

CHAPTER XXII. MANUFACTURING INDUSTRY.

[NOTE.]—In all tables relating to employees—except where specially mentioned—“Number of Employees” includes working proprietors.

§ 1. Number and Classification of Factories.

1. **Number of Factories in each State.**—The following table gives the number of factories in each State for the years specified.

FACTORIES.—NUMBER IN EACH STATE.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
1927-28 ..	8,362	8,245	2,118	1,860	1,398	792	22,775
1928-29 ..	8,465	8,197	2,156	1,844	1,469	785	22,916
1929-30 ..	8,208	8,195	2,172	1,814	1,466	845	22,700
1930-31 ..	7,544	8,199	2,104	1,644	1,455	805	21,751
1931-32 ..	7,397	8,204	2,013	1,662	1,490	891	21,657

2. **Classification of Factories, Australia.**—The next table shows the number of factories in Australia for the years specified, classified in the industrial groups agreed upon by the Conference of Statisticians in 1930. This classification superseded the grouping which had been used since 1902. The definition of a factory adopted at the Conference of Statisticians in 1902 is, however, still used, viz., “Any factory, workshop or mill where four or more persons are employed or power is used.” Details in regard to some of the principal industries included in the table will be found in § 9 hereinafter.

FACTORIES.—CLASSIFICATION, AUSTRALIA.

Class of Industry.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
I. Treatment of Non-metalliferous Mine and Quarry Products	376	362	374	361	349
II. Bricks, Pottery, Glass, &c.	537	530	520	368	313
III. Chemicals, Dyes, Explosives, Paint, Oils, and Grease	505	495	493	515	544
IV. Industrial Metals, Machines, Implements, and Conveyances	5,345	5,452	5,469	5,362	5,376
V. Precious Metals, Jewellery and Plate	264	273	264	242	240
VI. Textiles and Textile Goods	542	546	557	520	515
VII. Skins and Leather	466	444	451	460	485
VIII. Clothing	4,278	4,337	4,186	3,915	3,822
IX. Food, Drink and Tobacco	4,289	4,304	4,274	4,251	4,344
X. Woodworking and Basketware	2,514	2,508	2,444	2,144	2,077
XI. Furniture, Bedding, &c.	1,169	1,139	1,071	954	910
XII. Paper, Stationery, Printing, Bookbinding, &c.	1,556	1,562	1,592	1,601	1,611
XIII. Rubber	201	219	245	267	279
XIV. Musical Instruments	55	56	54	46	41
XV. Miscellaneous Products	234	249	256	274	285
XVI. Heat, Light and Power	444	440	450	471	466
Total	22,775	22,916	22,700	21,751	21,657

Despite the stimulus of high tariff protection the number of factories has declined each year since 1928-29. This result has been brought about through the elimination of some of the weaker enterprises on account of the depression. Allowance must also be made for a certain amount of amalgamation which has taken place during the period.

CLASSIFICATION OF FACTORIES ACCORDING TO NUMBER OF EMPLOYEES. 649

3. Classification of Factories, States, 1931-32.—The following table shows the number of factories in each State in 1931-32, classified according to the nature of the industry :—

FACTORIES.—CLASSIFICATION, STATES, 1931-32.

Class of Industry.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
	No.	No.	No.	No.	No.	No.	No.
I. Treatment of Non-metalliferous Mine and Quarry Products ..	119	138	25	28	24	15	349
II. Bricks, Pottery, Glass, &c. ..	131	92	25	23	30	12	313
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	230	197	23	47	26	21	544
IV. Industrial Metals, Machines, Im- plements and Conveyances ..	1,956	2,101	349	400	408	162	5,376
V. Precious Metals, Jewellery and Plate ..	70	115	18	17	12	8	240
VI. Textiles and Textile Goods ..	128	302	34	28	13	10	515
VII. Skins and Leather ..	181	207	42	24	23	8	485
VIII. Clothing ..	1,373	1,736	210	251	192	60	3,822
IX. Food, Drink and Tobacco ..	1,280	1,367	670	460	330	237	4,344
X. Woodworking and Basketware ..	660	595	294	117	149	262	2,077
XI. Furniture, Bedding, &c. ..	287	351	84	65	72	51	910
XII. Paper, Stationery, Printing, Book- binding, &c. ..	607	625	146	110	100	23	1,611
XIII. Rubber ..	92	115	8	29	24	11	279
XIV. Musical Instruments ..	15	16	1	4	5	..	41
XV. Miscellaneous Products ..	102	125	26	12	17	3	285
XVI. Heat, Light, and Power ..	166	122	58	47	65	8	466
Total	7,397	8,204	2,013	1,662	1,490	891	21,657

§ 2. Classification of Factories according to Number of Employees.

1. States, 1931-32.—The following table shows, for each State, the number of factories classified according to the number of hands employed in 1931-32 :—

FACTORIES.—CLASSIFICATION ACCORDING TO NUMBER OF EMPLOYEES, 1931-32.

No. of Persons Employed in each Factory.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
NUMBER OF FACTORIES.							
Under 4 ..	2,877	3,370	521	490	758	318	8,334
4 ..	684	717	218	197	106	111	2,033
5 to 10 ..	1,841	1,968	626	540	347	318	5,640
11 to 20 ..	870	927	288	202	134	79	2,500
21 to 50 ..	692	768	214	152	105	42	1,973
51 to 100 ..	228	239	66	58	29	10	630
Over 100 ..	205	215	80	23	11	13	547
Total	7,397	8,204	2,013	1,662	1,490	891	21,657

Since 1921-22, the number of factories employing under four hands has increased from 3,447 to 8,334. This increase, which has been fairly consistent throughout the decade, might arise from the creation of new establishments or from the introduction of electric or other power into establishments formerly on a manual basis, which would thereby become technically factories. In 1921-22 these factories represented 19.1 per cent. of all factories and employed 2.0 of all factory employees, and in 1931-32 they represented 38.5 of the factories and employed 4.5 per cent. of the hands. The factories employing four hands increased in numbers but fell in proportion from 9.9 per cent. to 9.4 per cent. of the total, and the number of hands employed in these factories increased both actually and relatively during the decade. All groups from five hands

upwards have declined both in numbers and in regard to hands employed relatively as well as actually. The average number of employees over all factories was 21.9 in 1921-22 but had fallen to 16.2 per cent. in 1931-32. If the factories employing under four hands were omitted, the average number of employees per factory would be respectively 26.6 in 1921-22 and 25.1 in 1931-32.

The numbers of persons employed in the several groups of factories are shown in the following table.

The relative importance of large and small factories is more conclusively illustrated by a classification of hands employed according to the size of factory in which they work.

FACTORIES.—CLASSIFICATION OF EMPLOYEES, ACCORDING TO SIZE OF FACTORY, 1931-32—continued.

No. of Persons Employed in Group.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
AVERAGE NUMBER OF HANDS EMPLOYED.							
Under 4 ..	5,523	5,862	1,114	1,031	1,361	684	15,575
4 ..	2,736	2,868	872	788	424	444	8,132
5 to 10 ..	12,531	13,368	4,270	3,636	2,338	2,145	38,288
11 to 20 ..	12,738	13,664	4,178	3,020	1,917	1,173	36,690
21 to 50 ..	21,689	23,807	6,730	4,892	3,391	1,437	61,946
51 to 100 ..	15,780	16,637	4,624	3,928	2,080	646	43,695
Over 100 ..	61,253	54,338	16,537	7,239	2,716	3,803	145,886
Total ..	132,250	130,544	38,325	24,534	14,227	10,332	350,212

2. Australia, 1927-28 to 1931-32.—The percentage of employees in factories with more than 100 hands on the total for all factories, increased up to the year 1926-27, but declined to 41.66 per cent. in 1931-32.

FACTORIES.—CLASSIFICATION ACCORDING TO NUMBER OF EMPLOYEES, AUSTRALIA.

Year.	Establishments Employing on the Average—							
	20 hands and under.		21 to 100 hands.		101 hands and upwards.		Total.	
	Es-tablish-ments.	Em-ployees.	Es-tablish-ments.	Em-ployees.	Es-tablish-ments.	Em-ployees.	Es-tablish-ments.	Em-ployees.
1927-28—								
Number ..	18,502	116,930	3,566	148,901	707	198,365	22,775	464,196
Average per establishment ..	..	6.32	..	41.76	..	280.57	..	20.38
Percentage on total ..	81.24	25.19	15.66	32.08	3.10	42.73	100.00	100.00
1928-29—								
Number ..	18,714	115,457	3,477	144,127	725	201,607	22,916	461,191
Average per establishment ..	..	6.17	..	41.45	..	278.08	..	20.13
Percentage on total ..	81.66	25.03	15.17	31.25	3.17	43.72	100.00	100.00
1929-30—								
Number ..	18,688	110,704	3,338	136,457	674	183,386	22,700	430,547
Average per establishment ..	..	5.92	..	40.88	..	272.09	..	18.97
Percentage on total ..	82.33	25.71	14.70	31.69	2.97	42.60	100.00	100.00
1930-31—								
Number ..	18,562	103,077	2,645	106,678	544	144,271	21,751	354,026
Average per establishment ..	..	5.55	..	40.33	..	265.20	..	16.28
Percentage on total ..	85.34	29.12	12.16	30.13	2.50	40.75	100.00	100.00
1931-32—								
Number ..	18,507	98,685	2,603	105,641	547	145,886	21,657	350,212
Average per establishment ..	..	5.33	..	40.58	..	266.70	..	16.17
Percentage on total ..	85.45	28.18	12.02	30.16	2.53	41.66	100.00	100.00

§ 3. Power used in Factories.

1. States, 1931-32.—The following table shows the number of factories using steam, gas, oil, electricity, or water power, and the horse-power used in 1931-32 :—

FACTORIES.—HORSE-POWER USED, 1931-32.

State.	Number of Establishments.			Horse-power Used.					
	Using Power.	Others.	Total.	Steam.	Gas.	Oil.	Electricity.	Water.	Total.
	No.	No.	No.	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
N.S.W. ..	7,039	358	7,397	420,500	11,075	43,071	260,864	28,578	764,088
Victoria ..	7,617	587	8,204	203,901	8,937	14,234	158,279	31,433	416,784
Queensland ..	1,726	287	2,013	174,911	12,188	17,640	42,179	307	247,225
S. Australia ..	1,539	123	1,662	114,339	5,047	11,094	43,417	..	173,897
W. Australia ..	1,375	115	1,490	58,905	4,396	14,362	26,487	2	104,152
Tasmania ..	839	52	891	4,324	63	1,705	59,586	80,055	145,733
Australia ..	20,135	1,522	21,657	976,880	41,706	102,106	590,812	140,375	1,851,879

Factories in Australia include electric light and power works. Most of the power in these works is, however, used in generating electric power and light, and the power so produced is counted again under the heading of electricity. The actual amount of duplication cannot be given for all States, but a fair measure of the amount of power used in factories (in the common sense) is given by deducting the total of Class XVI., Heat, Light and Power, from the gross total for all factories. This is done in the last column of the table below. It must not be inferred, however, that the whole of the deduction is a duplication, as portion of it represents the production of light for general purposes, while an appreciable amount of power is used on farms and in private houses.

2. Australia, 1927-28 to 1931-32.—The following table shows the horse-power used in connexion with factories in Australia in each of the last five years :—

FACTORIES.—HORSE-POWER USED, AUSTRALIA.

Year.	Number of Establishments.			Horse-power Used.					
	Using Power.	Others.	Steam.	Gas.	Oil.	Electricity.	Water.	Total (a).	
								Gross.	Less Heat Light and Power Works.
No.	No.	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.	
1927-28 ..	19,926	2,849	879,082	52,351	43,133	507,163	74,580	1,556,309	730,454
1928-29 ..	20,304	2,612	932,483	49,781	50,197	537,670	109,183	1,679,314	753,991
1929-30 ..	20,456	2,244	1,101,741	43,695	60,629	568,289	114,828	1,889,182	769,576
1930-31 ..	19,976	1,775	1,003,382	41,415	69,774	597,984	115,862	1,828,417	745,689
1931-32 ..	20,135	1,522	976,880	41,706	102,106	590,812	140,375	1,851,879	809,703

(a) See preceding paragraph.

The last column of the above table, which may be called roughly the net power used in factories, shows an average increase of about 16,000 horse-power per annum or rather over 2 per cent. per annum for the last five years. The net horse-power per employe increased from 1.4 in 1924-25 to 1.6 in 1928-29, but the decline in persons employed in 1931-32 raised the proportion to 2.40 horse-power per employe in that year. The corresponding figure for the United States of America was 4.5.

3. **Classes of Industry.**—The next table shows the horse-power used in factories in each State during the year 1931–32. On account of the adoption of the new classification of factories referred to in § 1.3 *ante*, comparable figures for previous years are not readily available.

FACTORIES.—HORSE-POWER USED IN EACH CLASS, 1931–32.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Aus- tralia.
	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
I. Treatment of Non-metalliferous Mine and Quarry Products ..	22,237	23,195	2,704	2,470	2,110	5,846	58,562
II. Bricks, Pottery, Glass, &c. ..	8,778	9,069	1,840	1,242	1,642	543	23,114
III. Chemicals, Dyes, Explosives, Paints, Oils and Grease ..	10,556	10,825	1,551	5,225	2,431	537	31,125
IV. Industrial Metals, Machines, Implements and Conveyances ..	138,099	36,767	11,453	14,269	8,594	41,236	250,418
V. Precious Metals, Jewellery and Plate ..	525	915	58	140	19	24	1,681
VI. Textiles and Textile Goods ..	13,370	22,198	2,767	2,023	544	2,292	43,194
VII. Skins and Leather ..	5,890	5,978	725	347	618	138	13,696
VIII. Clothing ..	5,210	8,427	811	718	605	133	15,904
IX. Food, Drink and Tobacco ..	72,123	52,534	67,201	15,549	11,860	5,254	224,521
X. Woodworking and Basket-ware ..	20,140	15,199	11,017	4,317	6,974	4,699	62,346
XI. Furniture, Bedding, etc. ..	4,712	4,166	1,711	1,742	1,060	574	13,965
XII. Paper, Stationery, Printing, Bookbinding, etc. ..	12,717	14,805	3,302	1,717	1,819	483	34,843
XIII. Rubber ..	14,402	12,825	476	106	82	3,727	31,618
XIV. Musical Instruments ..	1,639	372	5	96	9	..	2,121
XV. Miscellaneous Products ..	1,048	1,048	77	206	138	78	2,595
Total less Class XVI. ..	331,446	218,323	105,698	50,167	38,505	65,564	809,703
XVI. Heat, Light and Power ..	432,642	198,461	141,527	123,730	65,647	80,169	1,042,176
Grand Total ..	764,088	416,784	247,225	173,897	104,152	145,733	1,851,879

§ 4. Employment in Factories.

1. **Total Number Employed.**—Each person employed in and about a factory is counted as a factory employee, and the figures relating to employment include, therefore, proprietors who work in their own business as well as "outworkers" (see subsection 5 (ii) hereinafter). Employment has been classified as follows:—(i) Working proprietors; (ii) managers and overseers; (iii) accountants and clerks; (iv) engine-drivers and firemen; (v) skilled and unskilled workers in the factories, mills, or workshops; (vi) carters and messengers; and (vii) others.

Commencing with the year 1928–29 the number of persons employed has been computed in accordance with a resolution of the Conference of Statisticians held in 1928, and the figures refer to the average number of persons employed over the whole year rather than the average over the period worked. Employment figures for the years prior to 1928–29 have been recomputed on this basis for purposes of comparison. The tables relating to Classification of Factories according to the Number of Employees (see § 2 *ante*) are, however, on the old basis. In all other tables relating to employment, average salaries and wages paid, output per employee, etc., the factor used is the average obtained in accordance with the above-mentioned resolution.

The following table shows, for each year from 1927-28 to 1931-32 inclusive, (a) the average numbers of persons (including both sexes and all ages) employed in manufacturing industries in each State, (b) the percentage of the numbers employed in each State on the total numbers employed in Australia; and (c) the numbers employed per ten thousand of the mean population in each State and Australia :—

FACTORIES.—EMPLOYMENT.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
AVERAGE NUMBER.							
1927-28 ..	178,094	156,348	44,711	39,044	20,420	11,111	449,728
1928-29 ..	180,806	156,568	45,931	36,807	20,804	10,466	450,482
1929-30 ..	162,913	151,009	42,624	32,185	19,643	10,820	419,194
1930-31 ..	127,591	126,016	37,901	23,886	14,620	8,829	338,843
1931-32 ..	126,368	128,265	35,799	23,834	13,392	9,000	336,658

PERCENTAGE ON AUSTRALIAN TOTAL.

	%	%	%	%	%	%	%
1927-28 ..	39.60	34.76	9.95	8.68	4.54	2.47	100.00
1928-29 ..	40.14	34.76	9.99	8.17	4.62	2.32	100.00
1929-30 ..	38.86	36.02	10.17	7.68	4.69	2.58	100.00
1930-31 ..	37.65	37.19	11.19	7.05	4.31	2.61	100.00
1931-32 ..	37.54	38.10	10.63	7.08	3.98	2.67	100.00

PER 10,000 OF POPULATION.

1927-28 ..	727	888	486	673	498	485	711
1928-29 ..	729	880	484	635	495	476	703
1929-30 ..	658	850	458	555	471	494	654
1930-31 ..	510	704	400	410	348	400	523
1931-32 ..	502	711	371	407	318	403	516

2. Rates of Increase, 1927-28 to 1931-32.—The percentage of increase or decrease on the average number of persons employed in the preceding year is shown below for each of the years specified.

FACTORY EMPLOYEES.—PERCENTAGE OF INCREASE.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	%	%	%	%	%	%	%
1927-28 ..	-7.08	-7.93	1.33	-4.94	5.24	4.60	-5.43
1928-29 ..	1.52	0.14	0.72	-5.73	1.88	-5.81	0.17
1929-30 ..	-9.90	-3.55	-5.35	-12.56	-5.58	3.38	-6.95
1930-31 ..	-21.70	-16.56	-11.08	-25.76	-25.57	-18.40	-19.20
1931-32 ..	-0.96	1.78	-5.55	-0.22	-8.40	1.94	-0.64

NOTE.—The minus sign indicates decrease.

3. Employees in Classes of Industry, Australia, 1927-28 to 1931-32.—The table hereunder gives the average numbers of persons employed in factories under each group in Australia in the years 1927-28 to 1931-32 inclusive :—

FACTORY EMPLOYEES.—CLASSES, AUSTRALIA.

Class of Industry.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
I. Treatment of non-metalliferous mine and quarry products ..	8,055	7,692	6,889	4,536	3,885
II. Bricks, pottery, glass, etc. ..	13,738	12,990	11,085	5,684	5,200
III. Chemicals, dyes, explosives, paint, oils and grease ..	13,662	14,079	13,364	11,784	12,058
IV. Industrial metals, machines, implements and conveyances ..	127,706	130,321	116,869	89,506	82,688
V. Precious metals, jewellery and plate ..	2,180	2,191	2,073	1,701	1,670
VI. Textiles and textile goods ..	26,536	28,117	29,383	26,228	30,553
VII. Skins and leather ..	8,263	7,879	7,663	6,588	7,846
VIII. Clothing ..	80,950	81,770	74,002	60,069	61,864
IX. Food, drink and tobacco ..	69,968	68,617	67,189	62,294	62,455
X. Woodworking and basketware ..	30,241	26,775	24,169	15,628	14,319
XI. Furniture, bedding, etc. ..	14,110	13,852	11,899	7,770	7,249
XII. Paper, stationery, printing, book-binding etc. ..	32,948	33,837	33,095	29,441	29,052
XIII. Rubber ..	7,187	7,223	6,804	4,592	5,051
XIV. Musical instruments ..	1,713	1,895	1,658	1,067	800
XV. Miscellaneous products ..	2,629	2,920	3,172	3,388	3,827
XVI. Heat, light and power ..	9,842	10,324	9,880	8,567	8,141
Total ..	449,728	450,482	419,194	338,843	336,658

* The number employed in factories, after being almost constant for the three years ending 1928-29, thereafter declined. In 1929-30, the decrease amounted to 31,288, or 7 per cent.; in 1930-31 to 80,351 or 19 per cent.; and in 1931-32 to 2,185 or 0.6 per cent. The only other decline in numbers recorded prior to the present depression was in the war years, when there was a decrease of 6 per cent. spread over three years.

Detailed examination of the returns for the years 1931-32 and 1927-28 reveals that the decline in employment was more severe in the industries connected with building, i.e., Class II. Bricks, etc., Class X. Woodworking, and Class XI. Furniture, Bedding, etc.—where the employment declined approximately 54 per cent. Those least affected were connected with Food, Drink, etc., Chemicals, Dyes, etc., and Skins and Leather. Class VI. Textile and Textile Goods showed a considerable improvement, the increase in employment in 1931-32 over 1927-28 being 4,000 or 15 per cent. Class XV. also showed a slight advance.

4. Employees in Classes of Industry, States, 1931-32.—The following table gives a classification of employees in manufacturing industries in each State in 1931-32 :—

FACTORY EMPLOYEES.—CLASSES, STATES, 1931-32.

Class of Industry.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Australia.
I. Treatment of non-metalliferous mine and quarry products ..	1,638	1,317	312	221	199	198	3,885
II. Bricks, pottery, glass, etc. ..	2,391	1,781	350	283	306	89	5,200
III. Chemicals, dyes, explosives, paint, oils and grease ..	5,134	4,855	341	1,133	469	126	12,058
IV. Industrial metals, machines, implements and conveyances ..	38,978	24,250	6,365	7,595	3,404	2,096	82,688
V. Precious metals, jewellery and plate ..	476	936	89	105	41	23	1,670
VI. Textiles and textile goods ..	9,988	17,176	882	693	351	1,463	30,553
VII. Skins and leather ..	3,277	3,272	600	416	221	60	7,846
VIII. Clothing ..	19,679	31,511	4,682	3,267	2,129	596	61,864
IX. Food, drink, and tobacco ..	20,059	20,095	12,895	4,762	2,764	1,880	62,455
X. Woodworking and basketware ..	3,839	4,288	3,114	1,026	1,119	933	14,319
XI. Furniture, bedding, etc. ..	2,527	2,520	992	569	381	260	7,249
XII. Paper, stationery, printing, bookbinding, etc. ..	11,334	10,526	3,378	1,792	1,283	739	29,052
XIII. Rubber ..	1,786	2,340	495	142	79	209	5,051
XIV. Musical instruments ..	540	205	7	27	21	..	800
XV. Miscellaneous products ..	1,765	1,262	250	231	152	167	3,827
XVI. Heat, light and power ..	2,957	1,931	1,047	1,572	473	161	8,141
Total ..	126,368	128,265	35,799	23,834	13,392	9,000	336,658

The decline in employment compared with 1930-31 for Australia as a whole amounted to 0.6 per cent. Western Australia showed a loss of 8 per cent.; Queensland, 6 per cent.; New South Wales, 1 per cent.; South Australia, 0.2 per cent.; while Victoria and Tasmania each showed an improvement of 2 per cent.

5. *Employees According to Nature of Employment.*—(i) *General.* In the following table the average numbers of persons employed in each State in 1931-32 are classified according to the nature of their employment :—

FACTORY EMPLOYEES.—NATURE OF EMPLOYMENT, 1931-32.

State.	Average Number of Persons Employed.						Total.
	Working Pro-prietors.	Managers and Overseers.	Accountants and Clerks.	Engine-drivers and Firemen.	Workers, Skilled & Unskilled. (a)	Carters, Messengers and Others.	
New South Wales ..	5,781	5,404	8,215	1,994	103,241	1,733	126,368
Victoria ..	6,791	5,118	5,976	1,555	107,465	1,360	128,265
Queensland ..	1,525	1,594	2,453	1,629	26,136	2,462	35,799
South Australia ..	1,291	1,169	1,821	418	18,552	583	23,834
Western Australia	850	676	895	369	10,206	396	13,392
Tasmania ..	508	500	666	165	6,902	259	9,000
Australia ..	16,746	14,461	20,026	6,130	272,502	6,793	336,658

(a) Including Outworkers.

(ii) *Outworkers.* The term "outworker" or "homeworker" has acquired a special meaning in connexion with manufacturing industries, and technically embraces only those to whom work is given out by factory owners to be done in the employees' own homes. Individuals working for themselves are not included. The following table gives particulars of the average number of outworkers connected with factories in each State in each of the past five years.

FACTORIES.—OUTWORKERS.(a)

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
1927-1928 ..	333	380	40	51	5	67	876
1928-1929 ..	288	240	44	41	2	22	637
1929-1930 ..	217	182	49	28	2	31	509
1930-1931 ..	122	136	29	15	3	23	328
1931-1932 ..	108	140	27	12	3	2	292

(a) In all tables relating to number of hands employed in factories, outworkers are included.

The Factories Acts in each State contain provisions regulating the employment of outworkers. Records of outwork, specifying the names and remuneration of workers, and stating the places where the work is done, must be kept by factory proprietors. Fuller information regarding the operation of the Factories Acts will be found in Official Year Book No. 16, pp. 540 to 566.

§ 5. Sex Distribution in Factories.

1. **Employment of Females.**—In all the States the employment of female labour in factories is regulated by Acts of Parliament. More extended reference to this matter will be found in Official Year Book No. 16, pp. 540 to 566.

2. **Distribution of Employees according to Sex.**—(i) *General.* In New South Wales the ratio of the number of females employed in factories to the number of males during 1886 was about one to seven; in 1891 one to six; in 1903 it became about one to four; and is now less than one to three. In Victoria the ratio of females to males during the year 1886 was about one to five. Five years later (1891) it was somewhat less, but in 1896 had increased to about one to three, and at present is more than one to two. In the remaining States the ratio was roughly one female employed to every five males, while that for Australia as a whole was two to five. The employment of women is, however, mainly confined to a few trades.

The increased proportion of females in factories during the last five years is due to the fact that those factories in which females are employed in relatively large numbers have been affected less as regards the number of employees than other industries have been by the industrial depression. The industries which employ the largest proportions of females are Classes VI., VIII., IX. and XII., and the numbers engaged in these classes, taken together, have fallen by 12.6 per cent. between 1927-28 and 1931-32, whereas the numbers engaged in all other industries, employing smaller proportions of females, declined during the same time by 36.2 per cent.

(ii) *Average Number of Males and Females Employed, 1927-28 to 1931-32.* The next table shows the average number of male and female employees in factories in each State for the five years ending 1931-32.

FACTORIES.—MALES AND FEMALES EMPLOYED.

State.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
MALES.					
New South Wales	134,488	135,813	122,006	93,868	90,682
Victoria	105,366	104,648	100,135	82,949	81,618
Queensland	37,381	37,107	35,141	31,144	29,149
South Australia	32,214	30,385	26,485	19,332	18,932
Western Australia	16,710	16,993	15,921	11,729	10,535
Tasmania	8,730	8,164	8,547	6,922	6,999
Australia	334,889	333,110	308,235	245,944	237,915
FEMALES.					
New South Wales	43,606	44,993	40,907	33,723	35,686
Victoria	50,982	51,920	50,874	43,067	46,647
Queensland	7,330	7,924	7,483	6,757	6,650
South Australia	6,830	6,422	5,700	4,554	4,902
Western Australia	3,710	3,811	3,722	2,891	2,857
Tasmania	2,381	2,302	2,273	1,907	2,001
Australia	114,839	117,372	110,959	92,899	98,743

The maximum number of employees in factories was reached in 1926-27 when 452,184 persons were employed, of whom 337,433 were males, and 114,751 were females. Since that year there has been a decrease, amounting in 1931-32 to 99,518 or 29.49 per cent. in the case of males, and to 16,008 or 13.95 per cent. in respect of females.

3. **Rate of Variation for each Sex.**—The percentages of annual increase or decrease in the years indicated on the average number of males and females employed in factories are shown below :—

PERCENTAGES OF ANNUAL INCREASE, MALE AND FEMALE FACTORY EMPLOYEES.

State.	1926-27— 1927-28.	1927-28— 1928-29.	1928-29— 1929-30.	1929-30— 1930-31.	1930-31— 1931-32.
MALES.					
	%	%	%	%	%
New South Wales	-0.69	0.99	-10.17	-23.06	- 3.42
Victoria	-0.83	-0.68	- 4.31	-17.16	- 1.60
Queensland	0.71	-0.79	- 5.30	-11.37	- 6.41
South Australia	-5.46	-5.68	-12.84	-27.01	- 2.07
Western Australia	4.71	1.69	- 6.31	-26.33	-10-18
Tasmania	1.32	-6.48	4.69	-19.01	1.10
Total	-0.75	-0.53	- 7.47	-20.21	- 3.26
FEMALES.					
New South Wales	-0.77	3.18	- 9.08	-17.56	5.82
Victoria	-0.72	1.84	- 2.01	-15.35	8.31
Queensland	4.67	8.10	- 5.57	- 9.70	- 1.58
South Australia	-2.41	-5.97	-11.24	-20.11	7.64
Western Australia	7.72	2.72	- 2.36	-22.33	- 1.18
Tasmania	18.69	-3.32	- 1.26	-16.10	4.93
Total	0.77	2.20	- 5.46	- 16.28	6.29

NOTE.—The minus sign indicates decrease.

4. **Masculinity of Employees in Factories.**—The extent to which females are employed in the factories of Australia may perhaps be more clearly shown by giving the masculinity of employees for each State for a series of years. The following table furnishes particulars for the years specified.

MASCULINITY(a) OF FACTORY EMPLOYEES.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
1927-28	308	207	510	472	450	367	292
1928-29	302	202	468	473	446	355	284
1929-30	298	197	470	465	428	376	278
1930-31	278	193	461	425	406	363	265
1931-32	254	175	438	386	369	350	241

(a) Number of males per 100 females.

During the five years covered by the table above there has been a decrease in masculinity in all the States. The decline was smallest in Victoria, where the greatest number of females is employed, and in Tasmania. The cause of the increasing proportion of women has been referred to in 2 ante.

5. **Employment of Females in Particular Industries.**—A preponderance of women workers occurs in a few trades, of which the more important are comprised in Classes VI., VIII., IX., and XII., viz., in connexion with textiles, clothing, food, drink and tobacco, and paper, stationery, printing and bookbinding, etc. The following tables show the average number of females employed in each of these classes in 1931-32 and

the percentages of the average number so employed on the total average number of females employed in all classes :—

FEMALES EMPLOYED IN PARTICULAR INDUSTRIES, AND PERCENTAGES ON AVERAGE TOTAL EMPLOYED, 1931-32.

Class.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Aus- tralia.
AVERAGE NUMBER.							
VI. Textiles and textile goods ..	6,174	10,898	402	260	196	961	18,891
VIII. Clothing	13,937	22,407	3,412	2,406	1,587	388	44,137
IX. Food and drink	6,199	4,995	1,159	813	463	356	13,985
XII. Paper, stationery, &c. ..	3,248	2,900	787	460	302	129	7,826
All other classes	6,128	5,447	890	963	309	167	13,904
Total	35,686	46,647	6,650	4,902	2,857	2,001	98,743
PERCENTAGES ON AVERAGE TOTAL NUMBER OF FEMALE EMPLOYEES.							
VI. Textiles and textile goods ..	17.30	23.36	6.05	5.30	6.86	48.02	19.13
VIII. Clothing	39.05	48.03	51.31	49.08	55.55	19.39	44.70
IX. Food and drink	17.37	10.71	17.43	16.59	16.20	17.79	14.16
XII. Paper, stationery, etc. ..	9.10	6.22	11.83	9.38	10.57	6.45	7.93
All other classes	17.18	11.68	13.38	19.65	10.82	8.35	14.08
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00

The largest proportion of females is engaged in one or other of the four classes of industry indicated, Class VIII. being the most important. The classification of the employment of females in the several industries in that class, and the relation of their number to that of the males so employed, are shown in the following table :—

FEMALES EMPLOYED IN EACH INDUSTRY IN CLASS VIII. 1931-32.

Industry.	New South Wales.			Victoria.			Other States.		
	Males	Females.	Femi- ninity. (a)	Males.	Females.	Femi- ninity. (a)	Males.	Females.	Femi- ninity. (a)
Tailoring and slop clothing ..	1,377	5,226	380	1,525	4,738	311	1,112	3,492	314
Waterproof and oil-skin clothing ..	9	12	133	69	157	228	..	..	..
Dressmaking ..	27	1,164	4,311	349	5,569	1,596	34	1,480	4,353
Millinery ..	56	782	1,396	129	1,323	1,026	13	421	3,238
Shirts, collars and underclothing ..	236	2,579	1,093	518	4,117	795	105	1,376	1,310
Stays and corsets ..	33	541	1,639	76	548	721	4	21	525
Handkerchiefs, ties and scarves ..	72	494	686	44	339	770	..	..	..
Hats and caps ..	507	996	196	448	810	181	49	61	122
Gloves .. ..	..	..	..	23	74	322	..	..	..
Boots and shoes ..	2,039	1,822	89	4,658	3,998	86	1,060	723	68
Boot repairing (in- cluding bespoke work)	949	23	2.42	552	10	1.81	353	29	8
Boot accessories ..	86	24	28	372	141	38	..	..	..
Umbrellas and walk- ing sticks ..	34	61	179	33	62	188	10	12	120
Dyeworks and clean- ing (including re- novating and repairing) ..	311	185	59	258	200	78	138	171	124
Other	6	28	467	50	321	642	3	7	233
Total	5,742	13,937	243	9,104	22,407	246	2,881	7,793	270

(a) Number of females per 100 males.

§ 6. Child Labour in Factories.

1. **Conditions of Child Labour.**—The employment of young persons in factories in the States is regulated by Acts of Parliament, as is the case with the employment of female labour. Reference to the legislation regarding the employment of child labour

in factories will be found in Official Year Book No. 16, pp. 540 to 566. The object of the restrictions imposed is to assure amongst other things that a proper period shall be devoted to primary education, and that the early years of toil shall not exhaust the worker before the attainment of full growth.

2. **Average Number of Children Employed, 1927-28 to 1931-32.**—In the returns for the various States, the term "child" is taken to denote any person under sixteen years of age. The following table shows the average number of children of each sex employed in manufacturing industries in the years specified.

CHILDREN EMPLOYED IN FACTORIES.

State.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
MALES.					
New South Wales	4,016	3,983	3,322	1,851	1,924
Victoria	4,231	4,209	3,748	2,543	2,615
Queensland	1,272	1,254	1,212	950	920
South Australia	1,073	883	654	411	509
Western Australia	677	647	575	324	344
Tasmania	343	290	261	203	185
Australia	11,612	11,266	9,772	6,282	6,497
FEMALES.					
New South Wales	4,747	5,085	4,196	2,757	3,263
Victoria	3,992	4,298	4,019	3,361	4,089
Queensland	850	921	906	619	631
South Australia	763	679	529	399	453
Western Australia	297	276	226	149	161
Tasmania	304	265	252	205	169
Australia	10,953	11,524	10,128	7,490	8,766
TOTAL.					
New South Wales	8,763	9,068	7,518	4,608	5,187
Victoria	8,223	8,507	7,767	5,904	6,704
Queensland	2,122	2,175	2,118	1,569	1,551
South Australia	1,836	1,562	1,183	810	962
Western Australia	974	923	801	473	505
Tasmania	647	555	513	408	354
Australia	22,565	22,790	19,900	13,772	15,263

3. **Percentage of Children on Total Number of Employees.**—The number of juvenile workers in factories reached its maximum in 1926-27 when the number was 23,903 (12,582 males and 11,321 females), representing 5.29 per cent. of all factory employees. In 1931-32 the number of children employed was 15,263 or 4.53 per cent. of all employees. The latter figures show some increase both actually and relatively over the immediately preceding year. This increase was very largely among females in the textile and clothing industry.

PERCENTAGE OF CHILDREN ON TOTAL NUMBER OF FACTORY EMPLOYEES.

State.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	%	%	%	%	%
New South Wales	4.92	5.02	4.61	3.61	4.10
Victoria	5.26	5.43	5.14	4.69	5.23
Queensland	4.75	4.81	4.97	4.14	4.33
South Australia	4.70	4.24	3.68	3.39	4.04
Western Australia	4.77	4.44	4.08	3.24	3.77
Tasmania	5.82	5.30	4.74	4.62	3.93
Australia	5.02	5.06	4.75	4.06	4.53

4. Industries Employing Child Labour.—The employment of children is largely confined to a limited number of industries, the most important of which are specified in the next table, which shows the average number employed in 1931-32.

CHILDREN EMPLOYED.—VARIOUS INDUSTRIES, 1931-32.

Class.	Industry.	N.S.W.		Victoria.		Q'land.		S. Aust.		W. Aust.		Tas.		Australia.	
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
II.	Earthenware, China, Porcelain, and Terra-Cotta	24	..	29	7	1	5	6	..	2	..	..	..	62	12
III.	Chemicals, Drugs and Medicines	45	65	9	28	..	..	7	18	3	..	1	..	65	111
IV.	Smelting, Converting, Refining and Rolling of Iron and Steel	122	2	132	14	16	..	48	10	..	..	..	..	318	26
"	Engineering (not Marine or Electrical)	44	..	61	8	22	..	24	3	9	..	2	..	162	11
"	Electrical Installations, Cables and Apparatus	46	25	55	21	2	..	5	..	3	..	..	..	111	46
"	Motor Vehicles and Cycles. (1) Repairs	39	..	57	..	23	..	17	2	18	1	3	..	157	3
"	Galvanized Ironworking and Tinsmithing	81	19	133	43	19	..	32	..	23	..	2	..	290	62
VI.	Cotton	26	58	9	45	2	..	..	..	..	..	..	..	37	103
"	Wool, Worsted and Shoddy	143	355	301	673	10	31	29	16	1	3	34	76	518	1154
"	Hosiery and Other Knitted Goods	27	296	124	607	3	12	..	5	3	10	..	6	157	936
"	Rope and Cordage	10	14	65	51	5	..	3	..	..	..	..	..	83	65
VII.	Tanning, Currying and Leather Dressing	35	1	75	2	19	..	6	..	9	..	..	..	144	3
"	Bags, Trunks and Other Leather Goods	21	79	20	28	13	11	1	16	4	..	..	..	59	134
VIII.	Tailoring and Slop Clothing	43	354	38	290	31	160	6	16	11	76	1	18	130	914
"	Dressmaking	1	123	13	516	2	48	1	81	..	25	..	8	17	801
"	Millinery	..	78	9	129	..	6	..	37	..	3	..	..	9	253
"	Shirts, Collars and Underclothing	7	415	24	333	3	88	1	40	..	40	..	8	35	924
"	Hats and Caps	21	111	32	39	..	2	..	..	..	2	..	..	53	154
"	Boots and Shoes	118	218	181	370	17	42	21	23	35	6	5	4	377	663
"	Boot Repairing	14	1	19	..	11	3	5	..	3	1	..	..	52	5
IX.	Bakeries (including Cakes and Pastry)	28	5	48	4	29	11	11	2	12	1	36	36	164	59
"	Biscuits	49	106	88	26	2	10	16	32	14	7	..	..	169	181
"	Sugar Confectionery (including Chocolate)	48	225	36	91	12	39	7	16	..	8	..	..	103	379
"	Butter Factories, Creameries, etc.	5	..	32	25	18	1	2	2	1	..	1	..	59	28
"	Condiments, Coffee and Spices	25	51	13	10	..	..	22	3	8	..	..	..	68	64
"	Tobacco, Cigars, Cigarettes and Snuff	..	1	6	10	..	..	..	..	5	7	..	..	11	18
X.	Sawmills (Town and Forest)	16	..	26	..	93	1	6	..	5	..	6	..	152	1
XI.	Billiard Tables, Cabinet and Furniture making and Upholstery	46	7	62	5	32	5	28	..	10	3	5	..	177	20
XII.	Papermaking, etc.	43	147	5	..	..	..	..	..	..	..	..	..	48	147
"	Envelopes, Stationery, Paper Boxes, Bags, etc.	..	..	37	110	17	10	7	18	2	6	..	..	63	144
"	Newspapers and Periodicals	40	1	20	2	83	2	..	..	12	1	11	..	166	6
"	General Printing and Bookbinding (not including Government)	90	73	118	53	34	24	20	10	9	2	4	1	275	163
XIII.	Tyres, Motor and Cycle	19	31	10	18	1	..	5	3	9	..	9	3	53	55

5. Apprenticeship.—In all the States Acts are in force for the regulation of the age at which children may be employed in gainful occupations. Legislative provision is also made for the regulation of apprenticeship under the various State Factories Acts or Arbitration Acts. These Acts, while laying down general principles, leave to the wages tribunals the actual determination of the conditions under which apprentices may be employed.

§ 7. Salaries and Wages Paid and Value of Production.

[NOTE.]—In all tables relating to Salaries and Wages paid in Factories the amounts given are exclusive of sums drawn by working proprietors.

1. *General.*—The importance of the manufacturing industries of Australia is indicated by the fact that the total value of the output for 1931–32 was £281,645,785 of which amount the sum of £161,199,245 represents the value of the materials used, and £9,464,710 the value of the power, fuel and light used. The difference between the sum of the two latter amounts and the value of the output, viz., £110,981,830 represents the value of production as defined by the Conference of Statisticians at Sydney in 1925, i.e., “The value of consumable commodities produced during the year, deducting, so far as possible, the value of goods consumed in process of production.” The total amount of salaries and wages paid in factories in 1931–32 was £55,931,818. This figure shows a decline of £6,523,041, or 10.5 per cent., as compared with the total for the previous year.

2. *Salaries and Wages Paid.*—(i) *Total Amount, 1931–32.* The total amount of salaries and wages paid in the year 1931–32 in various classes of factories in Australia is shown in the following table :—

SALARIES AND WAGES PAID IN FACTORIES, 1931–32.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products ..	388,793	242,230	52,805	47,255	38,479	38,657	808,219
II. Bricks, Pottery, Glass, etc. ..	439,475	295,546	44,892	35,672	52,785	13,874	873,244
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	1,032,110	865,768	57,487	212,773	103,197	21,912	2,293,247
IV. Industrial Metals, Machines, Implements and Conveyances ..	7,844,984	4,143,955	1,101,651	1,290,169	634,441	397,739	15,412,939
V. Precious Metals, Jewellery and Plate ..	66,592	135,961	11,423	13,739	5,914	2,450	236,079
VI. Textiles and Textile Goods ..	1,403,436	2,141,503	122,246	88,560	41,981	172,041	3,969,767
VII. Skins and Leather ..	581,335	523,472	83,928	52,222	36,456	7,502	1,284,915
VIII. Clothing ..	2,234,129	3,571,100	463,059	304,911	220,284	57,748	6,851,231
IX. Food, Drink and Tobacco ..	3,975,173	3,694,723	2,586,168	793,421	527,577	328,623	11,905,685
X. Woodworking and Basketware ..	663,833	707,555	464,883	160,197	199,716	120,938	2,317,122
XI. Furniture, Bedding, etc. ..	382,204	314,306	143,131	73,694	53,893	25,848	993,076
XII. Paper, Stationery, Printing, Book-binding, etc. ..	2,239,261	1,788,009	713,081	303,749	273,623	131,283	5,449,006
XIII. Rubber ..	350,840	367,603	62,911	16,587	8,557	37,148	843,646
XIV. Musical Instruments ..	119,036	31,268	1,271	3,111	4,099	..	159,385
XV. Miscellaneous Products ..	254,321	181,619	31,207	29,931	20,309	21,760	539,147
XVI. Heat, Light and Power ..	784,491	449,427	248,746	360,065	113,773	38,608	1,995,110
Total ..	22,751,013	19,454,045	6,188,889	3,786,056	2,335,684	1,416,131	55,931,818

(ii) *Totals and Averages, 1927–28 to 1931–32.* The following statement shows the total amount of salaries and wages paid, and the average amount paid per employee in each State, for the years 1927–28 to 1931–32. The average wage paid is not comparable with that shown in similar tables in Official Year Books issued prior to No. 23, 1930, on account of the change in method of computing the average number of hands employed as explained heretofore. The figures are exclusive of working proprietors and of the amounts drawn by them :—

SALARIES AND WAGES PAID IN FACTORIES.—TOTAL AND AVERAGE PER ANNUM PER EMPLOYEE.

Year.	Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
		£	£	£	£	£	£	£
1927-28	Total amount paid ..	37,818,141	30,030,352	9,140,223	8,164,238	4,210,675	2,001,690	91,365,319
	Average per employee ..	220.75	201.83	212.33	217.34	216.60	189.30	212.12
1928-29	Total amount paid ..	38,544,687	29,466,767	9,097,624	7,609,813	4,373,090	1,894,927	90,986,908
	Average per employee ..	221.371	197.41	209.451	215.11	220.87	189.80	210.63
1929-30	Total amount paid ..	34,875,995	28,387,840	8,690,872	6,579,186	4,154,980	2,028,160	84,717,033
	Average per employee ..	222.67	197.07	211.801	213.62	222.32	195.80	210.97
1930-31	Total amount paid ..	25,200,290	21,359,491	7,098,106	4,368,868	2,886,884	1,541,220	62,454,859
	Average per employee ..	206.83	179.29	195.26	192.67	210.26	183.28	193.88
1931-32	Total amount paid ..	22,751,013	19,454,045	6,188,889	3,786,056	2,335,684	1,416,131	55,931,818
	Average per employee ..	188.67	160.15	180.57	167.95	186.23	166.76	174.84

In comparing the figures in the preceding table, regard should be paid to the nature of certain industries which are carried on to a greater extent in some States than in others. In Victoria, for instance, there is a large number of hands employed in Class VIII., comprising a heavy percentage of women and children. The highest average wages per employee in 1931-32 were paid in New South Wales, and Western Australia. This statement is true of male employees also, but the average wage for female employees is higher in Victoria than in Western Australia (see IV. following).

The increase in rates of salaries and wages reached its maximum in 1927-28 when the average amounted to £212.12, as compared with £210.63 in 1928-29, £210.97 in 1929-30, £193.88 in 1930-31 and £174.84 in 1931-32. The fall in the cost of living on which the rates of wage are chiefly based began in the last quarter of 1929-30, and has since continued, with consequent reductions in the rates of wage. The average salary and wage fell approximately 10 per cent. in 1931-32 as compared with 1930-31 and 18 per cent. as compared with the peak year of 1927-28.

(iii) *Earnings of Males and Females, 1931-32.* The following table shows the approximate amount paid in salaries and wages to males and females in each class of industry in each State in the year 1931-32 :—

SALARIES AND WAGES.—MALE AND FEMALE FACTORY EMPLOYEES, 1931-32.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
MALES.							
I. Treatment of Non-metalliferous Mine and Quarry Products ..	383,363	239,476	51,864	46,885	37,611	38,137	797,336
II. Bricks, Pottery, Glass, etc. ..	416,383	286,557	43,742	35,490	52,062	13,784	848,018
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	864,713	689,189	52,756	197,921	98,620	20,007	1,923,206
IV. Industrial Metals, Machines, Implements and Conveyances ..	7,661,850	4,036,122	1,082,076	1,265,538	626,506	392,163	15,064,255
V. Precious Metals, Jewellery and Plate ..	60,378	124,318	10,865	13,407	5,755	2,450	217,173
VI. Textiles and Textile Goods ..	765,418	1,157,343	90,698	68,089	27,384	92,988	2,201,920
VII. Skins and Leather ..	529,574	476,089	78,385	38,733	32,731	6,940	1,162,452
VIII. Clothing ..	951,641	1,496,214	203,284	114,983	78,116	29,130	2,873,368
IX. Food, Drink and Tobacco ..	3,329,284	3,207,538	2,495,470	734,117	485,567	299,367	10,551,343
X. Woodworking and Basketware ..	649,300	696,680	457,470	156,619	199,030	118,927	2,278,026
XI. Furniture, Bedding, etc. ..	335,175	264,980	134,293	67,944	50,319	24,948	877,659
XII. Paper, Stationery, Printing, Book-binding, etc. ..	1,919,684	1,511,403	636,323	263,785	240,035	117,897	4,689,127
XIII. Rubber ..	304,325	287,457	40,174	15,405	8,199	34,771	690,331
XIV. Musical Instruments ..	103,929	30,237	1,271	2,949	4,699	..	143,085
XV. Miscellaneous Products ..	203,440	153,222	28,503	25,392	16,454	21,274	448,285
XVI. Heat, Light and Power ..	780,512	448,529	244,734	346,381	113,151	38,378	1,971,685
Total ..	19,258,969	15,105,354	5,651,908	3,393,638	2,076,239	1,251,161	46,737,269

SALARIES AND WAGES.—MALE AND FEMALE FACTORY EMPLOYEES,
1931-32—continued.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
FEMALES.							
I. Treatment of Non-metalliferous Mine and Quarry Products ..	£ 5,430	£ 2,754	£ 941	£ 370	£ 868	£ 520	£ 10,883
II. Bricks, Pottery, Glass, etc. ..	14,092	8,989	1,150	182	723	90	25,226
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	167,397	176,579	4,731	14,852	4,577	1,905	370,041
IV. Industrial Metals, Machines, Implements and Conveyances ..	183,134	107,833	19,575	24,631	7,935	5,576	348,684
V. Precious Metals, Jewellery and Plate ..	6,214	11,643	558	332	159	..	18,906
VI. Textiles and Textile Goods ..	638,018	984,160	31,548	20,471	14,597	79,053	1,767,847
VII. Skins and Leather ..	51,761	47,383	5,543	13,489	3,725	562	122,463
VIII. Clothing ..	1,282,488	2,074,886	259,775	189,928	142,168	28,618	3,977,863
IX. Food, Drink and Tobacco ..	645,889	487,185	90,698	59,304	42,010	29,256	1,354,342
X. Woodworking and Basketware ..	14,533	10,875	7,413	3,578	686	2,011	39,096
XI. Furniture, Bedding, etc. ..	47,029	49,326	8,838	5,750	3,574	900	115,417
XII. Paper, Stationery, Printing, Book-binding, etc. ..	319,577	276,606	76,758	39,964	33,588	13,386	759,879
XIII. Rubber ..	46,515	80,146	22,737	1,182	358	2,377	153,345
XIV. Musical Instruments ..	15,107	1,031	..	162	..	..	16,300
XV. Miscellaneous Products ..	50,881	28,397	2,704	4,539	3,855	486	90,862
XVI. Heat, Light and Power ..	3,979	898	4,012	13,684	622	230	23,425
Total ..	3,492,044	4,348,691	536,981	392,418	259,445	164,970	9,194,549

(iv) Total and Average Earnings of Males and Females, 1927-28 to 1931-32.

Particulars for the last five years are given in the table hereunder :—

SALARIES AND WAGES.—MALE AND FEMALE FACTORY EMPLOYEES.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
MALES.							
1927-28. Amount paid ..	£ 32,929,659	£ 24,268,920	£ 8,388,158	£ 7,471,581	£ 3,814,908	£ 1,790,152	£ 78,663,378
Per cent. on total ..	87.07	80.81	91.77	91.52	90.60	89.43	86.10
Average per employee ..	£ 257.11	£ 246.31	£ 234.24	£ 242.65	£ 241.80	£ 218.07	£ 248.00
1928-29. Amount paid ..	£ 33,508,975	£ 23,684,594	£ 8,351,045	£ 6,955,931	£ 3,970,744	£ 1,678,420	£ 78,149,709
Per cent. on total ..	86.94	80.38	91.79	91.41	90.80	88.57	85.89
Average per employee ..	£ 258.68	£ 241.51	£ 234.71	£ 239.74	£ 247.57	£ 217.89	£ 247.35
1929-30. Amount paid ..	£ 30,228,967	£ 22,688,606	£ 7,824,824	£ 5,997,151	£ 3,755,353	£ 1,818,960	£ 72,313,861
Per cent. on total ..	86.68	79.92	90.03	91.15	90.38	89.69	85.36
Average per employee ..	£ 260.41	£ 241.87	£ 232.69	£ 238.47	£ 250.17	£ 224.65	£ 247.85
1930-31. Amount paid ..	£ 21,605,432	£ 16,998,124	£ 6,487,633	£ 3,951,464	£ 2,601,295	£ 1,379,849	£ 53,023,797
Per cent. on total ..	85.73	79.58	91.40	90.45	90.11	89.53	84.90
Average per employee ..	£ 244.36	£ 221.68	£ 218.64	£ 217.40	£ 239.04	£ 211.86	£ 230.20
1931-32. Amount paid ..	£ 19,258,969	£ 15,105,354	£ 5,651,908	£ 3,393,638	£ 2,076,239	£ 1,251,161	£ 46,737,269
Per cent. on total ..	84.65	77.65	91.32	89.64	88.89	88.35	83.56
Average per employee ..	£ 225.99	£ 200.27	£ 204.08	£ 191.61	£ 213.43	£ 192.28	£ 210.26

SALARIES AND WAGES.—MALE AND FEMALE FACTORY EMPLOYEES—
continued.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
FEMALES.							
1927-28. Amount paid .. £	4,888,482	5,761,432	752,065	692,657	395,767	211,538	12,701,941
Per cent. on total ..	12.93	19.19	8.23	8.48	9.40	10.57	13.90
Average per employee .. £	113.06	114.64	103.92	102.27	108.04	89.45	111.88
1928-29. Amount paid .. £	5,035,712	5,782,173	746,579	653,882	402,346	216,507	12,837,199
Per cent. on total ..	13.06	19.62	8.21	8.59	9.20	11.43	14.11
Average per employee .. £	112.96	112.94	95.05	102.78	107.01	94.92	110.63
1929-30. Amount paid .. £	4,647,028	5,699,234	866,048	582,035	399,627	209,200	12,403,172
Per cent. on total ..	13.32	20.08	9.97	8.85	9.62	10.31	14.64
Average per employee .. £	114.61	113.44	116.92	103.02	108.65	92.53	112.98
1930-31. Amount paid .. £	3,594,858	4,361,367	610,473	417,404	285,589	161,371	9,431,062
Per cent. on total ..	14.27	20.42	8.60	9.55	9.89	10.47	15.10
Average per employee .. £	107.56	102.73	91.40	92.78	100.28	85.11	102.74
1931-32. Amount paid .. £	3,492,044	4,348,691	536,981	392,418	259,445	164,970	9,194,549
Per cent. on total ..	15.35	22.35	8.68	10.36	11.11	11.65	16.44
Average per employee .. £	98.74	94.43	81.61	81.21	92.20	83.11	94.18

(v) *Managers, Overseers, and Other Employees.* A further analysis of salaries and wages paid is given in the following table, the amounts paid to managers, overseers, etc., being differentiated from those paid to other employees. As previously mentioned, amounts drawn by working proprietors are excluded in all cases.

SALARIES AND WAGES.—MANAGERS, OVERSEERS, AND OTHER FACTORY
EMPLOYEES, AUSTRALIA, 1931-32.

Class of Industry.	Salaries and Wages Paid to—						
	Managers, Overseers, Accountants, and Clerks.		All Other Employees.		All Employees.		
	Males.	Females.	Males.	Females.	Males.	Females.	Total.
	£	£	£	£	£	£	£
I. Treatment of non-metalliferous mine and quarry products ..	157,640	9,598	639,696	1,285	797,336	10,883	808,219
II. Bricks, pottery, glass, etc. ..	171,664	11,991	676,354	13,235	848,018	25,226	873,244
III. Chemicals, dyes, explosives, paint, oils and grease ..	514,079	88,532	1,409,127	281,509	1,923,206	370,041	2,293,247
IV. Industrial metals, machines, implements and conveyances ..	2,267,886	189,525	12,796,369	159,159	15,064,255	348,684	15,412,939
V. Precious metals, jewellery and plate ..	26,711	5,530	190,462	13,376	217,173	18,906	236,079
VI. Textiles and textile goods ..	463,942	97,160	1,737,978	1,670,687	2,201,920	1,767,847	3,969,767
VII. Skins and leather ..	159,980	16,915	1,002,472	105,548	1,162,452	122,463	1,284,915
VIII. Clothing ..	460,579	261,020	2,412,789	3,716,843	2,873,368	3,977,863	6,851,231
IX. Food, drink and tobacco ..	2,175,179	292,861	8,376,164	1,061,481	10,551,343	1,354,342	11,905,685
X. Woodworking and basketware ..	370,198	30,086	1,907,828	9,010	2,278,026	39,096	2,317,122
XI. Furniture, bedding, etc. ..	120,087	24,329	757,572	91,088	877,659	115,417	993,076
XII. Paper, stationery, printing and book-binding, etc. ..	942,377	183,725	3,746,750	576,154	4,689,127	759,879	5,449,006
XIII. Rubber ..	153,087	17,251	537,244	136,064	690,331	153,315	843,646
XIV. Musical instruments ..	38,649	8,979	104,436	7,321	143,085	16,300	159,385
XV. Miscellaneous products ..	85,351	18,865	362,934	71,997	448,285	90,862	539,147
XVI. Heat, light and power ..	470,158	22,379	1,501,527	1,046	1,971,685	23,425	1,995,110
Total ..	8,577,567	1,278,746	38,159,702	7,915,803	46,737,269	9,194,549	55,931,818
Average paid per employee ..	346.96	130.95	193.15	90.09	210.26	94.18	174.84

3. Value of Power, Fuel and Light Used.—(i) *Total Amount, 1931-32.* The expenditure by factories on power, fuel and light is of considerable importance; in 1931-32 it amounted to £9,464,710, a decline of £919,085 as compared with the previous year. The following table shows the value of power, fuel and light used in the different classes of industry in 1931-32:—

VALUE OF POWER, FUEL AND LIGHT USED(a) IN FACTORIES, 1931-32.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of Non-metaliferous Mine and Quarry Products ..	139,445	117,868	18,487	15,264	21,490	35,648	348,202
II. Bricks, Pottery, Glass, etc. ..	134,291	100,472	12,714	11,463	12,369	6,314	277,623
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	165,222	158,251	9,958	41,732	21,024	4,528	400,715
IV. Industrial Metals, Machines, Implements and Conveyances ..	1,181,735	322,828	56,315	265,151	44,731	260,074	2,130,834
V. Precious Metals, Jewellery and Plate ..	4,234	8,475	750	1,046	189	188	14,882
VI. Textiles and Textile Goods ..	135,883	249,546	15,613	17,385	6,204	43,771	468,402
VII. Skins and Leather ..	70,198	74,754	7,159	2,463	5,244	988	160,806
VIII. Clothing ..	73,311	118,260	11,748	10,909	6,284	1,999	222,511
IX. Food, Drink and Tobacco ..	749,370	692,184	376,970	166,908	114,874	56,088	2,156,394
X. Woodworking and Basketware ..	46,594	42,833	26,824	10,100	15,910	17,012	159,273
XI. Furniture, Bedding, etc. ..	18,414	19,634	7,211	4,993	2,684	1,555	54,491
XII. Paper, Stationery, Printing, Book-binding, etc. ..	114,958	133,380	29,724	14,334	11,253	6,646	310,295
XIII. Rubber ..	68,270	104,313	4,698	2,239	1,724	10,810	192,054
XIV. Musical Instruments ..	9,211	1,229	8	130	29	..	10,607
XV. Miscellaneous Products ..	16,597	11,828	1,029	1,679	974	495	32,602
XVI. Heat, Light and Power ..	1,301,592	548,936	187,293	183,018	299,074	5,106	2,525,019
Total ..	4,229,325	2,704,791	766,501	748,814	564,057	451,222	9,464,710

(a) Including lubricants and water.

(ii) *Total Amount, 1927-28 to 1931-32.* The next table gives the sums expended on power, fuel and light during the past five years:—

VALUE OF POWER, FUEL AND LIGHT USED IN FACTORIES.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
1927-28 ..	6,791,285	3,712,886	1,032,303	1,366,853	586,965	483,685	13,973,977
1928-29 ..	6,773,214	3,641,148	1,006,627	1,287,729	624,031	550,657	13,883,406
1929-30 ..	6,471,071	3,714,072	950,194	1,255,146	617,758	594,513	13,602,754
1930-31 ..	4,727,673	2,836,126	875,330	855,289	552,100	537,277	10,383,795
1931-32 ..	4,229,325	2,704,791	766,501	748,814	564,057	451,222	9,464,710

4. Value of Materials Used.—(i) *Total Amount, 1931-32.* The value of materials used (which includes the value of containers, packing, etc., the cost of tools replaced and repairs to plant) in factories in Australia in 1931-32 was £161,199,245, representing 57.23 per cent. of the value of the final output. (See next sub-section.) The table

hereunder shows the value of the materials used in various classes of industry in each State:—

VALUE OF MATERIALS USED IN FACTORIES, 1931-32.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products ..	696,669	427,259	68,627	46,926	53,507	59,352	1,352,340
II. Bricks, Pottery, Glass, etc. ..	265,023	155,386	19,643	27,740	36,503	9,424	513,719
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	4,520,396	3,242,287	276,815	986,478	826,255	111,261	9,963,492
IV. Industrial Metals, Machines, Implements and Conveyances ..	15,150,735	4,717,427	940,215	2,501,481	500,769	767,313	24,577,940
V. Precious Metals, Jewellery and Plate ..	49,689	148,734	7,727	15,038	3,026	247	224,461
VI. Textiles and Textile Goods ..	2,958,545	5,030,273	1,136,282	394,729	119,216	359,431	9,998,476
VII. Skins and Leather ..	2,567,663	2,237,944	297,565	112,031	130,259	22,991	5,368,453
VIII. Clothing ..	3,861,705	7,227,147	646,440	385,679	432,704	80,199	12,633,874
IX. Food, Drink and Tobacco ..	25,581,092	23,235,167	18,971,249	5,846,624	3,064,019	1,277,359	77,975,510
X. Woodworking and Basketware ..	1,747,234	1,050,227	716,735	489,100	379,082	187,331	4,569,709
XI. Furniture, Bedding, etc. ..	721,981	612,497	190,627	112,463	104,232	28,866	1,770,666
XII. Paper, Stationery, Printing, Book-binding, etc. ..	3,051,608	2,534,934	479,240	380,855	234,349	84,902	6,765,888
XIII. Rubber ..	891,916	1,105,150	93,363	35,894	14,142	117,350	2,257,815
XIV. Musical Instruments ..	140,647	49,679	600	2,451	214	..	193,591
XV. Miscellaneous Products ..	450,875	365,534	26,906	45,689	32,587	20,017	941,608
XVI. Heat, Light and Power ..	900,923	724,553	143,282	198,530	86,886	37,529	2,091,703
Total ..	63,556,701	52,864,198	24,015,316	11,581,708	6,017,750	3,163,572	161,199,245

The greatest value of materials used was in Class IX., "Food, Drink and Tobacco," the total being £77,975,510. The next in order of importance was Class IV., "Industrial Metals, Machines, Implements and Conveyances", in which raw materials valued at £24,577,940 were used. The minimum value appears in Class XIV., "Musical Instruments," the total being only £193,591.

(ii) *Total Amount, 1927-28 to 1931-32.* The following table gives the value of materials used in factories for the past five years:—

VALUE OF MATERIALS USED IN FACTORIES.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	£	£	£	£	£	£	£
1927-28 ..	102,807,287	70,954,166	28,620,664	20,571,650	8,579,656	4,083,837	233,617,260
1928-29 ..	104,897,920	71,231,036	29,882,434	19,821,262	8,736,849	4,369,065	238,938,566
1929-30 ..	93,931,937	67,837,659	28,005,241	18,080,989	8,685,647	4,403,714	220,945,187
1930-31 ..	64,232,090	51,175,701	26,018,866	11,387,054	6,520,142	2,770,793	162,104,646
1931-32 ..	63,556,701	52,864,198	24,015,316	11,581,708	6,017,750	3,163,572	161,199,245

5. *Total Value of Output.*—(i) *Total, 1931-32.* The value of the output of new goods manufactured and of repairs effected in factories of various classes in each State in 1931-32 is shown in the following table. The figures given represent not only the increase in value due to the process of manufacture, but include also the value of the raw materials, and the power, fuel and light used. The difference between the sum of the values of the materials and the fuel and light used, and the total output (see subsection 6 hereof) is the real value of factory production.

TOTAL VALUE OF OUTPUT OF FACTORIES, 1931-32.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of non-metalliferous mine and quarry products ..	1,507,116	1,149,881	205,611	149,366	177,960	198,405	3,388,339
II. Bricks, pottery, glass, etc. ..	1,128,002	761,035	115,281	92,602	123,914	36,600	2,257,434
III. Chemicals, dyes, explosives, paint, oils, and grease ..	9,014,371	5,901,862	508,431	1,522,330	1,183,157	155,471	18,285,622
IV. Industrial metals, machines, implements and conveyances ..	27,729,982	11,410,910	2,682,291	4,544,650	1,474,936	1,670,140	49,512,909
V. Precious metals, jewellery and plate ..	165,110	389,328	29,136	40,357	14,001	4,728	642,660
VI. Textiles and textile goods ..	5,276,383	9,270,428	1,322,181	548,953	206,009	771,992	17,395,946
VII. Skins and leather ..	3,574,978	3,314,377	443,759	189,826	198,126	36,791	7,757,857
VIII. Clothing ..	7,575,103	13,153,939	1,403,706	861,724	785,405	181,554	23,961,431
IX. Food, drink and tobacco ..	36,784,735	32,852,938	24,915,260	7,728,744	4,563,344	1,983,895	108,828,916
X. Woodworking and basketware ..	2,869,959	2,229,107	1,435,388	770,665	683,077	409,020	8,397,216
XI. Furniture, bedding, etc. ..	1,324,399	1,193,938	418,118	228,923	202,336	73,223	3,440,937
XII. Paper, stationery, printing, book-binding, etc. ..	7,202,698	5,883,590	1,737,830	918,800	673,128	281,083	16,697,129
XIII. Rubber ..	1,696,488	2,161,171	166,258	72,515	39,295	182,337	4,318,064
XIV. Musical instruments ..	258,793	100,983	3,116	7,433	6,538	..	376,863
XV. Miscellaneous products ..	976,836	771,323	78,689	114,881	70,141	56,622	2,068,492
XVI. Heat, light and power ..	7,354,554	2,843,807	1,450,118	1,500,601	785,574	381,316	14,315,970
Total ..	114,439,507	93,388,617	36,915,173	19,292,370	11,186,941	6,423,177	281,645,785

(ii) Totals, 1927-28 to 1931-32. The following statement shows the value of output of factories in each State in the five years ended 1931-32 :-

TOTAL VALUE OF OUTPUT OF FACTORIES.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	£	£	£	£	£	£	£
1927-28 ..	181,403,084	128,465,317	46,462,840	35,426,174	16,998,184	8,238,410	476,994,009
1928-29 ..	185,298,575	127,897,463	47,641,536	33,677,368	17,454,430	8,475,916	420,445,288
1929-30 ..	167,250,618	122,811,099	45,085,938	30,312,784	16,891,482	8,560,452	390,912,373
1930-31 ..	118,483,536	93,425,795	40,422,858	19,997,455	12,353,353	6,115,567	290,798,564
1931-32 ..	114,439,507	93,388,617	36,915,173	19,292,370	11,186,941	6,423,177	281,645,785

6. Value of Production.—The value of production for any industry was defined by the Conference of Statisticians at Sydney in 1925, as "the value of consumable commodities produced during the year, deducting, so far as possible, the value of goods consumed in process of production."

In accordance with this definition, a rule was adopted for the valuation of factory production by deducting from the value of the output the cost of raw material, containers, power, fuel, light, lubricants, water, tools replaced, repairs to plant and depreciation. All these, except depreciation, are included in the items "Value of materials used" and "Value of fuel used" as defined above. On account of the difficulty in obtaining accurate figures for depreciation, it was agreed that no deduction should be made on this account until more satisfactory data were available. The value of production as given in the following tables is obtained, therefore, by deducting "Value of materials used" and "Value of fuel used" from the value of the output.

The figure thus calculated is, therefore, not the net value of production. The deduction for depreciation should probably be about 8 per cent. on the capital value, or approximately £18,200,000 in 1931-32. Many miscellaneous expenses, also, such as insurance and advertising, were not taken into account. Hence, it must not be inferred that when wages and salaries are deducted from value of production, the whole of the "surplus" is available for interest and profit.

(i) *Total in Classes, 1931-32.* The following table shows the value of production in 1931-32 in each State for the various classes of factories:—

VALUE OF PRODUCTION, 1931-32.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products ..	671,002	604,754	118,497	87,176	102,963	103,405	1,687,797
II. Bricks, Pottery, Glass, etc. ..	728,688	505,177	82,924	53,399	75,042	20,862	1,466,092
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	4,328,753	2,501,324	221,658	494,120	335,878	39,682	7,921,415
IV. Industrial Metals, Machines, Implements and Conveyances ..	11,397,512	6,370,655	1,685,761	1,778,018	929,436	642,753	22,804,135
V. Precious Metals, Jewellery and Plate ..	111,187	232,119	20,659	24,273	10,786	4,293	403,317
VI. Textiles and Textile Goods ..	2,181,955	3,990,609	170,286	136,839	80,589	368,790	6,929,068
VII. Skins and Leather ..	937,117	1,001,679	139,035	75,332	62,623	12,812	2,228,598
VIII. Clothing ..	3,640,087	5,808,532	745,518	465,136	346,417	99,356	11,105,046
IX. Food, Drink and Tobacco ..	10,454,273	8,925,587	5,567,041	1,715,212	1,384,451	650,448	28,697,012
X. Woodworking and Basketware ..	1,076,131	1,136,047	691,829	271,465	288,085	204,677	3,668,234
XI. Furniture, Bedding, etc. ..	584,004	561,807	220,280	111,467	95,420	42,802	1,615,780
XII. Paper, Stationery, Printing, Book-binding, etc. ..	4,036,132	3,215,276	1,228,866	523,611	427,526	189,535	9,620,946
XIII. Rubber ..	736,302	951,708	68,297	34,382	23,429	54,177	1,868,195
XIV. Musical Instruments ..	108,935	50,075	2,508	4,852	6,295	..	172,665
XV. Miscellaneous Products ..	509,364	393,961	50,754	67,513	36,580	36,110	1,094,282
XVI. Heat, Light and Power ..	5,152,039	1,570,318	1,119,543	1,119,053	399,614	338,681	9,699,248
Total ..	46,653,481	37,819,628	12,133,356	6,961,848	4,605,134	2,808,383	110,981,830

(ii) *Totals and Averages, 1927-28 to 1931-32.* The value of production and the amount per employee and per head of population are shown in the following table for the years specified:—

FACTORIES.—VALUE OF PRODUCTION.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
VALUE.							
	£	£	£	£	£	£	£
1927-28 ..	71,804,512	53,798,265	16,809,873	13,487,671	7,831,563	3,670,888	167,402,772
1928-29 ..	73,627,441	53,025,279	16,752,475	12,568,377	8,093,550	3,556,194	167,623,316
1929-30 ..	66,847,610	51,259,368	16,130,503	10,976,649	7,588,077	3,562,225	156,364,432
1930-31 ..	49,523,773	39,413,968	13,528,662	7,755,112	5,281,111	2,807,497	118,310,123
1931-32 ..	46,653,481	37,819,628	12,133,356	6,961,848	4,605,134	2,808,383	110,981,830
PER EMPLOYEE.(a)							
	£	£	£	£	£	£	£
1927-28 ..	403	344	376	345	384	330	372
1928-29 ..	407	339	372	341	389	340	372
1929-30 ..	410	339	378	341	386	329	373
1930-31 ..	388	313	357	325	361	318	349
1931-32 ..	369	295	339	292	344	312	330
PER HEAD OF POPULATION.							
	£	£	£	£	£	£	£
1927-28 ..	29.92	30.89	18.69	23.43	19.96	17.01	26.85
1928-29 ..	30.11	30.11	18.27	21.69	19.94	16.43	26.45
1929-30 ..	26.98	28.84	17.33	18.92	18.21	16.26	24.38
1930-31 ..	19.81	22.01	14.27	13.32	12.56	12.72	18.27
1931-32 ..	18.53	21.00	12.59	11.90	10.92	12.57	17.01

(a) Including Working Proprietors.

7. Value of Output and Cost of Production.—As the total value of the output for Australia for 1931-32 was estimated at £281,645,785, there remained, after payment of £161,199,245, the value of the materials used, of £55,931,818 for salaries and wages, and of £9,464,710 for fuel, the sum of £55,050,012 to provide for all other expenditure and profits. The following table gives corresponding particulars for each State expressed absolutely, and as percentages on the total value of the output for the year 1931-32 :—

FACTORIES.—VALUE OF OUTPUT AND COST OF PRODUCTION, 1931-32.

State.	Materials Used. (a)	Power, Fuel and Light. (b)	Salaries and Wages.	All other Expenditure, Interest and Profits.	Total value of Output.
VALUE AND COST, ETC.					
	£	£	£	£	£
New South Wales ..	63,556,701	4,229,325	22,751,013	23,902,468	114,439,507
Victoria ..	52,864,198	2,704,791	19,454,045	18,365,583	93,388,617
Queensland..	24,015,316	766,501	6,188,889	5,944,467	36,915,173
South Australia ..	11,581,708	748,814	3,786,056	3,175,792	19,292,370
Western Australia ..	6,017,750	564,057	2,335,684	2,260,450	11,186,941
Tasmania ..	3,163,572	451,222	1,416,131	1,392,252	6,423,177
Australia ..	161,199,245	9,464,710	55,931,818	55,050,012	281,645,785

PERCENTAGE OF COSTS, ETC., ON TOTAL VALUE

	%	%	%	%	%
New South Wales ..	55.54	3.70	19.88	20.88	100.00
Victoria ..	56.60	2.90	20.83	19.67	100.00
Queensland..	65.06	2.08	16.76	16.10	100.00
South Australia ..	60.04	3.88	19.62	16.46	100.00
Western Australia ..	53.79	5.04	20.88	20.29	100.00
Tasmania ..	49.25	7.02	22.05	21.68	100.00
Australia ..	57.23	3.36	19.86	19.55	100.00

(a) Including the value of containers, packing, etc., also the cost of tools replaced and repairs to plant.

(b) Including lubricants and water.

§ 8. Value of Land, Buildings, Plant, and Machinery.

1. General.—For some years prior to 1929-30 the capital value of land, buildings, plant and machinery had increased rapidly, but latterly these values have contracted from £245,695,920 in 1929-30 to £228,119,701 in 1931-32.

The following statement shows the value of land and buildings and of plant and machinery used in connexion with manufacturing industries during the year 1931-32 :—

VALUE OF LAND, BUILDINGS, PLANT, AND MACHINERY, 1931-32.

Value of—	N.S.W.	Victoria.	Q'land.	S.A.	W. Aust.	Tasmania.	Australia.
	£	£	£	£	£	£	£
Land and buildings	46,462,828	34,868,960	8,980,620	8,032,264	5,470,954	2,774,698	106,590,324
Plant and machinery	50,277,992	33,481,615	15,743,919	9,624,637	5,945,468	6,455,746	121,529,377
Total ..	96,740,820	68,350,575	24,724,539	17,656,901	11,416,422	9,230,444	228,119,701

The values recorded in this section are generally the values apportioned in the books of the individual firms. Depreciation on a generous scale has been allowed for in most cases. The totals shown in the table consequently do not represent the actual amount of capital invested in the items specified.

2. Value of Land and Buildings.—(i) *Total, Australia, 1927-28 to 1931-32.* The appended table shows for Australia as a whole the approximate value of land and buildings occupied in connexion with manufacturing industries from 1927-28 to 1931-32 inclusive :—

VALUE OF LAND AND BUILDINGS.—AUSTRALIA.

Class of Industry.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	£	£	£	£	£
I. Treatment of non-metalliferous mine and quarry products ..	2,471,346	2,545,729	2,565,373	2,561,418	2,392,522
II. Bricks, pottery, glass, etc. ..	2,903,116	3,019,723	3,020,979	2,405,960	1,992,755
III. Chemicals, dyes, explosives, paint, oils and grease ..	5,491,497	5,687,978	5,986,996	5,866,714	5,779,483
IV. Industrial metals, machines, implements and conveyances ..	27,346,706	28,293,793	28,957,846	27,679,331	25,582,740
V. Precious metals, jewellery and plate ..	682,038	659,734	658,936	557,662	510,746
VI. Textiles and textile goods	4,653,315	4,879,036	5,065,228	4,884,218	4,739,366
VII. Skins and leather ..	1,879,955	1,862,509	1,936,107	1,873,402	1,778,219
VIII. Clothing ..	12,786,472	13,094,838	12,539,163	10,697,755	9,334,049
IX. Food, drink and tobacco	25,092,521	26,385,520	26,996,483	26,760,444	26,676,269
X. Woodworking and basketware ..	4,623,841	4,633,459	4,514,789	3,866,980	3,601,684
XI. Furniture, bedding, etc.	2,888,080	2,955,609	2,733,336	2,283,528	1,978,384
XII. Paper, stationery, printing, bookbinding, etc.	9,310,538	9,526,079	9,974,734	9,764,623	9,187,481
XIII. Rubber ..	1,612,280	1,878,848	2,250,302	2,213,432	2,078,335
XIV. Musical instruments ..	450,506	466,710	444,875	391,144	313,313
XV. Miscellaneous products ..	689,174	895,617	923,403	1,037,221	1,028,693
XVI. Heat, light and power ..	7,145,008	7,870,879	9,499,679	9,366,777	9,616,285
Total ..	110,026,393	114,656,061	118,068,229	112,210,609	106,590,324

(ii) *Value in each State, 1931-32.* The following table gives similar information for each State for 1931-32 :—

VALUE OF LAND AND BUILDINGS.—STATES, 1931-32.

Class of Industry.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of non-metaliferous mine and quarry products ..	1,132,443	766,277	101,363	140,216	57,748	194,475	2,392,522
II. Bricks, pottery, glass, etc. ..	1,095,142	630,811	77,578	76,757	92,553	19,914	1,992,755
III. Chemicals, dyes, explosives, paint, oils and grease ..	2,278,985	2,273,398	120,440	467,857	542,475	96,328	5,779,483
IV. Industrial metals, machines, implements and conveyances ..	12,626,847	7,171,494	1,476,635	2,348,280	1,284,005	675,479	25,582,740
V. Precious metals, jewellery and plate ..	169,791	239,385	26,721	35,889	21,255	17,705	510,746
VI. Textiles and textile goods ..	1,484,371	2,582,965	170,382	137,034	76,289	288,325	4,739,366
VII. Skins and leather ..	651,096	862,600	77,344	55,523	117,990	13,666	1,778,219
VIII. Clothing ..	3,456,709	4,216,439	507,593	605,397	428,114	119,797	9,334,049
IX. Food, drink and tobacco ..	9,865,424	7,837,884	4,286,119	2,285,560	1,564,892	836,390	26,676,269
X. Woodworking and basketware ..	1,525,447	949,862	433,734	264,487	300,110	128,044	3,601,684
XI. Furniture, bedding, etc. ..	761,334	742,331	174,891	136,304	114,028	49,496	1,978,384
XII. Paper, stationery, printing, book-binding, etc. ..	4,052,336	2,977,402	892,090	685,329	474,517	105,807	9,187,481
XIII. Rubber ..	955,674	804,442	55,184	73,870	47,780	141,385	2,078,335
XIV. Musical instruments ..	191,651	99,849	850	13,113	7,850	..	313,313
XV. Miscellaneous products ..	511,875	323,843	78,931	73,079	32,176	8,789	1,028,693
XVI. Heat, light and power ..	5,793,793	2,389,978	500,765	633,569	309,172	79,098	9,616,285
Total ..	46,462,828	34,868,960	8,980,620	8,032,264	5,470,954	2,774,698	106,590,324

(iii) *Value in each State, 1927-28 to 1931-32.* The total value of factory land and buildings at the end of each year from 1927-28 to 1931-32 is given hereunder.

VALUE OF LAND AND BUILDINGS.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	£	£	£	£	£	£	£
1927-28 ..	49,414,310	34,761,340	9,123,821	8,786,280	5,381,864	2,558,778	110,026,393
1928-29 ..	51,375,003	36,184,460	9,665,239	8,934,405	5,808,539	2,688,415	114,656,061
1929-30 ..	53,785,319	36,988,485	9,690,313	8,937,039	5,670,214	2,996,859	118,068,229
1930-31 ..	49,822,312	36,218,384	9,355,106	8,418,702	5,656,833	2,739,272	112,210,609
1931-32 ..	46,462,828	34,868,960	8,980,620	8,032,264	5,470,954	2,774,698	106,590,324

A decline of £5.6 million on the previous year's figures occurred in 1931-32, the returns for New South Wales showing a loss of nearly £3.4 million and for Victoria a loss of £1.4 million. Prior to 1929-30 the increase in the value of land and buildings was uninterrupted, rising from £23 million in 1903 to £118 million in 1929-30, a growth of £95 million in 27 years. During the past two years, however, there was a decline of £12 million, i.e., to £106.6 million.

3. Value of Plant and Machinery.—(i) *Total, Australia, 1927-28 to 1931-32.* The following table shows for Australia as a whole the approximate value of plant and machinery used in factories in each of the years specified.

VALUE OF PLANT AND MACHINERY.—AUSTRALIA.

Class of Industry.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	£	£	£	£	£
I. Treatment of non-metaliferous mine and quarry products ..	4,996,010	5,029,438	4,926,370	5,959,537	5,773,446
II. Bricks, pottery, glass, etc. ..	3,140,732	3,158,347	3,093,832	2,331,332	1,974,507
III. Chemicals, dyes, explosives, paint, oils and grease ..	5,247,463	5,566,514	5,814,275	5,738,555	5,729,195
IV. Industrial metals, machines, implements and conveyances ..	25,863,988	26,528,636	26,797,812	25,385,254	24,665,290
V. Precious metals, jewellery and plate ..	147,984	136,632	150,733	139,827	139,441
VI. Textiles and textile goods ..	6,184,214	5,986,828	6,181,931	5,935,393	5,638,054
VII. Skins and leather ..	830,170	783,886	902,544	862,012	916,685
VIII. Clothing ..	2,443,769	2,456,949	2,399,668	2,174,238	2,211,284
IX. Food, drink and tobacco ..	27,645,444	28,281,311	28,261,873	28,948,702	28,176,453
X. Woodworking and basketware ..	4,862,571	4,650,821	4,384,656	3,762,029	3,498,591
XI. Furniture, bedding, etc. ..	850,378	895,732	898,333	732,590	672,169
XII. Paper, stationery, printing, bookbinding, etc. ..	8,187,155	8,422,027	8,317,935	7,768,633	7,310,058
XIII. Rubber ..	1,744,011	1,871,976	2,275,808	2,175,851	2,029,401
XIV. Musical instruments ..	197,703	218,124	210,365	189,854	162,496
XV. Miscellaneous products ..	232,547	326,758	349,512	493,597	507,754
XVI. Heat, light and power ..	28,653,676	30,378,809	32,662,044	31,900,293	32,124,553
Total ..	121,227,815	124,692,788	127,627,691	124,497,697	121,529,377

Up to the year 1929-30 there had been a steady and substantial net increase amounting in all to £15 million for the previous four years, or an annual average of £3.8 million. In 1930-31, however, there was a decrease of £3.2 million, and in 1931-32 a further decline of £2.9 million.

(ii) *Value in each State, 1927-28 to 1931-32.* The figures in the previous table refer to Australia as a whole. In the following table results are shown for each State, and until 1929-30 the increase was general throughout the States. During the past two years, however, as pointed out above a total decrease of £6.1 million was recorded, the chief losses being in New South Wales and Victoria.

VALUE OF PLANT AND MACHINERY.—STATES.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
	£	£	£	£	£	£	£
1927-28 ..	50,489,675	32,745,680	16,592,358	9,421,202	5,553,295	6,425,605	121,227,815
1928-29 ..	51,305,710	33,724,910	16,719,349	10,382,257	6,154,115	6,346,447	124,692,788
1929-30 ..	53,515,368	35,022,535	15,723,983	10,286,674	6,112,186	6,966,945	127,627,691
1930-31 ..	50,865,884	34,771,687	16,100,004	10,182,855	6,134,766	6,442,501	124,497,697
1931-32 ..	50,277,992	33,481,615	15,743,919	9,624,637	5,945,468	6,455,746	121,529,377

(iii) *Value according to Industry, 1931-32.* The following table shows the value of plant and machinery used in factories in each State during 1931-32, classified according to industry.

VALUE OF PLANT AND MACHINERY.—INDUSTRIES, 1931-32.

Class of Industry.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of non-metalliferous mine and quarry products ..	3,232,611	1,526,487	189,456	353,342	148,990	322,560	5,773,446
II. Bricks, pottery, glass, etc. ..	1,084,466	585,441	88,623	77,691	106,071	32,215	1,974,507
III. Chemicals, dyes, explosives, paint, oils and grease ..	1,563,441	2,385,089	102,122	826,791	791,983	59,769	5,729,195
IV. Industrial metals, machines, implements and conveyances ..	14,317,792	4,832,200	1,123,693	2,294,971	821,866	1,274,768	24,665,290
V. Precious metals, jewellery and plate ..	49,702	71,669	4,946	9,234	2,259	1,631	139,441
VI. Textiles and textile goods ..	1,758,315	3,059,520	183,141	198,951	111,627	326,500	5,638,054
VII. Skins and leather ..	346,571	447,713	41,580	22,410	51,992	6,419	916,685
VIII. Clothing ..	709,177	1,221,113	115,817	84,091	67,054	14,032	2,211,284
IX. Food, drink and tobacco ..	8,443,282	6,481,984	9,553,129	1,742,707	1,494,333	461,018	28,176,453
X. Woodworking and basketware ..	942,666	857,313	590,666	175,788	736,286	195,872	3,498,591
XI. Furniture, bedding, etc. ..	239,957	210,326	87,218	69,461	43,954	21,253	672,169
XII. Paper, stationery, printing, book-binding, etc. ..	3,127,494	2,522,244	633,086	572,943	345,288	109,003	7,310,058
XIII. Rubber ..	821,567	1,000,460	15,907	13,640	11,674	106,153	2,029,401
XIV. Musical instruments ..	121,802	34,587	128	5,018	961	..	162,496
XV. Miscellaneous products ..	222,077	237,099	13,434	14,009	14,701	6,434	507,754
XVI. Heat, light and power ..	13,297,072	8,008,370	3,000,973	3,163,590	1,196,429	3,458,119	32,124,553
Total ..	50,277,992	33,481,615	15,743,919	9,624,637	5,945,468	6,455,746	121,529,377

§ 9. Individual Industries.

I. *General.*—The preceding pages afford a general view of the development of industries in the sixteen groups adopted by the Conference of Statisticians in 1930. While it is not possible, within the limits of this work, to give a detailed account in respect of all industries, particular industries which are of special importance by reason of the number of persons employed, the number of factories, the amount of capital invested therein, the value of the production, or other features of special interest, are dealt with hereunder. In cases where there are only one or two establishments of a particular class in any State, returns of output are not published, in order to avoid disclosing information as to the operations of individual concerns.

Reference has already been made to the change in method of computing the average number of persons employed in manufacturing industries. (See § 4 *ante*.) In the following tables relating to individual industries the number of employees shown in each case for the years 1928-29 onward have been computed by the new method, while those for the year 1927-28 are on the old basis and therefore somewhat in excess of the average for the twelve months.

2. Tanning, Currying and Leather Dressing.—(i) *Details for each State, 1931-32.* In Class VII. the most important industry is tanning. Formerly the production of tanneries in Australia was confined to the coarser class of leathers, but there are now very few kinds which cannot be produced locally, and an export trade has been built up in some varieties.

TANNING, CURRYING, AND LEATHER DRESSING, 1931-32.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W.A.	Tas.	Australia.
Number of factories	65	50	15	8	7	2	146
Number of employees	1,192	1,626	284	117	66	40	3,336
Actual horse-power of engines used ..	3,119	3,775	617	304	(a)	(a) b	8,312
Approx. value of land and buildings £	245,214	421,535	31,801	20,126	(a)	(a) b	763,950
Approx. value of plant and machinery £	160,276	282,716	27,536	16,347	(a)	(a) b	519,579
Wages paid	£ 234,633	£ 293,433	£ 42,303	£ 19,402	(a)	(a) b	609,305
Value of fuel used	£ 26,434	£ 39,933	£ 4,629	£ 1,830	(a)	(a) b	74,653
Value of materials used	£ 961,368	£ 1,112,671	£ 169,890	£ 44,654	(a)	(a) b	2,359,842
Total value of output	£ 1,422,301	£ 1,669,760	£ 232,369	£ 71,852	(a)	(a) b	3,509,078
Value of production	£ 434,499	£ 518,056	£ 57,850	£ 25,368	(a)	(a) b	1,074,583

(a) Particulars not available for publication.

(b) Including Western Australia and Tasmania.

(ii) *Development in Australia, 1927-28 to 1931-32.* The development of the tanning industry during the years stated is shown in the following table:—

TANNING, CURRYING AND LEATHER DRESSING.—AUSTRALIA.

Items.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
Number of factories	142	142	143	148	146
Number of employees	3,607	(a) 3,688	(a) 3,572	(a) 2,885	(a) 3,336
Actual horse-power of engines used ..	8,041	8,379	8,224	7,948	8,312
Approx. value of land and buildings £	835,376	835,135	824,415	804,063	763,950
Approx. value of plant and machinery £	669,575	628,295	603,083	545,250	519,579
Wages paid	£ 825,841	£ 828,078	£ 812,772	£ 595,155	£ 609,305
Value of fuel used	£ 87,748	£ 82,788	£ 81,660	£ 68,733	£ 74,653
Value of materials used	£ 3,835,412	£ 4,027,700	£ 3,071,761	£ 2,132,437	£ 2,359,842
Total value of output	£ 5,435,810	£ 5,593,756	£ 4,467,175	£ 3,183,138	£ 3,509,078
Value of production	£ 1,512,650	£ 1,483,268	£ 1,313,754	£ 981,968	£ 1,074,583

(a) See § 9. i.

A slight improvement is recorded for the year 1931-32 as compared with 1930-31. The number employed increased by 450, and the value of output and production also showed a small advance.

(iii) *Raw Material Used and Production, 1931-32.* The quantities of raw material used and leather produced in tanneries in each State are shown in the following table:—

TANNERIES.—RAW MATERIAL USED AND PRODUCTION, 1931-32.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Hides .. No.	449,931	725,847	96,161	39,117	35,879	8,320	1,355,255
Skins—							
Calf	481,424	375,424	99,935	962	368	..	958,113
Goat	363,764	301,052	26,876	409	461	..	692,592
Sheep	1,702,052	411,420	154,803	115,742	3,505	18,500	2,406,082
Marsupial .. ..	..	52,320	20,435	1,455	8,387	4,300	86,897
Reptile	7,140	9,576	4	..	..	..	16,720
Other	1,927,621	298,298	375	538	..	..	2,226,832
Bark used—							
Wattle .. ton	9,119	8,058	1,641	668	196	240	19,922
Other	146	2,120	98	88	411	..	2,863
Tanning extract used lb.	1,464,650	876,067	(a)	162,176	605,131	(a) b	3,108,024
Leather made—							
Sole	9,180,632	11,465,893	2,003,782	933,903	998,579	366,080	24,948,869
Harness	659,135	520,341	387,862	112,629	65,537	..	1,745,504
Upholstery .. sq. ft.	..	1,019,842	..	9,415	..	..	1,029,257
Patent and other ..	6,094,406	9,578,412	862,040	234,373	102,100	..	16,871,531
Waxed kip and other lb.	46,636	364,964	198,223	91,806	35,720	..	737,349
Dressed from skins—							
Calf .. sq. ft.	3,865,207	3,490,856	694,703	2,763	2,227	..	8,055,756
Goat	1,389,775	1,226,867	(a)	646	2,300	..	2,619,588
Sheep	6,894,512	2,413,609	201,880	(a)	8,200	..	9,518,201
Marsupial .. No.	..	(c) 171,920	39,061	..	6,320	..	(b)

(a) Not available.

(b) Incomplete.

(c) Square feet.

3. Soap and Candle Factories.—(i) *Details for each State, 1931-32.* The manufacture of these products is frequently carried on in the same factory, so that separate returns cannot be obtained; the manufacture of soap is, however, the more important. The following table gives particulars of soap and candle factories in each State for the year 1931-32 :—

SOAP AND CANDLE FACTORIES, 1931-32.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W.A.	Tas.	Australia.
Number of factories	26	21	10	5	4	2	68
Number of employees	986	683	180	170	56	31	2,106
Actual horse-power of engines used ..	1,242	618	192	409	(a)	(a) b	2,579
Approx. value of land and buildings ..	£ 320,188	£ 197,183	£ 39,924	£ 85,455	(a)	(a) b	£ 667,948
Approx. value of plant and machinery ..	£ 269,894	£ 227,535	£ 27,753	£ 73,251	(a)	(a) b	£ 617,932
Wages paid	£ 196,924	£ 112,574	£ 26,292	£ 30,515	(a)	(a) b	£ 384,410
Value of fuel used	£ 28,636	£ 34,385	£ 2,484	£ 3,671	(a)	(a) b	£ 72,439
Value of materials used	£ 708,624	£ 505,136	£ 86,907	£ 103,011	(a)	(a) b	£ 1,436,457
Total value of output	£ 1,355,089	£ 1,038,525	£ 197,771	£ 166,587	(a)	(a) b	£ 2,875,670
Value of production	£ 617,829	£ 499,004	£ 108,380	£ 59,905	(a)	(a) b	£ 1,316,774

(a) Particulars not available for publication. (b) Including Western Australia and Tasmania.

(ii) *Development in Australia, 1927-28 to 1931-32.* The next table gives similar particulars for the last five years as regards Australia as a whole :—

SOAP AND CANDLE FACTORIES.—AUSTRALIA.

Items.	1927-28.a	1928-29.a	1929-30.a	1930-31.c	1931-32.
Number of factories	66	67	62	56	68
Number of employees	2,362	(b) 2,333	(b) 2,148	(b) 1,985	(b) 2,106
Actual horse-power and engines used ..	3,084	3,550	2,595	2,202	2,579
Approx. value of land and buildings ..	£ 743,823	£ 701,125	£ 681,818	£ 650,000	£ 667,948
Approx. value of plant and machinery ..	£ 689,718	£ 718,611	£ 654,647	£ 604,767	£ 617,932
Wages paid	£ 473,550	£ 489,341	£ 426,608	£ 388,558	£ 384,410
Value of fuel used	£ 98,745	£ 100,555	£ 82,239	£ 71,395	£ 72,439
Value of materials used	£ 1,988,098	£ 2,133,004	£ 1,797,688	£ 1,448,411	£ 1,486,457
Total value of output	£ 3,452,912	£ 3,661,958	£ 3,143,838	£ 2,768,214	£ 2,875,670
Value of production	£ 1,366,069	£ 1,428,399	£ 1,263,911	£ 1,248,408	£ 1,316,774

(a) Including other small establishments in Western Australia. (b) See § 9. i.
(c) Excluding Western Australia.

(iii) *Raw Material Used and Production, 1927-28 to 1931-32.* The following statement shows the quantities of certain raw material used and the production in soap and candle factories in Australia for the years specified :—

SOAP AND CANDLE FACTORIES.—RAW MATERIAL USED, AND PRODUCTION, AUSTRALIA.

Particulars.	1927-28.a	1928-29.	1929-30.	1930-31.	1931-32.
Tallow used cwt.	502,903	548,112	491,603	467,446	503,501
Alkali used "	204,003	226,156	219,648	187,408	249,858
Coconut oil used gal.	807,941	1,012,246	920,531	905,234	959,817
Soap made cwt.	1,020,192	1,130,947	1,026,373	976,771	964,476
Candles made "	66,091	70,526	49,812	51,582	55,110

(a) Exclusive of Western Australia.

The output for the year 1931-32 comprised the following quantities of soap :— Household, 780,545 cwt. ; toilet, 96,336 cwt. ; sand, 70,756 cwt. ; soft, 10,757 cwt. ; and other, 6,082 cwt.

4. Saw-mills, etc.—(i) *Details for States, 1931-32.* The most important industry in Class X. is that of saw-milling. As separate particulars of forest saw-mills are not available for some of the States, both forest and other saw-mills, as well as plywood and bark mills, have been combined in the following table :—

SAW-MILLS, FOREST AND OTHER ; PLYWOOD AND BARK MILLS, 1931-32.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	352	260	215	34	83	208	1,161
Number of employees ..	1,585	2,265	2,458	501	886	643	8,338
Actual horse-power of engines <i> </i> used	12,520	8,434	9,129	1,787	6,121	3,566	42,557
Approximate value of land <i> </i> and buildings ..	£ 709,456	446,492	307,025	152,072	233,861	53,461	1,902,367
Approximate value of plant <i> </i> and machinery ..	£ 572,246	571,323	509,600	108,153	700,425	150,027	2,611,864
Wages paid	£ 283,982	367,793	366,799	88,685	170,104	80,988	1,358,351
Value of fuel used ..	£ 25,289	21,060	20,567	4,528	13,629	10,500	95,573
Value of materials used	£ 911,449	468,339	569,381	269,488	309,100	124,138	2,651,895
Total value of output	£ 1,392,363	1,072,678	1,110,373	421,591	555,258	268,294	4,820,557
Value of production	£ 455,625	583,279	520,425	147,575	232,529	133,656	2,073,089

(ii) *Development in Australia, 1927-28 to 1931-32.* The development of forest and other saw-mills, etc., since 1927-28 is shown in the following table. Joinery works have been excluded in the last two years.

SAW-MILLS, FOREST AND OTHER.—AUSTRALIA.

Items.	1927-28. (b)	1928-29. (b)	1929-30. (b)	1930-31.	1931-32.
Number of establishments	2,168	2,164	2,109	1,160	1,161
Number of employees	27,399	(a) 24,975	(a) 20,957	(a) 9,079	(a) 8,338
Actual horse-power of engines used ..	69,912	68,330	69,301	44,024	42,557
Approx. value of land and buildings	£ 3,878,828	3,877,292	3,802,885	1,989,580	1,902,367
Approx. value of plant and machinery	£ 4,428,949	4,184,260	3,950,279	2,824,431	2,611,864
Wages paid	£ 5,571,162	5,017,539	4,477,491	1,675,640	1,358,351
Value of fuel used	£ 221,108	204,033	202,329	99,321	95,573
Value of materials used	£ 10,751,059	10,139,429	8,471,366	2,935,028	2,651,895
Total value of output	£ 19,705,157	18,178,153	15,605,706	5,512,150	4,820,557
Value of production	£ 8,732,990	7,834,691	6,932,011	2,457,801	2,073,089

(a) See § 9. 1.

(b) Including joinery works.

The effect of the depression is reflected in the decreases in the returns for the last four years. The saw-mill output of native timber declined from 740 million super. feet in 1925-26 to 485 million super. feet in 1929-30 to 267 million super. feet in 1930-31 and 237 million super. feet in 1931-32. Further reference is made to the saw-milling industry in Chapter XX.—Forestry.

5. **Agricultural Implement Works.**—(i) *General.* The manufacture of agricultural implements is of particular interest, owing to the fact that it was one of the first to which it was sought to apply the so-called "New Protection." The articles manufactured include stripper-harvesters, header harvesters or reaper threshers, strippers, reapers and binders, stump-jump and other ploughs, harrows, disc and other cultivators, winnowers, corn-shellers and baggers, drills, kerosene and petrol engines, and other implements employed in agriculture. The stripper harvester, which combines the stripper with a mechanism for winnowing and bagging grain, is an Australian invention, and is universally employed in the wheat-growing areas.

(ii) *Details for States, 1931-32.* The following table gives details respecting agricultural implement works in each State for the year 1931-32:—

AGRICULTURAL IMPLEMENT WORKS, 1931-32.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories	26	71	5	31	6	..	139
Number of employees	326	1,627	201	410	70	..	2,634
Actual horse-power of engines used	419	2,378	22	1,058	217	..	4,094
Approx. value of land and buildings £	111,672	291,190	41,899	145,540	42,670	..	632,971
Approx. value of plant and machinery £	54,826	293,370	13,656	181,613	27,812	..	571,277
Wages paid	£ 66,652	274,973	30,993	54,015	14,409	..	441,102
Value of fuel used	£ 3,603	25,817	3,315	5,414	632	..	38,781
Value of materials used	£ 77,067	302,501	53,118	66,063	7,325	..	506,074
Total value of output	£ 167,069	707,159	102,862	145,337	24,422	..	1,146,849
Value of production	£ 86,399	378,841	46,429	73,860	16,405	..	601,994

(iii) *Development in Australia, 1927-28 to 1931-32.* This industry declined considerably during the war years, but great progress was made thereafter. The fall in world prices of agricultural products resulted, however, in a considerable slackening in employment and output during the past three years as compared with 1927-28. Details for the last five years are as follow:—

AGRICULTURAL IMPLEMENT WORKS.—AUSTRALIA.

Items.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
Number of factories	157	150	148	148	139
Number of employees	5,729	(a) 5,480	(a) 4,463	(a) 3,043	(a) 2,634
Actual horse-power of engines used	6,355	4,808	4,737	4,349	4,094
Approx. value of land and buildings £	789,966	771,805	756,954	694,049	632,971
Approx. value of plant and machinery £	682,270	662,119	640,800	602,018	571,277
Wages paid	£ 1,291,330	1,227,720	985,369	607,421	441,102
Value of fuel used	£ 87,996	77,642	68,320	44,280	38,781
Value of materials used	£ 1,335,986	1,266,128	919,842	596,002	506,074
Total value of output	£ 3,303,557	3,167,332	2,397,562	1,473,173	1,146,849
Value of production	£ 1,879,575	1,823,562	1,409,400	832,891	601,994

(a) See § 9. 1.

6. **Engineering Works.**—Formerly, it was impossible to show separate details for the engineering industry owing to the limited classification adopted by some of the States, but since 1926–27 these particulars have been obtained, and with one or two duplications of minor importance, the following figures may be considered as representative of the engineering industry excepting the marine and electrical branches.

ENGINEERING WORKS, (a) 1931–32.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	256	301	43	50	83	19	752
Number of employees ..	3,903	3,918	956	613	582	158	10,130
Actual horse-power of engines used ..	7,626	7,146	2,677	1,112	1,755	330	20,646
Approximate value of land and buildings ..	£ 1,308,593	1,209,814	181,495	106,245	208,659	46,135	3,060,941
Approximate value of plant and machinery ..	£ 1,141,733	1,219,621	247,304	146,502	186,045	38,768	2,979,973
Wages paid ..	734,523	745,649	157,957	78,127	113,888	23,147	1,853,291
Value of fuel used ..	£ 43,702	51,735	10,293	8,212	14,770	3,469	132,181
Value of materials used ..	£ 640,386	771,727	162,433	82,084	129,267	13,444	1,799,341
Total value of output ..	£ 1,677,662	1,941,453	480,830	212,229	328,234	51,084	4,691,492
Value of production ..	£ 993,574	1,117,991	308,104	121,933	184,197	34,171	2,759,970

(a) Excluding marine and electrical.

In addition to engineering works which supply ordinary requirements, many establishments manufacture special classes of machinery and implements. The manufacture of mining, smelting, and textile machinery and apparatus forms an important section of this industry.

7. **Smelting, Converting, Refining, and Rolling of Iron and Steel.**—The extension of the classification noted in the preceding sub-section has made possible the separate publication of details for the group of industries comprised herein. This grouping includes ironworks, foundries, the making of iron safes and doors, steel castings, iron bedsteads, sash weights, steel window frames and sashes, nuts and bolts, springs, horse-shoes, screws, lifts, tools, brickmakers' implements, and oxy-acetylene welding. Particulars for the year 1931–32 are as follow:—

SMELTING, CONVERTING, REFINING, AND ROLLING OF IRON AND STEEL, 1931–32.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	150	188	24	27	..	..	389
Number of employees ..	4,369	2,593	313	649	..	..	7,924
Actual horse-power of engines used ..	74,346	8,746	856	1,339	..	..	85,287
Approximate value of land and buildings ..	£ 1,989,034	616,660	55,594	106,912	..	..	2,768,200
Approximate value of plant and machinery ..	£ 5,365,216	636,763	111,985	64,383	..	..	6,178,347
Wages paid ..	£ 996,720	413,004	55,878	91,009	..	..	1,556,611
Value of fuel used ..	£ 599,864	60,975	7,072	9,286	..	..	677,197
Value of materials used ..	£ 4,897,804	471,018	68,350	92,553	..	..	5,529,725
Total value of output ..	£ 7,351,569	1,186,612	138,592	212,611	..	..	8,889,384
Value of production ..	£ 1,853,901	654,619	63,170	110,772	..	..	2,682,462

8. Railway and Tramway Workshops.—(i) *Details for each State, 1931-32.* The railway and tramway workshops which form an important item in Class IV. are chiefly State-owned institutions. The following table giving details concerning them includes, in addition, municipal establishments for manufacturing and repairing rolling-stock. Private institutions to the number of 7 in 1931-32, have, however, been excluded.

TRAMCARS, RAILWAY ROLLING-STOCK AND CARRIAGES, ETC.,(a) 1931-32.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	35	22	12	14	20	5	108
Number of employees ..	11,966	4,976	2,784	2,542	1,457	292	24,017
Actual horse-power of engines used ..	14,791	5,120	4,992	4,303	4,483	361	34,050
Approximate value of land and buildings ..	£ 2,585,969	£ 1,484,113	£ 585,306	£ 874,319	£ 479,938	£ 17,733	£ 6,027,378
Approximate value of plant and machinery ..	£ 2,209,244	£ 1,144,324	£ 394,423	£ 707,883	£ 395,037	£ 88,233	£ 4,939,144
Wages paid ..	£ 2,721,883	£ 1,015,174	£ 529,652	£ 463,897	£ 303,695	£ 60,872	£ 5,095,173
Value of fuel used ..	£ 91,148	£ 71,666	£ 14,833	£ 21,791	£ 14,948	£ 4,389	£ 218,795
Value of materials used ..	£ 1,608,929	£ 1,082,359	£ 263,806	£ 351,029	£ 146,502	£ 23,582	£ 3,476,207
Total value of output ..	£ 4,864,126	£ 2,494,578	£ 889,142	£ 920,380	£ 531,022	£ 83,584	£ 9,782,841
Value of production ..	£ 3,164,049	£ 1,340,553	£ 610,483	£ 547,569	£ 369,572	£ 55,613	£ 6,087,839

(a) Government and Municipal.

A railway workshop in the Northern Territory is chiefly engaged in making repairs to rolling-stock, etc., no new goods being manufactured. Particulars in regard to this establishment are not included in any of the tables in this chapter.

(ii) *Development in Australia, 1927-28 to 1931-32.* The following table shows the development of railway and tramway workshops in Australia since 1927-28 :—

**TRAMCARS, RAILWAY ROLLING-STOCK AND CARRIAGES, ETC.—
AUSTRALIA.**

Items.	1927-28.	1928-29.	1929-30.	1930-31. (b)	1931-32. (b)
Number of factories ..	.. 122	.. 122	.. 120	.. 112	.. 108
Number of employees ..	.. 31,315	(a) 31,658	(a) 29,339	(a) 26,055	(a) 24,017
Actual horse-power of engines used ..	.. 31,810	.. 32,346	.. 31,600	.. 31,952	.. 34,050
Approx. value of land and buildings ..	£ 5,345,963	£ 5,836,151	£ 6,230,511	£ 6,393,435	£ 6,027,378
Approx. value of plant and machinery ..	£ 5,338,210	£ 5,726,039	£ 5,872,138	£ 5,329,478	£ 4,939,144
Wages paid ..	£ 7,967,515	£ 8,058,200	£ 7,599,005	£ 6,033,954	£ 5,095,173
Value of fuel used ..	£ 294,913	£ 322,936	£ 295,415	£ 239,782	£ 218,795
Value of materials used ..	£ 6,319,442	£ 6,667,634	£ 5,709,328	£ 3,930,683	£ 3,476,207
Total value of output ..	£ 16,338,583	£ 17,072,699	£ 15,615,590	£ 11,626,861	£ 9,782,841
Value of production ..	£ 9,724,228	£ 10,082,129	£ 9,610,847	£ 7,456,996	£ 6,087,839

(a) See § 9. 1.

(b) Government and Municipal only.

Up to recent years the growth of the railway and tramway systems, conjointly with heavy increases in passenger and goods traffic throughout Australia, resulted in corresponding activity in workshops engaged in the manufacture or repair of rolling-stock, etc. During the five years prior to 1929-30, the number of employees increased by more than 5,000, and the output rose from £12,384,177 to £17,072,699, but since that year there has been a decrease of over 5,000 employees, with a consequent heavy fall in output.

9. **Extracting and Refining of Other Metals and Alloys.**—The following table gives particulars of metal extraction and ore reduction works, other than those connected with iron and steel. The classification of these works is not uniform throughout the States, and the tabulation is, therefore, somewhat unsatisfactory. The returns do not include particulars of plants used on mines.

EXTRACTING AND REFINING OF OTHER METALS AND ALLOYS, 1931-32.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W.A. (a)	Tas.	Australia.
Number of factories	0	5	8	1	..	2	25
Number of employees	618	39	145	918	..	994	2,714
Actual horse-power of engines used	7,896	53	989	(b)	..	(b)	c 51,550
Approx. value of land and buildings £	205,812	14,805	4,291	(b)	..	(b)	c 690,855
Approx. value of plant and machinery £	523,795	7,104	80,664	(b)	..	(b)	c 2,304,421
Wages paid	£ 168,115	6,137	35,229	(b)	..	(b)	c 708,511
Value of fuel used	£ 155,432	1,823	7,193	(b)	..	(b)	c 608,815
Value of materials used	£ 2,916,245	113,571	112,040	(b)	..	(b)	c 5,301,684
Total value of output	£ 3,598,072	129,467	136,127	(b)	..	(b)	c 7,324,786
Value of production	£ 526,395	14,073	16,894	(b)	..	(b)	c 1,414,287

(a) In Western Australia all the plants are worked on the mines, and are therefore not included.
 (b) Information not available for publication. (c) Including South Australia and Tasmania.

10. **Bacon-curing Factories.**—(i) *Details for each State, 1931-32.* The table hereunder gives particulars of factories engaged in bacon-curing in each State for the year 1931-32 :—

BACON-CURING FACTORIES, 1931-32.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories	22	20	8	9	7	7	73
Number of employees	286	501	526	204	62	41	1,620
Actual horse-power of engines used	1,027	2,160	1,523	506	272	135	5,623
Approximate value of land and buildings	£ 124,681	235,050	177,655	65,206	25,887	12,554	641,033
Approximate value of plant and machinery	£ 44,360	119,190	97,924	28,674	10,198	7,185	307,531
Wages paid	£ 83,666	107,643	115,516	39,520	13,575	6,329	366,249
Value of fuel used	£ 12,804	20,640	17,349	4,898	2,788	2,433	60,912
Value of materials used	£ 593,553	601,181	612,336	248,761	109,454	37,471	2,202,756
Total value of output	£ 748,059	848,367	947,895	328,416	136,579	53,589	3,062,905
Value of production	£ 141,702	226,546	318,210	74,737	24,337	13,685	799,237

(ii) *Quantity and Value of Production.* The number of pigs killed and the quantity and value of the production of bacon-curing factories in each State for the year 1931-32 are given hereunder :—

BACON-CURING FACTORIES.—PIGS KILLED, AND PRODUCTION, 1931-32.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
PIGS KILLED.							
Number	224,811	198,212	254,952	75,364	36,624	34,371	824,334
PRODUCTS.							
Bacon and ham .. lb.	19,442,931	16,833,907	19,639,692	46,408,730	43,240,306	1,160,630	66,726,196
Lard	470,669	853,108	1,083,818	267,208	115,480	69,651	2,859,934
VALUE.							
Bacon and ham .. £	650,420	625,020	649,585	227,461	118,642	43,447	2,314,575
Lard	11,283	21,880	23,303	5,648	2,857	2,514	67,485
Other products .. £	77,856	107,896	275,007	95,307	14,830	7,628	578,524

(a) A portion of the bacon and ham treated was imported or purchased.

Bacon and ham and other pig products are dealt with more fully in Chapter XIX., *Farmyard, Dairy, and Bee Products.*

11. **Butter, Cheese, and Condensed Milk Factories.**—(i) *Details for each State, 1931-32.* The subjoined table gives particulars of butter, cheese and condensed milk factories in each State during the year 1931-32:—

BUTTER, CHEESE, AND CONDENSED MILK FACTORIES, 1931-32.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.A.	Tas.	Australia.
Number of factories	136	169	116	42	14	36	513
Number of employees	1,340	2,346	1,134	346	143	179	5,488
Actual horse-power of engines used	10,289	7,805	8,843	1,014	610	570	29,131
Approximate value of land and buildings £	693,527	1,019,348	541,512	167,907	74,103	48,848	2,545,245
Approximate value of plant and machinery £	823,159	986,617	687,438	103,262	60,644	54,609	2,715,729
Wages paid	338,987	509,885	239,284	57,737	28,533	27,783	1,202,209
Value of fuel used	87,035	139,411	48,016	14,725	7,194	7,166	303,547
Value of materials used	6,158,755	7,049,057	5,103,815	837,303	414,831	357,055	19,920,816
Total value of output	6,879,772	8,353,481	5,530,891	975,523	550,043	447,910	22,743,620
Value of production	633,982	1,165,013	385,060	123,495	128,018	83,689	2,519,257

(ii) *Development in Australia, 1927-28 to 1931-32.* The progress of this industry during the last five years is set out hereunder:—

BUTTER, CHEESE, AND CONDENSED MILK FACTORIES.—AUSTRALIA.

Items.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
Number of factories	563	523	509	506	513
Number of employees	5,520	(a) 5,441	(a) 5,276	(a) 5,129	(a) 5,488
Actual horse-power of engines used	22,668	24,219	25,223	26,843	29,131
Approx. value of land and buildings	2,392,225	2,366,789	2,538,589	2,530,861	2,545,245
Approx. value of plant and machinery	£ 2,604,018	2,598,702	2,735,185	2,766,227	2,715,729
Wages paid	£ 1,298,540	1,289,000	1,291,259	1,228,100	1,202,209
Value of fuel used	£ 342,404	334,556	355,811	328,229	303,547
Value of materials used	£ 20,529,240	22,623,740	21,791,835	19,925,013	19,920,816
Total value of output	£ 24,788,248	26,365,690	25,153,846	23,200,709	22,743,620
Value of production	£ 3,916,604	3,407,394	3,006,200	2,947,467	2,519,257

(a) See § 9. 1.

(iii) *Quantity and Value of Production.* The next table shows the quantity and value of butter, cheese, and condensed milk produced, and the quantity of milk used in butter, cheese, and condensed milk factories in each State for the year 1931-32 :—

BUTTER, CHEESE AND CONDENSED MILK FACTORIES.—PRODUCTION, 1931-32.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
MILK USED (,000 OMITTED).							
Butter factories .. gals.	250,358	289,571	201,267	27,104	16,372	17,741	802,413
Cheese factories .. "	6,939	7,423	11,008	4,752	..	885	31,007
Condensed milk factories .. "	(a)	7,995	(a)	(a)	(a)	..	(b) 7,995

PRODUCTS (,000 OMITTED).							
Butter lb.	118,448	127,982	95,051	13,829	8,348	7,016	370,674
Cheese "	6,477	7,657	11,016	5,095	..	875	31,120
Condensed and concentrated milk lb.	(a)	29,877	(a)	..	(a)	..	(b) 29,877
Powdered milk .. "	..	11,532	..	..	..	..	(b) 11,532

VALUE (,000 OMITTED).							
Butter £	6,347	6,914	5,197	798	536	418	20,210
Cheese £	234	317	338	155	..	27	1,071
Condensed and concentrated milk £	(a)	648	(a)	..	(a)	..	(b) 648
Powdered milk .. £	..	311	..	..	..	..	(b) 311

(a) Information not available for publication.

(b) Victoria only.

The butter, cheese, and condensed milk industries are dealt with more fully in the Chapter entitled "Farmyard, Dairy, and Bee Products."

12. *Meat and Fish Preserving Works.*—These industries are now of considerable importance. Works have been established at some of the seaports for the purpose of freezing produce chiefly for export, while insulated space for the carriage of frozen produce is provided by steamship companies trading between Australia and other parts of the world.

MEAT AND FISH PRESERVING WORKS,(c) 1931-32.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories	9	21	8	1	3	4	46
Number of employees	306	1,015	1,279	2	224	8	2,834
Actual horse-power of engines used	296	4,287	7,634	(a)	690	(a)	b 12,918
Approximate value of land and buildings £	61,080	621,955	1,185,829	(a)	368,380	(a)	b2,240,131
Approximate value of plant and machinery £	23,264	364,785	672,119	(a)	383,319	(a)	b1,446,476
Wages paid £	59,948	181,582	372,142	(a)	52,196	(a)	b 666,974
Value of fuel used £	8,386	40,855	66,051	(a)	7,949	(a)	b 123,546
Value of materials used £	167,855	1,607,178	1,830,357	(a)	89,398	(a)	b3,697,362
Total value of output £	273,578	2,073,402	2,271,823	(a)	198,901	(a)	b4,822,412
Value of production £	97,337	425,369	375,415	(a)	101,554	(a)	b1,001,504

(a) Not available for publication.
meat extracts.

(b) Including South Australia and Tasmania.

(c) Including

Particulars regarding the quantities and values of beef, mutton, and lamb preserved by cold process, exported from Australia over a series of years, will be found in Chapter XVII., *Pastoral Production*.

13. Bakeries.—Information regarding establishments in which the manufacture of bread, cakes, etc., was carried on in the year 1931–32 is given in the table below.

BAKERIES (INCLUDING CAKES AND PASTRY), 1931–32.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas. (a)	Australia.
Number of factories	406	482	227	105	83	53	1,356
Number of employees	2,860	2,839	1,525	702	380	732	9,038
Actual horse-power of engines used	2,853	1,909	848	670	437	643	7,360
Approximate value of land and buildings	£ 1,558,426	1,030,860	365,712	254,655	142,986	301,691	3,654,330
Approximate value of plant and machinery	£ 497,307	377,371	159,206	86,528	40,372	66,884	1,227,668
Wages paid	£ 582,864	446,127	230,837	106,476	59,616	107,046	1,532,966
Value of fuel used	£ 90,707	82,256	28,426	16,734	8,918	15,347	242,388
Value of materials used	£ 1,650,919	1,415,935	640,096	324,810	175,258	237,205	4,442,283
Total value of output	£ 2,783,356	2,475,992	1,243,078	533,651	309,861	423,101	7,769,639
Value of production	£ 1,041,730	977,801	575,156	192,107	127,685	170,489	3,081,968

(a) Includes Biscuits and Confectionery.

14. Jam and Fruit Preserving, Pickles, Sauces, and Vinegar Factories.—(i) *Details for each State, 1931–32.* The subjoined table gives particulars of factories included in this class for the year 1931–32.

JAM AND FRUIT PRESERVING, PICKLES, ETC., FACTORIES, 1931–32.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories	36	43	12	15	8	7	121
Number of employees	931	1,751	608	406	49	355	4,130
Actual horse-power of engines used	1,727	2,097	212	328	82	1,265	5,711
Approximate value of land and buildings	£ 301,104	465,558	40,790	110,504	18,772	101,183	1,037,911
Approximate value of plant and machinery	£ 130,301	280,660	28,343	63,702	5,460	30,596	548,062
Wages paid	£ 149,652	265,190	52,838	53,016	5,501	91,715	617,912
Value of fuel used	£ 17,558	26,937	2,889	5,892	574	7,982	61,832
Value of materials used	£ 585,143	1,279,112	294,099	239,476	32,938	354,901	2,785,669
Total value of output	£ 975,203	1,958,124	371,107	346,077	44,901	515,576	4,210,988
Value of production	£ 372,502	652,075	74,119	100,709	11,389	152,693	1,363,487

(ii) *Development in Australia, 1927–28 to 1931–32.* Particulars in connexion with these establishments in Australia for the last five years are given hereunder.

JAM AND FRUIT PRESERVING, PICKLES, ETC., FACTORIES.—AUSTRALIA.

Items.	1927–28.	1928–29.	1929–30.	1930–31.	1931–32.
Number of factories	167	121	121	111	121
Number of employees	6,627	(a) 5,478	(a) 4,780	(a) 3,803	(a) 4,130
Actual horse-power of engines used	5,215	5,198	6,101	5,308	5,711
Approx. value of land and buildings	£ 1,177,963	1,058,445	1,064,661	984,464	1,037,911
Approx. value of plant and machinery	£ 748,888	601,229	567,833	546,362	548,062
Wages paid	£ 1,049,136	869,144	873,508	627,209	617,912
Value of fuel used	£ 92,373	78,422	83,634	61,588	61,832
Value of materials used	£ 3,703,161	3,030,762	3,290,268	2,354,034	2,785,669
Total value of output	£ 5,967,876	5,054,595	5,178,438	3,686,333	4,210,988
Value of production	£ 2,172,342	1,945,411	1,804,536	1,270,711	1,363,487

(a) See § 9. i.

The progress of the jam-making industry was very marked during the war years, when large quantities were exported overseas for the supply of army requirements. With the loss of this trade on the termination of the war, production declined considerably, and in 1931-32 amounted to only 81,903,647 lb., compared with 142,290,204 in 1918-19. The output of preserved fruit has greatly increased, and in 1931-32, 59,249,535 lb. were processed. The production of pickles and sauces, however, showed a further decline.

(iii) *Production.* The following table shows the quantity and value of jams, pickles and sauces manufactured in each State in 1931-32 :—

JAMS, PRESERVED FRUIT, PICKLES AND SAUCES.—OUTPUT, 1931-32.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
QUANTITY (,000 OMITTED).							
Jams lb.	16,629	33,477	7,763	9,091	531	14,413	81,904
Pulp "	4,317	14,928	825	5,982	353	6,992	33,397
Fruit, preserved .. "	7,164	39,770	5,515	2,960	9	3,831	59,249
Pickles pints	719	725	247	655	(a)	(a)	(b) 2,542
Sauces "	5,096	5,529	943	665	(a)	(a)	(b) 12,744
VALUE.							
Jams £	386,416	729,766	167,605	163,627	10,308	323,630	1,781,352
Pulp £	30,159	74,574	4,525	39,091	1,012	87,151	236,512
Fruit, preserved .. £	120,740	694,368	130,393	49,949	152	95,513	1,091,115
Pickles £	25,620	23,264	9,304	28,415	(a)	(a)	(b) 93,986
Sauces £	251,669	169,268	27,653	28,973	(a)	(a)	(b) 494,044

(a) Particulars not available for publication.

(b) Including Western Australia and Tasmania.

15. *Confectionery Factories.*—(i) *Details for each State, 1930-31.* At the close of the year 1900 there were in New South Wales 16 establishments, with 706 employees, and in Victoria 16 establishments, employing 731 persons, the plant and machinery in the former State being valued at £2,815, and in the latter at £19,070. The figures for the year 1931-32 given hereunder show the remarkable development since 1900 :—

SUGAR CONFECTIONERY FACTORIES,(b) 1931-32.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas. (a)	Australia.
Number of factories	63	118	10	17	11	4	223
Number of employes	2,675	2,572	461	338	207	17	6,270
Actual horse-power of engines used	4,598	6,200	867	575	264	70	12,574
Approximate value of land and buildings £	1,011,568	453,325	165,027	97,822	58,698	11,050	1,797,490
Approximate value of plant and machinery £	974,131	631,331	118,107	78,226	73,950	6,997	1,882,742
Wages paid £	382,020	358,529	56,779	32,211	31,028	995	861,562
Value of fuel used £	46,400	46,435	5,232	9,361	4,067	294	111,789
Value of materials used £	1,111,744	895,271	94,758	107,541	64,538	2,740	2,276,592
Total value of output £	2,148,985	1,646,320	236,707	166,563	194,115	5,966	4,398,656
Value of production £	990,841	704,614	136,717	49,661	125,510	2,932	2,010,275

(a) Ice Cream factories—Other Confectionery included in Bakeries. and Ice Cream.

(b) Including Chocolate

(ii) *Development in Australia, 1927-28 to 1931-32.* The growth of the confectionery industry during the last five years is exhibited in the following table :—

SUGAR CONFECTIONERY FACTORIES.—AUSTRALIA.

Items.	1927-28. (a)	1928-29. (a)	1929-30. (c)	1930-31. (d)	1931-32. (d)
Number of factories	293	320	254	220	223
Number of employees	8,616	(b) 8,386	(b) 7,260	(b) 6,241	(b) 6,270
Actual horse-power of engines used ..	14,241	12,737	12,432	11,014	12,574
Approx. value of land and buildings ..	£ 2,074,074	2,201,885	2,007,492	1,788,358	1,797,490
Approx. value of plant and machinery ..	£ 2,324,479	2,368,208	2,248,470	1,987,197	1,882,742
Wages paid	£ 1,365,241	1,335,997	1,167,654	931,991	861,562
Value of fuel used	£ 186,323	183,787	167,526	118,245	111,789
Value of materials used	£ 4,054,201	3,998,906	3,549,673	2,590,032	2,276,592
Total value of output	£ 7,300,429	7,455,428	6,567,759	4,832,952	4,398,656
Value of production	£ 3,059,905	3,272,735	2,850,560	2,124,675	2,010,275

(a) Including Biscuits and Bakeries in Tasmania. (b) See § 9. i. (c) Figures for Tasmania included in Bakeries. (d) See note (a) in table above.

The confectionery industry has expanded considerably during recent years, largely as a result of the stimulus afforded by the embargo placed on the importation of luxuries during the period of the war. The establishments engaged therein found employment for 6,270 persons in 1931-32, and the value of the output amounted to £4,398,656. The decline in the value of output, etc., since 1929-30 is due to the exclusion of the returns for Tasmania, which have been incorporated with bakeries to avoid disclosing confidential information. Production is sufficient to supply local requirements, and an export trade is being developed. Several large British manufacturers of confectionery have established branch works in Australia.

16. *Grain Milling.*—(i) *Details for States, 1931-32.* The following table shows the position of the flour-milling industry in each State in 1931-32 :—

GRAIN MILLING, 1931-32.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust. (a)	W. Aust.	Tas. (a)	Australia.
Number of factories ..	53	39	9	36	19	9	165
Number of employees ..	1,182	957	387	443	385	104	3,458
Actual horse-power of engines used ..	7,509	5,760	1,416	3,365	2,775	521	21,346
Approximate value of land and buildings ..	£ 760,852	476,250	156,036	202,820	228,633	59,934	1,884,525
Approximate value of plant and machinery ..	£ 776,444	508,905	203,532	321,521	253,647	44,537	2,108,586
Wages paid ..	£ 291,447	217,142	80,408	90,884	79,675	24,513	784,069
Value of fuel used ..	£ 79,838	52,346	14,482	27,219	20,024	4,595	204,504
Value of materials used ..	£ 3,582,629	2,806,382	848,372	1,085,368	983,269	208,739	9,604,759
Total value of output ..	£ 4,007,595	3,622,593	1,109,731	1,253,372	1,145,894	265,765	12,004,950
Value of production ..	£ 945,128	667,865	246,877	140,785	142,601	52,431	2,195,687

(a) The manufacture of cornflour, oatmeal, etc., was also carried on in some of these establishments.

(ii) *Production of Flour and By-products, 1927-28 to 1931-32.* The production of flour by the mills in each State for the years indicated was as follows :—

GRAIN MILLING.—PRODUCTION OF FLOUR, AUSTRALIA.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	Tons.(a)	Tons.(a)	Tons.(a)	Tons.(a)	Tons.(a)	Tons.(a)	Tons.(a)
1927-28 ..	400,363	367,383	53,858	122,107	127,246	21,675	1,092,632
1928-29 ..	449,011	390,286	54,433	137,202	119,550	21,277	1,171,759
1929-30 ..	432,472	364,682	61,102	138,115	120,595	19,899	1,136,865
1930-31 ..	449,439	369,966	71,994	136,346	132,090	19,863	1,179,698
1931-32 ..	490,662	396,257	77,376	155,215	131,165	19,540	1,270,215

(a) Tons of 2,000 lb.

The production of flour in Australia for the last year, viz., 1,270,215 tons, was valued at £9,292,926. In addition, 546,888 tons of bran and pollard, valued at £2,455,826, were made. The quantity of wheat ground was 61,310,630 bushels.

17. Sugar Mills.—(i) *Details for 1931-32.* The following table shows the position of the cane-crushing branch of the sugar-making industry in Queensland and New South Wales in 1931-32. Sugar-cane is not grown in the other States. Details regarding the area, yield, etc., of sugar-cane will be found in Chapter XVIII., *Agricultural Production.*

SUGAR MILLS, 1931-32.

Items.	N.S.W.	Queensland.	Australia.
Number of factories	3	35	38
Number of employes	124	5,114	5,238
Actual horse-power of engines used ..	2,756	37,335	40,091
Approximate value of land and buildings £	134,000	765,306	899,306
Approximate value of plant and machinery £	540,813	6,599,847	7,140,660
Wages paid	£ 62,261	1,140,989	1,203,250
Value of fuel used	£ 9,144	109,235	118,379
Value of materials used	£ 336,798	7,901,450	8,238,248
Total value of output	£ 512,581	10,519,615	11,032,196
Value of production	£ 166,639	2,508,930	2,675,569

The products of the sugar mill are raw sugar and molasses, the former being sent to the refineries in different parts of Australia for further treatment. Part of the molasses produced is used for distillation, part is prepared for human consumption, part is turned into food-cake for cattle, part is used for manuring land, and the balance is either burnt as fuel or is allowed to run to waste. This latter quantity, however, is being reduced each year.

(ii) *Progress of Industry.* (a) *New South Wales.* The following table shows the progress of this industry in New South Wales since 1927-28 :—

SUGAR MILLS.—NEW SOUTH WALES.

Items.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
Number of factories ..	3	3	3	3	3
Number of employes ..	413	(a) 375	(a) 170	(a) 135	(a) 124
Cane crushed .. tons	208,612	147,414	174,110	160,209	179,153
Sugar produced .. tons	23,349	16,954	19,568	18,841	22,459
Molasses produced gals.	1,196,700	914,000	1,064,405	918,800	940,600

(a) See § 9. 1.

The concentration of cane-crushing in establishments fitted with modern machinery has caused the closing of the small home mill and thereby reduced the number of mills operating. The stability afforded the industry by the Government assistance referred to in the chapter dealing with Agriculture, has resulted in considerable progress in the cultivation of sugar-cane, and increased activity in milling. Particulars regarding cane crushed and sugar produced embodied in these tables refer to the quantities treated during the twelve months ending 30th June in each year, irrespective of the season in which the cane was grown. The figures relating to cane crushed and sugar produced shown hereunder, differ therefore, from those given in Chapter XVIII., *Agriculture*, which refer to harvest years.

(b) *Queensland.* Details for Queensland from 1911 and for the last four years are given hereunder.

SUGAR MILLS.—QUEENSLAND, 1911 TO 1931-32.

Items.	1911.	1928-29.	1929-30.	1930-31.	1931-32.
Number of factories ..	49	35	35	35	35
Number of employees ..	4,295	(a) 6,077	(a) 5,459	(a) 5,138	(a) 5,114
Cane crushed .. tons	1,534,451	3,741,715	3,572,068	3,539,475	4,033,889
Sugar produced .. tons	173,296	516,081	513,551	514,296	579,222
Molasses—					
Sold to distillers and others .. gals.	2,393,669	5,676,821	5,854,398	4,529,352	3,282,351
Used as fodder .. gals.	789,564	2,524,136	2,382,192	2,342,609	2,940,551
Used as manure .. gals.	223,000	7,200	298,395	714,670	1,753,086
Run to waste .. gals.		3,044,889	2,253,083	1,311,453	910,418
Burnt as fuel .. gals.	1,847,333	5,131,726	4,202,588	4,354,350	7,075,965
In stock .. gals.	1,197,626	488,600	871,292	1,206,050	1,350,769
Total Molasses .. gals.	6,451,192	16,873,372	15,861,948	14,458,484	17,313,140

(a) See § 9. 1.

18. *Sugar Refineries.*—The establishment of the sugar-refining industry considerably antedates the establishment of the sugar-milling industry, the raw material operated on in the earlier years coming chiefly from Mauritius and the East. In 1931-32 there were two sugar refineries in each of the States of Victoria and Queensland, and one in each of the States of New South Wales, South Australia, and Western Australia. The quantity of raw sugar treated amounted to 298,876 tons, for a yield of 297,628 tons of refined sugar, valued at £10,518,284.

19. *Breweries.*—(i) *Details for each State, 1931-32.* The following table gives particulars concerning breweries in each State:—

BREWERIES, 1931-32.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas. (a)	Australia.
Number of breweries ..	5	9	9	6	8	4	41
Number of employees ..	811	1,041	339	240	362	89	2,882
Actual horse-power of engines used ..	5,427	4,011	1,928	1,358	1,975	648	15,347
Approx. value of land and buildings .. £	845,264	716,186	290,663	181,823	203,216	163,563	2,400,715
Approx. value of plant and machinery .. £	869,217	952,830	265,604	180,066	244,593	127,073	2,639,383
Wages paid .. £	226,194	362,327	94,518	76,329	106,863	23,408	889,639
Value of fuel used .. £	63,388	60,654	23,186	16,027	15,821	8,376	187,452
Value of materials used .. £	571,585	762,526	165,851	137,492	207,795	44,674	1,889,923
Total value of output .. £	1,911,468	1,751,407	469,380	344,659	518,022	138,089	5,133,025
Value of production .. £	1,276,495	928,227	280,343	191,140	294,406	85,039	3,055,650

(a) Includes malting.

(ii) *Development in Australia, 1927-28 to 1931-32.* The next table shows the progress of this industry for the last five years:—

BREWERIES.—AUSTRALIA.

Items.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
Number of breweries	46	45	45	43	41
Number of employees	3,881	(a) 3,874	(a) 3,590	(a) 3,109	(a) 2,882
Actual horse-power of engines used ..	14,688	14,217	14,500	15,558	15,347
Approx. value of land and buildings ..	£ 2,347,851	2,476,207	2,457,428	2,447,942	2,406,715
Approx. value of plant and machinery ..	£ 2,853,623	2,912,078	2,956,907	2,865,987	2,639,383
Wages paid	£ 1,208,091	1,208,699	1,165,380	992,698	889,639
Value of fuel used	£ 272,151	295,908	276,199	230,958	187,452
Value of materials used	£ 3,318,521	3,310,659	2,887,251	2,146,331	1,889,923
Total value of output	£ 7,964,626	7,921,010	7,259,933	5,828,193	5,133,025
Value of production	£ 4,373,954	4,314,443	4,095,483	3,450,904	3,055,650

(a) See § 9. 1.

The main feature in the history of the brewing industry, which was established at an early date in Australia, was the change from the small local brewery in every township of moderate size to the large centralized city brewery. During the period embraced in the above table, however, the reduction in the number of establishments was mainly due to amalgamations. The value of the output of breweries in Australia decreased from £7,964,626 in 1927-28 to £5,113,025 in 1931-32, and the quantity of ale and stout brewed fell from 74,035,403 to 49,845,996 gallons during the same period. The consumption of ale and stout per head of the population remained fairly steady for several years at about 11.25 gallons. In 1929-30 the average fell to 10.25 gallons, in 1930-31 to 8.12 gallons, and in 1931-32 to 7.32 gallons.

(iii) *Materials Used and Production.* The table below shows the quantity of raw material used and the quantity and value of ale and stout brewed in each State during the year 1931-32.

BREWERIES.—MATERIALS USED AND PRODUCTION, 1931-32.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
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RAW MATERIAL USED.

Malt .. bushels	586,106	619,055	181,896	117,100	162,461	35,974	1,702,592
Hops .. lb.	539,455	545,609	146,330	120,150	140,604	27,028	1,519,176
Sugar .. cwt.	61,086	69,868	19,542	14,756	14,660	3,492	183,404

RAW MATERIAL USED PER 1,000 GALLONS OF ALE AND STOUT PRODUCED.

Malt .. bushels	33.79	33.10	34.44	33.80	37.21	52.83	34.16
Hops .. lb.	31.10	29.17	27.70	34.68	32.20	39.69	30.48
Sugar .. cwt.	3.52	3.74	3.70	4.26	3.36	5.13	3.70

ALE AND STOUT BREWED.

Quantity gallons	17,346,770	18,705,325	5,282,022	3,464,856	4,366,461	680,562	49,845,996
Value (a) .. £	1,892,617	1,751,407	469,380	341,384	513,822	72,395	5,041,005

(a) Exclusive of excise duty.

20. Distilleries.—Distilleries are located in all the States with the exception of Western Australia and Tasmania. The following information which has been extracted from returns furnished by the Excise Branch of the Department of Trade and Customs shows the materials used in distilleries in Australia and the quantity of spirits distilled therefrom for the year 1931-32:—Materials used; barley 352,878 bushels; rye 2,979 bushels; maize 6,468 bushels; molasses 648,459 cwt.; wine 8,221,188 gallons; raisins and currants 17,759 cwt.; spirits distilled from barley 936,063 gallons; from molasses 3,370,029 gallons; from wine 1,421,379 gallons; from other materials 954 gallons; total 5,728,423 gallons. The quantity of spirits denatured during the year was 2,120,451 gallons.

21. Tobacco, etc., Factories.—(i) *Details for each State, 1931-32.* During the year 1931-32 there were twenty-four establishments in which the manufacture of tobacco, cigars, and cigarettes was carried on. There were no factories engaged in this industry in Tasmania.

TOBACCO, CIGAR, AND CIGARETTE FACTORIES, 1931-32.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Australia.
Number of factories	9	12	1	1	1	24
Number of employees	2,263	1,719			122	4,119
Actual horse-power of engines used	1,181	904	(a) 4	(a) 11	(a) b	2,133
Approx. value of land and buildings	£ 572,815	324,395	(a)	(a)	(a)	b 912,541
Approx. value of plant and machinery	£ 425,977	220,875	(a)	(a)	(a)	b 656,862
Wages paid	£ 454,421	327,319	(a)	(a)	(a)	b 800,702
Value of fuel used	£ 15,730	9,804	(a)	(a)	(a)	b 26,013
Value of materials used	£ 3,862,098	1,532,320	(a)	(a)	(a)	b 5,448,396
Total value of output	£ 4,834,876	2,343,746	(a)	(a)	(a)	b 7,299,324
Value of production	£ 957,048	800,113	(a)	(a)	(a)	b 1,824,915

(a) Not available for publication. (b) Including Queensland, South Australia and Western Australia.

(ii) *Development in Australia.* This industry was among the first to be established in Australia. In 1861, New South Wales had 11 factories, producing 177,744 lb. of manufactured tobacco; in the same year there was one factory in Victoria, but the quantity of tobacco manufactured is not available. The Australian market has for many years been largely supplied with local manufactures from the imported leaf. Imports during 1931-32 comprised—manufactured tobacco 81,238 lb., cigars 3,668 lb., and cigarettes 32,493 lb., while the quantities manufactured in Australian factories were respectively 14,084,193 lb., 225,128 lb., and 4,190,854 lb. The following tables show the development of the industry in Australia for the last five years:—

TOBACCO, CIGAR, AND CIGARETTE FACTORIES.—AUSTRALIA.

Items.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
Number of factories	23	23	23	22	24
Number of employees	4,217	(a) 4,137	(a) 4,096	(a) 4,154	(a) 4,119
Actual horse-power of engines used	1,684	1,946	1,986	2,009	2,133
Approx. value of land and buildings	£ 783,895	794,421	857,787	857,540	912,541
Approx. value of plant and machinery	£ 510,651	543,462	565,556	618,377	656,862
Wages paid	£ 818,985	808,865	818,342	807,348	800,702
Value of fuel used	£ 21,091	24,115	24,941	24,685	26,013
Value of materials used	£ 4,492,363	4,427,806	5,111,443	4,831,775	5,448,396
Total value of output	£ 6,817,391	6,812,791	7,523,114	6,842,394	7,299,324
Value of production	£ 2,303,037	2,360,870	2,386,730	1,985,934	1,824,915

LEAF USED AND PRODUCTION.

Leaf used	1,000 lb.	18,620.	19,136.	19,175.	16,456.	16,425.
Tobacco made	"	15,097.	15,678.	16,064.	14,242.	14,084.
Cigars made	"	399.	339.	307.	224.	225.
Cigarettes made	"	5,391.	5,358.	5,371.	4,225.	4,191.

(a) See § 9. 1.

The production of locally-grown leaf for many years was comparatively small, and manufacturers were dependent on imported leaf for the supply of their raw material. Increased duties stimulated local production, and the quantity of Australian leaf used by manufacturers rose from 1.2 million lb. in 1929-30 to over 3 million lb. in 1930-31, with a resultant decrease in the amount of imported leaf used. In 1931-32, however, the quantity of local leaf used fell to 2.3 million lb. In this connexion, see item "Tobacco" in Chapter XVIII., Agricultural Production. The respective quantities of Australian and imported leaf used during 1931-32 were 2,349,041 lb., and 14,075,575 lb.

22. Woollen and Tweed Mills.—(i) *Details for each State, 1931-32.* The manufacture of woollens and tweeds was established at an early period in Australian history and was under Government control, the first record in New South Wales dating back to 1801, when a few blankets were made by convicts, while manufacture in Victoria dates from 1867. The following table gives particulars for the year 1931-32 :—

WOOLLEN AND TWEED (INCLUDING WOOLSCOURING) MILLS, 1931-32.

Items.	N.S.W. (c)	Victoria.	Q'land.	S. Aust.	W.A.	Tas.	Australia.
Number of factories	15	34	15	9	2	6	81
Number of employees	3,882	7,144	603	499	106	1,373	13,607
Actual horse-power of engines used	8,472	15,530	(a)	(a)	(a)	2,246	30,298
Approx. value of land and buildings	£ 615,320	£ 1,143,730	(a)	(a)	(a)	265,850	£ 2,232,015
Approx. value of plant and machinery	£ 1,021,546	£ 1,650,695	(a)	(a)	(a)	310,120	£ 3,381,308
Wages paid	£ 609,911	£ 1,008,463	(a)	(a)	(a)	164,891	£ 1,945,879
Value of fuel used	£ 81,167	£ 166,378	(a)	(a)	(a)	42,604	£ 322,532
Value of materials used	£ 1,239,400	£ 2,200,887	(a)	(a)	(a)	347,041	£ 4,893,757
Total value of output	£ 2,146,026	£ 4,134,830	(a)	(a)	(a)	742,684	£ 8,452,029
Value of production	£ 825,459	£ 1,767,565	(a)	(a)	(a)	353,039	£ 3,235,740

(a) Information not available for publication. (b) Including Queensland, South Australia, and Western Australia. (c) Woolscouring not included.

(ii) *Development in Australia, 1927-28 to 1931-32.* The progress of woollen and tweed milling in Australia for the last five years is shown in the following table :—

WOOLLEN AND TWEED MILLS (INCLUDING WOOLSCOURING).—AUSTRALIA.

Items.	1927-28. (b)	1928-29. (b)	1929-30. (b)	1930-31.	1931-32.
Number of factories	57	53	58	92	81
Number of employees	11,638	(a) 11,430	(a) 11,843	(a) 11,551	(a) 13,607
Actual horse-power of engines used	23,158	24,748	26,407	27,453	30,298
Approx. value of land and buildings	£ 1,933,654	£ 1,984,124	£ 2,124,486	£ 2,305,858	£ 2,232,015
Approx. value of plant and machinery	£ 3,688,023	£ 3,487,795	£ 3,553,493	£ 3,567,670	£ 3,381,308
Wages paid	£ 1,755,538	£ 1,766,820	£ 1,780,514	£ 1,633,432	£ 1,945,879
Value of fuel used	£ 272,578	£ 270,995	£ 298,212	£ 301,428	£ 322,532
Value of materials used	£ 4,172,120	£ 4,363,482	£ 3,758,577	£ 3,756,418	£ 4,893,757
Total value of output	£ 7,601,435	£ 7,477,295	£ 6,964,160	£ 6,758,788	£ 8,452,029
Value of production	£ 3,156,737	£ 2,842,818	£ 2,907,371	£ 2,700,942	£ 3,235,740

(a) See § 9. 1.

(b) Excluding Woolscouring.

(iii) *Quantity and Value of Production.* The production consists chiefly of tweed cloths, flannels, rugs, blankets and yarn, all of which have acquired a reputation for purity and durability. Detailed particulars for the several States are not available for publication. The total length of tweed and cloth manufactured in Australia in 1931-32 was 16,631,833 yards. In New South Wales 5,548,430 yards, and in Victoria 10,111,143 yards of tweed and cloth were manufactured. The production of flannel amounted to 8,313,069 yards, while blankets, shawls, and rugs to the number of 439,605 were made. The output of yarn reported was 9,505,335 lb., most of which was produced in Victoria.

In addition to the woollen and tweed factories, there were 290 hosiery and knitting mills operating in Australia in 1931-32. These establishments provided employment for 12,470 persons, of whom 9,058 were females, and the value of their output amounted to £5,803,011.

Cotton ginning has been carried on intermittently in the Northern States, and the recent development in cotton growing has led to the establishment of modern ginning plants at convenient centres in Queensland. In New South Wales the first establishment for the manufacture of cotton goods was erected in 1923-24. There were nineteen establishments treating cotton in Australia in 1931-32, and these employed 1,659 hands, while the value of the output was £999,699.

23. *Boot Factories.*—(i) *Boot and Shoe Factories, 1931-32.* The boot and shoe industry holds an important place in regard to employment afforded and extent of output. The operations of these factories have been rather obscured in recent years by the inclusion of a large number of repair establishments in the returns, but this difficulty has been avoided by the collection of separate statistics for each industry, and in the following table the details relate to boot and shoe factories, as distinct from those devoted to repairing and bespoke work :—

BOOT AND SHOE FACTORIES, 1931-32.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories	92	176	17	15	8	5	313
Number of employees	3,861	8,656	921	432	316	114	14,300
Actual horse-power of engines used	1,574	2,835	265	266	216	58	5,214
Approx. value of land and buildings	£ 377,479	760,310	69,483	74,257	38,508	13,245	1,333,282
Approx. value of plant and machinery	£ 223,235	469,182	40,536	22,871	25,578	5,374	786,776
Wages paid	£ 543,899	1,223,181	118,256	54,887	41,725	15,551	1,997,499
Value of fuel used	£ 13,604	33,959	2,205	1,514	1,143	579	53,004
Value of materials used	£ 860,788	1,957,026	135,318	92,271	86,902	21,042	3,133,347
Total value of output	£ 1,634,148	3,773,432	296,183	160,733	142,226	49,072	6,055,794
Value of production	£ 759,756	1,782,447	158,660	66,948	54,181	27,451	2,849,443

(ii) *Boot Repairing, including Bespoke Work.* The introduction of small power plants in repairing shops has for statistical purposes brought this class of establishment within the meaning of a factory. These shops have spread rapidly throughout the Commonwealth, and in 1931-32 the number amounted to 1,168, in which 1,916 hands were employed. The sum of £120,507 was distributed in salaries and wages, and the output was valued at £629,452.

(iii) *Quantity and Value of Production.* The number and value of boots, shoes, and slippers made at factories in each State are shown in the following table :—

BOOT AND SHOE FACTORIES.—OUTPUT, 1931-32.

Particulars.		N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
QUANTITY (,000 OMITTED).								
Boots and shoes	pairs	3,173	7,570	536	344	353	73	12,049
Slippers	.. ..	1,496	3,057	3	21	82	1	4,660
Uppers (a)	.. ..	32	12	147	4	..	4	199
VALUE.								
Boots and shoes	£	1,450,703	3,361,895	278,281	154,795	130,747	46,448	5,422,869
Slippers	£	178,100	394,515	1,033	2,319	11,687	654	588,308
Uppers (a)	£	10,123	5,106	16,367	2,224	187	1,280	35,287

(a) Made for other than factory use.

24. *Tailoring, and Slop Clothing Factories.*—(i) *Details for each State, 1931-32.* The importance of this industry in the several States is shown in the following table :—

TAILORING AND SLOP CLOTHING FACTORIES, 1931-1932.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories	326	387	95	100	73	25	1,006
Number of employees	6,603	6,263	2,132	801	1,369	302	17,470
Actual horse-power of engines used	663	596	157	118	89	24	1,647
Approx. value of land and buildings	£ 1,078,765	845,550	227,901	259,473	170,027	72,666	2,654,382
Approx. value of plant and machinery	£ 97,213	94,415	29,441	19,279	13,123	3,505	256,976
Wages paid	£ 742,921	674,143	198,944	125,412	89,348	28,500	1,859,268
Value of fuel used	£ 16,133	19,423	5,143	4,127	2,218	754	47,798
Value of materials used	£ 1,148,586	1,487,272	290,374	134,635	157,975	39,958	3,258,800
Total value of output	£ 2,234,413	2,555,554	657,018	327,698	295,358	88,592	6,158,633
Value of production	£ 1,069,694	1,048,859	361,501	188,936	135,165	47,880	2,852,035

(ii) *Development in Australia, 1927-28 to 1931-32.* The tailoring and slop branch of the clothing industry made little progress during the four years ended 1928-29. The number of factories and number of persons employed decreased, but the value of raw material used and output remained fairly constant. The considerable decline in the industry since 1929-30 is due to a decrease in the purchasing power of the community. Details for the past five years are as follow :—

TAILORING, AND SLOP CLOTHING FACTORIES.—AUSTRALIA.

Items.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
Number of factories	1,422	1,440	1,327	1,112	1,006
Number of employees	27,401	(a) 26,953	(a) 23,016	(a) 17,664	(a) 17,470
Actual horse-power of engines used	1,954	1,802	2,062	1,683	1,647
Approx. value of land and buildings	£ 4,364,779	4,389,473	4,151,355	3,272,248	2,654,382
Approx. value of plant and machinery	£ 379,757	337,057	328,676	278,696	256,976
Wages paid	£ 3,616,157	3,524,994	3,190,686	2,058,597	1,859,268
Value of fuel used	£ 65,946	65,100	63,011	50,717	47,798
Value of materials used	£ 5,121,106	5,092,739	4,473,949	3,119,083	3,258,800
Total value of output	£ 10,827,374	10,663,874	9,222,595	6,307,261	6,158,633
Value of production	£ 5,640,322	5,445,035	4,685,545	3,137,461	2,852,035

(a) See § 9. 1.

25. Dressmaking and Millinery Establishments.—(i) *Details for each State, 1931–32.* Particulars of dressmaking and millinery establishments are given separately in the following tables :—

DRESSMAKING ESTABLISHMENTS, 1931–32.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas. (a)	Australia.
Number of factories	95	377	31	40	36	14	593
Number of employees	1,191	5,918	417	578	416	103	8,623
Actual horse-power of engines used	81	594	22	54	46	8	805
Approx. value of land and buildings £	212,369	877,721	50,331	76,104	58,445	12,810	1,287,780
Approx. value of plant and machinery £	12,297	88,637	6,721	6,954	5,211	961	120,781
Wages paid £	105,653	563,882	35,597	44,544	32,609	7,511	789,796
Value of fuel used £	1,642	11,426	583	1,163	725	131	15,670
Value of materials used £	112,735	1,308,367	41,075	57,282	51,833	6,131	1,577,423
Total value of output £	263,017	2,257,809	87,449	128,078	107,866	16,209	2,860,428
Value of production £	148,640	938,016	45,791	69,633	55,308	9,947	1,267,335

(a) Includes Millinery.

MILLINERY ESTABLISHMENTS, 1931–32.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories	42	71	9	7	9	(a)	138
Number of employees	838	1,452	146	208	80	(a)	2,724
Actual horse-power of engines used	74	148	7	10	5	(a)	244
Approx. value of land and buildings £	133,505	194,131	20,284	21,850	10,005	(a)	379,775
Approx. value of plant and machinery £	7,849	31,172	1,434	1,453	511	(a)	42,419
Wages paid £	82,192	136,553	12,716	16,825	7,472	(a)	255,758
Value of fuel used £	1,787	4,406	96	435	114	(a)	6,838
Value of materials used £	156,936	265,022	23,331	26,486	12,714	(a)	484,489
Total value of output £	297,103	493,186	40,485	55,989	23,026	(a)	909,789
Value of production £	138,380	223,758	17,058	29,068	10,198	(a)	418,462

(a) Included in Dressmaking.

(ii) *Development in Australia, 1927–28 to 1931–32.* The development of dressmaking and millinery establishments in Australia for the past five years is shown in the following table :—

DRESSMAKING AND MILLINERY ESTABLISHMENTS.—AUSTRALIA.

Items.	1927–28.	1928–29.	1929–30.	1930–31.	1931–32.
Number of factories	916	897	816	724	731
Number of employees	15,019	(a) 14,778	(a) 12,709	(a) 10,396	11,347
Actual horse-power of engines used	898	1,182	971	907	1,049
Approx. value of land and buildings £	2,596,384	2,570,963	2,310,358	1,904,825	1,667,555
Approx. value of plant and machinery £	170,653	175,151	157,051	151,460	163,200
Wages paid £	1,525,947	1,532,734	1,399,256	1,066,438	1,045,554
Value of fuel used £	25,054	24,056	23,842	20,657	22,508
Value of materials used £	2,590,753	2,724,974	2,501,600	1,993,968	2,061,912
Total value of output £	5,034,713	5,227,620	4,753,906	3,680,918	3,770,217
Value of production £	2,418,906	2,478,590	2,228,464	1,666,293	1,685,797

(a) See § 9. 1.

26. **Printing and Binding Works.**—(i) *Details for each State, 1931-32.* Printing and binding works rank high in importance among the industries of Australia, and in 1931-32 afforded employment for about 23,000 employees, and paid more than £4,582,000 in salaries and wages, while the value of output amounted to £12,033,000.

The following table gives particulars of establishments engaged in general printing and bookbinding in each State for the year 1931-32. Government printing works are included, but establishments producing newspapers and periodicals are shown separately in the next table.

GENERAL PRINTING AND BOOKBINDING ESTABLISHMENTS, 1931-32.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	270	359	65	89	60	16	859
Number of employees ..	4,901	5,144	1,613	1,361	639	248	13,906
Actual horse-power of engines used ..	3,789	4,141	781	1,360	634	150	10,855
Approx. value of land and buildings ..	£ 1,319,758	£ 1,333,045	£ 358,331	£ 555,060	£ 245,715	£ 39,805	£ 3,851,714
Approx. value of plant and machinery ..	£ 1,096,689	£ 963,059	£ 202,795	£ 446,037	£ 176,159	£ 37,535	£ 2,922,274
Wages paid ..	£ 889,070	£ 798,450	£ 260,427	£ 236,794	£ 108,415	£ 41,194	£ 2,334,350
Value of fuel used ..	£ 29,214	£ 29,109	£ 8,750	£ 10,009	£ 3,559	£ 2,071	£ 82,712
Value of materials used ..	£ 986,469	£ 831,294	£ 190,338	£ 286,238	£ 98,008	£ 21,823	£ 2,414,170
Total value of output ..	£ 2,483,640	£ 2,212,400	£ 633,397	£ 692,671	£ 275,794	£ 87,483	£ 6,385,385
Value of production ..	£ 1,467,957	£ 1,351,997	£ 434,309	£ 396,424	£ 174,227	£ 63,589	£ 3,888,503

ESTABLISHMENTS PRODUCING NEWSPAPERS AND PERIODICALS, 1931-32.

Items.	N.S.W.	Vic.	Q'land.	S. Aust. (a)	W.A.	Tas.	Australia.
Number of establishments ..	219	121	68	..	29	7	444
Number of employees ..	3,189	2,025	1,519	..	499	491	7,723
Actual horse-power of engines used ..	5,456	3,084	2,356	..	1,108	333	12,337
Approx. value of land and buildings ..	£ 1,710,389	£ 784,213	£ 469,979	..	£ 202,196	£ 66,002	£ 3,232,779
Approx. value of plant and machinery ..	£ 1,321,758	£ 788,437	£ 395,866	..	£ 156,785	£ 71,468	£ 2,734,314
Wages paid ..	£ 830,278	£ 502,781	£ 414,201	..	£ 138,577	£ 90,089	£ 1,975,926
Value of fuel used ..	£ 40,895	£ 24,123	£ 19,153	..	£ 6,996	£ 4,575	£ 95,742
Value of materials used ..	£ 986,627	£ 724,357	£ 247,508	..	£ 120,431	£ 63,079	£ 2,142,002
Total value of output ..	£ 2,487,691	£ 1,561,408	£ 991,372	..	£ 343,535	£ 193,600	£ 5,577,606
Value of production ..	£ 1,460,169	£ 812,928	£ 724,711	..	£ 216,108	£ 125,946	£ 3,339,862

(a) Included in General Printing and Bookbinding.

27. **Motor Vehicles and Cycles.**—The industries catering for the motor trade are included in Class IV.—Industrial Metals, Machines, Implements and Conveyances. Returns in regard to assembling and repairing are shown hereunder for the year 1931-32 :—

ASSEMBLING AND REPAIRING OF MOTOR VEHICLES AND CYCLES, 1931-32.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories	845	786	110	118	185	91	2,135
Number of employees	3,258	3,010	688	640	483	377	8,456
Actual horse-power of engines used	3,362	2,574	558	644	673	297	8,108
Approx. value of land and buildings	£ 1,623,564	£ 1,251,926	£ 342,308	£ 330,351	£ 311,674	£ 193,949	£ 4,053,772
Approx. value of plant and machinery	£ 341,308	£ 284,219	£ 64,653	£ 69,701	£ 86,935	£ 26,182	£ 872,998
Wages paid	£ 492,146	£ 443,629	£ 105,160	£ 77,260	£ 68,478	£ 43,644	£ 1,230,317
Value of fuel used	£ 32,979	£ 32,526	£ 5,514	£ 5,526	£ 5,233	£ 3,210	£ 84,988
Value of materials used	£ 432,404	£ 54,196	£ 24,336	£ 83,126	£ 54,045	£ 42,544	£ 691,151
Total value of output	£ 1,275,360	£ 836,326	£ 316,043	£ 219,518	£ 196,294	£ 122,585	£ 2,966,126
Value of production	£ 809,977	£ 749,604	£ 285,693	£ 130,866	£ 137,016	£ 76,831	£ 2,189,987

Particulars in regard to motor body building for the year 1931-32 are as follow :—

MOTOR BODY BUILDING, 1931-32.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories	45	60	10	12	26	..	153
Number of employees	405	823	81	756	111	..	2,176
Actual horse-power of engines used	463	1,430	45	1,802	175	..	3,915
Approx. value of land and buildings	£ 184,879	£ 481,680	£ 32,930	£ 420,496	£ 51,332	..	£ 1,171,317
Approx. value of plant and machinery	£ 23,684	£ 187,170	£ 4,852	£ 374,688	£ 15,014	..	£ 605,408
Wages paid	£ 60,408	£ 146,830	£ 12,703	£ 129,516	£ 16,591	..	£ 366,048
Value of fuel used	£ 2,281	£ 4,866	£ 399	£ 7,496	£ 1,037	..	£ 16,079
Value of materials used	£ 56,625	£ 137,827	£ 11,712	£ 102,365	£ 14,982	..	£ 323,511
Total value of output	£ 147,087	£ 328,409	£ 28,923	£ 244,578	£ 44,406	..	£ 793,403
Value of production	£ 88,181	£ 185,716	£ 16,812	£ 134,717	£ 28,387	..	£ 453,813

The output of motor bodies for Australia is shown in the next table.

MOTOR BODIES PRODUCED IN AUSTRALIA.

Items.	1926-27. (a)	1927-28. (a)	1928-29. (a)	1929-30. (a)	1930-31. (a)	1931-32. (b)
Motor Bodies—						
Number	88,876	58,955	72,193	46,409	10,417	6,323
Value	£ 4,830,014	£ 3,436,674	£ 4,357,841	£ 3,118,987	£ 864,209	£ 450,510

(a) Excluding Queensland and Tasmania.

(b) Excluding Tasmania.

28. Furniture and Cabinet Making and Billiard Table Making Factories.—These industries constitute the principal manufactures in Class XI. The following table gives particulars for each State :—

BILLIARD TABLE MAKING, FURNITURE AND CABINET MAKING AND UPHOLSTERY FACTORIES, 1931-32.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	207	282	68	48	65	39	709
Number of employees ..	1,773	1,747	861	479	330	222	5,412
Actual horse-power of engines used ..	3,705	3,005	1,472	1,494	932	473	11,081
Approx. value of land and buildings ..	£ 509,524	£ 522,469	£ 144,626	£ 102,569	£ 103,913	£ 42,064	£ 1,425,165
Approx. value of plant and machinery ..	£ 195,710	£ 150,845	£ 74,560	£ 63,261	£ 38,312	£ 17,876	£ 540,564
Wages paid ..	£ 279,455	£ 217,009	£ 128,276	£ 65,068	£ 47,744	£ 21,913	£ 759,465
Value of fuel used ..	£ 14,277	£ 13,110	£ 6,302	£ 4,123	£ 2,325	£ 1,179	£ 41,316
Value of materials used ..	£ 415,246	£ 355,024	£ 168,049	£ 93,352	£ 84,587	£ 20,556	£ 1,136,814
Total value of output ..	£ 839,717	£ 731,949	£ 366,185	£ 192,440	£ 165,767	£ 56,505	£ 2,372,563
Value of production ..	£ 410,194	£ 383,815	£ 191,834	£ 94,965	£ 78,855	£ 34,770	£ 1,194,433

29. Electric Light and Power Works.—The increased demand for electrical energy has been responsible for considerable development in electric light and power works during recent years. Since 1927-28 the production of electric light and power has increased from 2,194,000,000 to 2,507,000,000 British units, or by more than 14 per cent. The value of land and buildings and plant and machinery remained practically the same as for the year 1929-30, indicating that no new works of importance were completed during 1931-32. Particulars for the year 1931-32 are as follow :—

ELECTRIC LIGHT AND POWER WORKS, 1931-32.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	118	84	42	41	61	6	352
Number of employees ..	1,857	1,168	753	1,018	374	82	5,252
Actual horse-power of engines used ..	427,835	194,584	140,607	121,822	65,433	79,993	1,030,274
Approx. value of land and buildings ..	£ 4,815,101	£ 1,957,275	£ 353,483	£ 590,612	£ 227,192	£ 29,295	£ 7,972,958
Approx. value of plant and machinery ..	£ 10,251,153	£ 6,152,620	£ 2,446,706	£ 1,965,847	£ 1,025,860	£ 3,294,997	£ 25,137,183
Wages paid ..	£ 504,068	£ 265,715	£ 179,334	£ 224,038	£ 90,194	£ 18,717	£ 1,282,066
Value of fuel used ..	£ 1,115,075	£ 425,547	£ 172,903	£ 142,521	£ 286,857	£ 52	£ 2,142,955
Total value of output ..	£ 5,178,785	£ 1,375,886	£ 873,154	£ 962,059	£ 655,161	£ 306,044	£ 9,351,089

30. Gas Works.—(i) *Details for each State, 1931-32.* Gas works are in operation in the majority of important towns in Australia. New South Wales returned nine coke factories and Queensland one, working as separate industries, but under the new classification these have been excluded from Class XVI. and included in Class I. The subjoined table gives particulars of gas works in each State for the year 1931-32 :—

INDIVIDUAL INDUSTRIES.

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GAS WORKS, 1931-32.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	48	37	16	6	4	2	113
Number of employees ..	1,100	761	294	554	99	79	2,887
Actual horse-power of engines used ..	4,807	3,047	920	1,908	214	176	11,072
Approx. value of land and buildings ..	£ 888,602	429,703	147,282	42,957	81,980	49,803	1,640,327
Approx. value of plant and machinery ..	£ 3,045,919	1,840,345	554,267	1,197,743	170,569	163,122	6,971,965
Wages paid ..	£ 280,423	183,278	69,412	136,027	23,579	19,891	712,610
Value of fuel used ..	£ 186,517	120,074	14,390	40,497	12,217	5,054	378,749
Value of materials used ..	£ 746,014	673,823	121,674	164,834	56,768	24,688	1,787,801
Total value of output ..	£ 2,175,769	1,458,894	576,964	538,542	130,413	75,272	4,955,854
Value of production ..	£ 1,243,238	664,997	440,900	333,211	61,428	45,530	2,789,304

(ii) *Coal Used and Production, 1931-32.* The following table gives details for the year 1931-32 :—

GAS WORKS.—COAL USED AND PRODUCTION, 1931-32.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
COAL USED.							
Coal tons	515,508	306,287	81,543	75,930	19,828	12,201	1,011,297
PRODUCTS.							
Gas 1,000 cubic feet	9,320,868	5,458,609	1,244,323	1,167,937	393,262	176,522	17,761,521
Coke tons	336,846	181,746	47,282	45,618	10,361	5,946	627,799
VALUE.							
Gas £	1,523,619	1,058,181	529,242	421,427	109,215	58,419	3,700,103
Coke £	357,094	280,836	36,094	72,318	15,850	10,345	772,537

The production of gas increased from 19,478,569,000 cubic feet in 1926-27 to 20,929,569,000 cubic feet in 1929-30, but fell to 18,892,700,000 cubic feet in 1930-31 and 17,761,521,000 cubic feet in 1931-32.