranged and records are kept of the cost of feeding, and of the results obtained from the various breeds of poultry, and by different methods of treatment. An annual report in bulletin form, giving particulars and tabulated results, is issued by the Department of Agriculture.

BEE-KEEPING.

The bee-keeping industry is at the present time of small importance, though there is ample inducement for further expansion.

The production of honey and of beeswax varies considerably from year to year, as shown in the following table, which relates to the last ten years.

Season.	Bee Hives.			Honey.	Average Yield of Honey per productive Hive.	Beeswax.
	Productive.	Un-productive.	Total.			
	No.	No.	No.	lb.	lb.	lb.
1908-09	53,612	16,347	69,959	3,064,526	57.2	58,697
1909-10	47,807	17,992	65,799	2,066,330	43.2	53,006
1910-11	55,958	14,308	70,266	2,765,618	49.4	72,617
1911-12	62,254	11,801	74,055	3,433,253	55.1	67,358
1912-13	50,285	13,023	63,308	2,410,000	47.9	49,734
1913-14	43,990	11,029	55,019	1,866,835	42.4	39,244
1914-15	29,857	9,691	39,548	1,143,605	38.4	26,676
1915-16	31,974	5,803	37,777	1,590,384	49.7	29,919
1916-17	33,317	7,454	40,771	1,665,293	50.0	29,434
1917-18	50,668	10,314	60,982	3,875,511	76.4	53,342

The low average yields in the early portion of the period under review were attributed to dry conditions and to the use of box-hives. The improvements in the last three years synchronise with the extension of the provisions of the Apiarics Act, and the yield per productive hive during 1917-18, 76·4 lb., constituted a record and was 56 per cent. above the experience of the previous ten years. The total production of honey during the same year represented an increase of 1,600,000 lb., or 71 per cent. over the average during the previous decennial period.

Frame hives are now in general use, as the box-hive has been condemned. Special legislation which has been passed with reference to apiculture, is more fully detailed in the chapter relating to Agriculture.

The estimated value of the production in 1917-18 of honey was £68,630, and of beeswax £4,450, the production for each division being as follows :—

Division.	Honey.	Beeswax.
	lb.	lb.
Coastal	841,856	14,507
Tableland	2,342,628	27,084
Western Slopes	576,071	10,502
Central Plains and Riverina	112,230	1,217
Western Plains... ..	2,726	32
Total	3,875,511	53,342

FORESTRY.

THE forest lands of the State containing timber of commercial value consist of about 11 million acres, of which about four-fifths are Crown lands, and one-fifth is alienated; about 7 million acres of State lands have been either dedicated or reserved for the preservation and growth of timber.

The total forest area, although not large, contains a great variety of useful timbers, which in hardwoods number about twenty different kinds of good commercial value, including such renowned constructional woods as iron-bark, tallow-wood, and turpentine, whilst in other timbers there are about twenty-five varieties, including such valuable timbers as cedar, beech, pine, and teak. It is estimated that, approximately, five-sixths of the timber supply consists of mixed hardwoods and one-sixth of soft and brush woods.

Following the report of a Royal Commission appointed in 1907, a Forestry Department was established under the Forestry Act, 1909. This Act was repealed by the Forestry Act, 1916, which became law on the 1st November, 1916, and provided for the constitution of a Forestry Commission, consisting of three members, one being Chief Commissioner.

The Commission is charged with the administration of the Forestry Act, 1916, which provides for the control and management of the State forests and timber reserves, for the training of forest officers, for the conduct of research work, and for the collection of statistics in connection with forestry.

The Commission may dispose of timber and products of any State forest or timber reserve, and—

- (a) take and sell such timber and products;
- (b) convert any such timber into logs, sawn timber, or any other merchantable article, and sell the same;
- (c) convert any such products into merchantable articles, and sell the same;
- (d) construct roads, railways, and tram-lines and other works for the transport of timber; and purchase, rent, or charter and use vehicles and vessels, with the necessary motive power;
- (e) construct, purchase, or rent sawmills and other mills, with all the necessary machinery and plant for converting timber, and manufacturing articles from timber, and use such mills for those purposes.

One-half of the gross amount received from royalties, licenses, and permits, and from the sale of timber, other than the output of the mills as indicated in (e) above, is to be set apart for afforestation, reafforestation, survey and improvement of State forests and timber reserves, and for purposes incidental thereto, provided that the expenditure of an amount exceeding £5,000 on any particular work shall be subject to the approval of the Minister.

The Government may purchase, resume, or appropriate land for the purpose of a State forest, and may dedicate Crown lands as State forests or timber reserves.

Timber-getters' and other licenses may be issued by the Commission, and exclusive rights to take timber products from specified areas of State forest or timber reserves may also be granted.

Every person conducting a sawmill for the treatment of timber must obtain a license, keep books and records, and make prescribed returns. Royalty must be paid on all timber felled and on all products taken from any State forest, timber reserve, Crown lands, or lands held under any tenure from the Crown which require the payment of royalty; but such royalty is not payable on timber exempted by terms of the license or by the regulations, or on timber required for use on any holding not comprised within a timber or forest reserve; allowance may be made also for any timber which is not marketable. Trees on any State forest, timber reserve, or Crown lands, with the exception of lands held under conditional lease granted before the passing of the Act, must not be ringbarked except under permit.

The Act provides for regulations on the following matters:—Licenses, &c., and the fees and royalties payable; the periods and the conditions under which licenses, &c., may be granted; the protection and preservation of timber; the inspection, cutting, marking, and removal of timber; the kinds, sizes, and quantities which may be cut or removed; the conditions under which fires may be lighted in State forests; and the organisation of a system of education in scientific forestry.

The Act provides also for the classification of forest lands and for proclamation of State forests; and survey work is in progress for this purpose.

As an aid to forest management, arrangements are being made for the enrolment of forest cadets, and for the establishment of a training school with a curriculum of educational and scientific subjects.

A large amount of regenerative work has been done in connection with the Murray River and the inland forests. Experimental works have been started in various parts of the coast and highlands to test the capacity of different classes of hardwood forest for reafforestation, and to ascertain the best methods of treatment; and stations have been selected for the promotion of afforestation by the establishment of State nurseries, with the object of utilising some of the waste lands of the State, of which about 300,000 acres are suitable for the purpose.

On 30th June, 1919, the total area of Crown lands proclaimed as State Forests was 5,043,800 acres, and the area of timber reserves was 1,846,927 acres.

STATE FOREST NURSERIES AND PLANTATIONS.

A State Forest Nursery is maintained at Gosford for the propagation of economic plants. The planted area is about 60 acres; exchanges of seeds and plants are made with similar institutions in various parts of the world. Branch Nurseries have been established at Tuncurry on the North Coast and at Armidale on the Northern Tableland.

To supplement the supply of softwood in the State it is proposed to plant annually an area of not less than 5,000 acres of conifers, the ultimate objective being an area of between a quarter and a half million acres of coniferous plants. The total planted area in the State on 30th June, 1919, was only about 1,669 acres.

FOREST INDUSTRIES.

During the year ended 30th June, 1918, there were 409 licensed sawmills. The employees numbered 4,258, and the value of plant and machinery was estimated at £623,263. The output of native timber amounted to 126,745,000 superficial feet, valued at the mills at £1,072,904.

IMPORTS AND EXPORTS OF TIMBER.

In the following table particulars are shown regarding the import and export of timber to and from New South Wales at intervals since 1901 :—

Year.	Imports.				Exports—Australian Produce.			
	Undressed.		Other.	Total Value.	Undressed.		Other.	Total Value.
	Quantity.	Value.			Quantity.	Value.		
	sup. feet.	£	£	£	sup. feet.	£	£	£
1901	68,369,135	322,642	137,123	459,765	10,385,618	66,346	58,664	125,010
1906	84,771,918	444,563	81,850	526,413	29,321,865	325,805	9,361	335,166
1911	164,379,875	955,344	209,028	1,164,372	28,397,961	250,990	17,949	268,939
1915-16	119,232,376	814,102	74,305	888,407	15,098,981	144,486	10,965	155,451
1917-18	93,936,763	815,700	39,245	854,945	11,292,281	167,364	7,897	175,261

FORESTRY LICENSES AND PERMITS.

The following return shows the licenses and permits current during each of the years ended 30th June, 1918 and 1919 :—

Description.	Amount of Fee.			Total Fees Collected year ended 30th June	
	Per Month.	Per Quarter.	Per Year.	1918.	1919.
	s. d.	s. d.	s. d.	£	£
Timber License (subject to Royalty).	2 6	7 6	.....	4,111	3,629
Fuel License ...	5 0	15 0	.....	
Products License ...	2 6	7 6	.....	
Grazing Permit ...	1 0	.....	.....
(Subject to payment of agistment fees, as assessed by Forestry Officers.)					
Special License ...	2 6	7 6	30 0	603	641
Game Permit ...	1 0	.....	.....
Saw-mill License ...	.....	.....	20 0		
Occupation Permit ...	20 0	.....	.....
(Subject to payment of rent to the Crown and compensation to the lessee or licensee, if any, assessed by the Minister.)				26	46
Ringbarking Permit ...	(No prescribed fee). Net amount received ...			477	337
	Total £			5,217	4,653

TIMBER LICENSES.

The revenue collected by the State from Timber Licenses and from Royalty on timber during each year since 1910 is given in the following table :—

Year.	Timber Licenses, &c.	Royalty on Timber.	Total.	Year.	Timber Licenses, &c.	Royalty on Timber.	Total.
	£	£	£		£	£	£
1910	10,877	70,960	81,837	1915†	11,365	76,021	87,386
1911	11,153	79,165	90,318	1916†	8,701	59,406	68,107
1912	10,998	85,967	96,965	1917†	9,136	58,137	67,273
1913	12,251	85,362	97,613	1918†	12,938	58,031	70,969
1914*	6,593	39,531	46,124	1919†	26,705	70,888	97,593

* Six months ended 30th June.

† Year ended 30th June.

The practice of forestry in Europe and America has shown that greater expenditure by the Government means vastly increased profits, and there is reason for expecting increased revenue as the result of forest improvement in New South Wales, where timber grows more rapidly and to larger size.

FISHERIES.

THE waters along the coast of New South Wales contain numerous varieties of fish, but the fishing industry has not been developed commercially. The vast mineral, pastoral, and agricultural resources of the State have presented more profitable avenues for the investment of capital, so that the development of fisheries has been left mainly to a few individuals with limited capital and primitive appliances.

The principal sources of the supply of marine fish are the coastal lakes and estuaries, the sea beaches and ocean waters, and Murray cod is obtained in the inland rivers.

The most extensive development may be expected in the ocean waters, where large shoals of deep-sea fish such as great Tunnies, Spanish Mackerel, Bonito, Mackerel, Kingfish, Tailer, Salmon, and many other pelagic fishes travel in large shoals. There are also immense quantities of Pilchards, Sprats, and other "Herring-kind," as well as sea Garfish and others.

Crayfishing and the oyster industry are also capable of great development, and mussels could be farmed successfully in a somewhat similar way to oysters, in many cases in places where the oyster will not flourish.

The expansion of the oyster industry depends upon a diffusion of the knowledge of successful oyster culture among oyster growers. With intense cultivation, one locality—Port Stephens—could produce in one year the whole of the present output of New South Wales.

Whaling operations have been conducted intermittently during recent years, but it is considered that two shore stations with two steam whaling gunboats each could be maintained profitably on the coast of the State. The season begins in June and ends in November, though whales may be taken before and after that period.

CONTROL OF THE FISHERIES.

Under the Fisheries Act, 1902, control of the fisheries of the State, previously administered by a Commission, was placed in the hands of a Board to supervise the industry, to carry out investigations likely to be of service, and to ensure observance of the regulations in regard to the dimensions of nets, closure of inland and tidal waters, net-fishing, and other such matters. Under an amending Act, in 1910, the Fisheries Board was dissolved and its powers vested in a Minister of the Crown, the Chief Secretary being charged with the administration of the Act.

The State Trawling Industry is carried on independently of the other fisheries of the State, as it is essentially a commercial project.

THE STATE TRAWLING INDUSTRY.

This undertaking was established in 1915 with the object of improving the conditions of the fishing industry by augmenting the supply and by affording facilities for speedy distribution to the consumers. Seven steam trawlers are in operation, and the fish is sold at a number of State fish shops in the metropolitan area and in Newcastle. Receiving depôts have been established on the coast where fish is purchased from local fishermen and placed in cold storage for distribution. Further particulars regarding the State Trawling Industry have been shown in the chapter relating to Food and Prices.

Fishing Licenses.

Persons catching fish for sale in tidal or inland waters must be licensed, also boats used for this purpose: the annual fee being 5s., which is reduced to half that amount if the license is issued after 30th June and before 1st December.

The number of licenses granted to fishermen during the year 1918 was 3,062, and licenses were issued in respect to 1,663 fishing boats; the fees received amounted to £1,389.

The following table shows the number and value of the boats used in general fisheries and in oyster fisheries during 1918, the figures do not include the State Trawling vessels:—

Description.	General fisheries.		Oyster fisheries.	
	Number.	Value.	Number.	Value.
		£		£
Boats not more than 24 feet over all—				
With motor 	172	18,145	68	6,718
Without motor	673	20,501	309	3,693
Boats more than 24 feet over-all—				
With Motor 	49	12,742	15	2,409
Without motor ... ... ... ...	.....	.....	13	525
Steamer 	1	1,000	.....	.....
Total 	895	52,388	405	13,345

Oyster Leases.

For the purposes of oyster-culture, tidal Crown lands below an approximate high-water mark may be leased at yearly rentals, determined by the Minister; the areas are classified as average, special, or inferior lands.

The leases of average lands are for fifteen years, but may be renewed for a like period; no area upon which an aggregate rental of less than £5 per annum is payable, may be leased to any person not already an oyster lessee.

Leases of special lands are granted for areas of special value after the land has been offered by auction or tender, and are subject to the same conditions as leases of average lands, but need not be confined to areas along the approximate high-water mark.

Leases of inferior lands are granted for a term not exceeding ten years, with the right of renewal for a further term of five years.

During the year 1918 applications for leases numbered 296, representing 102,566 yards of foreshore and 267 acres of off-shore leases; at the end of the year the existing leases numbered 3,241; the length of foreshores held was 997,494 yards, and there were deep-water leases to the extent of 537 acres. The deposits paid with the applications for leased areas were £488, while the rentals received during the year for leased areas were £7,519.

PRODUCTION.

The most important kinds of fish marketed are snapper, bream, black-fish, whiting, mullet, jewfish, flathead, garfish, and Murray cod—a fresh-water fish; salmon, tailor, trevally, leather-jacket, gurnard, and others are gradually gaining favour in the local markets.

Fish.—Exclusive of fish marketed by the State Trawling Industry, the quantity consigned to Sydney and Newcastle markets during 1918 amounted to 180,780 baskets, of which 2,935 baskets were condemned. In addition, 6,618 baskets of fish were consigned from the Tweed River to Brisbane, and 12,000 baskets are recorded as having been sold in various fishing centres in coastal areas, but these figures are incomplete. A basket of fish is calculated at 84 lb. weight.

As usual the bulk of the supplies came from the estuaries and lakes on the northern part of the coast-line. A small proportion, chiefly snapper, came from the ocean, this being principally the produce of the long-line fishing. The main sources of the fresh fish supply during 1918 are indicated below—

Clarence River	46,853 baskets.	Camden Haven	7,865 baskets.
Wallis Lake	17,744 „	Botany Bay and George's	
Tuggerah Lakes	12,477 „	River	7,257 „
Lake Illawarra	11,100 „	Moruya River	6,652 „
Port Stephens	10,800 „	Hawkesbury River	6,630 „
Lake Macquarie	10,363 „	Richmond River	6,097 „

Notwithstanding the immense shipping development and consequent increase of traffic, and the large reclamation of foreshores of recent years, it is of special interest to note that the marketed production from Port Jackson was as much as 2,032 baskets. The actual production was very much greater, because a considerable quantity was sold in the suburbs of Sydney without passing through the markets.

The quantity of fish secured by the State Trawlers during 1918 was approximately 2,397,250 lb.; in addition 653,359 lb. of fish were purchased from private fisherman at the coastal receiving depôts. The total production of fish, as far as recorded during 1918, was therefore about 19,800,000 lb.

Crayfish.—The number of marine crayfishes (*Palinurus*) marketed during 1918 was 60,816; the number captured was very much greater, but many were lost by death before marketing, and 2,327 were condemned. The principal source of supply was the northern crayfish grounds, from Newcastle to Port Macquarie. In addition, the record of local sales show that 4,800 were disposed of; these figures, however, are incomplete, as they do not cover the whole coast.

Prawns.—A quantity of 4,575 baskets, or, approximately, 183,000 quarts, of marine prawns (*Penæus*) was marketed during 1918; local returns (incomplete, as before mentioned) show an additional production of 30,000 quarts; about 132 baskets were condemned. These figures do not include prawns sold for bait.

Crabs.—About 97 baskets of crabs were marketed, in addition to 42 baskets disposed of locally at the various fishing centres. These comprised several species of swimming-crabs, notably the Blue (*Lupa*) and the Mangrove (*Scylla*).

Oysters.—During the year 1918 the oyster production of the State amounted to 22,296 sacks of the Rock Oyster (*Ostrea cucullata*). This output was principally the result of artificial cultivation.

VALUE OF PRODUCTION.

The value of the production from fisheries of New South Wales as recorded during the year 1918 was approximately £316,180, made up as follows :—

Fresh Fish—				£	
State Trawling Industry...3,050,609 lb.				...	50,830
Other	...	...	196,463 baskets	...	196,460
Crayfish	...	...	5,274 dozen	...	3,960
Prawns	...	...	5,193 baskets	...	9,090
Crabs	...	...	139 baskets	...	100
Oysters	...	...	22,296 sacks	...	55,740
Total Value				...	£316,180

This amount, £316,180, is exclusive of the value of fish condemned, or sold in fishing and other centres and not recorded, or used for fertiliser and oil, the value of molluscs other than oysters, and of the products of whale and dolphin fisheries.

The value of fish, fresh and preserved, imported into the State of New South Wales during 1918 was £486,194.

FISH PRESERVING.

The fishes especially suitable for treatment, by canning, smoking, or salting, include pilchard, sandy sprat, anchovy, tailor, samson fish, cow-anjung, kingfish, trevally, mackerel, bonito, little tunny, southern tunny, and Spanish mackerel. Canneries have been established at various times in New South Wales, but the irregularity of supplies under present conditions has militated against their success.

FISH CULTURE AND ACCLIMATISATION.

Experiments in the acclimatisation of non-indigenous fishes, such as carp and trout, have met with success in New South Wales, particularly in regard to Californian rainbow trout, which has been introduced in many mountain streams. Trout fishing now constitutes an important attraction for tourists and sportsmen in the districts watered by the Murrumbidgee and Snowy Rivers and their tributaries. A trout hatchery is maintained at Prospect, and considerable numbers of young fry are distributed annually.

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