

CHAPTER XXIV.

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. **General.**—The number of factories in each State does not necessarily furnish an accurate indication of the extent or progress of manufacturing throughout Australia, since the larger establishments in many cases tend to absorb smaller enterprises, while on the other hand new factories are constantly springing up, and small plants are as numerous as large ones.

2. **Number of Factories in each State, 1926–27 to 1930–31.**—The following table gives the number of factories in each State for the years 1926–27 to 1930–31 :—

FACTORIES.—NUMBER IN EACH STATE.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
1926–27 ..	8,222	7,690	1,877	1,807	1,216	767	21,579
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

3. **Classification of Factories, Australia, 1926–27 to 1930–31.**—The following table shows the number of factories in Australia for each year from 1926–27 to 1930–31 classified in the groups agreed upon by the Conference of Statisticians in 1930. The classification now adopted supersedes 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.	1926–27.	1927–28.	1928–29.	1929–30.	1930–31.
I. Treatment of Non-metalliferous Mine and Quarry Products	369	376	362	374	361
II. Bricks, Pottery, Glass, &c.	558	537	530	520	368
III. Chemicals, Dyes, Explosives, Paint, Oils, and Grease	516	505	495	493	515
IV. Industrial Metals, Machines, Implements, and Conveyances	5,242	5,345	5,452	5,469	5,362
V. Precious Metals, Jewellery and Plate	269	264	273	264	242
VI. Textiles and Textile Goods	537	542	546	557	520
VII. Skins and Leather	474	466	444	451	460
VIII. Clothing	4,232	4,278	4,337	4,186	3,915
IX. Food, Drink and Tobacco	3,269	4,289	4,304	4,274	4,251
X. Woodworking and Basketware	2,588	2,514	2,508	2,444	2,144
XI. Furniture, Bedding, &c.	1,139	1,169	1,139	1,071	954
XII. Paper, Stationery, Printing, Bookbinding, &c.	1,533	1,556	1,562	1,592	1,601
XIII. Rubber	153	201	219	245	267
XIV. Musical Instruments	55	55	56	54	46
XV. Miscellaneous Products	219	234	249	256	274
XVI. Heat, Light and Power	426	444	440	450	471
Total	21,579	22,775	22,916	22,700	21,751

CLASSIFICATION OF FACTORIES ACCORDING TO NUMBER OF EMPLOYEES. 713

The addition of 1,196 factories during the year 1927-28 is due mainly to the inclusion of 951 bakeries, particulars regarding which industry were incorporated for the first time in the year named. The older tendency to increasing numbers has been checked by the depression and the weeding out of unprofitable enterprises. In spite of the stimulus of high protection and embargo, the number of factories in 1930-31 was less than in 1927-28.

4. Classification of Factories, States, 1930-31.—The following table shows the number of factories in each State during 1930-31, classified according to the nature of the industry :—

FACTORIES.—CLASSIFICATION, STATES, 1930-31.

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 ..	139	148	23	17	23	11	361
II. Bricks, Pottery, Glass, &c. ..	159	93	26	45	32	13	368
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	221	189	22	43	24	16	515
IV. Industrial Metals, Machines, Im- plements and Conveyances ..	1,981	2,080	362	409	388	142	5,362
V. Precious Metals, Jewellery and Plate ..	74	113	19	17	13	6	242
VI. Textiles and Textile Goods ..	129	307	31	28	15	10	520
VII. Skins and Leather ..	182	189	38	21	21	9	460
VIII. Clothing ..	1,421	1,771	237	235	195	56	3,915
IX. Food, Drink and Tobacco ..	1,239	1,333	690	443	320	226	4,251
X. Woodworking and Basketware ..	714	616	320	118	148	228	2,144
XI. Furniture, Bedding, &c. ..	295	378	95	70	71	45	954
XII. Paper, Stationery, Printing, Book- binding, &c. ..	601	616	150	110	103	21	1,601
XIII. Rubber ..	88	113	9	26	21	10	267
XIV. Musical Instruments ..	18	18	1	4	5	..	46
XV. Miscellaneous Products ..	110	106	24	12	18	4	274
XVI. Heat, Light, and Power ..	173	129	57	46	58	8	471
Total ..	7,544	8,199	2,104	1,644	1,455	805	21,751

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

1. States, 1930-31.—The following table shows, for each State, the number of factories classified according to the number of hands employed during 1930-31 :—

FACTORIES.—CLASSIFICATION ACCORDING TO NUMBER OF EMPLOYEES, 1930-31.

No. of Persons Employed in each Factory.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
NUMBER OF FACTORIES.							
Under 4 ..	2,773	3,182	503	456	646	250	7,810
4 ..	727	814	219	202	119	122	2,203
5 to 10 ..	1,976	2,015	701	549	386	276	5,903
11 to 20 ..	902	1,000	307	200	153	84	2,646
21 to 50 ..	742	763	216	159	104	47	2,031
51 to 100 ..	226	205	79	53	37	14	614
Over 100 ..	198	220	79	25	10	12	544
Total ..	7,544	8,199	2,104	1,644	1,455	805	21,751

Compared with the figures for 1929-30 there has been a considerable increase in the number of small factories. Establishments employing under four hands increased from 7,012 to 7,810, or 11 per cent., while all others showed a decrease, ranging from 6 per cent., in the case of factories employing four hands, to 28 per cent. in the case of those employing 51 to 100 hands. The number of large factories employing over 100 hands decreased 20 per cent.

The relative importance of large and small factories is better shown by a classification of hands employed according to the size of factory in which they work. As compared with the returns for 1929-30 the average number employed in small factories increased, but decreases were recorded in all other establishments.

FACTORIES.—CLASSIFICATION OF EMPLOYEES, ACCORDING TO SIZE OF FACTORY, 1930-31—*continued*.

No. of Persons Employed in each Factory.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
AVERAGE NUMBER OF HANDS EMPLOYED.							
Under 4 ..	5,439	5,933	1,102	962	1,193	561	15,190
4 ..	2,908	3,256	876	808	476	488	8,812
5 to 10 ..	13,592	13,736	4,824	3,661	2,577	1,953	40,343
11 to 20 ..	13,115	14,606	4,504	3,006	2,301	1,200	38,732
21 to 50 ..	23,465	24,286	6,718	5,103	3,203	1,492	64,267
51 to 100 ..	15,609	14,092	5,450	3,517	2,741	1,002	42,411
Over 100 ..	59,236	53,258	17,000	8,084	3,030	3,663	144,271
Total ..	133,364	129,167	40,474	25,141	15,521	10,359	354,026

2. Australia, 1926-27 to 1930-31.—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 40.75 per cent. in 1930-31.

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.
1926-27—								
Number ..	17,259	111,545	3,587	151,339	733	204,363	21,579	467,247
Average per establishment ..	6.46	..	42.19	..	278.80	..	..	21.65
Percentage on total ..	79.98	23.87	16.62	32.39	3.40	43.74	100.00	100.00
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

§ 3. Power used in Factories.

1. States, 1930-31.—The following table shows the number of factories using steam, gas, oil, electricity, or water power, and the horse-power used during 1930-31:—

FACTORIES.—HORSE-POWER USED, 1930-31.

State.	Number of Establishments.			Horse-power Used.					
	Using Power.	Others.	Total.	Steam.	Gas.	Oil.	Elec- tricity.	Water.	Total.
	No.	No.	No.	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
N.S.W. ..	7,126	418	7,544	466,599	11,078	21,719	237,274	12,346	749,016
Victoria ..	7,519	680	8,199	231,672	9,081	14,268	151,997	26,581	433,599
Queensland ..	1,769	335	2,104	126,630	12,400	15,713	84,853	15	239,611
S. Australia ..	1,500	144	1,644	115,648	4,973	10,659	42,173	..	173,453
W. Australia ..	1,317	138	1,455	57,782	3,785	5,993	24,804	20	92,384
Tasmania ..	745	60	805	5,051	98	1,422	56,883	76,900	140,354
Australia ..	19,976	1,775	21,751	1,003,382	41,415	69,774	597,984	115,862	1,828,417

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 that the whole of this deduction is a duplication. Some of it represents the production of light for general purposes, and an appreciable amount of the power is not used in factories, but on farms or in private houses.

2. Australia, 1926-27 to 1930-31.—The following table shows the horse-power used in connexion with factories in Australia during each of the last five years:—

FACTORIES.—HORSE-POWER USED, AUSTRALIA.

Year.	Number of Establishments.			Horse-power Used.					
	Using Power.	Others.	Total.	Steam.	Gas.	Oil.	Elec- tricity.	Water.	Total (a).
	No.	No.	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
1926-27 ..	18,916	2,663	853,265	55,722	32,459	461,789	71,881	1,475,116	695,230
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

(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 15,000 horse-power per annum or rather over 2 per cent. per annum for the last five years. The net horse-power per employee increased from 1.4 in 1924-25 to 1.6 in 1928-29, but the decline in persons employed in 1930-31 raised the proportion to 2.20 horse-power per employee in that year. The corresponding figure for the United States was 4.5.

3. **Classes of Industry.**—The following tables give a classification of the horse-power used in factories in each State during the year 1930-31. 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, 1930-31.

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 ..	22,092	19,218	2,555	2,303	2,100	6,353	54,621
II. Bricks, Pottery, Glass, &c. ..	9,958	10,629	1,933	2,162	1,788	449	26,919
III. Chemicals, Dyes, Explosives, Paints, Oils and Grease ..	10,441	10,450	1,322	4,766	2,363	321	29,663
IV. Industrial Metals, Machines, Implements and Conveyances ..	103,574	34,379	11,756	14,012	6,549	40,750	211,020
V. Precious Metals, Jewellery and Plate ..	469	827	58	144	17	13	1,528
VI. Textiles and Textile Goods ..	12,139	20,571	2,490	1,780	730	2,170	39,880
VII. Skins and Leather ..	5,492	4,818	664	343	406	196	11,919
VIII. Clothing ..	4,891	7,843	989	687	583	120	15,113
IX. Food, Drink and Tobacco ..	62,114	52,146	64,588	15,305	11,471	5,741	211,365
X. Woodworking and Basketware ..	21,793	15,920	9,804	4,242	7,694	4,655	64,108
XI. Furniture, Bedding, etc. ..	4,524	4,702	1,265	1,897	1,110	517	14,015
XII. Paper, Stationery, Printing, Bookbinding, etc. ..	12,927	13,027	3,087	1,623	1,747	487	32,898
XIII. Rubber ..	14,222	11,926	434	113	70	1,114	27,879
XIV. Musical Instruments ..	1,798	591	3	97	8	..	2,497
XV. Miscellaneous Products ..	947	906	83	140	126	62	2,264
Total less Class XVI. ..	287,381	207,953	101,031	49,614	36,762	62,948	745,689
XVI. Heat, Light and Power ..	461,635	225,646	138,580	123,839	55,622	77,406	1,082,728
Grand Total ..	749,016	433,599	239,611	173,453	92,384	140,354	1,828,417

§ 4. Employment in Factories.

1. **Total Number Employed.**—Each person employed in and about a factory, in whatever capacity, is now included as a factory employee, consequently every proprietor who works in his own business is counted as an employee, and all "outworkers" (see subsection 5 (ii) hereinafter) are also included. The individuals embraced may be classed under the following heads:—(i) Working proprietors; (ii) managers and overseers (iii) accountants and clerks; (iv) engine-drivers and firemen; (v) skilled and unskilled workers in the factories, mills, or workshops; (vi) carters and messengers; and (vii) others.

The number of persons employed during the year 1930-31 has been computed in accordance with a resolution of the Conference of Statisticians held in 1928. This method shows the average number of persons employed over the whole year rather than the average over the period worked. Employment figures for previous years have also 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 abovementioned resolution.

The following table shows, for each year from 1926-27 to 1930-31 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 population in each State and Australia:—

FACTORIES.—EMPLOYMENT.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
AVERAGE NUMBER.							
1926-27 ..	179,364	157,598	44,122	41,075	19,403	10,622	452,184
1927-28 ..	178,094	156,348	44,711	39,044	20,420	11,111	449,728
1928-29 ..	180,806	156,568	45,031	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

PERCENTAGE ON AUSTRALIAN TOTAL.

	%	%	%	%	%	%	%
1926-27 ..	39.67	34.85	9.76	9.08	4.29	2.35	100.00
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

PER 10,000 OF POPULATION.

1926-27 ..	744	906	490	708	496	483	726
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

2. Rates of Increase, 1926-27 to 1930-31.—The following table shows the percentage of increase or decrease on the average number of persons employed for the preceding year in each of the years from 1926-27 to 1930-31.

FACTORY EMPLOYEES.—PERCENTAGE OF INCREASE.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	%	%	%	%	%	%	%
1925-26—1926-27..	5.66	5.67	— 7.21	5.19	— 6.11	4.68	3.64
1926-27—1927-28..	— 7.08	— 7.93	1.33	— 4.94	5.24	4.60	— 5.43
1927-28—1928-29..	1.52	0.14	0.72	— 5.73	1.88	— 5.81	0.17
1928-29—1929-30..	— 9.90	— 3.55	— 5.35	— 12.56	— 5.58	3.38	— 6.95
1929-30—1930-31..	— 21.70	— 16.56	— 11.08	— 25.76	— 25.57	— 18.40	— 19.20

NOTE.—The minus sign indicates decrease.

3. Employees in Classes of Industry, Australia, 1926-27 to 1930-31.—The table hereunder gives the average numbers of persons employed in factories under each group in Australia during the years 1926-27 to 1930-31 inclusive :—

FACTORY EMPLOYEES.—CLASSES, AUSTRALIA.

Class of Industry.	1926-27.	1927-28.	1928-29.	1929-30.	1930-31.
					0
I. Treatment of non-metalliferous mine and quarry products ..	7,898	8,055	7,692	6,889	4,536
II. Bricks, pottery, glass, etc. ..	14,105	13,738	12,990	11,085	5,684
III. Chemicals, dyes, explosives, paint, oils and grease ..	13,909	13,662	14,079	13,364	11,784
IV. Industrial metals, machines, implements and conveyances ..	131,581	127,706	130,321	116,869	89,506
V. Precious metals, jewellery and plate ..	2,138	2,180	2,191	2,073	1,701
VI. Textiles and textile goods ..	26,512	26,536	28,117	29,383	26,228
VII. Skins and leather ..	9,161	8,263	7,879	7,663	6,588
VIII. Clothing ..	83,093	80,950	81,770	74,002	60,069
IX. Food, drink and tobacco ..	63,862	69,968	68,617	67,189	62,294
X. Woodworking and basketware ..	33,114	30,241	26,775	24,169	15,628
XI. Furniture, bedding, etc. ..	14,204	14,110	13,852	11,899	7,770
XII. Paper, stationery, printing, book-binding etc. ..	32,771	32,948	33,837	33,095	29,441
XIII. Rubber ..	5,945	7,187	7,223	6,804	4,592
XIV. Musical instruments ..	1,831	1,713	1,895	1,658	1,067
XV. Miscellaneous products ..	2,384	2,629	2,920	3,172	3,388
XVI. Heat, light and power ..	9,676	9,842	10,324	9,880	8,567
Total	452,184	449,728	450,482	419,194	338,843

The number employed in factories, after being almost constant for three years, fell away in 1930-31 by 80,351, or 19 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 1930-31 and 1926-27 reveals that the decline in employment was more severe in the industries connected with building, i.e., Class II. Bricks, etc., and Class X. Woodworking—where the employment declined approximately 60 per cent. Those least affected were connected with Food, Drink, etc., and Textiles. All classes of industry, however, showed fewer numbers in employment.

4. Employees in Classes of Industry, States, 1930-31.—The following table gives a classification of employees in manufacturing industries in each State during 1930-31 :—

FACTORY EMPLOYEES.—CLASSES, STATES, 1930-31.

Class of Industry.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aus-tralia.
I. Treatment of non-metalliferous mine and quarry products ..	2,206	1,505	251	195	220	159	4,536
II. Bricks, pottery, glass, etc. ..	2,543	1,831	429	389	405	87	5,684
III. Chemicals, dyes, explosives, paint, oils and grease ..	4,979	4,723	363	1,084	534	101	11,784
IV. Industrial metals, machines, implements and conveyances ..	41,401	26,193	7,328	8,275	3,967	2,342	89,506
V. Precious metals, jewellery and plate ..	492	941	98	107	43	20	1,701
VI. Textiles and textile goods ..	8,361	14,719	820	608	336	1,384	26,228
VII. Skins and leather ..	2,760	2,738	474	369	183	64	6,588
VIII. Clothing ..	18,994	30,157	5,080	3,073	2,183	582	60,069
IX. Food, drink, and tobacco ..	20,139	20,024	13,137	4,469	2,675	1,850	62,294
X. Woodworking and basketware ..	4,338	4,483	3,477	882	1,575	873	15,628
XI. Furniture, bedding, etc. ..	2,694	2,674	1,137	547	431	287	7,770
XII. Paper, stationery, printing, bookbinding, etc. ..	11,443	10,641	3,528	1,878	1,334	617	29,441
XIII. Rubber ..	1,773	2,051	448	111	92	117	4,592
XIV. Musical instruments ..	717	298	11	21	20	..	1,067
XV. Miscellaneous products ..	1,509	1,052	231	239	180	177	3,388
XVI. Heat, light and power ..	3,242	1,986	1,089	1,639	442	169	8,567
Total	127,591	126,016	37,901	23,886	14,620	8,829	338,843

The decline in employment compared with 1929-30 for Australia as a whole amounted to 19 per cent. South Australia and Western Australia showed a loss of 26 per cent., New South Wales 22 per cent., Tasmania 18 per cent., Victoria 17 per cent., and Queensland 11 per cent.

5. **Employees According to Nature of Employment.**—(i) *General.* In the following table the average numbers of persons employed in each State during 1930-31 are classified according to the nature of their employment:—

FACTORY EMPLOYEES.—NATURE OF EMPLOYMENT, 1930-31.

State.	Average Number of Persons Employed.						Total.
	Working Proprietors.	Managers and Overseers.	Accountants and Clerks.	Engine-drivers and Firemen.	Workers, Skilled & Unskilled, in Factory Mill or Workshop (a)	Carters, Messengers and Others.	
New South Wales ..	5,753	5,696	8,354	2,160	104,023	1,605	127,591
Victoria ..	6,882	5,376	6,064	1,601	104,611	1,482	126,016
Queensland ..	1,549	1,685	2,472	1,614	27,979	2,602	37,901
South Australia ..	1,211	1,214	1,882	423	18,538	618	23,886
Western Australia ..	890	731	999	380	11,123	488	14,620
Tasmania ..	420	406	790	154	6,825	234	8,829
Australia ..	16,705	15,108	20,561	6,341	273,099	7,029	338,843

(a) Including Outworkers.

(ii) *Outworkers.* The term "outworker" or "homeworker" has acquired a special meaning in connexion with manufacturing industries, and technically embraces only those to whom work is given out by factory owners to be wrought upon in the employees' own homes. Individuals working for themselves are not included. The following table gives particulars of the average number of outworkers connected with factories in each State during each year from 1926-27 to 1930-31 inclusive:—

FACTORIES.—OUTWORKERS.(a)

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
1926-1927 ..	336	592	31	66	7	53	1,085
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

(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 nearly one to two. In the remaining States the ratio was roughly one female employed to every five males, while that for Australia as a whole was one to three. The employment of women is, however, mainly confined to a few trades.

Increasing activity in the clothing and textile industries is the principal cause of the growth in female employment. Certain occupations are regarded as specially suitable for women, such as clothing and textile manufacture, preparation of food, book-binding, and wrapping and packing connected with various industries. Considerable numbers of women clerks and typists are also included in the returns.

(ii) *Average Number of Males and Females Employed, 1926-27 to 1930-31.* The following table shows the average number of male and female employees in factories in each State from 1926-27 to 1930-31:—

FACTORIES.—MALES AND FEMALES EMPLOYED.

State.	1926-27.	1927-28.	1928-29.	1929-30.	1930-31.
MALES.					
New South Wales	135,418	134,488	135,813	122,006	93,868
Victoria	106,245	105,366	104,648	100,135	82,949
Queensland	37,119	37,381	37,107	35,141	31,144
South Australia	34,076	32,214	30,385	26,485	19,332
Western Australia	15,959	16,710	16,993	15,921	11,729
Tasmania	8,616	8,730	8,164	8,547	6,922
Australia	337,433	334,889	333,110	308,235	245,944
FEMALES.					
New South Wales	43,946	43,606	44,993	40,907	33,723
Victoria	51,353	50,982	51,920	50,874	43,067
Queensland	7,003	7,330	7,924	7,483	6,757
South Australia	6,999	6,830	6,422	5,700	4,554
Western Australia	3,444	3,710	3,811	3,722	2,891
Tasmania	2,006	2,381	2,302	2,273	1,907
Australia	114,751	114,839	117,372	110,959	92,899

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 1930-31 to 91,489 or 27 per cent. in the case of males, and to 21,852 or 19 per cent. in respect of females.

3. *Rate of Variation for each Sex.*—The percentages of annual increase or decrease during the years 1926-27 to 1930-31 on the average number of males and females employed in factories are shown below :—

PERCENTAGES OF ANNUAL INCREASE, MALE AND FEMALE FACTORY EMPLOYEES.

State.	1925-26— 1926-27.	1926-27— 1927-28.	1927-28— 1928-29.	1928-29— 1929-30.	1929-30— 1930-31.
MALES.					
	%	%	%	%	%
New South Wales ..	5.03	-0.69	0.99	-10.17	-23.06
Victoria ..	4.27	-0.83	-0.68	-4.31	-17.16
Queensland ..	-7.36	0.71	-0.79	-5.30	-11.37
South Australia ..	5.53	-5.46	-5.68	-12.84	-27.01
Western Australia ..	-8.25	4.71	1.69	-6.31	-26.33
Tasmania ..	4.75	1.32	-6.48	4.69	-19.01
Total ..	2.63	-0.75	-0.53	-7.47	-20.21
FEMALES.					
	%	%	%	%	%
New South Wales ..	7.67	-0.77	3.18	-9.08	-17.56
Victoria ..	8.72	-0.72	1.84	-2.01	-15.35
Queensland ..	-6.70	4.67	8.10	-5.57	-9.70
South Australia ..	3.52	-2.41	-5.97	-11.24	-20.11
Western Australia ..	5.19	7.72	2.72	-2.36	-22.33
Tasmania ..	4.37	18.69	-3.32	-1.26	-16.10
Total ..	6.73	0.77	2.20	-5.46	-16.28

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 each of the years 1926-27 to 1930-31 inclusive :—

MASCULINITY(a) OF FACTORY EMPLOYEES.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
1926-27 ..	308	207	530	487	463	430	294
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

(a) Number of males per 100 females.

During the period of 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. The causes of the increasing employment of women workers have been dealt with in *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 1930-31 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, 1930-31.

Class.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Aus- tralia.
AVERAGE NUMBER.							
VI. Textiles and textile goods ..	5,427	9,268	359	228	171	916	16,369
VIII. Clothing ..	13,283	21,119	3,683	2,249	1,623	356	42,313
IX. Food and drink ..	5,943	4,726	1,004	699	440	323	13,135
XII. Paper, stationery, &c. ..	3,248	2,910	820	490	306	133	7,907
All other classes ..	5,822	5,044	891	888	351	179	13,175
Total ..	33,723	43,067	6,757	4,554	2,891	1,907	92,899
PERCENTAGES ON AVERAGE TOTAL NUMBER OF FEMALE EMPLOYEES.							
VI. Textiles and textile goods ..	16.10	21.52	5.31	5.00	5.92	48.03	17.62
VIII. Clothing ..	39.39	49.04	54.51	49.39	56.14	18.67	45.55
IX. Food and drink ..	17.62	10.97	14.86	15.35	15.22	16.94	14.14
XII. Paper, stationery, etc. ..	9.63	6.76	12.14	10.76	10.58	6.97	8.51
All other classes ..	17.26	11.71	13.18	19.50	12.14	9.39	14.18
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. DURING 1930-31.

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 ..	1,431	5,184	362	1,586	4,726	298	1,175	3,562	303
Waterproof and oil-skin clothing ..	14	50	357	58	165	284	..	..	..
Dressmaking ..	30	1,048	3,493	348	4,915	1,412	35	1,420	2,977
Millinery ..	56	883	1,577	87	1,238	1,423	7	329	4,700
Shirts, collars and underclothing ..	227	2,311	1,018	469	3,934	839	128	1,568	1,225
Stays and corsets ..	56	542	968	44	343	780	3	19	633
Handkerchiefs, ties and scarves ..	65	473	728	32	307	959	..	..	..
Hats and caps ..	459	918	200	425	747	176	54	99	183
Gloves ..	..	..	..	21	65	310	..	..	..
Boots and shoes ..	1,963	1,535	78	4,664	3,958	85	1,070	716	29
Boot repairing (including bespoke work) ..	1,039	26	2,50	653	11	1.68	385	27	7
Boot accessories ..	70	21	30	339	113	33	..	..	..
Umbrellas and walking sticks ..	35	66	189	32	59	184	10	11	110
Dyeworks and cleaning (including renovating and repairing) ..	266	224	84	229	214	93	138	154	112
Other ..	..	2	..	51	324	635	2	6	300
Total ..	5,711	13,283	233	9,038	21,119	234	3,007	7,911	263

(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 general object of the restrictions imposed is to assure that a proper period shall be devoted to primary education, and that the early years of toil shall not exhaust the worker before the attainment of full growth.

2. Average Number of Children Employed, 1926-27 to 1930-31.—In the statistical compilations of 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 during the years 1926-27 to 1930-31 :—

CHILDREN EMPLOYED IN FACTORIES.

State.	1926-27.	1927-28.	1928-29.	1929-30.	1930-31.
MALES.					
New South Wales ..	4,594	4,016	3,983	3,322	1,851
Victoria ..	4,567	4,231	4,209	3,748	2,543
Queensland ..	1,281	1,272	1,254	1,212	950
South Australia ..	1,215	1,073	883	654	411
Western Australia ..	614	677	647	575	324
Tasmania ..	311	343	290	261	203
Australia ..	12,582	11,612	11,266	9,772	6,282
FEMALES.					
New South Wales ..	5,001	4,747	5,085	4,196	2,757
Victoria ..	4,041	3,992	4,298	4,019	3,361
Queensland ..	927	850	921	906	619
South Australia ..	856	763	679	529	399
Western Australia ..	242	297	276	226	149
Tasmania ..	254	304	265	252	205
Australia ..	11,321	10,953	11,524	10,128	7,490
TOTAL.					
New South Wales ..	9,595	8,763	9,068	7,518	4,608
Victoria ..	8,608	8,223	8,507	7,767	5,904
Queensland ..	2,208	2,122	2,175	2,118	1,569
South Australia ..	2,071	1,836	1,562	1,183	810
Western Australia ..	856	974	923	801	473
Tasmania ..	565	647	555	513	408
Australia ..	23,903	22,565	22,790	19,900	13,772

3. Percentage of Children on Total Number of Employees.—The decrease in the number of children employed in factories is greater than that of adult workers, the percentage of child workers on the total number of employees declining from 4.75 per cent. in 1929-30 to 4.06 per cent. in 1930-31. The total decrease amounted to 3,490 in respect of males and 2,638 in respect of females.

PERCENTAGE OF CHILDREN ON TOTAL NUMBER OF FACTORY EMPLOYEES.

State.	1926-27.	1927-28.	1928-29.	1929-30.	1930-31.
	%	%	%	%	%
New South Wales ..	5.35	4.92	5.02	4.61	3.61
Victoria ..	5.46	5.26	5.43	5.14	4.69
Queensland ..	5.00	4.75	4.81	4.97	4.14
South Australia ..	5.04	4.70	4.24	3.68	3.39
Western Australia ..	4.41	4.77	4.44	4.08	3.24
Tasmania ..	5.32	5.82	5.30	4.74	4.62
Australia ..	5.29	5.02	5.06	4.75	4.06

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 1930-31.

CHILDREN EMPLOYED.—VARIOUS INDUSTRIES, 1930-31.

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	39	16	23	4	2	1	4	..	14	10	..	..	82	31
III.	Chemicals, Drugs and Medicines	38	77	11	27	..	2	5	30	3	1	..	..	57	137
IV.	Smelting, Converting, Refining and Rolling of Iron and Steel	73	..	93	7	13	..	34	8	..	..	..	..	213	15
"	Engineering (not Marine or Electrical)	59	..	66	7	17	..	13	2	18	..	..	..	173	9
"	Electrical Installations, Cables and Apparatus	55	23	47	11	..	..	2	..	2	..	..	..	106	34
"	Motor Vehicles and Cycles. (H) Repairs	60	..	71	2	33	..	24	..	18	1	7	..	213	3
"	Galvanized Ironworking and Tinsmithing	81	22	137	40	22	4	20	..	12	..	1	..	273	66
VI.	Cotton	32	66	7	15	4	..	..	..	..	..	..	..	43	81
"	Wool, Worsted and Shoddy	119	282	276	472	5	21	19	16	7	9	36	118	462	918
"	Hosiery and Other Knitted Goods	28	253	121	533	2	6	..	8	1	4	2	11	154	815
"	Rope and Cordage	6	8	54	31	5	..	7	..	..	..	..	..	72	39
VII.	Tanning, Currying and Leather Dressing	32	..	62	1	17	..	5	..	2	..	..	..	118	1
"	Bags, Trunks and Other Leather Goods	22	36	10	21	4	4	1	8	2	..	..	..	39	69
VIII.	Tailoring and Slop Clothing	31	293	47	180	40	86	4	61	2	19	2	5	126	644
"	Dressmaking	1	114	21	403	..	42	..	74	..	39	..	5	22	677
"	Millinery	..	87	3	193	..	2	..	30	..	4	..	..	3	316
"	Shirts, Collars and Underclothing	6	295	13	255	11	197	1	33	1	17	..	8	32	805
"	Hats and Caps	11	70	16	39	..	5	..	..	1	..	..	..	27	115
"	Boots and Shoes	100	177	229	309	18	46	17	26	13	..	4	5	381	563
"	Boot Repairing	31	1	23	..	15	4	5	..	7	1	4	..	85	6
IX.	Bakeries (including Cakes and Pastry)	24	5	54	8	31	20	14	3	15	..	38	33	176	69
"	Biscuits	57	100	86	29	1	2	13	9	17	14	..	..	174	154
"	Sugar Confectionery (including Chocolate)	67	189	47	73	8	24	11	30	..	7	..	..	133	323
"	Butter Factories, Creameries, etc.	4	2	39	25	24	1	3	2	4	1	1	..	75	31
"	Condiments, Coffee and Spices	25	64	5	24	..	..	21	3	12	..	..	..	63	91
"	Tobacco, Cigars, Cigarettes and Snuff	11	62	19	33	..	..	..	..	5	..	..	..	35	95
X.	Sawmills (Town and Forest)	10	1	15	..	72	..	4	..	16	..	3	..	120	1
XI.	Billiard Tables, Cabinet and Furniture making and Upholstery	42	8	52	5	35	1	20	..	6	..	7	1	162	15
XII.	Papermaking, etc.	32	98	3	..	..	..	..	..	..	..	..	..	35	98
"	Envelopes, Stationery, Paper Boxes, Bags, etc.	..	..	22	86	6	19	10	17	1	4	..	..	39	126
"	Newspapers and Periodicals	47	8	16	1	86	9	..	..	10	1	3	..	162	19
"	General Printing and Bookbinding (not including Government)	96	69	132	46	48	24	24	9	23	2	9	2	332	152
XIII.	Tyres, Motor and Cycle	15	31	15	23	2	..	3	..	4	..	5	4	44	58

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 1930–31 was £290,798,564, of which amount the sum of £162,104,646 represents the value of the materials used, and £10,383,795 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., £118,310,123, 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 during 1930–31 was £62,454,859. This figure shows a decline of £22,262,174, or 26 per cent., as compared with the total for the previous year.

2. *Salaries and Wages Paid.*—(i) *Total Amount, 1930–31.* The total amount of salaries and wages paid during the year 1930–31 in various classes of factories in Australia, is shown in the following table :—

SALARIES AND WAGES PAID IN FACTORIES, 1930–31.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of Non-metaliferous Mine and Quarry Products	572,443	315,613	57,435	41,473	48,428	45,743	1,081,135
II. Bricks, Pottery, Glass, etc.	546,019	356,504	70,071	65,400	80,468	15,905	1,134,367
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	1,027,377	946,156	70,518	226,472	122,280	18,853	2,411,656
IV. Industrial Metals, Machines, Implements and Conveyances	9,160,205	5,068,046	1,433,432	1,656,377	845,376	500,236	18,663,672
V. Precious Metals, Jewellery and Plate	79,274	140,018	16,132	14,743	7,558	2,138	259,863
VI. Textiles and Textile Goods	1,218,684	1,975,156	112,933	86,659	48,958	154,833	3,597,223
VII. Skins and Leather ..	524,720	484,531	74,099	52,197	29,821	8,413	1,173,801
VIII. Clothing	2,371,977	3,700,087	574,626	331,749	238,434	67,476	7,284,349
IX. Food, Drink and Tobacco	4,179,572	4,043,303	2,878,998	850,993	624,992	331,555	12,909,413
X. Woodworking and Basketware	841,339	809,428	571,677	150,945	312,140	138,624	2,824,153
XI. Furniture, Bedding, etc.	458,398	375,484	190,712	74,245	67,486	34,894	1,201,219
XII. Paper, Stationery, Printing, Book-binding, etc.	2,471,146	2,019,352	686,649	347,896	307,440	138,112	5,970,595
XIII. Rubber	433,756	375,739	56,211	16,175	11,860	22,370	916,111
XIV. Musical Instruments ..	150,139	58,100	1,869	2,968	4,000	..	217,076
XV. Miscellaneous Products	242,864	165,385	34,077	30,472	25,776	19,467	518,041
XVI. Heat, Light and Power	922,377	526,569	268,667	420,104	111,867	42,601	2,292,185
Total	25,200,290	21,359,491	7,098,106	4,368,868	2,886,884	1,541,220	62,454,859

(ii) *Totals and Averages, 1926–27 to 1930–31.* 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 1926–27 to 1930–31. 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.
		£	£	£	£	£	£	£
1926-27	Total amount paid ..	37,092,196	29,889,557	9,298,370	8,390,603	3,922,923	1,981,517	90,575,166
	Average per employee ..	215.04	198.67	216.99	211.84	210.83	196.17	208.65
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	90,986,968
	Average per employee ..	221.37	197.41	209.45	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	211.80	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

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 1930-31 were paid in New South Wales, and Western Australia.

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 and £193.88 in 1930-31. 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 a consequent further reduction in the rate of wage. The average salary and wage fell approximately 8 per cent. in 1930-31 as compared with 1929-30.

(iii) *Earnings of Males and Females, 1930-31.* The following table shows the approximate amount paid in salaries and wages to males and females in each class of industry in each State during the year 1930-31 :—

SALARIES AND WAGES.—MALE AND FEMALE FACTORY EMPLOYEES, 1930-31.

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 ..	£ 565,099	£ 312,765	£ 56,694	£ 41,007	£ 47,276	£ 45,415	£ 1,068,256
II. Bricks, Pottery, Glass, etc. ..	524,680	347,373	68,900	64,890	77,296	15,598	1,098,737
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	862,377	763,461	64,025	210,882	117,796	17,546	2,036,087
IV. Industrial Metals, Machines, Implements and Conveyances ..	8,975,579	4,957,908	1,408,550	1,627,870	833,864	492,914	18,296,685
V. Precious Metals, Jewellery and Plate ..	72,594	126,442	15,344	14,321	7,413	2,096	238,210
VI. Textiles and Textile Goods ..	634,972	1,091,434	83,606	65,393	34,108	86,421	1,995,934
VII. Skins and Leather ..	476,321	433,158	68,100	40,210	26,536	7,374	1,051,699
VIII. Clothing ..	1,004,910	1,580,774	266,427	125,806	84,453	35,221	3,097,591
IX. Food, Drink and Tobacco ..	3,547,411	3,542,221	2,782,283	794,723	578,458	301,833	11,546,929
X. Woodworking and Basketware ..	821,338	798,127	561,967	147,019	310,782	136,096	2,775,329
XI. Furniture, Bedding, etc. ..	406,459	327,444	179,385	68,912	63,236	33,125	1,078,561
XII. Paper, Stationery, Printing, Book-binding, etc. ..	2,123,059	1,708,150	603,579	300,712	271,389	124,105	5,130,994
XIII. Rubber ..	344,070	285,303	33,857	15,339	11,469	21,081	711,119
XIV. Musical Instruments ..	127,367	54,875	1,735	2,853	4,000	..	190,830
XV. Miscellaneous Products ..	200,090	142,975	30,838	25,966	22,040	19,008	440,917
XVI. Heat, Light and Power ..	919,106	525,714	262,343	405,561	111,179	42,016	2,265,919
Total ..	21,605,432	16,998,124	6,487,633	3,951,464	2,601,295	1,379,849	53,023,797

SALARIES AND WAGES.—MALE AND FEMALE FACTORY EMPLOYEES,
1930-31—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 ..	£ 7,344	£ 2,848	£ 741	£ 466	£ 1,152	£ 328	£ 12,879
II. Bricks, Pottery, Glass, etc. ..	21,339	9,131	1,171	510	3,172	307	35,630
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	165,000	182,695	6,493	15,590	4,484	1,307	375,569
IV. Industrial Metals, Machines, Implements and Conveyances ..	184,626	110,138	24,882	28,507	11,512	7,322	366,987
V. Precious Metals, Jewellery and Plate ..	6,680	13,576	788	422	145	42	21,653
VI. Textiles and Textile Goods ..	583,712	883,722	29,327	21,266	14,850	68,412	1,601,289
VII. Skins and Leather ..	48,399	51,393	5,999	11,987	3,285	1,039	122,102
VIII. Clothing ..	1,367,067	2,119,313	308,199	205,943	153,981	32,255	4,186,758
IX. Food, Drink and Tobacco ..	632,161	501,082	96,715	56,270	46,534	29,722	1,362,484
X. Woodworking and Basketware ..	20,001	11,301	9,710	3,926	1,358	2,528	48,824
XI. Furniture, Bedding, etc. ..	51,939	48,040	11,327	5,333	4,250	1,769	122,658
XII. Paper, Stationery, Printing, Book-binding, etc. ..	348,087	311,202	83,070	47,184	36,051	14,007	839,601
XIII. Rubber ..	89,686	90,436	22,354	830	391	1,289	204,992
XIV. Musical Instruments ..	22,772	3,225	134	115	..	..	26,246
XV. Miscellaneous Products ..	42,774	22,410	3,239	4,506	3,736	459	77,124
XVI. Heat, Light and Power ..	3,271	855	6,324	14,543	688	585	26,266
Total ..	3,594,858	4,361,367	610,473	417,404	285,589	161,371	9,431,062

(iv) *Total and Average Earnings of Males and Females, 1926-27 to 1930-31.*

Similar information for the last five years is 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.							
1926-27. Amount paid ..	£ 32,319,649	£ 24,199,245	£ 8,529,729	£ 7,700,633	£ 3,560,698	£ 1,794,371	£ 78,104,325
Per cent. on total ..	87.13	80.96	91.73	91.78	90.77	90.56	86.23
Average per employee ..	£ 250.64	£ 242.59	£ 237.66	£ 235.80	£ 234.21	£ 221.42	£ 243.65
1927-28. Amount paid ..	£ 32,929,659	£ 24,268,920	£ 8,388,158	£ 7,477,581	£ 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	£ 8,331,045	£ 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

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

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
FEMALES.							
1926-27. Amount paid .. £	4,772,547	5,690,312	768,641	689,970	362,225	187,146	12,470,841
Per cent. on total ..	12.87	19.04	8.27	8.22	9.23	9.44	13.77
Average per employee .. £	109.64	112.25	110.42	99.25	106.41	93.71	109.83
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	5,732,173	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

(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, 1930-31.

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 ..	190,343	11,639	877,913	1,240	1,068,256	12,879	1,081,135
II. Bricks, pottery, glass, etc. ..	227,721	16,064	871,016	19,566	1,098,737	35,630	1,134,367
III. Chemicals, dyes, explosives, paint, oils and grease ..	507,427	87,046	1,528,660	288,523	2,036,087	375,569	2,411,656
IV. Industrial metals, machines, implements and conveyances ..	2,632,960	219,553	15,663,725	147,434	18,296,685	366,987	18,663,672
V. Precious metals, jewellery and plate ..	27,927	6,668	210,283	14,985	238,210	21,653	259,863
VI. Textiles and textile goods ..	465,581	84,904	1,530,353	1,516,385	1,995,934	1,601,289	3,597,223
VII. Skins and leather ..	161,808	17,464	889,891	104,638	1,051,699	122,102	1,173,801
VIII. Clothing ..	533,037	291,991	2,564,554	3,894,767	3,097,591	4,186,758	7,284,349
IX. Food, drink and tobacco ..	2,274,974	296,026	9,271,955	1,066,458	11,546,929	1,362,484	12,909,413
X. Woodworking and basketware ..	447,417	36,566	2,327,912	12,258	2,775,329	48,824	2,824,153
XI. Furniture, bedding, etc. ..	143,914	29,789	934,647	92,869	1,078,561	122,658	1,201,219
XII. Paper, stationery, printing and book-binding, etc. ..	930,669	194,822	4,200,325	644,779	5,130,994	839,601	5,970,595
XIII. Rubber ..	175,282	25,545	535,837	179,447	711,119	204,992	916,111
XIV. Musical instruments ..	48,357	13,190	142,473	13,056	190,830	26,246	217,076
XV. Miscellaneous products ..	87,800	17,135	353,117	59,989	440,917	77,124	518,041
XVI. Heat, light and power ..	504,702	24,966	1,761,217	1,300	2,265,919	26,266	2,292,185
Total	9,359,919	1,373,368	43,663,878	8,057,694	53,023,797	9,431,062	62,454,859
Average paid per employee ..	361.55	140.41	198.42	96.94	215.59	101.52	184.32

3. Value of Power, Fuel and Light Used.—(i) *Total Amount, 1930-31.* The expenditure in factories on power, fuel and light is of considerable importance; in 1930-31 it amounted to £10,383,795, a decline of £3,218,959 as compared with the figures for the previous year. The following table shows the value of power, fuel and light used in the different classes of industry during 1930-31 :—

VALUE OF POWER, FUEL AND LIGHT USED(a) IN FACTORIES, 1930-31.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products ..	199,663	157,437	14,601	18,780	24,219	40,311	455,011
II. Bricks, Pottery, Glass, etc. ..	148,421	120,814	18,501	17,428	23,456	4,815	333,435
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	167,645	165,855	12,406	41,620	25,779	4,712	418,017
IV. Industrial Metals, Machines, Implements and Conveyances ..	1,331,645	346,147	71,395	329,382	47,411	299,197	2,425,177
V. Precious Metals, Jewellery and Plate ..	4,634	7,998	943	1,122	275	78	15,050
VI. Textiles and Textile Goods ..	121,865	223,294	15,692	14,969	7,661	48,532	432,013
VII. Skins and Leather ..	61,726	50,868	4,160	2,402	2,281	925	122,362
VIII. Clothing ..	69,719	110,578	13,640	11,298	6,295	2,936	214,466
IX. Food, Drink and Tobacco ..	780,612	733,071	449,016	174,240	123,800	94,955	2,355,694
X. Woodworking and Basketware ..	52,531	45,160	29,846	9,674	13,545	14,308	165,064
XI. Furniture, Bedding, etc. ..	20,425	20,860	9,127	4,724	2,945	2,279	60,360
XII. Paper, Stationery, Printing, Book-binding, etc. ..	125,275	125,309	31,078	14,618	11,693	5,814	313,787
XIII. Rubber ..	76,044	77,300	4,337	2,188	2,033	5,292	167,194
XIV. Musical Instruments ..	12,898	3,275	24	133	28	..	16,358
XV. Miscellaneous Products ..	13,447	8,683	955	1,598	992	6,902	32,577
XVI. Heat, Light and Power ..	1,541,123	639,477	199,609	211,113	259,687	6,221	2,857,230
Total ..	4,727,673	2,836,126	875,330	855,289	552,100	537,277	10,383,795

(a) Including lubricants and water.

(ii) *Total Amount, 1926-27 to 1930-31.* The following 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.
	£	£	£	£	£	£	£
1926-27 ..	6,919,014	3,392,448	990,618	1,384,937	549,796	487,234	13,724,047
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 ..	4,747,673	2,836,126	875,330	855,289	552,100	537,277	10,383,795

4. Value of Materials Used.—(i) *Total Amount, 1930-31.* 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 during 1930-31 was £162,104,646, which represents 55.74 per cent. of the total value of the final output. (See next sub-section.)

The following table shows the value of the materials used in various classes of industry in each State :—

VALUE OF MATERIALS USED IN FACTORIES, 1930-31.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products ..	938,250	473,561	85,900	62,254	62,324	59,455	1,681,744
II. Bricks, Pottery, Glass, etc. ..	313,758	179,427	22,035	41,810	46,061	6,911	610,002
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	4,377,937	3,277,766	329,443	870,847	1,019,968	124,296	10,000,257
IV. Industrial Metals, Machines, Implements and Conveyances ..	15,564,774	5,096,046	1,032,056	3,020,021	567,032	673,751	25,953,680
V. Precious Metals, Jewellery and Plate ..	53,230	151,260	8,071	11,800	3,070	162	227,593
VI. Textiles and Textile Goods ..	2,515,459	4,103,898	1,180,742	362,753	180,095	255,011	8,597,958
VII. Skins and Leather ..	2,153,193	1,725,572	205,217	94,107	79,459	18,526	4,276,074
VIII. Clothing ..	3,766,372	6,764,089	785,665	384,136	435,185	76,507	12,211,954
IX. Food, Drink and Tobacco ..	26,554,180	23,438,599	20,417,384	5,329,925	3,132,503	1,168,995	80,041,586
X. Woodworking and Basketware ..	1,937,061	1,089,269	905,169	426,074	489,112	150,962	4,997,647
XI. Furniture, Bedding, etc. ..	770,858	653,479	237,028	109,786	108,975	33,080	1,913,206
XII. Paper, Stationery, Printing, etc. ..	2,852,953	2,415,754	527,783	339,937	243,275	83,277	6,482,979
XIII. Rubber ..	813,753	668,171	79,374	30,824	20,787	62,289	1,675,198
XIV. Musical Instruments ..	182,951	61,382	2,017	3,292	379	..	250,021
XV. Miscellaneous Products ..	419,257	282,150	31,873	55,019	33,104	16,446	837,849
XVI. Heat, Light and Power ..	1,018,104	795,278	169,109	224,469	98,813	41,125	2,346,898
Total ..	64,232,090	51,175,701	26,018,866	11,387,054	6,520,142	2,770,793	162,104,646

Amongst the various classes the largest value of materials used was in Class IX., "Food, Drink and Tobacco," the total being £80,041,586. The next in order of importance was Class IV., "Industrial Metals, Machines, Implements and Conveyances", in which raw materials valued at £25,953,680 were used. The minimum value appears in Class V., "Precious Metals, Jewellery and Plate," the total being only £227,593.

(ii) *Total Amount, 1926-27 to 1930-31.* 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.
	£	£	£	£	£	£	£
1926-27 ..	102,534,388	71,102,047	25,067,489	21,848,126	8,067,569	4,023,899	232,643,518
1927-28 ..	102,807,287	70,954,166	28,620,664	20,571,650	8,579,656	4,083,837	235,617,260
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

5. *Total Value of Output.*—(i) *Total, 1930-31.* The value of the output of new goods manufactured and of repairs effected in factories of various classes in each State during 1930-31 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 sub-section 6 hereof) is the real value of production from factories.

TOTAL VALUE OF OUTPUT OF FACTORIES, 1930-31.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of non-metaliferous mine and quarry products ..	2,201,222	1,308,408	256,308	173,849	187,438	175,888	4,303,113
II. Bricks, pottery, glass, etc. ..	1,261,467	921,949	152,284	138,241	189,515	36,507	2,699,963
III. Chemicals, dyes, explosives, paint, oils, and grease ..	8,692,550	6,158,919	599,176	1,395,743	1,419,554	168,579	18,434,521
IV. Industrial metals, machines, implements and conveyances ..	29,830,729	12,910,719	3,323,750	5,784,464	1,741,916	1,910,743	55,502,321
V. Precious metals, jewellery and plate ..	185,307	400,555	36,129	36,795	16,800	2,973	678,559
VI. Textiles and textile goods ..	4,721,252	7,707,588	1,354,768	487,742	276,120	597,846	15,145,316
VII. Skins and leather ..	3,046,609	2,658,212	344,099	160,693	136,666	26,341	6,372,620
VIII. Clothing ..	7,691,313	12,833,584	1,711,448	874,348	835,958	185,820	24,132,471
IX. Food, drink and tobacco ..	38,231,677	33,579,814	26,815,115	7,318,236	4,766,761	1,817,688	112,529,291
X. Woodworking and basketware ..	3,322,185	2,448,485	1,761,107	692,724	966,271	350,959	9,541,731
XI. Furniture, bedding, etc. ..	1,493,115	1,315,774	541,184	223,581	221,420	92,333	3,887,407
XII. Paper, stationery, printing, book-binding, etc. ..	7,303,119	5,779,796	1,722,349	901,495	720,737	282,501	16,709,997
XIII. Rubber ..	1,615,309	1,412,297	178,229	64,366	56,511	108,863	3,435,575
XIV. Musical instruments ..	402,652	156,315	6,816	7,923	5,588	..	579,294
XV. Miscellaneous products ..	831,926	585,712	84,055	122,665	73,532	42,370	1,740,260
XVI. Heat, light and power ..	7,653,104	3,247,668	1,536,041	1,614,590	730,566	316,156	15,106,125
Total ..	118,483,536	93,425,795	40,422,858	19,997,455	12,353,353	6,115,567	290,798,564

(ii) *Totals, 1926-27 to 1930-31.* The following statement shows the value of output of factories in each State during the five years ended 1930-31 :—

TOTAL VALUE OF OUTPUT OF FACTORIES.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	£	£	£	£	£	£	£
1926-27 ..	179,302,446	127,397,951	41,327,767	36,888,469	15,671,660	8,104,545	408,092,838
1927-28 ..	181,403,084	128,465,317	46,462,840	35,426,174	16,998,184	8,238,410	416,994,009
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

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 principle, a rate 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 two 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 for the present no deduction should be made on this account. 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, and this method of valuing factory production is now in use in all the Australian States.

The figure thus obtained 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 £19,000,000 in 1930-31. 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, 1930-31.* The following table shows the value of production during 1930-31 in each State for the various classes of factories.

VALUE OF PRODUCTION, 1930-31.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of Non-metaliferous Mine and Quarry Products ..	1,063,309	677,410	155,807	92,815	100,895	76,122	2,166,358
II. Bricks, Pottery, Glass, etc. ..	799,288	621,708	111,748	79,003	119,998	24,781	1,756,526
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	4,146,968	2,715,298	257,327	483,276	373,807	39,571	8,016,247
IV. Industrial Metals, Machines, Implements and Conveyances ..	12,934,310	7,468,526	2,220,299	2,435,061	1,127,473	937,795	27,123,464
V. Precious Metals, Jewellery and Plate ..	127,443	241,297	27,115	23,873	13,455	2,733	435,916
VI. Textiles and Textile Goods ..	2,083,928	3,380,396	158,334	110,020	88,364	294,303	6,115,345
VII. Skins and Leather ..	831,690	881,772	134,722	64,184	54,026	6,890	1,974,184
VIII. Clothing ..	3,855,222	5,958,917	912,143	478,914	394,478	106,377	11,706,051
IX. Food, Drink and Tobacco ..	10,896,885	9,408,144	5,948,715	1,814,071	1,510,458	553,738	30,132,011
X. Woodworking and Basketware ..	1,332,593	1,314,056	826,092	256,976	463,614	185,689	4,379,020
XI. Furniture, Bedding, etc. ..	701,832	641,435	295,029	109,071	109,500	56,974	1,913,841
XII. Paper, Stationery, Printing, Book-binding, etc. ..	4,324,891	3,238,733	1,163,488	526,940	465,769	193,410	9,913,231
XIII. Rubber ..	725,512	666,826	94,518	31,354	33,691	41,282	1,593,183
XIV. Musical Instruments ..	206,803	91,658	4,775	4,498	5,181	..	312,915
XV. Miscellaneous Products ..	399,222	294,879	51,227	66,048	39,436	19,022	869,834
XVI. Heat, Light and Power ..	5,093,877	1,812,913	1,167,323	1,179,008	380,066	268,810	9,901,997
Total ..	49,523,773	39,413,968	13,528,662	7,755,112	5,281,111	2,807,497	118,310,123

(ii) *Totals and Averages, 1926-27 to 1930-31.* The value of production and the amount per employee and per head of population are shown in the following table for the years 1926-27 to 1930-31 :—

FACTORIES.—VALUE OF PRODUCTION.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
VALUE.							
	£	£	£	£	£	£	£
1926-27 ..	69,849,044	52,903,456	15,269,660	13,655,406	7,054,295	3,593,412	162,325,273
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
PER EMPLOYEE.(a)							
	£	£	£	£	£	£	£
1926-27 ..	389	336	346	332	364	338	359
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
PER HEAD OF POPULATION.							
	£	£	£	£	£	£	£
1926-27 ..	29.75	30.90	17.31	24.11	18.63	16.73	26.56
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

(a) Including Working Proprietors.

7. **Value of Output and Cost of Production.**—As the total value of the output for Australia for 1930–31 was estimated at £290,798,564, there remained, after payment of £162,104,646, the value of the materials used, of £62,454,859 for salaries and wages, and of £10,383,795 for fuel, the sum of £55,855,264 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 1930–31 :—

FACTORIES.—VALUE OF OUTPUT AND COST OF PRODUCTION, 1930–31.

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 ..	£ 64,232,090	£ 4,727,673	£ 25,200,290	£ 24,323,483	£ 118,483,536
Victoria ..	51,175,701	2,836,126	21,359,491	18,054,477	93,425,795
Queensland ..	26,018,866	875,330	7,098,106	6,430,556	40,422,858
South Australia ..	11,387,054	855,289	4,368,868	3,386,244	19,997,455
Western Australia ..	6,520,142	552,100	2,886,884	2,394,227	12,353,353
Tasmania ..	2,770,793	537,277	1,541,220	1,266,277	6,115,567
Australia ..	162,104,646	10,383,795	62,454,859	55,855,264	290,798,564

PERCENTAGE OF COSTS, ETC., ON TOTAL VALUE.

New South Wales ..	% 54.21	% 3.99	% 21.27	% 20.53	% 100.00
Victoria ..	54.78	3.04	22.86	19.32	100.00
Queensland ..	64.37	2.17	17.56	15.90	100.00
South Australia ..	56.94	4.28	21.85	16.93	100.00
Western Australia ..	52.78	4.47	23.37	19.38	100.00
Tasmania ..	45.31	8.78	25.20	20.71	100.00
Australia ..	55.74	3.57	21.48	19.21	100.00

(a) Including the values 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.**—The values of land and buildings and of plant and machinery used in the factories increased rapidly up to the year 1929–30, but in 1930–31, owing to trade depression, the figures decreased by nearly £9,000,000. For the whole of Australia, however, the total value of land and buildings and plant and machinery increased from 1926–27 to 1930–31 by £16,615,943, i.e., from £220,092,363 to £236,708,306, or at the rate of £4,153,986 per annum.

The following statement shows the value of land and buildings and of plant and machinery used in connexion with manufacturing industries during the year 1930-31 :—

VALUE OF LAND, BUILDINGS, PLANT, AND MACHINERY, 1930-31.

Value of—	N.S.W.	Victoria.	Q'land.	S.A.	W. Aust.	Tasmania.	Australia.
	£	£	£	£	£	£	£
Land and buildings	49,822,312	36,218,384	9,355,106	8,418,702	5,656,833	2,739,272	112,210,609
Plant and machinery	50,865,884	34,771,687	16,100,004	10,182,855	6,134,766	6,442,501	124,497,697
Total	100,688,196	70,990,071	25,455,110	18,601,557	11,791,599	9,181,773	236,708,306

The values recorded in this section are in general the values apportioned in the books of the individual firms. Depreciation has been allowed for in most cases, often on a generous scale. The totals shown in the table consequently do not represent the actual amount of capital invested in the items specified. Information is not available in regard to the total capital expenditure, but it may be some 70 or 80 per cent. greater than the capital value as here recorded.

2. **Value of Land and Buildings.**—(i) *Total, Australia, 1926-27 to 1930-31.* The following table shows for Australia as a whole the approximate value of land and buildings occupied in connexion with manufacturing industries from 1926-27 to 1930-31 inclusive :—

VALUE OF LAND AND BUILDINGS.—AUSTRALIA.

Class of Industry.	1926-27.	1927-28.	1928-29.	1929-30.	1930-31.
	£	£	£	£	£
I. Treatment of non-metalliferous mine and quarry products ..	2,391,664	2,471,346	2,545,729	2,565,373	2,561,418
II. Bricks, pottery, glass, etc. ..	2,787,163	2,903,116	3,019,723	3,020,979	2,405,960
III. Chemicals, dyes, explosives, paint, oils and grease ..	5,033,880	5,491,497	5,687,978	5,986,996	5,866,714
IV. Industrial metals, machines, implements and conveyances ..	26,593,793	27,346,706	28,293,793	28,957,846	27,679,331
V. Precious metals, jewellery and plate ..	666,618	682,038	659,734	658,936	557,662
VI. Textiles and textile goods ..	4,504,175	4,653,315	4,879,036	5,065,228	4,884,218
VII. Skins and leather ..	1,965,330	1,879,955	1,862,509	1,936,107	1,873,402
VIII. Clothing ..	12,241,968	12,786,472	13,094,838	12,539,163	10,667,755
IX. Food, drink and tobacco ..	22,290,103	25,092,521	26,385,520	26,996,483	26,760,444
X. Woodworking and basketware ..	4,501,048	4,623,841	4,633,450	4,514,780	3,866,980
XI. Furniture, bedding, etc. ..	2,844,012	2,888,080	2,955,609	2,733,336	2,283,528
XII. Paper, stationery, printing, bookbinding, etc. ..	8,544,071	9,310,538	9,526,079	9,974,734	9,764,623
XIII. Rubber ..	1,054,734	1,612,280	1,878,848	2,250,302	2,213,432
XIV. Musical instruments ..	427,333	450,506	466,710	444,875	391,144
XV. Miscellaneous products ..	613,652	689,174	895,617	923,403	1,037,221
XVI. Heat, light and power ..	6,885,634	7,145,008	7,870,879	9,499,679	9,366,777
Total ..	103,345,178	110,026,393	114,656,061	118,068,229	112,210,609

(ii) *Value in each State, 1930-31.* The following table gives similar information for each State for the past year:—

VALUE OF LAND AND BUILDINGS.—STATES, 1930-31.

Class of Industry.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australin.
	£	£	£	£	£	£	£
I. Treatment of non-metalliferous mine and quarry products ..	1,247,670	843,432	98,196	128,934	62,996	180,190	2,561,418
II. Bricks, pottery, glass, etc. ..	1,314,046	684,504	91,530	152,818	137,516	25,546	2,405,960
III. Chemicals, dyes, explosives, paint, oils and grease ..	2,429,376	2,245,324	119,094	494,033	502,744	76,143	5,866,714
IV. Industrial metals, machines, implements and conveyances ..	13,784,835	7,591,173	1,619,529	2,657,667	1,351,009	675,118	27,679,331
V. Precious metals, jewellery and plate ..	198,211	250,275	26,536	38,955	22,830	20,895	557,662
VI. Textiles and textile goods ..	1,595,016	2,574,679	167,099	144,061	113,216	290,147	4,884,218
VII. Skins and leather ..	753,339	868,550	75,125	56,539	99,860	19,989	1,873,402
VIII. Clothing ..	4,265,062	4,675,477	556,970	535,109	495,887	119,250	10,697,755
IX. Food, drink and tobacco ..	9,976,058	7,805,344	4,387,945	2,186,687	1,588,345	816,065	26,760,444
X. Woodworking and basketware ..	1,693,936	1,004,477	479,321	258,480	310,333	120,433	3,866,980
XI. Furniture, bedding, etc. ..	905,616	862,904	200,680	142,662	124,929	46,737	2,283,528
XII. Paper, stationery, printing, book-binding, etc. ..	4,401,750	3,120,518	917,805	759,264	444,002	121,284	9,764,623
XIII. Rubber ..	1,038,508	848,651	43,102	86,125	55,267	141,779	2,213,432
XIV. Musical instruments ..	204,261	162,600	850	15,193	8,240	..	391,144
XV. Miscellaneous products ..	554,207	312,281	55,781	68,520	38,209	8,223	1,037,221
XVI. Heat, light and power ..	5,460,421	2,368,195	515,543	643,655	301,450	77,513	9,366,777
Total ..	49,822,312	36,218,384	9,355,106	8,418,702	5,656,833	2,739,272	112,210,609

(iii) *Value in each State, 1926-27 to 1930-31.* The total value of factory land and buildings at the end of each year from 1926-27 to 1930-31 is given hereunder.

VALUE OF LAND AND BUILDINGS.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	£	£	£	£	£	£	£
1926-27 ..	46,950,706	32,269,655	8,645,580	8,207,999	4,822,145	2,449,093	103,345,178
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

A decline of £5.9 million on the previous year's figures occurred in 1930-31, the returns for New South Wales showing a loss of nearly £4 million.

Of the total increase of £3.4 million in the value of land and buildings in 1929-30, the greater part (£2.4 million) was provided by New South Wales. It was in this State, however, that the value of manufacturing production and the number employed decreased most seriously in the same year. The figures quoted in 3 (ii) below show that in recent years most of the increase in value of plant and machinery has taken place in New South Wales. The growth is chiefly in Class XVI., Heat, Light and Power, but was not accompanied by an increase in the power used by other factories.

3. Value of Plant and Machinery.—(i) *Total, Australia, 1926-27 to 1930-31.* The following table shows for Australia as a whole the approximate value of plant and machinery used in factories during each year from 1926-27 to 1930-31 inclusive:—

VALUE OF PLANT AND MACHINERY.—AUSTRALIA.

Class of Industry.	1926-27.	1927-28.	1928-29.	1929-30.	1930-31.
	£	£	£	£	£
I. Treatment of non-metaliferous mine and quarry products ..	5,120,815	4,996,010	5,029,438	4,926,370	5,959,537
II. Bricks, pottery, glass, etc. ..	3,138,437	3,140,732	3,158,347	3,093,832	2,331,332
III. Chemicals, dyes, explosives, paint, oils and grease ..	5,070,938	5,247,463	5,566,514	5,814,275	5,738,555
IV. Industrial metals, machines, implements and conveyances ..	26,038,238	25,863,988	26,528,636	26,797,812	25,385,254
V. Precious metals, jewellery and plate ..	139,185	147,984	136,632	150,733	139,827
VI. Textiles and textile goods ..	6,325,406	6,154,214	5,986,828	6,181,931	5,935,393
VII. Skins and leather ..	890,545	830,170	783,886	902,544	862,012
VIII. Clothing ..	2,476,140	2,443,769	2,456,949	2,399,668	2,174,238
IX. Food, drink and tobacco	26,545,864	27,645,444	28,281,311	28,261,873	28,948,702
X. Woodworking and basketware ..	5,206,555	4,862,571	4,650,821	4,384,656	3,762,029
XI. Furniture, bedding, etc.	817,076	850,378	895,732	898,333	732,590
XII. Paper, stationery, printing, bookbinding, etc.	8,114,407	8,187,155	8,422,027	8,317,935	7,768,633
XIII. Rubber ..	1,259,479	1,744,011	1,871,976	2,275,808	2,175,851
XIV. Musical instruments ..	195,203	197,703	218,124	210,365	189,854
XV. Miscellaneous products ..	254,878	232,547	326,758	349,512	493,597
XVI. Heat, light and power ..	25,154,019	28,653,676	30,378,809	32,662,044	31,900,293
Total ..	116,747,185	121,227,815	124,692,788	127,627,691	124,497,697

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, for which Class IV., Machinery, etc., with a loss of £1.4 million, was mainly responsible.

(ii) *Value in each State, 1926-27 to 1930-31.* 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. In 1930-31, however, as pointed out in (i) *ante* a total decrease of £3.2 million was recorded. New South Wales showed a loss of £2.7 million, and smaller losses were shown in the other States, except Queensland and Western Australia, where slight increases were recorded.

VALUE OF PLANT AND MACHINERY.—STATES.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
	£	£	£	£	£	£	£
1926-27 ..	48,659,375	31,580,350	16,043,679	8,322,025	5,310,140	6,411,712	116,747,185
1927-28 ..	50,489,675	32,745,680	16,592,358	8,741,929	5,553,295	6,425,605	121,227,815
1928-29 ..	51,365,710	33,724,910	16,719,349	9,421,202	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	34,771,667	16,100,004	10,182,855	6,134,766	6,442,501	124,497,697

(iii) *Value according to Industry, 1930-31.* The following table shows the value of plant and machinery used in factories in each State during 1930-31, classified according to industry.

VALUE OF PLANT AND MACHINERY.—INDUSTRIES, 1930-31.

Class of Industry.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of non-metalliferous mine and quarry products ..	3,350,634	1,568,987	191,111	351,024	164,163	333,618	5,959,537
II. Bricks, pottery, glass, etc. ..	1,239,351	636,841	119,167	141,562	165,408	29,003	2,331,334
III. Chemicals, dyes, explosives, paint, oils and grease ..	1,613,373	2,384,958	95,831	786,944	797,417	60,032	5,738,555
IV. Industrial metals, machines, implements and conveyances ..	13,911,235	5,330,389	1,239,169	2,732,348	873,184	1,298,929	25,385,254
V. Precious metals, jewellery and plate ..	53,756	67,137	6,658	8,522	2,548	1,206	139,827
VI. Textiles and textile goods ..	1,822,533	3,230,222	177,735	226,151	134,173	344,579	5,935,393
VII. Skins and leather ..	345,822	408,259	35,057	22,798	37,614	12,462	862,012
VIII. Clothing ..	718,673	1,157,734	133,420	87,177	62,341	14,893	2,174,238
IX. Food, drink and tobacco ..	8,779,890	6,666,593	9,701,858	1,777,719	1,555,181	467,458	28,948,702
X. Woodworking and basketware ..	1,042,056	894,585	647,373	178,273	794,566	205,176	3,762,029
XI. Furniture, bedding, etc. ..	250,635	251,711	89,325	75,125	44,297	21,497	732,590
XII. Paper, stationery, printing, book-binding, etc. ..	3,469,410	2,587,085	646,531	590,330	354,080	121,197	7,768,633
XIII. Rubber ..	929,121	1,043,099	17,853	11,878	10,622	163,278	2,175,851
XIV. Musical instruments ..	133,025	50,005	140	5,679	1,005	..	189,854
XV. Miscellaneous products ..	213,513	230,736	12,497	14,982	15,885	5,984	493,597
XVI. Heat, light and power ..	12,992,857	8,263,346	2,986,279	3,172,343	1,122,279	3,363,189	31,900,293
Total ..	50,865,884	34,771,687	16,100,004	10,182,855	6,134,766	6,442,501	124,497,697

§ 9. Individual Industries.

1. *General.*—The preceding remarks and tabulations 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, 1929-30 and 1930-31 have been computed by the new method, while those for previous years are on the old basis. The employment figures for each of the years 1926-27 and 1927-28 are, therefore, somewhat in excess of the average for the twelve months.

2. **Tanning, Currying and Leather Dressing.**—(i) *Details for each State, 1930-31.* 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, 1930-31.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W.A.	Tas.	Australia.
Number of factories	65	53	14	8	7	1	148
Number of employees	1,046	1,406	232	110	70	21	2,885
Actual horse-power of engines used	2,849	3,676	615	294	(a)	(a)	7,948
Approx. value of land and buildings £	246,634	455,415	33,091	20,684	(a)	(a)	804,063
Approx. value of plant and machinery £	157,763	309,960	26,090	16,816	(a)	(a)	29,609
Wages paid	£ 218,146	293,918	41,954	22,908	(a)	(a)	595,155
Value of fuel used	£ 25,640	35,203	3,447	1,819	(a)	(a)	68,733
Value of materials used	£ 881,035	999,437	147,731	41,903	(a)	(a)	2,132,437
Total value of output	£ 1,282,015	1,517,087	225,865	62,439	(a)	(a)	3,183,138
Value of production	£ 375,340	483,447	74,687	18,717	(a)	(a)	981,968

(a) Particulars not available for publication.

(b) Including Western Australia and Tasmania.

(ii) *Development in Australia, 1926-27 to 1930-31.* The development of the tanning industry during the period 1926-27 to 1930-31 is shown in the following table:—

TANNING, CURRYING AND LEATHER DRESSING.—AUSTRALIA.

Items.	1926-27.	1927-28.	1928-29.	1929-30.	1930-31.
Number of factories	152	142	142	143	148
Number of employees	4,206	3,607	(a) 3,688	(a) 3,572	(a) 2,885
Actual horse-power of engines used	8,392	8,041	8,379	8,224	7,948
Approx. value of land and buildings £	917,997	835,376	835,135	824,415	804,063
Approx. value of plant and machinery £	730,857	609,575	608,295	603,083	29,609
Wages paid	£ 945,598	825,841	828,078	812,772	595,155
Value of fuel used	£ 81,274	87,748	82,788	81,660	68,733
Value of materials used	£ 3,701,332	3,835,412	4,027,700	3,071,761	2,132,437
Total value of output	£ 5,443,334	5,435,810	5,593,756	4,407,175	3,183,138
Value of production	£ 1,660,728	1,512,650	1,483,268	1,313,754	981,968

(a) See § 9. i.

Decreases were recorded in both the number of factories and employees in the tanning industry during the past four years. For the years 1929-30 and 1930-31 the output of leather was shown in greater detail than for previous years, and comparisons on similar lines with earlier years cannot be made.

(iii) *Raw Material Used and Production, 1930-31.* 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, 1930-31.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Hides No.	361,395	520,953	78,257	34,321	34,099	6,769	1,035,794
Skins—							
Calf	328,464	276,672	42,487	1,481	526	..	649,630
Goat	512,247	304,843	58,817	1,569	..	..	877,476
Sheep	1,116,528	620,008	73,741	91,111	4,239	..	1,905,627
Marsupial .. ..	..	..	46,000	615	..	..	46,615
Reptile	4,000	3,121	256	..	..	..	7,377
Other	1,991,362	80,506	13	1,341	4,901	..	2,078,123
Bark used—							
Wattle ton	8,365	6,841	1,313	521	448	190	17,678
Other	103	1,884	35	143	..	..	2,165
Tanning extract used lb.	1,167,256	494,762	(a)	96,610	..	(a)	1,758,628
Leather made—							
Sole	7,629,163	10,334,659	1,988,580	487,982	1,066,655	243,684	21,750,723
Harness	554,504	293,500	231,680	60,670	109,114	..	1,249,468
Upholstery sq. ft.	..	732,095	..	..	..	..	732,095
Patent and other	4,314,622	8,725,541	498,233	..	192,274	..	13,730,670
Waxed kip and other lb.	141,577	125,396	143,799	290,196	10,097	..	711,065
Dressed from skins—							
Calf sq. ft.	2,776,477	2,154,329	(a)	5,345	..	..	4,936,151
Goat	1,938,270	1,167,198	(a)	3,850	..	..	3,109,318
Sheep	5,871,091	4,550,610	(a)	4	..	..	10,421,705
Marsupial No.	..	..	43,020	..	..	..	43,020

(a) Not available.

(b) Incomplete.

3. **Fellmongering.**—The next industry in importance in Class VII. is fellmongering, one of the earliest industries established in Australia. Hitherto woolscouring had been included with this industry, but under the new classification it was separated for the year 1930-31 and shown under Wool, Worsted, etc., in Class VI. Difficulty has been experienced in obtaining separate particulars in cases where the industries are carried on conjointly, and it was agreed at the Statisticians Conference in 1932 that in future woolscouring would be included under both classes in those cases where separation was impracticable. For reasons above stated, the data in respect of the year 1930-31 are not comparable with those previously published, and it is not proposed to include the returns in this issue.

Development in Australia, 1925-26 to 1929-30. The following table furnishes particulars of fellmongering and wool-scouring establishments in Australia for the five years ending 1929-30.

FELLMONGERING AND WOOL-SCOURING WORKS.—AUSTRALIA.

Items.	1925-26.	1926-27.	1927-28.	1928-29.	1929-30.
Number of factories	93	93	90	87	85
Number of employees	2,195	2,175	1,901	(a) 1,738	(a) 1,474
Actual horse-power of engines used ..	5,734	4,993	4,798	4,987	5,868
Approx. value of land and buildings £	537,540	527,306	485,521	462,548	474,419
Approx. value of plant and machinery £	704,789	595,632	468,054	460,385	445,733
Wages paid	398,278	463,313	387,696	335,860	338,515
Value of fuel used	85,308	94,866	82,748	71,348	77,453
Value of materials used	6,324,429	7,224,472	6,989,508	5,400,300	3,349,727
Total value of output	7,130,008	8,031,769	7,363,212	5,844,511	4,033,176
Value of production	720,271	712,431	290,956	372,863	605,996

(a) See § 9. 1.

4. **Soap and Candle Factories.**—(i) *Details for each State, 1930-31.* The manufacture of these two products is frequently carried on in the same factory, so that separate returns cannot be obtained; it may, however, be noted that the manufacture of soap is the more important. The following table gives particulars of soap and candle factories in each State during the year 1930-31 :—

SOAP AND CANDLE FACTORIES, 1930-31.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W.A. (c)	Tas.	Australia.
Number of factories	23	18	9	5	..	1	56
Number of employees	971	625	182	180	..	27	1,985
Actual horse-power of engines used ..	1,125	569	165	(a)	..	(a) b	2,202
Approx. value of land and buildings £	322,320	193,885	40,044	(a)	..	(a) b	650,000
Approx. value of plant and machinery £	272,248	225,097	27,839	(a)	..	(a) b	604,767
Wages paid	196,737	119,578	36,099	(a)	..	(a) b	388,558
Value of fuel used	31,516	29,558	3,423	(a)	..	(a) b	71,395
Value of materials used	694,382	519,967	90,837	(a)	..	(a) b	1,448,411
Total value of output	1,228,607	1,030,955	215,069	(a)	..	(a) b	2,768,214
Value of production	562,709	481,430	120,807	(a)	..	(a) b	1,248,408

(a) Particulars not available for publication. (b) Including South Australia and Tasmania.
(c) Not available. Included with boiling down, tallow refining, etc.

(ii) *Development in Australia, 1926-27 to 1930-31.* The following table gives similar particulars for the last five years as regards Australia as a whole :—

SOAP AND CANDLE FACTORIES.—AUSTRALIA.

Items.	1926-27. <i>a</i>	1927-28. <i>a</i>	1928-29. <i>a</i>	1929-30. <i>a</i>	1930-31. <i>c</i>
Number of factories	66	66	67	62	56
Number of employees	2,507	2,362	(b) 2,333	(b) 2,148	(b) 1,985
Actual horse-power and engines used	2,933	3,084	3,550	2,595	2,202
Approx. value of land and buildings	£ 636,116	743,823	701,125	681,818	650,000
Approx. value of plant and machinery	£ 843,399	689,718	718,611	654,647	604,767
Wages paid	£ 493,505	473,550	489,341	426,608	388,558
Value of fuel used	£ 112,885	68,745	100,555	82,239	71,395
Value of materials used	£ 1,949,717	1,988,098	2,133,004	1,797,688	1,448,411
Total value of output	£ 3,421,879	3,452,912	3,661,958	3,143,838	2,768,214
Value of production	£ 1,359,277	1,366,069	1,428,399	1,263,911	1,248,408

(a) Including other small establishments in Western Australia.

(b) See § 9. i.

(c) Excluding Western Australia.

(iii) *Raw Material Used and Production, 1926-27 to 1930-31.* The following statement shows the quantities of certain raw material used, together with the production, in soap and candle factories in Australia during the years 1926-27 to 1930-31 :—

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

Particulars.	1926-27. <i>a</i>	1927-28. <i>a</i>	1928-29.	1929-30.	1930-31.
Tallow used cwt.	473,787	502,903	548,112	491,603	467,446
Alkali used "	188,785	204,003	226,156	219,648	187,408
Coconut oil used gal.	800,140	807,941	1,012,246	920,531	905,234
Soap made cwt.	1,001,378	1,020,192	1,130,947	1,026,373	976,771
Candles made "	75,444	66,091	70,526	49,812	51,582

(a) Exclusive of Western Australia.

The output for the year 1930-31 comprised the following quantities of the various kinds of soap manufactured :—Household, 790,652 cwt. ; toilet, 96,898 cwt. ; sand, 73,934 cwt. ; soft, 10,350 cwt. ; and other, 4,937 cwt.

5. *Saw-mills, etc.*—(i) *Details for States, 1930-31.* 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 mills, have been combined in the following table :—

SAW-MILLS, FOREST AND OTHER ; PLYWOOD MILLS, 1930-31.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories	374	266	236	23	78	183	1,160
Number of employees	1,805	2,293	2,683	376	1,300	622	9,079
Actual horse-power of engines used	14,470	9,876	7,907	1,534	6,622	3,615	44,024
Approximate value of land and buildings	£ 795,599	430,040	330,858	136,473	237,306	59,304	1,989,580
Approximate value of plant and machinery	£ 655,286	588,800	555,048	100,150	756,210	165,937	2,821,431
Wages paid	£ 366,870	412,467	441,808	80,074	276,194	98,227	1,675,640
Value of fuel used	£ 29,919	23,245	22,203	3,332	11,273	9,349	99,321
Value of materials used	£ 1,060,103	497,187	680,256	228,676	393,857	94,949	2,955,028
Total value of output	£ 1,674,217	1,152,095	1,306,630	361,875	791,679	225,654	5,512,150
Value of production	£ 584,195	631,663	604,171	129,867	386,549	121,356	2,457,801

(ii) *Development in Australia, 1926-27 to 1930-31.* The development of forest and other saw-mills, etc., since 1926-27 is shown in the following table. Joinery works have been excluded in the year 1930-31.

SAW-MILLS, FOREST AND OTHER.—AUSTRALIA.

Items.	1926-27. (b)	1927-28. (b)	1928-29. (b)	1929-30. (b)	1930-31.
Number of establishments	2,244	2,168	2,164	2,109	1,160
Number of employees	30,217	27,399	(a) 24,975	(a) 20,957	(a) 9,079
Actual horse-power of engines used ..	69,813	69,912	68,330	69,301	44,024
Approx. value of land and buildings £	3,757,056	3,878,828	3,877,292	3,802,885	1,989,580
Approx. value of plant and machinery £	4,760,400	4,428,949	4,184,260	3,950,279	2,821,431
Wages paid	£ 6,074,006	5,571,162	5,017,539	4,477,491	1,675,640
Value of fuel used	£ 214,842	221,108	204,033	202,329	99,321
Value of materials used	£ 11,097,006	10,751,059	10,139,429	8,471,366	2,955,028
Total value of output	£ 20,712,673	19,705,157	18,178,153	15,605,706	5,512,150
Value of production	£ 9,400,825	8,732,990	7,834,691	6,932,011	2,457,801

(a) See § 9. 1.

(b) Including joinery works.

The effect of the depression is reflected in the decreases recorded in the returns during the past three years. The saw-mill output of native timber declined from 739,799,000 super. feet in 1925-26 to 484,637,000 super feet in 1929-30 and 266,891,000 super. feet in 1930-31. Further reference is made to the saw-milling industry in Chapter XXII.—Forestry.

6. *Agricultural Implement Works.*—(i) *General.* The manufacture of agricultural implements is an important industry in Australia, and is of particular interest, owing to the fact that it was one of the first to which it was sought to apply the so-called "New Protection." The articles manufactured include stripper-harvesters, header harvesters or reaper thrashers, 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 agriculture.

(ii) *Details for States, 1930-31.* The following table gives details respecting agricultural implement works in each State for the year 1930-31:—

AGRICULTURAL IMPLEMENT WORKS, 1930-31.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories	27	73	5	35	8	..	148
Number of employees	319	2,034	122	453	115	..	3,043
Actual horse-power of engines used ..	400	2,590	24	1,116	219	..	4,349
Approx. value of land and buildings £	124,591	314,200	44,218	155,396	55,644	..	694,049
Approx. value of plant and machinery £	54,834	309,770	11,945	196,654	28,815	..	602,018
Wages paid	£ 71,283	401,081	33,965	78,144	22,948	..	607,421
Value of fuel used	£ 3,275	31,679	1,879	6,291	1,156	..	44,280
Value of materials used	£ 79,907	366,313	41,230	101,105	7,447	..	596,002
Total value of output	£ 184,060	938,990	97,657	215,203	37,263	..	1,473,173
Value of production	£ 100,878	540,998	54,548	107,807	28,660	..	832,891

(iii) *Development in Australia, 1926-27 to 1930-31.* 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 in 1929-30 and 1930-31 as compared with 1926-27. Details for the past five years are as follow:—

AGRICULTURAL IMPLEMENT WORKS.—AUSTRALIA.

Items.	1926-27.	1927-28.	1928-29.	1929-30.	1930-31.
Number of factories	155	157	150	118	148
Number of employees	6,636	5,729	(a) 5,480	(a) 4,463	(a) 3,043
Actual horse-power of engines used ..	6,002	6,355	4,808	4,737	4,349
Approx. value of land and buildings ..	767,817	789,966	771,805	750,954	694,049
Approx. value of plant and machinery ..	£ 686,821	£ 682,270	£ 662,119	£ 640,800	£ 602,018
Wages paid	£ 1,591,725	£ 1,291,330	£ 1,227,720	£ 985,369	£ 607,421
Value of fuel used	£ 82,651	£ 87,996	£ 77,612	£ 68,320	£ 44,280
Value of materials used	£ 1,574,449	£ 1,335,986	£ 1,266,128	£ 919,842	£ 596,002
Total value of output	£ 3,819,449	£ 3,393,557	£ 3,167,332	£ 2,397,562	£ 1,473,173
Value of production	£ 2,162,306	£ 1,879,575	£ 1,823,562	£ 1,499,400	£ 832,891

(a) See § 9. 1.

7. *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 are representative of the engineering industry excepting the marine and electrical branches.

ENGINEERING WORKS, (a) 1930-31.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	263	299	44	54	85	14	759
Number of employees ..	4,292	4,287	1,014	633	707	172	11,105
Actual horse-power of engines used ..	7,584	7,148	2,711	1,386	1,738	315	20,882
Approximate value of land and buildings ..	£ 1,438,341	£ 1,253,492	£ 193,656	£ 124,576	£ 241,291	£ 42,074	£ 3,293,430
Approximate value of plant and machinery ..	£ 1,166,341	£ 1,237,010	£ 243,119	£ 166,885	£ 221,953	£ 37,779	£ 3,073,117
Wages paid	£ 935,994	£ 904,699	£ 194,590	£ 111,588	£ 142,479	£ 33,930	£ 2,323,280
Value of fuel used ..	£ 53,853	£ 60,309	£ 12,460	£ 8,944	£ 12,713	£ 4,778	£ 153,057
Value of materials used ..	£ 915,009	£ 1,064,922	£ 145,953	£ 113,827	£ 131,131	£ 15,378	£ 2,386,220
Total value of output ..	£ 2,270,259	£ 2,480,840	£ 450,934	£ 271,871	£ 347,714	£ 62,454	£ 5,884,072
Value of production ..	£ 1,301,397	£ 1,355,609	£ 292,521	£ 149,100	£ 203,870	£ 42,298	£ 3,344,795

(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.

8. *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 1930-31 are as follow:—

SMELTING, CONVERTING, REFINING, AND ROLLING OF IRON AND STEEL, 1930-31.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	161	188	23	27	..	..	399
Number of employees ..	5,302	2,724	464	592	..	..	9,082
Actual horse-power of engines used ..	41,819	7,041	759	1,331	..	..	50,950
Approximate value of land and buildings ..	£ 1,919,004	£ 664,439	£ 62,477	£ 112,453	..	..	£ 2,758,373
Approximate value of plant and machinery ..	£ 4,528,243	£ 673,007	£ 107,219	£ 66,089	..	..	£ 5,375,460
Wages paid ..	£ 1,388,496	£ 480,333	£ 80,927	£ 105,526	..	..	£ 2,055,282
Value of fuel used ..	£ 725,320	£ 59,485	£ 10,430	£ 10,161	..	..	£ 805,696
Value of materials used ..	£ 5,362,033	£ 573,992	£ 91,723	£ 105,719	..	..	£ 6,133,517
Total value of output ..	£ 8,295,022	£ 1,360,440	£ 197,995	£ 241,105	..	..	£ 10,094,562
Value of production ..	£ 2,207,619	£ 726,963	£ 95,842	£ 124,925	..	..	£ 3,155,349

9. **Railway and Tramway Workshops.**—(i) *Details for each State, 1930-31.* 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 4 in 1930-31, have, however, been excluded.

TRAMCARS, RAILWAY ROLLING-STOCK AND CARRIAGES, ETC., (a) 1930-31.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	35	24	12	15	20	6	112
Number of employees ..	12,133	5,826	3,295	2,663	1,757	381	26,055
Actual horse-power of engines used ..	15,214	4,671	5,007	3,834	2,795	431	31,952
Approximate value of land and buildings ..	£ 2,837,557	£ 1,502,774	£ 690,463	£ 876,301	£ 454,503	£ 31,837	£ 6,393,435
Approximate value of plant and machinery ..	£ 2,100,118	£ 1,224,668	£ 487,615	£ 793,663	£ 421,728	£ 91,686	£ 5,329,478
Wages paid ..	£ 2,852,290	£ 1,352,678	£ 728,780	£ 571,956	£ 440,469	£ 87,781	£ 6,033,954
Value of fuel used ..	£ 90,477	£ 75,340	£ 21,912	£ 24,970	£ 19,295	£ 7,788	£ 239,782
Value of materials used ..	£ 1,686,791	£ 1,213,238	£ 359,938	£ 404,486	£ 231,396	£ 34,234	£ 3,930,083
Total value of output ..	£ 5,268,437	£ 3,037,441	£ 1,338,427	£ 1,078,521	£ 765,069	£ 138,066	£ 11,626,861
Value of production ..	£ 3,491,169	£ 1,748,863	£ 956,577	£ 649,065	£ 514,378	£ 96,944	£ 7,456,996

(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, 1926-27 to 1930-31.* The following table shows the development of railway and tramway workshops in Australia since 1926-27:—

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

Items.	1926-27.	1927-28.	1928-29.	1929-30.	1930-31. (b)
Number of factories ..	125	122	122	120	112
Number of employees ..	30,713	31,315	(a) 31,658	(a) 29,339	(a) 26,055
Actual horse-power of engines used ..	28,938	31,819	32,346	31,600	31,952
Approx. value of land and buildings ..	£ 5,062,626	£ 5,345,963	£ 5,836,151	£ 6,230,511	£ 6,393,435
Approx. value of plant and machinery ..	£ 5,722,784	£ 5,338,210	£ 5,726,039	£ 5,872,138	£ 5,329,478
Wages paid ..	£ 7,815,202	£ 7,967,515	£ 8,058,200	£ 7,599,005	£ 6,033,954
Value of fuel used ..	£ 278,508	£ 294,913	£ 322,936	£ 295,415	£ 239,782
Value of materials used ..	£ 6,043,377	£ 6,319,442	£ 6,667,634	£ 5,709,328	£ 3,930,083
Total value of output ..	£ 15,589,846	£ 16,338,583	£ 17,072,599	£ 15,615,590	£ 11,626,861
Value of production ..	£ 9,267,961	£ 9,724,228	£ 10,082,129	£ 9,610,847	£ 7,456,996

(a) See § 9. 1.

(b) Government and Municipal only.

The growth of the railway and tramway systems, conjointly with heavy increases in passenger and goods traffic throughout Australia, has resulted in corresponding activity in workshops engaged in the manufacture or repair of rolling-stock, etc. During the 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 in 1930-31 there was a decrease of over 3,000 employees, with a consequent heavy fall in output.

10. **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, 1930-31.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W.A. (a)	Tas.	Australia.
Number of factories	10	4	7	1	..	3	25
Number of employees	672	22	132	1,127	..	1,139	3,092
Actual horse-power of engines used ..	7,834	38	1,272	(b)	..	(b)	51,308
Approx. value of land and buildings ..	223,272	7,220	4,591	(b)	..	(b)	705,100
Approx. value of plant and machinery ..	525,364	6,660	8,757	(b)	..	(b)	2,344,228
Wages paid	£ 196,996	3,713	33,491	(b)	..	(b)	858,124
Value of fuel used	£ 163,947	819	7,741	(b)	..	(b)	706,090
Value of materials used	£ 2,294,914	16,551	64,240	(b)	..	(b)	4,758,814
Total value of output	£ 2,881,248	23,599	142,498	(b)	..	(b)	7,351,822
Value of production	£ 422,387	6,229	70,517	(b)	..	(b)	1,886,918

(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.

11. **Bacon-curing Factories.**—(i) *Details for each State, 1930-31.* The following table gives particulars of factories engaged in bacon-curing in each State for the year 1930-31 :—

BACON-CURING FACTORIES, 1930-31.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Aus- tralia.
Number of factories	23	19	8	8	5	6	69
Number of employees	306	498	526	167	50	38	1,585
Actual horse-power of engines used ..	1,053	1,974	1,456	376	191	101	5,151
Approximate value of land and buildings ..	£ 158,225	226,800	177,543	58,596	17,059	17,678	655,901
Approximate value of plant and machinery ..	£ 56,375	122,395	97,786	25,267	8,533	6,393	316,749
Wages paid	£ 92,363	120,994	123,824	39,707	11,480	6,952	395,320
Value of fuel used	£ 14,778	23,701	19,244	4,616	2,652	4,396	69,387
Value of materials used	£ 699,092	652,719	723,723	226,628	116,309	39,823	2,458,294
Total value of output	£ 899,541	954,873	1,092,740	304,708	148,638	56,617	3,457,117
Value of production	£ 185,671	278,453	349,773	73,464	29,677	12,398	929,436

(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 1930-31 are given hereunder :—

BACON-CURING FACTORIES.—PIGS KILLED, AND PRODUCTION, 1930-31.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
PIGS KILLED.							
Number	245,965	208,593	248,897	50,405	28,717	14,873	797,450
PRODUCTS.							
Bacon and ham ..	lb. 20,984,266	17,340,287	19,842,633	5,208,597	42,912,772	1,213,343	67,501,898
Lard	601,268	969,256	993,936	180,131	96,214	112,094	2,952,899
VALUE.							
Bacon and ham ..	£ 772,786	672,242	786,622	197,261	133,535	45,318	2,607,764
Lard	£ 16,981	34,251	30,587	5,658	2,722	3,497	93,696
Other products ..	£ 96,981	206,436	268,737	101,789	12,251	7,802	693,996

(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 XXI, *Farmyard, Dairy, and Bee Products.*

12. Butter, Cheese, and Condensed Milk Factories.—(i) *Details for each State, 1930-31.* The subjoined table gives particulars of butter, cheese and condensed milk factories in each State during the year 1930-31 :—

BUTTER, CHEESE, AND CONDENSED MILK FACTORIES, 1930-31.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.A.	Tas.	Australia.
Number of factories	138	165	117	39	15	32	506
Number of employees	1,253	2,235	1,096	262	122	161	5,129
Actual horse-power of engines used	8,509	7,994	8,477	853	567	443	26,843
Approximate value of land and buildings	£ 700,566	1,013,314	542,231	165,238	72,279	37,233	2,530,861
Approximate value of plant and machinery	£ 814,061	1,011,953	731,445	106,614	58,492	43,662	2,766,227
Wages paid	£ 331,955	536,654	250,326	52,572	27,338	29,254	1,228,100
Value of fuel used	£ 87,308	155,065	48,464	14,021	7,241	16,130	328,229
Value of materials used	£ 6,339,122	6,650,539	5,457,680	670,989	395,006	411,677	19,925,013
Total value of output	£ 7,112,512	8,077,608	6,199,117	798,611	500,472	512,389	23,200,709
Value of production	£ 686,082	1,272,004	692,973	113,601	98,225	84,582	2,947,467

(ii) *Development in Australia, 1926-27 to 1930-31.* The progress of this industry during the past five years is set out hereunder :—

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

Items.	1926-27.	1927-28.	1928-29.	1929-30.	1930-31.
Number of factories	579	563	523	509	506
Number of employees	5,419	5,520	(a) 5,441	(a) 5,276	(a) 5,129
Actual horse-power of engines used	20,148	22,668	24,219	25,223	26,843
Approx. value of land and buildings	£ 2,297,656	2,392,225	2,366,789	2,538,589	2,530,861
Approx. value of plant and machinery	£ 2,649,044	2,604,018	2,598,702	2,735,185	2,766,227
Wages paid	£ 1,242,813	1,298,540	1,289,000	1,291,259	1,228,100
Value of fuel used	£ 315,004	342,404	334,556	355,811	328,229
Value of materials used	£ 17,907,326	20,520,240	22,623,740	21,791,835	19,925,013
Total value of output	£ 21,737,110	24,788,248	25,365,690	25,153,846	23,200,709
Value of production	£ 3,514,780	3,916,601	3,407,394	3,006,209	2,947,467

(a) See § 9. i.

(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 1930-31 :—

BUTTER, CHEESE AND CONDENSED MILK FACTORIES.—PRODUCTION, 1930-31.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
MILK USED (,000 OMITTED).							
Butter factories .. gals.	228,375	235,284	191,597	18,725	13,783	18,429	706,193
Cheese factories .. "	6,947	7,642	13,438	3,646	..	867	32,540
Condensed milk factories .. "	(a)	12,115	(a)	..	..	..	(b) 12,115

PRODUCTS (,000 OMITTED).							
Butter lb.	109,292	106,246	92,896	9,696	7,102	7,550	332,782
Cheese "	6,425	7,846	13,642	3,897	..	881	32,691
Condensed and concentrated milk lb.	(a)	33,521	(a)	..	..	..	(b) 33,521
Powdered milk .. "	(a)	12,144	..	..	..	..	(b) 12,144

VALUE (,000 OMITTED).							
Butter £	6,510	6,318	5,803	668	491	480	20,333
Cheese £	225	320	335	113	..	25	1,068
Condensed and concentrated milk £	(a)	775	(a)	..	..	..	(b) 775
Powdered milk .. £	(a)	438	..	..	..	..	(b) 438

(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*.

13. *Meat and Fish Preserving Works.*—These industries are now of considerable importance. Works have been established at many ports 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) 1930-31.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories	8	18	9	..	2	3	40
Number of employees	194	1,023	1,865	..	115	13	3,215
Actual horse-power of engines used	219	4,367	7,834	..	(a)	(a)	b 13,125
Approximate value of land and buildings £	58,489	644,290	1,279,808	..	(a)	(a)	b2,353,461
Approximate value of plant and machinery £	22,591	377,110	765,458	..	(a)	(a)	b1,551,037
Wages paid £	43,684	247,142	587,681	..	(a)	(a)	b 954,903
Value of fuel used £	7,371	31,229	93,066	..	(a)	(a)	b 141,520
Value of materials used £	137,607	1,637,210	3,208,990	..	(a)	(a)	b5,091,610
Total value of output £	195,532	2,118,757	3,808,412	..	(a)	(a)	b6,342,229
Value of production £	50,554	450,318	506,356	..	(a)	(a)	b1,106,060

(a) Not available for publication. (b) Including Western Australia and Tasmania. (c) Including meat extracts.

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 XIX., *Pastoral Production*.

14. **Bakeries.**—Information regarding establishments in which the manufacture of bread, cakes, etc., was carried on during the year 1930–31 is given in the table below.

BAKERIES (INCLUDING CAKES AND PASTRY), 1930–31.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas. (a)	Australia.
Number of factories ..	369	468	233	97	85	45	1,297
Number of employees ..	2,946	2,871	1,591	702	409	726	9,245
Actual horse-power of engines used ..	2,585	1,980	761	650	406	1,358	7,740
Approximate value of land and buildings ..	£ 1,586,911	£ 1,036,675	£ 386,012	£ 209,146	£ 152,966	£ 292,256	£ 3,663,966
Approximate value of plant and machinery ..	£ 495,372	£ 366,796	£ 169,767	£ 89,495	£ 47,715	£ 80,473	£ 1,243,618
Wages paid ..	£ 649,787	£ 516,021	£ 259,774	£ 123,028	£ 72,690	£ 115,910	£ 1,737,210
Value of fuel used ..	£ 93,022	£ 81,793	£ 31,580	£ 17,433	£ 9,958	£ 18,939	£ 252,725
Value of materials used ..	£ 1,688,293	£ 1,580,141	£ 650,758	£ 362,228	£ 221,312	£ 219,963	£ 4,722,695
Total value of output ..	£ 3,005,069	£ 2,745,322	£ 1,311,738	£ 599,284	£ 381,401	£ 393,785	£ 8,436,599
Value of production ..	£ 1,223,754	£ 1,083,388	£ 629,400	£ 219,623	£ 150,131	£ 154,883	£ 3,461,179

(a) Includes Biscuits and Confectionery.

15. **Jam and Fruit Preserving, Pickles, Sauces, and Vinegar Factories.**—(i) *Details for each State, 1930–31.* The subjoined table gives particulars of factories included in this class for the year 1930–31.

JAM AND FRUIT PRESERVING, PICKLES, ETC., FACTORIES, 1930–31.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	32	40	11	15	6	7	111
Number of employees ..	1,110	1,647	256	355	45	390	3,803
Actual horse-power of engines used ..	1,344	2,034	253	383	105	1,189	5,308
Approximate value of land and buildings ..	£ 294,787	£ 455,929	£ 36,603	£ 80,465	£ 15,362	£ 101,318	£ 984,464
Approximate value of plant and machinery ..	£ 133,531	£ 283,697	£ 29,587	£ 64,248	£ 4,937	£ 30,362	£ 546,362
Wages paid ..	£ 180,919	£ 268,886	£ 45,890	£ 54,379	£ 6,427	£ 70,708	£ 627,209
Value of fuel used ..	£ 18,821	£ 26,595	£ 2,886	£ 5,684	£ 572	£ 7,030	£ 61,588
Value of materials used ..	£ 674,884	£ 1,034,783	£ 249,071	£ 171,312	£ 30,896	£ 193,088	£ 2,354,034
Total value of output ..	£ 1,134,634	£ 1,617,563	£ 324,192	£ 269,343	£ 44,907	£ 295,694	£ 3,686,333
Value of production ..	£ 440,929	£ 556,185	£ 72,235	£ 92,347	£ 13,439	£ 95,576	£ 1,270,711

(ii) *Development in Australia, 1926–27 to 1930–31.* 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.	1926–27.	1927–28.	1928–29.	1929–30.	1930–31.
Number of factories ..	164	167	121	121	111
Number of employees ..	6,119	6,627	(a) 5,478	(a) 4,780	(a) 3,803
Actual horse-power of engines used ..	4,528	5,215	5,198	6,101	5,308
Approx. value of land and buildings ..	£ 1,084,835	£ 1,177,963	£ 1,058,445	£ 1,064,661	£ 984,464
Approx. value of plant and machinery ..	£ 634,771	£ 748,888	£ 601,229	£ 567,833	£ 546,362
Wages paid ..	£ 974,224	£ 1,049,136	£ 869,144	£ 873,508	£ 627,209
Value of fuel used ..	£ 79,311	£ 92,373	£ 78,422	£ 83,634	£ 61,588
Value of materials used ..	£ 3,511,388	£ 3,793,161	£ 3,030,762	£ 3,290,268	£ 2,354,034
Total value of output ..	£ 5,480,065	£ 5,967,876	£ 5,054,595	£ 5,178,438	£ 3,686,333
Value of production ..	£ 1,889,366	£ 2,172,347	£ 1,945,411	£ 1,804,536	£ 1,270,711

(a) See § 9. 1.

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 1930–31 amounted to only 66,120,340 lb., compared with 142,290,204 in 1918–19. The output of preserved fruit has greatly increased, and during 1930–31, 50,739,348 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 during 1930-31 :—

JAMS, PRESERVED FRUIT, PICKLES AND SAUCES.—OUTPUT, 1930-31.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
QUANTITY (,000 OMITTED).							
Jams lb.	17,492	27,582	7,185	5,985	365	7,511	66,120
Pulp "	2,385	17,828	860	3,158	204	5,130	29,574
Fruit, preserved "	15,442	27,517	4,383	1,082	..	2,315	50,739
Pickles plnts	645	1,050	252	711	(a)	(a)	(b) 2,873
Sauces "	4,619	6,737	884	2,248	(a)	(a)	(b) 14,999
VALUE.							
Jams £	439,233	578,637	159,924	113,857	7,311	167,762	1,466,724
Pulp £	12,062	83,284	22,623	17,086	546	61,058	196,059
Fruit, preserved £	239,377	442,566	93,681	16,198	..	63,082	854,844
Pickles £	23,118	40,337	9,587	26,287	(a)	(a)	(b) 104,875
Sauces £	272,600	213,651	25,232	67,351	(a)	(a)	(b) 594,196

(a) Particulars not available for publication.

(b) Including Western Australia and Tasmania.

16. *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 1930-31 given hereunder show the remarkable development since 1900 :—

SUGAR CONFECTIONERY FACTORIES,(d) 1930-31.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas. (a)	Australia.
Number of factories	67	114	11	16	10	2	220
Number of employees	2,597	2,650	435	324	232	3	6,241
Actual horse-power of engines used	3,414	6,055	543	638	(b)	(b)	c 11,014
Approximate value of land and buildings £	1,021,280	445,001	169,867	91,787	(b)	(b)	c1,788,358
Approximate value of plant and machinery £	1,016,205	667,052	145,163	80,376	(b)	(b)	c1,987,197
Wages paid £	407,522	389,271	58,836	37,360	(b)	(b)	c 931,991
Value of fuel used £	47,460	50,131	6,265	9,895	(b)	(b)	c 118,245
Value of materials used £	1,144,081	1,095,819	100,215	117,213	(b)	(b)	c2,590,032
Total value of output £	2,211,315	1,931,766	279,361	183,899	(b)	(b)	c4,832,952
Value of production £	1,019,774	785,816	172,881	56,791	(b)	(b)	c2,124,675

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

(b) Not available for publication.

(c) Includes Western Australia and Tasmania.

(d) Including Chocolate and Ice Cream.

(ii) *Development in Australia, 1926-27 to 1930-31.* The growth of the confectionery industry during the past five years is exhibited in the following table :—

SUGAR CONFECTIONERY FACTORIES.—AUSTRALIA, 1930-31.

Items.	1926-27. (a)	1927-28. (a)	1928-29. (a)	1929-30. (c)	1930-31. (d)
Number of factories	286	293	320	254	220
Number of employees	9,048	8,616	8,386	7,260	6,241
Actual horse-power of engines used	14,166	14,241	12,737	12,432	11,014
Approx. value of land and buildings £	2,084,233	2,074,074	2,201,885	2,007,192	1,788,358
Approx. value of plant and machinery £	2,311,513	2,332,479	2,363,208	2,248,470	1,987,197
Wages paid £	1,426,779	1,365,241	1,335,997	1,167,654	931,991
Value of fuel used £	165,181	186,323	183,787	167,526	118,245
Value of materials used £	3,918,090	4,054,201	3,998,906	3,549,673	2,590,032
Total value of output £	7,097,911	7,300,429	7,455,448	6,567,759	4,832,952
Value of production £	3,014,640	3,059,905	3,272,735	2,850,500	2,124,675

(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 6,241 persons in 1930-31, and the value of the output amounted to £4,832,952. The decline in the value of output, etc., in 1929-30 and 1930-31 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.

17. **Grain Milling.**—(i) *Details for States, 1930-31.* The following table shows the position of the flour-milling industry in each State in 1930-31:—

GRAIN MILLING, 1930-31.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust. (a)	W. Aust.	Tas. (a)	Australia.
Number of factories ..	52	35	9	32	19	8	155
Number of employees ..	1,086	888	294	388	386	106	3,148
Actual horse-power of engines used ..	7,355	5,422	1,421	3,099	2,722	514	20,533
Approximate value of land and buildings ..	£ 754,623	£ 421,723	£ 154,958	£ 203,527	£ 230,689	£ 58,698	£ 1,824,218
Approximate value of plant and machinery ..	£ 822,369	£ 527,055	£ 198,679	£ 318,058	£ 256,578	£ 39,960	£ 2,162,699
Wages paid ..	£ 291,843	£ 216,969	£ 77,445	£ 92,625	£ 91,890	£ 26,813	£ 797,565
Value of fuel used ..	£ 73,795	£ 57,493	£ 14,339	£ 28,212	£ 24,129	£ 4,704	£ 202,492
Value of materials used ..	£ 3,735,355	£ 2,818,483	£ 812,122	£ 918,304	£ 924,083	£ 215,513	£ 9,454,160
Total value of output ..	£ 4,722,855	£ 3,461,548	£ 983,928	£ 1,124,900	£ 1,455,910	£ 271,232	£ 11,719,373
Value of production ..	£ 913,795	£ 585,662	£ 127,167	£ 177,384	£ 207,698	£ 51,015	£ 2,062,721

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

(ii) *Production of Flour and By-products, 1926-27 to 1930-31.* The production of flour by the mills in each State for the years 1926-27 to 1930-31 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)
1926-27 ..	431,532	360,051	52,959	140,426	133,919	22,861	1,141,748
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

(a) Tons of 2,000 lb.

The production of flour in Australia for the last year, viz., 1,179,698 tons was valued at £9,037,763. In addition, 499,490 tons of bran and pollard, valued at £2,431,695, were made. The quantity of wheat ground was 56,575,940 bushels.

18. **Sugar Mills.**—(i) *Details for 1930-31.* The following table shows the position of the cane-crushing branch of the sugar-making industry in Queensland and New South Wales in 1930-31. Sugar-cane is not grown in the other States. Details regarding the area, yield, etc., of sugar-cane will be found in Chapter XX., *Agricultural Production.*

SUGAR MILLS, 1930-31.

Items.	N.S.W.	Queensland.	Australia.
Number of factories ..	3	35	38
Number of employees ..	135	5,138	5,273
Actual horse-power of engines used ..	2,094	35,251	37,345
Approximate value of land and buildings ..	£ 134,000	£ 766,447	£ 900,447
Approximate value of plant and machinery ..	£ 540,809	£ 6,540,306	£ 7,081,115
Wages paid ..	£ 63,585	£ 1,144,133	£ 1,207,718
Value of fuel used ..	£ 10,549	£ 138,880	£ 149,429
Value of materials used ..	£ 314,368	£ 7,545,632	£ 7,860,000
Total value of output ..	£ 455,625	£ 10,067,549	£ 10,523,174
Value of production ..	£ 130,708	£ 2,383,037	£ 2,513,745

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 1926-27 :—

SUGAR MILLS.—NEW SOUTH WALES.

Items.	1926-27.	1927-28.	1928-29.	1929-30.	1930-31.
Number of factories ..	3	3	3	3	3
Number of employees ..	447	413	(a) 375	(a) 170	(a) 135
Cane crushed .. tons	230,254	208,612	147,414	174,110	160,209
Sugar produced .. tons	26,604	23,349	16,954	19,568	18,841
Molasses produced gals.	1,371,700	1,196,700	914,000	1,064,405	918,800

(a) See § 9. 1.

The number of mills in New South Wales was reduced to three during recent years owing chiefly to the tendency towards concentration of cane-crushing in establishments fitted with modern machinery, and the consequent closing of the small home mill. 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 XX., *Agriculture*, which refer to harvest years.

(b) *Queensland.* Details for Queensland from 1911 onwards are given hereunder.

SUGAR MILLS.—QUEENSLAND, 1911 TO 1930-31.

Items.	1911.	1927-28.	1928-29.	1929-30.	1930-31.
Number of factories ..	49	35	35	35	35
Number of employees ..	4,295	6,005	(a) 6,077	(a) 5,459	(a) 5,138
Cane crushed .. tons	1,534,451	3,570,743	3,741,715	3,572,068	3,539,475
Sugar produced .. tons	173,296	479,803	516,081	513,551	514,296
Molasses—					
Sold to distillers					
and others .. gals.	2,393,669	4,823,728	5,676,821	5,854,398	4,529,352
Used as fodder .. gals.	789,564	2,523,390	2,524,136	2,382,192	2,342,609
Used as manure .. gals.	223,000	473,260	7,200	298,395	714,670
Run to waste .. gals.	1,847,333	3,495,063	3,044,889	2,253,083	1,311,453
Burnt as fuel .. gals.		3,204,997	5,131,726	4,202,588	4,354,350
In stock .. gals.		1,197,626	488,600	871,292	1,206,050
Total Molasses .. gals.	6,451,192	15,855,804	16,873,372	15,861,948	14,458,484

(a) See § 9. 1.

19. **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 1930-31 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 319,219 tons, for a yield of 317,135 tons of refined sugar, valued at £11,155,699.

20. **Breweries.**—(i) *Details for each State, 1930-31.* The following table gives particulars concerning breweries in each State :—

BREWERIES, 1930-31.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas. (a)	Australia.
Number of breweries ..	7	9	9	6	8	4	43
Number of employees ..	974	1,083	349	264	339	100	3,109
Actual horse-power of engines used ..	5,624	4,006	1,975	1,358	1,960	635	15,558
Approx. value of land and buildings .. £	905,320	699,267	282,975	182,104	215,268	162,708	2,447,642
Approx. value of plant and machinery .. £	978,438	1,007,249	266,395	202,612	269,353	141,940	2,865,987
Wages paid .. £	285,004	369,463	100,776	85,467	123,683	28,305	992,698
Value of fuel used .. £	76,649	64,664	24,004	18,135	16,727	30,779	230,958
Value of materials used .. £	711,563	808,792	182,245	159,482	229,893	54,356	2,146,331
Total value of output .. £	2,248,544	1,935,542	469,079	399,373	621,841	153,814	5,828,193
Value of production .. £	1,460,332	1,062,086	262,830	221,756	375,221	68,679	3,450,904

(a) Includes malting.

(ii) *Development in Australia, 1926-27 to 1930-31.* The next table shows the progress of this industry for the last five years :—

BREWERIES.—AUSTRALIA.

Items.	1926-27.	1927-28.	1928-29.	1929-30.	1930-31.
Number of breweries ..	48	46	45	45	43
Number of employees ..	3,844	3,881	(a) 3,874	(a) 3,590	(a) 3,109
Actual horse-power of engines used ..	13,143	14,688	14,217	14,800	15,558
Approx. value of land and buildings .. £	2,205,779	2,347,851	2,476,207	2,457,428	2,447,642
Approx. value of plant and machinery .. £	2,710,319	2,853,623	2,912,078	2,956,907	2,865,987
Wages paid .. £	1,173,086	1,208,091	1,208,699	1,165,380	992,698
Value of fuel used .. £	248,780	272,151	295,908	276,199	230,958
Value of materials used .. £	3,315,441	3,318,521	3,310,659	2,887,251	2,146,331
Total value of output .. £	7,941,978	7,964,626	7,921,010	7,258,933	5,828,193
Value of production .. £	4,377,757	4,373,954	4,314,443	4,095,483	3,450,904

(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 £7,941,978 in 1926-27 to £5,828,193 in 1930-31, and the quantity of ale and stout brewed fell from 73,667,050 to 55,654,484 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, and in 1930-31 to 8.14 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 1930-31.

BREWERIES.—MATERIALS USED AND PRODUCTION, 1930-31.

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

Malt .. bushels	642,849	648,248	171,603	135,490	162,658	37,725	1,798,573
Hops .. lb.	619,397	602,277	153,720	138,956	157,007	28,470	1,699,827
Sugar .. cwt.	70,788	83,153	22,402	16,667	21,868	3,899	218,777

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

Malt .. bushels	32.51	31.55	32.36	34.60	32.35	34.59	32.32
Hops .. lb.	31.33	29.31	28.99	35.48	31.23	26.11	30.54
Sugar .. cwt.	3.58	4.05	4.22	4.26	4.35	3.58	3.93

ALE AND STOUT BREWED.

Quantity .. gallons	19,771,075	20,545,800	5,302,433	3,916,428	5,028,182	1,090,566	55,654,481
Value (a) .. £	2,227,909	1,935,542	469,079	396,297	621,841	141,785	5,792,453

(a) Exclusive of excise duty.

21. *Distilleries.*—Distilleries are located in all the States with the exception of Western Australia and Tasmania. Complete details, however, are not obtainable, as the particulars for New South Wales factories are not available. The materials used in distilleries other than those in New South Wales, during 1930-31 comprised 289,016 cwt. of molasses, 300,267 bushels of malt, and 6,596,444 gallons of wine, while the output of spirits in proof gallons was as follows:—Brandy, 291,391; Gin, 58,066; Whisky, 507,502; Rum, 683,727; Methylated Spirits, 401,394; Other Spirits, 2,088,789.

22. *Tobacco, etc., Factories.*—(i) *Details for each State, 1930-31.* During the year 1930-31 there were twenty-two establishments in which the manufacture of tobacco, cigars, and cigarettes was carried on. There were no factories engaged in this industry in Queensland and Tasmania.

TOBACCO, CIGAR, AND CIGARETTE FACTORIES, 1930-31.

Items.	N.S.W.	Victoria.	S. Aust.	W. Aust.	Australia.
Number of factories	8	12	1	1	22
Number of employees	2,351	1,700			4,151
Actual horse-power of engines used ..	1,168	793	(a)	(a)	2,000
Approx. value of land and buildings ..	£ 523,517	£ 320,550	(a)	(a)	£ 857,540
Approx. value of plant and machinery ..	£ 388,736	£ 219,319	(a)	(a)	£ 618,377
Wages paid	£ 452,406	£ 339,490	(a)	(a)	£ 807,348
Value of fuel used	£ 14,659	£ 9,611	(a)	(a)	£ 24,685
Value of materials used	£ 3,503,651	£ 1,297,779	(a)	(a)	£ 4,831,775
Total value of output	£ 4,589,275	£ 2,160,007	(a)	(a)	£ 66,842,391
Value of production	£ 1,070,965	£ 852,617	(a)	(a)	£ 1,985,931

(a) Not available for publication.

(b) Including 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. Imports during 1930-31 comprised—manufactured tobacco 330,545 lb., cigars 18,218 lb., and cigarettes 189,617 lb., while the quantities manufactured in Australian factories were respectively 14,241,779 lb., 223,884 lb., and 4,224,837 lb. The following tables show the development of the industry in Australia for the last five years:—

TOBACCO, CIGAR, AND CIGARETTE FACTORIES.—AUSTRALIA.

Items.	1926-27.	1927-28.	1928-29.	1929-30.	1930-31.
Number of factories	24	23	23	23	22
Number of employees	4,286	4,217	(a) 4,137	(a) 4,096	(a) 4,154
Actual horse-power of engines used	1,645	1,684	1,946	1,986	2,009
Approx. value of land and buildings £	675,689	783,895	794,421	857,787	857,540
Approx. value of plant and machinery	512,441	510,651	513,462	565,536	618,377
Wages paid	812,300	818,985	808,865	818,342	807,348
Value of fuel used	22,032	21,991	24,115	24,941	24,685
Value of materials used	4,523,086	4,492,363	4,427,806	5,111,443	4,831,775
Total value of output	6,800,026	6,817,391	6,812,791	7,523,114	6,842,394
Value of production	2,251,908	2,303,037	2,360,870	2,386,730	1,985,934

LEAF USED AND PRODUCTION.

Leaf used 1,000 lb.	18,610	18,620	19,136	19,175	16,456
Tobacco made	15,008	15,097	15,678	16,064	14,242
Cigars made	410	390	339	307	224
Cigarettes made	5,309	5,391	5,358	5,371	4,225

(a) See § 9. 1.

Although the manufacture side of tobacco is firmly established in Australia, hitherto the production of locally-grown leaf 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 6 million lb. in 1931-32, with a resultant decrease in the amount of imported leaf used. In this connexion, however, see item "Tobacco" in Chapter XX., Agricultural Production. The respective quantities of Australian and imported leaf used during 1930-31 were 3,128,684 lb., and 13,327,414 lb.

23. Woollen and Tweed Mills.—(i) *Details for each State. 1930-31.* 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, which gives particulars for 1930-31, shows that the industry is well established:—

WOOLLEN AND TWEED (INCLUDING WOOLSCOURING) MILLS, 1930-31.

Items.	N.S.W. (c)	Victoria.	Q'land.	S. Aust.	W.A.	Tas.	Australia.
Number of factories	14	46	14	8	4	6	92
Number of employees	3,046	6,182	532	407	116	1,268	11,551
Actual horse-power of engines used	7,378	14,539	(a)	(a)	(a)	2,124	27,453
Approx. value of land and buildings £	616,693	1,183,670	(a)	(a)	(a)	271,184	2,305,858
Approx. value of plant and machinery	£ 1,020,443	1,781,097	(a)	(a)	(a)	329,383	3,567,670
Wages paid	£ 442,571	889,088	(a)	(a)	(a)	145,549	1,633,432
Value of fuel used	£ 69,714	153,258	(a)	(a)	(a)	46,228	301,428
Value of materials used	£ 793,451	1,676,768	(a)	(a)	(a)	236,019	3,756,418
Total value of output	£ 1,584,811	3,289,288	(a)	(a)	(a)	563,789	6,758,788
Value of production	£ 721,646	1,459,262	(a)	(a)	(a)	281,542	2,700,942

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

(ii) *Development in Australia, 1926-27 to 1930-31.* The progress of woollen and tweed milling in Australia in the last five years is shown in the following table :—

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

Items.	1926-27. (b)	1927-28. (b)	1928-29. (b)	1929-30. (b)	1930-31.
Number of factories	53	57	53	58	92
Number of employees	11,068	11,638	(a) 11,430	(a) 11,843	(a) 11,551
Actual horse-power of engines used	22,441	23,158	24,748	26,407	27,453
Approx. value of land and buildings	£ 1,892,108	1,933,654	1,984,124	2,124,486	2,305,858
Approx. value of plant and machinery	£ 3,779,316	3,688,023	3,487,795	3,553,493	3,567,670
Wages paid	£ 1,607,595	1,755,538	1,766,820	1,780,514	1,633,432
Value of fuel used	£ 251,093	272,578	270,995	298,212	301,428
Value of materials used	£ 3,681,164	4,172,120	4,363,482	3,758,577	3,756,418
Total value of output	£ 6,986,296	7,601,435	7,477,295	6,964,160	6,758,788
Value of production	£ 3,954,039	3,156,737	2,842,818	2,907,371	2,700,942

(a) See § 9. i.

(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 during 1930-31 was 10,732,123 yards. In New South Wales 4,666,993 yards, and in Victoria 5,431,704 yards of tweed and cloth were manufactured. The production of flannel amounted to 6,557,623 yards, while blankets, shawls, and rugs to the number of 643,689 were made. The output of yarn reported was 5,739,955 lb., most of which was produced in Victoria.

In addition to the woollen and tweed factories, there were 276 hosiery and knitting mills operating in Australia in 1930-31. These establishments provided employment for 10,878 persons, of whom 8,036 were females, and the value of their output amounted to £5,290,034.

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 twenty-two establishments treating cotton in Australia during 1930-31, and these employed 1,204 hands, while the value of the output was £1,906,654.

24. *Boot Factories.*—(i) *Boot and Shoe Factories, 1930-31.* Among the factories of Australia, 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, 1930-31.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories	93	175	18	15	8	5	314
Number of employees	3,498	8,622	967	417	280	122	13,906
Actual horse-power of engines used	1,580	2,812	297	265	212	60	5,226
Approx. value of land and buildings	£ 432,156	775,725	76,430	72,709	43,924	15,240	1,416,184
Approx. value of plant and machinery	£ 223,509	442,929	46,508	23,192	19,144	6,012	761,294
Wages paid	£ 542,944	1,312,626	135,990	61,387	39,776	16,816	2,109,539
Value of fuel used	£ 11,837	32,821	2,646	1,517	950	649	50,420
Value of materials used	£ 819,692	1,953,178	174,474	90,563	79,388	31,006	3,148,301
Total value of output	£ 1,583,381	3,974,195	366,923	168,405	145,877	60,352	6,301,133
Value of production	£ 753,852	1,988,196	189,803	76,325	65,539	28,697	3,102,412

(ii) *Boot Repairing, including Bespoke Work.* The introduction of small power plants in repairing shops has brought this class of establishment within the meaning of a factory for statistical purposes. These shops have spread rapidly throughout the Commonwealth, and in 1930-31 the number recorded amounted to 1,166, in which 2,141 hands were employed. The sum of £160,128 was distributed in salaries and wages, and the output was valued at £775,432.

(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, 1930-31.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
QUANTITY (,000 OMITTED).							
Boots and shoes pairs	2,638	7,238	580	314	275	85	11,130
Slippers ..	1,451	2,548	6	21	154	3	4,183
Uppers (a) ..	41	13	180	7	..	2	243
VALUE.							
Boots and shoes £	1,412,659	3,646,626	346,245	161,053	127,727	57,294	5,751,604
Slippers ..	148,695	295,008	1,993	2,474	19,121	970	468,261
Uppers (a) ..	11,378	6,369	17,801	3,254	93	780	39,675

(a) Made for other than factory use.

25. *Tailoring, and Slop Clothing Factories.*—(i) *Details for each State, 1930-31.* The importance of this industry in the several States is shown in the following table :—

TAILORING AND SLOP CLOTHING FACTORIES, 1930-1931.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	359	438	114	97	76	28	1,112
Number of employees ..	6,615	6,312	2,214	1,323	888	312	17,664
Actual horse-power of engines used ..	666	603	206	94	86	28	1,683
Approx. value of land and buildings ..	£ 1,432,564	1,035,820	268,112	252,567	209,085	74,100	3,272,248
Approx. value of plant and machinery ..	£ 109,283	98,169	32,530	20,918	13,726	4,070	278,696
Wages paid ..	£ 814,383	725,021	244,591	136,869	103,026	34,707	2,058,597
Value of fuel used ..	£ 16,983	19,728	5,777	4,215	2,362	1,652	50,717
Value of materials used ..	£ 1,138,794	1,344,121	306,357	123,418	173,026	33,367	3,119,083
Total value of output ..	£ 2,348,901	2,469,228	743,338	317,635	336,760	91,399	6,307,261
Value of production ..	£ 1,193,124	1,105,379	431,204	190,002	161,372	56,380	3,137,461

(ii) *Development in Australia, 1926-27 to 1930-31.* 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, in 1929-30 and 1930-31 was 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.	1926-27.	1927-28.	1928-29.	1929-30.	1930-31.
Number of factories ..	1,465	1,422	1,440	1,327	1,112
Number of employees ..	28,409	27,401	(a) 26,953	(a) 23,016	(a) 17,664
Actual horse-power of engines used ..	1,833	1,954	1,802	2,062	1,683
Approx. value of land and buildings ..	£ 4,368,772	4,364,779	4,389,473	4,151,355	3,272,248
Approx. value of plant and machinery ..	£ 367,923	370,757	337,057	328,676	278,696
Wages paid ..	£ 3,664,940	3,616,157	3,524,994	3,190,686	2,058,597
Value of fuel used ..	£ 64,742	65,946	65,100	63,011	50,717
Value of materials used ..	£ 5,456,963	5,121,106	5,092,739	4,473,949	3,119,083
Total value of output ..	£ 11,118,283	10,827,374	10,602,874	9,222,505	6,307,261
Value of production ..	£ 5,596,578	5,640,322	5,445,935	4,685,545	3,137,461

(a) See § 9. 1.

26. Dressmaking and Millinery Establishments.—(i) *Details for each State, 1930–31.* Particulars of dressmaking and millinery establishments are given separately in the following tables:—

DRESSMAKING ESTABLISHMENTS, 1930–31.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	96	366	35	35	35	13	580
Number of employees ..	1,078	5,263	517	482	385	71	7,796
Actual horse-power of engines used ..	71	512	32	43	39	3	733
Approx. value of land and buildings ..	£ 280,615	964,875	54,383	87,069	67,057	11,925	1,465,924
Approx. value of plant and machinery ..	£ 11,698	82,307	7,975	7,621	6,226	836	119,663
Wages paid ..	£ 109,210	561,862	47,218	46,363	33,370	6,063	804,286
Value of fuel used ..	£ 1,901	10,763	760	1,211	757	110	15,502
Value of materials used ..	£ 121,077	1,191,769	55,246	72,423	57,344	4,529	1,502,388
Total value of output ..	£ 282,398	2,077,261	119,410	142,817	114,070	11,899	2,748,764
Value of production ..	£ 159,420	874,729	63,413	69,183	56,869	7,260	1,230,874

MILLINERY ESTABLISHMENTS, 1930–31.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	44	76	4	9	11	(a)	144
Number of employees ..	939	1,325	33	201	102	(a)	2,600
Actual horse-power of engines used ..	66	95	2	9	2	(a)	174
Approx. value of land and buildings ..	£ 197,298	205,823	1,470	21,040	13,270	(a)	438,901
Approx. value of plant and machinery ..	£ 7,086	22,560	216	1,411	515	(a)	31,797
Wages paid ..	£ 94,855	136,358	3,714	17,052	10,173	(a)	262,152
Value of fuel used ..	£ 1,460	3,123	8	438	126	(a)	5,155
Value of materials used ..	£ 199,514	252,845	2,061	23,294	13,866	(a)	491,580
Total value of output ..	£ 376,593	472,016	8,296	48,209	27,010	(a)	932,154
Value of production ..	£ 175,619	216,048	6,227	24,477	13,048	(a)	435,419

(a) Included in Dressmaking.

(ii) *Development in Australia, 1926–27 to 1930–31.* 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.	1926–27.	1927–28.	1928–29.	1929–30.	1930–31.
Number of factories ..	912	916	897	816	724
Number of employees ..	15,051	15,019	(a) 14,778	(a) 12,709	(a) 10,396
Actual horse-power of engines used ..	906	898	1,182	971	907
Approx. value of land and buildings ..	£ 2,498,532	2,596,384	2,570,963	2,310,358	1,904,825
Approx. value of plant and machinery ..	£ 171,235	170,653	175,151	157,051	151,460
Wages paid ..	£ 1,507,373	1,525,947	1,532,734	1,399,256	1,066,438
Value of fuel used ..	£ 22,171	25,054	24,056	23,842	20,657
Value of materials used ..	£ 2,840,827	2,500,753	2,724,074	2,501,600	1,993,968
Total value of output ..	£ 5,294,399	5,034,713	5,227,620	4,753,906	3,680,918
Value of production ..	£ 2,431,401	2,418,906	2,478,590	2,228,464	1,666,293

(a) See § 9. i.

27. Printing and Binding Works.—(i) *Details for each State, 1930–31.* Printing and binding works rank high in importance among the industries of Australia, and in 1930–31 afforded employment for about 24,000 employees, and paid more than £5,000,000 in salaries and wages, while the value of output amounted to £12,880,000.

The following table gives particulars of establishments engaged in general printing and bookbinding in each State for the year 1930-31. Government printing works are included, but establishments producing newspapers and periodicals are shown separately in the next table.

GENERAL PRINTING AND BOOKBINDING ESTABLISHMENTS, 1930-31.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	263	351	65	91	59	14	843
Number of employees ..	5,008	5,210	1,683	1,421	649	255	14,226
Actual horse-power of engines used ..	3,651	4,154	710	1,270	591	144	10,523
Approx. value of land and buildings ..	£ 1,484,344	£ 1,120,008	£ 355,036	£ 620,394	£ 205,074	£ 37,527	£ 4,122,383
Approx. value of plant and machinery ..	£ 1,132,035	£ 985,770	£ 206,173	£ 455,712	£ 181,807	£ 37,500	£ 2,998,997
Wages paid ..	£ 969,626	£ 917,862	£ 294,661	£ 266,066	£ 125,709	£ 47,690	£ 2,621,614
Value of fuel used ..	£ 27,518	£ 28,815	£ 8,428	£ 10,032	£ 3,824	£ 2,184	£ 80,831
Value of materials used ..	£ 908,995	£ 825,192	£ 210,330	£ 268,168	£ 100,286	£ 22,519	£ 2,335,390
Total value of output ..	£ 2,479,696	£ 2,352,385	£ 722,902	£ 668,984	£ 297,385	£ 94,601	£ 6,615,953
Value of production ..	£ 1,543,153	£ 1,498,378	£ 504,244	£ 390,784	£ 193,275	£ 69,898	£ 4,199,732

ESTABLISHMENTS PRODUCING NEWSPAPERS AND PERIODICALS, 1930-31.

Items.	N.S.W.	Vic.	Q'land.	S. Aust. (a)	W.A.	Tas.	Australia.
Number of establishments ..	220	122	71	..	33	7	453
Number of employees ..	3,297	2,115	1,591	..	549	362	7,914
Actual horse-power of engines used ..	5,792	3,337	2,217	..	1,088	343	12,777
Approx. value of land and buildings ..	£ 1,820,267	£ 784,790	£ 492,313	..	£ 207,517	£ 83,757	£ 3,388,644
Approx. value of plant and machinery ..	£ 1,609,136	£ 804,695	£ 403,903	..	£ 159,003	£ 83,697	£ 3,060,434
Wages paid ..	£ 956,573	£ 577,946	£ 348,791	..	£ 158,153	£ 90,422	£ 2,131,885
Value of fuel used ..	£ 44,906	£ 20,064	£ 20,669	..	£ 7,237	£ 3,630	£ 102,506
Value of materials used ..	£ 946,576	£ 734,044	£ 255,036	..	£ 127,106	£ 60,758	£ 2,123,520
Total value of output ..	£ 2,648,134	£ 1,500,393	£ 858,866	..	£ 366,287	£ 187,900	£ 5,561,570
Value of production ..	£ 1,656,652	£ 740,285	£ 583,151	..	£ 231,944	£ 123,512	£ 3,335,544

(a) Included in General Printing and Bookbinding.

28. Motor Vehicles and Cycles.—The industries catering for the motor trade are now included in Class IV.—Industrial Metals, Machines, Implements and Conveyances. An amendment of the statistical classification now permits the separation of the assembling and repairing of motors from the body building section. Returns in regard to assembling and repairing are shown hereunder for the year 1930-31 :—

ASSEMBLING AND REPAIRING OF MOTOR VEHICLES AND CYCLES, 1930-31.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	848	778	111	116	167	71	2,091
Number of employees ..	3,941	3,285	803	731	566	376	9,702
Actual horse-power of engines used ..	3,383	2,623	527	651	632	240	8,056
Approx. value of land and buildings ..	£ 2,189,484	£ 1,361,479	£ 335,055	£ 467,497	£ 336,221	£ 187,224	£ 4,876,960
Approx. value of plant and machinery ..	£ 386,637	£ 314,752	£ 68,386	£ 90,442	£ 81,020	£ 25,157	£ 966,394
Wages paid ..	£ 683,673	£ 532,044	£ 141,098	£ 102,170	£ 97,922	£ 57,447	£ 1,614,354
Value of fuel used ..	£ 42,545	£ 36,936	£ 7,546	£ 6,276	£ 5,967	£ 4,290	£ 103,560
Value of materials used ..	£ 780,716	£ 50,492	£ 25,051	£ 77,945	£ 56,622	£ 18,627	£ 1,009,453
Total value of output ..	£ 1,949,409	£ 933,767	£ 385,367	£ 248,815	£ 221,133	£ 102,508	£ 3,840,999
Value of production ..	£ 1,126,148	£ 846,339	£ 352,770	£ 164,594	£ 158,544	£ 79,591	£ 2,727,986

Particulars in regard to motor body building for the year 1930-31 are as follows:—

MOTOR BODY BUILDING, 1930-31.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	43	61	14	14	28	..	160
Number of employees ..	454	987	167	1,022	147	..	2,777
Actual horse-power of engines used	510	1,426	128	1,815	146	..	4,025
Approx. value of land and buildings ..	£ 208,566	610,430	49,693	534,983	69,469	..	1,473,141
Approx. value of plant and machinery ..	£ 26,569	529,205	12,597	742,004	16,300	..	1,326,675
Wages paid ..	£ 74,497	206,377	17,183	190,607	20,358	..	509,022
Value of fuel used ..	£ 2,764	7,476	774	8,253	1,396	..	20,663
Value of materials used	£ 64,693	223,643	16,251	201,949	19,311	..	525,847
Total value of output	£ 176,046	522,007	46,882	483,518	58,242	..	1,286,695
Value of production ..	£ 108,589	290,888	29,857	273,316	37,535	..	740,185

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

MOTOR BODIES PRODUCED IN AUSTRALIA.

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

(a) Excluding Queensland and Tasmania.

29. 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 TABLES, FURNITURE AND CABINET MAKING AND UPHOLSTERY FACTORIES, 1930-31.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	215	306	74	52	63	35	745
Number of employees ..	1,941	2,008	975	461	382	245	6,012
Actual horse-power of engines used	3,607	3,441	1,036	1,648	991	450	11,173
Approx. value of land and buildings ..	£ 621,833	620,619	164,303	105,479	116,455	39,211	1,667,900
Approx. value of plant and machinery ..	£ 200,048	181,321	75,607	68,389	39,544	18,798	583,707
Wages paid ..	£ 359,690	277,702	169,606	64,574	60,069	29,645	952,286
Value of fuel used ..	£ 16,391	15,630	7,602	3,916	2,600	2,044	48,183
Value of materials used	£ 461,158	406,499	205,966	88,292	96,992	23,983	1,282,890
Total value of output	£ 988,840	895,596	461,565	182,185	195,356	75,102	2,798,644
Value of production ..	£ 511,291	473,467	247,997	89,977	95,764	49,075	1,467,571

30. 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 1926-27 the production of electric light and power has increased from 2,194,000,000 to 2,446,000,000 British units, or by more than 11 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 1930-31. Particulars for the year 1930-31 are as follow :—

ELECTRIC LIGHT AND POWER WORKS, 1930-31.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	126	91	41	40	53	6	357
Number of employees ..	1,846	1,162	772	1,006	336	83	5,205
Actual horse-power of engines used	456,673	221,767	137,675	121,489	55,397	77,250	1,070,251
Approx. value of land and buildings ..	£ 4,564,534	£ 1,928,180	£ 365,189	£ 600,624	£ 219,405	£ 28,270	£ 7,706,202
Approx. value of plant and machinery ..	£ 9,931,602	£ 6,411,935	£ 2,342,865	£ 1,972,575	£ 947,321	£ 3,199,658	£ 24,805,956
Wages paid ..	£ 532,582	£ 305,443	£ 187,595	£ 254,785	£ 84,693	£ 20,099	£ 1,385,197
Value of fuel used ..	£ 1,344,286	£ 508,619	£ 184,397	£ 166,657	£ 244,627	£ 927	£ 2,449,513
Total value of output	£ 5,200,072	£ 1,605,138	£ 945,897	£ 988,073	£ 576,644	£ 231,642	£ 9,547,466

31. Gas Works.—(i) *Details for each State, 1930-31.* 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 1930-31 :—

GAS WORKS, 1930-31.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	47	37	16	6	5	2	113
Number of employees ..	1,396	822	317	633	106	86	3,360
Actual horse-power of engines used	4,962	3,049	905	2,350	225	156	11,647
Approx. value of land and buildings ..	£ 895,887	£ 437,015	£ 150,354	£ 43,031	£ 82,045	£ 49,243	£ 1,657,575
Approx. value of plant and machinery ..	£ 3,061,255	£ 1,834,881	£ 643,414	£ 1,199,768	£ 174,958	£ 163,531	£ 7,077,807
Wages paid ..	£ 389,795	£ 220,627	£ 81,072	£ 165,319	£ 27,174	£ 22,502	£ 906,489
Value of fuel used ..	£ 196,837	£ 127,511	£ 15,212	£ 44,456	£ 15,000	£ 5,294	£ 404,370
Value of materials used	£ 824,651	£ 752,724	£ 138,994	£ 187,856	£ 70,763	£ 28,877	£ 2,003,865
Total value of output	£ 2,453,032	£ 1,633,839	£ 590,144	£ 626,517	£ 161,922	£ 84,514	£ 5,549,968
Value of production	£ 1,431,544	£ 753,604	£ 435,938	£ 394,205	£ 76,099	£ 50,343	£ 3,141,733

(ii) *Coal Used and Production, 1930-31.* The following table gives details for the year 1930-31 :—

GAS WORKS.—COAL USED AND PRODUCTION, 1930-31.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
COAL USED.							
Coal tons	551,634	334,874	87,667	87,672	20,674	13,561	1,096,082
PRODUCTS.							
Gas .. 1,000 cubic feet	9,784,531	5,869,257	1,305,930	1,327,436	423,549	181,996	18,892,699
Coke tons	370,234	211,224	54,680	51,126	12,316	4,288	703,868
VALUE.							
Gas £	1,786,933	1,324,075	531,438	490,097	135,400	68,287	4,336,230
Coke £	385,726	311,719	41,145	89,754	18,933	9,590	856,867

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