

## CHAPTER XVIII.

### MANUFACTURING INDUSTRY.

NOTE.—Working proprietors are included in all cases in the "Number of Persons Engaged."

#### § 1. Number of Factories.

1. Number of Factories in each State.—The following table gives the number of factories in each State for the last five years:—

#### FACTORIES : NUMBER.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
1934-35 ..	8,254	9,100	2,470	1,803	1,658	926	24,211
1935-36 ..	8,486	9,160	2,482	1,805	1,946	925	24,894
1936-37 ..	8,726	9,165	2,883	1,916	2,032	946	25,668
1937-38 ..	9,097	9,241	3,063	1,980	2,066	948	26,395
1938-39 ..	9,404	9,250	3,087	2,067	2,129	944	26,941

2. Number of Factories in Industrial Classes.—(i) *Australia.* The next table shows the number of factories in Australia during the last five years, classified in the industrial groups agreed upon by the Conference of Statisticians in 1930. This classification, which was introduced during the year 1930-31, superseded the grouping which had been in use since 1902. The definition of a factory adopted at the Conference of Statisticians in 1902 is, however, still used, namely, "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 : NUMBER IN INDUSTRIAL CLASSES, AUSTRALIA.

Class of Industry.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
I. Treatment of Non-metalliferous Mine and Quarry Products .. .. .	433	462	517	548	564
II. Bricks, Pottery, Glass, etc. .. .. .	431	450	436	459	471
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease .. .. .	596	630	655	652	666
IV. Industrial Metals, Machines, Implements and Conveyances .. .. .	6,100	6,303	6,788	7,102	7,255
V. Precious Metals, Jewellery and Plate .. .. .	270	277	282	290	290
VI. Textiles and Textile Goods .. .. .	588	589	577	591	611
VII. Skins and Leather .. .. .	518	525	537	536	533
VIII. Clothing .. .. .	4,229	4,260	4,259	4,334	4,314
IX. Food, Drink and Tobacco .. .. .	4,657	4,721	4,842	4,982	5,202
X. Woodworking and Basketware .. .. .	2,446	2,541	2,715	2,771	2,822
XI. Furniture, Bedding, etc. .. .. .	1,020	1,057	1,092	1,113	1,149
XII. Paper, Stationery, Printing, Bookbinding, etc. .. .. .	1,750	1,781	1,771	1,790	1,816
XIII. Rubber .. .. .	292	290	289	302	299
XIV. Musical Instruments .. .. .	29	31	34	34	34
XV. Miscellaneous Products .. .. .	319	371	390	398	413
Total, Classes I to XV. .. .. .	23,708	24,378	25,187	25,902	26,439
XVI. Heat, Light and Power .. .. .	503	516	481	493	502
Grand Total .. .. .	24,211	24,894	25,668	26,395	26,941

The number of factories in operation declined each year from 1928-29 to 1931-32 as the result of the economic depression, but the returns since the last-mentioned year reveal substantial annual increases, the number in 1938-39 being the highest yet recorded.

(ii) *States, 1938-39.* The following table shows the number of factories in each State in 1938-39, classified according to the nature of the industry:—

**FACTORIES : NUMBER IN INDUSTRIAL CLASSES, STATES, 1938-39.**

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 ..	204	178	53	52	61	16	564
II. Bricks, Pottery, Glass, etc. ..	220	113	44	43	36	15	471
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	290	234	41	48	35	18	666
IV. Industrial Metals, Machines, Implements and Conveyances ..	2,634	2,528	746	529	628	190	7,255
V. Precious Metals, Jewellery and Plate ..	86	137	23	22	16	6	290
VI. Textiles and Textile Goods ..	159	371	22	37	13	9	611
VII. Skins and Leather ..	212	207	49	28	29	8	533
VIII. Clothing ..	1,623	1,813	302	291	234	51	4,314
IX. Food, Drink and Tobacco ..	1,715	1,458	766	552	460	251	5,202
X. Woodworking and Basketware ..	860	720	572	168	225	277	2,822
XI. Furniture, Bedding, etc. ..	351	412	145	89	99	53	1,149
XII. Paper, Stationery, Printing, Book-binding, etc. ..	685	675	178	115	134	29	1,816
XIII. Rubber ..	96	105	36	27	24	11	299
XIV. Musical Instruments ..	13	13	3	2	3	..	34
XV. Miscellaneous Products ..	167	168	37	19	19	3	413
Total, Classes I to XV...	9,315	9,132	3,017	2,022	2,016	937	26,439
XVI. Heat, Light and Power ..	149	118	70	45	113	7	502
Grand Total ..	9,464	9,250	3,087	2,067	2,129	944	26,941

**§ 2. Classification of Factories according to Number of Persons Engaged.**

1. *States, 1938-39.*—The following table shows, for each State, the number of factories classified according to the number of persons engaged in 1938-39:—

**FACTORIES : CLASSIFICATION ACCORDING TO NUMBER OF EMPLOYEES, 1938-39.**

No. of Persons Employed in each Factory.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
<b>NUMBER OF FACTORIES.</b>							
Under 4 ..	2,720	3,208	1,087	526	1,047	256	8,844
4.. ..	976	784	286	215	99	114	2,474
5 to 10 ..	2,534	2,178	804	648	516	362	7,042
11 to 20 ..	1,316	1,278	410	296	212	110	3,622
21 to 50 ..	1,101	1,021	284	246	173	71	2,896
51 to 100 ..	438	415	110	80	57	17	1,117
Over 100 ..	379	366	106	56	25	14	946
Total ..	9,464	9,250	3,087	2,067	2,129	944	26,941

Some marked changes have taken place during the past decade in the distribution of factories according to the number of persons engaged. In 1926-27 of a total of 21,579 factories reported, 7,644, or 35.42 per cent., had less than five persons engaged whereas in 1938-39 the number of such factories had increased to 11,318, representing 42.01 per cent. of the total of 26,941 factories. The increase in the number of small factories was probably due to the multiplication of small repair establishments (boots and shoes, cycles and motors, etc.) which are technically accounted as factories by the installation of some power machine.

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In the other groups, the effect of the economic depression during the middle years of the decade is clearly noticeable, but since 1931-32 the improvement has been very steady. Factories with more than 100 persons engaged advanced from 733 in 1926-27 to a new high level of 960 in 1937-38, the persons engaged in these factories increasing from 204,363 or 43.74 per cent. of the total number to 273,502 or 48.3 per cent. during the same period. In 1938-39 the number of such factories decreased slightly from the previous year to 946, employing 272,022 persons or 47.5 per cent. of the total number employed.

The relative importance of large and small factories is more conclusively illustrated by a classification of the average number of persons engaged according to the size of factory in which they work :—

**FACTORIES : CLASSIFICATION OF PERSONS ENGAGED ACCORDING TO SIZE OF FACTORY, 1938-39.**

No. of Persons Employed in Group.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
<b>AVERAGE NUMBER ENGAGED DURING PERIOD WORKED.</b>							
Under 4 ..	5,708	6,140	2,309	1,167	2,001	585	17,910
4 ..	3,904	3,136	1,144	860	396	456	9,896
5 to 10 ..	17,553	15,213	5,468	4,489	3,335	2,422	48,480
11 to 20 ..	19,272	19,013	5,971	4,274	3,120	1,569	53,219
21 to 50 ..	35,234	32,838	8,672	7,718	5,412	2,252	92,126
51 to 100 ..	31,223	28,813	8,102	5,549	4,003	1,155	78,845
Over 100 ..	118,906	98,312	23,207	19,897	5,472	6,228	272,022
Total ..	231,800	203,465	54,873	43,954	23,739	14,667	572,498
Av. per P'cty	24.49	22.00	17.78	21.26	11.15	15.54	21.25

2. Australia, 1934-35 to 1938-39.—In the following table factories in Australia during each of the last five years are classified according to the number of persons engaged.

**FACTORIES : CLASSIFICATION ACCORDING TO NUMBER OF PERSONS ENGAGED, AUSTRALIA.**

Year.	Establishments Employing on the Average—							
	20 and under.		21 to 100.		101 and upwards.		Total.	
	Es-tabli-shments.	Persons en-gaged.	Es-tabli-shments.	Persons en-gaged.	Es-tabli-shments.	Persons en-gaged.	Es-tabli-shments.	Persons en-gaged.
1934-35—								
Number ..	20,012	112,708	3,457	143,157	742	204,502	24,211	460,367
Average per establishment ..	5.63	41.41	42.13	276.51	280.18	275.61	20.16	19.01
Percentage on total ..	82.66	24.48	14.28	31.10	3.06	44.42	100.00	100.00
1935-36—								
Number ..	20,413	117,443	3,646	153,603	835	230,889	24,894	501,935
Average per establishment ..	5.75	42.13	42.13	276.51	280.18	276.51	20.16	20.16
Percentage on total ..	82.00	23.40	14.65	30.60	3.35	46.00	100.00	100.00
1936-37—								
Number ..	21,017	122,179	3,756	158,007	895	250,764	25,668	530,950
Average per establishment ..	5.81	42.07	42.07	276.51	280.18	280.18	20.69	20.69
Percentage on total ..	81.88	23.01	14.63	29.76	3.49	47.23	100.00	100.00
1937-38—								
Number ..	21,514	126,585	3,921	166,064	960	273,502	26,395	566,151
Average per establishment ..	5.88	42.35	42.35	284.90	287.55	284.90	21.45	21.45
Percentage on total ..	81.50	22.36	14.86	29.33	3.64	48.31	100.00	100.00
1938-39—								
Number ..	21,982	129,505	4,013	170,971	946	272,022	26,941	572,498
Average per establishment ..	5.89	42.60	42.60	287.55	287.55	287.55	21.25	21.25
Percentage on total ..	81.59	22.62	14.90	29.86	3.51	47.52	100.00	100.00

### § 3. Power Equipment in Factories.

1. **General.**—Statistics of power equipment in factories are now collected on a different basis to that used prior to 1936-37. Previously the statistics represented the "average horse-power used" in all factories, including Central Electric Stations, but in 1936-37 information was obtained in respect of the "rated horse-power" of engines ordinarily in use and of engines in reserve or idle, omitting obsolete engines. In addition the power equipment of Central Electric Stations was collected in greater detail. If duplication is to be avoided it is essential that some distinction should be made between Central Electric Stations and other classes of industries. In the following tables Central Electric Stations have been treated separately from other factories.

2. **Rated Horse-power of Engines in Factories other than Central Electric Stations.**—The following table shows the number of factories using steam, gas, oil, electricity, or water power, and the rated horse-power of engines ordinarily in use and in reserve or idle during 1938-39 :—

**FACTORIES(a) : RATED HORSE-POWER OF ENGINES, 1938-39.**

State.	Number of Establishments.			Rated Horse-power of Engines.	
	Using Power.	Others.	Total.	Ordinarily in use.	In Reserve or Idle (omitting obsolete).
	No.	No.	No.	H.P.	H.P.
New South Wales ..	8,915	443	9,358	678,421	74,726
Victoria ..	8,681	490	9,171	384,973	96,055
Queensland ..	2,848	185	3,033	193,436	16,047
South Australia ..	1,837	188	2,025	101,919	9,668
Western Australia ..	1,846	174	2,020	65,157	7,352
Tasmania ..	888	51	939	54,863	9,715
<b>Australia ..</b>	<b>25,015</b>	<b>1,531</b>	<b>26,546</b>	<b>1,478,769</b>	<b>213,563</b>

(a) Excluding Central Electric Stations.

3. **Rated Horse-power of Engines Ordinarily in Use.**—(i) *According to Type in States.* Particulars of the types of engines ordinarily in use in each State and their rated horse-power are given in the next table :—

**FACTORIES(a) : TYPES AND RATED HORSE-POWER OF ENGINES ORDINARILY IN USE, 1938-39.**

State.	Rated Horse-power of Engines ordinarily in use.								Total. (b)
	Steam.		Internal Combustion.			Water.	Motors driven by electricity.		
	Reciprocating.	Turbine.	Gas.	Light Oils.	Heavy Oils.		Purchased.	Own Generation. (c)	
	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
N.S.W. ..	129,197	49,721	4,912	3,267	15,420	398	475,506	85,180	678,421
Victoria ..	38,468	30,698	5,704	3,700	11,200	1,025	294,178	36,378	384,973
Queensland ..	81,143	3,588	14,656	4,112	14,434	..	75,503	39,342	193,436
S. Australia ..	7,738	..	4,395	2,229	7,415	1	79,641	6,929	101,919
W. Australia ..	7,974	72	2,744	2,387	7,085	..	44,898	4,380	65,160
Tasmania ..	3,889	70	5	2,276	245	192	48,186	7,681	54,863
<b>Australia ..</b>	<b>268,409</b>	<b>84,149</b>	<b>32,916</b>	<b>17,971</b>	<b>55,799</b>	<b>1,616</b>	<b>1,017,912</b>	<b>179,890</b>	<b>1,478,772</b>

(a) Excluding Central Electric Stations.

(b) Excluding particulars in column (c).

(ii) *Australia, 1936-37 to 1938-39.*—Corresponding details are given for Australia since 1936-37 in the following table:—

**FACTORIES(a) : TYPES AND RATED HORSE-POWER OF ENGINES ORDINARILY IN USE, AUSTRALIA.**

Year.	Rated Horse-power of Engines ordinarily in use.								Total. (b)
	Steam.		Internal Combustion.			Water.	Motors driven by electricity.		
	Reciprocating.	Turbine.	Gas.	Light Oils.	Heavy Oils.		Purchased.	Own Generation. (c)	
1936-37 ..	244,963	63,311	27,030	15,447	46,593	1,024	798,944	147,919	1,197,312
1937-38 ..	266,939	83,542	28,372	15,026	51,053	1,510	888,919	172,130	1,336,261
1938-39 ..	268,409	84,149	32,916	17,971	55,799	1,616	1,017,912	179,890	1,478,772

(a) Excluding Central Electric Stations.

(b) Excluding particulars in column (c).

(iii) *In Classes of Industry, 1938-39.* The next table shows the rated horse-power of engines ordinarily in use in the various classes of industry in each State during 1938-39:—

**FACTORIES(a) : RATED HORSE-POWER OF ENGINES ORDINARILY IN USE, 1938-39.**

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
<b>I. Treatment of Non-metalliciferous Mine and Quarry Products ..</b>	42,771	26,012	6,368	4,293	4,622	8,848	92,914
<b>II. Bricks, Pottery, Glass, etc. ..</b>	24,866	18,840	3,630	3,858	2,983	740	54,917
<b>III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..</b>	23,409	24,637	2,374	7,517	5,412	432	63,781
<b>IV. Industrial Metals, Machines, Implements and Conveyances ..</b>	328,501	77,300	35,586	39,376	13,366	14,901	509,030
<b>V. Precious Metals, Jewellery and Plate ..</b>	1,031	2,503	117	343	57	21	4,072
<b>VI. Textiles and Textile Goods ..</b>	19,574	41,644	2,474	3,133	759	2,986	70,570
<b>VII. Skins and Leather ..</b>	8,782	8,492	2,032	372	765	332	20,775
<b>VIII. Clothing ..</b>	8,590	11,539	1,188	888	739	154	23,098
<b>IX. Food, Drink and Tobacco ..</b>	107,306	80,352	99,989	24,017	19,741	6,739	338,144
<b>X. Woodworking and Basketware ..</b>	41,176	28,782	29,917	9,009	11,593	7,639	128,116
<b>XI. Furniture, Bedding, etc. ..</b>	7,982	7,752	2,900	2,459	1,698	745	23,536
<b>XII. Paper, Stationery, Printing, Bookbinding, etc. ..</b>	27,589	30,192	4,930	3,483	2,895	11,026	80,115
<b>XIII. Rubber ..</b>	21,034	19,215	1,051	322	89	42	41,753
<b>XIV. Musical Instruments ..</b>	793	65	13	..	23	..	894
<b>XV. Miscellaneous Products ..</b>	4,939	3,376	118	353	207	159	9,152
<b>Total, Classes I to XV. ..</b>	<b>668,343</b>	<b>380,701</b>	<b>192,687</b>	<b>99,423</b>	<b>64,949</b>	<b>54,764</b>	<b>1,460,867</b>
<b>XVI. Gas Works ..</b>	10,078	4,272	749	2,496	211	99	17,905
<b>Grand Total ..</b>	<b>678,421</b>	<b>384,973</b>	<b>193,436</b>	<b>101,919</b>	<b>65,160</b>	<b>54,863</b>	<b>1,478,772</b>

(a) Excluding Central Electric Stations.

4. Capacity of Engines and Generators installed in Central Electric Stations.—  
 (i) According to Type in Australia. Particulars of the type and the capacity of engines and generators installed in Central Electric Stations in Australia in 1938-39 are given below :—

**CENTRAL ELECTRIC STATIONS : POWER EQUIPMENT, AUSTRALIA.**

Particulars.	Capacity of Engines and Generators.						Total.
	Steam.		Internal Combustion.			Water.	
	Reciprocating.	Turbine.	Gas.	Light Oils.	Heavy Oils.		
<b>Engines installed—</b>							
Total installed Rated H.P.	35,531	1,769,449	20,226	1,733	138,540	239,140	2,204,619
<b>Generators installed—</b>							
Kilowatt capacity—							
Total installed .. K.W.	17,986	1,323,383	12,347	921	92,070	173,589	1,620,296
Effective capacity .. K.W.	15,555	1,100,744	11,406	867	85,251	150,589	1,364,412
Maximum load .. K.W.	12,910	947,216	8,876	860	61,930	128,644	1,160,436
<b>Horse-power equivalent—</b>							
Total installed .. H.P.	24,111	1,774,061	16,551	1,235	123,424	232,704	2,172,086
Effective capacity .. H.P.	20,853	1,475,601	15,201	1,162	114,287	201,872	1,829,062
Maximum load .. H.P.	17,306	1,269,790	11,898	1,153	83,071	172,454	1,555,622

(ii) *States.* Details of the capacity of engines and generators installed in Central Electric Stations in each State are given in the next table for 1938-39.

**CENTRAL ELECTRIC STATIONS : POWER EQUIPMENT IN STATES, 1938-39.**

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
<b>Engines installed</b> Rated H.P.	953,497	540,746	225,094	176,335	150,052	158,895	2,204,619
<b>Generators installed—</b>							
Kilowatt capacity—							
Total installed .. K.W.	748,684	375,195	150,188	119,731	107,412	119,086	1,620,296
Effective capacity .. K.W.	620,468	313,027	114,414	119,171	100,625	96,707	1,364,412
Maximum load .. K.W.	521,571	292,713	82,486	111,459	64,942	87,265	1,160,436
<b>Horse-power equivalent—</b>							
Total installed .. H.P.	1,003,648	502,968	201,334	160,505	143,991	159,640	2,172,086
Effective capacity .. H.P.	831,769	419,627	153,378	159,755	134,893	129,640	1,829,062
Maximum load .. H.P.	699,191	392,396	110,577	149,417	87,058	116,983	1,555,622

### § 4. Employment in Factories.

1. **Number Engaged.**—All persons engaged in the manufacturing activities of a factory, including proprietors who work in their own business and "outworkers" (see par. 4 (ii) hereinafter) are counted as factory employees, while all those are excluded who are engaged in selling and distributing, such as salesmen, travellers, collectors, carters engaged solely on outward delivery of manufactured goods and retailing storemen. Employment has been classified as follows :—(i) Working proprietors; (ii) managers and overseers; (iii) accountants and clerks; (iv) engine-drivers and firemen; (v) skilled and unskilled workers in the factories, mills, or workshops; (vi) carters and messengers; and (vii) others.

Prior to the year 1928-29 employment in factories was computed by dividing the sum of the number engaged each week by the number of weeks worked. The figures, therefore, represented the average number engaged over the period worked, which, for many factories, was less than a full year. Commencing with the year 1928-29 the figure represents the equivalent average number engaged over a full year of fifty-two weeks. The classification of factories according to the number of persons engaged (see § 2 *ante*), however, is still based on the old method, but for all other purposes the average number engaged over the full year is used.

The following table shows, for each year from 1934-35 to 1938-39 inclusive (a) the average number of persons (including both sexes of all ages) engaged in manufacturing industries in each State; (b) the percentage of the number engaged in each State on the total number engaged in Australia; and (c) the number engaged per ten thousand of the mean population in each State and Australia.

The number of persons engaged in factories in Australia reached its highest point before the depression during the years 1926-27 to 1928-29 when the average for those years was slightly in excess of 450,000. The downward trend in manufacturing operations which began early in 1930 continued with increasing force until the number engaged had fallen to 336,658 in 1931-32, a decline of 25 per cent. on the average already quoted. In 1932-33 employment began to increase and gains were recorded in each year thereafter until a new high level of 565,106 was reached in 1938-39. Stated in relation to population, the number engaged in 1938-39 was 47,300 in excess of the previous maximum in 1926-27.

## FACTORIES : EMPLOYMENT.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
AVERAGE NUMBER ENGAGED DURING FULL YEAR (52 WEEKS).							
1934-35 ..	175,033	169,691	43,048	33,497	17,774	10,555	449,598
1935-36 ..	193,200	183,390	45,128	38,471	20,993	11,589	492,771
1936-37 ..	208,497	191,383	48,216	40,710	22,711	12,431	523,948
1937-38 ..	224,861	201,793	52,119	44,084	23,133	13,170	559,160
1938-39 ..	228,781	201,831	54,110	43,371	23,211	13,802	565,106

## PERCENTAGE ON AUSTRALIAN TOTAL.

	%	%	%	%	%	%	%
1934-35 ..	38.93	37.74	9.58	7.45	3.95	2.35	100.00
1935-36 ..	39.21	37.21	9.16	7.81	4.26	2.35	100.00
1936-37 ..	39.79	36.53	9.20	7.77	4.34	2.37	100.00
1937-38 ..	40.21	36.09	9.32	7.88	4.14	2.36	100.00
1938-39 ..	40.48	35.72	9.58	7.67	4.11	2.44	100.00

## PER 10,000 OF POPULATION.

1934-35 ..	664	924	448	573	401	461	671
1935-36 ..	727	995	464	656	469	503	730
1936-37 ..	778	1,033	490	692	503	535	770
1937-38 ..	830	1,084	524	746	506	553	815
1938-39 ..	837	1,076	537	730	502	583	816

2. Rates of Increase, 1934-35 to 1938-39.—The percentage of increase on the average number of persons engaged in the preceding year is shown below for each State from 1934-35 onwards:—

## FACTORIES : ANNUAL PERCENTAGE INCREASE OF PERSONS ENGAGED.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	%	%	%	%	%	%	%
1934-35 ..	13.61	8.54	7.40	13.60	9.97	7.90	10.76
1935-36 ..	10.38	8.07	4.83	14.85	18.11	9.80	9.60
1936-37 ..	7.92	4.36	6.84	5.82	8.18	7.27	6.33
1937-38 ..	7.85	5.44	8.09	8.29	1.86	5.94	6.72
1938-39 ..	1.74	0.02	3.82	-1.62	0.34	4.80	1.06

NOTE.—Minus sign (—) indicates decrease.

3. Persons Engaged in Classes of Industry.—(i) *Australia*. The table hereunder gives the average number of persons engaged in factories under each industrial group in Australia for the years 1934-35 to 1938-39 inclusive:—

**FACTORIES : PERSONS ENGAGED IN INDUSTRIAL CLASSES, AUSTRALIA.**

Class of Industry.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
I. Treatment of Non-metaliferous Mine and Quarry Products .. ..	6,550	7,571	8,736	9,952	10,343
II. Bricks, Pottery, Glass, etc. ..	11,483	13,088	14,262	15,142	15,709
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease .. ..	14,846	16,217	17,614	18,835	19,816
IV. Industrial Metals, Machines, Implements and Conveyances .. ..	125,640	145,481	161,512	178,019	177,677
V. Precious Metals, Jewellery and Plate .. ..	2,737	3,210	3,782	3,761	3,726
VI. Textiles and Textile Goods .. ..	38,042	42,031	43,370	45,224	46,082
VII. Skins and Leather .. ..	9,779	10,440	10,872	10,437	10,767
VIII. Clothing .. ..	78,074	81,400	82,138	85,371	86,092
IX. Food, Drink and Tobacco .. ..	70,517	73,265	77,498	81,785	83,846
X. Woodworking and Basketware .. ..	24,192	27,478	29,311	31,117	30,739
XI. Furniture, Bedding, etc. .. ..	11,306	13,443	14,707	15,612	15,287
XII. Paper, Stationery, Printing, Book-binding, etc. .. ..	34,018	35,952	37,309	39,062	39,913
XIII. Rubber .. ..	7,369	6,797	6,455	7,534	7,502
XIV. Musical Instruments .. ..	460	451	422	441	451
XV. Miscellaneous Products .. ..	5,786	6,591	7,370	7,798	7,727
Total, Classes I to XV. .. ..	440,799	483,415	515,058	550,090	555,677
XVI. Heat, Light and Power .. ..	8,799	9,356	8,890	9,070	9,429
Grand Total .. ..	449,598	492,771	523,948	559,160	565,106

In comparison with the employment levels reached in the pre-depression year of 1928-29 all classes of industries have shown considerable gains with the exception of "Musical Instruments" and "Heat, Light and Power." In these classes reductions of 76 per cent. and 9 per cent. respectively were recorded. The greatest actual gain was 47,000 persons in "Industrial Metals, Etc.," while the greatest relative gain was in "Miscellaneous Products" where the numbers engaged rose by 165 per cent. The lowest relative gains occurred in "Clothing" and "Rubber."

(ii) *States*. Particulars of the numbers engaged in each industrial class are shown below for each State:—

**FACTORIES : PERSONS ENGAGED IN INDUSTRIAL CLASSES, STATES, 1938-39.**

Class of Industry.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aust.
I. Treatment of Non-metaliferous Mine and Quarry Products .. ..	4,529	3,221	813	642	764	374	10,343
II. Bricks, Pottery, Glass, etc. ..	8,312	4,552	880	1,133	616	216	15,709
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease .. ..	8,187	8,554	593	1,541	818	123	19,816
IV. Industrial Metals, Machines, Implements and Conveyances .. ..	82,452	51,872	13,647	18,681	7,003	4,022	177,677
V. Precious Metals, Jewellery and Plate .. ..	979	2,315	157	181	73	21	3,726
VI. Textiles and Textile Goods ..	15,080	26,780	976	1,256	382	1,599	46,082
VII. Skins and Leather .. ..	4,306	4,599	932	494	334	102	10,767
VIII. Clothing .. ..	32,019	38,973	6,758	4,664	3,176	502	86,092
IX. Food, Drink and Tobacco .. ..	28,514	26,949	15,319	6,366	3,706	2,992	83,846
X. Woodworking and Basketware ..	9,995	7,386	6,748	2,025	2,682	1,903	30,739
XI. Furniture, Bedding, etc. .. ..	6,140	4,871	1,865	1,199	825	387	15,287
XII. Paper, Stationery, Printing, Bookbinding, etc. .. ..	17,290	13,819	3,611	2,294	1,723	1,176	39,913
XIII. Rubber .. ..	3,538	2,948	704	178	78	56	7,502
XIV. Musical Instruments .. ..	286	89	36	16	24	..	451
XV. Miscellaneous Products .. ..	3,981	2,699	303	360	206	178	7,727
Total, Classes I to XV. .. ..	225,617	199,627	53,342	41,030	22,410	13,651	555,677
XVI. Heat, Light and Power .. ..	3,164	2,204	768	2,341	801	151	9,429
Grand Total .. ..	228,781	201,831	54,110	43,371	23,211	13,802	565,106

4. Persons Engaged According to Nature of Employment.—(i) *General.* In the following table the average number of persons engaged in the States during 1938–39 are classified according to the nature of their employment :—

## PERSONS ENGAGED : NATURE OF EMPLOYMENT, 1938–39.

State.	Average Number of Persons Engaged.						
	Working Proprietors.	Managers and Overseers.	Accountants and Clerks.	Engine-drivers and Firemen.	Workers, Skilled & Unskilled. (a)	Carters, Messengers and Others.	Total.
New South Wales ..	7,704	7,822	15,460	2,863	192,434	2,498	228,781
Victoria .. ..	7,760	6,867	11,008	1,814	172,203	2,179	201,831
Queensland ..	2,458	2,036	3,659	1,882	42,900	1,175	54,110
South Australia ..	1,598	1,643	3,356	427	35,751	596	43,371
Western Australia ..	1,212	1,028	1,382	518	18,708	363	23,211
Tasmania ..	633	623	899	282	11,230	135	13,802
Australia ..	21,365	20,019	35,764	7,786	473,226	6,946	565,106

(a) Including outworkers.

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

## FACTORIES : OUTWORKERS.(a)

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
1934–35 .. ..	296	143	11	12	3	10	475
1935–36 .. ..	235	142	10	6	..	29	422
1936–37 .. ..	264	176	14	17	3	17	491
1937–38 .. ..	234	152	8	23	6	12	435
1938–39 .. ..	201	120	6	11	7	11	350

(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. 540–66.

5. Distribution of Employees According to Age.—(i) *States.* The extension of statistics of employment in factories, which arose from the decisions of the Conference of Australian Statisticians held in March, 1937, now permits of a distribution of

employees (excluding working proprietors) into three age-groups. The particulars are collected in June of each year and details showing the numbers actually employed in each age-group in June, 1939 are given below :—

**FACTORIES : DISTRIBUTION OF EMPLOYEES ACCORDING TO AGE, JUNE, 1939.**

(Excluding Working Proprietors.)

State.	Under 16 Years.		16 and under 21 Years.		Adults.		Total.	
	No.	%	No.	%	No.	%	No.	%
New South Wales ..	12,843	5.85	56,212	25.59	150,570	68.56	219,625	100
Victoria ..	11,172	5.81	48,302	25.10	132,921	69.09	192,395	100
Queensland ..	3,124	6.01	11,478	22.10	37,345	71.89	51,947	100
South Australia ..	2,349	5.78	8,937	22.01	29,329	72.21	40,615	100
Western Australia ..	1,226	5.61	5,273	24.15	15,336	70.24	21,835	100
Tasmania ..	892	6.78	2,489	18.92	9,776	74.30	13,157	100
<b>Australia ..</b>	<b>31,606</b>	<b>5.86</b>	<b>132,691</b>	<b>24.59</b>	<b>375,277</b>	<b>69.55</b>	<b>539,574</b>	<b>100</b>

(ii) *Australia.* The following table shows the same age distribution in sexes for Australia since 1937 :—

**FACTORIES : DISTRIBUTION OF EMPLOYEES ACCORDING TO AGE, AUSTRALIA.**

(Excluding Working Proprietors.)

During June.	Under 16 Years.		16 and under 21 Years.		Adults.		Total.	
	No.	%	No.	%	No.	%	No.	%

**MALES.**

1937 .. ..	16,343	4.38	72,772	19.49	284,301	76.13	373,416	100
1938 .. ..	16,480	4.21	77,309	19.74	297,830	76.05	391,619	100
1939 .. ..	16,109	4.12	76,418	19.55	298,446	76.33	390,973	100

**FEMALES.**

1937 .. ..	15,762	11.27	53,206	38.03	70,946	50.70	139,914	100
1938 .. ..	15,975	10.76	56,721	38.20	75,793	51.04	148,489	100
1939 .. ..	15,497	10.43	56,273	37.87	76,831	51.70	148,601	100

**PERSONS.**

1937 .. ..	32,105	6.25	125,978	24.54	355,247	69.21	513,330	100
1938 .. ..	32,455	6.01	134,030	24.81	373,623	69.18	540,108	100
1939 .. ..	31,606	5.86	132,691	24.59	375,277	69.55	539,574	100

## § 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. 540-66.

2. **Distribution of Persons Engaged According to Sex.**—(i) *General.* In New South Wales the ratio of the number of females engaged 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 more 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 is now almost one to two. In the remaining States the ratio is roughly one female engaged to every four males, while for Australia as a whole it is more than one to three. The employment of women is, however, mainly confined to a few trades.

(ii) *Average Number of Males and Females Engaged, 1934-35 to 1938-39.* The next table shows the average number of males and females engaged in factories in each State during the last five years:—

## FACTORIES: MALES AND FEMALES ENGAGED.

State.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
<b>MALES.</b>					
New South Wales .. ..	127,114	140,896	152,064	164,391	167,172
Victoria .. ..	110,910	121,734	128,457	136,160	136,218
Queensland .. ..	34,596	36,411	38,970	42,337	43,941
South Australia .. ..	27,271	31,391	33,400	36,274	35,406
Western Australia .. ..	14,253	16,911	18,466	18,760	18,704
Tasmania .. ..	8,321	9,211	10,055	10,680	11,150
<b>Australia .. ..</b>	<b>322,465</b>	<b>356,554</b>	<b>381,412</b>	<b>408,602</b>	<b>412,591</b>
<b>FEMALES.</b>					
New South Wales .. ..	47,919	52,304	56,433	60,470	61,609
Victoria .. ..	58,781	61,656	62,926	65,633	65,613
Queensland .. ..	8,452	8,717	9,246	9,782	10,169
South Australia .. ..	6,226	7,080	7,310	7,810	7,965
Western Australia .. ..	3,521	4,082	4,245	4,373	4,507
Tasmania .. ..	2,234	2,378	2,376	2,490	2,652
<b>Australia .. ..</b>	<b>127,133</b>	<b>136,217</b>	<b>142,536</b>	<b>150,558</b>	<b>152,515</b>

3. Rate of Variation for each Sex.—The percentages of increase or decrease on the average numbers of males and females engaged in the preceding year are shown below for the years indicated :—

ANNUAL PERCENTAGE INCREASES OF MALES AND FEMALES ENGAGED.

State.	1933-34— 1934-35.	1934-35— 1935-36.	1935-36— 1936-37.	1936-37— 1937-38.	1937-38— 1938-39.
<b>MALES.</b>					
New South Wales ..	13.85	10.84	7.93	8.11	1.69
Victoria ..	9.86	8.98	5.52	5.98	0.04
Queensland ..	7.28	5.25	6.98	8.64	3.79
South Australia ..	14.86	15.11	6.40	8.60	— 2.39
Western Australia ..	10.23	18.65	9.20	1.59	— 0.30
Tasmania ..	7.84	10.70	9.16	6.22	4.40
Total ..	11.48	10.57	6.97	7.13	0.98
<b>FEMALES.</b>					
New South Wales ..	13.00	9.15	7.89	7.15	1.88
Victoria ..	6.15	4.90	2.05	4.30	— 0.03
Queensland ..	7.87	3.14	6.07	5.80	3.96
South Australia ..	8.41	13.72	3.25	6.84	1.98
Western Australia ..	8.90	15.93	3.99	3.02	3.06
Tasmania ..	8.13	6.45	— 0.08	4.80	6.51
Total ..	8.98	7.15	4.64	5.63	1.30

NOTE.—The minus sign (—) indicates decrease.

4. Masculinity of Persons Engaged in Factories.—The extent to which females are engaged in the factories of Australia may perhaps be more clearly shown by giving the masculinity of persons engaged for each State for a series of years. The following table furnishes particulars for the years 1934-35 to 1938-39 :—

FACTORIES : MASCULINITY(a) OF PERSONS ENGAGED.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
1934-35 ..	275	189	409	438	405	372	254
1935-36 ..	269	197	418	443	414	387	262
1936-37 ..	269	204	421	457	435	423	268
1937-38 ..	272	207	433	464	429	429	271
1938-39 ..	271	208	433	445	415	420	271

(a) Number of males per 100 females.

For a number of years prior to 1926-27 there were on the average 100 females engaged in factories for every 300 males, but in that year, the proportion of females began to rise with increasing activity in the clothing and textile industries in which the number of females to males is relatively high. As these trades were not as seriously affected by the depression as the heavier industries the proportion continued to rise until in 1932-33 there were only 239 males engaged to every 100 females. With the recovery of employment in the heavier industries subsequent to that year, the proportion had declined to 271 males in 1938-39.

5. Employment of Females in Particular Industries.—The greater number of females in manufacturing industries is engaged in four classes, namely :—VI., Textiles ; VIII., Clothing ; IX., Food, Drink and Tobacco ; and XII., Paper, Stationery, etc. In 1938-39 these industries accounted for 81.12 per cent. of all females in factories. In two classes only did the number of females exceed the number of males, namely, in Class VI., Textiles,

where there were 146 females to every 100 males and in Class VIII., Clothing, with 285 females per 100 males. The following tables show the average number of males and females engaged in each of these classes in 1938-39:—

**MALES AND FEMALES ENGAGED IN PARTICULAR INDUSTRIES, 1938-39.**

Class.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
<b>MALES.</b>							
VI. Textiles and Textile Goods ..	5,736	11,052	422	809	130	597	18,746
VIII. Clothing ..	8,158	10,704	1,474	1,032	783	187	22,338
IX. Food, Drink and Tobacco ..	18,857	19,298	13,575	5,150	2,951	2,170	62,001
XII. Paper, Stationery, etc. ..	11,872	9,750	2,619	1,641	1,277	913	28,072
All Other Classes ..	122,549	85,414	25,851	26,774	13,503	7,283	281,434
<b>Total ..</b>	<b>167,172</b>	<b>156,218</b>	<b>43,941</b>	<b>35,406</b>	<b>18,704</b>	<b>11,150</b>	<b>412,591</b>
<b>FEMALES.</b>							
VI. Textiles and Textile Goods ..	9,353	15,728	554	447	252	1,002	27,336
VIII. Clothing ..	23,861	28,269	5,284	3,632	2,393	315	63,754
IX. Food, Drink and Tobacco ..	9,657	7,651	1,744	1,216	755	822	21,845
XII. Paper, Stationery, etc. ..	5,418	4,069	992	653	446	263	11,841
All Other Classes ..	13,320	9,896	1,595	2,017	661	250	27,739
<b>Total ..</b>	<b>61,609</b>	<b>65,613</b>	<b>10,169</b>	<b>7,965</b>	<b>4,507</b>	<b>2,652</b>	<b>152,515</b>

The employment of females in the several industries of Class VIII., Clothing, which is the most important group, and the relation of their number to that of the males so engaged are shown in the following table:—

**FEMALES ENGAGED IN EACH INDUSTRY IN CLASS VIII., 1938-39.**

Industry.	New South Wales.			Victoria.			Other States.		
	Males.	Females.	Femini- nity. (a)	Males.	Females.	Femini- nity. (a)	Males.	Females.	Femini- nity. (a)
Tailoring and Slop	2,112	9,939	471	1,953	6,287	322	1,328	4,880	367
Clothing	8	37	462	83	272	327	(b)	(b)	(b)
Waterproof and Oil- skin Clothing ..	33	1,580	4,788	639	7,729	1,210	77	2,417	3,139
Dressmaking ..	166	1,598	963	99	1,169	1,181	49	842	1,780
Millinery ..	354	4,127	1,165	420	4,135	985	153	1,892	1,237
Shirts, Collars and Underclothing ..	47	678	1,443	189	1,056	559	(b)	(b)	(b)
Stays and Corsets ..	117	872	745	42	443	1,055	(b)	(b)	(b)
Handkerchiefs, Ties and Scarves ..	654	939	144	687	831	121	35	164	469
Hats and Caps ..	7	13	186	15	41	273	..	..	..
Gloves ..	2,673	3,068	115	4,615	4,994	108	1,053	860	82
Boots and Shoes ..	1,062	29	3	683	14	2	469	26	6
Boot Repairing (in- cluding Bespoke Work) ..	170	101	59	527	251	48	(b)	(b)	(b)
Boot Accessories ..	37	87	235	16	31	194	11	22	200
Umbrellas and Walk- ing Sticks ..	635	550	87	655	620	95	278	400	144
Uyeworks and Clean- ing (Including Repair- ing) ..	83	243	293	81	396	480	23	121	526
Other ..	8,158	23,861	292	10,704	28,269	264	3,476	11,624	334
<b>Total ..</b>									

(a) Number of females per 100 males.

(b) Included with "Other".

**§ 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. 540-66. The object of

the restrictions imposed is to ensure amongst other things that a proper period shall be devoted to primary education, and that the early years of toil shall not exhaust the worker before the attainment of full growth.

2. Average Number of Children Engaged, 1934-35 to 1938-39.—In the returns for the various States, the term "child" denotes any person under sixteen years of age. Juvenile employment in factories reached its maximum in 1937-38. The number of children engaged in 1938-39 declined in all States except Western Australia and Tasmania. The following table shows the average number of children of each sex employed in manufacturing industries in the years 1934-35 to 1938-39:—

**FACTORIES : CHILDREN ENGAGED.**

State.	1934-35. (a)	1935-36. (a)	1936-37. (b)	1937-38. (b)	1938-39. (b)
<b>MALES.</b>					
New South Wales .. ..	3,990	4,887	5,888	6,032	5,759
Victoria .. ..	5,194	6,118	6,213	6,017	6,167
Queensland .. ..	1,146	1,543	1,680	1,835	1,790
South Australia .. ..	1,025	1,352	1,422	1,424	1,296
Western Australia .. ..	574	777	776	731	705
Tasmania .. ..	255	330	364	441	392
<b>Australia .. ..</b>	<b>12,184</b>	<b>15,007</b>	<b>16,343</b>	<b>16,480</b>	<b>16,109</b>
<b>FEMALES.</b>					
New South Wales .. ..	5,571	6,485	7,539	7,499	7,084
Victoria .. ..	6,015	6,002	5,298	5,279	5,005
Queensland .. ..	1,048	1,281	1,224	1,338	1,334
South Australia .. ..	738	876	988	1,050	1,053
Western Australia .. ..	426	473	424	450	521
Tasmania .. ..	294	310	289	359	500
<b>Australia .. ..</b>	<b>14,092</b>	<b>15,427</b>	<b>15,762</b>	<b>15,975</b>	<b>15,497</b>
<b>TOTAL.</b>					
New South Wales .. ..	9,561	11,372	13,427	13,531	12,843
Victoria .. ..	11,209	12,120	11,511	11,296	11,172
Queensland .. ..	2,194	2,824	2,904	3,173	3,124
South Australia .. ..	1,763	2,228	2,410	2,474	2,349
Western Australia .. ..	1,000	1,250	1,200	1,181	1,226
Tasmania .. ..	549	640	653	800	892
<b>Australia .. ..</b>	<b>26,276</b>	<b>30,434</b>	<b>32,105</b>	<b>32,455</b>	<b>31,606</b>

(a) Average during year.

(b) As at June of year stated.

3. Percentage of Children on Total Number of Persons Engaged.—The following table shows the percentage of children on the total number of persons engaged in the various States for each of the five years 1934-35 to 1938-39. In 1938-39 the percentage was highest in Tasmania and lowest in Western Australia.

**PERCENTAGE OF CHILDREN ON TOTAL NUMBER OF PERSONS ENGAGED.**  
(Excluding Working Proprietors.)

State.	1934-35. (a)	1935-36. (a)	1936-37. (b)	1937-38. (b)	1938-39. (b)
	%	%	%	%	%
New South Wales .. ..	5.68	6.10	6.52	6.16	5.85
Victoria .. ..	6.93	6.91	6.24	5.83	5.81
Queensland .. ..	5.35	6.55	6.06	6.27	6.01
South Australia .. ..	5.49	6.02	5.76	5.96	5.78
Western Australia .. ..	5.95	6.31	5.62	5.35	5.61
Tasmania .. ..	5.50	5.81	5.51	6.40	6.78
<b>Australia .. ..</b>	<b>6.11</b>	<b>6.44</b>	<b>6.25</b>	<b>6.01</b>	<b>5.86</b>

(a) Average during year.

(b) As at June of year stated.

4. Industries Employing Child Labour.—The employment of children is practically confined to a limited number of industries, the most important of which are specified in the next table, which shows the number engaged in June, 1939.

CHILDREN EMPLOYED IN VARIOUS INDUSTRIES, JUNE, 1939.

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.	Bricks and Tiles, Firebricks and Fireclay Goods ..	132	..	42	12	23	..	29	..	2	..	4	..	232	12
..	Glass Bottles ..	143	52	13	3	..	..	16	2	5	..	2	..	179	57
III.	Chemicals, Drugs and Medicines ..	56	128	12	36	2	11	14	21	6	3	..	..	90	199
IV.	Smelting, Converting Refining and Rolling of Iron and Steel ..	290	9	570	12	..	..	160	36	..	..	..	..	1020	57
..	Engineering (not Marine or Electrical) ..	310	14	367	12	106	4	100	16	50	1	8	..	941	47
..	Electrical Installations, Cables and Apparatus ..	212	55	191	38	5	..	39	18	12	..	2	..	461	111
..	Motor Vehicles and Cycles—Repairs ..	290	28	197	7	124	11	94	10	52	5	37	2	794	63
..	Motor Bodies ..	27	3	103	4	30	1	46	7	7	1	6	..	219	16
..	Brass and Copper ..	91	2	162	6	31	1	18	2	16	1	5	..	323	12
..	Galvanized Ironworking and Tinsmithing ..	330	45	202	59	39	5	52	9	78	2	7	..	708	120
..	Wireless Apparatus ..	299	87	193	13	13	2	..	..	..	..	..	..	505	102
VI.	Cotton ..	78	192	68	118	..	2	..	..	..	..	..	..	146	312
..	Wool, Worsted and Shoddy ..	245	502	416	474	16	65	34	57	2	13	49	297	762	1408
..	Hosiery and Other Knitted Goods ..	75	451	236	784	1	4	..	9	2	14	..	11	314	1273
..	Rope and Cordage ..	22	22	65	16	6	..	13	1	9	..	..	..	115	39
VII.	Tanning, Currying and Leather Dressing ..	56	3	69	1	22	..	2	..	4	..	..	..	153	4
..	Bags, Trunks and Other Leather Goods ..	62	107	40	46	10	17	15	44	4	6	..	..	131	220
VIII.	Tailoring and Slop Clothing ..	87	1090	79	393	49	326	16	134	12	45	3	29	246	2017
..	Dressmaking ..	2	212	22	803	6	130	1	150	..	108	..	2	31	1405
..	Millinery ..	17	247	2	109	5	76	2	50	..	9	..	..	26	491
..	Shirts, Collars and Underclothing ..	20	656	10	265	8	188	1	113	3	90	..	..	42	1312
..	Stays and Corsets ..	1	91	12	97	..	11	..	..	..	..	..	..	13	199
..	Hats and Caps ..	32	108	27	57	..	3	..	7	2	6	..	..	61	181
..	Boots and Shoes ..	195	487	183	357	26	81	21	54	30	27	5	4	460	1010
IX.	Bakeries (including Cakes and Pastry) ..	79	32	109	22	14	14	35	8	6	4	60	70	303	150
..	Biscuits ..	150	307	86	77	5	11	8	38	19	19	9	14	277	466
..	Sugar Confectionery (including Chocolates) ..	88	458	48	104	18	65	9	45	4	21	(a)	(a)	167	693
..	Condiments, Coffee and Spices ..	37	72	24	40	4	21	16	30	25	3	1	1	107	167
XI.	Billiard Tables, Cabinet and Furniture making and Upholstery ..	134	22	234	6	85	8	66	11	35	2	19	..	573	49
XII.	Manufactured Stationery ..	35	101	25	56	..	11	1	9	1	3	..	..	62	180
..	Cardboard Boxes, Cartons, etc. ..	66	221	43	87	1	7	4	5	..	3	..	..	114	323
..	Paper Bags ..	3	67	10	17	10	11	3	5	6	18	..	..	32	118
..	Papermaking ..	5	12	8	..	..	..	..	..	..	..	7	32	20	44
..	Newspapers (including Weekly Publications) ..	126	16	43	10	59	3	11	..	21	3	5	1	265	33
..	General Printing and Bookbinding (not including Government)	198	224	262	151	65	44	30	21	36	10	9	13	600	463

(a) Not available for publication.

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 1938–39 was £500,419,977, of which amount the sum of £281,303,446 represented the value of the materials used, including containers, etc., tools replaced and repairs to plant and buildings, and £15,699,921 the value of the power, fuel and light used. The difference between the sum of the last two amounts and the value of the output, namely, £203,416,610 represents the value of production as defined by the Conference of Statisticians at Sydney in 1925, i.e., “the value of consumable commodities produced during the year, deducting, so far as possible, the value of goods consumed in process of production.” The total amount of salaries and wages paid in factories in 1938–39 was £106,743,062. This figure, which is exclusive of amounts drawn by working proprietors, shows an increase of £4,664,512 or 4.6 per cent., as compared with the total for the previous year.

2. Salaries and Wages Paid.—(i) *In Classes of Industry, 1938–39.* The amounts of salaries and wages paid in the various classes of industry in each State are shown in the following table:—

FACTORIES : SALARIES AND WAGES PAID, 1938–39.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products ..	1,107,173	676,561	187,343	133,284	152,890	80,858	2,338,109
II. Bricks, Pottery, Glass etc. ..	1,801,062	914,728	174,310	206,219	132,036	39,767	3,268,122
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	1,693,693	1,735,264	122,533	303,021	194,449	22,221	4,071,181
IV. Industrial Metals, Machines, Implements and Conveyances ..	18,494,585	10,712,603	2,981,379	3,933,488	1,434,981	895,880	38,502,916
V. Precious Metals, Jewellery and Plate ..	166,401	376,804	25,571	27,208	13,971	3,296	613,251
VI. Textiles and Textile Goods ..	2,006,758	3,703,715	136,412	180,015	59,337	223,470	6,390,707
VII. Skins and Leather ..	819,630	809,158	174,746	66,334	55,568	16,382	1,941,818
VIII. Clothing ..	3,913,910	5,029,886	715,308	444,900	351,722	54,158	10,509,884
IX. Food, Drink and Tobacco ..	5,512,953	5,416,877	3,725,839	1,170,360	791,799	477,801	17,095,629
X. Woodworking and Basketware ..	1,966,856	1,477,276	1,202,148	362,327	559,850	299,059	5,867,516
XI. Furniture, Bedding, etc. ..	1,169,731	768,100	346,368	182,742	143,087	55,579	2,665,607
XII. Paper, Stationery, Printing, Book-binding, etc. ..	3,529,582	2,758,385	720,340	450,403	372,082	242,577	8,073,369
XIII. Rubber ..	735,830	604,219	99,493	24,873	10,158	6,107	1,480,680
XIV. Musical Instruments ..	56,383	17,108	7,085	1,906	5,710	..	88,192
XV. Miscellaneous Products ..	618,763	413,662	42,577	51,295	24,328	22,983	1,173,608
Total, Classes I to XV.	43,683,310	35,414,346	10,661,452	7,533,375	4,342,968	2,440,138	104,080,589
XVI. Heat, Light and Power ..	923,187	612,196	225,777	630,975	230,590	39,748	2,662,473
Grand Total ..	44,606,497	36,026,542	10,887,229	8,160,350	4,573,558	2,479,886	106,743,062

(ii) *Totals and Averages, 1934–35 to 1938–39.* The following statement shows the total amount of salaries and wages paid, and the average amount paid per employee in each State, for each of the years 1934–35 to 1938–39. The average wage paid is not comparable with that shown in similar tables in issues of the Official Year Book prior to

No. 23, 1930, on account of the change in the method of computing the average number of hands employed, as explained earlier. The figures are exclusive of working proprietors and of the amounts drawn by them :—

## FACTORIES : TOTAL AND AVERAGE SALARIES AND WAGES PAID.

Year.	Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
		£	£	£	£	£	£	£
1934-35	Total amount paid ..	29,514,013	25,275,014	7,889,535	5,433,531	3,111,230	1,601,217	72,824,549
	Average per employee ..	175.22	156.33	192.38	169.22	185.05	160.36	169.34
1935-36	Total amount paid ..	33,314,534	28,456,028	8,394,909	6,375,354	3,703,995	1,853,468	82,098,288
	Average per employee ..	178.66	162.28	194.66	172.21	187.09	168.33	173.65
1936-37	Total amount paid ..	36,642,444	30,986,895	9,088,637	7,172,638	4,157,733	2,074,785	90,123,132
	Average per employee ..	181.93	169.00	198.02	182.78	193.46	175.72	179.10
1937-38	Total amount paid ..	42,209,875	34,960,911	10,170,800	8,043,160	4,401,443	2,292,361	102,078,550
	Average per employee ..	194.24	180.33	204.73	189.10	200.92	183.33	189.80
1938-39	Total amount paid ..	44,606,497	36,026,542	10,887,229	8,169,350	4,573,558	2,479,886	106,743,062
	Average per employee ..	201.77	185.64	210.78	195.57	207.90	188.31	196.31

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 high percentage of women and children. The highest average wages per employee in 1938-39 were paid in Queensland, Western Australia and New South Wales in that order.

Earnings per employee reached their highest level in 1927-28 with an average of £212.12. After that year there was an almost continuous decline to 1933-34 when the average rate dropped to £166.36. Thereafter the average rose each year to £196.31 in 1938-39 but this amount is still 7.5 per cent. below that attained in 1927-28.

(iii) *Earnings of Males and Females, 1938-39.* The following table shows the approximate amount of salaries and wages paid to males and females in each class of industry in each State during the year 1938-39 :—

## SALARIES AND WAGES : MALE AND FEMALE FACTORY EMPLOYEES, 1938-39.

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 ..	1,098,508	666,391	184,425	130,803	150,431	80,002	2,310,560
II. Bricks, Pottery, Glass, etc. ..	1,767,399	882,801	169,253	202,293	130,488	39,327	3,191,561
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	1,405,865	1,457,904	107,099	280,783	185,517	21,096	3,458,264
IV. Industrial Metals, Machines, Implements and Conveyances ..	17,960,358	10,385,802	2,933,730	3,848,067	1,461,387	884,321	37,473,665
V. Precious Metals, Jewellery and Plate ..	149,393	342,421	24,127	26,442	13,484	3,262	559,129
VI. Textiles and Textile Goods ..	1,161,149	2,111,633	81,661	142,904	27,308	121,655	3,646,310
VII. Skins and Leather ..	727,146	705,089	161,399	45,766	46,434	15,951	1,701,785
VIII. Clothing ..	1,545,648	1,984,259	252,709	151,331	122,243	25,404	4,081,594
IX. Food, Drink and Tobacco ..	4,449,141	4,547,679	3,548,248	1,067,162	718,665	406,594	14,737,489
X. Woodworking and Basketware ..	1,929,797	1,452,774	1,177,477	355,600	557,578	295,397	5,768,623
XI. Furniture, Bedding, etc. ..	1,040,915	667,569	325,129	167,398	131,476	53,879	2,386,366
XII. Paper, Stationery, Printing, Book-binding, etc. ..	2,979,776	2,320,763	614,471	390,544	323,320	220,171	6,849,045
XIII. Rubber ..	587,414	518,289	69,140	22,579	9,880	5,886	1,213,188
XIV. Musical Instruments ..	48,436	16,952	7,085	1,742	5,710	..	79,925
XV. Miscellaneous Products ..	501,495	334,196	38,355	43,062	16,491	22,240	955,839
Total, Classes I to XV.	37,352,440	28,394,522	9,604,308	6,876,476	3,000,412	2,195,185	68,413,343
XVI. Rent, Light and Power ..	919,427	611,224	225,693	611,352	228,412	39,228	2,635,336
Grand Total ..	38,271,867	29,005,746	9,920,001	7,487,828	4,128,824	2,234,413	91,048,679

SALARIES AND WAGES : MALE AND FEMALE FACTORY EMPLOYEES,  
1938-39—continued.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
<b>FEMALES.</b>							
	£	£	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products ..	8,665	10,170	2,918	2,481	2,459	856	27,549
II. Bricks, Pottery, Glass, etc. ..	33,663	31,927	5,057	3,926	1,548	440	76,561
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	287,828	277,360	15,434	22,238	8,932	1,125	612,917
IV. Industrial Metals, Machines, Implements and Conveyances ..	534,227	326,801	47,649	85,421	23,594	11,559	1,029,251
V. Precious Metals, Jewellery and Plate ..	17,008	34,383	1,444	766	487	34	54,122
VI. Textiles and Textile Goods ..	935,609	1,592,082	54,751	37,111	23,029	101,815	2,744,397
VII. Skins and Leather ..	92,484	104,069	13,347	20,568	9,134	431	240,033
VIII. Clothing ..	2,368,262	3,045,627	462,599	293,569	229,479	28,754	6,428,290
IX. Food, Drink and Tobacco ..	1,063,812	869,198	177,591	103,198	73,134	71,207	2,358,140
X. Woodworking and Basketware ..	37,059	24,502	24,671	6,727	2,272	3,662	98,893
XI. Furniture, Bedding, etc. ..	128,816	100,531	21,239	15,344	11,611	1,700	279,241
XII. Paper, Stationery, Printing, Book-binding, etc. ..	549,806	437,622	105,869	59,859	48,762	22,406	1,224,324
XIII. Rubber ..	148,416	85,930	30,353	2,294	278	221	267,492
XIV. Musical Instruments ..	7,947	156	..	164	..	..	8,267
XV. Miscellaneous Products ..	117,268	79,466	4,222	8,233	7,837	743	217,769
Total, Classes I to XV.	6,330,870	7,019,824	967,144	661,899	442,556	244,953	15,667,246
XVI. Heat, Light and Power ..	3,760	972	84	19,623	2,178	520	27,137
Total ..	6,334,630	7,020,796	967,228	681,522	444,734	245,473	15,694,383

(iv) *Total and Average Earnings of Males and Females, 1934-35 to 1938-39.* Particulars for the last five years are given in the table hereunder:—

**TOTAL AND AVERAGE SALARIES AND WAGES : MALES AND FEMALES.**

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
<b>MALES.</b>							
1934-35. Amount paid .. £	25,215,937	20,036,314	7,184,443	4,937,285	2,806,476	1,429,620	61,610,075
Per cent. on total ..	85.44	79.27	91.06	90.87	90.20	89.28	84.60
Average per employee £	208.57	193.31	219.93	190.22	210.66	183.68	202.48
1935-36. Amount paid .. £	28,576,202	22,755,111	7,654,082	5,810,399	3,353,526	1,652,851	69,802,171
Per cent. on total ..	85.78	79.97	91.18	91.14	90.54	89.18	85.02
Average per employee £	212.35	198.85	221.90	193.56	212.76	190.86	206.55
1936-37. Amount paid .. £	31,450,699	24,963,887	8,296,211	6,570,225	3,777,064	1,872,019	76,930,108
Per cent. on total ..	85.83	80.56	91.28	91.60	90.84	90.23	85.36
Average per employee £	216.29	205.93	225.78	205.31	218.47	198.06	212.44
1937-38. Amount paid .. £	36,247,087	28,241,058	9,287,319	7,381,141	3,997,197	2,067,231	87,221,033
Per cent. on total ..	85.87	80.78	91.31	91.77	90.82	90.18	85.45
Average per employee £	230.39	218.89	232.20	212.08	227.42	205.96	224.35
1938-39. Amount paid .. £	38,271,867	29,005,746	9,920,001	7,487,828	4,128,824	2,234,413	91,048,679
Per cent. on total ..	85.80	80.51	91.12	91.66	90.28	90.10	85.30
Average per employee £	239.24	224.47	238.59	220.95	235.49	212.09	231.84

## TOTAL AND AVERAGE SALARIES AND WAGES: MALES AND FEMALES

—continued.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
<b>FEMALES.</b>							
1934-35. Amount paid .. £	4,298,076	5,238,700	705,092	496,246	304,763	171,597	11,214,474
Per cent. on total ..	14.56	20.73	8.94	9.13	9.80	10.72	15.40
Average per employee .. £	90.40	90.27	84.51	80.64	87.30	77.93	89.17
1935-36. Amount paid .. £	4,738,332	5,700,917	740,827	564,955	350,469	200,617	12,296,117
Per cent. on total ..	14.22	20.03	8.82	8.86	9.46	10.82	14.98
Average per employee .. £	91.30	93.58	85.80	80.70	86.84	85.33	91.19
1936-37. Amount paid .. £	5,191,745	6,023,008	792,423	602,413	380,669	202,766	13,193,224
Per cent. on total ..	14.17	19.44	8.72	8.40	9.16	9.77	14.64
Average per employee .. £	92.71	96.95	86.58	83.21	90.59	86.10	93.52
1937-38. Amount paid .. £	5,962,788	6,710,853	883,481	662,019	404,246	225,130	14,857,517
Per cent. on total ..	14.13	19.22	8.69	8.23	9.18	9.82	14.55
Average per employee .. £	99.41	103.62	91.25	85.65	93.36	91.26	99.69
1938-39. Amount paid .. £	6,334,630	7,020,796	967,228	681,522	444,734	245,473	15,694,383
Per cent. on total ..	14.20	19.49	8.88	8.34	9.72	9.90	14.70
Average per employee .. £	103.66	108.25	96.00	86.44	99.58	93.19	103.92

(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, ETC., AND OTHER EMPLOYEES, 1938-39.

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 ..	315,210	23,517	1,995,350	4,032	2,310,560	27,549	2,338,109
II. Bricks, Pottery, Glass, etc. ..	350,532	36,535	2,841,029	40,026	3,191,561	76,561	3,268,122
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	763,768	157,013	2,694,496	455,904	3,458,264	612,917	4,071,181
IV. Industrial Metals, Machines, Implements* and Conveyances ..	4,824,290	563,012	32,649,375	466,239	37,473,665	1,029,251	38,502,916
V. Precious Metals, Jewellery and Plate ..	57,295	15,534	501,834	38,588	559,129	54,122	613,251
VI. Textiles and Textile Goods ..	674,018	161,885	2,072,292	2,582,512	3,646,310	2,744,397	6,390,707
VII. Skins and Leather ..	221,426	30,153	1,480,359	209,880	1,701,785	240,033	1,941,818
VIII. Clothing ..	584,133	350,027	3,497,461	6,078,263	4,081,594	6,428,290	10,509,884
IX. Food, Drink and Tobacco ..	2,823,440	454,716	11,914,049	1,903,424	14,737,489	2,358,140	17,095,629
X. Woodworking and Basketware ..	612,530	73,795	5,156,093	25,098	5,768,623	98,893	5,867,516
XI. Furniture, Bedding etc. ..	199,598	53,634	2,186,768	225,607	2,386,366	279,241	2,665,607
XII. Paper, Stationery, Printing, Book-binding, etc. ..	1,157,645	281,230	5,691,400	943,085	6,819,045	1,224,324	8,073,369
XIII. Rubber ..	260,644	40,009	952,544	227,483	1,213,188	267,402	1,480,680
XIV. Musical Instruments ..	13,943	3,256	65,982	5,011	79,925	8,267	88,192
XV. Miscellaneous Products ..	173,034	47,532	782,805	170,237	955,839	217,769	1,173,608
Total, Classes I to XV.	13,031,500	2,291,857	75,381,837	13,375,389	88,413,343	15,667,246	104,080,589
XVI. Heat, Light and Power ..	563,552	23,867	2,071,784	3,270	2,635,336	27,137	2,662,473
Grand Total ..	13,595,058	2,315,724	77,453,621	13,378,659	91,048,679	15,694,383	106,743,062
Average paid per employee	353.14	133.97	218.66	100.04	231.84	103.92	196.31

3. Power, Fuel and Light Used.—(i) *In Classes of Industry, 1938-39.* The expenditure by factories on power, fuel and light is of considerable importance; in 1938-39 it amounted to £15,699,921, an increase of £652,216 as compared with the previous year. The following table shows the value of power, fuel and light used in the different classes of industry in 1938-39:—

**FACTORIES : VALUE OF POWER, FUEL AND LIGHT USED (a), 1938-39.**

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products ..	349,494	233,559	69,161	47,906	91,534	69,701	861,355
II. Bricks, Pottery, Glass, etc. ..	515,793	310,052	49,024	74,096	55,664	12,338	1,016,967
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	228,703	244,814	13,948	49,793	45,697	3,680	586,635
IV. Industrial Metals, Machines, Implements and Conveyances ..	3,195,816	612,140	203,104	263,753	99,839	212,155	4,586,807
V. Precious Metals, Jewellery and Plate ..	7,579	17,904	914	2,309	568	119	29,393
VI. Textiles and Textile Goods ..	201,161	365,310	11,908	25,773	5,736	21,021	630,909
VII. Skins and Leather ..	71,599	69,171	18,845	2,002	7,490	1,465	170,572
VIII. Clothing ..	109,957	147,019	17,669	14,896	9,090	1,460	300,691
IX. Food, Drink and Tobacco ..	955,913	859,677	524,963	220,540	172,132	55,549	2,788,774
X. Woodworking and Basketware ..	99,697	87,561	67,221	19,324	42,040	18,157	334,000
XI. Furniture, Bedding, etc. ..	31,693	27,626	10,143	8,101	4,198	1,834	83,595
XII. Paper, Stationery, Printing, Book-binding, etc. ..	177,764	211,022	33,339	18,714	19,454	39,158	499,451
XIII. Rubber ..	94,862	136,568	9,457	3,333	1,471	728	246,419
XIV. Musical Instruments ..	4,200	239	34	2	40	..	4,515
XV. Miscellaneous Products ..	35,897	29,176	1,051	2,176	883	641	69,824
Total, Classes I to XV.	6,080,128	3,352,438	1,030,781	752,718	555,836	438,006	12,209,907
XVI. Heat, Light and Power ..	1,571,409	647,496	392,768	264,819	613,432	..	3,490,014
Grand Total ..	7,651,627	3,999,934	1,423,549	1,017,537	1,169,268	438,006	15,699,921

(a) Including lubricants and water.

(ii) *Values of Items, 1938-39.* The following table shows the values of the various items of power, fuel and light used in factories in each State during the year 1938-39:—

**FACTORIES : VALUE OF ITEMS OF POWER, FUEL AND LIGHT USED, 1938-39.**

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
Coal ..	2,379,290	1,492,493	653,045	327,077	313,587	74,546	5,240,038
Coke ..	1,436,379	164,965	34,785	36,538	27,813	3,902	1,704,382
Wood ..	140,739	191,728	150,472	75,772	194,824	48,109	801,644
Other (Charcoal, etc.) ..	90,190	69,544	13,699	34,918	11,274	168	219,793
Fuel Oil ..	528,221	293,642	104,964	97,229	281,854	28,549	1,334,459
Gas ..	635,782	113,145	24,609	24,129	12,478	3,678	813,821
Electricity ..	1,867,889	1,269,611	275,581	336,426	225,255	255,080	4,229,842
Water and Lubricating Oil ..	573,137	404,806	166,394	85,448	102,183	23,974	1,355,942
Total ..	7,651,627	3,999,934	1,423,549	1,017,537	1,169,268	438,006	15,699,921

(iii) *Quantities, 1938-39.* The following table shows the quantities of certain items of power, fuel and light used in factories in each State during the year 1938-39:—

**FACTORIES : QUANTITY OF POWER, FUEL AND LIGHT USED, 1938-39.**

Particulars.	Unit.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Coal ..	Ton	2,509,664	3,490,632	462,733	222,756	254,209	58,756	6,998,750
Coke ..	Ton	1,344,208	94,644	20,965	19,042	11,843	1,723	1,492,425
Wood ..	Ton	172,963	424,478	263,855	112,653	343,053	85,333	1,402,335
Fuel Oil ..	Gal.	24,215,828	12,548,001	2,394,311	3,019,803	9,099,939	1,633,144	58,811,026

(iv) *Total Value, 1934-35 to 1938-39.* The next table gives the sums expended on power, fuel and light during the last five years:—

**FACTORIES : VALUE OF POWER, FUEL AND LIGHT USED.**

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
1934-35 ..	5,906,307	3,323,892	1,051,474	866,567	702,375	487,592	12,338,207
1935-36 ..	6,273,485	3,505,321	1,080,525	972,636	852,327	592,001	13,276,295
1936-37 ..	6,464,942	3,677,488	1,225,255	856,808	939,166	402,071	13,565,730
1937-38 ..	7,123,961	4,032,190	1,440,750	949,858	1,095,225	495,721	15,047,705
1938-39 ..	7,651,627	3,999,934	1,423,549	1,017,537	1,169,268	438,006	15,699,921

4. *Value of Materials Used.—(i) In Classes of Industry, 1938-39.* The value of materials used (which includes the value of containers, packing, etc., the cost of tools replaced and repairs to plant) in factories in Australia in 1938-39 was £281,303,446, representing 56.21 per cent. of the value of the final output (see par. 5). The table hereunder shows the value of the materials used in various classes of industry in each State:—

**FACTORIES : VALUE OF MATERIALS USED, 1938-39.**

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of Non-metallic Minerals and Quarry Products ..	2,792,101	1,183,735	363,487	153,146	255,490	153,889	4,901,848
II. Bricks, Pottery, Glass, etc. ..	1,079,212	454,355	72,096	179,352	76,966	30,291	1,892,272
III. Chemicals, Dyes, Explosives, Paint, Oil and Grease ..	7,178,556	5,408,944	579,685	1,241,047	1,055,798	124,488	15,588,318
IV. Industrial Metals, Machines, Implements and Conveyances ..	44,976,430	13,647,425	4,358,282	8,132,031	1,551,044	1,465,209	74,130,421
V. Precious Metals, Jewellery and Plate ..	163,970	44,612	11,332	25,487	9,739	500	657,140
VI. Textiles and Textile Goods ..	5,310,587	7,834,072	439,244	1,090,787	141,201	516,546	15,332,437
VII. Skins and Leather ..	2,850,228	2,280,086	1,221,351	134,509	144,829	115,596	6,746,599
VIII. Clothing ..	6,159,356	9,162,439	973,426	528,055	435,565	60,748	17,319,589
IX. Food, Drink and Tobacco ..	34,011,450	30,639,719	30,329,778	6,717,378	4,210,211	2,056,371	107,964,907
X. Woodworking and Basketware ..	4,700,885	2,841,261	2,589,733	1,004,539	897,965	463,846	12,498,229
XI. Furniture, Bedding, etc. ..	2,154,014	1,615,969	547,188	319,762	249,693	63,288	4,949,914
XII. Paper, Stationery, Printing, Book-binding, etc. ..	5,220,679	3,929,648	685,938	503,722	364,689	161,855	10,866,331
XIII. Rubber ..	1,882,261	1,968,368	182,812	37,838	20,200	9,051	4,100,530
XIV. Musical Instruments ..	42,936	5,751	1,287	344	574	..	50,892
XV. Miscellaneous Products ..	993,023	744,577	40,542	74,704	29,515	19,256	1,901,617
Total, Classes I to XV ..	119,515,688	82,162,461	42,396,181	20,142,701	9,443,479	5,240,934	278,901,444
XVI. Heat, Light and Power ..	986,107	809,147	199,868	166,096	160,178	80,606	2,402,002
Grand Total ..	120,501,795	82,971,608	42,596,049	20,308,797	9,603,657	5,321,540	281,303,446

(ii) *Total Amount, 1934-35 to 1938-39.* The following table gives the values of materials used in factories for the last five years:—

**FACTORIES : VALUE OF MATERIALS USED.**

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	£	£	£	£	£	£	£
1934-35 ..	87,096,873	65,096,374	30,346,510	15,275,492	7,654,382	3,577,386	209,047,017
1935-36 ..	98,950,321	76,494,159	30,901,341	19,261,750	9,172,205	4,195,021	238,974,797
1936-37 ..	109,593,494	80,302,423	34,612,231	21,399,805	9,427,259	5,243,691	260,578,903
1937-38 ..	122,591,463	88,129,145	39,595,695	21,469,924	9,986,441	5,470,744	287,243,412
1938-39 ..	120,501,795	82,971,608	42,596,049	20,308,797	9,603,657	5,321,540	281,303,446

5. Value of Output.—(i) *In Classes of Industry, 1938-39.* The value of the output of new goods manufactured and of repairs effected in factories of various classes in each State in 1938-39 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 values of the raw materials and the power, fuel and light used. The difference between the sum of the values of the materials and the power fuel and light used, and the output is the real value of factory production (see par. 6).

FACTORIES : VALUE OF OUTPUT, 1938-39.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products ..	5,556,373	2,993,612	790,261	431,503	643,257	494,348	10,909,354
II. Bricks, Pottery, Glass, etc.	4,656,592	2,294,715	405,095	654,144	363,547	106,903	8,480,996
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	13,800,743	10,115,983	956,061	1,945,567	1,623,097	190,072	28,631,523
IV. Industrial Metals, Machines, Implements and Conveyances ..	79,863,002	30,718,898	9,317,056	13,913,575	3,983,161	3,356,509	141,152,201
V. Precious Metals, Jewellery and Plate ..	444,085	1,010,767	54,377	70,421	32,984	4,984	1,617,618
VI. Textiles and Textile Goods ..	9,064,994	14,523,484	684,840	1,410,407	238,879	958,507	26,881,111
VII. Skins and Leather ..	4,198,798	3,721,705	1,534,957	233,940	257,451	153,201	10,100,052
VIII. Clothing ..	12,496,105	17,174,627	2,139,655	1,213,980	999,288	147,656	34,171,311
IX. Food, Drink and Tobacco ..	51,073,347	44,109,455	38,025,959	9,463,656	6,568,047	3,114,324	152,354,788
X. Woodworking and Basketware ..	8,047,575	5,320,115	4,598,839	1,602,590	1,765,514	958,338	22,292,971
XI. Furniture, Bedding etc.	3,996,822	2,924,892	1,082,006	607,567	474,239	148,018	9,233,544
XII. Paper, Stationery, Printing, Book-binding, etc. ..	11,936,026	9,070,629	1,947,901	1,263,532	1,055,704	651,263	25,925,055
XIII. Rubber ..	2,935,592	3,677,837	332,785	90,194	49,622	21,994	7,108,024
XIV. Musical Instruments ..	139,073	30,282	10,349	2,983	9,152	..	191,839
XV. Miscellaneous Products ..	2,163,307	1,496,017	109,336	170,366	66,813	63,600	4,060,439
Total, Classes I. to XV. ..	210,372,434	149,183,018	61,089,177	33,074,125	18,130,755	10,360,717	483,119,826
XVI. Heat, Light and Power ..	8,046,879	3,784,593	1,331,596	1,930,830	1,417,756	788,488	17,300,151
Grand Total ..	218,419,313	152,967,611	63,321,073	35,005,264	19,548,511	11,158,205	500,419,977

(ii) *Total, 1934-35 to 1938-39.* The following statement shows the value of output in each State during the five years ended 1938-39 :—

FACTORIES : VALUE OF OUTPUT.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	£	£	£	£	£	£	£
1934-35 ..	154,433,248	117,182,857	46,021,303	25,699,172	14,641,680	7,223,124	365,201,384
1935-36 ..	174,693,761	134,043,170	47,664,810	31,904,091	17,528,741	8,853,882	414,688,455
1936-37 ..	192,812,414	142,692,192	53,022,008	34,528,176	18,313,122	10,461,366	451,829,278
1937-38 ..	214,883,557	157,050,725	59,639,403	36,239,937	19,643,960	11,321,559	498,779,141
1938-39 ..	218,419,313	152,967,611	63,321,073	35,005,264	19,548,511	11,158,205	500,419,977

6. Value of Production.—(i) *In Classes of Industry, 1938-39.* The value of production for any industry was defined by the Conference of Statisticians at Sydney in 1925 as “the value of consumable commodities produced during the year, deducting, so far as possible, the value of goods consumed in process of production.”

In accordance with this definition, it was agreed that a deduction consisting of the costs of raw material, containers, power, fuel, light, lubricants, water, tools replaced, repairs to plant and depreciation should be made from the “value of output.” All these deductions with the exception of depreciation are included in the items “value of materials used” and “value of fuel used” as defined above. On account of the difficulty experienced in securing accurate figures for depreciation, it was subsequently agreed that the particulars obtained should be published but that no deduction should be made on this account for the present. The value of production as given in the following tables is obtained, therefore, by deducting “value of materials used” and “value of fuel used” from the “value of the output.”

The figure thus calculated is, however, not the net value of production. The deduction for depreciation, particulars of which are shown in § 8, par. 4, was estimated at £10,646,658 for 1938-39. Many miscellaneous expenses, also, such as insurance and advertising, have not been taken into account. Hence, it must not be inferred that when wages and salaries are deducted from the value of production, the whole of the “surplus” is available for interest and profit.

The following table shows the value of production in 1938-39 in each State for the various classes of factories:—

FACTORIES : VALUE OF PRODUCTION, 1938-39.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products ..	2,474,778	1,576,318	357,613	230,451	296,233	270,758	5,146,151
II. Bricks, Pottery, Glass, etc. ..	3,061,587	1,530,308	283,975	400,696	230,917	64,274	5,571,757
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	6,393,484	4,462,225	362,428	654,727	521,602	61,904	12,456,370
IV. Industrial Metals, Machines, Implements and Conveyances ..	31,690,756	16,459,333	4,755,670	5,517,791	2,332,278	1,679,145	62,434,973
V. Precious Metals, Jewellery and Plate ..	272,536	546,751	42,131	42,625	22,677	4,365	931,085
VI. Textiles and Textile Goods ..	3,553,246	6,324,102	233,688	293,847	91,942	420,940	10,917,765
VII. Skins and Leather ..	1,276,971	1,372,448	294,761	97,429	105,132	36,140	3,182,881
VIII. Clothing ..	6,226,792	7,864,569	1,148,560	671,029	554,633	85,448	16,551,031
IX. Food, Drink and Tobacco ..	16,105,984	12,610,059	7,171,218	2,525,738	2,185,704	1,002,404	41,601,107
X. Woodworking and Basketware ..	3,246,993	2,391,293	1,941,885	578,727	825,509	476,335	9,460,742
XI. Furniture, Bedding, etc. ..	1,811,115	1,281,297	524,675	279,704	220,348	82,896	4,200,035
XII. Paper, Stationery, Printing, Book-binding, etc. ..	6,537,583	4,929,959	1,228,624	741,096	671,561	450,250	14,559,073
XIII. Rubber ..	958,469	1,572,901	140,516	49,023	27,951	12,215	2,761,075
XIV. Musical Instruments ..	91,937	24,292	9,028	2,637	8,538	..	136,432
XV. Miscellaneous Products ..	1,134,387	722,264	67,743	93,486	36,415	43,703	2,097,998
Total, Classes I to XV	84,776,618	63,668,119	18,562,515	12,179,006	8,131,440	4,690,777	192,008,475
XVI. Heat, Light and Power ..	5,489,273	2,327,950	738,960	1,499,924	644,146	707,882	11,408,135
Grand Total ..	90,265,891	65,996,069	19,301,475	13,678,930	8,775,586	5,398,659	203,416,610

(ii) *Total and Averages, 1934-35 to 1938-39.* The value of production and the amount per person engaged and per head of population are shown in the following table for the years specified:—

**FACTORIES: VALUE OF PRODUCTION.**

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
VALUE.							
	£	£	£	£	£	£	£
1934-35 ..	61,430,068	48,762,591	14,623,319	9,557,113	6,284,923	3,158,146	143,816,160
1935-36 ..	69,469,955	54,043,690	15,682,944	11,669,705	7,504,209	4,066,860	162,437,363
1936-37 ..	76,753,978	58,712,281	17,184,522	12,271,563	7,946,697	4,815,604	177,684,645
1937-38 ..	85,168,133	64,889,390	18,602,958	13,820,155	8,562,294	5,445,094	196,488,024
1938-39 ..	90,265,891	65,996,069	19,301,475	13,678,930	8,775,586	5,398,659	203,416,610

**PER PERSON ENGAGED.**

	£	£	£	£	£	£	£
1934-35 ..	351	287	340	285	354	299	320
1935-36 ..	360	295	348	303	357	351	330
1936-37 ..	368	307	356	301	350	387	339
1937-38 ..	379	322	357	313	370	413	351
1938-39 ..	395	327	357	315	378	391	360

**PER HEAD OF POPULATION.**

	£	£	£	£	£	£	£
1934-35 ..	23.32	26.55	15.22	16.36	14.18	13.78	21.46
1935-36 ..	26.15	29.32	16.13	19.91	16.76	17.66	24.06
1936-37 ..	28.63	31.70	17.46	20.86	17.59	20.74	26.11
1937-38 ..	31.44	34.87	18.69	23.49	18.73	23.17	28.62
1938-39 ..	33.02	35.20	19.17	23.01	18.97	22.79	29.36

7. *Value of Output and Cost of Production.*—As the total value of the output for Australia for 1938-39 was estimated at £500,419,977, there remained, after payment of £281,303,446, the value of the materials used, of £106,743,062 for salaries and wages, and of £15,699,921 for power, fuel and light, the sum of £96,673,548 to provide for all other expenditure, depreciation, interest 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 1938-39:—

**FACTORIES: VALUE OF OUTPUT AND COST OF PRODUCTION, 1938-39.**

State.	Materials Used. (a)	Power, Fuel and Light. (b)	Salaries and Wages.	All other Expenditure, Interest, Profits, etc.	Total Value of Output.
New South Wales	120,501,795	7,651,627	44,606,497	45,059,394	218,419,313
Victoria	82,971,608	3,999,934	36,026,542	29,969,527	152,967,611
Queensland	42,596,049	1,423,549	10,887,229	8,414,246	63,321,073
South Australia	20,308,797	1,017,537	8,169,350	5,509,580	35,005,264
Western Australia	9,603,657	1,169,268	4,573,558	4,202,028	19,548,511
Tasmania	5,321,540	438,006	2,479,886	2,918,773	11,158,205
<b>Australia</b>	<b>281,303,446</b>	<b>15,699,921</b>	<b>106,743,062</b>	<b>96,673,548</b>	<b>500,419,977</b>

**VALUE AND COST, ETC.**

	£	£	£	£	£
New South Wales	120,501,795	7,651,627	44,606,497	45,059,394	218,419,313
Victoria	82,971,608	3,999,934	36,026,542	29,969,527	152,967,611
Queensland	42,596,049	1,423,549	10,887,229	8,414,246	63,321,073
South Australia	20,308,797	1,017,537	8,169,350	5,509,580	35,005,264
Western Australia	9,603,657	1,169,268	4,573,558	4,202,028	19,548,511
Tasmania	5,321,540	438,006	2,479,886	2,918,773	11,158,205
<b>Australia</b>	<b>281,303,446</b>	<b>15,699,921</b>	<b>106,743,062</b>	<b>96,673,548</b>	<b>500,419,977</b>

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

(b) Including lubricants and water.

FACTORIES: VALUE OF OUTPUT AND COST OF PRODUCTION, 1938-39—  
*continued.*

State.	Materials Used. (a)	Power, Fuel and Light. (b)	Salaries and Wages.	All other Expenditure, Interest, Profits, etc.	Total Value of Output.
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PERCENTAGE OF COSTS, ETC., ON TOTAL VALUE.

	%	%	%	%	%
New South Wales ..	55.17	3.50	20.42	20.91	100.00
Victoria ..	54.24	2.62	23.55	19.59	100.00
Queensland ..	67.27	2.25	17.19	13.29	100.00
South Australia ..	58.01	2.91	23.34	15.74	100.00
Western Australia ..	49.13	5.98	23.40	21.49	100.00
Tasmania ..	47.69	3.93	22.22	26.16	100.00
Australia ..	56.21	3.14	21.33	19.32	100.00

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

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

1. General.—The following statement shows the value of land and buildings and of plant and machinery used in connexion with manufacturing industries during the year 1938-39:—

FACTORIES: VALUE OF LAND, BUILDINGS, PLANT AND MACHINERY, 1938-39.

Value of—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	£	£	£	£	£	£	£
Land and buildings	57,353,625	42,026,245	12,299,089	8,710,700	6,813,653	3,717,102	130,920,414
Plant and machinery	62,692,956	38,626,743	18,095,415	9,749,679	8,095,064	6,402,270	143,662,127
Total ..	120,046,581	80,652,988	30,394,504	18,460,379	14,908,717	10,119,372	274,582,541

The values recorded in this section are generally the values apportioned in the books of the individual firms after allowance has been made for depreciation. The totals shown in the table consequently do not represent the actual amount of capital invested in the items specified.

2. Value of Land and Buildings.—(i) *Total for Australia, 1934-35 to 1938-39.* The appended table shows for Australia as a whole the approximate value of land and buildings occupied in connexion with manufacturing industries from 1934-35 to 1938-39 inclusive:—

## FACTORIES : VALUE OF LAND AND BUILDINGS, AUSTRALIA.

Class of Industry.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products ..	2,409,200	2,412,145	2,617,765	2,728,772	2,778,746
II. Bricks, Pottery, Glass, etc.	2,558,791	2,706,575	2,686,930	2,799,201	2,953,557
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	6,129,529	6,398,332	6,596,554	6,843,335	7,377,551
IV. Industrial Metals, Machines, Implements and Conveyances ..	26,718,722	27,873,261	30,061,037	32,420,428	34,841,028
V. Precious Metals, Jewellery and Plate ..	536,745	561,735	602,685	616,934	633,009
VI. Textiles and Textile Goods ..	3,169,116	5,447,503	5,558,420	5,754,347	5,999,671
VII. Skins and Leather ..	1,790,607	1,833,335	2,008,167	1,990,451	2,095,886
VIII. Clothing ..	9,571,442	9,750,733	10,282,902	10,359,944	10,623,619
IX. Food, Drink and Tobacco ..	27,949,389	28,928,977	30,166,301	31,953,396	33,273,248
X. Woodworking and Basketware ..	3,694,166	3,769,305	3,838,701	3,904,773	4,106,963
XI. Furniture, Bedding, etc.	2,056,019	2,196,782	2,370,393	2,440,997	2,533,254
XII. Paper, Stationery, Printing, Bookbinding, etc.	9,221,909	9,564,871	9,668,602	9,956,433	10,639,315
XIII. Rubber ..	1,849,493	1,842,048	1,751,707	1,790,590	1,676,043
XIV. Musical Instruments ..	122,887	115,948	109,531	98,947	104,838
XV. Miscellaneous Products ..	1,114,681	1,213,697	1,323,085	1,396,371	1,432,857
Total, Classes I to XV.	100,892,696	104,615,247	109,642,780	115,036,919	121,069,585
XVI. Heat, Light and Power ..	9,907,283	9,994,655	9,883,357	9,597,095	9,850,829
Grand Total ..	110,799,979	114,609,902	119,526,137	124,634,014	130,920,414

(ii) *In Classes of Industry in States, 1938-39.* The following table gives particulars for the various classes of industry in each State.

## FACTORIES : VALUE OF LAND AND BUILDINGS, STATES, 1938-39.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products ..	1,333,040	813,982	210,434	162,599	106,964	151,727	2,778,746
II. Bricks, Pottery, Glass, etc.	1,787,016	736,454	139,062	159,713	108,406	22,906	2,953,557
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	2,851,872	3,103,873	169,951	499,859	667,372	84,624	7,377,551
IV. Industrial Metals, Machines, Implements and Conveyances ..	17,456,592	9,683,860	2,391,169	2,623,398	1,740,632	945,377	34,841,028
V. Precious Metals, Jewellery and Plate ..	193,200	343,889	30,158	35,657	21,675	8,430	633,009
VI. Textiles and Textile Goods ..	2,030,036	3,380,469	115,502	179,166	66,418	228,080	5,999,671
VII. Skins and Leather ..	801,740	956,936	120,578	62,480	126,246	27,906	2,095,886
VIII. Clothing ..	4,404,387	4,502,971	622,882	527,842	472,327	93,210	10,623,619
IX. Food, Drink and Tobacco ..	12,252,494	9,774,451	5,779,154	2,565,268	1,904,584	997,297	33,273,248
X. Woodworking and Basketware ..	1,768,024	1,039,245	538,896	310,180	292,938	157,680	4,106,963
XI. Furniture, Bedding, etc.	1,000,293	913,903	286,850	147,736	141,798	42,674	2,533,254
XII. Paper, Stationery, Printing, Bookbinding, etc.	4,475,207	3,446,880	1,007,136	683,265	556,791	470,036	10,639,315
XIII. Rubber ..	814,659	621,191	120,680	61,019	35,443	22,151	1,676,043
XIV. Musical Instruments ..	64,297	25,096	7,460	1,275	6,710	..	104,838
XV. Miscellaneous Products ..	794,371	1,426,638	56,125	76,136	44,203	9,384	1,432,857
Total, Classes I to XV.	52,027,228	39,795,838	11,596,037	8,096,493	6,292,507	3,261,482	121,069,585
XVI. Heat, Light and Power ..	5,326,397	2,230,407	703,052	614,207	521,146	455,620	9,850,829
Grand Total ..	57,353,625	42,026,245	12,299,089	8,710,700	6,813,653	3,717,102	130,920,414

(iii) *Totals in each State.* The total value of land and buildings in each State from 1934-35 to 1938-39 is given hereunder:—

**FACTORIES : VALUE OF LAND AND BUILDINGS.**

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	£	£	£	£	£	£	£
1934-35 ..	47,937,192	36,644,621	9,902,125	7,947,825	5,673,461	2,594,755	110,799,979
1935-36 ..	49,494,222	37,678,298	10,514,513	8,268,807	5,978,111	2,675,951	114,609,902
1936-37 ..	51,629,598	38,948,268	11,483,161	8,133,147	6,279,305	3,052,658	119,526,137
1937-38 ..	54,471,643	40,339,541	11,932,620	8,379,334	6,471,367	2,989,509	124,634,014
1938-39 ..	57,353,625	42,026,245	12,299,089	8,710,700	6,813,653	3,171,102	130,920,414

Prior to 1929-30 the increase in the value of land and buildings was uninterrupted, rising from £23 million in 1903 to £118 million in 1929-30, a growth of £95 million in 27 years. During the three years ending 1932-33, however, there was a decline of £12 million to £105.8 million, but since that year the value has risen to £130.9 million.

3. *Value of Plant and Machinery.*—(i) *Total for Australia, 1934-35 to 1938-39.* The following table shows for Australia the approximate value of plant and machinery used in factories in each of the years specified:—

**FACTORIES : VALUE OF PLANT AND MACHINERY, AUSTRALIA.**

Class of Industry.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products ..	5,279,528	5,249,528	4,881,743	6,504,872	7,028,382
II. Bricks, Pottery, Glass, etc. ..	2,649,482	2,865,499	2,858,777	3,019,476	3,144,586
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	5,638,866	5,722,327	5,923,776	6,251,926	6,754,248
IV. Industrial Metals, Machines, Implements and Conveyances ..	24,976,454	25,604,490	26,040,963	29,285,995	33,037,801
V. Precious Metals, Jewellery and Plate ..	162,129	175,884	187,373	196,652	197,059
VI. Textiles and Textile Goods ..	5,799,227	6,052,307	6,505,668	6,463,604	6,657,416
VII. Skins and Leather ..	802,370	898,598	902,107	900,239	973,181
VIII. Clothing ..	2,180,610	2,256,669	2,326,915	2,431,475	2,557,388
IX. Food, Drink and Tobacco ..	29,207,778	30,041,612	30,244,206	31,198,129	32,100,675
X. Woodworking and Basketware ..	3,490,416	3,629,550	3,597,835	3,749,553	3,907,551
XI. Furniture, Bedding, etc. ..	661,980	678,710	704,708	725,420	727,857
XII. Paper, Stationery, Printing, Bookbinding, etc. ..	7,108,001	7,532,292	7,773,218	8,436,942	9,188,227
XIII. Rubber ..	1,039,724	1,464,225	1,401,645	1,470,300	1,367,859
XIV. Musical Instruments ..	24,209	18,157	14,800	10,750	11,702
XV. Miscellaneous Products ..	580,623	570,848	671,173	719,309	758,273
<b>Total, Classes I to XV.</b>	<b>90,291,397</b>	<b>92,769,706</b>	<b>94,934,997</b>	<b>101,374,642</b>	<b>108,412,205</b>
<b>XVI. Heat, Light and Power</b>	<b>31,754,017</b>	<b>32,461,385</b>	<b>31,742,048</b>	<b>31,989,944</b>	<b>35,249,922</b>
<b>Grand Total ..</b>	<b>122,045,414</b>	<b>125,231,091</b>	<b>126,677,045</b>	<b>133,364,586</b>	<b>143,662,127</b>

The pre-depression maximum amount invested in plant and machinery was £127.6 million in 1929-30. The amount declined to £120.2 million during the next four years, but has since risen to the record figure of £143.7 million for 1938-39. The increase of £10 million recorded during the latter year was due to the development in the heavy industries included in Class IV. and in the Heat, Light and Power group in Class XVI.

(ii) *Totals in each State.* The following table shows the value of plant and machinery in each State during the last five years. It will be noted that the chief increases during the year 1938-39 were recorded in New South Wales, Victoria and Tasmania :—

**FACTORIES : VALUE OF PLANT AND MACHINERY.**

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	£	£	£	£	£	£	£
1934-35 ..	50,453,590	33,947,056	16,518,876	9,293,448	5,763,428	6,069,016	122,045,414
1935-36 ..	51,964,982	34,194,608	17,736,543	9,280,335	6,063,901	5,990,722	125,231,091
1936-37 ..	51,979,614	36,213,626	17,460,253	9,130,748	7,142,368	4,750,486	126,677,095
1937-38 ..	57,222,693	36,868,289	17,734,600	9,402,792	7,459,525	4,676,687	133,364,586
1938-39 ..	62,692,956	38,626,743	18,095,415	9,749,679	8,095,064	6,402,270	143,662,127

(iii) *Value according to Industry, 1938-39.* The following table shows the value of plant and machinery used in factories in each State during 1938-39, classified according to industry :—

**FACTORIES : VALUE OF PLANT AND MACHINERY, 1938-39.**

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products ..	4,518,777	1,632,442	304,909	235,160	179,462	157,632	7,028,382
II. Bricks, Pottery, Glass, etc. ..	1,701,487	941,024	148,808	173,132	146,425	33,710	3,144,586
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	1,858,894	2,994,053	109,249	876,100	868,114	47,838	6,754,248
IV. Industrial Metals, Machines, Implements and Conveyances ..	19,820,867	6,527,516	2,113,881	2,244,539	1,078,052	1,252,946	33,037,801
V. Precious Metals, Jewellery and Plate ..	49,723	127,226	4,945	9,967	3,687	1,511	197,059
VI. Textiles and Textile Goods ..	2,104,445	3,991,301	138,249	220,559	73,459	219,403	6,657,416
VII. Skins and Leather ..	402,649	363,019	98,771	19,430	59,421	29,891	973,181
VIII. Clothing ..	905,776	1,269,017	159,385	111,656	96,396	15,158	2,557,388
IX. Food, Drink and Tobacco ..	9,898,819	7,179,642	10,993,488	1,799,939	1,705,552	523,235	32,100,675
X. Woodworking and Basketware ..	1,229,198	878,796	829,749	208,919	478,892	281,997	3,907,551
XI. Furniture, Bedding, etc. ..	279,639	209,423	89,045	83,667	47,467	18,616	727,857
XII. Paper, Stationery, Printing, Book-binding, etc. ..	4,034,379	2,796,094	692,386	557,419	354,822	753,127	9,188,227
XIII. Rubber ..	537,440	740,698	54,985	18,623	9,335	6,778	1,367,859
XIV. Musical Instruments ..	8,088	2,751	233	185	445	..	11,702
XV. Miscellaneous Products ..	427,412	278,347	14,759	19,201	11,754	6,800	758,273
<b>Total, Classes I to XV.</b>	<b>47,777,593</b>	<b>29,841,349</b>	<b>15,752,842</b>	<b>6,578,496</b>	<b>5,113,283</b>	<b>3,348,642</b>	<b>108,412,205</b>
XVI. Heat, Light and Power ..	14,915,363	8,785,394	2,342,573	3,171,183	2,981,781	3,053,628	35,249,922
<b>Grand Total</b>	<b>62,692,956</b>	<b>38,626,743</b>	<b>18,095,415</b>	<b>9,749,679</b>	<b>8,095,064</b>	<b>6,402,270</b>	<b>143,662,127</b>

4. Depreciation of Land and Buildings and Plant and Machinery.—The following table shows the allowance made for the depreciation of land and buildings and plant and machinery used in connexion with the manufacturing industries in each State during the year 1938–39.

ALLOWANCE FOR DEPRECIATION OF LAND AND BUILDINGS AND PLANT AND MACHINERY, 1938–39.

Class of Industry.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products ..	339,119	149,231	29,335	5,531	35,449	36,726	595,391
II. Bricks, Pottery, Glass, etc. ..	120,761	57,600	12,626	19,107	11,820	1,328	223,242
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	247,142	419,964	17,166	32,293	67,318	4,737	788,620
IV. Industrial Metals, Machines, Implements and Conveyances ..	1,560,875	538,952	179,198	237,330	57,864	93,833	2,668,052
V. Precious Metals, Jewellery and Plate ..	6,344	10,127	513	813	253	90	18,140
VI. Textiles and Textile Goods ..	187,543	425,125	6,566	18,999	5,041	29,235	672,509
VII. Skins and Leather ..	37,121	31,644	6,689	1,087	3,515	1,644	81,700
VIII. Clothing ..	87,029	113,792	9,921	7,287	6,746	1,079	225,854
IX. Food, Drink and Tobacco ..	745,073	642,932	675,638	173,364	123,732	51,199	2,411,938
X. Woodworking and Basketware ..	118,058	73,917	74,262	23,693	45,260	20,526	355,716
XI. Furniture, Bedding, etc. ..	28,538	20,184	11,234	5,601	3,775	1,442	70,774
XII. Paper, Stationery, Printing, Book-binding, etc. ..	366,764	280,819	67,732	45,831	35,322	52,554	849,022
XIII. Rubber ..	101,473	80,381	5,684	1,728	1,017	739	191,022
XIV. Musical Instruments ..	4,118	185	10	..	35	..	4,348
XV. Miscellaneous Products ..	64,431	31,663	1,621	2,344	1,612	693	102,364
<b>Total, Classes I to XV.</b>	<b>4,014,389</b>	<b>2,876,516</b>	<b>1,098,195</b>	<b>575,008</b>	<b>398,759</b>	<b>295,825</b>	<b>9,258,692</b>
XVI. Heat, Light and Power ..	836,956	163,639	181,196	25,945	106,279	73,951	1,387,966
<b>Grand Total</b>	<b>4,851,345</b>	<b>3,040,155</b>	<b>1,279,391</b>	<b>600,953</b>	<b>505,038</b>	<b>369,776</b>	<b>10,646,658</b>

### § 9. Individual Industries.

1. *General.*—The preceding pages afford a general view of the magnitude 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 are dealt with hereunder which are of special importance by reason of the employment which they provide for labour and capital or other features of special interest. Where there are only one or two establishments of a particular class in any State, returns of output are not published but are combined with some other factory group so that the operations of individual concerns will not be disclosed.

2. Chemicals, Drugs and Medicines.—(i) *Details for each State, 1938–39.* This industry is the most important in Class III. and details for each State during the year 1938–39 are shown in the following table:—

## CHEMICALS, DRUGS AND MEDICINES, 1938–39.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	132	66	13	12	11	4	238
Number of persons engaged ..	2,820	1,818	195	303	177	33	5,346
Value of land and buildings ..	£ 1,044,646	572,560	70,481	65,198	44,507	20,335	1,817,727
Value of plant and machinery ..	£ 613,642	386,703	35,315	77,837	129,104	10,976	1,253,577
Wages paid ..	£ 534,983	353,138	36,091	44,756	37,147	5,791	1,011,906
Value of fuel used ..	£ 66,628	32,172	4,100	7,766	10,483	354	121,503
Value of materials used ..	£ 1,982,714	1,013,928	109,366	205,861	78,769	13,042	3,403,680
Total value of output ..	£ 4,424,219	2,180,185	215,879	316,411	191,988	23,063	7,351,745
Value of production ..	£ 2,374,377	1,134,085	102,413	102,784	102,736	9,667	3,826,562

(ii) *Total for Australia, 1934–35 to 1938–39.* In the returns for Australia shown in the following table it will be seen that the industry has made consistent progress during each of the last five years:—

## CHEMICALS, DRUGS AND MEDICINES : AUSTRALIA.

Items.	1934–35.	1935–36.	1936–37.	1937–38.	1938–39.
Number of factories ..	203	214	225	228	238
Number of persons engaged ..	4,251	4,619	4,928	5,210	5,346
Value of land and buildings ..	£ 1,435,705	1,556,254	1,627,073	1,677,485	1,817,727
Value of plant and machinery ..	£ 929,216	986,700	1,080,969	1,119,602	1,253,577
Wages paid ..	£ 713,018	786,211	849,254	955,677	1,011,906
Value of fuel used ..	£ 90,732	99,376	107,240	119,880	121,503
Value of materials used ..	£ 2,441,380	2,751,056	2,948,550	3,219,896	3,403,680
Total value of output ..	£ 5,171,339	5,723,675	6,362,843	6,873,053	7,351,745
Value of production ..	£ 2,639,227	2,873,243	3,307,053	3,533,277	3,826,562

3. Soap and Candle Factories.—(i) *Details for each State, 1938–39.* The manufacture of these products is frequently carried on in the same factory, so that separate returns cannot be obtained; the manufacture of soap is, however, the more important. The following table gives particulars of soap and candle factories in each State for the year 1938–39:—

## SOAP AND CANDLE FACTORIES, 1938–39.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W.A.	Tas.	Australia.
Number of factories ..	27	18	10	4	4	2	65
Number of persons engaged ..	1,460	711	186	175	62	26	2,620
Value of land and buildings ..	£ 335,682	213,789	32,537	59,016	(a)	(a)	(b) 665,546
Value of plant and machinery ..	£ 224,237	260,361	24,851	46,307	(a)	(a)	(b) 576,732
Wages paid ..	£ 281,811	134,392	37,419	31,398	(a)	(a)	(b) 501,174
Value of fuel used ..	£ 30,078	37,434	3,506	2,905	(a)	(a)	(b) 76,283
Value of materials used ..	£ 796,759	533,358	91,200	76,874	(a)	(a)	b1,567,999
Total value of output ..	£ 1,825,877	1,237,505	194,166	154,280	(a)	(a)	b3,529,723
Value of production ..	£ 999,040	666,713	99,460	74,501	(a)	(a)	b1,885,441

(a) Particulars not available for publication.

(b) Including Western Australia and Tasmania.

(ii) *Total for Australia, 1934-35 to 1938-39.* The next table gives similar particulars for the last five years for Australia :—

## SOAP AND CANDLE FACTORIES : AUSTRALIA.

Items	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
Number of factories .. .. .	67	66	66	65	65
Number of persons engaged .. .. .	2,044	2,183	2,379	2,534	2,620
Value of land and buildings .. .. .	£ 626,281	£ 613,717	£ 624,162	£ 649,362	£ 665,546
Value of plant and machinery .. .. .	£ 530,298	£ 514,845	£ 484,225	£ 556,427	£ 576,732
Wages paid .. .. .	£ 354,011	£ 385,431	£ 441,857	£ 478,065	£ 501,174
Value of fuel used .. .. .	£ 56,774	£ 76,340	£ 63,368	£ 72,670	£ 76,283
Value of materials used .. .. .	£ 1,445,528	£ 1,689,835	£ 1,858,810	£ 1,787,068	£ 1,567,999
Total value of output .. .. .	£ 2,917,802	£ 3,107,553	£ 3,551,887	£ 3,627,830	£ 3,529,723
Value of production .. .. .	£ 1,415,500	£ 1,341,378	£ 1,629,709	£ 1,768,092	£ 1,885,441

(iii) *Raw Material Used and Production, 1934-35 to 1938-39.* The following statement shows the quantities of certain raw material used and the production in soap and candle factories in Australia for the last five years :—

## SOAP AND CANDLE FACTORIES : RAW MATERIAL USED AND PRODUCTION. AUSTRALIA.

Particulars.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
Tallow used .. .. . cwt.	511,936	491,423	518,604	511,302	535,511
Alkali used .. .. . "	264,147	288,461	227,028	218,171	229,881
Coco-nut oil used, refined and unrefined .. .. . "	92,952	125,548	124,236	137,134	138,054
Soap made .. .. . "	932,252	954,682	986,578	952,507	986,087
Candles made .. .. . "	48,398	39,937	37,991	26,964	27,459

The output for the year 1938-39 comprised the following quantities of soap :— household, 730,189 cwt. ; toilet, 127,493 cwt. ; sand, 89,316 cwt. ; soft, 18,059 cwt. ; and other, 21,030 cwt.

4. **Chemical Fertilizers.**—(i) *Details for each State, 1938-39.* The following table gives particulars of the factories engaged in the manufacture of chemical fertilizers in each State during the year 1938-39. Details of the consumption, imports and exports of fertilizers will be found in Chapter XIV. "Agricultural Production."

## CHEMICAL FERTILIZERS, 1938-39.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories .. .. .	5	7	6	6	5	7	36
Number of persons engaged .. .. .	273	1,075	88	662	402	40	2,540
Value of land and buildings .. .. .	£ 115,986	£ 537,993	£ 13,263	£ 233,692	£ 501,704	£ 46,519	£ 1,449,157
Value of plant and machinery .. .. .	£ 141,816	£ 880,174	£ 15,503	£ 632,542	£ 656,000	£ 26,724	£ 2,352,819
Wages paid .. .. .	£ 74,795	£ 237,571	£ 22,320	£ 147,717	£ 111,760	£ 7,314	£ 601,477
Value of fuel used .. .. .	£ 16,595	£ 48,189	£ 1,439	£ 22,826	£ 24,006	£ 691	£ 113,749
Value of materials used .. .. .	£ 415,921	£ 1,152,487	£ 259,009	£ 534,470	£ 781,977	£ 87,189	£ 3,231,053
Total value of output .. .. .	£ 712,317	£ 1,842,955	£ 340,440	£ 813,915	£ 1,123,141	£ 112,032	£ 4,944,800
Value of production .. .. .	£ 279,801	£ 642,279	£ 79,992	£ 256,619	£ 317,158	£ 24,140	£ 1,599,998

(ii) *Total for Australia, 1934-35 to 1938-39.* The development of this industry since 1934-35 is set out hereunder:—

### CHEMICAL FERTILIZERS : AUSTRALIA.

Items.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
Number of factories .. ..	33	33	34	32	36
Number of persons engaged .. ..	1,801	1,996	2,214	2,474	2,540
Value of land and buildings .. ..	£ 1,365,737	£ 1,378,636	£ 1,368,075	£ 1,424,055	£ 1,449,157
Value of plant and machinery .. ..	£ 2,120,628	£ 2,127,113	£ 2,145,237	£ 2,214,575	£ 2,352,819
Wages paid .. ..	£ 386,277	£ 442,052	£ 493,345	£ 599,947	£ 601,477
Value of fuel used .. ..	£ 84,028	£ 88,676	£ 94,340	£ 108,587	£ 113,749
Value of materials used .. ..	£ 2,376,798	£ 2,726,551	£ 2,873,015	£ 3,239,322	£ 3,231,053
Total value of output .. ..	£ 3,449,860	£ 3,906,041	£ 4,375,565	£ 4,994,383	£ 4,944,809
Value of production .. ..	£ 986,034	£ 1,090,814	£ 1,408,210	£ 1,556,474	£ 1,599,998

5. *Agricultural Implement Works.*—(i) *General.* The manufacture of agricultural implements is of particular interest, owing to the extensive agricultural activities and 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 a wide range of agricultural implements for tillage, seeding and planting and the harvesting of crops. Other farm machinery made includes oil engines, windmills, chaff-cutters and machinery used in the dairying industry.

(ii) *Details for States, 1938-39.* The following table gives details respecting agricultural implement works in each State for the year 1938-39:—

### AGRICULTURAL IMPLEMENT WORKS, 1938-39.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories .. ..	27	79	9	37	9	..	161
Number of persons engaged .. ..	1,132	3,999	412	948	72	..	6,563
Value of land and buildings .. ..	£ 160,650	£ 600,327	£ 27,550	£ 156,669	£ 51,753	..	£ 996,949
Value of plant and machinery .. ..	£ 102,904	£ 562,705	£ 60,535	£ 182,091	£ 2,285	..	£ 910,520
Wages paid .. ..	£ 219,412	£ 870,295	£ 84,970	£ 172,885	£ 16,651	..	£ 1,373,213
Value of fuel used .. ..	£ 8,205	£ 55,327	£ 5,003	£ 12,510	£ 601	..	£ 81,736
Value of materials used .. ..	£ 224,029	£ 964,128	£ 71,006	£ 221,833	£ 4,022	..	£ 1,485,018
Total value of output .. ..	£ 532,225	£ 2,180,881	£ 194,465	£ 468,554	£ 26,966	..	£ 3,403,091
Value of production .. ..	£ 299,991	£ 1,161,426	£ 118,366	£ 234,211	£ 22,343	..	£ 1,836,337

(iii) *Total for Australia, 1934-35 to 1938-39.* The fall in world prices of agricultural products resulted in a considerable slackening in employment and output in Agricultural Implement Works during the years 1929-30 to 1934-35. With the subsequent improvement in prices the industry expanded considerably, but the decline of world prices was again reflected in the figures for this industry during 1938-39. Details for each of the last five years are as follows:—

### AGRICULTURAL IMPLEMENT WORKS : AUSTRALIA.

Items.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
Number of factories .. ..	139	143	148	160	161
Number of persons engaged .. ..	4,202	5,053	6,253	7,756	6,563
Value of land and buildings .. ..	£ 587,962	£ 608,679	£ 689,612	£ 804,116	£ 996,949
Value of plant and machinery .. ..	£ 562,345	£ 600,915	£ 683,642	£ 729,771	£ 910,520
Wages paid .. ..	£ 730,906	£ 936,350	£ 1,232,838	£ 1,629,771	£ 1,373,213
Value of fuel used .. ..	£ 59,001	£ 66,518	£ 85,229	£ 105,175	£ 81,736
Value of materials used .. ..	£ 875,754	£ 1,121,472	£ 1,457,599	£ 1,904,156	£ 1,485,018
Total value of output .. ..	£ 1,968,593	£ 2,528,088	£ 3,159,732	£ 4,225,658	£ 3,403,091
Value of production .. ..	£ 1,033,838	£ 1,340,092	£ 1,607,904	£ 2,216,327	£ 1,836,337

6. **Engineering Works.**—Formerly, it was impossible to show separate details for the engineering industry owing to the different classifications among the States, but since 1926-27 substantial uniformity has been attained.

The classification of establishments included in the Industrial Metal Group still presents some difficulty. This arises from the fact that some establishments are engaged in two or more distinct types of industrial activity. In such cases factory proprietors are asked to furnish separate returns for each activity, but this is not always practicable and consequently there is no alternative but to classify such factories according to their predominant activity. This difficulty is most acute in engineering works, but the following figures may be accepted as reasonably representative of the engineering industry, excluding the marine and electrical branches:—

## ENGINEERING WORKS,(a) 1938-39.

Items.	N.S.W.	Victoria.	Q'land. (b)	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	361	385	121	76	137	19	1,099
Number of persons engaged ..	10,103	9,647	2,924	1,705	1,553	290	26,222
Value of land and buildings £	1,493,000	1,518,233	361,430	175,843	298,694	46,851	3,894,051
Value of plant and machinery ..	£ 1,398,648	1,475,567	325,259	172,965	239,949	34,106	3,646,494
Wages paid ..	£ 2,281,915	2,144,255	612,864	304,541	339,067	59,343	5,741,985
Value of fuel used ..	£ 101,452	102,782	41,289	18,781	24,005	3,100	291,409
Value of materials used ..	£ 2,877,035	3,002,509	725,741	330,352	362,904	41,023	7,339,564
Total value of output ..	£ 6,618,817	6,633,378	1,799,647	845,482	945,554	126,767	16,879,645
Value of production ..	£ 3,640,330	3,528,087	942,617	496,349	558,645	82,644	9,248,672

(a) Excluding marine and electrical. (b) Including establishments previously included with smelting, converting, refining and rolling iron and steel.

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

7. **Smelting, Converting, Refining and Rolling of Iron and Steel.**—The extension of the classification noted in the preceding paragraph 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 1938-39 are as follows:—

## SMELTING, CONVERTING, REFINING AND ROLLING OF IRON AND STEEL, 1938-39.

Items.	N.S.W.	Victoria.	Q'land. (a)	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	170	161	..	31	I	..	363
Number of persons engaged ..	13,253	4,366	..	1,622	III	..	19,352
Value of land and buildings ..	£ 2,777,705	622,355	..	(b)	(b)	..	c 3,532,471
Value of plant and machinery ..	£ 7,945,771	555,971	..	(b)	(b)	..	c 8,611,122
Wages paid ..	£ 3,553,180	878,739	..	(b)	(b)	..	c 4,740,444
Value of fuel used ..	£ 2,142,229	134,947	..	(b)	(b)	..	c 2,318,248
Value of materials used ..	£ 15,048,009	1,105,270	..	(b)	(b)	..	c16,502,532
Total value of output ..	£ 25,571,297	2,682,921	..	(b)	(b)	..	c29,075,039
Value of production ..	£ 8,381,059	1,442,704	..	(b)	(b)	..	c10,254,259

(a) Now included with Engineering. (b) Particulars not available for publication. (c) Including South Australia and Western Australia.

8. **Extracting and Refining of Non-ferrous Metals and Alloys.**—The following table gives particulars of metal extraction and ore reduction works, other than those connected with iron and steel. The returns do not include particulars of plants used on mines :—

**EXTRACTING AND REFINING OF NON-FERROUS METALS AND ALLOYS, 1938-39.**

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.A. (a)	Tas.	Australia.
Number of factories ..	10	7	18	2	1	4	42
Number of persons engaged ..	1,071	62	1,152	1,197	69	1,981	5,532
Value of land and buildings £	222,188	22,646	298,352	(b)	(b)	482,544	(c)1,177,348
Value of plant and machinery ..	£ 963,400	5,863	857,875	(b)	(b)	1,091,212	(c)3,525,659
Wages paid ..	£ 313,143	15,380	351,873	(b)	(b)	528,167	(c)1,613,107
Value of fuel used ..	£ 202,009	3,177	88,930	(b)	(b)	197,398	(c) 597,951
Value of materials used ..	£ 9,793,124	162,405	1,657,494	(b)	(b)	1,237,475	(c)16,844,310
Total value of output ..	£ 11,261,700	194,697	2,568,692	(b)	(b)	2,598,652	(c)21,333,872
Value of production ..	£ 1,266,567	29,115	822,268	(b)	(b)	1,163,170	(c)3,891,611

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

9. **Railway and Tramway Workshops.**—(i) *Details for each State, 1938-39.* 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 numbering 9 in 1938-39 have, however, been excluded :—

**TRAMCARS, RAILWAY ROLLING STOCK AND CARRIAGES, ETC.(a), 1938-39.**

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	36	25	12	15	22	7	117
Number of persons engaged ..	11,744	5,811	3,767	3,319	2,174	495	27,310
Value of land and buildings £	3,179,532	1,496,306	556,236	919,455	496,403	94,992	6,736,924
Value of plant and machinery ..	£ 2,580,312	1,127,383	493,137	818,581	409,613	51,153	5,390,179
Wages paid ..	£ 2,891,839	1,441,800	970,941	784,611	509,138	119,661	6,720,990
Value of fuel used ..	£ 91,973	52,351	27,217	20,052	20,374	5,141	226,108
Value of materials used ..	£ 2,333,087	1,129,582	648,426	555,508	290,699	18,781	4,976,353
Total value of output ..	£ 5,851,996	2,886,456	1,827,007	1,505,515	994,199	157,941	13,223,114
Value of production ..	£ 3,426,936	1,204,523	1,151,364	920,955	682,856	134,019	8,020,653

(a) Government and Municipal only.

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) *Total for Australia, 1934-35 to 1938-39.* The following table shows the development of railway and tramway workshops in Australia since 1934-35 :—

**TRAMCARS, RAILWAY ROLLING STOCK AND CARRIAGES, ETC.(a) :  
AUSTRALIA.**

Items.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
Number of factories ..	111	115	117	116	117
Number of persons engaged ..	24,487	25,678	26,649	27,207	27,310
Value of land and buildings ..	£ 6,414,562	6,430,465	6,533,264	6,552,522	6,736,924
Value of plant and machinery ..	£ 3,012,877	5,041,663	5,058,723	5,109,599	5,390,179
Wages paid ..	£ 5,166,904	5,585,710	5,967,787	6,525,372	6,720,990
Value of fuel used ..	£ 222,611	236,560	233,560	226,493	226,108
Value of materials used ..	£ 4,052,214	4,444,903	4,717,251	5,032,992	4,976,353
Total value of output ..	£ 10,248,401	11,455,618	12,002,439	13,029,225	13,223,114
Value of production ..	£ 5,973,576	6,774,155	7,051,628	7,769,740	8,020,653

(a) Government and Municipal only.

The growth of the railway and tramway systems resulted in corresponding activity in workshops engaged in the manufacture or repair of rolling stock, etc. The economic depression practically restricted the industry to repair work during recent years, but there has been considerable expansion in the last five years.

10. Motor Vehicles and Cycles.—The industries catering for the motor trade are included in Class IV. "Industrial Metals, Machines, Implements and Conveyances." Returns in regard to assembling and repairing are shown hereunder for the year 1938-39:—

## ASSEMBLING AND REPAIRING OF MOTOR VEHICLES AND CYCLES, 1938-39.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	1,217	1,018	355	189	337	116	3,232
Number of persons engaged ..	9,066	7,197	2,576	1,711	1,326	784	22,860
Value of land and buildings £	3,142,028	1,953,759	656,889	459,598	544,552	242,455	6,999,281
Value of plant and machinery £	607,415	493,216	169,503	106,879	118,664	48,701	1,534,478
Wages paid ..	1,629,895	1,414,276	464,990	286,753	276,494	111,918	4,184,236
Value of fuel used ..	77,440	66,023	21,122	12,867	16,047	4,042	197,541
Value of materials used £	1,356,005	1,104,391	471,582	264,931	349,118	106,149	3,652,176
Total value of output £	4,957,023	3,237,004	1,400,627	705,376	921,871	290,670	10,612,571
Value of production ..	£ 2,623,578	2,066,590	907,923	427,578	556,706	180,479	6,762,854

Particulars in regard to motor body building for the year 1938-39 are as follows:—

## MOTOR BODY BUILDING, 1938-39.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas. (a)	Australia.
Number of factories ..	58	95	38	12	11	18	232
Number of persons engaged ..	1,606	3,270	572	5,926	218	150	11,742
Value of land and buildings £	314,507	604,557	75,612	312,054	42,897	44,033	1,393,660
Value of plant and machinery £	78,691	288,985	24,736	220,110	13,255	3,880	629,657
Wages paid ..	330,702	726,713	100,477	1,368,068	41,336	22,050	2,589,346
Value of fuel used ..	7,768	17,218	2,939	42,680	1,703	450	72,758
Value of materials used £	346,441	1,382,960	120,395	1,833,803	48,302	17,193	3,749,094
Total value of output £	872,257	2,563,900	273,953	3,702,268	102,677	54,228	7,569,283
Value of production ..	£ 518,048	1,163,722	150,619	1,825,785	52,672	36,585	3,747,431

(a) Includes horse-drawn vehicles.

The output of motor bodies together with the number imported into Australia is shown in the next table:—

## MOTOR BODIES: PRODUCTION AND IMPORTS, AUSTRALIA.

Items.	1926-27.	1928-29.	1931-32.	1936-37.	1937-38.	1938-39.
Motor Bodies—						
Number made ..	No. 88,876	72,193	6,323	(a) 77,250	(a) 94,091	(a) 80,840
Value ..	£ 4,830,014	4,357,841	450,510	6,461,314	7,411,227	6,420,332
Number imported ..	No. 12,843	14,546	61	736	646	532
Value ..	£ 1,413,203	1,471,878	7,360	81,380	63,810	56,641

(a) Including Motor Bodies assembled.

11. **Electrical Installations, Cables and Apparatus.**—(i) *Details for each State, 1938-39.* The following table shows particulars of this industry for each State during the year 1938-39 :—

## ELECTRICAL INSTALLATIONS, CABLES AND APPARATUS, 1938-39.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	148	132	16	32	28	4	360
Number of persons engaged ..	6,439	3,266	168	606	164	23	10,666
Value of land and buildings £	953,440	490,182	31,447	82,629	62,075	7,410	1,627,183
Value of plant and machinery £	559,935	275,390	8,460	40,190	11,417	1,161	806,553
Wages paid ..	£ 1,254,190	615,522	32,498	97,086	28,577	3,225	2,031,098
Value of fuel used ..	£ 64,719	30,441	808	6,718	1,803	125	104,594
Value of materials used	£ 2,033,931	870,467	34,813	220,867	32,683	2,271	3,195,032
Total value of output	£ 4,345,213	1,005,566	82,554	429,936	83,871	7,358	6,954,498
Value of production	£ 2,246,563	1,104,658	46,933	202,351	49,385	4,982	3,654,872

(ii) *Total for Australia, 1934-35 to 1938-39.* The increased output of electrical energy in Australia during the past five years, referred to in par. 37 below, necessitated a corresponding demand for electrical equipment. As imports declined heavily during the depression years the local industry was called upon to furnish the bulk of the new supplies, and the result of its operations has been a remarkable development in the manufacture of electrical goods in Australia.

## ELECTRICAL INSTALLATIONS, CABLES AND APPARATUS : AUSTRALIA.

Items.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
Number of factories ..	280	294	318	354	360
Number of persons engaged ..	7,098	8,137	9,215	11,054	10,666
Value of land and buildings ..	£ 1,168,474	1,245,877	1,349,212	1,570,455	1,627,183
Value of plant and machinery ..	£ 659,005	600,504	687,740	799,283	806,553
Wages paid ..	£ 1,130,683	1,325,736	1,534,415	1,915,348	2,031,098
Value of fuel used ..	£ 67,565	73,780	85,782	101,926	104,594
Value of materials used ..	£ 1,716,974	2,059,502	2,385,154	3,101,308	3,195,032
Total value of output ..	£ 3,822,333	4,329,150	5,085,776	6,494,421	6,954,498
Value of production ..	£ 2,037,794	2,195,868	2,614,840	3,291,187	3,654,872

12. **Wireless Apparatus.**—The introduction of wireless broadcasting in 1923 gave rise to a new industry in Australia. Early statistical details of the industry are not available as they were grouped together with other electrical apparatus. In 1930-31, however, a new classification of factories was adopted and "Wireless Apparatus" was shown as a separate industry. The industry is confined, almost entirely, to New South Wales and Victoria. The number of broadcast listeners' licences has increased from 331,128 in 1930-31 to 1,129,786 in 1938-39, and this increase is reflected in the advancement of the industry during that period. The first check in development since separate details became available occurred in 1938-39.

## WIRELESS APPARATUS : AUSTRALIA.

Items.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
Number of factories ..	56	67	67	73	72
Number of persons engaged ..	3,366	3,943	4,643	5,519	4,828
Value of land and buildings ..	£ 292,594	378,103	468,104	549,254	557,953
Value of plant and machinery ..	£ 135,208	185,626	261,341	315,325	305,468
Wages paid ..	£ 400,789	493,314	610,291	791,907	754,302
Value of fuel used ..	£ 12,503	17,670	21,354	24,022	23,525
Value of materials used ..	£ 1,172,663	1,398,137	1,590,978	1,949,286	1,355,683
Total value of output ..	£ 1,859,050	2,243,159	2,640,206	3,247,472	2,502,338
Value of production ..	£ 673,884	827,352	1,027,874	1,274,164	1,123,130

The number of domestic receiving sets assembled in 1938-39 was 163,821.

13. **Woollen and Tweed Mills.**—(i) *Details for each State, 1938-39.* The manufacture of woollens and tweeds was established at an early period in Australian history and was under Government control, the first record in New South Wales dating back to 1801, when a few blankets were made by convicts, while manufacture in Victoria dates from 1867. The following table gives particulars for the year 1938-39:—

**WOOLLEN AND TWEED (INCLUDING WOOLSCOURING) MILLS, 1938-39.**

Items.	N.S.W. (a)	Victoria.	Q'land.	S. Aust. (b)	W.A.	Tas.	Australia.
Number of factories .. ..	22	53	3	8	1	3	90
Number of persons engaged ..	6,712	9,896	518	850	130	1,502	19,608
Value of land and buildings ..	£ 697,215	£ 1,298,132	(c)	£ 115,594	(c)	£ 208,150	£ 2,380,009
Value of plant and machinery ..	£ 1,051,096	£ 1,773,475	(c)	£ 191,934	(c)	£ 204,093	£ 3,369,517
Wages paid .. ..	£ 914,382	£ 1,473,515	(c)	£ 135,241	(c)	£ 214,222	£ 2,887,907
Value of fuel used .. ..	£ 131,481	£ 205,310	(c)	£ 22,743	(c)	£ 20,328	£ 392,537
Value of materials used .. ..	£ 2,511,519	£ 3,370,082	(c)	£ 821,792	(c)	£ 499,624	£ 7,331,117
Total value of output .. ..	£ 4,299,770	£ 5,956,106	(c)	£ 1,044,823	(c)	£ 924,223	£ 12,514,610
Value of production .. ..	£ 1,656,770	£ 2,380,714	(c)	£ 200,288	(c)	£ 404,271	£ 4,796,956

(a) Woolscouring not included. (b) Includes Fellmongery. (c) Particulars not available for publication. (d) Including Queensland and Western Australia.

(ii) *Total for Australia, 1934-35 to 1938-39.* The extent of the woollen and tweed milling industry in Australia during the last five years is shown in the following table:—

**WOOLLEN AND TWEED MILLS (INCLUDING WOOLSCOURING): AUSTRALIA.(a)**

Items.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
Number of factories .. ..	103	94	90	87	90
Number of persons engaged ..	£ 17,486	£ 19,603	£ 19,239	£ 19,103	£ 19,608
Value of land and buildings ..	£ 2,335,913	£ 2,455,141	£ 2,412,499	£ 2,435,114	£ 2,380,000
Value of plant and machinery ..	£ 3,239,780	£ 3,343,968	£ 3,474,275	£ 3,416,233	£ 3,369,517
Wages paid .. ..	£ 2,234,513	£ 2,612,723	£ 2,514,293	£ 2,741,729	£ 2,887,907
Value of fuel used .. ..	£ 380,134	£ 393,775	£ 357,777	£ 379,380	£ 392,537
Value of materials used .. ..	£ 6,504,841	£ 7,548,122	£ 7,734,520	£ 8,046,352	£ 7,331,117
Total value of output .. ..	£ 10,712,076	£ 12,545,067	£ 12,283,298	£ 12,618,132	£ 12,514,610
Value of production .. ..	£ 3,827,101	£ 4,603,170	£ 4,191,001	£ 4,192,400	£ 4,790,956

(a) Excluding Woolscouring in New South Wales but including Fellmongery in South Australia.

(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 quantity of tweed and cloth manufactured in Australia in 1938-39 was 26,379,786 square yards. In New South Wales 11,785,141 square yards and in Victoria 13,125,924 square yards of tweed and cloth were manufactured. The production of flannel amounted to 4,514,738 square yards, while blankets, shawls and rugs to the number of 1,277,642 were made.

14. **Cotton.**—(i) *General.* Cotton has been grown in Australia since 1860, but never on a very large scale. The quantity of unginned cotton produced during the decennium ended 1938 varied between 6 million lb. in 1932 and 27 million lb. in 1934, and averaged 15.6 million lb. per annum. Arising out of the development in the local manufacture of cotton materials and the further expansion consequent upon the war, plans have been completed for an extension of the area devoted to the cultivation of cotton, and it is hoped that the production in 1941 will double that of 1940. The growing of cotton is restricted to Queensland and is referred to in some detail in Chapter XIV. "Agricultural Production."

(ii) *Ginning.* The ginning and marketing of cotton is controlled by the Queensland Cotton Board. The Board operates ginneries and processes by-products. The production of raw cotton is insufficient for local factory requirements and this is supplemented by imports from overseas, chiefly from India and the United States of America.

(iii) *Spinning and Weaving.* The recent expansion in the spinning and weaving section of the cotton industry marks an important event in its development. New factories have been or are being established in addition to those already operating. When

these are in full production, Australia will be producing an extensive range of cotton goods, including duck and canvas from cotton or flax, denims, drill, etc., tyre cord and tyre cord fabric. The number of establishments treating cotton in Australia during 1938-39 was 35, the number of persons engaged 3,650, and the value of the output £2,528,198.

15. *Hosiery and Other Knitted Goods.*—(i) *Details for each State, 1938-39.* In addition to the woollen and tweed factories, there were 313 hosiery and knitting mills operating in Australia during the year 1938-39. The total number of persons engaged in these establishments was 18,159 of whom 12,752 were females. Details for each State are shown hereunder:—

**HOSIERY AND OTHER KNITTED GOODS, 1938-39.**

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	78	221	1	7	3	3	313
Number of persons engaged ..	5,298	12,499	117	70	92	83	18,159
Value of land and buildings £	701,582	1,221,375	(a)	(a)	8,969	12,330	b1,962,336
Value of plant and machinery £	622,681	1,271,787	(a)	(a)	8,121	15,177	b1,930,564
Wages paid ..	£ 697,004	1,601,036	(a)	(a)	9,115	7,542	b2,331,536
Value of fuel used ..	£ 36,468	94,700	(a)	(a)	508	686	b 133,154
Value of materials used ..	£ 1,482,743	2,719,655	(a)	(a)	22,118	14,795	b4,284,216
Total value of output ..	£ 2,619,764	5,464,417	(a)	(a)	37,199	27,819	b8,226,468
Value of production ..	£ 1,100,553	2,650,062	(a)	(a)	14,573	12,338	b3,809,098

(a) Particulars not available for publication.

(b) Including Queensland and South Australia.

(ii) *Total for Australia, 1934-35 to 1938-39.* Comparative statistics for the five years are shown in the following table:—

**HOSIERY AND OTHER KNITTED GOODS : AUSTRALIA.**

Items.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
Number of factories ..	310	314	297	306	313
Number of persons engaged ..	14,493	15,692	16,932	18,230	18,159
Value of land and buildings ..	£ 1,676,897	1,791,583	1,842,228	1,861,884	1,962,336
Value of plant and machinery ..	£ 1,654,979	1,711,536	1,901,624	1,926,882	1,930,564
Wages paid ..	£ 1,624,414	1,819,265	2,017,903	2,319,355	2,331,536
Value of fuel used ..	£ 107,812	113,773	110,334	126,949	133,154
Value of materials used ..	£ 3,506,659	3,768,336	3,978,863	4,508,691	4,284,216
Total value of output ..	£ 6,561,114	7,327,363	7,700,079	8,534,886	8,226,468
Value of production ..	£ 2,946,643	3,445,254	3,610,882	3,899,246	3,809,098

(iii) *Raw Material used and Production, 1938-39.* The main raw materials consumed in establishments manufacturing hosiery and other knitted goods during the year 1938-39 consisted of woollen yarn, 5,578,188 lb.; cotton yarn, 5,121,228 lb.; silk yarn, 1,143,184 lb.; and artificial silk yarn, 5,280,573 lb. Production comprised 31,804,920 garments, valued at £3,888,269; 2,136,178 dozen pairs of stockings, valued at £2,676,122; and 1,762,992 dozen pairs of socks, valued at £1,139,314.

16. *Tanning, Currying and Leather Dressing.*—(i) *Details for each State, 1938-39.* In Class VII. the most important industry is tanning. Formerly the production of tanneries in Australia was confined to the coarser sorts 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, 1938-39.**

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W.A.	Tas.	Aust.
Number of factories ..	60	41	14	9	7	1	132
Number of persons engaged ..	1,632	2,221	356	71	89	6	4,375
Value of land and buildings ..	£ 297,636	422,437	33,284	(a)	39,359	(a)	b 813,713
Value of plant and machinery ..	£ 208,702	243,067	34,204	(a)	26,229	(a)	b 523,538
Wages paid ..	£ 357,210	459,098	71,899	(a)	18,338	(a)	b 919,781
Value of fuel used ..	£ 31,668	47,370	5,879	(a)	1,678	(a)	b 87,670
Value of materials used ..	£ 1,303,529	1,295,391	275,642	(a)	73,732	(a)	b2,983,041
Total value of output ..	£ 1,910,085	2,113,299	396,664	(a)	122,405	(a)	b4,592,642
Value of production ..	£ 574,888	770,538	115,143	(a)	46,995	(a)	b1,521,931

(a) Particulars not available for publication.

(b) Including South Australia and Tasmania.

(ii) *Total for Australia, 1934-35 to 1938-39.* The development of the tanning industry during the years stated is shown in the following table :—

## TANNING, CURRYING AND LEATHER DRESSING : AUSTRALIA.

Items.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
Number of factories .. ..	143	135	132	131	132
Number of persons engaged .. ..	4,142	4,433	4,467	4,400	4,375
Value of land and buildings .. ..	£ 774,393	748,897	785,191	812,051	813,713
Value of plant and machinery .. ..	£ 506,190	513,872	504,296	524,125	523,538
Wages paid .. ..	£ 723,711	810,742	858,610	911,835	919,781
Value of fuel used .. ..	£ 82,244	84,682	85,330	89,699	87,670
Value of materials used .. ..	£ 2,764,343	3,099,679	3,478,457	3,502,252	2,983,041
Total value of output .. ..	£ 4,080,442	4,632,662	5,091,033	5,064,188	4,592,642
Value of production .. ..	£ 1,233,855	1,448,301	1,527,246	1,472,237	1,521,931

(iii) *Raw Material Used and Production, 1938-39.* 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, 1938-39.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Hides .. .. No.	562,591	819,977	165,151	(a)	52,047	(a)	b 1,629,592
Skins—							
Calf .. ..	693,055	377,126	134,548	1,758	(a)	(a)	b 1,207,061
Goat .. ..	989,286	279,328	(a)	637	(a)	(a)	b 1,273,293
Sheep .. ..	1,401,338	246,376	..	..	(a)	(a)	b 1,648,599
Marsupial .. ..	7,038	19,162	38,232	2,292	3,327	..	70,051
Reptile .. ..	..	..	..	..	..	..	..
Other pelts treated .. ..	1,608,478	424,844	(a)	..	(a)	..	b 2,250,710
Bark used—							
Wattle .. .. tons	7,965	7,927	2,024	334	(a)	(a)	b 18,607
Other .. ..	127	2,673	(a)	(a)	351	..	b 3,203
Tanning extract used .. lb.	3,877,805	2,372,745	1,151,290	(a)	823,377	(a)	b 8,257,857
Leather made—							
Sole .. ..	10,349,870	11,342,423	3,023,092	(a)	1,420,288	(a)	b 26,323,227
Harness .. ..	314,180	208,915	475,084	71,688	58,746	..	b 1,128,613
Upholstery .. .. sq. ft.	(a)	5,141,959	..	(a)	..	..	b 6,982,023
Dressed and Upper from Hides—							
Sold by Measurement—							
Patent .. .. sq. ft.	1,392,018	2,275,613	..	..	..	..	3,667,631
All Other .. ..	4,643,940	6,003,420	2,090,860	272,238	(a)	(a)	b 13,256,205
Sold by Weight—							
Waxed Kip .. .. lb.	(a)	44,035	56,620	42,874	14,928	(a)	b 210,165
All Other .. ..	(a)	70,704	27,789	134,562	17,257	(a)	b 643,480
Dressed from skins—							
Calf .. .. sq. ft.	5,812,393	3,038,564	1,282,374	8,989	(a)	(a)	b 10,144,963
Goat .. ..	4,136,808	1,122,362	(a)	3,654	(a)	..	b 5,278,245
Sheep .. ..	7,793,737	(a)	(a)	..	..	..	b 10,929,143
Marsupial .. ..	23,600	62,014	203,999	(a)	9,661	(a)	b 302,464

(a) Not available for publication.

(b) Including particulars for States marked (a).

17. *Boot Factories.*—(i) *Boot and Shoe Factories, 1938-39.* The boot and shoe industry holds an important place both 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 overcome 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, 1938-39.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories .. ..	101	158	23	16	9	4	311
Number of persons engaged .. ..	5,741	9,609	882	611	363	57	17,263
Value of land and buildings .. ..	£ 425,428	618,245	37,685	59,967	41,971	9,200	1,192,496
Value of plant and machinery .. ..	£ 243,754	469,268	68,220	44,312	34,896	3,759	864,209
Wages paid .. ..	£ 848,733	1,516,985	124,042	84,043	50,731	8,105	2,632,639
Value of fuel used .. ..	£ 16,279	36,239	1,962	2,038	1,142	158	51,818
Value of materials used .. ..	£ 1,369,667	2,463,626	200,957	129,599	96,859	12,947	4,273,655
Total value of output .. ..	£ 2,610,578	4,600,365	376,464	240,531	169,812	23,603	8,021,353
Value of production .. ..	£ 1,224,632	2,106,500	173,545	108,894	71,811	10,498	3,695,880

(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. Shops using small power plants have spread rapidly throughout Australia, and in 1938-39 the number amounted to 1,296 in which 2,283 persons were engaged in the industry. The sum of £161,579 was distributed in salaries and wages, and the output was valued at £826,811.

(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, 1938-39.**

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
<b>QUANTITY.</b>							
Boots and shoes pairs	4,767,236	7,463,770	671,707	571,035	451,787	41,343	13,966,878
Slippers .. ..	3,107,106	4,218,245	377,236	(a)	(a)	..	68,021,795
Uppers (c) .. ..	17,133	7,970	114,093	(a)	(a)	380	b 145,370
<b>VALUE.</b>							
Boots and shoes £	2,251,164	3,933,071	327,429	198,805	169,450	23,311	6,903,230
Slippers .. .. £	349,624	541,497	28,454	(a)	(a)	..	b 962,306
Uppers (c) .. .. £	6,129	6,408	14,774	(a)	(a)	180	b 29,453

(a) Not available for publication. (b) Including particulars for States marked (a). (c) Made for other than factory use.

18. *Tailoring and Slop Clothing Factories.*—(i) *Details for each State, 1938-39* The importance of this industry in the several States is shown in the following table :—

**TAILORING AND SLOP CLOTHING FACTORIES, 1938-39.**

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	453	375	127	119	81	22	1,177
Number of persons engaged ..	12,051	8,240	3,026	1,829	1,017	336	26,499
Value of land and buildings £	1,548,516	877,038	292,627	238,033	162,582	56,952	3,175,748
Value of plant and machinery £	163,981	128,639	28,466	18,675	11,868	3,874	355,503
Wages paid .. .. £	1,447,259	1,047,622	326,522	186,294	124,700	36,075	3,168,472
Value of fuel used .. .. £	27,337	28,902	7,225	5,559	2,739	669	72,431
Value of materials used .. .. £	2,025,401	2,109,406	430,109	192,004	147,442	42,157	4,946,519
Total value of output .. .. £	4,238,547	3,700,708	968,560	476,971	347,778	98,082	9,830,646
Value of production .. .. £	2,185,809	1,562,400	531,226	279,408	197,597	55,256	4,811,666

(ii) *Total for Australia, 1934-35 to 1938-39.* Details for the last five years are as follows :—

**TAILORING AND SLOP CLOTHING FACTORIES : AUSTRALIA.**

Items.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
Number of factories .. ..	1,115	1,157	1,163	1,172	1,177
Number of persons engaged .. ..	23,579	24,877	25,546	26,765	26,499
Value of land and buildings .. .. £	2,776,968	2,885,076	3,053,302	3,100,309	3,175,748
Value of plant and machinery .. .. £	316,908	327,333	317,812	332,814	355,503
Wages paid .. .. .. £	2,446,429	2,578,597	2,732,213	3,094,693	3,168,472
Value of fuel used .. .. .. £	56,857	58,556	61,097	66,834	72,431
Value of materials used .. .. .. £	4,573,477	4,826,010	4,796,324	5,123,268	4,946,519
Total value of output .. .. .. £	8,407,794	8,939,837	9,138,302	9,801,313	9,830,646
Value of production .. .. .. £	3,776,960	4,055,271	4,280,881	4,611,211	4,811,666

19. Dressmaking and Millinery Establishments.—(i) *Details for each State, 1938-39*  
Particulars of dressmaking and millinery establishments are given separately in the following tables :—

## DRESSMAKING ESTABLISHMENTS, 1938-39.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas. (a)	Australia.
Number of factories ..	112	472	39	46	39	6	714
Number of persons engaged ..	1,613	8,368	818	906	735	35	12,475
Value of land and buildings ..	£ 225,098	£ 1,179,055	£ 70,609	£ 63,749	£ 66,215	£ 3,580	£ 1,608,306
Value of plant and machinery ..	£ 11,828	£ 103,551	£ 10,635	£ 9,715	£ 5,928	£ 234	£ 141,891
Wages paid ..	£ 157,335	£ 900,427	£ 72,139	£ 62,792	£ 64,741	£ 2,966	£ 1,809,400
Value of fuel used ..	£ 2,137	£ 17,183	£ 1,267	£ 1,442	£ 1,039	£ 33	£ 23,101
Value of materials used ..	£ 116,335	£ 1,612,062	£ 96,903	£ 69,778	£ 72,954	£ 922	£ 1,968,954
Total value of output ..	£ 347,026	£ 2,994,581	£ 226,075	£ 163,494	£ 173,809	£ 4,067	£ 3,909,865
Value of production ..	£ 228,554	£ 1,365,336	£ 127,908	£ 92,184	£ 99,816	£ 4,012	£ 1,917,810

(a) Includes Millinery.

## MILLINERY ESTABLISHMENTS, 1938-39.

Items	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas. (a)	Australia.
Number of factories ..	64	59	15	9	8	..	155
Number of persons engaged ..	1,764	1,268	515	310	66	..	3,923
Value of land and buildings ..	£ 247,117	£ 127,708	£ 38,560	£ 22,601	£ 7,310	..	£ 443,305
Value of plant and machinery ..	£ 18,651	£ 18,053	£ 7,235	£ 2,081	£ 1,352	..	£ 47,372
Wages paid ..	£ 177,904	£ 138,659	£ 44,427	£ 25,014	£ 6,404	..	£ 392,408
Value of fuel used ..	£ 5,133	£ 3,149	£ 828	£ 740	£ 116	..	£ 9,966
Value of materials used ..	£ 325,298	£ 195,299	£ 69,958	£ 40,720	£ 9,134	..	£ 640,409
Total value of output ..	£ 653,426	£ 432,628	£ 136,382	£ 84,406	£ 18,020	..	£ 1,324,862
Value of production ..	£ 322,995	£ 234,180	£ 65,596	£ 42,946	£ 8,770	..	£ 674,487

(a) Included in Dressmaking.

(ii) *Total for Australia, 1934-35 to 1938-39.* Particulars of dressmaking and millinery establishments in Australia for the last five years are shown in the following table :—

## DRESSMAKING AND MILLINERY ESTABLISHMENTS: AUSTRALIA.

Items.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
Number of factories ..	854	863	830	871	869
Number of persons engaged ..	15,166	15,683	15,635	16,426	16,395
Value of land and buildings ..	£ 1,898,295	£ 1,897,903	£ 2,031,277	£ 2,023,371	£ 2,051,611
Value of plant and machinery ..	£ 177,241	£ 180,934	£ 179,699	£ 194,553	£ 189,263
Wages paid ..	£ 1,316,645	£ 1,391,348	£ 1,441,226	£ 1,588,231	£ 1,652,808
Value of fuel used ..	£ 28,225	£ 30,245	£ 30,178	£ 32,157	£ 33,067
Value of materials used ..	£ 2,439,034	£ 2,559,119	£ 2,557,612	£ 2,801,184	£ 2,609,363
Total value of output ..	£ 4,534,059	£ 4,869,311	£ 4,965,634	£ 5,302,983	£ 5,234,727
Value of production ..	£ 2,066,800	£ 2,279,947	£ 2,377,844	£ 2,469,642	£ 2,592,297

20. Shirts, Collars and Underclothing.—(i) *Details for each State, 1938-39.* Particulars of this industry are shown in the subjoined table :—

**SHIRTS, COLLARS AND UNDERCLOTHING, 1938-39.**

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.A.	Tas.	Australia.
Number of factories .. ..	127	99	17	27	13	..	283
Number of persons engaged .. ..	4,481	4,555	908	578	559	..	11,081
Value of land and buildings .. ..	£ 375,023	448,682	51,994	37,498	32,775	..	945,972
Value of plant and machinery .. ..	77,787	117,681	11,664	11,069	12,378	..	230,579
Wages paid .. ..	444,916	521,281	77,255	44,610	54,793	..	1,142,855
Value of fuel used .. ..	7,862	12,214	1,466	1,264	833	..	23,639
Value of materials used .. ..	1,114,257	1,288,639	117,093	67,982	62,808	..	2,650,779
Total value of output .. ..	£ 1,793,077	2,156,124	224,861	130,305	130,842	..	4,435,209
Value of production .. ..	670,958	855,271	106,302	61,059	67,201	..	1,760,791

(ii) *Total for Australia, 1934-35 to 1938-39.* The following table shows the progress of the industry since 1934-35 :—

**SHIRTS, COLLARS AND UNDERCLOTHING : AUSTRALIA.**

Items.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
Number of factories .. ..	314	308	298	289	283
Number of persons engaged .. ..	10,925	11,214	11,116	11,134	11,081
Value of land and buildings .. ..	£ 872,923	842,896	871,522	910,595	945,972
Value of plant and machinery .. ..	235,546	253,736	251,396	229,797	230,579
Wages paid .. ..	£ 929,192	1,001,615	1,029,221	1,096,013	1,142,855
Value of fuel used .. ..	22,947	22,844	23,692	23,845	23,639
Value of materials used .. ..	2,663,522	2,708,887	2,599,519	2,788,667	2,650,779
Total value of output .. ..	£ 4,174,304	4,311,566	4,252,677	4,522,879	4,435,209
Value of production .. ..	£ 1,487,835	1,579,835	1,629,466	1,710,367	1,760,791

21. Bacon-curing Factories.—(i) *Details for each State, 1938-39.* The table hereunder gives particulars of factories engaged in bacon-curing in each State for the year 1938-39 :—

**BACON-CURING FACTORIES, 1938-39.**

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories .. ..	25	18	9	8	9	7	76
Number of persons engaged .. ..	383	532	751	240	94	47	2,047
Value of land and buildings .. ..	£ 148,386	226,933	230,272	93,678	26,403	24,726	759,398
Value of plant and machinery .. ..	59,301	121,273	123,776	30,191	14,159	7,978	356,678
Wages paid .. ..	£ 94,840	124,753	178,028	51,504	21,211	9,260	479,596
Value of fuel used .. ..	13,379	18,598	29,458	9,289	5,039	1,201	76,964
Value of materials used .. ..	958,460	829,555	1,335,620	340,945	223,720	83,197	3,768,497
Total value of output .. ..	£ 1,178,548	1,039,391	1,681,367	438,021	265,407	107,315	4,710,049
Value of production .. ..	206,709	191,238	316,289	87,787	39,648	22,917	864,588

(ii) *Quantity and Value of Production.* The number of pigs cured and the quantity and value of the production of bacon-curing factories in each State for the year 1938-39 are given hereafter :—

**BACON-CURING FACTORIES: PIGS CURED AND PRODUCTION, 1938-39.**

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
<b>PIGS CURED.</b>							
Number .. ..	253,203	169,493	233,228	66,609	50,643	20,258	793,434
<b>PRODUCTS.</b>							
Bacon and ham .. '000 lb.	25,987	16,025	18,921	5,555	4,213	1,935	72,636
Lard .. .. "	662	798	1,121	245	195	92	3,113
<b>VALUE.</b>							
Bacon and ham (a)	£ 1,254,320	825,777	868,671	277,049	198,526	73,518	3,497,861
Lard .. ..	£ 15,678	22,485	26,350	5,866	5,503	2,339	78,221
Other products ..	£ 277,250	196,118	787,947	156,589	61,417	31,990	1,511,311

(a) Estimated.

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

22. *Butter, Cheese and Condensed Milk Factories.*—(i) *Details for each State, 1938-39.* The subjoined table gives particulars of butter, cheese and condensed milk factories in each State during the year 1938-39 :—

**BUTTER, CHEESE AND CONDENSED MILK FACTORIES, 1938-39.**

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.A.	Tas.	Australia.
Number of factories .. ..	129	174	102	50	24	44	523
Number of persons engaged ..	1,533	2,926	1,350	572	211	259	6,851
Value of land and buildings ..	£ 675,691	1,192,828	645,223	200,845	84,280	81,456	2,880,323
Value of plant and machinery ..	£ 778,441	1,244,262	740,924	139,084	86,641	77,488	3,066,840
Wages paid .. ..	£ 368,250	698,022	299,035	118,079	45,080	41,065	1,569,531
Value of fuel used .. ..	£ 99,825	179,948	64,697	24,677	13,695	6,659	389,501
Value of materials used .. ..	£ 7,169,441	9,535,826	9,421,239	1,497,172	966,090	572,215	29,161,983
Total value of output .. ..	£ 8,014,923	11,453,619	10,047,754	1,749,374	1,145,631	692,552	33,094,851
Value of production .. ..	£ 745,657	1,737,845	561,818	218,523	165,846	113,678	3,543,367

(ii) *Total for Australia, 1934-35 to 1938-39.* The progress of industries included in this group during the last five years is set out hereunder :—

**BUTTER, CHEESE AND CONDENSED MILK FACTORIES: AUSTRALIA.**

Items.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
Number of factories .. ..	544	517	517	520	523
Number of persons engaged ..	6,151	6,062	6,226	6,655	6,851
Value of land and buildings ..	£ 2,616,769	2,635,863	2,733,273	2,779,663	2,880,323
Value of plant and machinery ..	£ 2,779,468	2,849,645	2,938,110	2,977,640	3,066,840
Wages paid .. ..	£ 1,251,418	1,265,898	1,332,911	1,486,780	1,569,531
Value of fuel used .. ..	£ 320,073	310,260	335,451	362,217	389,501
Value of materials used .. ..	£ 20,182,321	22,627,448	21,995,736	27,187,350	29,161,983
Total value of output .. ..	£ 23,376,685	25,869,089	25,434,496	31,656,156	33,094,851
Value of production .. ..	£ 2,874,291	2,931,321	3,103,309	4,106,589	3,543,367

(iii) *Quantity and Value of Production.* The next table shows the quantities and values of butter, cheese and condensed milk produced in factories and the quantities of milk used in the manufacture of butter, cheese and condensed milk during the year 1938-39:—

**BUTTER, CHEESE AND CONDENSED MILK FACTORIES: PRODUCTION, 1938-39.**

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
<b>MILK USED (,000 OMITTED).</b>							
For the manufacture of—							
Butter .. gals.	211,249	275,472	305,480	33,522	29,775	18,890	874,388
Cheese .. "	7,413	19,658	13,387	17,682	1,072	3,298	62,510
Condensed, &c., Milk .. "	4,864	26,469	(a)	(a)	(a)	..	(b) 33,376
<b>PRODUCTS (,000 OMITTED).</b>							
Butter .. lb.	113,841	126,808	154,377	17,554	14,655	9,080	436,315
Cheese .. "	7,193	19,349	(c) 13,984	18,457	977	3,181	63,141
Condensed and concentrated milk .. lb.	6,148	25,225	..	(a)	(a)	..	(b) 38,479
Powdered milk .. "	2,552	21,443	..	..	..	..	23,995
<b>VALUE (,000 OMITTED).</b>							
Butter .. £	7,103	7,905	9,407	1,066	983	567	27,031
Cheese .. £	272	646	(c) 444	580	43	100	2,085
Condensed and concentrated milk .. £	129	568	..	(a)	(a)	..	(b) 860
Powdered milk .. £	135	654	..	..	..	..	789

(a) Particulars not available for publication. (b) Includes States marked (a). (c) Excluding 1,765,406 lb. cheese, valued at £61,387 in establishments not classified as factories.

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

23. *Meat and Fish Preserving Works.*—The industries included in this group are engaged chiefly in the freezing and preserving of meat. Works have been established at the seaports for the purpose of handling beef, lamb and mutton for export, while insulated space for the carriage of chilled and frozen produce is provided by steamship companies trading between Australia and other parts of the world. The substitution of the export of chilled for frozen meat has already been referred to in Chapter XIII. "Pastoral Production."

**MEAT AND FISH PRESERVING WORKS.(a) 1938-39.**

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	6	10	12	..	2	2	32
Number of persons engaged ..	211	273	3,483	..	(b)	(c)	4,093
Value of land and buildings .. £	62,471	77,038	1,453,069	..	(b)	(c)	1,965,666
Value of plant and machinery .. £	19,307	28,821	886,097	..	(b)	(c)	1,324,575
Wages paid .. £	39,183	44,650	1,026,985	..	(b)	(c)	1,180,006
Value of fuel used .. £	5,152	4,673	116,147	..	(b)	(c)	134,218
Value of materials used .. £	119,918	274,220	5,752,067	..	(b)	(c)	6,350,713
Total value of output .. £	158,311	394,776	7,232,500	..	(b)	(c)	8,085,632
Value of production .. £	33,234	85,883	1,364,295	..	(b)	(c)	1,600,641

(a) Including meat extracts. Western Australia and Tasmania.

(b) Particulars not available for publication.

(c) Includes

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 XIII. "Pastoral Production."

24. **Bakeries.**—Information regarding establishments in which the manufacture of bread, cakes, etc., was carried on in the year 1938–39 is given in the table below. It should be noted, however, that, as explained in § 1 par. 2 above the details refer only to establishments coming within the definition of a factory. For that reason there are a large number of bakehouses omitted and consequently the table does not give complete details of the industry. This is true of all other industries covered by the statistics of manufacturing production but, in view of the omission of such a large number of establishments in this instance, special mention of this fact is deemed desirable.

**BAKERIES (INCLUDING CAKES AND PASTRY), 1938–39.**

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas. (a)	Australia.
Number of factories ..	789	576	246	143	132	72	1,958
Number of persons engaged ..	4,462	3,281	1,319	956	535	1,162	11,715
Value of land and buildings ..	£ 2,449,847	£ 1,231,844	£ 459,020	£ 269,634	£ 193,173	£ 356,718	£ 4,960,236
Value of plant and machinery ..	£ 641,716	£ 415,927	£ 150,293	£ 111,370	£ 54,734	£ 103,536	£ 1,477,576
Wages paid ..	£ 827,018	£ 543,277	£ 211,262	£ 151,593	£ 90,478	£ 169,665	£ 1,993,293
Value of fuel used ..	£ 132,875	£ 89,783	£ 31,568	£ 21,204	£ 13,382	£ 17,124	£ 305,936
Value of materials used ..	£ 2,551,820	£ 2,062,574	£ 766,506	£ 491,348	£ 318,637	£ 460,299	£ 6,651,184
Total value of output ..	£ 4,478,124	£ 3,479,340	£ 1,312,989	£ 807,732	£ 566,241	£ 821,761	£ 11,466,187
Value of production ..	£ 1,793,429	£ 1,326,983	£ 514,915	£ 295,180	£ 234,222	£ 344,338	£ 4,509,067

(a) Includes Confectionery.

25. **Jam and Fruit Preserving, Pickles, Sauces and Vinegar Factories.**—(i) *Details for each State, 1938–39.* The subjoined table gives particulars of factories included in this class for the year 1938–39.

**JAM AND FRUIT PRESERVING, PICKLES, ETC., FACTORIES, 1938–39.**

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	31	43	14	16	8	11	123
Number of persons engaged ..	1,659	2,949	522	481	70	792	6,476
Value of land and buildings ..	£ 387,551	£ 675,362	£ 50,324	£ 123,186	£ 17,532	£ 128,192	£ 1,382,150
Value of plant and machinery ..	£ 211,558	£ 342,749	£ 70,306	£ 50,955	£ 4,879	£ 40,192	£ 720,639
Wages paid ..	£ 304,424	£ 335,175	£ 84,114	£ 70,609	£ 9,937	£ 144,732	£ 1,148,991
Value of fuel used ..	£ 25,989	£ 47,501	£ 6,105	£ 5,972	£ 876	£ 11,078	£ 97,521
Value of materials used ..	£ 1,165,354	£ 2,241,909	£ 562,726	£ 237,866	£ 34,671	£ 556,989	£ 4,799,515
Total value of output ..	£ 1,911,173	£ 3,390,421	£ 730,626	£ 364,738	£ 66,666	£ 767,290	£ 7,230,914
Value of production ..	£ 719,830	£ 1,101,011	£ 161,795	£ 120,900	£ 31,119	£ 199,223	£ 2,333,878

(ii) *Total for Australia, 1934–35 to 1938–39.* 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.	1934–35.	1935–36.	1936–37.	1937–38.	1938–39.
Number of factories ..	122	125	121	121	123
Number of persons engaged ..	5,213	5,773	5,906	6,596	6,476
Value of land and buildings ..	£ 1,103,291	£ 1,125,204	£ 1,218,132	£ 1,309,014	£ 1,382,150
Value of plant and machinery ..	£ 521,800	£ 549,413	£ 598,126	£ 665,863	£ 720,639
Wages paid ..	£ 795,621	£ 929,792	£ 971,768	£ 1,143,190	£ 1,148,991
Value of fuel used ..	£ 78,144	£ 89,227	£ 87,019	£ 93,055	£ 97,521
Value of materials used ..	£ 3,312,257	£ 3,965,338	£ 4,177,792	£ 4,571,219	£ 4,799,515
Total value of output ..	£ 5,428,876	£ 6,276,112	£ 6,298,642	£ 6,974,291	£ 7,230,914
Value of production ..	£ 2,038,475	£ 2,221,547	£ 2,033,831	£ 2,310,017	£ 2,333,878

The progress of the jam-making industry was very marked during the war years of 1914-19, when large quantities were exported overseas for the supply of army requirements. In the year 1918-19 the production amounted to 142,290,000 lb., but it had fallen to 90,140,000 lb. in 1920-21. During the succeeding years the production varied considerably, falling to 66,120,000 lb. in 1930-31 and subsequently increasing to 84,916,000 lb. in 1938-39. The output of preserved fruit reached the record dimensions of 157,761,000 lb. in 1937-38. Production in 1938-39 was slightly lower at 150,732,000 lb. The production of pickles and sauces again showed a satisfactory improvement.

(iii) *Production.* The following table shows the quantity and value of jams, pickles and sauces manufactured in each State in 1938-39:—

### JAMS, PRESERVED FRUIT, PICKLES AND SAUCES: OUTPUT, 1938-39.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
QUANTITY (,000 OMITTED).							
Jams and Jellies .. lb.	20,635	28,842	6,899	6,748	1,063	20,729	84,916
Fruit Pulp—							
Consumed in own works .. cwt.	9	17	10	13	5	1	55
For sale or addition to stock .. cwt.	7	47	4	12	6	106	182
Tomato Pulp—							
Consumed in own works .. cwt.	20	69	1	20	6	..	118
For sale or addition to stock .. cwt.	35	145	1	8	7	11	207
Fruit, preserved .. lb.	28,387	91,247	19,641	4,545	13	6,899	150,732
Pickles .. pints	1,939	2,647	349	1,676	237	4	6,852
Sauces .. ..	7,310	9,630	699	2,305	842	6	20,792
VALUE.							
Jams and Jellies .. £	528,049	608,055	167,435	119,110	18,704	464,218	1,905,571
Fruit, preserved .. £	507,032	1,373,433	417,029	76,613	191	115,904	2,490,202
Pickles .. .. £	81,703	86,524	17,029	65,263	6,639	1,796	258,954
Sauces .. .. £	371,930	305,847	24,616	67,792	22,627	687	793,499

26. *Confectionery Factories.*—(i) *Details for each State, 1930-39.* At the close of the year 1900 there were in New South Wales 16 establishments with 706 persons engaged 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 1938-39 given hereunder show the remarkable development since 1900:—

### SUGAR CONFECTIONERY FACTORIES(a), 1938-39.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas. (b)	Australia.
Number of factories ..	74	82	22	19	10	2	209
Number of persons engaged ..	3,892	3,087	583	401	307	6	8,276
Value of land and buildings .. £	1,054,996	644,379	218,587	82,453	(c)	(c)	(d)2,079,601
Value of plant and machinery .. £	999,575	592,342	124,712	63,701	(c)	(c)	(d)1,854,398
Wages paid .. £	595,450	479,547	76,240	38,721	(c)	(c)	(d)1,231,375
Value of fuel used .. £	67,811	51,464	9,733	9,439	(c)	(c)	(d)144,349
Value of materials used .. £	1,888,834	1,347,543	210,235	143,278	(c)	(c)	(d)3,704,774
Total value of output .. £	3,848,705	2,402,152	421,436	215,081	(c)	(c)	(d)7,107,045
Value of production .. £	1,892,060	1,003,145	201,468	62,364	(c)	(c)	(d)3,257,922

(a) Including Chocolate and Ice Cream. (b) Ice Cream factories—Other Confectionery included in Bakeries. (c) Particulars not available for publication. (d) Includes Western Australia and Tasmania.

(ii) *Total for Australia, 1934-35 to 1938-39.* Particulars of the confectionery industry during the last five years are shown in the following table :—

**SUGAR CONFECTIONERY FACTORIES(a) : AUSTRALIA.**

Items.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
Number of factories .. .. .	218	217	214	204	209
Number of persons engaged .. .. .	7,158	7,516	7,975	8,235	8,276
Value of land and buildings .. .. .	£ 1,721,645	1,774,452	1,902,059	2,042,198	2,079,601
Value of plant and machinery .. .. .	£ 1,749,349	1,712,163	1,773,178	1,830,166	1,854,398
Wages paid .. .. .	£ 935,214	1,010,775	1,063,421	1,179,223	1,231,375
Value of fuel used .. .. .	£ 112,059	117,041	98,771	141,459	144,349
Value of materials used .. .. .	£ 2,743,763	3,023,696	3,202,325	3,555,710	3,704,774
Total value of output .. .. .	£ 5,120,164	5,662,146	5,573,148	6,660,655	7,107,045
Value of production .. .. .	£ 2,264,342	2,521,409	2,272,052	2,963,486	3,257,922

(a) See notes to previous table.

The confectionery industry expanded rapidly during the war years of 1914-19, largely as a result of the stimulus afforded by the embargo placed on the importation of luxuries during that period. The industry, however, was seriously affected by the business depression but has now regained its former position. Confectionery establishments in Tasmania have been combined with bakeries in order to conceal confidential information. Production in Australia 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.

27. *Grain-milling.*—(i) *Details for States, 1938-39.* The following table shows the position of the grain-milling industry in each State in 1938-39 :—

**GRAIN-MILLING, 1938-39.**

Items.	N.S.W.	Victoria.	Q'land.	S. Aust. (a)	W. Aust.	Tas. (a)	Australia.
Number of factories .. .. .	54	38	10	39	21	10	172
Number of persons engaged .. .. .	1,356	1,099	347	458	410	113	3,783
Value of land and buildings £ .. .. .	805,016	595,565	199,506	166,328	255,030	69,515	2,090,960
Value of plant and machinery £ .. .. .	710,207	492,065	148,071	213,648	222,053	27,609	1,813,653
Wages paid .. .. .	£ 312,778	274,115	82,118	102,205	101,155	23,216	895,587
Value of fuel used .. .. .	£ 86,720	63,810	16,367	30,712	29,606	3,449	230,664
Value of materials used .. .. .	£ 4,297,338	3,405,217	737,680	968,059	947,640	216,609	10,572,543
Total value of output .. .. .	£ 5,281,514	3,972,336	959,108	1,175,188	1,239,125	267,248	12,894,519
Value of production .. .. .	£ 897,456	503,309	205,061	176,417	261,879	47,190	2,091,312

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

(ii) *Production of Flour and By-products, 1934-35 to 1938-39.* The production of flour by the mills in each State for the years indicated was as follows :—

**GRAIN-MILLING : PRODUCTION OF FLOUR.**

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)
1934-35 .. .. .	555,173	437,262	86,246	136,716	124,130	19,260	1,358,787
1935-36 .. .. .	523,281	435,340	86,142	124,021	118,340	20,492	1,307,616
1936-37 .. .. .	464,498	420,364	82,423	119,192	122,723	19,579	1,228,779
1937-38 .. .. .	476,881	424,302	81,242	123,878	125,472	10,155	1,250,930
1938-39 .. .. .	547,162	436,829	84,314	146,262	138,583	19,582	1,372,732

(a) Tons of 2,000 lb.

The production of flour in Australia for the last year, 1,372,732 tons, was valued at £9,371,906. In addition, 573,477 tons of bran and pollard, valued at £3,104,319, were made. The quantity of wheat ground was 66,999,071 bushels.

28. Sugar-mills.—(i) *Details for 1938-39.* The following table shows the position of the cane-crushing branch of the sugar-making industry in New South Wales and Queensland in 1938-39. Sugar-cane is not grown in the other States. Details regarding the area, yield, etc., of sugar-cane will be found in Chapter XIV. "Agricultural Production."

## SUGAR-MILLS, 1938-39.

Items.	N.S.W.	Queensland.	Australia.
Number of factories .. ..	3	33	36
Number of persons engaged .. ..	212	4,419	4,631
Value of land and buildings .. .. £	240,039	1,072,412	1,312,451
Value of plant and machinery .. .. £	962,748	7,495,599	8,458,347
Wages paid .. .. £	89,470	1,293,146	1,382,616
Value of fuel used .. .. £	14,460	130,324	144,784
Value of materials used .. .. £	506,762	9,057,175	9,563,937
Total value of output .. .. £	756,567	11,462,161	12,218,728
Value of production .. .. £	235,345	2,274,662	2,510,007

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. The latter, however, is a diminishing quantity.

(ii) *Progress of Industry. (a) New South Wales.* The following table shows the progress which has been made in this industry in New South Wales since 1911 :—

## SUGAR-MILLS: NEW SOUTH WALES.

Items.	1911.	1935-36.	1936-37.	1937-38.	1938-39.
Number of factories ..	4	3	3	3	3
Number of employees ..	469	198	195	260	212
Cane crushed .. tons	147,799	280,472	275,169	361,724	337,038
Sugar produced .. "	17,299	36,461	38,158	47,077	45,106
Molasses produced gals.	796,440	1,390,180	1,329,660	1,754,527	1,489,090

The concentration of cane-crushing in establishments fitted with modern machinery has caused the closing of the small home mill and thereby reduced the number of mills operating. The Government assistance, referred to in Chapter XIV. "Agricultural Production," 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; consequently the figures relating to cane crushed and sugar produced differ slightly from those given in Chapter XIV. "Agricultural Production" which relate to harvest years.

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

**SUGAR-MILLS : QUEENSLAND, 1911 TO 1938-39.**

Items.	1911.	1935-36.	1936-37.	1937-38.	1938-39.
Number of factories ..	49	33	33	33	36
Number of persons engaged	4,295	4,176	4,381	4,324	4,631
Cane crushed .. tons	1,534,451	4,220,435	5,170,571	5,132,886	5,432,193
Sugar produced .. "	173,296	610,080	744,676	763,242	775,064
Molasses—					
Sold to distillers					
and others .. gals.	2,393,669	4,792,950	6,086,864	7,071,109	8,275,887
Used as fodder .. "	789,564	3,817,755	4,351,822	3,914,113	4,237,196
Used as manure .. "	223,000	2,559,528	3,211,423	3,363,624	3,293,543
Run to waste .. "		1,214,678	560,326	466,481	498,926
Burnt as fuel .. "		4,103,475	6,354,841	5,576,764	3,748,590
Sold or used for other purposes .. "			397,080	157,496	232,049
In stock .. "	1,197,626				
Total molasses .. "	6,451,192	16,488,386	20,962,356	20,549,587	20,286,191

29. *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 1938-39 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 349,054 tons, for a yield of 338,768 tons of refined sugar, valued at £10,918,210.

30. *Breweries.*—(i) *Details for each State, 1938-39.* The following table gives particulars concerning breweries in each State :—

**BREWERIES, 1938-39.**

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas. (a)	Australia.
Number of factories ..	6	9	6	5	6	4	36
Number of persons engaged ..	1,009	1,516	422	229	443	90	3,709
Value of land and buildings £	949,648	789,404	430,337	202,383	292,832	136,543	2,801,147
Value of plant and machinery £	782,142	932,992	369,668	120,879	390,465	140,896	2,737,042
Wages paid ..	£ 310,682	517,005	126,226	85,204	154,603	25,103	1,218,823
Value of fuel used ..	£ 85,850	83,086	29,905	19,853	27,144	6,423	252,261
Value of materials used ..	£ 1,040,086	1,397,043	329,376	232,394	321,396	97,928	3,418,223
Total value of output ..	£ 3,492,243	2,966,119	876,534	571,720	908,230	232,239	9,047,085
Value of production ..	£ 2,366,307	1,485,990	517,253	319,473	559,690	127,888	5,376,601

(a) Includes Malt Works.

(ii) *Total for Australia, 1934-35 to 1938-39.* The next table shows the extent of this industry for the last five years :—

**BREWERIES(a) : AUSTRALIA.**

Items.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
Number of factories ..	41	37	37	37	36
Number of persons engaged ..	3,097	3,228	3,389	3,542	3,709
Value of land and buildings ..	£ 2,411,446	2,426,415	2,537,922	2,678,983	2,801,147
Value of plant and machinery ..	£ 2,476,600	2,440,700	2,454,576	2,642,636	2,737,042
Wages paid ..	£ 952,127	1,018,985	1,072,063	1,151,585	1,218,823
Value of fuel used ..	£ 194,863	202,367	214,272	235,937	252,261
Value of materials used ..	£ 2,262,174	2,552,497	2,642,395	3,322,085	3,418,223
Total value of output ..	£ 6,439,227	7,121,946	7,456,136	8,526,470	9,047,085
Value of production ..	£ 3,882,100	4,367,082	4,599,469	5,058,448	5,376,601

(a) Includes Malt Works in Tasmania.

The quantity of ale, stout and beer brewed fell from 73.7 million gallons in 1928-29 to 49.8 million gallons in 1931-32, but thereafter the production increased each year to 89,231,904 gallons in 1938-39. For a number of years prior to the depression the consumption of ale, stout and beer exceeded 11 gallons per head of the population; it dropped to 7.32 gallons in 1931-32, but has since risen to 12.13 gallons.

(iii) *Materials Used and Production.* The table below shows the quantities of raw material used and the quantity and value of ale, stout and beer brewed in each State during the year 1938-39.

**BREWERIES: MATERIALS USED AND PRODUCTION, 1938-39.**

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
<b>RAW MATERIAL USED.</b>							
Malt .. bushels	1,059,628	1,014,010	256,199	227,928	(b)	(b)	(c) 2,940,945
Hops .. lb.	931,922	846,801	208,747	213,532	(b)	(b)	(c) 2,351,003
Sugar .. cwt.	138,440	124,920	27,520	28,080	(b)	(b)	(c) 334,660
<b>RAW MATERIAL USED PER 1,000 GALLONS OF ALE, STOUT AND BEER PRODUCED.</b>							
Malt .. bushels	31.23	32.24	33.82	31.49	(b)	(b)	(c) 32.96
Hops .. lb.	27.49	26.92	27.56	29.50	(b)	(b)	(c) 26.35
Sugar .. cwt.	4.08	3.97	3.63	3.89	(b)	(b)	(c) 3.75

**ALE, STOUT AND BEER BREWED.**

Quantity gallons	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
Quantity gallons	33,899,023	31,450,824	7,575,195	7,237,342	(b)	(b)	89,231,904
Value (a) £	3,465,199	2,930,616	875,161	567,217	(b)	(b)	(c) 8,927,220

(a) Exclusive of Excise duty.

(b) Particulars not available for publication.

(c) Includes States marked (b).

31. *Distilleries.*—Distilleries are located in all the States except Western Australia and Tasmania. The following information, which has been extracted from returns furnished by the Excise Branch of the Department of Trade and Customs, shows the materials used in distilleries in Australia and the quantity of spirits distilled therefrom for the year 1938-39:—Materials used: barley, 80,548 bushels; barley malt, 89,528 bushels; molasses, 1,405,271 cwt.; wine, 11,364,208 gallons; raisins and currants, 19,521 cwt.; grapes, 170,818 cwt. The quantity of spirits distilled from barley, malt and grain was 441,883 gallons; from molasses, 7,025,416 gallons; and from wine, 2,249,265 gallons; total, 9,716,564 gallons. The quantity of spirits denatured during the year was 4,553,152 gallons.

32. *Tobacco, etc., Factories.*—(i) *Details for each State, 1938-39.* During the year 1938-39 there were thirty establishments in which the manufacture of tobacco, cigars, or cigarettes was carried on. There were no tobacco factories in Tasmania.

**TOBACCO, CIGAR AND CIGARETTE FACTORIES, 1938-39.**

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Australia.
Number of factories .. ..	8	14	6	1	1	30
Number of persons engaged ..	3,108	2,229	46	11	150	5,544
Value of land and buildings ..	£ 645,706	352,702	(a)	(a)	(a)	(b) 1,041,798
Value of plant and machinery ..	£ 625,774	295,576	(a)	(a)	(a)	(b) 942,644
Wages paid .. ..	£ 623,799	443,210	(a)	(a)	(a)	(b) 1,095,912
Value of fuel used .. ..	£ 23,846	9,937	(a)	(a)	(a)	(b) 34,483
Value of materials used .. ..	£ 4,806,898	2,203,221	(a)	(a)	(a)	(b) 7,080,574
Total value of output .. ..	£ 6,039,442	3,644,549	(a)	(a)	(a)	(b) 9,800,413
Value of production .. ..	£ 1,208,698	1,431,391	(a)	(a)	(a)	(b) 2,685,356

(a) Not available for publication.

(b) Including Queensland, South Australia and Western Australia.

(ii) *Total for Australia.* This industry was among the first to be established in Australia. In 1861 New South Wales had 11 factories, producing 177,744 lb. of manufactured tobacco; in the same year there was one factory in Victoria, but the quantity of tobacco manufactured is not available. The Australian market has for many years been largely supplied with local manufactures from the imported leaf. Imports during 1938-39 comprised—manufactured tobacco 631,770 lb., cigars 9,474 lb., and cigarettes 118,065 lb., while the quantities manufactured in Australian factories were respectively 16,305,310 lb., 237,543 lb., and 6,730,904 lb. The following tables show the extent of the industry in Australia for the last five years:—

## TOBACCO, CIGAR AND CIGARETTE FACTORIES : AUSTRALIA.

Items.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
Number of factories .. .. .	29	31	32	32	30
Number of employees .. .. .	4,818	5,155	5,447	5,644	5,544
Approx. value of land and buildings	£ 927,122	936,521	1,001,236	1,030,344	1,041,298
Approx. value of plant and machinery	£ 784,371	726,743	870,430	932,827	942,644
Wages paid .. .. .	£ 891,064	950,790	996,665	1,074,196	1,095,912
Value of fuel used .. .. .	£ 18,661	20,553	29,938	34,344	34,483
Value of materials used .. .. .	£ 5,373,582	6,082,506	6,345,214	6,861,305	7,080,574
Total value of output .. .. .	£ 7,216,139	8,529,491	8,714,581	9,510,121	9,800,413
Value of production .. .. .	£ 1,823,896	2,426,432	2,339,429	2,614,472	2,685,356

## LEAF USED AND PRODUCTION.

Leaf used {	Australian (Stemmed)	1,000 lb.	3,352	3,653	4,249	4,231	4,489
Imported ( " )	"	"	13,768	14,662	15,049	15,993	16,011
Tobacco made .. .. .	"	"	14,527	15,277	15,733	16,259	16,305
Cigars made .. .. .	"	"	253	283	262	256	238
Cigarettes made .. .. .	"	"	4,813	5,305	5,659	6,325	6,731

For many years 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 3 million lb. in 1930-31; in 1932-33 the quantity of local leaf used fell to 2.7 million lb., but it has since risen to 4.5 million lb. In this connexion, see Chapter XIV. "Agricultural Production," p. 407.

33. *Sawmills, etc.—(i) Details for States, 1938-39.* The most important industry in Class X. is that of sawmilling. As separate particulars of forest sawmills are not available for some of the States, both forest and other sawmills, as well as plywood and bark mills have been combined in the following table:—

## SAWMILLS, FOREST AND OTHER ; PLYWOOD AND BARK MILLS, 1938-39.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories .. .. .	448	330	464	55	144	219	1,660
Number of persons engaged	5,279	3,700	5,410	1,009	2,243	1,463	19,104
Value of land and buildings	£ 763,205	417,473	405,007	186,062	207,178	75,686	2,054,611
Value of plant and machinery .. .. .	£ 680,705	606,566	707,156	138,848	437,311	215,130	2,785,716
Wages paid .. .. .	£ 1,028,504	746,566	956,429	194,828	478,765	229,535	3,034,627
Value of fuel used .. .. .	£ 57,339	52,738	53,101	10,314	38,211	14,079	225,782
Value of materials used .. .. .	£ 2,976,161	1,580,575	2,165,825	687,115	767,731	345,488	8,522,805
Total value of output .. .. .	£ 4,730,293	2,798,993	3,762,462	1,012,113	1,506,690	727,037	14,537,888
Value of production .. .. .	£ 1,696,793	1,165,680	1,543,536	314,984	700,748	367,470	5,789,211

(ii) *Total for Australia, 1934-35 to 1938-39.* The development of forest and other sawmills, etc., since 1934-35 is shown in the following table :—

**SAWMILLS, FOREST AND OTHER ; PLYWOOD AND BARK MILLS : AUSTRALIA.**

Items.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
Number of establishments .. ..	1,495	1,443	1,591	1,659	1,660
Number of persons engaged .. ..	15,333	17,207	18,284	19,565	19,104
Value of land and buildings .. ..	£ 2,010,001	£ 1,974,918	£ 2,015,040	£ 2,025,857	£ 2,054,611
Value of plant and machinery .. ..	£ 2,595,995	£ 2,702,063	£ 2,671,982	£ 2,807,747	£ 2,785,716
Wages paid .. ..	£ 2,319,745	£ 2,927,960	£ 3,188,000	£ 3,601,453	£ 3,634,627
Value of fuel used .. ..	£ 139,372	£ 170,705	£ 184,038	£ 225,537	£ 225,782
Value of materials used .. ..	£ 5,604,845	£ 6,663,907	£ 7,942,375	£ 8,975,242	£ 8,522,895
Total value of output .. ..	£ 9,814,197	£ 11,515,591	£ 13,379,054	£ 15,092,088	£ 14,537,888
Value of production .. ..	£ 4,069,780	£ 4,680,979	£ 5,252,641	£ 5,891,309	£ 5,789,211

The sawmill output of native timber, which declined from 740 million super. feet in 1925-26 to the abnormally low figure of 237 million super. feet during the height of the depression, had recovered to 717 million super. feet in 1938-39. Further reference is made to the sawmilling industry in Chapter XVI. "Forestry."

34. **Furniture, Cabinet-making and Upholstery.**—These industries constitute the principal manufactures in Class XI. The following table gives particulars for each State :—

**FURNITURE, CABINET-MAKING AND UPHOLSTERY FACTORIES, 1938-39.**

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories .. ..	258	312	113	71	88	38	880
Number of persons engaged .. ..	4,465	3,477	1,576	1,038	690	330	11,576
Value of land and buildings .. ..	£ 741,090	£ 653,350	£ 230,597	£ 119,613	£ 117,426	£ 34,555	£ 1,896,631
Value of plant and machinery .. ..	£ 228,412	£ 145,608	£ 71,897	£ 78,279	£ 34,928	£ 14,852	£ 573,976
Wages paid .. ..	£ 918,314	£ 578,259	£ 307,744	£ 164,011	£ 120,201	£ 50,589	£ 2,139,118
Value of fuel used .. ..	£ 25,608	£ 18,595	£ 8,521	£ 6,727	£ 3,403	£ 1,410	£ 64,264
Value of materials used .. ..	£ 1,466,632	£ 952,622	£ 462,241	£ 263,638	£ 184,169	£ 50,196	£ 3,379,498
Total value of output .. ..	£ 2,852,487	£ 1,885,209	£ 920,865	£ 520,580	£ 362,375	£ 125,345	£ 6,666,861
Value of production .. ..	£ 1,360,247	£ 913,992	£ 450,103	£ 250,215	£ 174,803	£ 73,739	£ 3,223,099

35. **Printing and Bookbinding Works.**—Printing and bookbinding works rank high in importance among the industries of Australia, and in 1938-39 afforded employment for about 28,460 employees, and paid more than £6,100,000 in salaries and wages, while the value of output amounted to £17,385,000. The following table gives particulars of establishments engaged in general printing and bookbinding in each State for the year 1938-39. Government printing works are included, but establishments producing newspapers and periodicals are shown separately in the succeeding table :—

**GENERAL PRINTING AND BOOKBINDING ESTABLISHMENTS, 1938-39.**

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories .. ..	335	426	98	64	85	20	1,028
Number of persons engaged .. ..	7,373	6,705	1,739	1,133	903	466	18,369
Value of land and buildings .. ..	£ 1,434,898	£ 1,619,505	£ 376,481	£ 216,155	£ 226,707	£ 81,802	£ 3,955,548
Value of plant and machinery .. ..	£ 1,323,404	£ 1,157,738	£ 217,923	£ 231,903	£ 175,772	£ 79,122	£ 3,185,922
Wages paid .. ..	£ 1,402,339	£ 1,249,477	£ 309,362	£ 217,725	£ 163,933	£ 92,239	£ 3,435,075
Value of fuel used .. ..	£ 42,279	£ 40,330	£ 10,516	£ 9,359	£ 5,070	£ 2,280	£ 109,834
Value of materials used .. ..	£ 1,589,129	£ 1,410,663	£ 280,862	£ 186,597	£ 172,238	£ 63,076	£ 3,702,565
Total value of output .. ..	£ 3,985,493	£ 3,530,140	£ 810,924	£ 530,008	£ 478,261	£ 226,977	£ 9,561,803
Value of production .. ..	£ 2,354,085	£ 2,079,147	£ 519,546	£ 334,052	£ 300,933	£ 161,621	£ 5,749,404

## ESTABLISHMENTS PRODUCING NEWSPAPERS AND PERIODICALS, 1938-39.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	213	116	62	38	36	7	472
Number of persons engaged ..	4,456	2,548	1,494	691	580	322	10,091
Value of land and buildings £	1,737,952	792,094	547,653	353,887	284,931	38,756	3,755,273
Value of plant and machinery £	1,397,544	690,589	427,881	252,927	157,208	44,212	2,970,361
Wages paid ..	1,189,832	706,554	350,960	168,558	171,349	79,962	2,667,245
Value of fuel used ..	56,892	31,917	19,849	6,678	13,016	2,492	130,844
Value of materials used ..	1,451,757	948,212	321,376	221,680	150,398	37,741	3,131,164
Total value of output ..	3,618,393	2,083,268	940,241	496,178	457,628	227,408	7,823,116
Value of production ..	2,109,744	1,103,139	599,016	267,820	294,214	187,175	4,561,108

36. Tyres, Motor and Cycle.—(i) *Details for each State, 1938-39.* During the last decade, the number of motor car and cycle users has shown a considerable advance and this necessarily has had a stimulating effect on the industry engaged in the manufacture of motor and cycle tyres. Particulars for each State during 1938-39 are shown hereunder :—

## TYRES, MOTOR AND CYCLE, 1938-39.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas. (a)	Australia.
Number of factories ..	86	88	31	24	22	11	262
Number of persons engaged ..	2,935	2,355	160	144	73	56	5,723
Value of land and buildings £	741,152	521,280	66,301	56,760	33,487	22,151	1,441,131
Value of plant and machinery £	471,643	651,560	19,580	15,551	8,891	6,778	1,174,012
Wages paid ..	656,148	502,409	23,917	18,976	9,340	6,107	1,196,897
Value of fuel used ..	84,563	118,742	2,994	2,528	1,365	728	210,920
Value of materials used ..	1,713,247	1,825,247	46,534	33,009	18,711	9,051	3,645,799
Total value of output ..	2,614,506	3,329,652	99,744	74,621	46,171	21,994	6,186,688
Value of production ..	816,696	1,385,663	50,216	39,084	26,095	12,215	2,329,969

(a) Includes Boots and Shoes and Other Rubber Goods.

(ii) *Total for Australia, 1934-35 to 1938-39.* Prior to 1930-31 particulars regarding this industry were included with Rubber Goods but separate details are now available and are shown in the following table for the last five years :—

## TYRES, MOTOR AND CYCLE(a) : AUSTRALIA.

Items.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
Number of factories ..	261	260	261	267	262
Number of persons engaged ..	3,998	4,098	4,907	5,847	5,723
Value of land and buildings ..	£ 1,240,749	1,257,800	1,583,004	1,587,808	1,441,131
Value of plant and machinery ..	£ 895,139	841,815	1,281,468	1,296,315	1,174,012
Wages paid ..	£ 736,865	786,713	980,567	1,187,061	1,196,897
Value of fuel used ..	£ 134,335	136,542	192,624	212,533	210,920
Value of materials used ..	£ 2,173,447	2,269,954	3,751,258	4,533,656	3,645,799
Total value of output ..	£ 3,499,132	3,788,333	5,851,930	6,849,686	6,186,688
Value of production ..	£ 1,191,350	1,331,837	1,908,048	2,103,497	2,329,969

(a) Includes Boots and Shoes and Other Rubber Goods for Tasmania.

37. *Electric Light and Power Works.*—(i) *Details for each State, 1938–39.* The increased demand for electrical energy has been responsible for considerable development in electric light and power works during recent years. Since 1931–32 the production of electric light and power has increased from 2,507 to 4,688 million British units, or by more than 87 per cent. Particulars for the year 1938–39 are as follows:—

## ELECTRIC LIGHT AND POWER WORKS, 1938–39.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	106	79	54	42	109	5	395
Number of persons engaged ..	2,072	1,376	540	1,733	681	96	6,498
Value of land and buildings £	4,584,817	1,828,560	513,073	589,183	461,885	410,539	8,388,057
Value of plant and machinery £	11,695,870	6,617,530	1,782,562	2,026,134	2,740,936	2,888,462	27,751,494
Wages paid ..	£ 634,276	388,684	162,412	465,739	199,503	26,683	1,877,297
Value of fuel used ..	£ 1,363,608	625,531	387,054	263,575	599,460	..	3,239,228
Total value of output	£ 5,719,029	2,435,604	993,341	1,395,253	1,247,770	691,938	12,482,935

Particulars of the types of engines and generators installed in Electric Light and Power Works and their rated horse-power are given on p. 462.

(ii) *Production, 1934–35 to 1938–39.* The increase in the production of electric light and power in each of the States during the five years is clearly shown in the following table:—

## ELECTRIC LIGHT AND POWER WORKS: PRODUCTION.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	1,000 K.W.H.						
1934–35 ..	1,349,248	900,247	202,030	176,434	171,209	399,887	3,199,055
1935–36 ..	1,464,898	974,722	224,014	200,488	204,373	459,408	3,527,903
1936–37 ..	1,626,833	1,049,768	256,784	215,714	237,185	522,491	3,908,775
1937–38 ..	1,816,814	1,128,216	352,258	240,902	272,512	542,767	4,353,469
1938–39 ..	1,948,490	1,222,505	397,368	256,283	307,002	566,691	4,668,339

38. *Gas-works.*—(i) *Details for each State, 1938–39.* Gas-works are in operation in the majority of important towns in Australia. New South Wales returned seven coke factories and Queensland three, working as separate industries, but under the new classification these are included in Class I.—Treatment of Non-metalliferous Mine and Quarry Products. The subjoined table gives particulars of gas-works in each State for the year 1938–39:—

## GAS-WORKS, 1938–39.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	43	39	16	3	4	2	107
Number of persons engaged ..	1,092	828	228	608	120	55	2,931
Value of land and buildings £	741,580	401,847	189,979	25,024	(a)	(a)	61,462,772
Value of plant and machinery £	3,219,493	2,167,864	560,011	1,145,049	(a)	(a)	67,498,428
Wages paid ..	£ 288,911	223,512	63,365	165,236	(a)	(a)	678,516
Value of fuel used ..	£ 207,891	21,965	5,714	1,244	(a)	(a)	250,786
Value of materials used	£ 762,764	723,365	151,024	127,528	(a)	(a)	61,872,448
Total value of output	£ 2,327,850	1,348,989	338,255	535,586	(a)	(a)	64,817,216
Value of production ..	£ 1,357,195	603,659	181,597	406,814	(a)	(a)	62,693,982

(a) Not available for publication.

(b) Includes Western Australia and Tasmania.

(ii) *Coal Used and Production, 1938-39.* The following table gives details for the year 1938-39 :—

**GAS-WORKS : COAL USED AND PRODUCTION, 1938-39.**

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
<b>COAL USED.</b>							
Coal .. .. . tons	578,127	391,092	92,054	(a)	(a)	(a)	61,176,629
<b>PRODUCTS.</b>							
Gas produced 1,000 cubic ft.	10,896,184	7,129,698	1,457,048	1,181,975	(a)	(a)	621,472,303
Gas sold. 1,000 cubic ft.	9,330,921	6,378,691	1,286,616	947,944	(a)	(a)	618,651,385
Coke produced .. tons	411,986	217,850	59,628	47,124	(a)	(a)	757,046
Coke for sale .. tons	320,022	131,680	36,408	35,712	(a)	(a)	534,105
<b>VALUE.</b>							
Gas sold .. £	1,807,073	1,840,986	503,326	449,190	(a)	(a)	4,878,825
Coke for sale .. £	350,238	182,822	31,670	54,040	(a)	(a)	640,851

(a) Particulars not available for publication.

(b) Includes States marked (a).

The output of gas declined from 20,929,569 thousand cubic feet in 1929-30 to an average of 17,800,000 thousand cubic feet during the three years ended June, 1934, but has since risen to a new high level of 21,472,303 thousand cubic feet in 1938-39.