# CHAPTER XXI. 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.—For statistical purposes, a "factory" was defined by the Conference of Statisticians in 1902 as any factory, workshop or mill where four or more persons are employed or power is used. The statistics which follow must be read in the light of this definition. 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.
1935–36 1936–37 1937–38 1938–39	8,486 8,726 9,097 9,464 9,458	9,160 9,165 9,241 9,250 9,215	2,482 2,883 3,063 3,087 3,064	1,895 1,916 1,980 2,067 2,265	1,946 2,032 2,066 2,129 2,129	925 946 948 944 980	24,894 25,668 26,395 26,941 27,111

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 industrial classes agreed upon by the Conference of Statisticians in 1930. This classification, which was introduced during 1930–31, superseded the grouping which had been in use since 1902.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. 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.	1935-36.	1936–37.	1937–38.	1938–39.	1939-40
I. Treatment of Non-metalliferous Mine and Quarry	1				
Products	462	517	548	564	559
II. Bricks, Pottery, Glass, etc	450	436	459	47I	452
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease	630	655	652	666	685
IV. Industrial Metals, Machines, Implements and		C-00	1		
Conveyances	6,393	6,788	7,102	7,255	7,370
V. Precious Metals, Jewellery and Plate	277	282	290	290	306
VI. Textiles and Textile Goods		577	591	611	650
VII. Skins and Leather		537	536	533	53 <b>x</b>
VIII. Clothing	4,260	4,259	4,334	4,314	4,270
IX. Food, Drink and Tobacco	4,721	4,842	4,982	5,202	5,291
X. Woodworking and Basketware		2,715	2,771	2,822	2,778
XI. Furniture, Bedding, etc		1,092	1,113	1,149	1,152
XII. Paper, Stationery, Printing, Bookbinding, etc	1,781	1,774	1,790	1,816	1,800
XIII. Rubber	290	289	302	299	299
XIV. Musical Instruments	. 31	34	34	34	38
XV. Miscellaneous Products	371	390	398	413	437
Total, Classes I. to XV	24,378	25,187	25,902	26,439	26,618
XVI. Heat, Light and Power	516	481	493	502	493
Grand Total	24,894	25,668	26,395	26,941	27,111

The number of factories in operation declined each year from 1928-29 to 1931-32, but since 1931-32 there have been substantial increases each year, the number in 1939-40 being the highest yet recorded.

(ii) States, 1939-40. The following table shows the number of factories in each State in 1939-40, classified according to the nature of the industry:—

FACTORIES: NUMBER IN INDUSTRIAL CLASSES, 1939-40.

Class of Industry.	N.S.W.	Vic.	Q'land.	S. Aust.	W.Aust.	Tas.	Aust.
T. Martin A. N. and W.	No.	No.	No.	No.	No.	No.	No.
I. Treatment of Non-metalliferous Mine and Quarry Products	195	172	51	62	58	21	559
II. Bricks, Pottery, Glass, etc.	206	111	41	43	36	15	452
III. Chemicals, Dyes, Explosives, Paint,				1 75	•	•	
Oils and Grease	308	234	39	52	34	18	685
IV. Industrial Metals, Machines, Im-		-51		1			-
plements and Conveyances	2,677	2,497	749	598	643	206	7,370
V. Precious Metals, Jewellery and	-,						
Plate	85	143	23	27	21	7	306
VI. Textiles and Textile Goods	175	393	21	39	13	9 8	650
VII. Skins and Leather	216	201	49	29	28		531
VIII. Clothing	1,585	1,778	301	320	234	52	4,270
IX. Food, Drink and Tobacco	1,701	1,471	791	602	458	268	5,291
X. Woodworking and Basketware	863	716	538	175	213	273	2,778
XI. Furniture, Bedding, etc	342	414	144	99	99	54	1,152
XII. Paper, Stationery, Printing, Book-			l	l		_	1 .
binding, etc	678	673	173	117	131	28	1,800
XIII. Rubber	101	98	37	27	24	12	299
XIV. Musical Instruments	12	16	3	4	3	• •	38
XV. Miscellaneous Products	173	181	35	25	20	3	437
Total, Classes I. to XV	9,317	9,098	2,995	2,219	2,015	974	26,618
XVI. Heat, Light and Power	141	117	69	46	114	6	493
Grand Total	9,458	9,215	3,064	2,265	2,129	980	27,111

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

1. States, 1939-40.—The following table shows, for each State, the number of factories classified according to the number of persons engaged in 1939-40:—

FACTORIES: CLASSIFICATION ACCORDING TO SIZE OF FACTORY, 1939-40.

No. of Persons Engaged in each Factory.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
		Nυ	MBER OF	Factories.			
Under 4 4 5 to 10 11 to 20 21 to 50 51 to 100 Over 100	2,332 953 2,457 1,280 1,111 421 404	3,136 788 2,153 1,272 1,055 428 383	1,070 322 767 406 275 110	630 242 691 308 246 87 61	1,053 118 488 221 168 57 24	286 126 357 101 71 25	9,007 2,549 6,913 3,588 2,926 1,128 1,000
Total	9,458	9,215	3,064	2,265	2,129	980	27,111

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 1939-40 the number of such factories had increased to 11,556, representing 42.62 per cent. of the total of 27,111 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 a factories by the installation of some power machine.

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 1,000 in 1939-40, the persons engaged in these factories increasing from 204,363, or 43.74 per cent. of the total number, to 293,933, or 49.5 per cent., during the same period.

The relative importance of large and small factories is 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, 1939-40.

No. of Persons Employed in Group.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	Average	NUMBER	ENGAGED	DURING P	ERIOD WO	RKED.	
Under 4	5,876	5,944	2,210	1,370	2,013	653	18,066
4	3,812	3,152	1,288	968	472	504	10,196
5 to 10	17,091	15,132	5,306	4,774	3,118	2,438	47,859
11 to 20	18,765	18,678	5,994	4,469	3,191	1,441	52,538
21 to 50	35,676	33,348	8,507	7,550	5,381	2,134	92,596
51 to 100	29,648	29,783	8,036	6,048	3,972	1,649	79,136
Over 100	128,484	107,800	24,836	20,678	5,506	6,629	293,933
Total Av. per F'cty	239,352 25.31	213,837	56,177 18.33	45,857	23,653	15,448	594,324 21.92

<sup>2.</sup> Australia, 1935-36 to 1939-40.—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.

		Estab	lishments	Employi	ng on the	Average-	-	
Year.	20 and under.		21 to	100.	101 and	upwards.	Total.	
	Es- tablish- ments.	Persons en- gaged.	Es- tablish- ments.	Persons en- gaged.	Es- tablish- ments.	Persons en- gaged.	Es- tablish- ments.	Persons en- gaged.
1935-36			1					
Number	20,413	117,443	3,646	153,603	835	230,889	24,894	501,935
Average per establishment		5.75		42.13		276.51	• • •	20.16
Percentage on total	82.00	23.40	14.65	30.60	3 - 35	46.00	100.00	100.00
Number	21,017	122,179	3,756	158,007	895	250,764	25,668	530,950
Average per establishment		5.81	3,750	42.07	1	280.18	23,000	20.69
Percentage on total	81.88	23.01	14.63	29.76	3.49	47.23	100.00	100.00
1937-38		1 -	!	1	1	1		
Number	21,514	126,585	3,921	166,064	960	273,502	26,395	566,151
Average per establishment		5.88		42.35	•	284.90		21.45
Percentage on total	81.50	22.36	14.86	29.33	3.64	48.31	100.00	100.00
1938-39					1 -	1 .		
Number Average per establishment	21,982	129,505	4,013	170,971	946	272,022	26,941	572,498
	81.59	22.62	14.90	42.60	! ::	287.55		100.00
Percentage on total	01.59	22.02	14.90	29.00	3.51	47.52	100.00	100.00
Number	22,057	128,659	4,054	171,732	1,000	293,933	27,111	594,324
Average per establishment		5.83	7,-37	42.36	1,000	293.93	7	21.92
Percentage on total	81.36	21.65	14.95	28.89	3.69	49.46	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.

In para. 2 below, 1,387 factories are shown as using no power other than hand-power; the distribution of these factories among the various industries was as follows:—Lime, Plaster and Asphalt, 88; Other Metal Works, 76; Tailoring and Slop Clothing, 378; Dressmaking, 129; Millinery, 58; Bakeries, 186; Cabinet and Furniture Making, 45; all other industries, 427.

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, those using hand-power, and the rated horse-power of engines ordinarily in use and in reserve or idle during 1939-40:—

FACTORIES(a): RATED HORSE-POWER OF ENGINES, 1939-40.

		Numbe	r of Establish	ments.	Rated Horse-power of Engines.		
State.		Using Power,	Others.	Total	Ordinarily in use.	In Reserve or Idle (omitting obsolete).	
		No.	No.	No.	H.P.	H.P.	
New South Wales		9,023	336	9,359	700,344	81,123	
Victoria		8,663	474	9,137	433,112	90,099	
Queensland		2,848	163	3,011	200,382	25,611	
South Australia	{	2,032	190	2,222	116,049	15,009	
Western Australia		1,847	172	2,019	66,925	6,794	
Tasmania		924	52	976	58,602	8,761	
Australia	[	25,337	1,387	26,724	1,575,414	227,397	

<sup>(</sup>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. 1939-40.

			Rate	d Horse-p	ower of E	ngines or	linarily in	use.		
State.	Steam.		Intern	Internal Combustion.			Motors d	Total.		
		Recipro- cating.	Turbine.	Gas.	Light Oils.	Heavy Oils.	Water.	Pur- chased.	Own Genera- tion. (c)	
N.S.W. Victoria Queensiand S. Aust. W. Australia Tasmania		H.P. 105,623 36,993 80,726 7,512 8,478 3,823	H.P. 48,849 41,585 11,568 1,687 56 2,103	H.P. 4,624 4,983 8,540 4,844 2,773	H.P. 3,859 4,682 3,690 1,947 2,021 2,677	H.P. 12,675 11,329 15,216 9,544 7,301 471	H.P. 109 1,005 	H.P. 524,605 332,735 80,642 90,515 46,296 49,331	H.P. 90,687 43,469 41,419 9,072 4,430 7,913	H.P. 700,344 433,112 200,382 116,049 66,925 58,602
Australia		243,155	105,648	25,769	18,876	56,536	1,306	1,124,124	196,990	1,575,414

<sup>(</sup>a) Excluding Central Electric Stations.

<sup>(</sup>b) Excluding particulars in column (c).

(ii) Australia, 1936-37 to 1939-40.—Details of the horse-power of the various types of engines in use are given for Australia since 1936-37 in the following table:—

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

	R			ted Horse-power of Engines ordinarily in use.						
Year	Year. S		Steam. Inte		nal Combu	stion.		Motors driven by electricity.		Total.
	Regions	Turbine.	Gas.	Light Oils.	Heavy Oils.	Water.	Pur- chased.	Own Genera- tion. (c)	(b)	
1936-37 1937-38 1938-39 1939-40		244,963 266,939 268,409 243,155	63,311 83,542 84,149 105,648	27,030 28,372 32,914 25,769	15,447 15,926 17,970 18,876	46,593 51,053 55,800 56,536	1,024 1,510 1,616 1,306			1,197,312 1,336,261 1,478,769 1,575,414

<sup>(</sup>a) Excluding Central Electric Stations.

(iii) In Classes of Industry, 1939-40. The next table shows the rated horse-power of engines ordinarily in use in the various classes of industry in each State during 1939-40:—

FACTORIES(a): RATED HORSE-POWER OF ENGINES ORDINARILY IN USE, 1939-40.

Class of Industry.	n.s.w.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
I. Treatment of Non-metalli-	H,P.	H.P.	н.р.	H.P.	н.р.	H.P.	H.P.
ferous Mine and Quarry			- 0				
Products	43,331	26,330	6,849	5,520	4,618	8,918	95,566
II. Bricks, Pottery, Glass, etc III. Chemicals, Dyes, Explosives,	25,428	17,989	3,110	4,180	3,088	841	54,636
Paint, Oils and Grease	25,376	29,091	2,374	10,230	5,584	442	73,097
IV. Industrial Metals, Machines, Implements and Con-	i			]	]		
veyances	340,172	88,173	37,352	42,919	14,522	16,128	539,266
V. Precious Metals, Jewellery				0			
VI. Textiles and Textile Goods	1,114	2,805	125	378	56	34	4,512
TITT CITE - I To Ale on	20,966	46,398	2,586	4,088	777	3,252	78,067
	9,529	8,646	2,119	398	783	317	21,792
VIII. Clothing	8,955	11,796	1,114	1,037	737	144	23,783
X. Woodworking and Basket-	110,916	83,790	103,568	27,634	19,638	7,676	353,222
ware	44,372	32,983	31,041	10,030	11,838	8,222	138,486
XI. Furniture, Bedding, etc	8,155	8,305	3,146	2,653	1,496	791	24,546
XII. Paper, Stationery, Printing,	1	,,,,,	3,	1	1 //- }		- 1,54-
Bookbinding, etc	26,745	47,786	4,975	3,561	2,918	11,499	97,484
XIII. Rubber	21,219	20,118	1,132	553	96	66	43,178
XIV. Musical Instruments	797	83	12	3	24		919
XV. Miscellaneous Products	5,042	4,083	96	349	202	160	9,932
		ļ ——					
Total, Classes I. to XV	692,117	428,376	199,599	113,533	66,377	58,484	1,558,486
XVI. Gas Works	8,227	4,736	783	2,516	548	118	16,928
Grand Total	700,344	433,112	200,382	116,049	66,925	58,602	1,575,414

<sup>(</sup>a) Excluding Central Electric Stations.

<sup>(</sup>b) Excluding particulars in column (c).

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 1939-40 are given below:—

CENTRAL ELECTRIC STATIONS: POWER EQUIPMENT, AUSTRALIA, 1939-40.

		Capacity of Engines and Generators.									
Particulars.	St	eam.	Intern	al Comb							
	Recipro- cating.	Turbine.	Gas.	Light Oils.	Heavy Oils.	Water.	Total.				
Engines installed— Total installed Rated I	H.P. 39,024	1,919,290	20,909	1,574	153,549	246,030	2,380,376				
Generators installed— Kilowatt capacity— Total installed	I.W. 18,162 ,, 15,253 ,, 13,116	1,406,523 1,197,506 1,005,866	12,753 12,025 9,084	825 744 654	98,611 91,992 67,819	182,052 156,881 144,307	1,718,926 1,474,401 1,240,846				
Horse-power equivalent— Total installed	H.P. 24,347 ,, 20,447 17,583	1,885,514 1,605,315 1,348,414	17,096 16,120 12,177	1,106 998 877	132,193 123,321 90,914	244,050 210,307 193,451	2,304,306 1,976,508 1,663,416				

(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 1939-40.

CENTRAL ELECTRIC STATIONS: POWER EQUIPMENT, 1939-40.

Particulars.			N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia
Engines installed	Rated	н.р.	1,057,670	599,181	233,384	166,962	159,014	164,165	2,380,376
Generators installed—			,				ļ		
Kilowatt capacity— Total installed		ĸ.w.	***	606			6	* a * a 8 a	
Effective capacity		д. 11.		414,686	156,436	120,081	98,486	125,980	1,718,926
Maximum load		**		352,086 343,683	96,102	112,196	68.812	95,290	1,4/4,401
maximum load	• •	,,	324,703	343,003	90,102	112,190	00,012	95,290	1,240,040
Horse-power equiva	lent—		) i		ì	}	] ]		)
Total installed	••	H.P.	1,059,173	555,907	209,710	160,975	149,659	168,882	2,304,306
Effective capacity	• • •	,,		471,989	164,178	160,660	132,025	136,133	1,976,508
Maximum load		"		460,724	128,830	150,404	92,246	127,741	1,663,416

## § 4. Employment in Factories.

1. Number Engaged.—(i) General. 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.

(ii) Australia, 1928-29 to 1939-40. Particulars of the number employed, the numerical fluctuation in employment and the rate per cent. of such fluctuation are given for years 1928-29 to 1939-40 in the following table:—

FACTORIES: EMPLOYMENT, AUSTRALIA.

	<u> </u>	Males.			Females.			Persons.	
Year.	Number Em- ployed.	Numerical Increase on previous year.	Rate per cent. on previous year.	Number Em- ployed.	Numerical Increase on previous year.	Rate per cent. on previous year.	Em-	Numerical Increase on previous year.	Rate per cent. on previous year.
		<u></u>			i				
	No.	No.	%	No.	No.	%	No.	No.	%
1928-29	333,110	i		117,372			450,482		
1929-30	308,235	- 24,875	- 2.47	110,959	- 6,413	- 5.46	419,194	- 31,288	- 6.95
1930-31	245,944	- 62,291	-20,21	92,899	<b>– 18,060</b>	-16.28	338,843	- 80,35E	-19.17
1931-32	237,915	- 8,029	- 3,26	98,743	5,844	6.29	336,658	- 2,185	<b>- 0.6</b> 5
1932-33	261,515	23,600	9.92	109,212	10,469	10.60	370,727	34,069	10.12
1933-34	289,249	27,734	10,60	116,660	7,448	6.82	405,909	35,182	9.49
1934-35	322,465	33,216	11.48	127,133	10,473	8.98	449,598	43,689	10.76
1935-36	356,554	34,089	10.57	136,217	9,084	7.15	492,771	43,173	9.60
1936-37	381,412	24,858	6.97	142,536	6,319	4.64	523,948	31,177	6.33
1937-38	408,602	27,190	7.13	150,558	8,022	5.63	559,160	35,212	6.72
1938-39	412,591	3,989	0.98	152,515	1,957	1.30	565,106	5,946	1.06
1939-40	426,934	14,343	3.48	160,729	8,214	5.39	587,663	22,557	3.99

NOTE.—Minus sign (-) indicates decrease.

(iii) States, 1935-36 to 1939-40. The following table shows, for each year from 1935-36 to 1939-40 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.

FACTORIES: EMPLOYMENT.

			ALLEO . D.	111 20 2 11122	• \ • •		
Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
A	verage N	UMBER EN	GAGED DUI	RING FULL	YEAR (52	weeks).	
1935–36	193,200 206,497 224,861 228,781 236,974	183,390 191,383 201,793 201,831 212,461	45,128 48,216 52,119 54,110 55,541	38,471 40,710 44,084 43,371 45,050	20,993 22,711 23,133 23,211 22,967	11,589 12,431 13,170 13,802 14,670	492,771 523,948 559,160 565,106 587,663
	·	PERCENTA	GE ON AU	STRALJAN	TOTAL.		
1935–36 1936–37 1937–38 1938–39 1939–40	% 39.21 39.79 40.21 40.48 40.32	% 37.21 36.53 36.09 35.72 36.15	% 9.16 9.20 9.32 9.58 9.45	% 7.81 7.77 7.88 7.67 7.67	% 4.26 4.34 4.14 4.11 3.91	% 2.35 2.37 2.36 2.44 2.50	0% 100.00 100.00 100.00 100.00

FACTORIES: EMPLOYMENT-continued.

Year.	Year. N.S.W. Victor		Victoria. Q'land.		S. Aust. W. Aust.		Australia.
		PER	10,000 OF	POPULATIO	N.		
1935-36 1936-37 1937-38 1938-39 1939-40	727 778 830 837 858	995 1,033 1,084 1,076 1,124	464 490 524 537 546	656 692 746 730 755	469 503 506 502 493	503 535 553 583 615	730 770 815 816 840

2. Rates of Increase, 1935-36 to 1939-40.—The percentage of increase on the average number of persons engaged in the preceding year is shown below for each State from 1935-36 to 1939-40:—

FACTORIES: ANNUAL PERCENTAGE INCREASE OF PERSONS ENGAGED.

Year.		N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
1935-36	::	% 10.38 7.92 7.85 1.74 3.58	% 8.07 4.36 5.44 0.02 5.27	% 4.83 6.84 8.09 3.82 2.64	% 14.85 5.82 8.29 -1.62 3.87	% 18.11 8.18 1.86 0.34 -1.05	% 9.80 7.27 5.94 4.80 6.29	% 9.60 6.33 6.72 1.06 3.99

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 1935-36 to 1939-40 inclusive:—

FACTORIES: PERSONS ENGAGED IN INDUSTRIAL CLASSES, AUSTRALIA.

Class of Industry.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
I. Treatment of Non-metalliferous Mine					
and Quarry Products	7,57I	8,736	9,952	10,343	10,042
II. Bricks, Pottery, Glass, etc	13,088	14,262	15,142	15,709	15,149
III. Chemicals, Dyes, Explosives, Paint,		•		٥,, ٥	., .,
Oils and Grease	16,217	17,614	18,835	19,816	23,779
IV. Industrial Metals, Machines, Imple-	, ,	,, .		٠,	
ments and Conveyances	145,481	161,512	178,019	177,677	184,469
V. Precious Metals, Jewellery and Plate	3,210	3,482	3,761	3,726	3,886
VI. Textiles and Textile Goods	42,031	43,370	45,224	46,082	50,973
VII. Skins and Leather	10,440	10,872	10,437	10,767	11,490
VIII. Clothing	81,400	82,138	85,371	86,092	87,728
IX. Food, Drink and Tobacco	73,265	77,498	81,785	83,846	87,046
X. Woodworking and Basketware	27,478	29,311	31,117	30,739	31,615
XI. Furniture, Bedding, etc	13,443	14,707	15,612	15,287	14,655
XII. Paper, Stationery, Printing, Book-					.,
binding, etc	35,952	37,309	39,062	39,913	40,434
XIII. Rubber	6,797	6,455	7,534	7,502	7,843
XIV. Musical Instruments	451	422	441	45I	474
XV. Miscellaneous Products	6,591	7,370	7,798	7,727	8,325
Total, Classes I. to XV	483,415	515,058	550,090	555,677	577,908
XVI. Heat, Light and Power	9,356	8,890	9,070	9,429	9,755
Grand Total	492,771	523,948	559,160	565,106	587,663

In comparison with the employment levels reached in 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 75 per cent. and 6 per cent. respectively were recorded. The greatest actual gain was 54,000 persons in "Industrial Metals.

etc.", while the greatest relative gain was in "Miscellaneous Products" where the numbers engaged rose by 185 per cent. The lowest relative gains occurred in "Furniture, Bedding, etc." and "Clothing".

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

FACTORIES: PERSONS ENGAGED IN INDUSTRIAL CLASSES, 1939-40.

Class of Industry.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aust.
I. Treatment of Non-metalli-							
ferous Mine and Quarry Products	4,314	3,051	845	779	679	374	10,042
II. Bricks, Pottery, Glass, etc	8,071	4,384	843	1,096	550	205	15,149
III. Chemicals, Dyes, Explosives,	,,,,,	4,504	V43	-,-,-	33-	5	-3,-4,
Paint, Oils and Grease	8,698	11,827	620	1,674	838	122	23,779
IV. Industrial Metals, Machines,		1			_		
Implements and Convey-	1	1 .	i	_		_	
ances	86,841	53,963	13,884	18,759	6,796	4,226	184,469
V. Precious Metals, Jewellery			-6-		80		3,886
VI. Textiles and Textile Goods	16,848	2,423	162	207		23	50,973
VII. Skins and Leather	4,847	29,379 4,607	1,095 1,006	1,515 515	393 415	1,743 100	11,490
VIII. Clothing	32,622	39,442	6,884	5,051	3,173	556	87,728
IX. Food, Drink and Tobacco	29,244	28,112	15,782	6,893	3,893	3,122	87,046
X. Woodworking and Basketware	9,985	7,948	7,007	2,090	2,532	1,963	31,615
XI. Furniture, Bedding, etc	5,743	4,750	1,784	1,207	772	399	14,655
XII. Paper Stationery, Printing,	0,, .0	1,,,,,					
Bookbinding, etc.	17,470	13,928	3,590	2,285	1,725	1,436	40,434
XIII. Rubber	3,583	3,167	796	157	74	66	7,843
XIV. Musical Instruments	282	99	38	29	26	••	474
XV. Miscellaneous Products	4,233	3,058	294	384	203	153	8,325
Total, Classes I. to XV.	233,772	210,138	54,720	42,641	22,149	14,488	577,908
XVI. Heat, Light and Power	3,202	2,323	821	2,409	818	182	9,755
Grand Total	236,974	212,461	55,541	45,050	22,967	14,670	587,663

4. Persons Engaged According to Nature of Employment.—(i) General. In the following table the average number of persons engaged in the States during 1939-40 are classified according to the nature of their employment:—

PERSONS ENGAGED: NATURE OF EMPLOYMENT, 1939-40.

	Average Number of Persons Engaged.										
State.	Working Pro- prietors.	Managers and Overseers.	Accountants and Clerks.	Engine- drivers and Firemen.	Workers, Skilled & Unskilled. (a)	Carters, Messen- gers and Others.	Total.				
New South Wales Victoria Queensland South Australia Western Australia Tasmania	7,620 7,730 2,446 1,733 1,250 635	1,736	16,302 11,883 3,829 3,599 1,438 943	3,081 1,944 1,899 465 536 296	199,063 181,249 44,122 36,910 18,397 12,005	2,503 2,360 1,185 607 355 145	236,974 212,461 55,541 45,050 22,967 14,670				
Australia	21,414	21,133	37,994	8,221	491,746	7,155	587,663				

<sup>(</sup>a) Including outworkers.

<sup>(</sup>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.	
1935-36	 235 264 234 201 174	142 176 152 120 143	10 14 8 6	6 17 23 11 18	 3 6 7 4	29 17 12 11 8	422 491 435 356 353	

<sup>(</sup>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.

5. Monthly Employment, 1936-37 to 1940-41.—The actual number of persons employed in factories (excluding Working Proprietors) on the pay-day nearest to the 15th of each month are shown in the following table for the years 1936-37 to 1940-41.

FACTORIES: MONTHLY EMPLOYMENT, AUSTRALIA

Mo	nth.		1936-37.	1937-38.	1938-39.	1939–40.	1940-41.
				Males.			
July	•••		343,622	374,699	387,693	391,470	421,089
August			346,209	378,278	389,979	393,076	427,112
September			350,638	381,067	391,576	395,446	434,217
October	• •	•• [	356,643	386,612	393,977	404,730	438.88
November	• •	••	359,752	390,414	395,192	409,933	448,28
December	• •	•••	360,595	391,614	394,438	412,509	454,126
January			351,878	383,328	385,742	407,380	451,616
February				390,363	392,056	409,120	460,459
March			363,568 367,964	396,002	395,146	413,524	471,038
April			370,221	394,230	391,005	412,465	468,684
May			371,214	393,466	393,609	407,379	478,90
June			373,246	391,619	390,973	413,157	482,522
Mean	••		359,631	387,641	391,780	405,849	453,078
			F	EMALES.			
July			133,117	141,118	147,282	148,252	162,419
August			136,409	144,343	149,294	150,966	165,414
September			139,408	146,824	151,159	153,129	169,027
October		••	141,248	148,781	152,473	157,054	172,079
November		••	141,561	149,918	152,806	159,323	174,499
D <b>e</b> cember	• •	• • •	139,249	149,868	151,165	158,182	176,536
January			131,287	140,933	141,853	155,328	172,147
February		·	142,418	151,445	151,883	161,744	179,06
March			144,887	154,246	154,854	165,672	182,128
April			143,993	152,208	152,614	164,409	179,948
May			141,633	150,480	150,693	162,144	181,462
June			140,042	148,489	148,601	160,408	183,230
uno							

FACTORIES: MONTHLY EMPLOYMENT, AUSTRALIA-continued.

Mo	nth.	1	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
		<u>-</u>	F	ERSONS,		·	
July August September October November December			476,739 482,618 490,046 497,891 501,313 499,844	515,817 522,621 527,891 535,393 540,332 541,482	534,975 539,273 542,735 546,450 547,998 545,603	539,722 544,042 548,575 561,784 569,256 570,691	583,508 592,526 603,244 610,964 622,780 630,662
January February March April May June			483,165 505,986 512,851 514,214 512,847 513,288	524,261 541,808 550,248 546,438 543,946 540,108	527,595 543,939 550,000 543,619 544,302 539,574	562,708 570,864 579,196 576,874 569,523 573,565	623,763 639,524 653,166 648,632 660,367 665,752
Mean			499,235	535,862	542,170	563,900	627,908

6. 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, 1940, are given below:—

FACTORIES: DISTRIBUTION OF EMPLOYEES ACCORDING TO AGE, JUNE, 1940.
(Excluding Working Proprietors.)

State.		Under 16 Years.		16 and u Yea		Adu	lts.	Total.	
		No.	%	No.	%	No.	%	No.	%
New South Wales Victoria Queensland South Austrulia Westorn Australia Tasmania		الممأ	5.96 5.44 6.37 6.60 5.54 6.15	50,303 12,152 10,208 5,474	24.17 22.45 23.19 25.25	38,538	70.39 71.18 70.21 69.21	208,148 54,137 44,017 21,677	100 100 100 100
Australia		33,553	5.85	141,402	24.65	398,610	69.50	573,565	100

<sup>(</sup>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.			Years.	16 and t		Adu	Its.	Total.	
	name same.	No.	%	No.	%	No.	%	No.	%	
		·- · <u>-</u> -	<u>'</u>		TALES.				' · · · · ·	
		1								
1937		!	16,343	4.38			284,131			100
1938			16,480	4.21	77,309	19.74	297,830	76.05	301,619	100
1939			16,109	4.12	76,418	19.55	298,446	76.33	390,973	100
1940			17,077	4.13	81,016	19.61	315,064	76.26	413,157	100

# FACTORIES: DISTRIBUTION OF EMPLOYEES ACCORDING TO AGE, AUSTRALIA—continued.

(Excluding Working Proprietors.)

	Donton V.	Under 16 Years.		16 and under 21 Years.		Adul	ta.	Total.		
During June.			No.	%	No.	%	No.	%	No.	%
				F	MALES.				' <u>'</u> -	
1937			15,762	11.26	53,207	37.99	71,073	50.75	140,042	100
1938			15,975	10.76		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
1940	• •	•••	16,476	10.27	60,386	37.65	83,546	52.08	160,408	100
				P	RSONS.					
1937		)	32,105	6.26	125,979	24.54	355,204	69,20	513,288,	100
1938		}	32,455		134,030	24.81	373,623		540,108	100
1939			31,606		132,691		375,277		539,574	100
1940			33,553	5.85	141,402	24.65	398,610	69.50	573,565	100

# § 5. Sex Distribution in Factories.

r. 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, 1935-36 to 1939-40. 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.

I'AU	IUKIE	J. MALLS	AND PEND	ALLS LITUR	IUMD.	
State.		1935–36.	1936–37.	1937–38.	1938-39.	1939-40.
			MALES.	<del></del>		
New South Wales		140,896	152,064	164,391	167,172	172,259
Victoria		121,734	128,457	136,160	136,218	143,238
Queensland		36,411	38,970	42,337	43,941	45,026
South Australia		31,391	33,400	36,274	35,406	36,326
Western Australia		16,911	18,466	18,760	18,704	18,331
Tasmania		9,211	10,055	10,680	11,150	11,754
Australia		356,554	381,412	408,602	412,591	426,934
		F	EMALES.			
New South Wales	<u>-</u> -	52,304	56,433	60,470	61,609	64,715
Victoria		61,656	62,926	65,633	65,613	69,223
Queensland		8,717	9,246	9,782	10,169	10,515
South Australia		7,080	7,310	7,810	7,965	8,724
Western Australia		4,082	4,245	4,373	4,507	4,636
Tasmania		2,378	2,376	2,490	2,652	2,916
Australia		136,217	142,536	150,558	152,515	160,729

2. 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.		1934-35— 1935-36.	1935-36— 1936-37.	1936-37— 1937-38.	1937-38 1938-39.	1938-39- 1939-40.
		Ŋ	fales.			
New South Wales		% 10.84	% 7·93	% 8.11	% 1.69	% 3.04
Victoria	• •	8.98	5.52	5.98	0.04	5.15
Queensland	• •	5.25	6.98	8.64	3.79	2.47
South Australia	٠.	15.11	6.40	8.60	~ 2.39	2.60
Western Australia	٠.	18.65	9.20	1.59	- 0.30	- 1.99
Tasmania	• •	10.70	9.16	6.22	4.40	5.42
Total		10.57	6.97	7.13	0.98	3.48
		F	EMALES.			
New South Wales		9.15	7.89	7.15	1.88	5.04
Victoria		4.90	2.05	4.30	~ 0.03	5.50
Queensland		3.14	6.07	5.80	3.96	3.40
South Australia		13.72	3.25	6.84	1.98	9.53
Western Australia		15.93	3.99	3.02	3.06	2.86
Tasmania	• •	6.45	- 0.08	4.80	6.51	9.95
Total		7.15	4.64	5.63	1.30	5.39

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

3. 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 1935-36 to 1939-40:—

FACTORIES: MASCULINITY(a) OF PERSONS ENGAGED.

Ye	ear.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
1935-36		269	197	418	443	414	387	262
1936-37	• •	269	204	421	457	435	423	268
1937-38		271	207	433	464	429	429	271
1938–39	••	271	208	432	445	415	420	271
1939–40		266	207	428	416	395	403	266

(a) Number of males per 100 females.

For a number of years prior to 1926-27 there were on the average 300 males engaged in factories for every 100 females, but in that year the proportion of males began to fall 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 so seriously affected by the depression as the heavier industries, the proportion of males continued to fall, 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 of males per 100 females had increased to 271 in 1937-38, but fell again in 1939-40 to 266.

The decrease in masculinity in 1939-40 arose through the enlistment of men in the armed services and the expansion of industry caused by the war. In the one case it was a displacement of man-power and in the other it was the absorption of woman-power as an adjunct to the industrial effort of Australia.

4. Employment of Females in Particular Industries.—(i) General. The greater number of females in manufacturing industries are engaged in four classes, namely:—VI., Textiles; VIII., Clothing; IX., Food, Drink and Tobacco; and XII., Paper, Stationery, etc. In 1939-40 these industries accounted for 80.90 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 144 females to every 100 males and in Class VIII., Clothing, with 284 females per 100 males. The following tables show the average number of males and females engaged in each of these classes in 1939-40:—

MALES AND FEMALES ENGAGED IN PARTICULAR INDUSTRIES, 1939-40.

Class.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
	<u>'</u>	Males.	'*·	•	·		
VI. Textiles and Textile Goods VIII. Clothing IX. Food, Drink and Tobacco IXI. Paper, Stationery, etc All Other Classes Total	6,455 8,446 19,257 11,833 126,268 172,259	12,151 10,746 20,096 9,875 90,370 143,238	479 1,510 14,010 2,583 26,444 45,026	993 1,165 5,453 1,626 27,089 36,326	124 772 3,079 1,264 13,092 18,331	669 208 2,255 1,100 7,522	20,871 22,847 64,150 28,281 290,785
		Females					
VI. Textiles and Textile Goods VIII. Clothing IX. Food, Drink and Tobacco XII. Paper, Stationery, etc All Other Classes	10,393 24,176 9,987 5,637 14,522	17,228 28,696 8,016 4,053 11,230	616 5,374 1,772 1,007 1,746	522 3,886 1,440 659 2,217	269 2,401 814 461 691	1,074 348 867 336 291	30,102 64,881 22,896 12,153 30,697
Total	64,715	69,223	10,515	8,724	4,636	2,916	160,729

(ii) Females Engaged in Clothing Trade.—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., 1939-40.

	Nev	v South W	ales.		Victoria.		Other States.			
Industry.	Males.	Females.	Feminity.	Males.	Females.	Feminity.	Males.	Females.	Femi- ninity. (a)	
Tailoring and Slop				1						
Clothing Waterproof and Oil-	2,184	10,425	477	1,974	6,390	324	1,349	5,069	376	
skin Clothing	و ا	37	411	103	378	367	1	2	200	
Dressmaking	33	1,535	4,652	617	7,669	1,243	79	2,343	2,966	
Millinery	155	1,405	906	101	1,149	1,138	52	812	1,562	
Shirts, Collars and	1	!!		1	1		ì	1		
Underclothing	344	4,250	1,235	419	4,286	1,023	161	1,984	1,252	
Stays and Corsets	57	640	1,123	177	1,004	567	9	121	1,344	
Handkerchiefs, Ties	i .	.	_	1	1		i .	i i		
and Scarves	106	851	803	41	372	907	7	25	357	
Hats and Caps	636	884	139	687	880	128	37	188	508	
Gloves	10	29	290	24	75	313	- *:-			
Boots and Shoes Boot Repairing (in- cluding Bespoke	2,838	3,123	110	5,099	5,392	106	1,161	974	84	
Work)	1,042	29	3	683	13	2	483	31	6	
Boot Accessories	188	107	57	157	127	81	2		"	
Umbrellas and Walk-	1 200	/	٠,	-37	/		_	''	• •	
ing Sticks	37	72	195	19	32	168	13	24	185	
Dyeworks and Clean- ing (including Re- novating and	3,						-5			
Repairing)	729	613	84	566	570	101	299	434	145	
Other	78	176	226	79	359	454	2	2	100	
Total	8,446	24,176	286	10,746	28,696	267	3,655	12,009	329	

a) Number of females per 100 males.

# § 6. Child Labour in Factories.

- 1. Conditions of Child Labour.—The employment of young persons in factories in the States is regulated by Acts of Parliament, as is the case with the employment of female labour. 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, 1935-36 to 1939-40.—In the returns for the various States, the term "child" denotes any person under sixteen years of age. Juvenile employment in factories reached a new peak in 1939-40. During the year, the number of children engaged increased in all States except Western Australia. The following table shows the average number of children of each sex employed in manufacturing industries in the years 1935-36 to 1939-40:—

FACTORIES: CHILDREN ENGAGED.

State.	1935–36. (a)	1936-37. (b)	1937-38. (b)	1938~39. (b)	1939-40 (b)
		Males.			
New South Wales	4,887	5,888	6,032	5,759	6,164
Victoria	6,118	6,213	6,017	6,167	6,060
Queensland	1,543	1,680	1,835	1,790	2,068
South Australia	1,352	1,422	1,424	1,296	1,604
Western Australia	777	776	731	705	694
Tasmania	330	364	441	392	487
Australia	15,007	16,343	16,480	16,109	17,077
	]	FEMALES.			
New South Wales	6,485	7,539	7,499	7,084	7,594
Victoria	6,002	5,298	5,279	5,005	5,276
Queensland	1,281	1,224	1,338	1,334	1,379
South Australia	876	988	1,050	1,053	1,303
Western Australia	473	424	450	521	507
Tasmania	310	289	359	500	417
Australia	15,427	15,762	15,975	15,497	<b>16,47</b> 6
		TOTAL.		·	
New South Wales	11,372	13,427	13,531	12,843	13,758
Victoria	12,120	11,511	11,296	11,172	11,336
Queensland	2,824	2,904	3,173	3,124	3,447
South Australia	2,228	2,410	2,474	2,349	2,907
Western Australia	1,250	1,200	1,181	1,226	1,201
l'asmania	640	653	800	892	904
Australia	30,434	32,105	32,455	31,606	33,553

<sup>(</sup>a) Average during year.

<sup>(</sup>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-1935-36 to 1939-40. In 1939-40 the percentage was highest in South Australia and lowest in Victoria.

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

State.		1935–36. (a)	1936-37. (b)	1937-38. (b)	1938-39. (b)	1939-40. (b)
New South Wales Victoria Queensland South Australia Western Australia Tasmania	::	% 6.10 6.91 6.55 6.02 6.31 5.81	% 6.52 6.24 6.06 5.76 5.62 5.51	% 6.16 5.83 6.27 5.96 5.35 6.40	% 5.85 5.81 6.01 5.78 5.61 6.78	% 5.96 5.44 6.37 6.60 5.54 6.15
Australia		6.44	6.25	6.01	5.86	5.85

(a) Average during year.

(b) As at June of year stated.

4. Industries Employing Child Labour.—The distribution of children employed in factories in June, 1940, and the percentage on the total number employed are given in the following table according to the class of industry:—

FACTORIES: CHILDREN EMPLOYED, BY CLASSES, JUNE. 1940.

Class of Industry.	Children 1	Employed.		Number yed.(a)	Percentage of Children on Total number employed.(a)		
	Males.	Females.	Males.	Females.	Males.	Females.	
	No.	No.	No.	No.	%	%	
I. Treatment of Non-metalliferous Mine and Quarry Products	168	8	9,629	252	1.74	3.17	
II. Bricks, Pottery, Glass, etc	681	109	13,660	1,040	4.99	10.48	
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease	407	444	18,377	7,08x	2.21	6.27	
IV. Industrial Metals, Machines, Implements and Conveyances	7,198	858	172,149	11,322	4.18	7.58	
V. Precious Metals, Jewellery and	264	85	3,110	658	8.49	12.92	
VI. Textiles and Textile Goods	1,594	3,707	21,778	31,871	7.32	11.63	
VII. Skins and Leather	336	334	8,819	2,565	3.81	13.02	
VIII. Clothing	1,148	7,090	19,136	62,664	6.00	11.31	
IX. Food, Drink and Tobacco	1,779	2,004	60,251	21,732	2.95	9.22	
X. Woodworking and Basketware	1,140	56	28,622	1,001	3.98	5.59	
XI. Furniture, Bedding, etc. XII. Paper, Stationery, Printing,	631	215	10,547	2,650	5.98	8.11	
Bookbinding, etc.	1,158	1,166	26,498	11,934	4.37	9.77	
XIII. Rubber	87	97	5,303	2,658	1.64	3.65	
XIV. Musical Instruments	17	5	364	91	4.67	5.49	
XV. Miscellaneous Products	441	297	5,519	2,676	7.99	11.10	
Total, Classes I. to XV	17,049	16,475	403,762	160,195	4.22	10.28	
XVI. Heat, Light and Power	28	I	9,395	213	0.30	0.47	
Grand Total	17,077	16,476	413,157	160,408	4.13	10.27	

(a) Excluding Working Proprietors.

<sup>5.</sup> 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 1939-40 was £553,322,726, of which amount the sum of £315,313,336 represented the value of the materials used, including containers, etc., tools replaced and repairs to plant and buildings, and £16,881,467 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, £221,127,923 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 1939-40 was £114,517,633. This figure, which is exclusive of amounts drawn by working proprietors, shows an increase of £7,774,571 or 7.3 per cent., as compared with the total for the previous year.
- 2. Salaries and Wages Paid.—(i) In Classes of Industry, 1939-40. 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, 1939-40.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tes.	Australia.
I. Treatment of Non- metalliferous Mine	£	£	£	£	£	£	£
and Quarry Pro- ducts II. Bricks, Pottery, Glass	1,102,394	693,322	200,080	158,148	139,602	77,358	2,370,904
etc. III. Chemicals, Dyes, Ex-	1,749,949	918,583	169,415	211,626	117,233	38,177	3,204,983
plosives, Paint, Oils and Grease IV. Industrial Metals, Machines, Implements and Con-	1,840,621	2,533,596	128,170	348,095	196,481	22,450	5,069,413
veyances V. Precious Metals,	20,344,949	11,625,920	3,074,329	3,962,754	1,457,719	943,638	41,409,309
Jewellery and Plate VI. Textiles and Textile	170,433	414,043	26,689	29,736	14,754	3,594	659,249
Goods	2,422,705	4,424,286	159,567	233,936	55,558	261,733	7,557,785
VII. Skins and Leather	939,725		195,663			18,502	2,152,963
VIII. Clothing IX. Food, Drink and	4,135,370	5,259,860	741,527	514,878	355,912	63,810	11,071,357
Tobacco X. Woodworking and	5,825,080	5,751,001	3,954,104	1,273,418	835,870	517,231	18,156,704
Basketware XI. Furniture, Bedding,	1,990,645				•••	320,527	6,198,302
XII. Paper, Stationery, Printing, Book-	1,099,534	782,161	337,335	185,304	134,128	58,028	2,596,490
binding, etc	3,618,653	2,875,704	722,634	451,687	367,577	291,066	8,327,321
XIII. Rubber	779,243				10,080	6,891	1,572,596
XIV. Musical Instruments	55,014						94,043
XV. Miscellaneous Products	657,255	483,369		!	25,992	20,344	1,286,560
Total, Classes I. to XV.	46,731,570	38,921,664	11,188,841	7,907,824	4,334,731	2,643,349	111,727,979
XVI. Heat, Light and Power	960,981	654,629	251,820	638,976	240,449	42,799	2,789,654
Grand Total	47,692,551	39,576,293	11,440,661	8,546,800	4,575,180	2,686,148	114,517,633

<sup>(</sup>ii) Totals and Averages, 1935-36 to 1939-40. 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 1935-36 to 1939-40. 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.
		£	£	£	£	£	£	£
1935-36	Total amount paid	33,314,534						82,098,288
	Average per employee			194.66				
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			198.02				
1937-38	Total amount paid	42,209,875	34,960,911					102,078,550
	Average per employee	194.24	180.33	204.73	189 10	200.92	183.33	180.80
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
1939-40	Total amount paid	47,692,551	39,576,293	11,440,661	8,546,800	4,575,180	2,686,148	114,517,633
	Average per employee	207.94	193.31	215.48	197.31	210.67	191.39	202,24

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 1939-40 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 £202.24 in 1939-40 but this amount is still 4.7 per cent. below that attained in 1927-28.

(iii) Earnings of Males and Females, 1939-40. 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 1939-40:—

SALARIES AND WAGES: MALE AND FEMALE FACTORY EMPLOYEES, 1939-40.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.						
	Males.												
metalliferous M	on- £	£	£	£	£	£	£						
and Quarry F ducts H. Bricks, Pottery, Gi	. 1,093,521	682,991	197,121	155,419	137,716	76,492	2,343,260						
etc.  III. Chemicals, Dyes,	1,704,928	883,012	164,090	206,883	115,334	37,711	3,111,958						
	int, 1,521,464	2,129,901	112,574	323,386	187,596	21,193	4,296,114						
Machines, Imments and C veyances	on-	11,259,536	3,017,984	3,864,975	1,432,839	930,244	40.232,197						
V. Precious Met Jewellery and Pl VI. Textiles and Tex	até 151,305	377,187	24,619	28,474	14,305								
Goods VII. Skins and Leather	1,335,365 835,750	752,601	182,403	187,094 49,454	61,517	17,900	4,284,229 1,899,625						
	1,642,266					l i	4,323,521						
Tobacco X. Woodworking Basketware	4,686,244 and 1,950,006						15,618,2 <b>5</b> 3 6,08 <b>7,02</b> 8						
XI. Furniture, Beddi	ng, 967,392			169,356			2,301,175						
XII. Paper, Statione Printing, Bo	ok-			06									
binding, etc. XIII. Rubber XIV. Musical Instrume	3,036,398 628,734 nts 44,836	545,084	75,860	386,400 19,478 4,960	9,623	6,401	7,030,093 1,285,180 83,478						
	ro- . 525,399			48,324			1,048,763						
Total, Classes I. to XVI. Heat, Light and Po				7,145,668			2,760,822						
Grand Total	40,807,966												

SALARIES AND WAGES: MALE AND FEMALE FACTORY EMPLOYEES, 1939-40—continued.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia
<u></u>		Fer	MALES.	·	' ·	<u></u>	<u> </u>
·	£	£	£	£	£	£	£
I. Treatment of Non- metalliferous Mine and Quarry Pro-							
ducts II. Bricks, Pottery, Glass,	8,873	10,331	2,959	2,729	1,886	866	27,644
etc	45,021	35,571	5,325	4,743	1,899	466	93,025
Oils and Grease IV. Industrial Metals, Machines, Implements and Con-	319,157	403,695	15,596	24,709	8,885	1,257	773,299
veyances V. Precious Metals.	618,330	366,384	56,345	97,779	24,880	13,394	1,177,112
Jewellery and Plate VI. Textiles and Textile	19,128	36,856	2,070	1,262	449	40	59,805
Goods	1,087,340	1,936,546	62,475	46,842	27,548	112,805	3,273,556
VII. Skins and Leather	103,975	103,987	13,260	21,994	9,520	602	253,338
VIII. Clothing IX. Food, Drink and	2,493,104	3,168,800	486,080	335,948	231,992	31,912	6,747,836
Tobacco X. Woodworking and	1,138,836	927,941	185,547	126,435	77,328	82,364	2,538,451
Basketware XI. Furniture, Bedding,	40,639	29,112	27,535	7,072	2,206	4,710	111,274
etc XII. Paper, Stationery, Printing, Book-	132,142	111,182	22,379	15,948	11,150	2,514	295,315
binding, etc	582,255	457,276	111,663	65,287	51,335	29,412	1,297,228
XIII. Rubber	150,509	100,158	33,742	2,060	457	49 <b>0</b>	287,416
XIV. Musical Instruments XV. Miscellaneous Pro-	10,178	206	•	181		••	10,565
ducts	131,856	87,479	4,076	9,167	4,344	875	237,797
Total, Classes I. to XV.	6,881,343	7,775,524	1,029,052	762,156	453,879	281,707	17,183,661
XVI. Heat, Light and Power	3,242	1,028	151	21,393	2,618	400	28,832
Total	6,884,585	7,776,552	1,029,203	783,549	456,497	282,107	17,212,493

<sup>(</sup>iv) Total and Average Earnings of Males and Females, 1935-36 to 1939-40. 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.

	Males.											
1935-36.	Amount paid£	28,576,202	22,755,111	7,654,082	5,810,399	3,353,526	1,652,851	69,802,17				
	Per cent. on total	85.78										
	Average per employee £	212.35				212.76						
1936–37.			24,963,887			3,777,064	1,872,019					
	Per cent. on total	85.83										
	Average per employee £	216.29										
1937-38.			28,241,058									
	Per cent. on total	85.87										
	Average per employee £	230.39										
1938–39.		38,271,867	29,005,746									
	Per cent. on total	85.80										
	Average per employee £											
1939-40.	Amount paid£	40,807,966	31,799,741	10,411,458	7,763,251	4,118,683	2,404,041	97,305,14				
	Per cent. on total	85.56										
	Average per employee £	247.12	233.40	244.01	223.78	240.48	215.82	239.0				

TOTAL AND AVERAGE SALARIES AND WAGES: MALES AND FEMALES —continued.

	Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
		<u>-</u>	FEMALI	ES.		·		·
1935–36.	Des seek on total		5,700,917					12,296,117
	Average per employee £	14.22 91.30					10.82 85.33	
1036-37.	Amount paid£	5,191,745	6,023,008	792,423			202,766	13,193,024
,,	Per cent. on total	14.17	19.44	8.72		9.16	9.77	14.64
	Average per employee £	92.71		86.58	83.21	90.59	86.10	
1937-38.		5,962,788 14.13			662,019 8.23	404,246 9.18	9.82	14,857,517
	Average per employee £	99.41		91.25		93.36	91.26	
rn 28–30.	Amount paid .£		7,020,796	967,228		444,734		15,694,383
.930 33.	Per cent. on total	14.20	19.49	8.88	8.34	9.72	9.90	
	Average per employee £	103.66	108.25			99.58	93.19	
1939-40.	Amount paid£		7,776,552					17,212,493
	Per cent. on Total	14.44					10.50	
	Average per employee £	107.20	113.55	98.71	90.85	99.45	97.41	108.09

<sup>(</sup>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, 1939-40.

				Salaries an	nd Wages I	Paid to-		
	Class of Industry.	Manager seers, Acc and C	countants		Other loyees.		All Employ	ees.
		Males.	Females.	Males.	Females.	Males.	Females.	Total.
1	Treatment of Non- metalliferous Mine and Quarry Pro-	£	£	£	£	£	£	£
7.7	ducts Bricks, Pottery, Glass,	324,383	23,714	2,018,877	3,930	2,343,260	27,644	2,370,904
	etc Chemicals, Dyes, Ex-	384,948	40,975	2,727,010	52,050	3,111,958	93,025	3,204,983
	plosives, Paint, Oils and Grease Industrial Metals, Machines, Imple-	845,156	182,674	3,450,958	590,625	4,296,114	773,299	5,069,413
v	ments and Con- veyances Precious Metals,	5,381,189	624,891	34,851,008	552,221	40,232,197	1,177,112	41,409,309
	Jewellery and Plate Textiles and Textile	59,023	16,840	540,421	42,965	599,444	59,805	659,249
VII. VIII.	Goods	745,440 226,007 618,053	31,745	3,538,789 1,673,618 3,705,468	221,593		253,338	
	Food, Drink, and Tobacco Woodworking and	2,938,824	491,963	12,679,429	2,046,488	15,618,253	2,538,451	18,156,704
	Basketware Furniture, Bedding,	663,146	83,411	5,423,882	27,863	6,087,028	111,274	6,198,302
	etc Paper, Stationery,	201,836	57,444	2,099,339	237,871	2,301,175	295,315	2,596,490
ии	Printing, Book- binding, etc Rubber	1,227,970		5,802,123 1,009,901			1,297,228 287,416	
XIV.	Musical Instruments Miscellaneous Pro-	14,712				83,478		
	ducts	185,591				1,048,763		1,286,560
XVI.	Total, Classes I. to XV. Heat, Light and							
	Power Grand Total	590,258		2,170,564		2,760,822		2,789,654 114,517,633
Avera	ge paid per employee	361.44						

3. Power, Fuel and Light Used.—(i) In Classes of Industry. 1939-40. The expenditure by factories on power, fuel and light is of considerable importance; in 1939-40 it amounted to £16,881,467, an increase of £1,181,546 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 1939-40:—

FACTORIES: VALUE OF POWER, FUEL AND LIGHT USED (a), 1939-40.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
I. Treatment of Non- metalliferous Mine and Quarry Pro-	£	£	£	£	£	£	£
ducts II. Bricks, Pottery, Glass	350,107	245,896	73,500	55,128	86,816	68,304	879,751
etc. III. Chemicals, Dyes, Ex-	500,767	323,046	46,637	77,129	49,301	12,318	1,009,198
plosives, Paint, Oils and Grease . IV. Industrial M. tals, Machines, Imple- ments and Con-	268,159	299,963	16,135	61,927	43,713	4,228	694,125
veyances V. Precious Metals,	3,374,869	663,950	214,526	290,112	98,397	239,935	4,881,789
Jewellery and Plate VI. Textiles and Textile	7,252	20,263	991	2,582	533	178	31,799
Goods	223,490	453,216	14,083	36,264	5,915	25,227	758,195
VII. Skins and Leather	93,953	77,516	21,752	2,235	9,809	4,211	209,476
VIII. Clothing	117,908	148,061	18,848	17,268	9,567	1,938	313,590
IX. Food, Drink and	1	_					
Tobacco	1,009,110	904,964	566,809	241,800	185,618	62,224	2,970,525
X. Woodworking and							_
Basketware	117,309	98,726	67,936	22,698	41,711	20,856	369,236
XI. Furniture, Bedding,				اء . ه			
etc	31,084	27,462	9,407	8,756	3,991	1,784	82,484
XII. Paper, Stationery,							
Printing, Book-				960			-00C
binding etc	193,473	243,522		19,868 3,168	19,457	77,734 881	
XIV. Musical Instruments	101,851	139,883	10,381	3,100	1,478		257,642
XV. Miscellaneous Pro-	4,443	450	44	100	44	••	5,087
ducts	39,668	35,667	1,027	2,549	896	503	80,310
Total, Classes I. to XV.			1,096,440	841,590	557,246		13,131,625
	0,433,443	3,002,303	1,090,440	041,390	337,240	320,321	13,131,023
XVI. Heat, Light and Power	1,702,171	675,834	442,342	288,547	640,948		3,749,842
On a maket							
Grand Total	0,135,014	4,358,419	1,538,782	1,130,137	1,198,194	520,321	16,881,467

(a) Including lubricants and water

(ii) Values of Items, 1939-40. The following table shows the values of the various items of power, fuel and light used in factories in each State during the year 1939-40:—FACTORIES: VALUE OF ITEMS OF POWER, FUEL AND LIGHT USED, 1939-40.

Particulars.	N.s.w.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
Coal	2,489,919	1,632,492	704,719	361,916	289,952	72,399	5,551,397
Coke	1,506,193	187,543	37,124	48,493	30,490	4,779	1,814,622
Wood	141,808	208,761	149,239	78,954	210,547	78,262	867,571
Other (Charcoal, etc.)	161,628	56,176	14,468	36,878	7,679	190	277,019
Fuel Oil	558,081	340,190	128,742	119,194	310,822	43,749	1,500,778
Gas	721,709	130,519	24,354	25,963	13,009	3,686	919,240
Electricity	1,952,133	1,365,286	300,655	362,465	224,389	290,208	4,495,136
Water and Lubricat-	ì	i					
ing Oil	604,143	437,452	179,481	96,274	111,306	27,048	1,455,704
Total	8,135,614	4,358,419	1,538,782	1,130,137	1,198,194	520,321	16,881,467

(iii) Quantities, 1939-40. The following table shows the quantities of certain items of power, fuel and light used in factories in each State during the year 1939-40:—

FACTORIES: QUANTITY OF POWER, FUEL AND LIGHT USED, 1939-40.

Particulars.	Unit.	N.S.W.	Victoria,	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Coal Coke Wood	Ton "Gal	2,419,416 1,472,155 185,674 21,454,222	3,783,805 102,761 444,401	484,880 21,595 253,475 3,373,085	242,271 25,657 122,001 4,341,932	226,062 12,922 365,054 9,604,602	55,026 2,043 130,819 2,172,163	7,211,460 1,637,133 1,501,424 54,212,027

(iv) Total Value, 1935-36 to 1939-40.—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.
1935-36 1936-37 1937-38 1938-39	::	£ 6,273,485 6,464,942 7,123,961 7,651,627 8,135,614	£ 3,505,321 3,677,488 4,032,190 3,999,934 4,358,419	£ 1,080,525 1,225,255 1,440,750 1,423,549 1,538,782	£ 972,636 856,808 949,858 1,017,537 1,130,137	£ 852,327 939,166 1,095,225 1,169,268 1,198,194	£ 592,001 402,071 405,721 438,006 520,321	£ 13,276,295 13,565,730 15,047,705 15,699,921 16,881,467

4. Value of Materials Used.—(i) In Classes of Industry, 1939-40. 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 1939-40 was £315,076,697, representing 56.95 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, 1939-40.

	MOTOR	TES . VAL			120 002			
Class of Indu	stry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
I. Treatment metallifer and Qua	ous Mine	£	£	£	£	£	£	£
ducts .		2,905,326	1,267,092	376,547	197,488	214,928	158,163	5,119,544
II. Bricks, Pott		1,143,678	485,342	81,545	190,629	69,158	29,495	1,999,847
III. Chemicals, l plosives, Oils and IV. Industrial Machines,	Paint, Grease Metals, Imple-	9,248,465	6,378,155	651,502	1,399,698	1,098,749	137,589	18,914,158
veyances	nd Con-	50,217,283	15,396,087	4,540,105	8,745,706	1,462,155	1,667,889	82,029,225
V. Precious Jewellery VI. Textiles an		184,770	530,481	12,158	29,367	8,450	629	765,855
Goods VII. Skins and L			10,297,405		1,049,961 157,018			
VIII. Clothing IX. Food, Dri			9,901,804				72,762	
Tobacco X. Woodworkii		35,464,126	34,967,771	32,837,477	7,370,312	4,675,913	2,347,990	117,663,589
Basketwa XI. Furniture,	re	5,024,125	3,262,076	2,778,160	1,200,195	879,807	521,804	13,666,167
etc	tationery, Book-	2,092,301	1,820,546	547,206	343,383	243,803	72,880	5,120,119
binding,		6,099,223	4,464,573	744,866				
XIII. Rubber . XIV. Musical In	struments	2,326,474 47,046	2,435,906 7,779					
XV. Miscellaneou		47,040		1	202	30/	••	57,374
ducts .		1,172,774						
		133,387,841	95,074,988	46,037,064	21,981,479	9,894,432	6,127,594	312,503,398
XVI. Heat, Lig			0			-96		
Power . Grand Total		1,065,891			181,402			
Granu Tota		134,453,735	93,917,351	40,241,222	22,102,881	10,001,304	0,219,944	315,076,697

(ii) Total Amount, 1935-36 to 1939-40. 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.
1935-36 1936-37 1937-38 1938-39	£ 98,950,321 109,593,494 122,591,463 120,501,795 134-453,735	£ 76,494,159 80,302,423 88,129,145 82,971,608 95,917,551	£ 30,901,341 34,612,231 39,595,695 42,596,049 46,241,222	£ 19,261,750 21,399,805 21,469,924 20,308,797 22,162,881	£ 9,172,205 9,427,259 9,986,441 9,603,657 10,081,364	£ 4,195,021 5,243,691 5,470,744 5,321,540 6,219,944	£ 238,974,797 260,578,903 287,243,412 281,303,446 315,076,697

5. Value of Output.—(i) In Classes of Industry, 1939-40. The value of the output of new goods manufactured and of repairs effected in factories of various classes in each State in 1939-40 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, 1939-40.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
I. Treatment of Non- metalliferous Mine		£	£	£	£	£	£
and Quarry Pro- ducts II. Bricks, Pottery,	5,555,892	3,118,040	823,409	546,321	605,559	517,405	11,166,626
Glass, etc. III. Chemicals, Dyes,	4,618,352	2,423,409	416,850	665,486	324,990	104,173	8,553,260
Explosives, Paint, Oils and Grease	16,402,471	12,292,943	1,017,089	2,197,162	1,645,697	207,708	33,763,070
IV. Industrial Metals, Machines, Imple- ments and Con-		ļ	! •		1		
veyances V. Precious Metals,	87,922,694	<sup> </sup> 33,932,842 	9,900,559	14,566,998	3,854,638	3,854,654	154,032,385
Jewellery and Plate	476,166	1,175,843	, 57,903	82,936	33,968	5,580	1,832,396
	11,478,470 5,176,731		859,748 1,490,825	1,509,409			34,436,376 12,461,000
VIII. Clothing IX. Food, Drink and	13,803,726	18,294,893	2,296,193	1,407,070	1,047,314	175,591	37,024,787
Tobacco X. Woodworking and Basketware		1					166,070,380 24,116,292
XI. Furniture, Bedding,		1	1,074,836				
XII. Paper, Stationery, Printing. Book-		1					
binding, etc XIII. Rubber XIV. Musical Instru-	13,211,713 3,448,414	9,882,802 4,383,070	1,996,318 393,083	1,295,299 94,171	1,09 <b>9,17</b> 3 53,643	1,029,384 28,181	28,514,689 8,400,562
ments	135,936	40,049	11,818	6,883	9,099		203,785
ducts	2,506,601	1,807,711	110,004	201,275	76,025	5 <b>2,</b> 997	4,754,613
XV XVI. Heat, Light and	230,699,190	170,143,466	67,344,707	35,660,912	18,738,423	12,129,144	534,71 <u>5,</u> 842
Power	8,499,466	4,160,935	1,408,435	2,035,626	1,568,863	864,150	18,537,475
Grand Total	239,198,656	174,304,401	68,753,142	37,696,538	20 307,286	12,993,294	553,253,317

(ii) Total, 1935-36 to 1939-40. The following statement shows the value of output in each State during the five years ended 1939-40:—

FACTORIES: VALUE OF OUTPUT.

Year.	N.S.W.	· Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
<u></u>	£	£	£	£	£	£	£
1937-38 1938-39	192,812,414	134,043,170 142,692,192 157,050,725 152,967,611 174,304,401	47,664,810 53,022,008 59,639,403 63,321,073 68,753,142	31,904,091 34,528,176 36,239,937 35,005,264 37,696,538	17,528,741 18,313,122 19,643,960 19,548,511 20,307,286	8,853,882 10,461,366 11,321,559 11,158,205 12,993,294	414,688,455 451,829,278 498,779,141 500,419,977 553,253,317

6. Value of Production.—(i) In Classes of Industry, 1939–40. 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 £11,800,881 for 1939-40. 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 1939-40 in each State for the various classes of factories:—

FACTORIES: VALUE OF PRODUCTION, 1939-40.

	Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
1.	Treatment of Non- metalliferous Mine	£	£	£	£	£	£	£
	and Quarry Pro-	2,300,459	1,605,052	373,362	293,705	303,815	290,938	5,167,331
	Bricks, Pottery, Glass, etc	2,973,907	1,615,021	288,668	397,728	206,531	62,360	5,544,315
	plosives, Paint, Oils and Grease Industrial Metals, Machines, Imple-	6,885,847	5,614,825	349,452	735,537	503,235	65,891	14,154,787
v	ments and Conveyances Precious Metals.	34,330,542	17,872,805	5,145,928	5,531,180	2,294,086	1,946,830	67,121,371
	Jewellery and Plate Textiles and Textile	284,144	625,099	44,754	50,987	24,985	4,773	1,034,742
	Goods	4,363,458						
	Skins and Leather	1,588,515		369,052				
	Clothing	6,609,353	8,245,028	1,186,214	760,357	556,940	100,891	1,7,458,783
	Food, Drink, and Tobacco Woodworking and	17,182,996	14,096,240	8,067,455	2,694,902	2,344,700	1,049,973	45,436,266
А.	Woodworking and Basketware	3,349,585	2,651,394	2,128,235	643,973	800,434	507,268	10,080,889
XT	Furniture, Bedding,	3,349,303	2,031,394	_,,_	-43,973	,-5-		
	etc	1,691,388	1,368,567	518,223	290,235	226,527	88,078	4,183,018
XII.	Paper, Stationery. Printing, Book-							
	binding, etc	6,919,017						
	Rubber	1,020,089						
	Musical Instruments	84,447	31,820	10,014	6,575	8,468		141,324
xν.	Miscellaneous Pro- ducts 11	1,294,159	883,481	66,675	111,717	40,917	35,098	2,432,047
	Total, Classes I. to XV.	90,877,906	71,385,893	20,211,203	12,837,843	8,286,745	5,481,229	209,080,819
XVI.	Heat, Light and Power	5,731,401	2,642,538	761,935	1,565,677	740,983	771,800	12,214,334
	Grand Total		74,028,431	20,973,138	14,403,520	9,027,728	6,253,029	<b>221,295,</b> 153

(ii) Total and Averages, 1935-36 to 1939-40. 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.										
1935-36		£ 69,469,955	£ 54,043,690	£ 15,682,944	£ 11,669,705	£ 7,504,200	£ 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		
1939-40	••	96,609,307	74,028,431	20,973,138	14,403,520	9,027,728	6,253,029	221,295,153		
			F	PER PERSON	N ENGAGED					
		£	£	£	£	£	£	£		
1935-36		360	295	348	303	357	35I	330		
1)36-37	•••	368	307	356	301	350	387	339		
1937-38	••	379	322	357	313	370	413	35x		
1938–39	•••	395	327	357	315	378	391	360		
1939-40	•••	408_	348	378	320	393	426	377		
			PE	R HEAD OF	POPULATIO	on.				
		£	£	£	£	£	£	£		
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 28.62		
1937-38	•••	31.44	34.87 35.20	18.69 19.17	23.40 23.01	18.73 18.97	23.17	28.02 29.36		
1938–39 1939–40	::	33.02 34.97	35.20	20.60	23.01	10.97	26.20	31.65		
939 40	••		37.10			-9.30		3-103		

7. Value of Output and Cost of Production.—As the total value of the output for Australia for 1939-40 was estimated at £553,253,317, there remained, after payment of £315,076,697, the value of the materials used, of £114,517,633 for salaries and wages, and of £16,881,467 for power. fuel and light, the sum of £106,777,520 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 1939-40:—

FACTORIES: VALUE OF OUTPUT AND COST OF PRODUCTION, 1939-40.

State.		Materials Used. (a)	Power, Fuel and Light. (b)	Salaries and Wages.	All other Expenditure, Interest, Profits, etc.	Total Value of Output.					
VALUE AND COST, ETC.											
		£	£	£	£	£					
New South Wales		134,453,735	8,135,614	47,692,551	48,916,756	239,198,656					
Victoria		95,917,551	4,358,419	39,576,293	34,452,138	174,304,401					
Queensland		46,241,222	1,538,782	11,440,661	9,532,477	68,753,142					
South Australia		22,162,881	1,130,137	8,546,800	5,856,720	37,696,538					
Western Australia	• •	10,081,364	1,198,194	4,575,180	4,452,548	20,307,286					
Tasmania	• •	6,219,944	520,321	2,686,148	3,566,881	12,993,294					
Australia	••	315,076,697	16,881,467	114,517,633	106,777,520	553,253,317					

<sup>(</sup>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, 1939-40—continued.

State.  Materials Used. (a)  Materials Used. (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 Victoria Queensland South Australia Western Australia Tasmania	 56.21 55.03 67.26 58.79 49.64 47.87	3.40 2.50 2.24 3.00 5.90 4.00	19.94 22.71 16.64 22.67 22.53 20.67	20.45 19.76 13.86 15.54 21.93 27.46	100.00 100.00 100.00 100.00 100.00
Australia	 56.95	3.05	20.70	19.30	100.00

 <sup>(</sup>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 1939-40:—

FACTORIES: VALUE OF LAND, BUILDINGS, PLANT AND MACHINERY, 1939-40.

Value of—	n.s.w.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	£	£	£	£	£	£	£
Land and buildings	58,939,150	43,791,176	12,456,458	9,539,249	6,863,468	3,775,605	135,365,106
Plant and machinery	64,801,584	40,905,886	18,217,831	11,106,194	8,025,068	6,787,888	149,844,451
Total	123,740.734	84,697,062	30,674,289	20,645,443	14,888,536	10,563,493	285,209,557

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, 1935-36 to 1939-40. The appended table shows for Australia as a whole the approximate value of land and buildings occupied in connexion with manufacturing industries from 1935-36 to 1939-40:—

FACTORIES: VALUE OF LAND AND BUILDINGS, AUSTRALIA.

Class of Industry.	1935-36.	1936-37.	1937–38.	1938–39.	1939-40.
	£	£	£	£	£
I. Treatment of Non-		1		1	
metalliferous Mine and		- 6		2,778,746	2 806 222
Quarry Products II. Bricks, Pottery, Glass,	2,412,145	2,617,765	2,728,772	2,770,740	2,806,373
etc	2,706,575	2,686,930	2,790,201	2,953,557	3,129,389
III. Chemicals, Dyes, Ex-	2,700,373	1 2,000,930	2,790,201	, -,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	3,3,5-9
plosives, Paint, Oils	1	!	ι	t .	ł
and Grease	6,398,332	6,596,554	6,843,335	7,377,551	8,387,491
IV. Industrial Metals,		i		•	!
Machines, Implements				34,841,028	0.5 850 507
and Conveyances V. Precious Metals, Jewel-	27,873,261	30,061,037	32,420,428	34,641,020	35,853,507
lery and Plate	561,735	602,685	616,934	633,009	644,060
VI. Textiles and Textile Goods	5,447,503	5,558,420	5,754,347	5,999,671	6,432,183
VII. Skins and Leather	1,833,335	2,008,167	1,990,451	2,095,886	2,134,185
VIII. Clothing	9,750,733	10,282,902	10,350,944	10,623,619	10,650,856
IX. Food, Drink and To-					
bacco	28,928,977	30,166,301	31,953,396	33,273,248	34,136,115
X. Woodworking and Bas- ketware	3,769,305	3,838,701	3,904,773	4,106,963	4,297,248
XI. Furniture, Bedding, etc.	2,196,782	2,370,393	2,440,997	2,533,254	2,562,861
XII. Paper, Stationery, Print-	2,190,702	2,370,393	2,440,997	1,555,-54	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
ing, Bookbinding, etc.	9,564,871	9,668,602	9,956,433	10,639,315	10,945,294
XIII. Rubber	1,842,048	1,751,707	1,790,590	1,676,043	1,708,386
XIV. Musical Instruments	115,948	109,531	98,947	104,838	108,594
XV. Miscellaneous Products	1,213,697	1,323,085	1,396,371	1,432,857	x,535,993
Total, Classes I. to XV.	104,615,247	109,642,780	115,036.919	121,069,585	125,332,535
XVI. Heat, Light and Power	9,994,655	9,883,357	9,597,095	9,850,829	10,032,571
Grand Total	114,600,902	119,526,137	124,634,014	130,920,414	135,365,106

(ii) In Classes of Industry in States, 1939-40. The following table gives particulars of the various classes of industry in each State.

FACTORIES: VALUE OF LAND AND BUILDINGS, 1939-40.

1 ACTORILE	· IALU	L UI LA	AID MILD	DOILD			
Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
I. Treatment of Non- metalliferous Mine	£	£	£	£	£	£	£
and Quarry Pro- ducts II. Bricks, Pottery, Glass,	1,400,154	782,555	213,651	166,284	96,042	147,687	2,806,373
etc. III. Chemicals, Dyes, Ex-	1,885,630	822,681	136,114	158,257	104,883	21,824	3,129,389
plosives. Paint, Oils and Grease IV. Industrial Metals, Machines, Imple-	3,057,566	3,517,205	210,192	851,677	667,051	83,800	8,387,491
ments and Conveyances V. Precious Metals,	17,756,081	10,077,568	2,406,521	2,885,021	1,753,386	974,930	35,853,507
Jewellery and Plate VI. Textiles and Textile	186,461	352,062	27,977	43,825	25,080	8,655	644,060
Goods	2,214,549	3,557,103	113,902				
VII. Skins and Leather	836,097	962,878	122,712	65,498	126,178		
VIII. Clothing		4,438,275			498,354	102,199	<b>10,650,85</b> 6
IX. Food, Drink and Tobacco X. Woodworking and	12,501,102	10,057,636	5,939,154	2,638,672	1,954,963	1,044,588	34,136,115
Basketware	1.034.405	1,089,672	509,785	327,321	278,042	158,023	4,297,248
XI. Furniture, Bedding,	,,,,,,,,,	-,,	3-377-3	3			
etc	996,301	937,804	283,668	162,094	134,698	48,296	2,562,861
XII. Paper, Stationery, Printing, Book-	"		,	, , ,	İ		
binding, etc	4,676,051	3,631,443	987,487	690,235			
XIII. Rubber	813,653	647,614	123,028	57,879	35,252		1,708,386
XIV. Musical Instruments	60,603	32,546	7,460	1,275	6,710	• • •	108,594
XV. Miscellaneous Products	804,083	530,837	55,948	89,406	46,130	9,589	<b>3,535,99</b> 3
Total, Classes I. to XV.	53,568,954	41,437,879	11,758,591	8,917,110	6,340,626	3,309,345	125,332,535
XVI. Heat, Light and Power	5,370,196	2,353,297	697,867	622,109	522,842	466,260	10,032,571
Grand Total	58,939,150	43,791,176	12,456,458	9,539,249	6,863,468	3,775,605	135,365,106

(iii) Totals in each State. The total value of land and buildings in each State from 1935-36 to 1939-40 is given hereunder:—

EACTODIES	· VALUE	OR LAND	AND	BUILDINGS.
PACIURIES	: VALUE	OP LAND	AND	DUILDINGS.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
1935-36 1936-37 1937-38 1938-39 1939-40	£ 49,494,222 51,629,598 54,471,643 57,353,625 58,939,150	£ 37,678,298 38,948,268 40,339,541 42,026,245 43,791,176	£ 10,514,513 11,483,161 11,982,620 12,299,089 12,456,458	£ 8,268,807 8,133,147 8,379,334 8,710,700 9,539,249	£ 5,978,111 6,279,305 6,471,367 6,813,653 6,863,468	£ 2,675,951 3,052,658 2,989,509 3,717,102 3,775,605	£ 114,609,902 119,526,137 124,634,014 130,920,414 135,365,106

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 £135.4 million.

3. Value of Plant and Machinery.—(i) Total for Australia, 1935-36 to 1939-40. 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.

			<del></del>			· · · · · · · · · · · · · · · · · · ·
	Class of Industry.	1935–36.	1936-37.	1937-38.	1938-39.	1939-40.
		<u> </u>				
	*	£	£	£	£	£
T.	Treatment of Non-	_ ~	~	į ~	, ~	~
	metalliferous Mine and	İ	i	ł	t	1
	Quarry Products	5,249,528	4,881,743	6,504,872	7,028,382	6,765,086
TT.	Bricks, Pottery, Glass,	3,243,320	4,000,743	-,504,072	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	2,703,000
	etc.	2,865,499	2,858,777	3,019,476	3,144,586	3,090,862
111.	Chemicals, Dyes, Ex-	1 -,	7.5.,,,,,	. 3, 3, 1,	3,-41,0	3,-3-,
	plosives, Paint, Oils	f	1	•	1	
	and Grease	5,722,327	5,923,776	6,251,926	6,754,248	7,863,905
IV.	Industrial Metals.	3,,,3-,	1		,,,,,,,,,,	( ,,,,
	Machines, Implements	ļ		j	1	1
	and Conveyances	25,604,490	26,940,963	29,285,995	33,037,801	34,400,778
V.	Precious Metals, Jewel-	-5,004,430	,,,,,	-5151555	33,037,	34,4,,,-
	lery and Plate	175,884	187,373	196,652	197,059	209,507
VI.	Textiles and Textile Goods	6,052,307	6.505,668	6,463,604	6,657,416	7,010,262
VII.	Skins and Leather	898,598	902,197	900,239	973,181	1,022,965
	Clothing	2.256,669	2,326,915	2,431,475	2,557,388	2,603,073
IX.	Food, Drink and To-	-,-5,,-5	,5 ,5 0	,,,,,	750775	, , , , , , ,
	bacco	30,041,612	30,244,206	31,198,129	32,100,675	32,611,143
X,	Woodworking and Bas-	3-,				1
	ketware	3,629,550	3,597,835	3,759,553	3,907,551	4,079,562
XI.	Furniture, Bedding, etc.	678,710	704,708	725,420	727,857	733,229
XII.	Paper, Stationery, Print-		,,	,	, , , , , ,	1
	ing, Bookbinding, etc.	7,532,292	7,773,218	8,436,942	9,188,227	10,010,470
XIII.	Rubber	1,464,225	1,401,645	1,470,300	1.367,859	1,393,609
	Musical Instruments	18,157	14,800	10,750	11,702	11,422
XV.	Miscellaneous Products	579,858	671,173	719,309	758,273	812,729
			<del></del>			
	Total, Classes I. to XV.	92,769,706	94,934,997	101,374,642	108,412,205	112,618,602
				·		
XVI.	Heat, Light and Power	32,461,385	31,742,098	31,989,944	35,249,922	37,225,849
	Grand Total	125,231,091	126,677,095	133,364,586	143,662,127	149,844,451
	<del></del>	3, 3-,-3	, ,,,,,,,,			

In 1929-30 the amount invested in plant and machinery was £127.6 million, declining to £120.2 million during the next four years, but has since risen to the record figure of £149.8 million for 1939-40. The increase of £6 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., while substantial increases have occurred in Class III., Chemicals, etc., and in Class XII., Paper, Stationery, etc.

(ii) Totals in each State. The following table shows the value of plant and machinery in each State during the last five years. The chief increases during 1939-40 were recorded in New South Wales, Victoria and South Australia:—

FACTORIES: VALUE OF PLANT AND MACHINERY.

Year,		N.S.W.	N.S.W. Victoria.		S. Aust.	W. Aust.	Tasmania.	Australia.
		£	£	£	£	£	£	£
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
1939-40 .		64,801,584	40,905,886	18,217,831	11,106,194	8,025,068	6,787,888	149,844,451

<sup>(</sup>iii) Value according to Industry, 1939-40. The following table shows the value of plant and machinery used in factories in each State during 1939-40, classified according to industry:—

FACTORIES: VALUE OF PLANT AND MACHINERY, 1939-40.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	.— <u> </u>
I. Treatment of Non- metalliferous Mine	ļ						
and Quarry Pro- ducts H. Bricks, Pottery, Glass,	4,291,304	1,611,636	293,966	282,863	144,190	141,127	6,765,086
etc III. Chemicals, Dyes, Ex-	1,757,085	853,810	132,460	177,821	135,616	34,070	3,090,862
plosives, Paint, Oils and Grease	1,956,272	3,304,899	168,918	1,512,451	873,360	48,005	7,863,905
IV. Industrial Metals, Machines, Imple- ments and Con-							
veyances V. Precious Metals,	20,439,672	6,913,678		,	953,609	1,250,566	34,400,778
Jewellery and Plate VI. Textiles and Textile	52,689	135,713		10,616	3,624	2,003	209, <b>507</b>
Goods	2,416,939	3,846,599		320,665	76,546		
VII. Skins and Leather	440,751			19,676	64,807		1,022,965
VIII. Clothing IX. Food, Drink and	933,350				98,850	'	-,0,-73
Tobacco X. Woodworking and	10,031,397		11,096,433			, , ,	5 , , , , , , ,
Basketware XI. Furniture, Bedding,	1,397,429				438,916	,	1, 1,,,,,,
XII. Paper, Stationery, Printing, Book-	286,222	213,670	86,953	85,634	41,634	19,116	733,229
binding, etc	4,246,870	3,359,462	677,233	538,968	340,717	847,220	10,010,470
XIII. Rubber	516,238				8,662		
XIV. Musical Instruments XV. Miscellaneous Pro-	7,471			402	393		11,422
ducts	455,951	302,649	13,707	22,456	11,732	6,234	812,729
Total, Classes I. to XV	49,229,640	31,180,038	15,905,115	7,939,535	4,890,071	3,474,203	112,618,602
XVI. Heat, Light and Power	15,571,944	9,725,848	2,312,716	3,166,659	3,134,997	3,313,685	37,225,849
Grand Total	64,801,584	40,905,886	18,217,831	11,106,194	8,025,068	6,787,888	149.844,451

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 1939-40.

ALLOWANCE FOR DEPRECIATION OF LAND AND BUILDINGS AND PLANT AND MACHINERY, 1939-40.

Class of Industry.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of Non- metalliferous Mine and Quarry Pro-							
ducts II. Bricks, Pottery, Glass,	405,644	101,473	31,159	8,440	23,728	40,007	610,451
etc. III. Chemicals, Dyes, Explosives. Paint.	193,901	129,922	18,750	29,075	15,435	1,743	388,826
Oils and Grease  IV. Industrial Metals, Machines, Implements and Con-	254,287	337,027	16,860	38,238	62,594	5,669	714,675
veyances V. Precious Metals.	2,065,788	664,725	196,817	233,496	56,434	121,604	3,338,864
Jewellery and Plate VI. Textiles and Textile	4,000	11,170	377	1,076	253	155	17,031
Goods	223,696	507,647	14,236	23,113	6,292	28,187	803,171
VII. Skins and Leather	36,769	42,986	6,990	1,278	3,706	2,190	93,919
VIII. Clothing IX. Food, Drink and	89,918	120,478	10,310	7,889	7,283	1,729	237,607
Tobacco X. Woodworking and	787,626	688,268	693,726	187,133	130,563	49,625	2,536,941
Basketware XI. Furniture, Bedding,	132,456	85,731	70,431	26,295	45,032	23,849	383,794
etc XII. Paper, Stationery, Printing, Book-	28,186	20,848	13,136	10,226	10,768	1,428	84,592
binding, etc	334,786	356,814	69,471	49,582	34,363	64,058	909,074
XIII. Rubber	120,810	87,760	6,360	1,905	1,200	1,242	219,277
XIV. Musical Instruments XV. Miscellaneous Pro-	1,998	147	9	4	39	••	2,197
ducts	48,340	43,686	1,179	2,356	1,528	677	97,766
Total, Classes I. to XV.	4,728,205	3,198,682	1,149,811	620,106	399,218	342,163	10,438,185
XVI. Heat, Light and Power	824,804	141,076	194,048	25,251	118,223	59,294	1,362,696
Grand Total	5,553,009	3,339,758	1,343,859	645,357	517,441	401,457	11,800,881

## § 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 industry 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. Cement and Cement Goods.—(i) Details for each State, 1939-40. The manufacture of cement and cement goods is the most important industry included in Class I. and details for each State during 1939-40 are given in the following table:—

CEMENT AND CEMENT GOODS, 1939-40.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust.	Tas.	Australia.
Number of factories	40 1,183 611,169 1,055,500 286,012 203,115 444,835 1,538,624 890,674	42 1,310 329,788 702,176 288,813 137,693 494,088 1,356,614 724,833	16 500 158,284 202,293 119,088 65,607 248,811 577,965 263,547	263 71,629 228,666 63,124 44,334 98,352 284,880 142,194	16 333 36,977 102,325 73,167 78,362 115,786 375,496 181,348	6 177 112,464 96,431 34,245 44,332 84,524 284,471 155,615	132 3,766 1,320,311 2,387,391 864,449 573,443 1,486,396 4,418,050 2,358,211

(ii) Total for Australia, 1935-36 to 1939-40. The next table gives particulars for the last five years for Australia:—

#### CEMENT AND CEMENT GOODS: AUSTRALIA.

Items.			1935–36.	1936-37.	1937–38.	1938-39.	1939-40.
Number of factories Number of persons engaged	::		101 2,698	108 3,214	125 3,832	132 3,932	132 3,766
Value of land and buildings		£	1,272,985	1,347,741	1,346,013	1,350,175	1,320,311
Value of plant and machinery		£	2,134,478	2,260,667	2,308,148	2,515,814	2,387,391
Wages paid Value of fuel used	• •	£	569,092 423,948	676,738 502,307	863,016 573,427	897,426 561,578	864,449
Value of materials used		£	949,629	1,170,877	1,429,104	1,542,067	573,443 1,486,396
Total value of output		£	3,201,407	3,660,862	4,313,449	4,488,891	4,418,050
Value of production		£	1,827,830	1,987,678	2,310,918	2,385,246	2,358,211
Cement, portland grey, produced	l t	on	645,234	720,093	851,914	867,849	864,917
		£	2,389,899	2,566,740	2,991,927	3,023,707	2,931,394

3. Chemicals, Drugs and Medicines.—(i) Details for each State, 1939-40. This industry is the most important in Class III. and details for each State during 1939-40 are shown in the following table:—

#### CHEMICALS, DRUGS AND MEDICINES, 1939-40.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust.	Tas.	Australia.
Number of factories	1,128,406 632,352 584,463 74,418 2,275,248	363,624 374,952 40,198 1,188,634 2,472,169	12 190 61,839 35,075 35,672 3,809 120,334 226,247 102,104	13 401 374,407 690,778 70,885 18,762 241,589 406,738. 146,387	11 194 50,942 154,126 40,974 10,905 79,014 215,396 125,477	4 38 20,389 12,576 5,294 661 17,724 33,042 14,657	243 5,698 2,212,560 1,888,531 1,112,240 148,753 3,922,543 8,398,028 4,326,732

(ii) Total for Australia, 1935-36 to 1939-40. 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.		1935-36.	1936-37.	1937–38.	1938-39.	1939-40.
Number of factories  Number of persons engaged Value of land and buildings Value of plant and machinery Wages pald  Value of fuel used Value of materials used  Total value of output Value of production	£	214 4,619 1,556,254 986,700 786,211 99,376 2,751,056 5,723,675 2,873,243	225 4,928 1,627,073 1,080,969 849,254 107,240 2,948,550 6,362,843 3,307,053	228 5,210 1,677,485 1,119,602 955,677 119,880 3,219,896 6,873,053 3,533,277	238 5,346 1,817,727 1,253,577 1,011,906 121,503 3,403,680 7,351,745 3,826,562	243 5,698 2,212,560 1,888,531 1,112,240 148,753 3,922,543 8,398,028 4,326,732

4. White Lead, Paints and Varnish.—(i) Details for each State, 1939-40. The following table shows particulars of this industry for each State during 1939-40:—

WHITE LEAD, PAINTS AND VARNISH FACTORIES, 1939-40.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories	1,758 576,072 216,606 445,125 38,985 2,161,241 3,415,557 1,215,331	42 391 144,114 51,416 78,916 6,923 339,823 566,192 219,446	4 39 5,706 3,279 8,521 1,093 47,234 62,192 13,865	8 170 66,214 43,402 35,192 2,357 159,452 242,969 81,160	2,710 2,710 2,171 1,793 114 10,793 16,922 6,015		105 2,367 794,816 316,874 569,517 49,472 2,718,543 4,303,832 1,535,817

<sup>(</sup>ii) Total for Australia, 1935-36 to 1939-40. The next table gives particulars for the last five years for Australia:—

WHITE LEAD, PAINTS AND VARNISH FACTORIES: AUSTRALIA.

Items.		1935-36.	1936-37.	1937–38.	1938-39.	1939-40.
Number of factories Number of persons engaged Value of land and buildings Value of plant and machinery Wages paid Value of fuel used Value of materials used Total value of output Value of production	£	83 1,774 611,386 277,019 360,683 36,346 1,826,194 3,126,126 1,263,586	90 1,987 637,535 320,543 412,495 42,054 2,099,415 3,539,735 1,398,266	98 2,166 709,515 306,759 487,869 44,513 2,391,785 4,000,344 1,564,046	102 2,271 761,345 324,222 535,014 44,992 2,275,027 3,905,104 1,585,085	105 2,367 794,816 316,874 569,547 49,472 2,718,543 4,303,832 1,535,817

<sup>5.</sup> Soap and Candle Factories.—(i) Details for each State, 1939-40. The manufacture of these products is frequently carried on in the same factory, so that separate returns cannot be obtained. The following table gives particulars of soap and candle factories in each State for 1939-40:—

SOAP AND CANDLE FACTORIES, 1939-40.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W.A.	Tas.	Australia.
Number of factories Number of persons engaged	32 1,539 361,174 255,537 304,496 33,461 950,170 2,071,515 1,087,884	16 713 207,550 242,964 139,712 43,634 577,161 1,398,010 777,215	199 35,711 24,391 40,639 4,408 110,061 213,236	5 184 58,106 40,388 33,845 3,197 79,581 161,149 78,371	3 (a) (a) (a) (a) (a) (a) (a) (a)	26 (a) (a) (a) (a) (a) (a) (a) (a)	68 2,722 (b) 686,821 (b) 582,786 (b) 535,578 (b) 87,094 b1,792,039 b3,965,660 b2,086,527

<sup>(</sup>a) Particulars not available for publication.

(ii) Total for Australia, 1935-36 to 1939-40. The next table gives similar particulars for the last five years for Australia:—

SOAP AND CANDLE FACTORIES: AUSTRALIA.

Items.	1935-36.	1936-37.	1937–38.	1938–39.	1939-40.
Number of factories Number of persons engaged Value of land and buildings Value of plant and machinery Wages paid Value of fuel used Value of materials used Total value of output Value of Production	 66 2,183 613,717 514,845 385,431 76,340 1,689,835 3,107,553 1,341,378	66 2,379 624,162 484,225 441,857 63,368 1,858,810 3,551,887 1,629,709	65 2,534 649,362 556,427 478,065 72,670 1,787,068 3,627,830 1,768,092	65 2,620 665,546 576,732 501,174 76,283 1,567,999 3,529,723 1,885,441	68 2,722 686,821 582,786 535,578 87,094 1,792,039 3,965,660 2,086,527

<sup>(</sup>b) Including Western Australia and Tasmania.

(iii) Raw Material Used and Production, 1935-36 to 1939-40. 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.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
Tallow used	088 67	518,604 227,028	511,302 218,171	535,511 229,881	603,014 251,232
and unrefined ,,, Soap made ,, Candles made ,,	954,082	124,236 986,578 37,991	137,134 952,507 26,964	138,954 986,087 27,459	142,839 1,051,618 26,972

The output for the year 1939-40 comprised the following quantities of soap:—household, 757,686 cwt.; toilet, 160,820 cwt.; sand, 84,698 cwt.; soft, 19,191 cwt.; and woolscouring, 29,223 cwt. This excludes 2,539 cwt. of soap made in establishments not classified as Soap and Candle Factories.

6. Chemical Fertilizers.—(i) Details for each State, 1939-40. The following table gives particulars of the factories engaged in the manufacture of chemical fertilizers in each State during 1939-40. Details of the consumption, imports and exports of fertilizers will be found in Chapter XVII. "Agricultural Production".

#### CHEMICAL FERTILIZERS, 1939-40.

Items.	n.s.w.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories Number of persons engaged Value of land and buildings £ Value of plant and machinery£ Wares paid Value of fuel used £ Value of materials used £ Total value of output £ Value of production £	5	7	6	66	5	7	36
	233	994	97	653	380	35	2,392
	111,662	546,577	58,308	271,881	495,028	45,763	1,529,219
	142,759	856,109	62,611	662,528	637,142	25,794	2,386,943
	65,225	246,325	23,362	155,187	106,370	7,764	604,233
	16,283	46,707	1,408	22,251	20,487	751	107,887
	398,758	1,060,055	292,335	527,798	749,709	95,109	3,123,764
	628,944	1,663,523	369,464	829,746	1,040,289	120,318	4,652,284
	213,903	556,761	75,721	279,697	270,093	24,458	1,420,633

(ii) Total for Australia, 1935-36 to 1939-40. The development of this industry since 1935-36 is set out hereunder:—

## CHEMICAL FERTILIZERS: AUSTRALIA.

Items.		1935-36.	1936–37.	1937-38.	1938-39.	1939-40.	
Number of factories Number of persons engaged Value of land and buildings Value of plant and machinery Wages paid Value of fuel used Value of materials used Total value of output Value of production			33 1,996 1,378,636 2,127,113 442,052 88,676 2,726,551 3,906,041 1,090,814	34 2,214 1,368,075 2,145,237 493,345 94,340 2,873,015 4,375,565 1,408,210	32 2,474 1,424,055 2,214,575 599,947 108,587 3,239,322 4,904,383 1,556,474	36 2,540 1,449,157 2,352,819 601,477 113,749 3,231,053 4,944,800 1,599,998	36 2,392 1,529,219 2,386,943 604,233 107,887 3,123,764 4,652,284 1,420,633

7. Smelting, Converting, Refining and Rolling of Iron and Steel.—The extension of the classification referred to in § I par. 2 above 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, horseshoes, 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 13,253	161 4,366		31 1,622	1		363 19,352
Value of land and buildings £	2,777,705	622,355	••	(b)	(b) (b)	••	c 3,532,471
Value of plant and machinery £		555,971	••	(b)	(b)	••	c 8,611,122
Wages paid £		878,739	•••	(b)	(b)	••	¢ 4,740,444
Value of fuel used £		134,947	• • •	(b)	(b)	• •	c 2,318,248
Value of materials used £		1,105,270	• •	(b) (b)	(b) (b)	••	c16,502,532
Total value of output £		2,682,921		(6)	(b)	• • •	c29,075,039
Value of production £	8,381,059	1,442,704		(b)	(b)		CIO,254,250

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

Note.—Later particulars are not available for publication.

8. 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) 1939-40.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia
Number of factories Number of persons engaged Value of land and buildings	373 10,417 1,590,851	395 10,085 1,623,464	118 2,757 359,739	85 2,049 185,173	150 1,650 329,040	20 286 48,556	1,141 27,244 4,136,823
Value of plant and machinery£ Wages paid£ Value of fuel used £	1,515,053 2,412,714 110,872	1,632,491 2,316,189 106,117	321,042 588,995 39,782	218,322 367,427 26,814	258,219 377,613 25,698	37,856 60,482 3,780	6,123,420 313,063
Value of materials used £ Total value of putput £ Value of production £	3,289,314 7,188,153 3,787,967	3,249,474 7,157,802 3,802,211	728,886 1,627,691 859,023	438,386 1,036,709 571,509	436,606 1,048,974 586,670	45,737 131,370 81,853	18,190,69

<sup>(</sup>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.

9. 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  Number of persons engaged Value of land and buildings £ Value of plant and machinery £ Wages paid £ Value of fuel used £ Value of materials used £ Value of production £	10 1,071 222,188 963,400 313,143 202,009 9,793,124 11,261,700 1,266,567	7 62 22,646 . 5,863 15,389 3,177 162,405 194,697 29,115	18 1,152 298,352 857,875 351,873 88,930 1,657,494 2,568,692 822,268	(b) (b) (b) (b) (b) (b) (b) (b) (b)	(b) (b) (b) (b) (b) (b) (b)	1,981 482,544 1,091,212 528,167 197,398 1,237,475 2,598,052 1,163,179	(c)1,177,348 (c)1,177,348 (c)3,525,650 (c)1,613,107 (c) 597,951 e16,844,310 (c)21,333,872 (c)3,891,611

<sup>(</sup>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.

NOTE.—Later particulars are not available for publication.

10. Electrical Installations, Cables and Apparatus.—(i) Details for each State, 1939-40. The following table shows particulars of this industry for each State during 1939-40:—

# ELECTRICAL INSTALLATIONS, CABLES AND APPARATUS, 1939-40.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories Number of persons engaged Value of land and buildings £ Value of plant and machinery £ Wages paid Value of fuel used £ Value of materials used £ Total value of output £ Value of production £		131 3,743 538,066 310,388 727,202 28,756 995,329 2,298,888 1,274,803	14 160 29,914 7,902 31,936 778 25,895 74,211 47,538	29 602 74,180 38,729 104,147 7,129 250,157 462,220 204,934	29 148 59,475 9,447 24,126 1,682 25,720 73,024 45,622	9 65 15,095 9,754 8,612 299 9,423 28,329 18,607	362 11,461 1,696,733 940,696 2,273,178 110,825 3,422,601 7,455,610 3,922,184

(ii) Total for Australia, 1935-36 to 1939-40.—The increased output of electrical energy in Australia within recent years, referred to in par. 39 below, caused 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 needs, and consequently a remarkable development in the manufacture of electrical goods in Australia has resulted.

#### ELECTRICAL INSTALLATIONS, CABLES AND APPARATUS: AUSTRALIA.

Items.		1935-36.	1936-37.	1937-38.	1938–39.	1939-40.
Number of factories Number of persons engaged Value of land and buildings Value of plant and machinery Wages paid Value of fuel used Value of materials used Total value of output Value of production	 	294 8,137 1,245,877 660,504 1,325,736 73,780 2,059,502 4,329,150 2,195,868	318 9,215 1,349,212 687,740 1,534,415 85,782 2,385,154 5,085,776 2,614,840	354 11,054 1,570,455 799,283 1,915,348 101,926 3,101,308 6,494,421 3,291,187	360 10,666 1,627,183 896,553 2,031,098 104,594 3,195,032 6,954,498 3,654,872	362 11,461 1,696,733 940,696 2,273,178 110,825 3,422,601 7,455,610 3,922,184

11. Railway and Tramway Workshops.—(i) Details for each State, 1939-40. The railway and tramway workshops which form an important item in Class IV. are chiefly State-owned institutions and their development is reflected by the growth of the railway

and tramway systems of Australia. The following table includes, in addition, municipal establishments for manufacturing and repairing rolling stock. Private institutions numbering 9 in 1939-40 have been excluded:—

TRAMCARS, RAILWAY ROLLING STOCK AND CARRIAGES, ETC.(a), 1939-40.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia
Wages paid Value of fuel used.  Value of materials used Total value of output  £ £	2,547,946 2,836,019 92,403 2,250,698 5,697,015	1,478,938 52,946 1,178,257	11 3,828 538,181 415,796 1,017,452 28,508 643,929 1,881,912 1,209,475	3,311 936,217 827,770 797,041 33,610 528,511 1,494,529 932,408	21 2,033 479,564 397,830 492,379 22,381 291,153 973,856 660,322	7 506 94,921 51,108 122,774 5,789 23,043 166,767 137,935	27,020 6,593,991 5,382,465 6,744,603 235,637 4,915,591 13,227,518 8,076,290

<sup>(</sup>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, 1935-36 to 1939-40. The following table shows the development of railway and tramway workshops in Australia since 1935-36:—

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

Items.		1935-36.	1936-37.	1937-38.	1938-39.	1939-40.	
Number of factories Number of persons engaged Value of land and buildings Value of plant and machinery Wages paid Value of fuci used Value of materials used Total value of output Value of production		 E E E E E E E E E E E E E E E E E E	25,678 6,436,465 5,041,663 5,585,710 236,560 4,444,903 11,455,618 6,774,155	26,649 6,533,264 5,058,723 5,967,787 233,560 4,717,251 12,002,439 7,051,628	116 27,207 6,552,522 5,109,599 6,525,372 226,493 5,032,992 13,029,225 7,769,740	27,310 6,736,924 5,390,179 6,720,990 226,108 4,976,353 13,223,114 8,020,653	27,020 6,593,991 5,382,465 6,744,603 235,637 4,915,591 13,227,518 8,076,290

<sup>(</sup>a) Government and Municipal only.

12. 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 1939-40:—

ASSEMBLING AND REPAIRING OF MOTOR VEHICLES AND CYCLES, 1939-40.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W.Aust.	Tas.	Australia.
Value of plant and machinery Wages paid Value of fuel used Value of materials used Total value of output	. 8,429 £ 3,155,675 £ 645,533 £ 1,537,250 81,799 £ 1,531,145 £ 4,214,544	6,819 1,990,747 471,732 1,384,222 66,812 1,187,032 3,366,945	362 2,680 641,677 169,568 500,848 22,867 485,295 1,405,182 897,020	227 1,777 543,191 117,826 299,913 14,541 268,176 732,615 449,898	343 1,535 575,885 126,301 279,553 17,678 327,774 892,125 546,673	123 796 254,296 48,023 118,182 3,885 111,525 297,245 181,835	3,267 22,036 7,161,471 1,578,983 4,119,968 207,582 3,910,947 10,908,656 6,790,127

Particulars in regard to motor body building for 1939-40 are as follows:-

# MOTOR BODY BUILDING, 1939-40.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W.Aust.	Tas. (a)	Australia
Number of factories	51 1,395 332,551 84,391 303,787 8,225 309,704 770,537 452,608	91 3,005 644,852 260,188 680,867 18,221 1,222,446 2,413,362 1,172,695	37 566 81,293 26,260 98,445 2,966 106,623 244,016 134,427	5,172 300,478 216,051 1,194,169 38,981 1,435,780 3,173,804 1,699,043	42,763 13,442 33,141 1,393 36,249 82,204	18 156 49,107 3,602 25,686 454 20,188 57,497 36,855	220 10,465 1,451,044 603,934 2,336,095 70,240 3.130,990 6,741,420 3,540,190

(a) Including horse-drawn vehicles.

The output of motor bodies together with the number imported into Australia for selected years are shown in the next table:—

# MOTOR BODIES: PRODUCTION AND IMPORTS, AUSTRALIA.

Items.	1926–27.	1928-29.	1931-32.	1937-38.	1938–39.	1939-40.
Motor Bodies— Number made . No. Value	88,876	72,193	6,323	92,245	79,436	71,487
	4,830,014	4,357,841	450,510	7,411,177	6,421,142	5,583,316
	12,843	14,546	61	646	532	345
	1,413,203	1,471,878	7,360	63,810	56,641	27,315

13. 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, 1939-40. The following table gives details respecting agricultural implement works in each State for 1939-40:—

#### AGRICULTURAL IMPLEMENT WORKS, 1939-40.

Items.		N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories Number of persons engage Value of land and buildiny Value of plant and machin Wages paid Value of fuel used Value of materials used Total value of output Value of production	ga		563,275 888,761 60,155	27,715 62,542 105,301 9,393 89,203 244,428	155,323 185,275 153,603 11,460 177,238 373,012	50,116 2,033 14,493 599 3,012 25,048		168 6,379 1,034,172 920,700 1,393,405 91,486 1,522,735 3,419,701 1,805,480

(iii) Total for Australia, 1935-36 to 1939-40. 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 improve-

ment in prices the industry expanded considerably, but the decline recorded during 1938-39 and 1939-40 reflects another fall in world prices of agricultural products and the disruption caused by the War. Details for each of the last five years are as follows:—

AGRICULTURAL	IMPLEMENT	WORKS:	AUSTRALIA.
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Items.			1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
Number of factories  Number of persons engaged Value of land and buildings Value of plant and machinery Wages paid  Value of fuel used Value of materials used Total value of output  Value of production	.,	. :	143 5,053 608,679 600,915 936,350 66,518 1,121,478 2,528,088 1,340,092	148 6,253 689,612 683,642 1,232,838 85,229 1,457,599 3,150,732 1,607,904	160 7,756 804,116 729,771 1,629,771 105,175 1,904,156 4,225,658 2,216,327	161 6,563 996,949 910,520 1,373,213 81,736 1,485,018 3,403,091 1,836,337	168 6,379 1,034,172 920,700 1,393,405 91,486 1,522,735 3,419,701 1,805,480

14. 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, 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 1,212,259 in 1939-40, and this increase is reflected in the advancement of the industry during that period, with the exception of the last two years during which the industry has remained stationary.

WIRELESS APPARATUS: AUSTRALIA.

Items.		1935-36.	1936-37.	1937-38.	1938-39.	1939–40.
Number of factories  Number of persons engaged Value of land and buildings Value of plant and machinery Wages paid Value of fuel used Value of materials used  Total value of output Value of production	 	67 3,943 378,103 185,626 493,314 17,670 1,398,137 2,243,159 827,352	67 4,643 468,164 261,341 610,291 21,354 1,590,978 2,640,206 1,027,874	73 5,519 549,254 315,325 791,907 24,022 1,949,286 3,247,472 1,274,164	72 4,828 557,953 305,468 754,302 23,525 1,355,683 2,502,338 1,123,130	73 4,869 598,092 352,103 785,388 26,274 1,546,895 2,834,628 1,261,459

The number of domestic receiving sets assembled in 1939-40 was 169,244, and the number of domestic chassis made was 126,027.

- 15. 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 16 million lb. per annum. Arising out of the development in the local manufacture of cotton materials and the further expansion consequent upon the war in 1939, plans have been completed for an extension of the area devoted to the cultivation of this crop. The growing of cotton is restricted to Queensland and is referred to in some detail in Chapter XVII. "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 1939-40 was 42, the number of persons engaged 4,337, and the value of the output £3,545,538.
- 16. Woollen and Tweed Mills.—(i) Details for each State, 1939-40. 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 1939-40:—

# WOOLLEN AND TWEED (INCLUDING WOOLSCOURING) MILLS, 1939-40.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.A. (a)	Tas.	Australia.
Number of factories Number of persons engaged Value of land and buildings Value of plant and machinery Wages paid Value of fuel used Value of materials used	7,490 761,443 1,204,267 1,075,503 137,730 3,035,882 5,040,780	11,039 1,314,754 1,722,679 1,790,966	622 36,365 87,861 86,350 9,794 138,938 289,329	121,497 188,154 186,678 33,061 781,596 1,120,252	23,593 52,846 21,874 3,890 38,158 81,044	227,129 204,715 251,338 24,324 619,483 1,279,803	2,484,781 3,460,522 3,412,709

<sup>(</sup>a) Excludes Woolscouring.

(ii) Total for Australia, 1935-36 to 1939-40. The extent of the woollen and tweed milling industry in Australia in the last five years is shown in the following table:—

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

Items.		1935-36.	1936-37.	1937-38.	1938-39.	1939-40.	
Number of factories Number of persons engaged Value of land and buildings Value of plant and machinery Wages paid Value of fuel used Value of materials used			94 19,693 2,455,141 3,343,968 2,612,723 393,775 7,548,122	90 19,239 2,412,499 3,474,275 2,514,293 357,777	87 19,103 2,435,114 3,416,233 2,741,729 379,380		96 22,041 2,484,781 3,460,522 3,412,709 466,247
Total value of output Value of production		£	12,545,067	7,734,520 12,283,298 4,191,001	8,046,352 12,618,132 4,192,400	7,331,117 12,514,610 4,790,956	9,039,281 15,766,930 6,261,402

- (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 1939-40 was 31,440,135 square yards in woollen mills and 632,347 square yards in other works. In New South Wales 13,510,161 square yards and in Victoria 15,476,062 square yards of tweed and cloth were manufactured in woollen mills. The production of flannel amounted to 4,642,149 square yards, while blankets, shawls and rugs to the number of 2,092,886 were made.

<sup>(</sup>b) Includes Fellmongery.

17. Hosiery and Other Knitted Goods,—(i) Details for each State, 1939-40. In addition to the woollen and tweed factories, there were 323 hosiery and knitting mills operating in Australia during 1939-40. The total number of persons engaged in these establishments was 19,073 of whom 13,395 were females. Details for each State are shown hereunder:—

HOSIERY AND OTHER KNITTED GOODS, 1939-40.

Items.	n.s.w.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Total value of output $\mathfrak{L}$	602,963 739,573 36,680		(a) (a) (a) (a) (a) (a) (a) (a) (a)	7 78 (a) (a) (a) (a) (a) (a) (a)	3 91 8,084 7,184 9,606 600 25,805 45,094 18,689	14,181 8,891 895 21,739 37,376	323 19,073 b 1,980,550 b 1,800,451 b 2,620,190 b 149,706 b 5,499,891 b10,161,729 b 4,512,132

<sup>(</sup>a) Particulars not available for publication.

(ii) Total for Australia, 1935-36 to 1939-40. Comparative statistics for the five years are shown in the following table:—

HOSIERY AND OTHER KNITTED GOODS: AUSTRALIA.

Items.	 1935–36.	1936–37.	1937-38.	1938-39.	1939-40.
Number of factories Number of persons engaged Value of land and buildings Value of plant and machinery Wages paid Value of fuel used Value of materials used Total value of output Value of production	 314 15,692 1,791,583 1,711,536 1,819,265 113,773 3,768,336 7,327,363 3,445,254	297 16,932 1,842,228 1,901,624 2,017,903 110,334 3,978,863 7,700,079 3,610,882	306 18,230 1,861,884 1,926,882 2,319,355 126,949 4,508,691 8,534,886 3,899,246	313 18,159 1,962,336 1,930,564 2,331,536 133,154 4,284,216 8,226,468 3,809,098	323 19,073 1,980,550 1,800,451 2,620,190 149,706 5,499,891 10,161,729 4,512,132

(iii) Raw Material used and Production, 1939-40. The main raw materials consumed in establishments manufacturing hosiery and other knitted goods during 1939-40 consisted of woollen yarn, 6,963,229 lb.; cotton yarn, 6,378,362 lb.; silk yarn, 865,827 lb.; and artificial silk yarn, 6,503,805 lb. Production comprised 39,307,644 garments, valued at £4,883,368; 2,375,939 dozen pairs of stockings, valued at £3,175,818; and 1,847,106 dozen pairs of socks, valued at £1,337,693.

18. Tanning, Currying and Leather Dressing.—(i) Details for each State, 1939-40. 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, 1939-40.

. Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W.A.	Tas.	Aust.
Number of factories Number of persons engaged Value of land and buildings Value of plant and machinery Wages paid Value of fuel used Value of materials used Total value of output Salue of production £	62 1,792 333,642 228,624 390,336 35,622 1,685,240 2,430,287 709,425	237,601 464,061 51,123 1,679,535	14 393 34,533 36,054 81,058 6,504 380,341 529,514 142,669	9 93 (a) (a) (a) (a) (a) (a) (a)	6 100 37,084 24,989 20,776 1,619 108,580 163,819 53,620	(a) (a) (a) (a) (a) (a) (a)	132 4,566 b 839,251 b 538,801 b 973,640 b 96,219 b3,909,992 b5,788,732 b1,782,521

<sup>(</sup>a) Particulars not available for publication.

<sup>(</sup>b) Including Queensland and South Australia.

<sup>(</sup>b) Including South Australia and Tasmania.

(ii) Total for Australia, 1935-36 to 1939-40. The development of the tanning industry during the years stated is shown in the following table:—

TANNING, CURRYING AND LEATHER DRESSING: AUSTRALIA.

Items.		1935–36.	1936-37.	1937-38.	1938–39.	1939–40.	
Number of factories Number of persons engaged Value of land and buildings Value of plant and machinery Wages paid Value of fuel used Value of materials used Total value of output Value of production	•••		135 4,433 748,897 513,872 810,742 84,682 3,099,679 4,632,662 1,448,301	132 4,467 785,191 504,296 858,610 85,330 3,478,457 5,091,033 1,527,246	131 4,400 812,051 524,125 911,835 9,509 3,502,252 5,064,188 1,472,237	132 4,375 813,713 523,538 919,781 87,670 2,983,041 4,592,642 1,521,931	132 4,566 839,251 538,801 973,640 96,219 3,909,992 5,788,732 1,782,521

(iii) Raw Material Used and Production, 1939-40. The quantities of raw material used and leather produced in tanneries in each State are shown in the following table. Some leather is also produced in works other than tanneries, but this is excluded:—

TANNERIES: RAW MATERIAL USED AND PRODUCTION, 1939-40.

Particula	rs.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	bAustralia.
Hides Skins—	No.	680,267	881,031	203,313	(a)	63,153	(a)	1,870,051
Colf		742,983	486,110	160,519	2,089	158		1,391,859
Clant	,,	934,101	190,371	(a)	430	(a)	::	1,128,237
Sheep	**	1,833.789	238,800	(4)	1,458			2,074,047
Marsupial	**	8,974	48,660	31,480	3,497	1,771		94,382
Reptile	**	(a)		1	3,497			(a)
Pelts treated	,,	1,575,891	(a)	(a)	::	::		2,252,433
Bark used—	,,	1,3/3,091	(4)	(4)	ı	••	• • •	~,~3~,433
Wattle	tons	8,698	7,963	2,488	396	(a)	(a)	19,824
Other		388	3,255	2,400	(a)	561	(a)	4,214
Tanning extract	used lb.	4,669,285	2,589,650	1,339,574	(a)	1,079,349	(a)	9,712,232
Leather made—	used is.	4,009,203	2,509,050	2,339,374	(")	1,079,349	(4)	9,,,-,,-3-
Sole and Beltin	ıg "	12,895,803	13,461,162	3,888,270	(a)	2,137,823	(a)	32,632,853
Harness	•	392,053	291,928	498,528	104,150	35,634		1,322,293
Upholstery	sq. it.	(a)	(a)	490,520	104,130	33,034		7,068,250
Dressed and U		(4)	(4)		•••		• •	),,000,2,0
Hides-	pper mon	1	i	1		1		1
Sold by	Moseure.							
ment—	DIOMSGEO-		j	1				
	t sq.ft.	1,607,522	5,956,077		1	1		7,563,599
All O		6,267,969		2,923,938	847,756	(a)	(a)	18,351,912
Sold by W		0,20,,909	0,014,002	2,923,930	047,730	(")	(4)	10,33-,3
Waxed		(a)	60,998	55,060	50 613	5,900	(a)	209,457
All Oth	er ,,	(a)	278,793	(a)	104,865	16,148	(a)	545,192
Dressed from ski		(4)	2,0,,93	(")	104,003	10,140	(4)	1 373,-9-
Calf	sq. ft.	6,219,680	3,783,263	1,606,027	11,093	1,715		11,621,778
Goat		4,509,884	721,293	(a)	2,241	(a)		5,245,075
Sheep	,,	7,919,702	(a)	(a)	2,241	(4)		10,598,091
Marsupial	"	21,979	129,171	207,833	3,947	(a)	(a)	371,145
		-1,979	9,-/-	,,033	3,947	1 (6)		3/-1-43

<sup>(</sup>a) Not available for publication.

19. Tailoring and Slop Clothing Factories.—(i) Details for each State, 1939-40. The importance of this industry in each State is shown in the following table:—

TAILORING AND SLOP CLOTHING FACTORIES. 1939-40.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Value of plant and machinery £ Wages paid £ Value of fuel used . £	29,261 2,413,575 4,718,048	367 8,364 870,906 140,899 1,121,969 26,355 2,301,337 3,931,818 1,604,126	126 3,105 291,601 32,103 338,964 7,416 498,934 1,073,215 566,865	123 1,963 229,973 22,696 212,188 6,008 212,690 528,894 310,196	82 976 174,277 13,714 122,128 2,863 146,590 338,255 188,802	24 374 67,967 5,464 43 046 814 53,211 118,003 63,978	1,162 27,391 3,201,962 396,819 3,385,866 72,717 5,626,338 10,708,233 5,009,178

<sup>(</sup>b) Including particulars for States marked (a).

(ii) Total for Australia, 1935-36 to 1939-40. Details for the last five years are as follows:—

# TAILORING AND SLOP CLOTHING FACTORIES: AUSTRALIA.

Items.	1935-36.	1936-37.	1937–38.	1938–39.	1939-40.
Number of factories Number of persons engaged Value of land and buildings Value of plant and machinery Wages paid Value of fuel used Value of materials used Total value of output Value of production	 1,157 24,877 2,885,076 327,333 2,578,597 58,556 4,826,010 8,939,837 4,055,271	1,163 25,546 3,053,302 317,812 2,732,213 61,097 4,796,324 9,138,302 4,280,881	1,172 26,765 3,100,309 332,814 3,094,693 66,834 5,123,268 9,801,313 4,611,211	1,177 26,499 3,175,748 355,508 3,168,472 72,431 4,946,519 9,830,646 4,811,696	1,162 27,391 3,201,962 396,819 3,385,866 72,717 5,626,338 10,708,233 5,009,178

20. Dressmaking and Millinery Establishments.—(i) Details for each State, 1939-40. Particulars of dressmaking and millinery establishments are given separately in the following tables:—

# DRESSMAKING ESTABLISHMENTS, 1939-40.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories		445 8,286 1,164,102 107,940 912,765 17,213 1,702,517 3,093,175 1,373,445	38 808 70,609 11,559 71,551 1,414 94,468 206,688 110,806	54 848 72,176 9,762 64,993 1,678 67,477 169,259 100,104	40 739 75,572 6,179 63,830 1,067 87,130 183,055 94,858	5 27 3,180 181 2,068 33 1,172 4,510 3,305	686 12,276 1,615,394 147,252 1,268,157 23,385 2,078,206 4,008,733 1,907,142

(a) Including Millinery.

# MILLINERY ESTABLISHMENTS, 1939-40.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories	59 1,560 229,135 16,471 167,313 4,866 268,171 566,268 293,231	60 1,250 129,169 14,277 135,874 3,239 205,504 450,860 242,117	15 511 38,360 6,843 44,657 830 68,111 138,332 69,391	296 24,538 2,600 27,154 969 43,004 89,834 45,861	7 7,130 1,247 5,862 123 9,439 17,686 8,124		154 3,674 428,332 41,438 380,860 10,027 594,229 1,262,980 658,724

(a) Included in Dressmaking.

(ii) Total for Australia, 1935-36 to 1939-40. 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.		1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
Number of factories Number of persons engaged Value of land and buildings Value of plant and machinery Wages paid Value of fuel used Value of materials used Total value of output Value of production Value of production	 	863 15,683 1,897,903 180,934 1,391,348 30,245 2,559,119 4,869,311 2,279,947	830 15,635 2,031,277 179,699 1,441,226 30,178 2,557,612 4,965,634 2,377,844	871 16,426 2,023,371 194,553 1,588,231 32,157 2,801,184 5,302,983 2,469,642	869 16,398 2,051,611 189,263 1,652,808 33,067 2,609,363 5,234,727 2,592,297	840 15,950 2,043,726 188,690 1,649,017 33,412 2,672,435 5,271,713 2,565,866

21. Shirts, Collars and Underclothing.—(i) Details for each State, 1939-40. Particulars of this industry are shown in the following table:—

### SHIRTS, COLLARS AND UNDERCLOTHING, 1939-40.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust.	Tas.	Australia.
Number of factories	126 4,594 385,691 78,492 475,221 8,806 1,437,649 2,199,507 753,052	96 4,705 418,684 115,582 553,254 12,891 1,322,358 2,249,803 914,554	17 883 51,820 11,516 78,519 1,636 132,960 246,188 111,592	28 682 37,447 12,144 53,411 1,398 69,979 140,960 69,583	12 580 35,664 13,375 56,078 868 70,023 143,530 72,639		279 11,444 929,306 231,109 1,216,483 25,599 3,032,969 4,979,988 1,921,420

(ii) Total for Australia, 1935-36 to 1939-40. The following table shows the progress of the industry since 1935-36:—

SHIRTS, COLLARS AND UNDERCLOTHING: AUSTRALIA.

Items.		1935-36.	1936-37.	1937-38.	1938-39.	1939~40.
Number of factories	 •	308	298	289	283	279
Number of persons engaged	 	11,214	11,116	11,134	11,081	11,444
Value of land and buildings	 £	842,896	871,522	910,595	945,972	929,306
Value of plant and machinery	 £	253,736	251,396	229,797	230,579	231,109
Wages paid	 £	1,001,615	1,029,221	1,096,013	1,142,855	1,216,483
Value of fuel used	 £	22,844	23,692	23,845	23,639	25,599
Value of materials used	 £	2,708,887	2,599,519	2,788,667	2,650,779	3,032,969
rotal value of output	 £	4,311,566	4,252,677	4,522,879	4,435,209	4,979,988
value of production	 £	1,579,835	1,629,466	1,710,367	1,760,791	1,921,420

22. Boot Factories.—(i) Boot and Shoe Factories, 1939-40. 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, 1939-40.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust.	Tas.	Australia.
Number of factories Number of persons engaged Value of land and buildings Value of plant and machinery Wages paid Value of fuel used Value of materials used Total value of output Value of production S Value of production	17,767 1,574,408 2,900,065	168 10,491 658,803 503,400 1,701,282 34,408 3,028,983 5,512,542 2,449,151	24 896 37,598 68,043 131,371 2,056 229,264 410,415 179,095	780 61,823 55,068 110,636 2,258 196,349 338,792 140,185	9 396 43,896 34,863 57,463 1,237 119,726 200,914 79,951	3 6,000 2,976 8,434 149 12,099 21,872 9,624	320 18,587 1,258,727 920,206 2,927,371 57,875 5,160,829 9,384,600 4,165,896

(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 1939-40 the number amounted to 1,298 in which 2,281 persons were engaged in the industry. The sum of £161,210 was distributed in salaries and wages, and the output was valued at £856,237.

(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, 1939-40.

Particulars		N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	•	<u> </u>	Q <sub>UA</sub>	NTITY.	·	·		
Boots and shoes Slippers Uppers (c)	pairs	5,046,211 3,088,360 14,832	8,017,701 4,212,039 5,676	687,134 452,735 (a)	763,146 (a) (a)	361,006 (a) 218	38,442 (a)	14,913,640 b8,172,499 (b) 132,886
		•	VA	LUE.	·	<u>'</u>		
Boots and shoes Slippers Uppers (c)	£	2,512,014 381,217 5,453	4,405,582 565,046 4,960	355,307 41,050 (a)	334,543 (a) (a)	1.14,094 (a) 119	21,673 (a)	7,773,213 b1,042,233 (b) 25,019

<sup>(</sup>a) Not available for publication, for other than factory use.

23. Grain-milling.—(i) Details for States, 1939-40. The following table shows the position of the grain-milling industry in each State:—

#### GRAIN-MILLING, 1939-40.

Item .	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas. (a)	Australia.
Number of factories	53 1,413 809,820 706,481 370,594 93,998 4,223,951 5,425,182 1,107,233	1,054 598,045 501,585 269,082 62,093 3,390,406 4,007,867	197,587 138,780 89,387 16,880 867,849 1,160,244	469 169,740 246,883 108,837 34,287 1,162,567 1,381,709	444 258,122 209,274 113,896 37,178 1,159,298 1,488,865	71,343 26,917 24,284 3,858 251,568 302,864	2,104,657 1,829,920 976,080

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

(ii) Production of Flour and By-products, 1935-36 to 1939-40. 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)
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	19,155	1,250,930
1938–39		547,162	436,829	84,314	146,262	138,583	19,582	1,372,732
1939-40		583,568	404,064	89,038	146,770	141,520	18,890	1,383,850

<sup>(</sup>a) Tons of 2,000 lb.

The production of flour in Australia for 1939-40, 1.383,850 tons, was valued at £10,834,256. In addition, 590,997 tons of bran and pollard, valued at £2,633,877, were made. The quantity of wheat ground was 67,427,811 bushels.

<sup>(</sup>b) Including particulars for States marked (a).

<sup>(</sup>c) Made

24. Bakeries.—Information regarding establishments in which the manufacture of bread, cakes, etc., was carried on in the year 1939-40 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 necessary.

BAKERIES (INCLUDING CAKES AND PASTRY), 1939-40.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.(a)	Australia.
Number of factories	2,406,632 640,533 831,643 135,169 2,729,156	2,255,721 3,689,027	260 1,336 473,648 152,215 217,020 32,041 855,188 1,407,203 519,974	156 1,048 286,894 120,821 162,285 23,692 552,400 899,275 323,183	140 556 198,246 60,913 94,752 14,034 357,945 600,706	78 1,236 369,133 118,818 186,053 20,533 526,301 920,631 373,797	2,007 11,930 5,001,246 1,545,058 2,068,955 318,416 7,276,711 12,079,966 4,484,839

(a) Includes Confectionery.

25. Sugar-mills.—(i) Details for 1939-40.—The following table shows the position of the cane-crushing branch of the sugar-making industry in New South Wales and Queensland in 1939-40. Sugar-cane is not grown in the other States. Details regarding the area, yield, etc., of sugar-cane will be found in Chapter XVII. "Agricultural Production".

SUGAR-MILLS, 1939-40.

Items.				N.S.W.	Queensland.	Australia.
Value of fuel used	ed gs nery		 £ £ £ £	3 209 246,844 958,734 87,948 14,618 471,478 701,202 215,106	33 4,519 1,099,833 7,528,113 1,407,846 138,214 10,792,835 13,713,856 2,782,807	36 4,728 1,346,677 8,486,847 1,495,794 152,832 11,264,313 14,415,058 2,997,913

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.	.1936-37.	1937-38.	1938-39.	1939-40.
Number of factories Number of employees Cane crushed Sugar produced Molasses produced	tons ,, gals.	4 469 147,799 17,299 796,440	3 195 27, 169 38,158 1,329,660	3 260 361,724 47,077 1,754,527	3 212 337,038 45,106 1,489,090	3 209 274,548 36,938 1,338,802

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 XVII. "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 years 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 XVII. "Agricultural Production" which relate to harvest years.

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

	UGAR-MILL	S: QUEEN	SLAND.		
Items	1911,	1936–37.	1937-38.	1938-39.	1939-40.
Number of factories	49	33	33	33	33
Number of persons engaged	4,295	4,381	4,324	4,419	4,519
Cane crushed tons	1,534,451	5,170,571	5,132,886	5,432,193	6,038,821
Sugar produced ,,	173,296	744,676	763,242	775,064	891,738
Molasses-					
Sold to distillers	ļ	1	İ		
and others gals.	2,393,669	6,086,864	7,071,109	8,275,887	9,581,241
Used as fodder ,,	789,564	4,351,822	3,914,113	4,237,196	4,727,170
Used as manure ,,	223,000	3,211,423	3,363,624	3,293,543	4,295,289
Run to waste ,,	1.0.2 222	560,326	466,481	498,926	457,541
Burnt as fuel ,,	1,847,333	6,354,841	5,576,764	3,748,590	3,834,653
Sold or used for	`	l			
other purposes ,,		397,080	157,496	232,049	188,889
In stock ,,	1,197,626				
Total molasses ,,	6,451,192	20,962,356	20,549,587	20,286,191	23,084,783

26. 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 1939—40 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 367,157 tons, for a yield of 360,097 tons of refined sugar, valued at £11,550,972.

27. Confectionery Factories.—(i) Details for each State, 1939-40. At the close of the year 1900 there were in New South Wales 16 establishments with 706 persons engaged and in Victoria 16 establishments, with 731 persons engaged, the plant and machinery in the former State being valued at £2,815, and in the latter at £19,070. The figures for 1939-40 given hereunder show the remarkable development since 1900:—

SUGAR CONFECTIONERY FACTORIES(a), 1939-40.

	1	(	1	120(0)	1		
Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas. (b)	Australia.
Number of factories	73 3,920 1,025,118 977,855 625,022 68,419 2,017,411 4,088,672 2,002,842	85 2,985 658,481 589,179 480,469 52,685 1,337,122 2,490,338 1,100,531	23 564 219,980 123,804 75,639 10,350 212,993 422,722 199,379	19 410 84,659 63,099 40,344 9,029 145,960 222,769 67,780	10 321 (c) (c) (c) (c) (c) (c) (c) (c)	(c) (c) (c) (c) (c) (c) (c) (c)	(d) 2,067,466 (d) 1,828,060 (d) 1,264,923 (d) 147,086 (d) 3,837,196 (d) 7,457,816 (d) 3,473,538

<sup>(</sup>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, 1935-36 to 1939-40.—Particulars of the confectionery industry during the last five years are shown in the following table:—

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

Items.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
Number of factories Number of persons engaged Value of land and buildings Value of plant and machinery Wages paid Value of fuel used Value of materials used Total value of output Value of production	 7,516 1,774,452 1,712,163 1,010,775 117,041 3,023,696 5,662,146	214 7,975 1,902,059 1,773,178 1,063,421 98,771 3,202,325 5,573,148 2,272,052	204 8,235 2,042,198 1,830,166 1,179,223 141,459 3,555,710 6,660,655 2,963,486	209 8,276 2,079,601 1,854,398 1,231,375 144,349 3,704,774 7,107,045 3,257,922	211 8,205 2,067,466 1,828,060 1,264,929 147,086 3,837,190 7,457,814 3,473,538

(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.

28. Jam and Fruit Preserving, Pickles, Sauces and Vinegar Factories.—(i) Details for each State, 1939-40. The following table gives particulars of factories included in this class for 1939-40:—

# JAM AND FRUIT PRESERVING, PICKLES, ETC., FACTORIES, 1939-40.

Items.		N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust.	Tas.	Australia.
Number of persons engaged	3.4.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.	2,202,719	45 3,441 714,648 358,401 616,488 53,660 2,914,409 4,439,409 1,471,340	522 50,578 69,957 88,960 6,923 606,195 889,149 276,031	17 548 129,235 52,919 85,085 7,125 336,270 502,129 158,734	8 88 18,730 5,184 12,043 1,008 42,599 71,407 27,800	12 776 148,713 43,131 151,906 11,015 646,422 842,474 185,037	128 7,249 1,502,256 767,923 1,300,929 108,699 5,871,887 8,947,287 2,966,701

(ii) Total for Australia, 1935-36 to 1939-40. 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.		1935–36.	1936–37.	1937–38.	1938~39.	1939-40.
Number of factories Number of persons engaged Value of land and buildings Value of plant and machinery Wages paid Value of fuel used Value of materials used Total value of output Value of production	 	125 5,773 1,125,204 549,413 929,792 89,227 3,965,338 6,276,112 2,221,547	121 5,906 1,218,132 598,126 971,768 87,019 4,177,792 6,298,642 2,033,831	121 6,596 1,309,014 665,863 1,143,190 93,055 4,571,219 6,974,291 2,310,017	123 6,476 1,382,150 720,639 1,148,991 97,521 4,799,515 7,230,914 2,333,878	7,249 7,249 1,502,256 767,923 1,300,929 108,699 5,871,887 8,947,287 2,966,701

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 improving to 121,158,000 lb. in 1939–40. The output of preserved fruit reached the record dimensions of 157,761,000 lb. in 1937–38. Production in 1939–40 was slightly lower at 148,468,000 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 1939-40:—

JAMS, PRESERVED FRUIT, PICKLES AND SAUCES: OUTPUT, 1939-40.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia
		Quan	TITY.		<u>'</u>	,	<u>'</u>
Jams and Jellies '000 lb. Fruit Pulp— Consumed in own	29,649	51,859	8,626	9,480	1,277	20,267	121,158
works cwt.	9,627	65,407	8,353	15,823	(a)	(a)	b106,940
stock cwt.  romato Pulp Consumed in own	23,792	74,859	5,472	16,617	3,102	85,325	209,167
works cwt.	23,677	91,979	(a)	22,094	(a)	• •	<b>b</b> 146,259
stock cwt.	26,756	237,90i	(a)	7,480	1,797	(a)	6277,855
Fruit, preserved 'ooo lb.	24,183	88,062	24,079	8,121	62	3,961	148,468
Pickles	2,054 7,424	2,474 11,780	418 757	1,801 2,430	(a) (a)	(a) (a)	(b) 7,145 (b)23,242
		VA	LUE.		<u></u>	•	
Jams and Jellies £	720,367	1,207,876	200,139	180,899	26,073	488,201	2,823,555
Fruit, preserved £	517,299	1,529,940	525,544	133,038	833	89,342	2,795,996
Pickles £	95,596	85,445 364,901	19,475 25,438	66,286 75,881	(a) (a)	(a) (a)	6279,593 6901,985

<sup>(</sup>a) Not available for publication.

29. Bacon-curing Factories.—(i) Details for each State, 1939-40. The table hereunder gives particulars of factories engaged in bacon-curing in each State for 1939-40:—

# BACON-CURING FACTORIES, 1939-40.

	Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust.	Tas.	Australia.
Value of land and buildings     £     171,019     227,021     233,004     93,130     29,533     27,283     780       Value of plant and machinery £     60,660     117,888     135,523     34,126     15,216     9,519     372       Wages pald     .     £     103,430     124,746     203,662     57,561     28,267     12,659     530       Value of fuel used     .     £     13,766     19,034     30,866     10,636     6,604     1,672     82       Value of materials used     £     903,387     922,472     1,671,639     396,785     389,837     120,321     4,404       Total value of output     £     1,153,733     1,149,538     2,021,462     492,532     486,174     446,598     5,450	Number of persons engaged Value of land and buildings £ Value of plant and machinery £ Wages paid £ Value of fuel used £ Value of materials used £ Total value of output £	394 171,019 60,660 103,430 13,766 903,387 1,153,733	553 227,021 117,888 124,746 19,034 922,472 1,149,538	847 233,004 135,523 203,662 30,866 1,671,639 2,021,462	261 93,130 34,126 57,561 10,636 396,785 492,532	132 29,533 15,216 28,267 6,604 389,837 486,174	62 27,283 9,519 12,669 1,672 120,321 146,598	79 2,249 780,990 372,932 530,335 82,578 4,404,441 5,450,037 963,018

<sup>(</sup>b) Including States marked (a).

(ii) Quantity and Value of Production. The number of pigs cured and the quantity and value of the production of factories in each State for 1939-40 are given in the following table:—

BACON-CURING FACTORIES: PIGS CURED AND PRODUCTION, 1939-40.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia
	1	Pigs	CURED.			1	!
Pigs cured on own account No. Pigs cured on commission ,,	<sup>225,457</sup> 1,886	170,526 379	233,215 897	78,350 289	57,021 101	23,724 418	788,293 3,970
Total "	227,343	170,905	234,112	78,639	57,122	24,142	792,263
	<u>'</u>	Proi	oucts.	<u> </u>		·	
Bacon and ham 'ooo lb. Lard ,,	25,630 582	17,386 875	19,950 1,273	6,643 277	4,642 228	2,559 100	76,810 3,335
		VA	LUE.				
Bacon and ham (a) £ £ Lard £	1,254,435 13,186	899,723 20,650	933,519 24,405	326,098 6,316	246,541 5,801	96,434 2,063	3,756,750 72,421

<sup>(</sup>a) Partly estimated.

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

30. Butter, Cheese and Condensed Milk Factories.—(i) Details for each State, 1939-40. The following table gives particulars of butter, cheese and condensed milk factories in each State:—

BUTTER, CHEESE AND CONDENSED MILK FACTORIES, 1939-40.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.A.	Tas.	Australia.
Number of factories	8,204,786	3,194 1,207,095 1,286,131 798,654	694,949 763,190 316,420 69,854 8,849,813 9,501,911	630 225,685 152,003 131,536 26,657 1,710,150	90,839 88,742 54,756 15,067 964,394 1,153,089	76,767 37,765 7,164 611,516 728,504	3,013,955 3,216,389 1,727,665

<sup>(</sup>ii) Total for Australia, 1935-36 to 1939-40. 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.		1935-36.	1936-37.	1937-38.	1938–39.	1939-40.
Number of factories Number of persons engaged Value of land and buildings Value of plant and machinery Wages paid Value of fuel used Value of materials used Value of output Value of production		517 6,062 2,635,863 2,849,645 1,265,898 310,260 22,627,448 25,869,089 2,931,381	517 6,226 2,733,273 2,938,110 1,332,911 335,451 21,995,736 25,434,496 3,103,309	520 6,655 2,779,663 2,977,640 1,486,780 362,217 27,187,350 31,656,156 4,106,589	1,569,531 389,501 29,161,983	36,343,543

(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 1939-40:—

BUTTER, CHEESE AND CONDENSED MILK FACTORIES: PRODUCTION, 1939-40.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia
	Mrl	k Used	(,000 омі	TTED).	<u>'</u>	.[	!
For the manufacture of— Butter gals Cheese , Condensed, &c., Milk ,	214,162 6,721 6,893	318,604 24,274 28,189	285,548 11,676 28	37,095 19,544 722	29,130 846 1,241	19,176 3,179 396	903,715 66,240 37,469
	Pro	ODUCTS (,	000 Омі	TTED).	· · · · · · · · · · · · · · · · · · ·		
Butter lb Cheese	6,634	] '''	139,795 (c) 12,112	19,843	14,002	9,310 3,124	456,259 67,643
milk lb. Powdered milk ,,	9,612 2,497	30,995 25,624	::	(a)	(a)	::	(b)47,987 28,121
	V	ALUE (,O	OO OMITT	ED).			
Butter £ Cheese £ Condensed and concentrated	244	10,428 834	8,899 (c) 401	1,218 691	997 38	. 596 108	29,547 2,316
milk £ Powdered milk £	184	726 . 764		(a)	(a)	::	(b) 1,081 888

<sup>(</sup>a) Particulars not available for publication. (b) Includes States marked (a). (c) Excluding 1,730,965 lb. of cheese, valued at £59,920 made in establishments not classified as factories.

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

31. 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, and 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 chilled for frozen meat exported has already been referred to in Chapter XVI. "Pastoral Production".

MEAT AND FISH PRESERVING WORKS,(a) 1939-40.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories Number of persons engaged Value of land and buildings Value of plant and machinery Wages paid Value of fuel used Value of materials used Total value of output Value of production	 6 381 74,761 74,916 72,991 10,274 334,650 473,637	9 313 88,878 27,458 57,944 5,609 396,313 573,563	3,668 1,464,119 892,906 1,059,878 131,969 6,458,381 8,013,645 1,423,292		125 (b) (b) (b) (b) (b) (b) (b)	(b) (b) (b) (b)	33 4,524 (c) 2,014,200 (c) 1,397,631 (c) 1,268,752 (c) 155,781 (c) 7,405,219 (c) 9,422,840 (c) 1,861,840

<sup>(</sup>a) Including meat extracts. Western Australia and Tasmania.

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 XVI. "Pastoral Production".

<sup>(</sup>b) Particulars not available for publication.

<sup>(</sup>c) Includes

32. Breweries.—(i) Details for each State, 1939-40. The following table gives particulars relating to breweries in each State:—

#### **BREWERIES**, 1939-40.

				<del>-</del>			
Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories  Number of persons engaged  Value of land and buildings £  Value of plant and machinery £  Wages paid £	6 1,039 972,021 784,005 311,997	9 1,602 791,995 934,877 559,114	6 429 448,158 388,367 129,994	5 251 (a) (a) (a) (a)	6 449 298,240 386,734 157,205	78 (a) (a) (a) (a)	34 3,848 62,851,337 62,778,290 61,270,295
Total value of output £	92,749 1,057,431 3,682,265	88,096 1,498,691 3,101,825 1,515,038	32,680 346,172 955,341 576,489	(a) (a) (a) (a)	29,686 351,653 1,001,039 619,700	(a) (a) (a)	b 272,821 b3,566,390 b9,509,295 b5,670,084

<sup>(</sup>a) Information not available for publication.

(ii) Total for Australia, 1935-36 to 1939-40. The next table shows the extent of this industry for the last five years:—

#### BREWERIES: AUSTRALIA.

Items.	•	1935-36.	1936-37.	1937–38.	1938–39.	1939–40.
Number of factories Number of persons engaged Value of land and buildings Value of plant and machinery Wages paid Value of fuel used Value of materials used Total value of output Value of production	 	35 3,218 2,426,415 2,440,700 1,015,749 201,527 2,542,843 7,107,661 4,363,291	35 3.378 2,537,922 2,454,576 1,068,903 213,412 2,633,863 7,442,660 4,595,385	35 3,532 2,678,983 2,642,636 1,148,487 234,923 3,217,511 8,507,086 5,054,652	34 3,698 2,801,147 2,737,042 1,215,473 251,286 3,406,572 9,030,309 5,372,451	3,848 2,851,337 2,778,290 1,270,295 272,821 3,566,390 9,509,295 5,670,084

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 93,864,990 gallons in 1939–40. 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 more than 12 gallons.

(iii) Materials Used and Production. The table below shows the quantities of raw materials used and the quantity and value of ale, stout and beer brewed in each State during 1939-40.

BREWERIES: MATERIALS USED AND PRODUCTION, 1939-40.

Partic	ulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
			Raw	Materiai	USED.	·		-i
Malt Hops Sugar	bushels lb. cwt.	1,121,827 962,912 149,660	1,036,711 842,939 128,060	277,333 217,871 29,800	(b) (b) (b)	308,938 192,939 15,000	(b) (b) (b)	(c)3,046,483 (c)2,471,099 (c)354,840
Raw	Materi	al Used p	ER 1,000 G	ALLONS O	F ALE, ST	OUT AND	BEER PRO	DUCED.
Malt Hops Sugar	bushels lb. ewt.	30.64 26.30 4.09	32.36 26.31 4.00	33.46 26.29 3.60	31.93 29.73 3.94	38.57 24.09 1.87	41.30 23.82 2.38	32.46 26.33 3.78
			ALE, STOU	T AND BE	ER BREW	ED.		
Quantity Value (a)	gallons £	36,610,707 3,652,635	32,039,004 2,944,987		(b) (b)	8,009,482 975,954	(b) (b)	c93,864,990 c 9,291,601
(a) Exc		Excise duty.	(b) P	articulars no	ot available	for publicati	ion.	(c) Includes

<sup>(</sup>b) Includes South Australia and Tasmania.

- 33. Distilleries.—Distilleries are located in all the States except Western Australia and Tasmania. The following information, which has been 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 1939-40:—Materials used; barley, 88,209 bushels; barley malt, 71,702 bushels; molasses, 1,553,160 ewt.; wine, 9,662,351 gallons; raisins and currants, 11,935 cwt.; grapes, 148,765 cwt. The quantity of spirits distilled from barley, malt and grain was 348,619 gallons; from molasses, 7,913,952 gallons; and from wine, 1,902,971 gallons; total 90,165,542 gallons. The quantity of spirits denatured during the year was 5,193,268 gallons.
- 34. Tobacco, etc., Factories.—(i) Details for each State, 1939-40. During 1939-40 there were 24 establishments in which the manufacture of tobacco, cigars or cigarettes was carried on. There are no tobacco factories in Tasmania.

TOBACCO, CIGAR AND CIGARETTE FACTORIES, 1939-40.

Items.	N.S.W.	Victoria.	Q'land.	S Aust.	W. Aust.	Australia.
	7	11	4	ī	1	24
Number of persons engaged	3,071	2,199	26	9	168	5,473
Value of land and buildings	£ 633,430	345,932	(a)	(a)	(a)	(b) 1,019,160
Value of plant and machinery	£ 598,132	292,039	(a)	(a)	(a)	(b) 910,204
Wages paid	£ 625,289	433,110	(a)	(a)	(a)	(b) 1,085,548
Value of fuel used	€ 25,444	10,185	(a)	(a)	(a)	(b) 36,203
Value of materials used	£ 4.786,575		(a)	(a)		(b) 7,194,06
Total value of output	£ 6,345,864	3.760.376	(a)	(a)	(a)	(b)10,239,86
Value of production	£ 1,533,845	1,422,675	(a)	(a)		(b) 3,009,60

<sup>(</sup>a) Not available for publication.

Australia.

(ii) Total for Australia. This industry was among the first to be established in Australia. In 1861 New South Wales had eleven factories, producing 177,744 lb. of manufactured tobacco; in the same year there was one factory in Victoria, but the quantity of tobacco manufactured is not available. The Australian market has for many years been largely supplied with local manufactures from the imported leaf. Imports during 1939-40 comprised—manufactured tobacco 530,340 lb., cigars 5,228 lb., and cigarettes 296,425 lb., and the quantities manufactured in Australian factories were respectively 16,570,395 lb., 207,934 lb., and 7,281,828 lb. The following tables show the extent of the industry in Australia for the last five years:—

TOBACCO, CIGAR AND CIGARETTE FACTORIES: AUSTRALIA

Items. 1935–36.	1936-37.	1937-38.	1938–39.	1939-40.
per of factories	32	32	30	24
per of employees 5,155	5,447	5,644	5,544	5,473
of land and buildings £ 936,521	1,001,236	1,030,344	1,041,798	1,019,160
of plant and machinery £ 726,713	870,430	932,827	942,644	910,204
s paid £ 950,790		1,074,196	1,095,912	1,085,548
of fuel used £ 20,553		34,344	34,483	36,203
of materials used £ 6,082,506	6,345,214	6,861,305	7,080,574	7,194,06
value of output £ 8,529,491	8,714,581	9,510,121	9,800,413	10,239,86
of production £ 2,426,432		2,614,472	2,685,356	3,009,60
LEAF USED AND F		<u> </u>	4,489	1
ised ( Tananata )	4,249	4,231		4,739
	15,049	15,993	16,011	16,52
				16,57
				7,28
	277 283	283 262	283 262 256	

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

<sup>(</sup>b) Including Queensland, South Australia and Western

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 4.7 million lb. In this connexion, see Chapter XVII. "Agricultural Production", p. 521.

35. Sawmills, etc.—(i) Details for States, 1939-40. 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 town sawmills, as well as plywood and bark mills, have been combined in the following table:—

SAWMILLS, FOREST AND TOWN; PLYWOOD AND BARK MILLS, 1939-40.

	1				)		1
Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
			-				
Number of factories	461	323	438	51	136	212	1,621
Number of persons engage	red 5,234	4,095	5,748	1,013	2,123	1,529	19,742
Value of land and building		438,796	390,719	204,102	199,825	78,834	2,047,363
Value of plant and mac		1 43-775-	33-77-3	1	-55,5	7-7-54	-,-47,5-5
nery	£ 681,469	660,086	704,846	133,147	406,480	232,475	2,818,503
Wages paid	£ 1,023,111	856,187	1,070,238	204,214	467,672	250,840	3,872,262
Value of fuel used	£ 60.180	61,854	55,487	12,028	38,041	16,931	244,530
Value of materials used	£ 3,118,426		2,338,939	836,636	757,603	413,544	9,356,918
Total value of output	£ 4,893,689		4,097,745	1,211,017	1,466,388	829,481	15,816,593
Value of production	£ 1,715,074	1,304,049	1,703,319	362,353	670,744	399,006	6,215,145
	•	1	1		i i		l .

(ii) Total for Australia, 1935-36 to 1939-40. The development of forest and other sawmills, etc., since 1935-36 is shown in the following table:—

SAWMILLS. FOREST AND TOWN: PLYWOOD AND BARK MILLS: AUSTRALIA.

Items.		1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
Number of establishments Number of persons engaged Value of land and buildings Value of plant and machinery Wages paid Value of fuel used Value of materials used Value of production Value of production	 	1,443 17,297 1,974,918 2,702,063 2,927,960 170,705 6,663,907 11,515,591 4,680,979	1,591 18,284 2,015,040 2,671,982 3,188,000 184,038 7,942,375 13,379,054 5,252,641	1,659 19,565 2,025,857 2,807,747 3,601,453 225,537 8,975,242 15,092,088 5,891,309	1,660 19,104 2,054,611 2,785,716 3,634,627 225,782 8,522,895 14,537,888 5,789,211	1,621 19,742 2,047,363 2,818,503 3,872,262 244,530 9,356,918 15,816,593 6,215,145

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 depth of the depression, had recovered to 757 million super. feet in 1939-40. Further reference is made to the sawmilling industry in Chapter XIX. "Forestry".

36. Furniture, Cabinet-making, and Upholstery.—These industries constitute the principal manufactures in Class XI. The following table gives particulars for each Statein 1939-40:—

FURNITURE, CABINET-MAKING AND UPHOLSTERY FACTORIES, 1939-40.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust.	Tas.	Australia
Number of factories Number of persons engaged Value of land and buildings Value of plant and machinery Wages paid Value of fuel used Value of materials used Total value of output Value of production	226,872 845,840 24,880 1,348,330 2,616,733	312 3,257 664,449 140,748 562,894 17,662 975,879 1,920,853 927,312	115 1,503 230,870 70,914 301,359 8,119 460,590 916,630 447,921	78 1,019 133,017 79,711 162,636 7,079 273,398 530,971 250,494	88 635 110,414 29,708 111,032 3,169 178,270 359,925 178,486	39 341 37,956 14,719 52,862 1,358 60,905 142,218 79,955	886 10,846 1,901,694 562,672 2,036,622 62,269 3,297,372 6,487,330 3,127,691

37. Printing Works.—Printing and bookbinding works rank high in importance among the industries of Australia, and in 1939-40 afforded employment for about 28,000 employees, and paid nearly £6,100,000 in salaries and wages, while the value of output amounted to £17,894,000. The following table gives particulars of establishments engaged in general printing in each State for 1939-40. These establishments include those engaged in lithographic printing, the printing of periodicals, excepting those which may be produced by newspapers, bookbinding, paper ruling and linotyping. Government printing works are included, but establishments producing newspapers and weekly publications are shown separately in the succeeding table:—

#### GOVERNMENT AND GENERAL PRINTING WORKS, 1939-40.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust.	Tas.	Australia
Number of factories Number of persons engaged Value of land and buildings £ Value of lant and machinery £ Wages paid £ Value of fuel used £ Total value of output £ Value of production £	330	429	95	66	83	19	1,022
	7,213	6,760	1,716	1,143	923	475	18,230
	149,270	308,136	79,233	56,426	55,577	10,546	659,188
	1,295,307	1,171,770	208,253	220,290	177,305	78,213	3,151,138
	1,383,803	1,293,580	310,751	200,949	170,163	86,284	3,445,530
	42,196	42,777	10,336	8,079	5,432	2,435	111,255
	1,701,562	1,580,132	318,771	204,004	189,605	70,664	4,064,738
	4,106,048	3,771,200	848,159	526,548	516,308	234,031	10,002,294
	2,362,290	2,148,291	519,052	314,465	321,271	160,932	5,826,301

# ESTABLISHMENTS PRODUCING NEWSPAPERS (INCLUDING WEEKLY PUBLICATIONS), 1939-40.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories .  Number of persons engaged .  Value of land and buildings .  Value of plant and machinery .  Vages paid .  Value of fuel used .  Value of materials used .  Total value of output .  Value of production .  £	213 4,219 1,889 933 1,557,907 1,155,971 54,561 1,590,046 3,721,967 2,077,360	2,436 810,050 647,151 682,735 32,147 940,094 2,038,666	538,610 416,394 353,730 21,151 332,498	354,330 246,937 184,597 8,885 216,514 511,236	546 276,066 141,625 161,191 12,691 152,388 453,782	40,923 42,526 83,757 2,774 41,042 227,834	3,909,912 3,052,540 2,621,981

38. 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.	Australia
Number of factories		88 2,355 521,280	31 160 66,301	24 144 56,760	22 73 33,487	11 56 22,151	26: 5,723 1,441,13
Value of plant and machinery & Wages paid & & & & & & & & & & & & & & & & &	471,643 636,148 84,563	651,569 502,409 118,742	19,580 23,917 2,994	15,551 18,976 2,528	8,891 9,340 1,365	6,778 6,107 728	1,174,01 1,196,89 210,920
Value of materials used Total value of output Value of production £	2,614,506	1,825,247 3,329,652 1,385,663	46,534 99,744 50,216	33,009 74,621 39,084	18,711 46,171 26,095	9,051 21,994 12,215	3,645,79 6,186,68 2,329,96

(a) Includes Boots and Shoes and Other Rubber Goods. Note.—Later particulars are not available for publication. (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 collected and are shown in the following table for the five years ended 1938-39:—

TYRES, MOTOR AND CYCLE(a): AUSTRALIA.

Items.		1934-35.	1935-36.	1936~37.	1937-38.	1938-39.
Number of factories Number of persons engaged Value of land and buildings Value of plant and machinery Wages paid Value of fuel used Value of materials used Total value of output Value of production	£	261 3,998 1,240,749 895,139 736,865 134,335 2,173,447 3,499,132 1,191,350	260 4,098 1,257,800 841,815 786,713 136,542 2,269,954 3,788,333 1,381,837	261 4,907 1,583,004 1,281,468 980,567 192,624 3,751,258 5,851,930 1,908,048	267 5,847 1,587,808 1,296,315 1,187,061 212,533 4,533,656 6,849,686 2,103,497	262 5,723 1,441,131 1,174,012 1,196,897 210,920 3,645,799 6,186,688 2,329,969

<sup>(</sup>a) Includes Boots and Shoes and Other Rubber Goods for Tasmania.

NOTE.—Later particulars are not available for publication.

39. Electric Light and Power Works.—(i) Details for each State, 1939–40. 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 5,180 million British units, or by 107 per cent. Particulars for the year 1939–40 are as follows:—

ELECTRIC LIGHT AND POWER WORKS, 1939-40.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories  Number of persons engaged Value of land and buildings Value of plant and machinery £ Wages paid £ Value of fuel used £ Total value of output Value of production £	99 2,148 4,611,531 12,271,485 668,240 1,493,276 236,845 6,196,385 4,466,264	1,445 1,945,153 7,467,138 416,541 651,061 66,633 2,673,351	1,760,088 186,692 436,864 45,719 1,061,158	597,096 2,038,320 470,046 287,096	702 464,671 2,895,956 210,039 625,102 100,696	129 409,399 3,184,496 29,221  61,645 761,711	8,536,674 29,617,483 1,980,779 3,493,399

Particulars of the types of engines and generators installed in Electric Light and Power Works and their rated horse-power are given on p. 581.

(ii) Production, 1935-36 to 1939-40. 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.
1935-36 1936-37 1937-38 1938-39 1939-40	: : : :	'000 K.W.H. 1,464,898 1,626,833 1,816,814 1,948,490 2,145,447	'000 K.W.H. 974,722 1,049,768 1,128,216. 1,222,505 1,389,783	7000 K.W.H. 224,014 256,784 352,258 387,368 421,662	7000 K.W.H. 200,488 215,714 240,902 256,283 270,414	7000 K.W.H. 204,373 237,185 272,512 307,002 336,805	'000 K.W.H. 459,408 522,491 542,767 566,691 615,448	'000 K.W.H. 3,527,903 3,908,775 4,353,469 4,668,339 5,179,559

40. Gas-works.—(i) Details for each State, 1939-40. 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 present classification these are included in Class I.—Treatment of Non-metalliferous Mine and Quarry Products. The following table gives particulars of gas-works in each State for the year 1939-40:—

GAS-WORKS, 1939-40.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories  Number of persons engaged  Value of land and buildings  Value of plant and machinery £  Wages paid  Value of fuel used  Value of materials used £  Total value of output £  Value of production  £	42 1,054 758,665 3,300,459 292,741 208,895 829,049 2,303,081 1,265,137	878 408,144 2,258,710 238,088 24,773 775,930 1,487,584	189,043 552,628 65,128 5,478 158,439 347,277	25,013 1,128,339 168,930 1,451 138,067 547,555	(a) (a) (a) (a) (a) (a)	(a) (a) (a) (a) (a) (a)	106 2,954 b1,495,897 b7,608,366 (b)808,875 (b)256,443 b2,018,426 b4,960,066 b2,685,197

- (a) Not available for publication.
- (b) Includes Western Australia and Tasmania.
- (ii) Coal Used and Production, 1939-40. The following table gives details for 1939-40:—

#### GAS-WORKS: COAL USED AND PRODUCTION, 1939-40. N.S.W. Victoria. Q'land. S. Aust. W. Aust. Tas. Particulars. COAL USED. Coal tons 621.164 411,554 91,702 80,779 (a) (a) b1,246,562 PRODUCTS. 11,208,763 7,693,470 6,906,148 b22,504,472 b19,509,965 (b) 739,047 Gas produced ,000 cubic ft. 1,513,570 1,336,316 1,239,588 (a) (a) (a) (a) 9,533,170 385,450 990,383 48,642 (a) (a) Gas sold ,000 cubic ft. Coke produced Coke for sale (b) 739,047 (b) 453,863 234,669 49,207 tons tons 240,983 141,490 35,365 VALUE. 1,859,641 Gas sold £ 1,975,940 523,319 466,550 (a) (a) b 5,117,435 (b) 562,818 197,582 57,839 Coke for sale 253,641 32,574 (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 22,504,472 thousand cubic feet in 1939-40.

<sup>(</sup>a) Particulars not available for publication.

<sup>(</sup>b) Includes States marked (a).