

## PART XI.

## FACTORIES, FISHERIES, MINES, ETC.

## FISHERIES.

Certain particulars relating to the fishing industry in Victoria are given hereunder.

VICTORIAN FISHERIES—MEN AND BOATS EMPLOYED ;  
QUANTITY AND VALUE OF VICTORIAN FISH SOLD  
IN VICTORIA DURING EACH OF THE YEARS 1944-45  
TO 1948-49.

Year Ended 30th June.	Number of Men.	Boats Employed.		Value of Nets and Other Plant.	Victorian Fish Sold in Victoria.			
					Fish.		Crayfish.	
		Number.	Value.		Quantity.	Value.	Quan- tity.	Value.
			£	£	lb.	£	doz.	£
1945 ..	2,082	1,190	243,866	55,352	9,310,336	397,629	1,242	2,244
1946 ..	2,329	1,194	306,585	65,803	11,923,072	543,719	2,313	4,164
1947 ..	2,251	1,390	600,451	75,973	11,538,240	528,275	3,956	7,621
1948 ..	2,471	1,298	562,719	97,740	9,744,517	446,701	2,314	4,705
1949 ..	2,340	1,243	542,013	100,695	9,906,625	496,748	14,771	26,588

Melbourne  
Fish Market.

The quantities and values of fish sold in the Melbourne Fish Market during each of the years 1947-48 and 1948-49 are shown in the next table.

# FISH SOLD IN THE MELBOURNE FISH MARKET, 1947-48 AND 1948-49.

	Year Ended 30th June.			
	1948.		1949.	
	Quantity.	Value.	Quantity.	Value.
Fresh Fish (Victorian) .. lb.	9,711,100	£ 445,092	9,801,050	£ 490,052
Crayfish .. .. doz.	16,068	28,922	29,519	53,134
Imported Fish (fresh or frozen) lb.	2,951,972	207,641	3,856,740	286,428
Oysters .. .. bags	3,782	20,208	3,372	18,018
Total .. ..	..	701,863	..	847,623

Prawns (23,600 lb. valued at £3,540) were also sold in this market during 1948-49.

The Ballarat Fish Market ceased operations on 30th June, 1948.

## Fish imported.

Particulars of imports of fish into Victorian Ports from overseas countries in each of the two years 1947-48 and 1948-49 are given in the following statement:—

# VICTORIA—FISH IMPORTED FROM OVERSEA, 1947-48 AND 1948-49.

	Year Ended 30th June.			
	1948.		1949.	
	Quantity.	Value.	Quantity.	Value.
Fish—	lb.	£	lb.	£
Fresh or Preserved by Cold Process	3,449,850	167,005	4,703,350	253,033
Potted or Concentrated, &c. ..	272,662	55,389	58,155	11,766
Preserved in tins, &c. .. ..	6,418,830	716,206	4,880,871	626,669
Other .. .. .	417,271	26,293	299,564	21,722
Total .. ..	10,558,613	964,893	9,941,940	913,190

**RABBITS, ETC.**

**Frozen rabbits, &c., exported.** Large quantities of frozen rabbits and hares and of rabbit and hare skins are exported from Victorian Ports to oversea countries. The following table shows the quantities and values so exported during each of the years 1944-45 to 1948-49:—

**VICTORIA—RABBITS AND HARES AND RABBIT AND HARE SKINS EXPORTED OVERSEA 1944-45 TO 1948-49.**

Year Ended 30th June—	Frozen Rabbits and Hares.		Rabbit and Hare Skins.	
	Quantity.	Value.	Quantity.	Value.
	Pairs.	£	lb.	£
1945 .. .. .	1,379,537	160,675	5,750,112	1,750,681
1946 .. .. .	1,035,311	109,044	6,203,553	2,616,670
1947 .. .. .	4,528,137	528,825	4,947,452	2,020,950
1948 .. .. .	9,422,193	1,353,986	5,520,569	1,786,345
1949 .. .. .	14,993,415	2,390,701	4,110,507	1,142,571

**Rabbits, &c., sold at Melbourne Fish Market.** The numbers of pairs of rabbits and hares sold at the Melbourne Fish Market in each of the past five years were as follows;—1944-45, 570,880; 1945-46, 479,532; 1946-47, 511,908; 1947-48, 262,596; and 1948-49, 358,884.

**MINES AND MINERALS.**

The supervision of mining and the inspection of mines are regulated by Act of Parliament.

Interesting information regarding the rights of the Crown to all minerals on or below the surface of the ground, with reference to the position obtaining towards lands alienated from the Crown will be found in the Year Book for 1940-41 and subsequent issues.

**Miners' rights.** The taking out of a "Miner's Right" entitles the holder to prospect for gold on Crown lands. The "Right" may be had for any number of years not exceeding fifteen on payment of a fee at the rate of 2s. 6d. per annum. The holder is entitled to take possession for mining purposes of a defined parcel of Crown lands which is called a "claim." "Claims" may also be taken up under certain conditions on private land. The authority to occupy Crown land under a Miner's Right as a residence area was withdrawn in 1935 by Act No. 4319. The number of miners' rights issued throughout Victoria in each of the years 1945, 1946, 1947, 1948, and 1949, were respectively 1,269, 1,893, 1,553, 1,352, and 1,411.

**Mining leases.** Leases of Crown land and of private land for the purpose of mining for gold are granted for a term not exceeding fifteen years at a yearly rental of 2s. 6d. per acre, except for land that was alienated before 29th December, 1884, where the rental is 6d. per acre. For mining leases of land to be worked by means of dredging or hydraulic sluicing, the yearly rental is 5s. per acre. Other mineral and coal-mining leases are also issued at varying rates.

**Petroleum leases and licences.**

Under the Mines (Petroleum) Acts petroleum mineral leases of not more than 100 square miles and petroleum prospecting licences covering a maximum area of 200 square miles are granted, over Crown lands and land alienated since 1st March, 1892, at yearly rentals of 6d. and 1d. per acre, respectively.

**Area occupied for mining.**

The area of Crown and of private lands occupied under the Mines Acts on 31st December, 1949, was 1,173,502 acres. The subjoined table shows the area being worked for different minerals under such Acts.

**VICTORIA—AREA OCCUPIED UNDER THE MINES ACTS  
31st DECEMBER, 1949.**

(Crown Land and Private Land.)

Nature of Lease or Licence.	Area.	Nature of Lease or Licence.	Area.
	Acres.		Acres.
Gold .. .. .	20,612	Limestone .. ..	300
Coal (black)* .. ..	9,430	Magnesite .. ..	57
Coal (brown)† .. ..	3,946	Marble .. .. .	6
Coal (black and brown) ..	100	Mineral Water and Gas ..	1
Antimony .. .. .	301	Molybdenite .. ..	30
Antimony and Gold .. ..	43	Ochre .. .. .	6
Barytes .. .. .	45	Petroleum Prospecting ..	1,134,582
Basalt .. .. .	14	Pigment .. .. .	6
Bauxite .. .. .	305	Sand .. .. .	17
Bluestone .. .. .	13	Silver, Lead, and Fluorspar	22
Clay .. .. .	157	Slate and Gold .. ..	10
Diatomaceous Earth .. ..	14	Tailings Licences .. ..	1,010
Granite .. .. .	33	Tin .. .. .	324
Gypsum .. .. .	1,328	Water Right Licences ..	408
Iron .. .. .	62	Wolfram .. .. .	39
Kaolin .. .. .	183		
Kaolin and Gold .. ..	5		
Lead and Silver .. ..	93	Total .. .. .	1,173,502

\* Includes State Coal Mine Area, 7,575 acres.

† Includes State Electricity Commission Area, 2,800 acres.

Certain gold mining leases include the right to mine for other minerals.

Certain mineral leases include the right to mine for gold.

**Mining development.** The advances from loan moneys and revenue to mining companies under the provisions of the Mining Development Acts to 30th June, 1930, when assistance under these Acts was discontinued, totalled £285,705.

Since 1935 advances to mining companies have been made under the joint Commonwealth-State scheme for the development of metalliferous mining. The amount so expended up to 31st December, 1949, amounted to £108,363.

### VICTORIA—STATE EXPENDITURE AND REVENUE CONNECTED WITH MINING, 1944-45 TO 1948-49.

Item.	Expenditure from Consolidated Revenue.				
	Year ended 30th June.				
	1945.	1946.	1947.	1948	1949.
EXPENDITURE.	£	£	£	£	£
Mines Department .. ..	27,539	30,678	38,267	43,561	50,230
State Coal Mine .. ..	446,479	397,530	350,137	398,384	437,066
Boring for gold, coal, oil, &c. ..	13,470	8,618	10,890	11,362	27,535
State Batteries—Expenses of operation and maintenance, &c.	3,082	3,288	4,229	3,991	4,814
Geological and underground surveys of mines .. ..	1,078	1,362	2,196	1,875	1,982
Laboratory expenses, &c. ..	265	397	356	714	920
Contribution towards Lakes Entrance Oil Development ..	9,499	5,191	..	..	..
Assistance to Mining Industry ..	..	..	..	..	21,759
Miscellaneous .. ..	2,318	1,010	877	1,851	2,265
Total .. ..	503,730	448,074	406,952	461,738	546,571
REVENUE.					
State Coal Mine .. ..	397,739	344,979	283,333	300,322	350,136
All other .. ..	12,829	15,632	18,150	19,555	20,055
Total .. ..	410,568	360,611	301,483	319,877	370,191

**Total  
mineral  
production.**

The mineral production of the State from lands occupied under the Mines Act (excluding stone raised in quarries, and salt) for the year 1949 and the aggregate mineral production up to 31st December, 1949, are shown in the subjoined statement:—

### VICTORIA—MINERAL PRODUCTION.

Metals and Minerals.	During 1949.		Total to 31st December, 1949.*	
	Quantity.	Value.	Quantity.	Value.
	fine oz.	£	fine oz.	£
Gold .. .. .	68,426	839,316	73,133,382	328,142,712
	ozs.		ozs.	
Platinum .. .. .	..	..	311	1,671
Silver.. .. .	12,316	3,054	1,672,698	255,418
	Tons.		Tons.	
Antimony concentrates (45%) ..	16	1,129	106,002	638,559
Barytes .. .. .	..	..	69	270
Bauxite .. .. .	4,028	5,879	34,416	41,224
Coal, black .. .. .	122,507	379,464	20,671,255	17,781,079
Coal, brown .. .. .	7,375,559	1,469,455	90,570,368	11,417,118
Diatomaceous earth .. .. .	854	4,604	20,504	106,895
Felspar .. .. .	..	..	18,740	218,620
Fluorspar .. .. .	..	..	3,557	11,859
Gypsum .. .. .	30,958	18,124	389,146	215,107
Iron ore .. .. .	..	..	5,461	12,552
Kaolin and other pottery clays ..	9,051	13,372	114,317	171,440
Manganese ore .. .. .	..	..	422	2,009
Magnesite .. .. .	..	..	3,296	11,041
Molybdenite .. .. .	..	..	1,005	63,984
Phosphatic rock .. .. .	..	..	15,781	16,704
Pigment clays .. .. .	..	..	4,502	5,623
Red oxide ex Jarosite .. .. .	..	..	109	1,359
Silver lead ore .. .. .	..	..	804	5,992
Talc .. .. .	70	350	82	410
Tin concentrates (73%) .. .. .	49	20,109	18,693	1,322,008
Wolfram .. .. .	..	..	137	18,965

\* Diamonds valued at £128 and sapphires £630 have been discovered.

Note.—The value of gold as shown above is based on the average value of Victorian gold received at the Melbourne Mint.

Gold  
production  
in Victoria.

The quantities of gold produced in Victoria in different periods are shown in the next table:—

### GOLD PRODUCTION IN VICTORIA, 1851 TO 1949.

Period.	Quantity (Gross oz.).	Period.	Quantity (Fine oz.).
1851-60 .. ..	23,334,263	1926-30 .. ..	171,927
1861-70 .. ..	16,276,566	1931-35 .. ..	307,370
1871-80 .. ..	10,156,297	1936-40 .. ..	744,727
1881-90 .. ..	7,103,438	1941-45 .. ..	423,653
1891-1900 .. ..	7,476,038	1946 .. ..	86,993
1901-10* .. ..	7,095,061	1947 .. ..	84,709
1911-15 .. ..	2,161,349	1948 .. ..	68,580
1916-20 .. ..	905,561	1949 .. ..	68,426
1921-25 .. ..	421,250		

\* Gross oz. 1851-1900; fine oz. from 1901 inclusive.

From 1906 until 1930 the yield of gold continued to decrease, that for 1930 (24,119 fine oz.) being the lowest since 1851. In 1930 both the State and Commonwealth Governments undertook a campaign to encourage prospecting and mining, particularly amongst the unemployed, and this resulted in a gradual increase in the production of gold throughout the State. A steady increase in the world price of gold and the depreciation of the Australian Currency in terms of gold further stimulated the mining industry until 1941 when, owing to man-power restrictions due to the necessities of the war effort, production declined. It reached the low figure of 54,086 fine ounces in 1944, increased slightly in each of the two following years but decreased thereafter to 68,426 fine ounces in 1949. The price of gold in Australia in 1930 was £4 8s. 9d. per fine ounce (export parity calculated from London price). On the 19th September, 1949, consequent on the devaluation of the £ sterling the Australian Mint price which had been £10 15s. 3d. from 1946 inclusive, was increased to £15 9s. 10d. per fine ounce.

The number of men employed in gold mining in Victoria during each of the last five years is shown hereunder.

### MEN EMPLOYED IN GOLD MINING.

Year.	Alluvial.	Quartz.	Total.
	No.	No.	No.
1945 .. ..	157	486	643
1946 .. ..	350	932	1,282
1947 .. ..	251	1,033	1,284
1948 .. ..	188	876	1,064
1949 .. ..	194	825	1,019

The two main headings under which financial assistance is rendered to mining parties and companies are, (a) grants to small parties which are paid to each member at the rate of £1 per week, and (b) loans to approved mining companies and syndicates.

The yields in fine ounces in the other principal gold-producing States in 1949 were 648,425 in Western Australia, 76,282 in Queensland, and 56,075 in New South Wales.

The total production of the Commonwealth in fine ounces was 1,645,697 in 1939, 657,212 in 1945, 824,480 in 1946, 937,654 in 1947, 890,805 in 1948, and 895,339 in 1949.

The total production of gold in the world in fine ounces (millions) as shown in the United States Mint Report, has been estimated as follows:—1943, 28,900; 1944, 26,400; 1945, 26,100; 1946, 27,500; 1947, 28,900; and 1948, 29,600. Limitations on the dependability of these estimates are noted on page 109 of that Report.

**Government  
batteries,  
cyanidation,  
and dredging  
and sluicing.**

Particulars relating to the operations of Government batteries, all cyanide works, and of dredging and sluicing plants for the years 1945 to 1949 are as follows:—

### VICTORIA—GOVERNMENT BATTERIES, CYANIDATION, AND DREDGING AND SLUICING, 1945 TO 1949.

Year.	Government Batteries.			Cyanidation.			Dredging and Sluicing.		
	Number of Batteries Operating.	Quantity of Ore Treated for Gold.	Yield of Gold.	Number of Plants.	Quantity of Tailings Treated.	Yield of Gold.	Number of Plants.	Quantity of Material Treated.	Yield of Gold.
		tons.	fine oz.		tons.	fine oz.		cub. yds.	fine oz.
1945 ..	11	589	515	22	47,197	2,442	7	3,290,050	6,035
1946 ..	12	979	740	40	262,810	8,694	15	4,530,956	14,129
1947 ..	13	826	763	39	268,893	9,977	17	6,913,500	14,746
1948 ..	10	533	185	30	376,143	10,746	15	4,818,000	13,057
1949 ..	10	423	157	24	359,577	10,312	16	4,019,670	13,580

The first Government battery was erected in 1897. Since that date Government batteries have crushed 248,272 tons of ore for 136,728 oz. of gold.

Up to the end of 1949, tailings aggregating 26,266,114 tons had been treated by the cyanide and other processes, and 1,632,965 oz. of gold had been won therefrom.

Since the inception of mechanical dredge and sluice mining 2,184,716 oz. of gold have been won by these systems.

**Mining  
district  
gold yields.**

The yield of gold (given in gross ounces) for 1948 and 1949 in each mining district of the State, is shown in the following table:—



# VICTORIA—DISTRICT YIELDS OF GOLD (ALLUVIAL AND QUARTZ) 1948 AND 1949.

Mining District.	1948.			1949.		
	Alluvial.	Quartz.	Total.	Alluvial.	Quartz.	Total.
	oz.	oz.	oz. (gross)	oz.	oz.	oz. (gross)
Ararat and Stawell ..	9	82	91	21	95	116
Ballarat ..	143	642	785	197	1,343	1,540
Beechworth ..	12,557	32,754	45,311	16,269	31,234	47,503
Bendigo ..	262	15,596	15,858	364	15,148	15,512
Castlemaine ..	872	9,975	10,847	707	10,534	11,241
Gippsland ..	276	3,181	3,457	304	2,683	2,987
Maryborough ..	65	3,168	3,233	183	3,053	3,236
Total ..	14,184	65,398	79,582	18,045	64,090	82,135

**Coal.** Bituminous coal was mined during 1949 at Jumbunna, Kileunda, Korumburra, Outtrim, and Wonthaggi, and brown coal at Bacchus Marsh, Thorpdale, Yan Yan Gurt (near Winchelsea), Yallourn and Yallourn North. The coal resources of Victoria have been described in detail in previous issues of the *Year-Book*.

**Production of black coal, brown coal, and briquettes.** The production and value of black and brown coal respectively, and the production of briquettes are shown hereunder for specified periods:—

## VICTORIA.—COAL PRODUCTION AND VALUE.

Period.	Black Coal.		Brown Coal.		
	Annual Production.	Value.	Annual Production.	Value.	Briquettes—Annual Production.
	tons.	£	tons.	£	tons.
1921–25..	520,705*	591,703	258,094*	61,558	77,945†
1926–30..	668,177*	892,734	1,515,592*	192,612	135,185*
1931–35..	472,030*	444,003	2,445,215*	256,261	311,020*
1936 ..	426,725	390,743	3,044,897	323,914	355,088
1937 ..	257,945	254,126	3,393,919	325,950	390,493
1938 ..	307,258	286,679	3,675,450	351,721	414,059
1939 ..	364,895	259,814	3,651,014	385,952	414,598
1940 ..	267,694	230,452	4,278,475	391,549	427,530
1941 ..	326,441	303,761	4,565,638	422,993	419,104
1942 ..	312,854	411,107	4,933,861	469,699	416,928
1943 ..	287,100	429,358	5,091,729	528,666	411,355
1944 ..	257,692	407,793	5,016,437	566,444	428,844
1945 ..	247,297	494,690	5,445,108	641,069	455,076
1946 ..	191,290	397,662	5,707,039	706,504	504,275
1947 ..	173,683	299,784	6,140,140	937,429	513,891
1948 ..	167,540	347,687	6,692,291	1,187,715	542,189
1949 ..	122,507	379,464	7,375,559	1,469,455	576,603

\* Average annual production. † 1,392 tons in 1924, 76,553 tons in 1925.

The number of men employed in coal mining during the last five years was as follows :—

### MEN EMPLOYED IN COAL MINING.

Year.				Black Coal.	Brown Coal.	Total.
				No.	No.	No.
1945	..	..	..	1,016	584	1,600
1946	..	..	..	924	655	1,579
1947	..	..	..	860	594	1,454
1948	..	..	..	824	626	1,450
1949	..	..	..	787	811	1,598

The quantities of coal which were produced in the other States during the last five years were as follows :—

### COAL PRODUCTION—IN STATES OTHER THAN VICTORIA.

Year.	New South Wales.	Queensland.	South Australia.	Western Australia.	Tasmania.
	tons.	tons.	tons.	tons.	tons.
1945 .. ..	10,176,254	1,637,467	41,383*	546,692	146,185
1946 .. ..	11,216,535	1,567,520	135,460*	642,287	158,751
1947 .. ..	11,708,414	1,883,414	193,351*	730,506	167,140
1948 .. ..	11 721,446	1,742,396	239,464*	732,938	179,393
1949 .. ..	10,736,098	1,962,097	337,233	751,795	177,631

\* Sub-bituminous.

#### Tin Production in Victoria.

According to returns supplied to the Mines Department by the various Mining Companies, the amount of tin concentrates obtained in Victoria up to 31st December, 1949, was 18,693 tons, valued at £1,322,008. A large proportion of this yield was obtained as an incidental return from gold-mining operations.

The principal tin-bearing districts are in the north-east portion of the State, including Eldorado, Chiltern, Beechworth, Omeo, Granya, Mitta Mitta, Mount Wills, and Rutherglen. Tin is also found at Foster and Toora in South Gippsland; other known tin-bearing districts include Bunyip, Wilson's Promontory, and Gembrook.

#### Mining Accidents.

The numbers of fatal and of non-fatal accidents which occurred in gold and coal mines and quarries during the past five years are shown in the following table. Only those non-fatal accidents have been recorded which rendered the injured unfit for work for a period of at least fourteen days.

## VICTORIA—MINING ACCIDENTS, 1945 TO 1949.

Year.	Gold Mines.		Coal Mines.		Quarries.	
	Fatal Accidents.	Serious Accidents.	Fatal Accidents.	Serious Accidents.	Fatal Accidents.	Serious Accidents.
	No.	No.	No.	No.	No.	No.
1945 .. ..	..	2	3	4	..	1
1946 .. ..	..	7	1	7	1	8
1947 .. ..	2	9	..	11	4	15
1948 .. ..	2	3	..	8	1	11
1949 .. ..	3	3	..	4	7	9

**Quarries.** The recorded quantities and values of the principal kinds of stone raised in Victoria during the past five years are as set forth in the following table:—

VICTORIA—QUARRIES AND STONE-CRUSHING PLANTS,  
1944-45 TO 1948-49.

Year ended 30th June—	Number of Returns.	Main Kinds of Stone Extracted.				Approximate Value of Stone Raised. *
		Bluestone.	Sand- stone.	Granite.	Limestone.	
		cub. yds.	cub. yds.	tons.	tons.	£
1945 ..	93	554,978	9,867	31,290	317,469	454,849
1946 ..	100	652,696	7,832	39,200	327,840	549,318
1947 ..	113	967,899	15,332	66,674	395,130	759,465
1948 ..	102	1,055,176	31,953	78,109	395,615	911,224
1949 ..	108	1,097,702	47,008	60,076	458,828	1,163,827

\* Wholesale selling value of stone at the works, exclusive of delivery charges.

In former years the recorded production of stone was confined to that of registered quarries, i.e., those quarries with a fixed plant in regular and permanent production. In recent years, however, an endeavour has been made to record the production by contractors who require material from a source as adjacent as possible to the work for which they are suppliers and who open up quarries for this purpose or exploit stone outcrops, mine tailings, &c.

Much of the sand and gravel used in road, railway, and general building is obtained from sources other than regular sand and gravel pits; limestone rubble extensively used on roads in the north-western portion of the State is usually obtained from adjacent outcrops. It has been found impracticable to obtain quantities and values of all such materials.

The Municipalities, Country Roads Board, and Railways Department have furnished returns from which the following table has been compiled. Information has not been collected for years later than those shown below.

### VICTORIA—QUANTITY OF STONE, ETC., USED FOR ROAD MAKING, REPAIR, AND MAINTENANCE.

Material.	Municipalities.		Railways.		Country Roads Board.	
	1945-46.	1946-47.	1945-46.	1946-47.	1945-46.	1946-47.
	cub. yds.	cub. yds.	cub. yds.	cub. yds.	cub. yds.	cub. yds.
Bluestone, basalt, &c. .. ..	264,969	404,683	82,941	114,370	52,804	148,048
Salamander .. ..	8,574	7,923	..	..	..	500
Scoria .. ..	57,229	65,711	..	..	3,296	9,190
Sandstone .. ..	32,639	46,005	..	..	48,560	210,100
Limestone .. ..	243,526*	321,138*	..	..	44,373	46,117
Quartzite-Quartz ..	30,610	30,830	..	..	17,585	35,440
Toscanite .. ..	..	5,000	..	..	..	..
Ironstone .. ..	22,656	49,420	..	..	..	..
Shale .. ..	3,555	9,660	..	..	1,000	500
Schist .. ..	6,186	1,648	..	..	..	..
Granite .. ..	28,236	32,304	3,511	3,960	300	370
Other stone .. ..	26,470	10,718	..	..	..	..
Gravel .. ..	583,803	855,750	22,149	24,321	49,801	178,140
Sand .. ..	155,688	235,503	..	..	49,998	124,822
Total .. ..	1,464,141	2,076,293	108,601	142,651	267,717	753,227

\* Includes limestone rubble, 146,580 cub. yds. in 1945-46, and 173,963 cub. yds. in 1946-47.

## THE SEARCH FOR OIL IN VICTORIA.

The history of the search for oil in Victoria is recorded in the *Year-Book* 1937-38, page 504.

Exploratory work in connexion with the development of oil deposits at Lakes Entrance was carried on by private enterprise during 1949. Oil yield from tests carried out during the year amounted to 34,410 gallons. The aggregate yield of such oil to the 31st December, 1949, was 179,693 gallons.

## FACTORIES IN VICTORIA.

### Industrial Progress.

Statistical records of factories in Victoria date from 1850, when the number of factories was 68. In 1900 the total had reached 3,097 and 64,207 persons were employed therein. Fairly regular progress, concurrent with increase in population and consequent extension of the home market, was maintained until 1928-29 when the onset of the world depression caused a severe check to the manufacturing industries of the State. Statistics for the years 1927-28 to 1931-32 demonstrate clearly the effect of gradually declining prices and restricted activity.

Thereafter, however, an upward trend obtained until 1933-39 when due to a drop in export prices and also to a severe drought in Victoria, manufacturing industries were adversely affected and there was a consequent decline in employment.

The exigencies of the world war which commenced in September, 1939, made unprecedented demands on the industrial capacity of the State both in regard to the equipment of the armed forces and the provision of civilian needs.

In order to ensure that the resources of the State would be used to the best possible advantage in the national interest the Commonwealth Government established controls in 1941. As a result of the controls thus exercised the activities of "luxury" industries were drastically curtailed, while outstanding expansion took place in those industries deemed vital to the war effort.

The end of the war in August, 1945, brought about a relaxing of war-time controls and the commencement of the rehabilitation of men and women of the fighting forces into civil activities. This transposition did not have a marked effect on factory production as a whole during 1945-46, for the decline which took place in the industries which had been closely associated with the war effort was counterbalanced by an expansion in those whose activities had been drastically curtailed as a result of the implementation of the war economy. After the immediate effects of the war had passed there was notable expansion

in industrial activity and in each succeeding year record figures, were established in secondary production. This was attributable in some degree to the influence of the increasing trend in price levels which became more pronounced in the years 1947-48 and 1948-49. Comparison of the results of the last-mentioned two years shows that, in 1947-48 as compared with 1948-49, the number of factories rose from 11,642 to 12,702, the average number of employees increased from 278,271 to 292,006, and the net value of production increased from £158,501,020 to £182,760,376.

Victoria has a comparatively compact territory producing a variety of raw materials, a temperate climate, an intelligent labour supply, large power resources, a growing home market, an extensive system of State-owned railways served by constantly improving feeder roads, and an effective network of highways and main roads. It is reasonable to assume therefore that with the advantages possessed by this State as a manufacturing field, and with continued organization both of production and of markets therefor, progress should be maintained. The Commonwealth Government's policy of protection, by tariffs, for local industries has no doubt been of assistance in attracting capital for investment in manufacturing industries in this State.

In the table below particulars indicating the development of the manufacturing industries of Victoria during the twenty-year period 1929-30 to 1948-49 are given.

### VICTORIA—GROWTH IN FACTORY PRODUCTION.

Year ended 30th June—	Number of Factories.	Number of Persons Employed.	Value of Plant, Machinery, Land, and Buildings.	Amount of Salaries and Wages Paid.	Value of Materials used (including Containers).	Value of Output.
			£	£	£	£
1930..	8,195	151,009	72,011,020	30,517,535	66,770,302	122,811,099
1931..	8,199	126,016	70,990,071	23,279,689	50,380,110	93,425,795
1932..	8,204	128,265	68,350,575	21,258,599	51,727,685	93,388,617
1933..	8,612	144,428	67,827,428	23,096,512	56,757,681	102,085,429
1934..	8,896	156,334	68,834,279	24,819,143	59,776,270	108,496,310
1935..	9,100	169,691	70,591,677	27,318,815	63,387,061	117,182,857
1936..	9,160	183,390	71,872,906	30,593,707	74,568,265	134,043,170
1937..	9,165	191,383	75,161,894	33,192,904	78,233,032	142,692,192
1938..	9,241	201,789	77,207,830	37,228,543	85,926,478	157,050,725
1939..	9,250	201,831	80,596,625	38,305,885	80,721,680	152,967,611
1940..	9,215	212,461	84,553,699	41,920,726	93,390,751	174,304,401
1941..	9,121	237,636	92,050,326	52,294,673	112,024,332	209,348,845
1942..	8,918	258,400	98,157,370	67,158,613	136,058,136	257,281,080
1943..	8,738	262,357	104,605,310	76,033,111	144,778,354	277,678,940
1944..	9,317	261,299	110,520,701	77,400,688	149,189,244	284,647,914
1945..	9,669	257,633	116,379,925	74,227,245	152,761,198	287,422,311
1946..	10,195	256,249	118,802,347	70,499,214	154,224,950	286,989,408
1947..	10,949	265,757	121,877,270	77,993,765	170,223,745	315,437,679
1948..	11,642	278,271	132,058,592	93,802,188	203,121,836	377,412,025
1949..	12,702	292,006	149,463,382	112,410,440	244,486,168	446,837,579

NOTE:—Particulars of the amounts taken by working proprietors as drawings have not been collected since 1945-46 (inclusive).

**Factories and  
Wages Board  
Legislation.**

The first Factories Act in Victoria was passed in 1873 and since that year many other Acts dealing with the subject have been placed upon the statute-book. The *Factories and Shops Act 1928* consolidated all Acts passed prior to that date. The general provisions of factory legislation, including Wages Boards, are further referred to in Part X., "Social Condition," of this *Year-Book*.

**Statistics Act  
1928.**

Statistics relating to the factories of Victoria are collected by the Government Statist in accordance with the provisions of the *Statistics Act 1928*. In the year 1902, Australian statisticians adopted a uniform classification of industries for statistical purposes in all States. A factory is taken to be an industrial establishment in which four or more hands are employed or in which power other than hand is used. In 1930, a new classification, based upon that used in Great Britain for census purposes, was adopted and still obtains. The definition of a factory remains unchanged.

**Added Value.**

In estimating the relative importance of various industries, or the value of manufacturing industry as a whole, the method used is to calculate the value added in the process of manufacture. This "added value" is arrived at in the following way:—From the value of output of each industry are deducted the most important items of manufacturing expense such as costs of raw materials, containers, fuel and light, repairs to plant and machinery, and replacement of tools, the difference being the value added to raw materials in the process of manufacture, and representing the fund available for the payment of wages, taxation, rent, interest, insurance, &c., and profit.

It is considered that, owing to the duplication of materials used, the finished product of one process of manufacture forming, as it often does, the raw material for another, an inaccurate impression would be obtained by using the total value of output of manufacturing industries in year to year comparisons. Woollen manufactures might be cited as an example. Greasy wool forms the raw material for the wool-scouring industry, the product of which is scoured wool. This is afterwards combed into wool tops which are used in the spinning mills for the manufacture of yarn. In due course the yarn is woven into cloth, the raw material for the clothing industry. If these processes are carried out separately in different factories it is evident that the value of the wool would be counted five times by using value of output as the basis for annual comparisons of manufacturing production.

The concept of "Added value" prevents this double counting, gives a truer picture of the relative economic importance of industries, and also provides a good basis for estimating and comparing productive efficiency in manufacturing.

The subjoined table shows the value added per person employed in each class of manufacturing industry for the year ended 30th June, 1949.

VICTORIA—VALUE ADDED BY PROCESS OF MANUFACTURE,  
1948-49.

Class of Industry.	Average Number of Persons Employed.	Value Added.	Value Added per Person Employed.
		£	£
1. Treatment of non-metalliferous mine and quarry products .. ..	4,658	3,593,900	772
2. Bricks, pottery, glass, &c. .. ..	4,351	2,405,317	553
3. Chemicals, dyes, explosives, paint, oils, and grease.. ..	11,180	11,131,912	996
4. Industrial metals, machines, imple- ments, and conveyances .. ..	94,187	57,075,328	606
5. Precious metals, jewellery, and plate	3,361	1,820,630	542
6. Textiles and textile goods (not dress)	34,137	19,019,107	557
7. Skins and leather (not clothing or footwear) .. ..	5,643	3,828,056	678
8. Clothing .. ..	47,335	22,809,099	482
9. Food, drink, and tobacco .. ..	36,605	26,257,355	717
10. Woodworking and basketware ..	12,956	7,917,606	611
11. Furniture, bedding, &c. .. ..	5,573	3,217,764	577
12. Paper, stationery, printing, book- binding, &c. .. ..	16,450	11,932,570	725
13. Rubber .. ..	4,490	3,534,058	787
14. Musical instruments .. ..	186	95,734	515
15. Miscellaneous products .. ..	7,468	4,374,849	586
16. Heat, light, and power .. ..	3,426	3,747,091	1 09½
Total .. ..	292,006	182,760,376	626*

\* Average for whole State.



As added value is based on value of output, the added value per employee is affected not only by output per employee, but also by the price obtained, and should, therefore, in a comparison of the results of different years, be corrected to allow for variations in price levels. Other important factors are the quantity and the efficiency of the machinery used in the process of manufacture.

The table hereunder summarizes the total value added by the process of manufacturing in each of the past ten years.

### VICTORIA—VALUE ADDED BY PROCESS OF MANUFACTURE.

Year ended 30th June—	Value of Output.	Expenses of Manufactur- ing.*	Value Added.	Average Number of Persons Employed.	Value Added per Person Employed.
1.	2.	3.	4.	5.	6.
	£	£	£		£
1940 .. ..	174,304,401	100,273,914	74,030,487	212,461	348
1941 .. ..	209,348,845	120,348,134	89,000,711	237,636	375
1942 .. ..	257,281,080	146,343,466	110,937,614	258,400	429
1943 .. ..	277,678,940	156,299,193	121,379,747	262,357	463
1944 .. ..	284,647,914	161,317,396	123,330,518	261,299	472
1945 .. ..	287,422,311	165,045,004	122,377,307	257,633	475
1946 .. ..	286,989,408	166,738,921	120,250,487	256,249	469
1947 .. ..	315,437,679	183,941,529	131,496,150	265,757	495
1948 .. ..	377,412,025	218,911,005	158,501,020	278,271	569
1949 .. ..	446,837,879	264,077,503	182,760,376	292,006	626

\* "Expenses of manufacturing" includes the following costs only:—Raw materials, containers, fuel and light, tools replaced, repairs to plant and machinery, lubricating oil and water.

NOTE.—Column 3 deducted from column 2 gives column 4, which when divided by column 5 gives column 6.

**Production of different industries, 1948-1949.** The classification of industries, as adopted in 1930, is set out in the next table. The data shown were compiled from returns rendered compulsorily by all factory proprietors in Victoria. It should, however, be noted that, where a factory, engaged in the production of such goods as would entitle it to classification in more than one sub-class of industry, is unable to give separate production costs, &c., in respect thereof, it is classified according to the predominant product of such factory.

## VICTORIAN FACTORIES—POWER, WORKERS, MANUFAC

Nature of Industry.	Factories.	Rated Horse-power of Engines.	Average Number Employed.		Salaries and Wages Paid.
			Males.	Females.	
	No.	H.P.	No.	No.	£
<b>Class 1.—Non-metalliferous Mine and Quarry Products</b>	<b>338</b>	<b>43,272</b>	<b>4,479</b>	<b>179</b>	<b>1,923,600</b>
Briquetting .. .. .	1	24,360	398	6	237,865
Lime, Plaster, and Asphalt .. .. .	24	2,538	318	14	142,497
Fibrous Plaster and Products .. .. .	122	1,000	1,238	45	483,386
Marble, Slate, &c. .. .. .	51	2,000	388	10	149,606
Cement and cement goods, &c. .. .. .	119	11,734	1,877	41	774,535
Other .. .. .	21	1,640	260	63	135,711
<b>Class 2.—Bricks, Pottery, Glass, &amp;c.</b>	<b>130</b>	<b>21,730</b>	<b>3,953</b>	<b>398</b>	<b>1,780,162</b>
Bricks, tiles, and firebricks .. .. .	57	13,659	1,839	39	817,426
Earthenware, china, and porcelain .. .. .	39	3,078	1,108	258	529,366
Other (including Glass and Glass Bottles) .. .. .	34	4,993	1,006	101	433,370
<b>Class 3.—Chemicals, Dyes, Explosives, Paint, Oils, and Grease</b>	<b>296</b>	<b>65,763</b>	<b>8,733</b>	<b>2,447</b>	<b>4,804,875</b>
Industrial and heavy chemicals, and acids .. .. .	55	11,942	1,497	196	830,576
Pharmaceutical and toilet preparations .. .. .	50	2,675	700	849	521,868
Explosives (including fireworks) .. .. .	9	24,371	2,164	420	1,123,946
White lead, paints, and varnish .. .. .	52	3,089	709	212	372,609
Oils, vegetable (including oilcake) .. .. .	4	619	74	4	42,712
Oils, mineral .. .. .	18	1,580	387	32	167,683
Oils, animal .. .. .	6	1,516	154	17	88,469
Boiling down, tallow refining .. .. .	27	3,187	481	4	231,460
Soap and candles .. .. .	17	2,313	604	179	332,264
Chemical fertilizers .. .. .	9	11,346	1,198	39	623,557
Inks and polishes .. .. .	41	1,396	335	225	204,044
Other .. .. .	8	1,729	430	270	265,687
<b>Class 4.—Industrial Metals, Machines, Implements, and Conveyances</b>	<b>3,748</b>	<b>233,752</b>	<b>84,910</b>	<b>9,277</b>	<b>39,848,562</b>
Smelting, converting, refining of iron and steel .. .. .	12	7,901	1,005	36	565,158
Foundries (ferrous) .. .. .	228	7,167	2,573	109	1,149,434
Plant equipment and machinery .. .. .	439	47,057	13,984	1,232	6,659,035
Other engineering .. .. .	446	16,022	5,913	364	2,634,300
Extracting and refining of other metals: Alloys .. .. .	17	336	158	24	88,537
Electrical machinery, cables and apparatus .. .. .	249	10,475	5,919	1,382	2,890,982
Tramcars and rolling stock (Government) .. .. .	25	15,567	6,742	21	2,945,949
Motor vehicles—					
Construction and assembly .. .. .	17	10,233	4,596	515	2,647,737
Repairs .. .. .	1,224	7,685	8,382	613	3,068,014
Motor bodies .. .. .	139	9,734	4,639	261	2,097,339
Horse-drawn vehicles .. .. .	37	195	151	4	45,612
Motor accessories .. .. .	52	6,008	2,069	774	1,186,288
Aircraft .. .. .	15	5,976	5,211	462	2,439,384
Cycles (foot and hand driven), and accessories .. .. .	33	686	393	88	170,463
Ship and boat building—					
Government .. .. .	4	4,937	1,190	55	566,240
Municipal and other .. .. .	25	1,760	911	8	449,983
Cutlery and small hand tools .. .. .	43	7,965	1,395	254	692,397
Agricultural machines and implements .. .. .	67	15,652	4,637	266	2,298,367
Non-ferrous metals—rolling and extrusion .. .. .	4	3,018	291	23	167,185
Founding, casting, &c. .. .. .	146	4,822	2,411	244	1,085,112
Sheet metal working, pressing and stamping .. .. .	249	11,137	4,991	1,364	2,558,405
Pipes, tubes, fittings—ferrous .. .. .	7	2,180	204	6	97,028

## TURING COSTS AND VALUE OF PRODUCTION, 1948-49.

Fuel and Light Used.	Lubricat- ing Oil and Water.	Repairs to Plant, &c.	Materials Used, Including Containers.	Articles Produced or Work Done.	Value Added.	Land and Buildings.	Plant and Machinery.
£	£	£	£	£	£	£	£
<b>498,600</b>	<b>28,956</b>	<b>236,422</b>	<b>3,107,468</b>	<b>7,465,346</b>	<b>3,593,900</b>	<b>1,349,941</b>	<b>1,863,102</b>
106,964	13,224	32,407	213,542	745,811	379,674	278,591	693,657
46,964	2,574	22,047	602,862	1,042,150	367,703	90,898	78,811
9,534	2,117	15,837	742,286	1,590,862	821,088	251,480	117,889
5,789	1,238	8,996	121,423	389,411	251,965	61,081	46,146
313,229	8,987	138,898	1,206,754	3,193,817	1,525,949	604,474	885,830
16,120	816	18,237	220,601	503,295	247,521	63,417	40,769
<b>654,420</b>	<b>30,278</b>	<b>485,399</b>	<b>1,049,471</b>	<b>4,624,885</b>	<b>2,405,317</b>	<b>930,785</b>	<b>991,032</b>
264,827	15,280	89,667	136,905	1,613,687	1,107,008	352,377	450,726
103,003	3,007	39,141	194,843	1,109,292	769,298	232,526	194,150
286,590	11,991	356,591	717,723	1,901,906	529,011	345,882	346,156
<b>697,272</b>	<b>63,847</b>	<b>536,620</b>	<b>18,430,066</b>	<b>30,859,717</b>	<b>11,131,912</b>	<b>5,896,837</b>	<b>6,217,963</b>
157,820	15,540	122,246	1,981,747	4,133,539	1,856,186	641,285	844,544
19,056	3,611	36,817	1,979,324	3,779,622	1,740,814	472,189	330,880
99,630	12,799	60,622	1,434,850	3,131,776	1,523,875	3,032,736	2,927,339
18,849	1,704	37,618	2,094,232	3,269,537	1,117,134	343,399	211,401
6,157	380	6,136	787,584	926,142	125,885	32,529	23,816
37,758	3,020	21,498	1,919,276	3,064,968	1,083,416	134,744	150,882
29,735	4,742	13,814	216,573	405,308	140,444	96,387	81,126
81,567	3,406	37,431	453,985	959,740	383,351	145,769	151,355
135,752	4,499	66,866	1,497,649	2,666,115	961,349	181,224	233,773
85,838	11,334	118,291	4,252,604	5,698,319	1,230,252	508,284	1,040,516
9,105	982	11,039	890,978	1,467,979	555,875	172,602	93,965
16,005	1,830	4,242	921,264	1,356,672	413,331	135,689	128,366
<b>1,538,372</b>	<b>157,032</b>	<b>2,197,425</b>	<b>46,662,121</b>	<b>107,630,278</b>	<b>57,075,328</b>	<b>22,175,677</b>	<b>19,769,274</b>
94,577	3,778	69,961	463,824	1,464,831	832,691	301,241	397,204
109,606	5,161	62,817	1,001,513	2,791,064	1,611,967	565,956	44,728
249,341	31,705	398,821	8,863,019	20,136,279	10,593,393	3,195,605	3,148,149
68,839	9,561	102,060	2,201,280	6,445,453	4,063,713	1,435,861	1,275,940
14,682	271	7,631	941,384	1,158,844	194,876	66,670	25,804
74,833	6,684	123,849	4,185,802	8,541,762	4,150,594	1,361,439	993,356
80,443	2,875	204,657	2,002,710	6,020,057	3,729,372	1,413,973	427,296
75,179	13,274	148,156	581,884	3,139,352	2,320,859	942,974	1,339,589
78,131	15,075	114,267	2,940,344	7,897,836	3,006,987	3,006,987	928,511
44,681	6,820	108,596	3,232,277	6,482,035	3,090,161	977,947	451,883
1,986	261	926	27,817	104,094	73,094	41,492	10,818
42,814	4,328	86,391	997,173	2,939,675	1,808,969	512,718	462,654
49,024	9,369	83,500	1,795,859	4,865,588	2,927,836	1,350,351	1,281,955
8,840	2,996	13,865	244,842	503,702	233,159	148,980	55,417
11,980	2,702	20,194	379,125	1,027,391	613,390	668,214	427,590
8,247	921	12,054	194,715	880,039	664,102	88,005	85,533
45,761	3,986	42,632	765,527	2,152,527	1,294,621	284,181	341,454
128,503	9,781	136,914	2,250,261	5,581,769	3,056,310	1,087,626	1,296,091
19,443	1,886	22,963	878,860	1,231,792	308,640	147,391	184,587
64,759	3,780	43,793	1,337,655	3,196,356	1,746,369	455,845	367,586
85,025	8,817	197,920	6,429,329	10,640,324	3,919,233	1,219,341	1,074,907
6,888	624	8,993	236,945	433,608	180,158	85,674	90,816

## VICTORIAN FACTORIES—POWER, WORKERS, MANUFACTURING

Nature of Industry.	Factories.	Rated Horse-power of Engines.	Average Number Employed.		Salaries and Wages Paid.
			Males.	Females.	
	No.	H.P.	No.	No.	£
<b>Class 4.—continued.</b>					
Wire and wireworking (including nails) .. .. .	44	2,718	1,094	121	493,761
Stoves, ovens, and ranges .. .. .	20	2,396	899	139	474,025
Gas fittings and meters .. .. .	5	36	254	2	116,036
Lead mills .. .. .	6	663	88	31	49,788
Sewing machines .. .. .	10	47	95	12	40,427
Arms, ammunition .. .. .	5	28,080	1,887	184	883,981
Wireless and amplifying apparatus .. .. .	23	1,183	1,473	411	703,744
Other metal works .. .. .	157	2,116	1,355	272	583,851
<b>Class 5.—Precious Metals, Jewellery, and Plate .. .. .</b>	<b>224</b>	<b>5,073</b>	<b>2,872</b>	<b>489</b>	<b>1,307,300</b>
Jewellery .. .. .	79	799	964	170	451,427
Watchers and clocks .. .. .	18	372	459	196	251,571
Gold, silver, and electroplate .. .. .	127	3,902	1,449	123	601,302
<b>Class 6.—Textiles and Textile Goods (not dress) .. .. .</b>	<b>580</b>	<b>71,202</b>	<b>15,975</b>	<b>18,162</b>	<b>11,808,987</b>
Cotton spinning and weaving .. .. .	43	11,055	1,454	1,413	1,072,320
Wool, worsted, spinning and weaving, &c. .. .. .	87	34,160	6,772	5,420	4,526,344
Hosiery and other knitted goods .. .. .	307	8,383	4,590	9,511	4,355,852
Silk, natural .. .. .	7	1,609	176	321	168,745
Rayon, nylon, and other synthetic fibres .. .. .	3	1,464	200	80	117,141
Flax mills .. .. .	10	1,896	443	66	205,807
Rope and cordage .. .. .	12	7,231	1,184	707	714,037
Canvas goods tents, &c. .. .. .	34	295	230	194	138,572
Bags and trunks .. .. .	21	316	143	59	65,245
Other .. .. .	56	4,883	783	391	444,924
<b>Class 7.—Skins and Leather (not Clothing or Footwear) .. .. .</b>	<b>281</b>	<b>16,587</b>	<b>4,473</b>	<b>1,170</b>	<b>2,336,118</b>
Furriers and fur dressing .. .. .	69	487	325	214	185,042
Fellmongery .. .. .	28	3,892	846	13	426,094
Tanning and leather dressing .. .. .	44	10,905	2,303	124	1,141,977
Saddlery, harness, and whips .. .. .	12	86	96	35	43,249
Machine belting .. .. .	9	668	122	20	67,825
Bags and trunks .. .. .	106	440	671	653	404,317
Other leather goods .. .. .	13	109	110	111	67,614
<b>Class 8.—Clothing .. .. .</b>	<b>2,326</b>	<b>19,886</b>	<b>14,338</b>	<b>32,997</b>	<b>14,306,071</b>
Tailoring and ready-made clothing .. .. .	532	2,046	3,059	7,461	3,122,569
Waterproof and oilskin clothing .. .. .	12	505	118	347	155,906
Dressmaking .. .. .	604	1,905	1,395	10,717	3,315,538
Millinery .. .. .	67	688	240	1,004	346,869
Shirts, collars, and underclothing .. .. .	141	1,516	557	4,114	1,277,161
Stays and corsets .. .. .	25	486	179	1,088	407,862
Handkerchiefs, ties, and scarves .. .. .	26	104	75	299	145,261
Hats and caps .. .. .	18	1,107	446	256	288,347
Gloves .. .. .	31	168	127	460	156,864
Boots and shoes .. .. .	249	6,038	5,628	5,493	3,832,036
Boot repairing .. .. .	432	598	737	28	115,385
Boot accessories .. .. .	19	264	125	179	92,393
Umbrellas and Walking sticks .. .. .	4	7	19	45	17,668
Dyeworks and cleaning .. .. .	151	4,406	1,585	1,256	976,343
Other .. .. .	15	48	48	150	55,869
<b>Class 9.—Food, Drink, and Tobacco .. .. .</b>	<b>1,835</b>	<b>135,177</b>	<b>26,910</b>	<b>9,695</b>	<b>14,261,146</b>
Grain milling .. .. .	39	10,299	1,215	48	597,352
Cereal foods and starch .. .. .	22	6,306	830	474	502,965
Cattle and poultry foods .. .. .	10	1,083	161	14	80,821
Chaff-cutting and corn-crushing .. .. .	79	2,433	415	29	134,570
Bakeries .. .. .	837	4,341	3,700	949	1,879,182
Biscuits .. .. .	17	1,806	589	666	431,587
Confectionery .. .. .	99	9,515	1,397	1,619	1,001,645

COSTS AND VALUE OF PRODUCTION, 1948-49—*continued*.

Fuel and Light Used.	Lubricat- ing Oil and Water.	Repairs to Plant, &c.	Materials Used, Including Containers.	Articles Produced or Work Done.	Value Added.	Land and Buildings.	Plant and Machinery.
£	£	£	£	£	£	£	£
21,276	3,341	38,647	927,479	1,784,411	793,668	345,473	255,867
58,891	2,364	23,641	487,177	1,247,500	675,427	174,631	228,114
2,027	72	817	54,868	207,261	149,477	35,670	9,025
9,157	351	11,301	179,178	290,675	90,688	36,172	21,006
554	67	1,198	19,811	53,419	31,789	22,485	3,745
44,251	3,310	42,685	1,130,130	2,122,179	901,803	1,600,079	3,855,498
17,914	1,324	48,960	1,431,607	2,721,929	1,222,124	220,071	109,838
20,720	2,048	19,206	479,726	1,568,526	1,046,826	382,625	177,313
<b>42,642</b>	<b>3,704</b>	<b>47,451</b>	<b>1,497,483</b>	<b>3,411,910</b>	<b>1,820,630</b>	<b>726,139</b>	<b>413,456</b>
6,954	813	13,792	721,344	1,393,509	650,606	219,015	103,938
4,280	282	11,806	300,366	606,534	239,800	129,758	106,414
31,408	2,609	21,853	475,773	1,411,867	880,224	377,366	203,104
<b>834,751</b>	<b>75,374</b>	<b>1,037,763</b>	<b>30,028,855</b>	<b>50,995,855</b>	<b>19,019,107</b>	<b>6,111,119</b>	<b>6,211,663</b>
92,436	6,749	105,612	3,105,420	5,115,445	1,805,228	907,994	1,040,059
424,981	35,764	412,150	12,872,112	20,762,640	7,017,633	1,949,391	2,091,389
175,687	17,661	357,720	8,471,920	15,886,698	6,863,710	1,977,300	1,783,052
10,321	1,849	20,041	215,637	561,732	313,884	89,584	99,545
17,404	1,221	12,861	202,028	448,940	215,426	48,217	443,193
8,885	2,467	11,458	456,970	775,769	295,989	81,696	86,122
41,635	4,448	70,211	1,922,221	3,159,073	1,120,558	358,921	332,395
2,445	307	3,397	728,887	1,017,506	282,470	139,640	13,500
1,721	325	3,854	203,161	337,760	128,699	45,958	23,765
59,236	4,583	40,464	1,850,499	2,930,292	975,510	512,418	298,643
<b>202,565</b>	<b>33,964</b>	<b>194,915</b>	<b>6,351,561</b>	<b>10,611,061</b>	<b>3,828,056</b>	<b>1,516,013</b>	<b>777,596</b>
4,338	607	4,250	571,076	994,510	414,239	182,511	42,681
117,578	17,721	67,457	2,144,335	3,067,756	720,665	337,641	218,212
70,189	14,722	110,779	2,474,287	4,455,600	1,785,623	561,607	394,081
604	96	603	79,919	148,668	67,446	34,343	3,316
3,095	209	1,551	149,797	290,820	136,168	67,618	45,675
5,774	488	8,170	829,740	1,440,861	596,689	299,273	60,329
987	121	2,105	102,407	212,846	107,226	33,020	13,302
<b>372,634</b>	<b>24,427</b>	<b>467,280</b>	<b>27,437,958</b>	<b>51,111,398</b>	<b>22,809,099</b>	<b>6,881,482</b>	<b>2,814,436</b>
61,617	2,424	59,576	6,765,613	11,828,860	4,939,630	1,422,092	414,809
5,011	296	5,785	274,860	520,891	234,939	104,396	32,761
50,504	1,852	57,700	6,991,699	12,520,012	5,418,257	1,810,902	349,835
12,248	534	14,966	506,987	1,118,720	583,985	250,326	44,685
22,424	1,630	36,528	4,325,615	6,767,904	2,381,707	676,238	211,127
4,101	508	13,913	889,886	1,537,420	620,012	244,235	134,137
1,837	98	2,928	526,186	823,229	292,180	98,020	14,392
18,214	1,048	14,582	263,161	697,002	399,997	88,040	46,753
1,877	137	4,202	253,825	495,082	235,041	73,191	37,022
57,881	5,043	187,387	5,807,671	11,614,506	5,556,524	944,054	846,197
4,361	358	2,146	164,897	476,713	304,951	439,073	49,600
2,007	231	11,256	196,017	391,879	182,368	44,081	17,955
176	3	530	51,701	79,993	27,583	15,990	471
129,639	10,249	54,672	293,548	1,986,241	1,498,133	575,624	607,002
737	16	1,109	126,292	252,946	124,792	45,229	7,680
<b>1,922,670</b>	<b>132,338</b>	<b>1,270,273</b>	<b>71,743,175</b>	<b>101,325,811</b>	<b>26,257,355</b>	<b>13,758,133</b>	<b>10,533,671</b>
100,762	8,218	63,406	8,324,664	9,742,579	1,245,529	725,283	615,283
77,013	8,928	192,100	2,015,583	3,094,815	801,191	504,133	501,711
6,712	744	10,878	630,207	818,593	170,062	83,611	53,737
11,181	1,371	7,844	1,039,329	1,286,093	226,368	125,670	52,411
195,103	10,187	93,876	4,183,996	7,359,116	2,875,954	2,273,933	772,139
39,954	2,215	19,899	727,486	1,638,931	849,377	245,629	235,183
89,925	5,391	54,989	2,996,963	5,476,759	2,329,491	585,200	645,902

## VICTORIAN FACTORIES—POWER, WORKERS, MANUFACTURING

Nature of Industry.	Factories.	Rated Horse-power of Engines.	Average Number Employed.		Salaries and Wages Paid.
			Males.	Females.	
	No.	H.P.	No.	No.	£
<b>Class 9—continued.</b>					
Jam, fruit, and vegetable canning	38	9,597	2,387	1,534	1,474,165
Pickles, sauces, and vinegar ..	20	1,720	420	268	266,709
Bacon curing ..	19	3,412	663	66	299,985
Butter and cheese factories. &c.	145	23,182	3,910	695	2,093,254
Margarine and butterine	14	571	114	16	57,879
Meat and fish preserving, meat extracts ..	16	2,440	774	404	487,317
Condiments, coffee, spices, &c. ..	74	4,100	837	692	564,445
Ice and refrigerating ..	122	28,066	2,358	145	1,186,018
Aerated waters, cordials, &c. ..	104	2,163	940	171	390,967
Breweries ..	7	7,020	1,710	34	923,935
Distilleries ..	9	1,437	252	33	135,192
Winemaking ..	27	386	145	10	42,804
Cider and Perry ..	3	74	30	7	11,073
Malting ..	17	1,807	475	10	249,118
Bottling ..	20	402	361	70	173,518
Tobacco, cigars, cigarettes ..	16	2,183	989	1,126	743,401
Dried fruits and vegetables ..	32	2,107	682	239	316,006
Ice cream ..	21	2,041	257	156	164,615
Sausage skins ..	13	209	333	26	172,843
Other ..	15	6,477	766	194	379,760
<b>Class 10.—Woodworking and Basket-ware</b>	<b>1,093</b>	<b>77,288</b>	<b>12,401</b>	<b>555</b>	<b>4,839,992</b>
Sawmills ..	486	47,892	5,847	122	2,169,200
Plywood mills (including veneers)	5	221	41	5	18,713
Joinery ..	313	10,442	3,152	116	1,265,198
Cooperage ..	10	653	228	1	110,633
Boxes and cases ..	115	12,904	1,742	58	687,223
Woodturning, woodcarving, &c. ..	105	4,329	963	140	384,960
Basket, wicker, bamboo, &c. ..	13	53	86	3	30,261
Perambulators ..	29	222	208	53	100,456
Other ..	17	572	134	57	73,348
<b>Class 11.—Furniture, Bedding, &amp;c.</b>	<b>559</b>	<b>12,508</b>	<b>4,825</b>	<b>748</b>	<b>1,837,766</b>
Cabinet and furniture making ..	437	11,324	4,143	202	1,442,971
Bedding and mattresses ..	39	798	345	229	197,424
Furnishing drapery ..	43	142	162	262	129,128
Picture frames ..	13	42	46	20	19,833
Blinds, window, verandah, &c. ..	27	202	129	35	48,410
<b>Class 12.—Paper, Stationery, Printing, Bookbinding, &amp;c.</b>	<b>686</b>	<b>64,895</b>	<b>12,331</b>	<b>4,119</b>	<b>6,591,211</b>
Newspapers, &c. ..	117	7,136	2,562	232	1,238,931
Printing—Government, &c. ..	3	1,020	759	290	427,195
General printing, &c. ..	414	7,670	4,541	1,659	2,321,622
Stationery and paper products ..	32	1,867	570	565	378,110
Stereotyping and electrotyping ..	10	270	105	13	48,439
Process and photo engraving ..	15	179	325	27	153,850
Cardboard boxes, cartons, &c. ..	38	2,093	838	784	555,679
Paper bags ..	16	440	166	223	129,263
Other paper and printing ..	41	44,220	2,465	326	1,338,122
<b>Class 13.—Rubber</b>	<b>117</b>	<b>34,379</b>	<b>3,638</b>	<b>852</b>	<b>2,142,948</b>
Rubber goods (including tyres made)	36	33,346	3,247	809	1,994,701
Tyre retreading and repairing ..	81	1,033	391	43	148,247
<b>Class 14.—Musical Instruments</b>	<b>17</b>	<b>285</b>	<b>177</b>	<b>9</b>	<b>71,085</b>
Pianos, player and organs ..	12	175	115	3	46,369
Other ..	5	110	62	6	24,716

## COSTS AND VALUE OF PRODUCTION, 1948-49--continued.

Fuel and Light Used.	Lubricating Oil and Water.	Repairs to Plant, &c.	Materials Used, Including Containers.	Articles Produced or Work Done.	Value Added.	Land and Buildings.	Plant and Machinery.
£	£	£	£	£	£	£	£
99,806	14,919	120,900	5,433,678	8,142,900	2,473,597	977,926	966,813
23,344	4,132	21,267	1,292,704	1,968,272	626,825	251,565	198,755
31,916	4,653	14,403	2,457,579	2,997,949	489,398	264,966	128,263
502,644	24,173	223,512	22,071,888	25,655,002	2,882,785	1,777,413	1,805,671
8,190	1,148	3,534	380,062	552,254	159,320	36,641	21,565
50,565	6,850	39,662	2,665,318	3,789,892	1,027,497	363,702	196,759
53,796	8,350	37,035	2,609,891	4,026,584	1,317,512	588,637	331,114
172,289	9,230	115,243	467,862	2,645,192	1,880,568	1,514,946	846,378
20,663	2,148	31,343	949,319	1,799,843	796,370	341,853	237,502
132,296	2,894	65,404	1,924,929	3,329,303	1,203,780	733,955	1,056,521
65,830	1,183	20,789	504,273	938,056	346,981	151,991	221,030
2,443	482	2,915	111,698	207,619	90,081	88,450	57,990
615	96	633	13,473	32,409	17,592	32,817	12,883
50,418	5,331	18,482	1,173,103	1,711,550	464,216	475,764	122,425
5,991	864	5,766	362,887	648,114	272,606	195,831	18,855
20,174	2,191	37,311	4,539,881	6,292,652	1,693,095	409,828	462,732
12,421	1,427	15,585	332,475	818,218	456,310	168,229	141,623
18,621	1,687	19,655	613,808	1,215,837	562,066	182,580	159,744
5,619	1,160	4,726	279,142	543,558	252,911	56,590	24,731
124,379	2,366	29,116	3,640,977	4,592,721	795,883	600,990	645,951
<b>196,121</b>	<b>38,853</b>	<b>364,212</b>	<b>9,624,340</b>	<b>18,141,132</b>	<b>7,917,606</b>	<b>2,244,651</b>	<b>2,069,057</b>
123,376	29,594	241,208	5,024,800	9,174,872	3,755,894	866,180	1,315,951
681	61	1,147	57,996	91,775	31,890	17,346	7,173
24,007	3,050	39,832	2,006,891	3,986,984	1,913,204	623,826	282,569
1,979	661	2,498	100,539	242,073	136,396	27,184	27,626
27,822	3,637	51,281	1,484,883	2,610,156	1,042,533	334,384	238,142
11,392	1,198	20,030	480,627	1,168,837	655,590	233,548	135,610
591	21	732	42,863	103,488	59,281	19,448	3,310
1,226	175	2,713	232,450	402,118	165,554	73,059	16,412
5,047	456	4,771	193,291	360,829	157,264	49,676	42,264
<b>35,166</b>	<b>3,217</b>	<b>63,167</b>	<b>3,625,153</b>	<b>6,944,467</b>	<b>3,217,764</b>	<b>1,427,689</b>	<b>399,691</b>
28,946	2,699	46,410	2,259,655	4,736,659	2,398,949	1,080,732	324,789
3,353	262	10,564	937,563	1,413,812	462,070	162,683	50,478
1,525	151	4,407	251,448	470,366	212,835	105,057	9,438
385	27	167	23,590	60,712	36,543	23,945	1,950
957	78	1,619	152,897	262,918	107,367	55,272	13,036
<b>542,895</b>	<b>33,434</b>	<b>454,623</b>	<b>12,609,354</b>	<b>25,572,876</b>	<b>11,932,570</b>	<b>4,607,143</b>	<b>4,144,683</b>
36,873	6,372	73,086	2,195,138	4,344,973	2,033,504	837,442	805,982
7,612	1,048	7,462	330,631	939,372	592,619	198,654	69,560
49,659	7,449	112,363	3,305,384	7,419,340	3,944,485	1,804,720	1,462,069
10,959	786	16,088	984,203	1,744,823	732,787	277,622	269,340
2,362	92	1,995	30,993	124,932	89,490	36,138	25,521
2,859	350	2,682	55,390	314,326	253,045	105,315	34,581
10,637	2,016	23,350	1,661,877	2,903,018	1,205,138	390,620	278,543
2,686	514	8,363	685,589	903,810	206,658	95,474	90,061
419,248	14,807	209,234	3,360,149	6,878,282	2,874,844	861,158	1,109,026
<b>335,907</b>	<b>20,384</b>	<b>289,306</b>	<b>5,487,179</b>	<b>9,666,834</b>	<b>3,534,058</b>	<b>1,016,931</b>	<b>1,051,083</b>
317,581	19,462	271,568	5,242,487	9,096,889	3,245,791	788,441	936,037
18,326	922	17,738	244,692	569,945	288,267	228,490	115,046
<b>1,242</b>	<b>275</b>	<b>2,334</b>	<b>36,897</b>	<b>136,482</b>	<b>95,734</b>	<b>56,797</b>	<b>17,365</b>
505	211	337	18,013	75,919	56,853	46,957	3,118
737	64	1,997	18,884	60,563	38,881	9,840	14,247

## VICTORIAN FACTORIES—POWER, WORKERS, MANUFACTURING

Nature of Industry.	Factories.	Rated Horse-power of Engines.	Average Number Employed.		Salaries and Wages Paid.
			Males.	Females.	
	No.	H.P.	No.	No.	£
<b>Class 15.—Miscellaneous Products..</b>	<b>367</b>	<b>13,716</b>	<b>4,766</b>	<b>2,702</b>	<b>2,675,231</b>
Plastic moulding and products ..	86	5,541	1,600	797	852,975
Brooms and brushes ..	25	1,388	447	196	231,151
Optical instruments and appliances ..	35	222	290	17	115,386
Surgical instruments and appliances ..	50	784	516	120	240,181
Photographic material (including developing, &c.) ..	33	1,624	660	675	515,841
Toys, games and sports requisites ..	73	1,427	646	384	340,143
Artificial flowers ..	8	27	33	221	53,128
Other ..	57	2,703	574	292	326,426
<b>Class 16.—Heat, Light and Power</b>	<b>105</b>	<b>801,575</b>	<b>3,403</b>	<b>23</b>	<b>1,875,386</b>
Electric light and power—					
(i) Government ..	10	723,974	1,520	13	978,605
(ii) Local authority ..	33	64,957	464	..	222,061
(iii) Companies ..	25	3,367	61	1	20,794
Gas works—					
(i) Local authority ..	8	85	88	..	38,612
(ii) Companies ..	29	9,192	1,270	9	615,314
<b>Total all Classes</b>	<b>12,702</b>	<b>1,617,088</b>	<b>208,184</b>	<b>83,822</b>	<b>112,410,440</b>

## INDIVIDUAL INDUSTRIES.

The salient features of the chief industries are set forth in the succeeding pages.

Tanning was one of the earliest industries established in Victoria; in the year 1850 there were thirteen tanneries in the State. Particulars relating to the industry for the year 1939-40 and the past five years are given in the following table:—

## VICTORIA—TANNERIES.

Item.	Year ended 30th June—					
	1940.	1945.	1946.	1947.	1948.	1949.
Number of establishments ..	40	40	44	43	44	44
Number of persons engaged ..	2,182	2,071	2,257	2,478	2,385	2,427
Horsepower of engines used ..	8,038	8,363	9,227	9,410	10,394	10,905
Value of plant and machinery £	237,601	246,288	298,080	343,572	354,257	394,081
Value of land and buildings £	411,915	425,878	497,837	533,771	535,292	561,607
Salaries and wages paid ..	496,068	728,817	778,865	957,733	1,000,531	1,141,977
Fuel, light, and power ..	38,222	50,212	46,577	58,019	63,033	70,189
Value of materials used ..	1,647,665	1,895,000	2,055,072	2,522,950	2,490,024	2,474,287
Value of output ..	2,581,623	3,093,580	3,430,200	4,234,473	4,214,377	4,455,600
Value added to materials ..	850,965	1,072,469	1,227,409	1,542,742	1,543,871	1,785,623
Materials treated						
Cow and ox hides .. No.	847,697	926,581	916,071	1,051,829	1,028,093	1,027,463
Calf hides ..	486,110	542,036	699,480	551,125	563,085	587,495
Other skins and pelts ..	831,399	1,308,882	1,199,211	1,904,892	1,604,892	984,873
Bark used .. tons	11,218	5,296	5,739	6,358	5,901	5,937
Tanning extract (vegetable) used .. 000 lb.	2,590	8,536	8,536	8,137	7,132	7,175
Sole leather produced .. lb.	13,461,162	13,225,297	13,039,543	14,179,838	13,015,662	14,274,667



COSTS AND VALUE OF PRODUCTION, 1948-49—*continued*.

Fuel and Light Used.	Lubricating Oil and Water.	Repairs to Plant, &c.	Materials Used, Including Containers.	Articles Produced or Work Done.	Value Added.	Land and Buildings.	Plant and Machinery.
£	£	£	£	£	£	£	£
140,015	13,920	161,805	4,387,267	9,077,856	4,374,849	1,506,776	1,199,342
62,226	7,644	95,615	1,404,388	2,962,651	1,392,778	443,179	641,106
4,772	789	9,004	499,246	872,672	358,861	130,225	96,783
2,329	178	3,311	180,228	358,959	172,913	100,770	41,839
4,260	702	7,073	211,299	590,135	366,701	157,346	90,068
23,213	1,950	2,898	543,472	1,362,212	790,679	270,719	123,501
9,244	646	10,946	406,581	1,000,308	572,891	164,725	92,868
706	26	1,297	50,106	134,047	81,912	29,128	6,693
33,165	1,985	31,661	1,091,947	1,796,872	638,114	210,684	106,484
2,596,786	64,441	445,833	2,407,820	9,261,971	3,747,091	3,177,671	17,606,184
2,307,101	10,532	212,758	1,737	4,853,467	2,321,344	2,380,891	11,778,363
£51,548	16,503	29,923	915	589,817	290,928	254,984	877,723
20,050	3,523	4,443	549	69,189	40,624	17,947	69,701
2,083	429	2,949	67,758	117,391	44,172	15,752	90,741
16,004	33,454	195,765	2,336,861	3,632,107	1,050,023	508,097	4,789,656
10,612,058	724,444	8,254,833	244,486,168	446,837,879	182,760,376	73,383,784	76,079,598

The value of leather and leather manufactures and substitutes therefor imported into Victoria from overseas countries during the year ended 30th June, 1949, was £221,135, whilst the value exported overseas for the same period amounted to £834,926.

The manufacture of soap was also one of the earliest of Victorian industries. In the year 1850 the recorded production of the four establishments then operating was 5,840 cwt. of soap. The following table indicates the development which has since taken place.

## VICTORIA—SOAP FACTORIES.

Item.	Year ended 30th June—					
	1940.	1945.	1946.	1947.	1948.	1949.
Number of establishments ..	16	16	16	18	17	17
Number of persons engaged ..	713	712	738	725	700	783
Horse-power of engines used ..	2,742	2,607	2,117	2,227	2,316	2,313
Value of plant and machinery £	186,601	151,571	151,597	153,142	161,384	233,773
Value of land and buildings £	207,550	188,752	185,865	187,049	186,454	181,224
Salaries and wages paid £	141,652	209,025	213,617	221,445	252,016	332,264
Fuel, light, and power £	38,426	57,482	54,884	70,902	84,561	135,752
Value of materials used £	542,553	798,995	858,989	883,845	1,224,953	1,497,649
Value of output ..	£ 1,398,010	1,571,168	1,613,919	1,723,064	2,069,443	2,666,115
Value added to materials £	777,215	668,479	649,520	717,359	700,793	961,349
Materials used—						
Tallow .. .. cwt.	220,195	312,548	285,674	284,053	302,297	334,826
Alkali .. ..	115,912	58,767	59,292	65,525	63,412	68,358
Coconut oil .. ..	49,737	26,146	30,540	21,492	22,979	31,928
Soda ash .. ..	*	38,300	49,141	52,408	49,904	64,098
Output—						
Soap, Household .. cwt.	202,221	139,373	141,287	158,486	143,480	144,100
" Sand .. ..	31,422	19,733	19,266	18,534	23,452	8,073
" Toilet .. ..	23,018	30,983	30,466	31,755	27,636	45,042
" Extracts and powders,,	133,417	159,689	179,110	208,670	217,074	248,350
" All other .. ..	27,106	61,707	48,964	60,565	53,172	50,790
Soda crystals .. ..	22,647	11,538	10,237	10,012	3,990	*

\* Not available.

Items of manufacture not specified above include soft, industrial, and flake soaps, candles, glycerine, &c.

Imports from oversea countries into Victorian ports in the year ended 30th June, 1949, included 314,533 lb. of soap, and 398,350 lb. of soap substitutes valued at £43,497 and £26,593 respectively.

These industries are grouped because some establishments **Bricks, pottery, pipes, and tiles.** which produce bricks also manufacture tiles, and others which produce tiles, also manufacture pipes and pottery. Factories manufacturing cement bricks, pipes, and tiles are not included herein, but are grouped with those making cement and cement products.

### VICTORIA—BRICKS, POTTERY, PIPES, AND TILES.

Item.	Year ended 30th June—					
	1940.	1945.	1946.	1947.	1948.	1949.
Number of establishments ..	83	65	79	85	87	96
Number of persons engaged ..	3,280	1,725	2,468	3,149	3,126	3,244
Horse-power of engines used ..	14,455	10,326	13,987	14,992	15,796	16,787
Value of plant and machinery ..	607,451	395,997	527,321	549,206	578,316	644,876
Value of land and buildings £	543,885	421,513	530,133	550,705	570,734	584,903
Salaries and wages paid ..	685,559	471,066	672,346	988,778	1,120,790	1,346,792
Fuel, light, and power ..	239,243	114,887	174,908	244,734	277,673	367,830
Value of materials used ..	156,775	105,267	146,593	205,326	250,236	331,748
Value of output ..	1,487,502	895,080	1,322,688	1,996,714	2,247,536	2,722,979
Value added to materials ..	1,016,405	635,711	927,143	1,446,812	1,584,263	1,876,306
Production—						
Bricks, common (1,000)	186,835	37,839	83,018	134,538	141,683	153,052
Roofing tiles .. (1,000)	13,288	2,882	5,422	10,182	11,037	11,811
Pipes, agricultural, &c. £	220,531	79,226	142,571	228,769	261,781	322,887
Other earthenware china, &c. £	294,451	409,342	335,873	531,699	560,455	651,585

**Sawmills.** Detailed information in regard to the sawmills of the State for the five years 1944-45 to 1948-49 is given in the table which follows:—

### VICTORIA—SAWMILLS.

Year Ended 30th June.	Number of Mills.	Value of Land and Buildings, Machinery and Plant in Use.	Persons Employed.	Salaries and Wages Paid.	Rough-Sawn Timber Produced.	
					Quantity.	Value.
		£		£	super ft.	£
1945 ..	294	1,137,689	3,797	1,157,506	173,617,625	2,178,792
1946 ..	332	1,289,636	4,493	1,224,797	186,376,570	2,819,697
1947 ..	383	1,526,565	5,068	1,492,266	226,471,660	3,276,764
1948 ..	459	1,762,969	5,440	1,692,347	237,008,701	3,716,648
1949 ..	486	2,182,131	5,969	2,169,200	267,724,071	4,414,533

Prior to 1945-46 figures given in this table related only to Forest sawmills. In consequence of a revision in the statistical sub-classification of industry the table now relates to all sawmills (Forest and Town).

It should be noted that the number of persons employed is comprised of those working in the sawmills only—workers engaged in the felling and in the hauling of timber from forest to mill are excluded from the above figures.

Further particulars of sawmills and the 607 other factories which comprise the wood working group will be found on pages 564 and 565.

The quantity of timber recorded as sawn in firewood sawmills in the year 1948-49 was 314,795 tons, valued at the sawmills at £484,753. There is also a large amount of firewood taken from the forests and from private land which does not pass through these sawmills and its value cannot be reliably estimated. Statistics collected from factories, mines, and quarries show that, during 1948-49, 603,437 tons of firewood, which cost £688,905, were consumed.

The value of production of the Agricultural Implement Industry is extremely liable to fluctuation due to seasonal influences and the effects of varying prices of primary products. In the years affected by the requirements of a war economy, production in this industry and in metal industries generally was restricted accordingly.

#### VICTORIA—AGRICULTURAL AND DAIRYING MACHINERY WORKS.

Item.	Year ended 30th June—					
	1940.	1945.	1946.	1947.	1948.	1949.
Number of establishments ..	79	54	57	60	64	67
Number of persons employed	3,781	4,637	4,905	4,189	4,557	4,903
Horse-power of engines used	9,971	12,517	12,861	13,268	14,193	15,652
Value of land and buildings £	613,775	571,230	609,043	624,340	836,504	1,087,626
Value of plant and machinery £	563,275	838,582	719,690	665,761	1,034,171	1,296,091
Salaries and wages paid £	908,420	1,512,731	1,584,777	1,466,847	1,869,139	2,293,367
Value of materials used £	890,220	1,446,242	1,461,788	1,334,378	1,710,467	2,250,261
Fuel, light, and power used £	55,431	112,466	112,480	90,518	109,576	128,503
Value of output ..	£ 2,142,634	3,658,935	3,747,487	3,440,499	4,406,863	5,581,769

**Bacon curing.** In the following table particulars of bacon and ham curing establishments are given for the year 1940 and the past five years.

## VICTORIA—BACON FACTORIES.

Item.	Year ended 30th June—					
	1940.	1945.	1946.	1947.	1948.	1949.
Number of establishments	18	20	20	20	20	19
Number of persons employed	553	719	715	725	729	729
Horse-power of engines used	3,814	3,828	4,056	4,251	4,533	3,412
Value of land, buildings, plant, &c.	£ 344,909	349,366	346,579	344,293	363,520	393,229
Salaries and wages paid	£ 128,968	215,773	218,321	228,359	250,373	299,985
Value of materials used	£ 916,359	2,130,269	1,808,682	2,073,770	2,150,259	2,457,579
Value of fuel and light	£ 16,631	30,063	27,092	29,818	31,292	31,916
Value of output	£ 1,149,538	2,570,889	2,256,837	2,467,962	2,720,995	2,997,949
Pigs slaughtered for curing	No. 170,905	247,147	206,054	223,386	239,976	205,867
Bacon and ham cured	lb. 17,385,848	26,609,925	20,961,254	24,592,389	24,832,276	22,692,847

**Butter and cheese factories.** The number of butter, cheese, and kindred factories in 1948-49 was 145. Of these 107 were making butter, 29 cheese, 1 concentrated milk, 4 condensed milk, 19 powdered milk (full cream and skim), 3 dried butter milk, 10 casein, and 1 milk sugar. The following table gives some indication of the value of this industry to the State :—

## VICTORIA—BUTTER AND CHEESE FACTORIES, ETC.

Item.	Year ended 30th June—					
	1940.	1945.	1946.	1947.	1948.	1949.
Number of establishments	167	148	148	147	148	145
Number of persons employed	3,194	3,748	3,874	4,285	4,446	4,605
Horse-power of engines	14,594	19,736	20,857	21,356	28,147	23,182
Value of plant and machinery	£ 1,286,131	1,332,534	1,344,427	1,395,350	1,530,640	1,805,671
Value of land and buildings	£ 1,207,095	1,454,364	1,525,425	1,628,180	1,730,366	1,777,413
Salaries and wages paid	£ 806,298	1,162,211	1,235,307	1,471,367	1,755,797	2,093,254
Fuel, light, and power	£ 188,821	308,449	335,250	363,432	391,229	502,644
Value of materials used	£ 12,034,986	11,994,600	13,497,788	16,356,296	17,022,132	22,071,888
Value of output	£ 14,741,260	14,716,135	16,458,087	19,638,430	21,346,980	25,655,002
Added value	£ 2,411,202	2,259,915	2,454,430	2,719,278	3,719,031	2,832,785
Articles produced—						
Butter	lb. 161,289,017	104,832,382	112,180,169	133,027,174	127,044,971	134,486,863
Cheese	lb. 24,379,610	27,340,311	33,405,690	39,457,096	36,212,975	41,108,571
Condensed milk	lb. 29,869,658	76,126,884	80,345,852	74,873,513	78,090,025	82,105,468
Powdered milk, &c. (all kinds)	lb. 26,409,999	32,915,162	36,244,293	43,168,944	44,771,472	52,537,882
Casein	lb. 5,331,163	3,136,286	2,809,033	5,134,974	5,365,047	6,358,597

Further particulars relating to butter and cheese factories will be found on page 564.

**Bakeries (including bread, pastry and cakes).** The statistical definition of a factory (see page 557) excludes from enumeration many small bakeries. Particulars relating to 1948-49 include 837 bakehouses which come within that definition.

The value quoted is the wholesale selling value of the goods at the factory exclusive of all selling and delivery costs.

## VICTORIA—BAKERIES.

Item.	Year ended 30th June—					
	1940.	1945.	1946.	1947.	1948.	1949.
Number of factories ..	597	728	746	805	824	837
Number of persons employed	3,391	3,712	4,112	4,410	4,473	4,649
Horse-power of engines used	2,673	3,393	3,568	3,792	3,905	4,341
Value of land and buildings £	1,266,693	1,556,972	1,667,986	1,998,185	2,035,796	2,273,933
Value of plant and machinery £	451,758	455,041	477,092	543,278	654,026	772,139
Salaries and wages paid £	721,435	1,031,434	930,304	1,082,345	1,179,604	1,379,182
Value of materials used £	2,224,652	2,903,301	2,981,031	3,210,602	3,627,264	4,183,996
Fuel, light, and power used £	87,407	136,110	139,311	152,816	168,984	195,103
Repairs, oil and water used £	36,609	60,349	93,500	82,603	83,420	104,063
Total output ..	£ 3,689,027	4,944,910	5,247,154	5,789,351	6,324,892	7,359,116
Value added ..	£ 1,340,359	1,845,150	2,033,312	2,343,330	2,445,224	2,875,954
Value added per worker £	395	497	494	531	547	618
Flour used—tons (2,000 lb.) ..	105,944	125,679	111,560	129,248	128,865	130,622
Bread made—4-lb. loaves ..	57,017,198	76,398,458	70,080,082	79,238,257	81,589,116	80,786,050
Cakes, pastry, pies ..	£ 1,695,367	2,673,367	2,635,193	3,130,947	3,121,115	3,835,624

**Meat and fish  
preserving  
works.**

Details appertaining to the meat and fish preserving industry for 1939-40 and the past five years are given hereunder—

## VICTORIA—MEAT AND FISH PRESERVING WORKS.

Item.	Year ended 30th June—					
	1940.	1945.	1946.	1947.	1948.	1949.
Number of establishments ..	9	12	12	14	16	16
Number of persons engaged ..	313	1,338	1,089	954	1,077	1,178
Horse-power of engines used	535	2,031	2,128	2,201	2,505	2,440
Value of plant and machinery £	27,458	130,491	139,945	144,386	178,011	196,759
Value of land and buildings £	88,878	187,171	190,646	209,259	351,786	363,702
Salaries and wages paid £	60,631	377,323	310,686	312,079	387,587	487,317
Fuel, light, and power £	4,560	27,643	27,654	28,852	31,105	50,565
Value of materials used £	391,382	2,882,204	2,154,730	1,922,096	2,321,207	2,665,318
Value of output ..	£ 573,563	3,879,860	2,963,365	2,716,064	3,162,127	3,789,892
Value added to materials £	171,641	934,922	747,857	731,443	767,061	1,027,497
Canned meat produced cwt.	65,496	509,624	318,386	322,300	355,145	377,657
Meat extracts .. cwt.	875	5,509	5,669	3,471	*	*
Fish (all kinds) .. cwt.	8,796	6,663	11,593	25,607	23,788	17,878

\* Not available for publication.

**Ice and Refrigeration.** One hundred and twenty-two establishments were included under the industrial Sub-class "Ice and Refrigeration" during 1948-49. There were 2,703 persons employed and the total horse-power of machinery used was 28,066. The value of Land &c. and Plant &c. was £2,361,324 and the value of Output £2,645,192. Particulars of Meat Freezing Works are incorporated in the foregoing figures. No collection of statistics is now made regarding quantities of carcasses treated in the freezing works.

**Imports and exports of meats.** The following statement shows the imports from and exports to oversea countries of frozen, chilled, and preserved meats during the year ended 30th June, 1949 :-

**VICTORIA—MEAT IMPORTED AND EXPORTED OVERSEA,  
1948-49.**

Meats.	Imports.		Exports.	
	Quantity.	Value.	Quantity.	Value.
		£		£
Preserved by cold process—				
Beef .. .. .	..	..	lb. 2,426,953	122,896
Lamb .. .. .	..	..	„ 45,879,001	1,867,851
Mutton .. .. .	..	..	„ 12,620,225	278,064
Pork .. .. .	..	..	„ 3,212,503	212,424
Poultry .. .. .	..	..	(a)	644,470
Rabbits and hares .. .. .	..	..	prs. 14,993,415	2,390,701
Veal .. .. .	..	..	lb. 172,284	6,867
Other .. .. .	..	..	(a)	208,129
Bacon and hams .. .. .	..	..	„ 1,621,095	123,270
Potted and concentrated .. .. .	lb. 9,533	3,684	„ 75,857	27,237
Preserved in tins, &c. .. .. .	„ 57,180	4,733	„ 46,460,459	2,545,970
Sausage casings .. .. .	ewt. 4,575	108,908	ewt. 8,776	386,030
Other .. .. .	(a)	23	(a)	50,921
Total value .. .. .	(a)	117,348	(a)	8,864,830

(a) Value only.

**Flour Mills.** Victorian flour mills produce ample flour, &c., to supply all local requirements and a considerable surplus for export. The following table gives particulars of the industry for the year 1939-40 and for the past five years.

## VICTORIA—FLOUR MILLS.

Item.	Year Ended 30th June—					
	1940.	1945.	1946.	1947.	1948.	1949.
Number of establishments ..	36	38	40	40	39	39
Number of persons engaged ..	1,054	1,056	1,021	1,210	1,260	1,263
Horse-power of engines used ..	8,440	9,845	9,561	9,799	10,259	10,299
Value of plant and machinery £	501,585	482,344	497,473	504,767	547,261	615,283
Value of land and buildings £	598,045	664,672	688,849	724,818	715,429	725,233
Salaries and wages paid £	283,595	361,232	343,275	426,400	517,704	597,352
Fuel, light, and power £	55,863	76,398	63,155	83,589	92,024	100,762
Value of materials used £	3,361,425	4,093,174	3,511,565	4,882,267	6,877,656	8,324,664
Value of output £	4,007,867	4,902,557	4,222,476	5,888,438	8,015,452	9,742,579
Value added to materials £	555,368	880,634	599,944	864,975	972,435	1,245,529
Wheat ground into flour, bushels	19,099,585	19,012,208	16,149,846	21,829,022	23,426,290	22,347,473
Flour produced .. tons	397,698	393,036	315,525	449,170	487,806	466,828
(2,000 lb.)						
Bran produced .. "	83,954	76,925	66,177	89,517	105,727	98,876
Pollard produced .. "	90,195	73,723	64,659	95,994	101,364	98,522
Wheatmeal produced .. cwt.	163,179	302,220	339,500	382,357	*242,268	322,232*

\* Prior to 1947-48 "Wheatmeal" included "Stock Food".

During the year ended 30th June, 1949, 272,887 tons of flour, valued at £10,802,761 were exported from Victorian ports to countries beyond Australia.

**Jam, pickle, and sauce works.** Particulars relating to jam, pickle, and sauce factories and fruit and vegetable canning factories are given in the table hereunder, which shows the main items of output, &c., for the year 1939-40 and for the past five years.

## VICTORIA—JAMS, PICKLES, SAUCES, PRESERVES, ETC.

Item.	Year Ended 30th June—					
	1940.	1945.	1946.	1947.	1948.	1949.
Number of establishments ..	45	60	52	54	52	58
Number of persons engaged ..	3,441	5,991	4,864	4,598	4,368	4,609
Horse-power of engines used ..	4,328	8,752	8,891	9,606	10,364	11,317
Value of plant and machinery £	358,401	712,849	683,355	864,382	1,007,063	1,165,568
Value of land and buildings £	714,648	1,060,335	1,046,513	1,034,574	1,092,770	1,229,491
Salaries and wages paid £	635,018	1,476,204	1,267,550	1,306,348	1,465,618	1,740,874
Fuel, light, and power used £	43,324	131,909	90,608	94,282	98,189	123,150
Value of materials used £	2,882,719	6,376,148	5,749,253	5,859,505	6,234,102	6,726,382
Value of output .. £	4,439,409	9,579,780	8,172,809	9,037,111	9,614,490	10,111,172
Fresh fruit used .. cwt.	1,022,991	1,073,382	973,830	1,073,266	1,314,468	1,031,793
Sugar used .. "	403,260	503,914	536,890	533,496	595,463	501,888
Output of—						
Jams and jellies .. cwt.	462,672	568,502	584,972	600,061	687,709	502,230
Fruit preserved in liquid ..	786,266	695,947	561,887	785,329	923,818	790,189
Fruit pulp .. "	140,266	121,534	140,403	70,910	128,106	99,613
Sauce .. pints	11,128,988	18,837,150	16,252,192	10,366,986	13,192,172	14,255,002
Pickles and chutney .. "	2,451,985	4,066,654	4,984,520	2,447,263	3,131,962	2,882,772

**Beet Sugar Industry.** The Victorian Government operated a beet sugar factory at Maffra until it was sold on 12th May, 1949. A brief history of the beet-sugar industry since its establishment in Victoria was given in the *Year-Book*, 1937-38.

The following table contains particulars relating to the production, &c., of beet sugar for the ten years ended 30th June, 1948:—

### VICTORIA—BEET SUGAR PRODUCTION.

Year Ended 30th June.			Area.	Beet Yield.	Sugar Content.	Sugar Produced.
			Acres.	Tons.	%	Tons.
1939	..	..	4,268	13,454	14·83	1,507
1940	..	..	4,234	42,898	18·65	6,250
1941	..	..	3,588	27,031	16·29	3,279
1942	..	..	2,866	24,546	15·82	2,769
1943	..	..	955	5,997	17·13	678
1944	..	..	836	6,975	16·11	704
1945	..	..	485	3,200	(For Fodder only)	
1946	..	..	108	975		
1947	..	..	753	9,170	15·95	1,014
1948	..	..	553	6,362	16·01	584

Prices paid to growers for beet usually vary annually in accordance with the sugar content and the Australian price of sugar. The prices per ton during each of the last five years, in which sugar was produced, were as follows:—1941-42, 43s.; 1942-43, 48s.; 1943-44, 50s.; 1946-47, 59s.; and 1947-48, 60s.

The decline in the area under beet in 1943-4-5-6 can be attributed to the impact of a war economy which caused a general reorganization of industry. After a lapse of two years sugar was again produced in 1946-47, but the production of beet sugar in Victoria was discontinued at the end of the 1947-48 season.

#### Breweries and Distilleries.

Particulars regarding breweries and distilleries for the year 1939-40 and for the past five years are set forth in the succeeding tables.

### VICTORIA—BREWERIES.

Item.	Year ended 30th June—					
	1940.	1945.	1946.	1947.	1948.	1949.
Number of breweries ..	9	8	8	8	7	7
Number of persons engaged ..	1,602	1,385	1,526	1,664	1,651	1,744
Horse-power of engines ..	6,611	6,597	6,612	6,592	6,546	7,020
Value of plant and machinery £	934,877	818,950	815,857	821,634	881,287	1,056,521
Value of land and buildings £	791,995	752,040	748,895	745,043	708,287	733,955
Salaries and wages paid £	551,710	561,767	621,716	702,171	759,332	923,935
Fuel, light, and power used £	66,928	75,340	75,943	96,943	108,377	132,296
Value of materials used £	1,367,625	1,372,644	1,399,001	1,389,077	1,571,910	1,924,929
Value of output ..	3,101,825	2,718,027	3,013,132	3,056,715	3,156,136	3,329,303
Value added to materials £	1,515,038	1,200,780	1,447,937	1,456,826	1,391,155	1,203,780
Materials used—						
Sugar .. cwt.	128,053	124,321	139,102	128,569	134,187	149,394
Malt .. bush.	1,036,711	989,614	1,016,854	1,133,770	1,230,794	1,387,310
Hops .. lb.	842,939	830,179	879,377	867,277	921,979	999,543
Beer and stout made gals.	32,318,251	31,787,067	35,484,347	36,174,827	39,339,768	44,225,823



## VICTORIA—DISTILLERIES.

Item.	Year ended 30th June—					
	1940.	1945.	1946.	1947.	1948.	1949.
Number of distilleries	8	9	9	9	9	9
Number of persons engaged ..	82	175	238	275	266	285
Horse-power of engines ..	831	1,429	1,443	1,490	1,395	1,437
Value of plant and machinery £	150,159	189,491	207,729	196,834	200,494	221,030
Value of land and buildings £	216,885	196,671	161,976	157,185	153,910	151,991
Salaries and wages paid £	24,426	63,405	88,337	98,936	118,695	135,192
Fuel, light, and power £	7,866	26,217	30,344	48,241	49,528	65,830
Value of materials used £	65,961	338,200	467,260	453,452	472,736	504,273
Value of output .. £	166,570	636,728	887,862	1,000,846	928,165	939,056
Materials used—						
Wine .. .. gals.	648,534	581,708	1,117,090	1,349,891	1,739,388	1,899,243
Malt .. .. bush.	51,722	183,366	206,134	247,136	244,976	229,440
Other grain .. bush.	71,051	248,718	354,322	348,237	242,214	331,160
Molasses raw sugar, &c. 1,000 lbs.	388	35,433	32,358	35,857	33,650	41,561
Spirits distilled in distilleries proof gals.	455,113	3,501,376	3,720,276	3,827,672	3,647,749	4,116,260
Spirits distilled by vinegrowers proof gals.	14,568	12,262	12,328	13,485	19,316	21,481

**Tobacco Factories.** The sixteen establishments engaged in the manufacture of tobacco, cigars, and cigarettes during 1948-49 which conformed to the statistical definition of a factory gave employment to 2,115 persons, who were paid £743,401 in wages and who used machinery, plant, land, and buildings valued at £872,560. The subjoined table shows the quantity of tobacco leaf used by and the output of the full number of licensed establishments for the past ten years:—

## VICTORIA—TOBACCO FACTORIES.

Year Ended 30th June.	Leaf Operated on.		Production.		
	Australian.	Imported.	Tobacco.	Cigars.	Cigarettes.
	lb.	lb.	lb.	No.	No.
1940 ..	1,753,752	5,069,611	5,043,425	21,654,357	1,219,518,315
1941 ..	1,842,953	5,432,331	5,131,890	25,273,046	1,419,168,642
1942 ..	1,927,629	5,922,807	5,538,393	27,107,268	1,515,517,910
1943 ..	1,973,027	5,722,124	5,829,487	19,914,219	1,350,087,444
1944 ..	1,838,650	5,815,429	5,864,285	14,802,342	1,333,952,191
1945 ..	1,799,295	5,769,847	5,841,035	14,320,780	1,293,700,665
1946 ..	1,698,514	6,051,854	5,988,762	13,446,593	1,316,541,823
1947 ..	1,363,490	7,336,030	6,778,174	13,550,760	1,419,855,646
1948 ..	1,085,772	7,554,342	6,559,471	15,814,597	1,465,614,252
1949 ..	1,137,753	7,315,033	6,188,846	15,697,065	1,532,942,025

**Woollen mills.**

Victorian manufacturers supply approximately half of the Australian requirements in woollen piece goods. They have also developed an oversea export trade in wool tops, noils, and waste, the value of which, for the year 1948-49, was £2,144,909.

**VICTORIA—WOOLLEN MILLS.**

Item.	Year Ended 30th June—					
	1940.	1945.	1946.	1947.	1948.	1949.
Number of establishments ..	56	67	65	68	76	87
Number of persons employed ..	11,039	11,363	11,094	11,345	11,298	12,192
Horse-power of engines ..	30,917	32,524	30,769	31,642	32,045	34,160
Value of plant and machinery £	1,722,679	1,459,495	1,410,896	1,501,309	1,703,135	2,091,389
Value of land and buildings £	1,314,754	1,594,797	1,600,950	1,697,417	1,836,130	1,949,391
Salaries and wages paid £	1,823,136	2,817,138	2,855,086	3,193,537	3,606,286	4,525,344
Fuel, light, and power £	219,869	292,667	257,994	341,251	350,788	424,981
Value of materials used £	4,248,982	6,684,542	6,263,676	7,149,370	8,183,847	12,872,112
Value of output ..	£ 7,955,722	11,823,664	11,752,967	13,317,719	15,484,006	20,762,640
Added value ..	£ 3,273,050	4,496,264	4,900,275	5,497,008	6,523,270	7,017,633
Scoured wool used .. lb.	26,196,498	36,737,722	33,956,769	36,130,730	38,531,205	32,172,205
Cotton used .. lb.	958,130	83,968	209,216	212,138	117,503	52,007
Tweed and cloth made sq. yds.	15,482,349	15,671,208	16,079,393	18,630,021	19,472,809	19,889,487
Flannel made .. sq. yds.	1,307,599	1,627,997	1,815,504	1,903,137	1,729,188	1,914,434
Blankets .. pairs	645,324	1,064,141	651,212	442,459	447,478	439,380
Rugs and shawls .. No.	104,734	11,911	23,332	40,161	31,829	69,132

**Hosiery and Knitting.**

Early records show that, in the year 1886-87, there were three hosiery factories in Victoria, employing 56 hands. The capital value of land, buildings, and machinery was £2,080. The following table shows the main details relating to this industry for 1940 and the past five years:—

**VICTORIA—HOSIERY AND KNITTING.**

Item.	Year ended 30th June—					
	1940.	1945.	1946.	1947.	1948.	1949.
Number of establishments ..	231	250	255	267	278	307
Number of persons employed—						
Male ..	4,225	2,818	3,336	4,156	4,479	4,590
Female ..	9,071	8,122	8,200	8,906	9,262	9,511
Salaries and wages paid £	1,928,655	2,328,847	2,501,753	3,104,940	3,694,131	4,355,852
Value of land and buildings £	1,250,498	1,489,061	1,546,500	1,622,449	1,747,451	1,977,300
Value of plant and machinery £	1,162,954	868,495	892,739	995,814	1,223,888	1,783,052
Value of materials used £	3,420,147	4,278,006	4,408,784	5,309,933	6,639,500	8,471,920
Fuel, light, and power £	93,883	110,461	123,117	145,620	150,104	175,687
Value of output ..	£ 6,851,475	8,288,324	8,615,732	10,815,971	13,496,207	15,886,697
Added value ..	£ 3,189,646	3,717,604	3,870,150	5,090,601	6,398,270	6,863,710
Yarn used—						
Woollen and worsted lb.	4,957,438	7,713,200	5,763,239	6,715,598	7,427,925	7,453,769
Cotton .. lb.	3,804,668	3,794,826	3,189,953	4,505,276	4,486,578	3,940,217
Silk .. lb.	718,592	8,553	277	73,988	279,984	270,706
Rayon .. lb.	3,493,879	2,935,052	3,072,083	2,843,608	3,180,327	3,355,681
Stockings made .. doz. pair	*1,805,444	*823,517	*929,484	*1,158,260	*1,227,141	*1,185,495
Socks made .. doz. pair	†1,318,437	†1,347,054	†1,191,592	†1,306,357	†1,492,210	†1,544,559
Garments made .. number	21,581,804	18,772,896	16,696,080	19,639,500	20,967,360	19,218,288

\* Women's socks and stockings only.

† Includes men's socks and stockings, doz. pair—1939-40, 1,040,199; 1944-45, 1,067,046; 1945-46, 841,957; 1946-47, 968,562; 1947-48, 1,022,440; 1948-49, 1,047,264; Children's socks and stockings, doz. pair—1939-40, 278,238; 1944-45, 280,008; 1945-46, 349,635; 1946-47, 337,795; 1947-48, 469,770; 1948-49, 497,295.

Boots and  
Shoes.

Particulars relating to factories manufacturing boots and shoes are shown in the following table:—

## VICTORIA—BOOTS AND SHOES.

Item.	Year ended 30th June—					
	1940.	1945.	1946.	1947.	1948.	1949.
Number of establishments ..	168	182	195	210	231	249
Number of persons employed	10,491	8,704	9,464	10,752	11,039	11,121
Horse-power of engines used	4,518	6,219	5,337	5,229	5,651	6,038
Value of plant, machinery, land, and buildings ..	£ 1,162,203	1,307,608	1,373,385	1,511,817	1,693,704	1,790,251
Salaries and wages paid	£ 1,783,144	2,205,611	2,353,753	2,923,519	3,302,882	3,832,036
Fuel, light, and power	£ 31,058	37,414	37,505	41,316	48,457	57,881
Value of materials used	£ 2,964,461	4,260,161	4,020,905	4,832,669	5,164,190	5,807,671
Value of output ..	£ 5,512,542	8,234,686	7,765,401	9,193,925	10,332,454	11,614,506
Boots and shoes made pairs	8,016,146	7,864,401	7,031,105	7,302,844	7,804,994	7,323,018
Slippers made .. pairs	4,212,039	2,882,816	3,246,022	4,833,405	4,749,785	4,549,043

Information in the next table relates to industries associated with the manufacture of dress. The figures shown represent, for each of the past five years, the sum of the undermentioned industries:—Clothing, tailoring, dressmaking, millinery, underclothing and hats and caps.

Dress  
(exclusive of  
boot)  
factories.

## VICTORIA—DRESS (EXCLUSIVE OF BOOT) FACTORIES.

Year ended 30th June—	Number of Factories.	Number of Persons Employed.			Salaries and Wages Paid.	Value of Materials Used.	Value of Output.
		Males.	Females.	Total.			
1945 .. ..	1,105	3,498	21,009	24,507	£ 4,913,066	£ 10,495,697	£ 18,341,605
1946 .. ..	1,162	4,222	21,776	25,998	4,993,573	10,660,720	19,294,628
1947 .. ..	1,216	5,270	23,182	28,452	6,122,992	12,999,733	23,419,798
1948 .. ..	1,299	5,509	24,124	29,633	7,201,722	16,569,876	29,118,235
1949 .. ..	1,471	6,244	25,996	32,240	9,272,246	20,924,124	36,562,066

Electric  
light and  
power works.

Particulars relating to the electric light and power works of the State are given in the next table.

### VICTORIA—ELECTRIC LIGHT AND POWER WORKS.

Year ended 30th June—	Number.	Value of Machinery and Plant.	Persons Employed.	Wages Paid.	Electricity Generated.	Value of Output.
		£		£	'000 kilowatt hours.	£
1940 .. ..	78	7,467,138	1,445	418,511	1,252,936	2,673,351
1941 .. ..	73	8,040,055	1,417	454,182	1,385,038	2,980,947
1942 .. ..	71	8,119,400	1,418	486,931	1,539,960	3,415,892
1943 .. ..	70	8,284,916	1,397	544,551	1,648,233	3,837,000
1944 .. ..	72	8,394,868	1,438	595,315	1,671,745	3,779,763
1945 .. ..	70	10,103,146	1,534	612,553	1,714,763	3,993,472
1946 .. ..	69	10,233,183	1,760	681,761	1,803,407	4,167,493
1947 .. ..	67	10,484,417	1,906	752,820	1,838,893	4,025,721
1948 .. ..	67	10,776,348	1,978	967,386	2,081,329	4,248,220
1949 .. ..	68	12,725,787	2,059	1,221,460	2,321,283	5,512,478

Employees engaged in the transmission and distribution of electricity have not been included. In addition to the power stations shown above there is a number of factories which generate electricity mostly for their own use; the recorded total of thousand kwh's generated for each of the past five years was as follows:—1944-45, 102,584; 1945-46, 100,996; 1946-47, 163,174; 1947-48, 178,610; and 1948-49, 182,698.

### STATE ELECTRICITY COMMISSION OF VICTORIA.

The State Electricity Commission was constituted by the *Electricity Commissioners Act* 1918, as amended by the *State Electricity Commission Act* 1920, now consolidated in the *State Electricity Commission Act* 1928. The Act provides for the appointment, for terms not exceeding seven years, of a chairman and three commissioners. The Commission's duties cover—

1. Control of generation, supply, and use of electricity in Victoria.
2. Investigation and, where practicable, development of all possible sources of power.
3. Promotion of the use of electricity.

The Commission is empowered to erect, acquire, and operate electrical undertakings and to operate any business associated therewith; to supply electricity to corporations and to persons outside areas in which there are existing undertakings; to frame safety regulations, register electrical contractors, and to issue licences for electrical mechanics. It controls its own funds and all officers and employees required for the operation of the Act.

A comprehensive generation and transmission system has been established based mainly upon the brown coal deposits at Yallourn, where the installed capacity of generators is 195,000 kW., including

six turbo-alternators of 12,500 kW., four of 25,000 kW., and two of 10,000 kW. (installed at briquette factory). From Yallourn two 132,000 volt lines transmit electricity to terminal stations at Richmond and Yarraville. There are also thermal power stations at Newport "B" and "C" (installed 198,000 kW.) which now carries a substantial portion of the base load, in addition to fulfilling its originally planned role of a peak-load station only, Richmond (installed 15,000 kW.), Geelong (installed 10,500 kW.), and Ballarat (installed 5,900 kW.), and hydro-electric stations at Sugarloaf-Rubicon (installed 26,415 kW.) and Kiewa (installed 26,000 kW.).

These power stations, together with the Melbourne City Council's station at Spencer-street (installed 43,650 kW.), are electrically inter-connected. A regional station is operated at Hamilton (1,987 kW.).

The following extensions to new power stations are in progress or scheduled to proceed: Kiewa 263,000 kW., Yallourn 300,000 kW., Richmond 38,000 kW., Eildon (Sugarloaf-Rubicon) 120,000 kW., Spencer-street 45,000 kW., Shepparton 10,000 kW., Warrnambool 10,000 kW., and Ballarat and Geelong 40,000 kW.

Newport "A" station, transferred from Victorian Railways Commissioners control on 21st January, 1951 (capacity 83,000 kW.), is to be increased by 60,000 kW.

There are eight terminal stations (total kVA 436,250) and two switching stations (18,000 kVA), in addition to which there are 38 main metropolitan sub-stations (aggregating 518,750 kVA), four distribution sub-stations at line voltage (aggregating 16,500 kVA), and 6,091 metropolitan and rural sub-stations (aggregating 613,519 kVA)—grand total, 1,603,019 kVA. High and low tension lines aggregate 7,407 and 6,168 miles respectively, excluding 739 cable miles of underground cables.

The Commission retails direct in 22 of the metropolitan municipalities and bulk supply is given to 11 metropolitan municipalities for subsequent distribution. Rural centres supplied by the Commission at the 30th June, 1950, totalled 714, of which 615 had no supply previously. These figures exclude the provincial cities of Ballarat, Bendigo, and Geelong, where the Commission also operates tramways.

The Commission also operates at Yallourn a briquette factory, the production of which in 1948-49 and 1949-50 amounted to 558,899 and 588,564 tons respectively. The plant includes eight steam presses and thirteen electric presses, with a total capacity of approximately 1,700 tons of brown coal briquettes a day. The bulk of the output is required for electricity generation. By-product electricity amounting to 101.7 and 102.3 million kWh. was generated at the briquette factory during 1948-49 and 1949-50 respectively.

At Morwell work is in progress on the establishment of an open cut and four briquette factories (capacity 2,600,000 tons of briquettes per annum), and by-product electricity (80,000 kW.) will be available to the inter-connected system.

**Gasworks.**

Particulars in regard to gasworks are given below for each of the past five years.

**VICTORIA—GASWORKS.**

Year ended 30th June—	Number of Works.	Persons Employed.	Wages Paid.	Coal Used.	Oil Used.	Gas Made.	Coke Produced.	Value of Output.
			£	Tons.	Gals.	'000 cubic feet.	Tons.	£
1945 ..	39	1,107	389,420	628,383	1,625,056	11,004,662	345,478	2,493,117
1946 ..	39	1,253	425,889	608,942	1,703,068	10,862,865	347,149	2,436,024
1947 ..	39	1,230	442,718	622,232	1,561,098	10,903,505	343,022	2,397,860
1948 ..	39	1,337	577,636	709,512	1,213,257	12,166,560	389,505	3,114,351
1949 ..	37	1,367	653,926	723,201	1,853,830	12,097,409	397,258	3,749,428

**Factory output by classes.**

The following table is an analysis of factory statistics designed to show the relative importance of the various classes of manufacturing in Victoria.

**VICTORIA—VALUE OF ARTICLES PRODUCED IN FACTORIES.**

Class of Industry.	Year ended 30th June—				
	1945.	1946.	1947.	1948.	1949.
	£	£	£	£	£
1. Treatment of non-metallic mine and quarry products ..	2,624,954	3,315,588	4,471,555	6,018,357	7,465,346
2. Bricks, pottery, glass, &c. ..	2,176,842	2,718,311	3,163,659	3,826,545	4,624,885
3. Chemicals, dyes, explosives, paint, oils, and grease ..	21,554,314	20,260,798	22,366,179	26,998,327	30,859,717
4. Industrial metals, machines, implements, and conveyances ..	83,422,824	77,243,145	70,211,858	90,004,030	107,630,278
5. Precious metals, jewellery, and plate ..	957,425	1,349,056	2,130,185	3,012,805	3,411,910
6. Textiles and textile goods (not dress) ..	29,284,607	29,183,535	34,432,762	40,969,968	50,995,855
7. Skins and leather (not clothing or footwear) ..	5,631,579	6,469,308	9,033,530	9,516,197	10,611,061
8. Clothing ..	28,260,412	28,928,234	34,948,122	41,999,675	51,111,398
9. Food, drink, and tobacco ..	70,649,023	70,538,377	79,646,847	89,330,013	101,325,811
10. Woodworking and basket ware ..	9,077,021	9,518,189	11,731,942	15,047,370	18,141,132
11. Furniture, bedding, &c. ..	2,528,483	3,418,440	4,538,526	5,719,557	6,944,467
12. Paper, stationery, printing, bookbinding, &c. ..	14,544,374	15,423,419	18,520,834	21,388,413	25,572,876
13. Rubber ..	5,618,711	6,131,232	7,098,727	8,313,923	9,666,834
14. Musical instruments ..	32,376	46,236	56,671	78,900	136,482
15. Miscellaneous products ..	4,572,797	5,842,021	6,662,701	7,825,674	9,077,856
16. Heat, light, and power ..	6,486,569	6,603,517	6,423,581	7,362,571	9,261,971
Total ..	287,422,311	286,989,408	315,437,679	377,412,025	446,837,879

**Employment in factories.** The average number of persons employed over the whole year in each class of industry is shown below.

### VICTORIA—AVERAGE NUMBER OF PERSONS EMPLOYED IN FACTORIES.

Class of Industry.	Year ended 30th June—				
	1945.	1946.	1947.	1948.	1949.
1. Treatment of non-metalliferous mine and quarry products .. ..	2,025	2,659	3,467	4,263	4,658
2. Bricks, pottery, glass, &c. .. ..	2,644	3,574	4,091	4,124	4,351
3. Chemicals, dyes, explosives, paint, oils, and grease .. ..	15,207	11,961	11,363	11,030	11,180
4. Industrial metals, machines, implements, and conveyances .. ..	97,022	88,421	83,408	89,771	94,187
5. Precious metals, jewellery, and plate .. ..	1,149	1,602	2,307	3,029	3,361
6. Textiles and textile goods (not dress) .. ..	29,686	30,215	31,896	32,745	34,137
7. Skins and leather (not clothing or footwear) .. ..	4,419	4,558	5,621	5,518	5,643
8. Clothing .. ..	35,899	38,552	42,847	44,506	47,335
9. Food, drink, and tobacco .. ..	33,991	33,811	35,375	35,708	36,605
10. Woodworking and basketware .. ..	8,999	10,139	11,145	11,826	12,956
11. Furniture, bedding, &c. .. ..	2,595	3,724	4,643	5,077	5,573
12. Paper, stationery, printing, bookbinding, &c. .. ..	12,552	13,723	15,526	15,674	16,450
13. Rubber .. ..	3,231	3,644	4,024	4,242	4,490
14. Musical instruments .. ..	53	83	105	123	186
15. Miscellaneous products .. ..	5,520	6,570	6,803	7,320	7,468
16. Heat, light, and power .. ..	2,641	3,013	3,136	3,315	3,426
Total .. ..	257,633	256,249	265,757	278,271	292,006

**Size of factories.** Particulars in the following table show that by comparison with the previous year substantial increases in the number of factories and the persons employed therein were recorded in all size groups.

# VICTORIA—FACTORIES ACCORDING TO NUMBER OF HANDS EMPLOYED.

Showing Annual Percentage Increase or Decrease (Year ended 30th June).										
	1945.	Increase.	1946.	Increase.	1947.	Increase.	1948.	Increase.	1949.	Increase.
Under 4 hands—		%		%		%		%		%
Number of—										
Factories ..	3,232	0.6	3,065	— 5.2	3,087	0.7	3,314	7.4	3,706	11.8
Employees ..	6,108	— 0.6	6,025	— 1.4	6,185	2.7	6,853	10.8	7,560	10.3
4 hands—										
Number of—										
Factories ..	760	2.0	785	3.3	874	11.3	1,025	17.3	1,132	10.4
Employees ..	3,040	2.0	3,140	3.3	3,496	11.3	4,100	17.3	4,528	10.4
5 to 10 hands—										
Number of—										
Factories ..	2,205	5.7	2,520	14.3	2,792	10.8	2,938	5.2	3,259	10.9
Employees ..	15,404	5.5	17,632	14.5	19,087	8.3	20,236	6.0	22,505	11.2
11 to 20 hands—										
Number of—										
Factories ..	1,393	5.9	1,584	13.7	1,718	8.4	1,794	4.4	1,954	8.9
Employees ..	20,552	6.2	23,521	14.4	25,047	6.5	26,440	5.6	29,030	9.8
21 to 50 hands—										
Number of—										
Factories ..	1,159	8.7	1,287	11.0	1,464	8.8	1,517	3.6	1,563	3.0
Employees ..	36,796	7.9	40,876	11.1	45,711	11.8	47,556	4.0	48,797	2.6
51 to 100 hands—										
Number of—										
Factories ..	453	8.9	490	8.2	546	11.4	559	2.4	583	4.3
Employees ..	31,458	9.2	34,314	9.1	38,112	11.4	39,462	3.5	40,919	3.7
Over 100 hands—										
Number of—										
Factories ..	467	— 1.5	464	— 0.7	468	0.9	495	5.8	505	2.0
Employees ..	145,215	— 7.1	132,285	— 8.9	128,911	— 2.6	135,313	5.0	140,034	3.5

Note.—Minus sign indicates decrease.

The composition of the last-mentioned group "over 100 hands" during 1948-49 was as follows:—

	Number of	
	Factories.	Employees.
101 to 200 hands ..	281	38,935
201 to 300 hands ..	98	23,938
301 to 400 hands ..	43	14,782
401 to 500 hands ..	24	10,506
501 to 750 hands ..	34	19,787
751 to 1,000 hands ..	12	10,164
1,001 hands and over ..	13	21,922
	505	140,034



### VICTORIA—PROPORTION OF FACTORIES OF DIFFERENT SIZES.

Size of Factory.	Percentage to Total (Year ended 30th June)—									
	1945.		1946.		1947.		1948.		1949.	
	Factories.	Employees.	Factories.	Employees.	Factories.	Employees.	Factories.	Employees.	Factories.	Employees.
Under 4 hands ..	33.4	2.4	30.1	2.3	28.2	2.3	28.5	2.5	29.2	2.6
4 ..	7.9	1.2	7.7	1.2	8.0	1.3	8.3	1.5	8.9	1.5
5 to 10 ..	22.8	5.9	24.7	6.9	25.5	7.2	25.2	7.2	25.6	7.7
11 to 20 ..	14.4	7.9	15.5	9.1	15.7	9.4	15.4	9.4	15.4	9.9
21 to 50 ..	12.0	14.2	12.6	15.9	13.4	17.2	13.0	17.0	12.3	16.6
51 to 100 ..	4.7	12.2	4.8	13.3	4.9	14.3	4.8	14.1	4.6	14.0
101 and over ..	4.8	56.2	4.6	51.3	4.3	48.3	4.3	48.3	4.0	47.7
Total ..	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

**Occupations  
in factories.**

In the following table the persons employed in factories are grouped according to their occupational status :—

### VICTORIA—OCCUPATIONS OF PERSONS EMPLOYED IN FACTORIES.

Occupations.			Year ended 30th June—				
			1945.	1946.	1947.	1948.	1949.
Working proprietors ..	No.		8,223	8,089	9,045	9,774	10,884
Managers, overseers ..	"		10,145	} 24,236	25,519	26,753	28,144
Accountants, clerks ..	"		19,549				
Chemists, draftsmen, research staff, &c. ..	No.			3,255	3,027	3,120	3,322
Engine-drivers, firemen ..	"		2,135	} 9,439	10,622	10,972	11,914
Foremen and overseers ..	"						
Workers in factory or works ..	"		214,876	208,725	215,273	225,515	235,382
Outworkers ..	"		389	} 2,505	2,271	2,137	2,360
Carters, messengers, others ..	"		2,316				
Total ..			257,633	256,249	265,757	278,271	292,006

Particulars relating to 1945-46, 1946-47, 1947-48, and 1948-49 have been presented in accordance with amendments adopted at the 1945 Conference of Statisticians which provided for the collection of the following types of occupation :—

- (1) Working proprietors.
- (2) Managerial and clerical staff, including salaried managers and working directors.

- (3) Chemists, draftsmen, and other laboratory and research staff.
- (4) Foremen and overseers.
- (5) Workers in factory (skilled and unskilled).
- (6) Carters (excluding delivery only), messengers, and persons working regularly at home for the establishment.

**Outworkers.** The term "outworkers" used in the preceding table relates to persons working for factories in their own homes, but does not include individuals working for themselves. The employment of outworkers is regulated by a special provision of the Factories and Shops Act. They are required to register their names and addresses with the Chief Inspector of Factories, and factory proprietors are forbidden to give work to those who are not so registered.

**Sex distribution in factories.** The average numbers of males and of females employed in factories, and their proportions to the male and female populations, for each of the years, 1939-40 to 1948-49, were as follows:—

#### VICTORIA—EMPLOYMENT OF MALES AND FEMALES IN FACTORIES.

Year Ended 30th June—	Males.		Females.		Total.	
	Number.	Average per 10,000 of Male Population.	Number.	Average per 10,000 of Female Population.	Number.	Average per 10,000 of Total Population.
1940 ..	143,238	1,533	69,223	724	212,461	1,124
1941 ..	161,880	1,745	75,756	781	237,636	1,252
1942 ..	175,691	1,812	82,709	840	258,400	1,322
1943 ..	175,340	1,792	87,017	874	262,357	1,331
1944 ..	175,049	1,780	86,250	858	261,299	1,314
1945 ..	174,424	1,769	83,209	820	257,633	1,285
1946 ..	178,951	1,798	77,298	758	256,249	1,271
1947 ..	188,758	1,875	76,999	745	265,757	1,303
1948 ..	199,003	1,957	79,268	759	278,271	1,350
1949 ..	208,184	1,994	83,822	784	292,006	1,382

Of the total persons employed, males formed 67·4 per cent. in 1939-40 and 71·3 per cent. in 1948-49. As compared with the year 1939-40, the number of males employed increased by 64,946 or 45 per cent. and the number of females employed by 14,599 or 21 per cent.

**Employment of females.** Of the total number of females in factories, 62 per cent. were engaged in the textile and clothing groups of industries, 11 per cent. in the industrial metals, machines, &c., and 12 per cent. in the preparation of food and drink. The extent of female employment in certain industries is shown in the next table :—

## VICTORIA—FEMALE EMPLOYMENT IN FACTORIES, 1948-49.

Industry.	Number Employed.		Females per 100 Males.
	Males.	Females.	
Pharmaceutical and toilet preparations ..	700	849	121
Inks—polishes .. .. .	335	225	67
Cotton .. .. .	1,454	1,413	97
Woollen mills .. .. .	6,772	5,420	80
Hosiery and knitting .. .. .	4,590	9,511	207
Silk, natural .. .. .	176	321	182
Rayon, nylon, and other synthetic fibres ..	200	80	40
Rope and cordage .. .. .	1,184	707	60
Canvas goods, &c. .. .. .	230	194	84
Furriers and fur dressing .. .. .	325	214	66
Bags, trunks, &c. .. .. .	671	653	97
Tailoring and ready-made clothing .. ..	3,059	7,461	244
Clothing, waterproof .. .. .	118	347	294
Dressmaking, hemstitching .. .. .	1,395	10,717	768
Millinery .. .. .	240	1,004	418
Shirts, collars, underclothing .. .. .	557	4,114	739
Foundation garments .. .. .	179	1,088	608
Handkerchiefs, ties, &c. .. .. .	75	399	552
Hats and caps .. .. .	446	256	37
Gloves .. .. .	127	460	362
Boots and shoes .. .. .	5,628	5,493	98
Boot accessories .. .. .	125	179	143
Umbrellas and walking sticks .. .. .	19	45	237
Dyeworks and cleaning .. .. .	1,585	1,256	79
Cereal foods, &c. .. .. .	830	474	57
Biscuits .. .. .	589	666	113
Confectionery .. .. .	1,397	1,619	116
Jams, fruit, and vegetable canning .. ..	2,387	1,534	64
Pickles, sauces, vinegar .. .. .	420	268	64
Meat and fish preserving, &c. .. .. .	774	404	52
Condiments, coffee, spices .. .. .	837	692	83
Tobacco, cigarettes, &c. .. .. .	989	1,126	114
Ice cream .. .. .	257	156	61
Bedding mattresses (not wire) .. .. .	345	229	66
Furnishing, drapery .. .. .	162	262	162
Stationery, manufactured .. .. .	570	565	99
Cardboard boxes, cartons .. .. .	838	784	94
Paper bags .. .. .	166	223	134
Photographic material .. .. .	660	675	102
Artificial flowers .. .. .	33	221	670
All other factories .. .. .	166,740	21,518	13
Total .. .. .	208,184	83,822	40

**Child labour  
in factories.**

The main reason for the small proportion of children engaged in factories is that daily attendance at school is compulsory between the ages of 6 and 14 years.

Another reason is the restriction imposed by the Victorian Factories Act on the employment of female children under the age of 15 years unless a special permit is granted by the Chief Inspector of Factories on the grounds of poverty or hardship.

**VICTORIA—FACTORY EMPLOYMENT—AGE GROUPS.**

Date.	Males.				Females.			
	Under 16 Years.	16 and Under 21 Years.	21 Years and Over.	Total Males.	Under 16 Years.	16 and Under 21 Years.	21 Years and Over.	Total Females.
June 15th, 1940	6,060	27,150	105,978	139,188	5,276	23,153	40,531	68,960
" " 1941	5,775	27,248	130,919	163,942	4,664	23,238	49,776	77,678
" " 1942	5,458	20,039	141,481	166,978	3,754	20,900	58,051	82,705
" " 1943	5,251	19,407	143,826	168,484	3,477	20,224	62,422	86,123
" " 1944	5,031	19,928	141,943	166,902	3,731	19,274	59,389	82,394
" " 1945	4,607	20,379	142,117	167,103	3,609	18,473	58,195	80,277
" " 1946	3,449	20,836	155,504	179,789	3,007	17,568	54,630	75,205
" " 1947	2,938	20,091	161,232	184,261	2,801	16,943	56,824	76,568
" " 1948	2,743	18,851	171,096	192,690	2,564	16,627	59,915	79,106
" " 1949	2,806	18,305	179,039	200,150	2,354	16,374	65,245	83,973

*Percentage—*

	To Total Males Employed				To Total Females Employed			
June 15th, 1940	4·35	19·51	76·14	100·00	7·65	33·58	58·77	100·00
" " 1941	3·52	16·62	79·86	100·00	6·00	29·92	64·08	100·00
" " 1942	3·27	12·00	84·73	100·00	4·54	25·27	70·19	100·00
" " 1943	3·12	11·52	85·36	100·00	4·04	23·48	72·48	100·00
" " 1944	3·01	11·94	85·05	100·00	4·53	23·39	72·08	100·00
" " 1945	2·76	12·20	85·04	100·00	4·50	23·01	72·49	100·00
" " 1946	1·92	11·59	86·49	100·00	4·00	23·36	72·64	100·00
" " 1947	1·60	10·90	87·50	100·00	3·66	22·13	74·21	100·00
" " 1948	1·42	9·78	88·80	100·00	3·24	21·02	75·74	100·00
" " 1949	1·40	9·15	89·45	100·00	2·80	19·50	77·70	100·00

**Machinery  
in factories.**

In the following tables are shown the number of factories using mechanical power, and the value of the machinery and plant for each of the ten years, 1939-40 to 1948-49. The value recorded is the depreciated value or book value less any existing depreciation reserve.

## VICTORIA—MACHINERY IN FACTORIES.

Year ended 30th June.	Number of Factories Equipped with Power-driven Machinery.	Rated Horse-power Used. *	Value of Machinery and Plant.
			£
1940 .. ..	8,741	997,768	40,849,523
1941 .. ..	8,678	1,063,200	44,985,756
1942 .. ..	8,527	1,167,102	48,065,805
1943 .. ..	8,426	1,209,668	51,963,258
1944 .. ..	8,988	1,282,764	55,457,719
1945 .. ..	9,318	1,337,871	58,571,064
1946 .. ..	9,851	1,413,958	58,537,394
1947 .. ..	10,563	1,438,472	59,124,802
1948 .. ..	11,270	1,543,848	65,829,201
1949 .. ..	12,367	1,617,088	76,079,598

\* See paragraph below relating to Horse-power.

The nature of the motive power used in the factories of the State is set out in the next table. Establishments using more than one kind of mechanical power are included once only in the table, usually under the power which is principally used.

## VICTORIA—NATURE OF POWER USED IN FACTORIES.

Year ended 30th June—	Number of Factories with Engines Operated by—					Manual Labour.
	Steam.	Gas.	Electricity.	Oil.	Water.	
1940 .. ..	325	112	7,861	437	6	474
1941 .. ..	300	101	7,863	407	7	443
1942 .. ..	280	91	7,770	382	4	391
1943 .. ..	263	73	7,726	358	6	312
1944 .. ..	247	62	8,296	378	5	329
1945 .. ..	231	59	8,651	370	7	351
1946 .. ..	210	59	9,175	396	11	344
1947 .. ..	211	41	9,897	405	9	386
1948 .. ..	215	38	10,550	462	5	372
1949 .. ..	216	34	11,609	504	4	335

The difficulty of obtaining an accurate measure of average horse-power of engines used in factories has been pointed out in previous issues of the *Year-Book*. In 1937 Australian Statisticians decided to discard the "average" as a measure of horse-power and to substitute the "rated" horse-power of engines (a) ordinarily in use, and (b) in reserve or idle.

# VICTORIA—HORSE-POWER OF ENGINES IN FACTORIES, 1948-49.

Class of Engine.	Electric Generating Stations (Maximum Load).	Other Factories.	Total.
Steam—	H.P.	H.P.	H.P.
Reciprocating .. .. .	605	24,504	25,109
Turbine .. .. .	677,617	31,962	709,579
Internal Combustion—			
Gas .. .. .	1,014	2,521	3,535
Petrol or other light oils .. .. .	115	8,279	8,394
Heavy oils .. .. .	12,981	12,309	25,290
Water .. .. .	72,173	1,172	73,345
Total .. .. .	764,505	80,747	845,252
Electric motors driven by—			
(a) Electricity generated in own works .. .. .	27,793	33,961	61,754
(b) Purchased electricity .. .. .	..	710,082	710,082

Reserve or idle horse-power capacity amounted to 111,097, exclusive of that in generating stations.

The total amount and the average amount of salaries and wages paid to persons employed in factories are given in the following table for each of the past ten years.

## VICTORIA—SALARIES AND WAGES PAID IN FACTORIES.

Year ended 30th June.	Drawings by Working Proprietors (excluding Profits).		Salaries Paid to Managers and Clerks. †		Wages Paid to all other Factory Workers. ‡		Total Salaries and Wages Paid.
	Males.	Females.	Males.	Females.	Males.	Females.	
Aggregate Amounts.							
	£	£			£	£	£
1940 ..	2,205,339	139,094	4,682,728	876,390	27,117,013	6,900,162	41,920,726
1941 ..	2,352,463	145,603	5,590,750	1,076,741	34,798,321	8,330,795	52,294,673
1942 ..	2,636,721	158,615	6,728,962	1,410,398	45,451,222	10,772,695	67,158,613
1943 ..	2,827,086	170,772	7,760,216	1,959,005	50,329,054	12,986,978	76,033,111
1944 ..	3,229,601	209,894	8,584,082	2,295,621	50,026,632	13,054,858	77,400,688
1945 ..	3,417,682	248,642	8,878,188	2,342,123	47,237,597	12,103,013	74,227,245
1946 ..	*	*	8,415,206	2,157,676	48,357,567	11,568,765	70,499,214*
1947 ..	*	*	9,492,106	2,224,201	53,543,120	12,734,338	77,993,765*
1948 ..	*	*	10,876,982	2,627,096	65,435,234	14,862,876	93,802,188*
1949 ..	*	*	12,714,268	3,063,591	78,050,654	18,581,927	112,410,440*
Average Amounts.							
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1940 ..	315 5 6	189 4 10	359 10 4	142 8 8	220 1 6	110 13 11	193 6 2*
1941 ..	343 0 6	202 4 6	376 1 0	146 13 6	248 5 8	123 1 3	216 9 1*
1942 ..	393 17 10	224 19 9	433 1 4	162 10 6	296 3 7	146 18 4	256 8 6*
1943 ..	434 10 9	253 7 5	467 17 7	189 1 2	330 11 6	170 18 6	286 4 4*
1944 ..	451 15 1	277 5 5	492 11 6	204 9 1	332 9 3	175 15 9	291 17 8*
1945 ..	460 0 11	313 3 0	486 6 4	204 15 4	317 11 9	170 10 3	282 18 3*
1946 ..	..	..	495 13 1	205 4 9	312 15 5	175 2 7	284 1 9*
1947 ..	..	..	520 9 9	215 15 1	330 0 10	193 2 9	303 16 5*
1948 ..	..	..	562 16 4	249 1 8	383 5 3	218 18 5	349 7 2*
1949 ..	..	..	623 9 3	276 13 5	438 17 2	258 15 7	399 17 3*

\* From 1945-46 inclusive, particulars of drawings of working proprietors have not been included in the collection form and the average annual salaries and wages paid have not been computed exclusive of the number of working proprietors and the drawings made by them.

† From 1945-46 inclusive salaries paid to chemists, draftsmen and research staff are included.

‡ From 1945-46 inclusive wages paid to foremen and overseers are included.

The average annual earnings of all employees (excluding working proprietors) increased by £50 10s. 1d. in 1948-49.

The cost of production and the value of the output in each class of manufacturing industry during the year 1948-49 are given in the subjoined statement:—

## VICTORIA—FACTORY COSTS AND OUTPUT, 1948-49.

Class of Industry.	Cost of—				Value of Output.
	Raw Materials Used (including Containers).	Fuel, Light, and Power Used.	Salaries and Wages Paid.	Tools Replaced, Repairs to Plant, Oil and Water Used.	
	1.	2.	3.	4.	5.
	£	£	£	£	£
1. Treatment of non-metalliciferous mine and quarry products .. ..	3,107,468	498,600	1,923,600	265,378	7,465,346
2. Bricks, pottery, glass, &c.	1,049,471	654,420	1,780,162	515,677	4,624,885
3. Chemicals, dyes, explosives, paint, oils, and grease	18,430,066	697,272	4,804,875	600,467	30,859,717
4. Industrial metals, machines, implements, and conveyances ..	46,662,121	1,538,372	39,848,562	2,354,457	107,630,278
5. Precious metals, jewellery, and plate .. ..	1,497,483	42,642	1,307,300	51,155	3,411,910
6. Textiles and textile goods (not dress) .. ..	30,028,855	834,751	11,808,987	1,113,142	50,995,855
7. Skins and leather (not clothing or footwear) ..	6,351,561	202,565	2,336,118	228,879	10,611,061
8. Clothing .. ..	27,437,958	372,634	14,306,071	491,707	51,111,398
9. Food, drink, and tobacco	71,743,175	1,922,670	14,261,146	1,402,611	101,325,811
10. Woodworking and basketware .. ..	9,624,340	196,121	4,839,992	403,065	18,141,132
11. Furniture, bedding, &c...	3,625,153	35,166	1,837,766	60,384	6,944,467
12. Paper, stationery, printing, bookbinding, &c.	12,609,354	542,895	6,591,211	488,057	25,572,876
13. Rubber .. ..	5,487,179	335,907	2,142,948	309,690	9,666,834
14. Musical instruments ..	36,897	1,242	71,085	2,609	136,482
15. Miscellaneous products ..	4,387,267	140,015	2,675,231	175,725	9,077,856
16. Heat, light, and power ..	2,407,820	2,596,786	1,875,386	510,274	9,261,971
Total .. ..	244,486,163	10,612,058	112,410,440	8,979,277	446,837,879

The difference between the sum of the first four columns and the last column in the preceding table represents the amount available for taxation, depreciation, interest, rent, insurance, &c., and funds available for profit. The proportions which this margin and the chief items of the specified costs of production bear to the total value of production in each class of industry are shown in the following table:—

VICTORIA—PROPORTIONATE VALUE OF COSTS, ETC., TO PRODUCTION IN FACTORIES, 1948-49.

Class of Industry.	Percentage of Costs, &c., to Total Value of Output.				
	Materials Used, Including Containers.	Fuel, Light, and Power.	Salaries and Wages.	Tools Replaced, Repairs to Plant, Oil and Water Used.	All Other Expenditure, Interest, and Profit.
	%	%	%	%	%
1. Treatment of non-metallic mine and quarry products ..	41·6	6·7	25·8	3·5	22·4
2. Bricks, pottery, glass, &c.	22·7	14·1	38·5	11·2	13·5
3. Chemicals, dyes, explosives, paint, oils, and grease	59·7	2·3	15·6	1·9	20·5
4. Industrial metals, machines, implements, and conveyances ..	43·4	1·4	37·0	2·2	16·0
5. Precious metals, jewellery, and plate ..	43·9	1·3	38·3	1·5	15·0
6. Textiles and textile goods (not dress) ..	58·9	1·6	23·2	2·2	14·1
7. Skins and leather (not clothing or footwear) ..	59·8	1·9	22·0	2·2	14·1
8. Clothing ..	53·7	·7	28·0	1·0	16·6
9. Food, drink, and tobacco	70·8	1·9	14·1	1·4	11·8
10. Woodworking and basketware ..	53·0	1·1	26·7	2·2	17·0
11. Furniture, bedding, &c...	52·2	·5	26·5	·9	19·9
12. Paper, stationery, printing, bookbinding, &c. ..	49·3	2·1	25·8	1·9	20·9
13. Rubber ..	56·7	3·5	22·2	3·2	14·4
14. Musical instruments ..	27·0	·9	52·1	1·9	18·1
15. Miscellaneous products ..	48·3	1·6	29·5	1·9	18·7
16. Heat, light, and power ..	26·0	28·0	20·2	5·5	20·3
Total ..	54·7	2·4	25·1	2·0	15·8



There are considerable variations in the proportions which the cost of materials and the expenditure on wages bear to the value of the output in the different classes of industries. These are, of course, due to the difference in the treatment required to convert the raw material to its manufactured form. Thus, in class two, the sum paid in wages represents 38·5 per cent. and the cost of raw materials 22·7 per cent. of the value of the finished article, whilst, in class nine, the expenditure on wages amounts to 14·1 per cent. and that on raw materials to 70·8 per cent. of the value of the output.

**Cost of Production.** In the next table the cost of production, the value of the output of factories, and the balance available for profit and miscellaneous expenses are compared for each of the years 1939-40 to 1948-49.

### VICTORIA—COSTS OF PRODUCTION, ETC., AND VALUE OF OUTPUT OF FACTORIES.

Year ended 30th June—	Specified Costs of Production.				All other Costs, &c. *	Total Value of Output.
	Materials, Including Containers.	Fuel, Light, and Power.	Salaries and Wages.	Tools Replaced, Repairs to Plant, Oil and Water Used.		
	£	£	£	£	£	£
1940 .. ..	93,390,751	3,920,967	41,920,726	2,962,196	32,109,761	174,304,401
1941 .. ..	112,024,332	4,622,042	52,294,673	3,701,760	36,706,038	209,348,845
1942 .. ..	136,058,136	5,560,913	67,158,613	4,724,417	43,779,001	257,281,080
1943 .. ..	144,778,354	5,955,767	76,033,111	5,565,072	45,346,636	277,678,940
1944 .. ..	149,189,244	6,177,388	77,400,688	5,950,764	45,929,830	284,647,914
1945 .. ..	152,761,198	6,298,860	74,227,245	5,984,946	48,150,062	287,422,311
1946 .. ..	154,224,950	6,305,727	70,499,214	6,208,244	49,751,273	286,989,408
1947 .. ..	170,223,745	7,201,406	77,993,765	6,516,378	53,502,385	315,437,679
1948 .. ..	203,121,836	8,339,792	93,802,188	7,449,377	64,698,832	377,412,025
1949 .. ..	244,486,168	10,612,058	112,410,440	8,979,277	70,349,936	446,837,879

\* Includes all expenditure not specified on collection form, viz., taxation, depreciation, interest, rent, insurance, &c., and funds available for profit.

These figures are reduced in the succeeding statement to their respective percentages of the total output.

# VICTORIA—PROPORTION OF OUTLAY TO OUTPUT OF FACTORIES.

Year ended 30th June—	Proportion of Outlay to Output.					Total.
	Materials, Including Containers.	Fuel, Light, and Power.	Salaries and Wages.	Tools Replaced, Repairs to Plant, Oil and Water Used.	Other Expendi- ture, Interest, and Profit.	
	%	%	%	%	%	%
1940 .. ..	53·6	2·2	24·1	1·7	18·4	100·0
1941 .. ..	53·5	2·2	25·0	1·8	17·5	100·0
1942 .. ..	52·9	2·2	26·1	1·8	17·0	100·0
1943 .. ..	52·1	2·2	27·4	2·0	16·3	100·0
1944 .. ..	52·4	2·2	27·2	2·1	16·1	100·0
1945 .. ..	53·1	2·2	25·8	2·1	16·8	100·0
1946 .. ..	53·7	2·2	24·6	2·2	17·3	100·0
1947 .. ..	54·0	2·3	24·7	2·1	16·9	100·0
1948 .. ..	53·8	2·2	24·9	2·0	17·1	100·0
1949 .. ..	54·7	2·4	25·1	2·0	15·8	100·0

The ratio of cost of materials to the value of the output of factories was 53·9 per cent. on the average of the last five years, as against 52·8 per cent. in the period 1939-40 to 1943-44. The ratio of salaries and wages to output averaged 25·0 per cent. over the last five years, as against 26·2 per cent. over the period 1939-40 to 1943-44. The proportionate outlay on fuel, light, and power was 2·3 per cent. as against 2·2. in the earlier period. After allocating the proportion for repairs to plant and buildings, replacement of tools, and costs of lubricating oil and of water, the balance available for miscellaneous expenses, rent, interest, and manufacturers' profit was £16 14s. 3d. in every £100 of the total output value in the period 1944-45 to 1948-49, as compared with £16 18s. 10d. in the preceding five-year period

In 1948-49 wages and salaries took 61·5 per cent. of the value added in manufacturing (see page 558), leaving 38·5 per cent. for the payment of expenses not specified above (taxation, depreciation, interest, rent, insurance, &c.), and funds available for profits.

In the following statement the amount of capital invested in machinery, plant, land, and buildings used in connexion with the various classes of manufacturing industries is shown for the year 1948-49.

Capital  
Invested in  
manufacturing  
plant and  
premises.

# VICTORIA—VALUE OF MACHINERY AND PLANT, LAND AND BUILDINGS, 1948-49.

Class of Industry.	Value of Land and Buildings.	Value of Machinery and Plant.
	£	£
1. Treatment of non-metalliferous mine and quarry products ..	1,349,941	1,863,102
2. Bricks, pottery, glass, &c. ....	930,785	991,032
3. Chemicals, dyes, explosives, paint, oils, and grease ..	5,896,837	6,217,963
4. Industrial metals, machines, implements, and conveyances ..	22,175,677	19,769,274
5. Precious metals, jewellery, and plate ..	726,139	413,456
6. Textiles and textile goods (not dress) ..	6,111,119	6,211,663
7. Skins and leather (not clothing or footwear) ..	1,516,013	777,596
8. Clothing ..	6,881,482	2,814,436
9. Food, drink, and tobacco ..	13,758,133	10,533,871
10. Woodworking and basketware ..	2,244,651	2,069,057
11. Furniture, bedding, &c. ....	1,427,689	399,691
12. Paper, stationery, printing, bookbinding, &c. ....	4,607,143	4,144,683
13. Rubber ..	1,016,931	1,051,083
14. Musical instruments ..	56,797	17,365
15. Miscellaneous products ..	1,506,776	1,199,342
16. Heat, light, and power ..	3,177,671	17,606,184
Total .. .. .	73,383,784	76,079,598

The capital invested in plant, buildings, &c., used in connexion with three classes of industry—food and drink, industrial metals, &c., and heat, light, and power—amounted, in the year under review to £87,020,610, approximately 60 per cent. of the total for all manufacturing industries.

The values of machinery and plant and of land and buildings used in connexion with manufacturing industries and the value of depreciation allowed thereon are shown in the next table for the years 1944-45 to 1948-49. The value recorded is the depreciated value or the book value less any existing depreciation reserve.

# VICTORIA—VALUE OF MACHINERY AND PLANT, LAND AND BUILDINGS, AND DEPRECIATION.

Year ended 30th June—				Land and Buildings.		Machinery and Plant.	
				Value at end of Year.	Depreciation allowed during Year.	Value at end of Year.	Depreciation allowed during Year.
				£	£	£	£
1945	..	..	..	57,808,861	768,690	58,571,064	4,674,061
1946	..	..	..	60,264,953	719,383	58,537,394	4,156,927
1947	..	..	..	62,752,468	748,102	59,124,802	4,634,218
1948	..	..	..	66,229,391	659,998	65,829,201	5,213,588
1949	..	..	..	73,383,784	734,956	76,079,598	6,764,235

**Accidents in factories.** In the appended table the number of accidents in factories is given for the past ten years. The particulars in the table relate to establishments which came within the scope of the Factories Acts in force in the years specified.

### VICTORIA—ACCIDENTS IN FACTORIES.

Year.					Number of Employees.	Number of Accidents.	Percentage of Accidents to Number of Employees.
1940	..	..	..	..	196,263	3,534	1·801
1941	..	..	..	..	224,347	5,592	2·493
1942	..	..	..	..	215,456	6,347	2·946
1943	..	..	..	..	227,407	7,828	3·442
1944	..	..	..	..	229,397	7,235	3·154
1945	..	..	..	..	231,984	6,116	2·636
1946	..	..	..	..	241,705	6,387	2·642
1947	..	..	..	..	256,867	7,104	2·766
1948	..	..	..	..	275,365	6,659	2·416
1949	..	..	..	..	292,667	5,956	2·035

**Manufactures—Penal Department and Blind Institute.** The foregoing tables do not include particulars relating to work of various kinds done at the Pentridge Penal Establishment and at the Royal Victorian Institute for the Blind. At the former establishment the manufacture and process treatment in relation to the following industries are carried on:—Wire netting, textile, tailoring, clothing, footwear, brushware, coir-matting, wood and metal working, knitting, printing, bookbinding, and photography. The estimated value of the output for 1948-49 was £74,562 and, of the materials used, £50,927. The articles produced are used principally by Government Departments. The work carried on by the latter establishment is the manufacture of brushware, brooms, basketware, mats, and matting, and gives employment to 126 persons (113 males and 13 females). The value of the articles produced for the nine months ending 30th June, 1949, was £64,567.

**Factory Statistics by Municipalities.** Although approximately 70 per cent. of the factories in Victoria are located within the Metropolitan area, some of the municipalities outside Greater Melbourne also have important manufacturing industries.

The following table gives factory statistics for the Metropolitan and for the more important extra-metropolitan municipalities for the year 1948-49.

# VICTORIA—FACTORY STATISTICS BY MUNICIPALITIES, 1948-49.

Factories, Fisheries, Mines, &c.

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Municipality.	Number of Factories.	Persons Employed.		Salaries and Wages Paid.	Value of Land and Buildings.	Value of Plant and Machinery.	Value of Materials Used (including Containers).	Value of Articles Produced or Work Done
		Males.	Females.					
		No.	No.	£	£	£	£	£
Melbourne .. .. .	2,679	36,759	22,945	22,218,125	15,354,518	10,418,911	47,920,665	87,120,630
Brunswick .. .. .	533	8,038	5,175	4,765,387	2,493,392	1,981,751	9,446,300	17,973,087
Essendon .. .. .	216	2,691	595	1,207,443	571,572	391,218	2,036,035	3,858,917
Coburg .. .. .	169	2,432	1,470	1,466,690	661,817	548,132	2,844,846	5,277,590
Preston .. .. .	204	3,124	783	1,461,206	1,059,822	586,253	2,794,530	5,249,690
Northcote .. .. .	198	1,806	726	877,651	519,854	355,257	1,171,304	2,731,904
Fitzroy .. .. .	449	7,295	4,110	4,143,299	2,365,133	1,732,720	8,100,344	15,301,606
Collingwood .. .. .	528	12,389	7,349	7,511,510	3,202,195	2,780,878	14,603,158	26,904,985
Kew .. .. .	57	198	138	91,449	128,605	38,598	204,655	379,818
Camberwell .. .. .	182	1,162	922	633,469	440,882	287,967	948,919	2,083,748
Hawthorn .. .. .	222	1,954	1,251	1,124,421	826,732	552,851	1,857,549	3,840,240
Richmond .. .. .	436	12,534	5,391	7,125,417	4,023,268	3,082,612	13,153,406	26,046,463
Prahran .. .. .	437	4,366	2,937	2,526,876	1,618,351	885,572	6,334,360	10,915,272
Malvern .. .. .	205	1,716	703	849,932	696,921	461,691	1,384,645	2,733,860
Caulfield .. .. .	263	1,267	658	583,847	485,327	263,325	1,134,176	2,324,361
Oakleigh .. .. .	92	1,304	304	597,463	408,498	377,671	1,007,711	2,086,159
Sandringham .. .. .	70	602	337	297,599	217,224	108,219	510,626	1,049,570
Brighton .. .. .	127	1,226	497	640,648	406,470	425,381	1,687,563	3,032,267
St. Kilda .. .. .	190	1,176	616	585,841	472,520	229,736	1,099,429	2,267,408
South Melbourne .. .. .	538	16,771	4,042	8,697,145	4,992,671	3,721,779	18,683,513	35,494,813
Port Melbourne .. .. .	127	11,457	1,774	6,246,060	3,143,800	3,329,759	7,069,744	15,630,480
Footscray .. .. .	275	12,481	2,957	6,784,814	4,313,937	6,368,111	21,132,599	33,351,948
Williamstown .. .. .	118	8,668	805	4,297,473	3,526,595	6,168,406	6,944,880	15,299,274
Braybrook .. .. .	108	8,396	1,295	4,476,572	4,990,493	5,724,876	8,522,613	16,407,761
Heidelberg .. .. .	110	1,442	448	741,386	540,989	384,202	2,180,947	4,009,457
Box Hill .. .. .	67	756	191	349,630	253,657	571,543	536,843	1,074,645
Moorabbin .. .. .	101	1,759	878	991,922	573,195	1,043,915	2,382,824	3,877,686
Mordialloc .. .. .	57	700	332	333,479	176,543	163,342	675,753	1,252,144
Chelsea .. .. .	24	164	77	81,955	54,596	24,988	147,176	274,426
Nunawading .. .. .	50	700	173	331,760	208,132	194,818	288,983	931,551
Ringwood .. .. .	24	175	191	110,116	79,865	52,720	299,315	500,175
Other Municipalities .. .. .	27	377	52	186,002	132,884	133,903	404,358	710,259
Total Metropolitan .. .. .	8,883	165,885	70,122	92,336,587	58,940,458	53,391,105	187,509,769	349,992,194

VICTORIA—FACTORY STATISTICS BY MUNICIPALITIES, 1948-49—continued.

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Victorian Year-Book, 1948-49.

Municipality.	Number of Factories.	Persons Employed.		Salaries and Wages Paid.	Value of Land and Buildings.	Value of Plant and Machinery.	Value of Materials Used (including Containers).	Value of Articles Produced or Work Done.
		Males.	Females.					
		No.	No.	£	£	£	£	£
Werribee ..	36	285	111	108,207	149,873	109,705	1,331,322	2,282,457
Dandenong ..	81	1,500	457	737,958	428,062	393,356	1,454,915	2,587,996
Bacchus Marsh ..	17	219	62	127,560	57,891	76,090	735,207	981,905
*Geelong ..	299	8,240	2,474	4,278,996	2,906,033	3,014,324	8,451,672	16,662,890
Korumburra ..	27	265	143	128,788	84,794	102,902	791,111	1,131,961
Alexandra ..	25	233	29	111,637	192,007	806,143	230,899	702,981
Kyneton ..	43	300	139	131,536	76,807	61,547	305,383	543,779
Castlemaine ..	40	912	236	417,287	124,651	228,657	590,382	1,258,152
Maryborough ..	43	821	351	405,071	93,413	89,551	770,305	1,342,814
†Ballarat (including Sebastopol)	273	4,088	1,690	2,004,768	1,022,241	781,913	3,281,912	6,714,722
†Colac ..	81	725	192	320,034	215,519	182,432	1,182,464	1,743,940
Hampden ..	56	472	128	220,112	132,845	126,163	1,228,399	2,017,636
†Warrnambool ..	75	1,467	448	727,905	532,904	510,151	3,049,809	4,473,760
†Ararat ..	44	401	218	155,168	165,276	202,409	257,410	646,541
Hamilton ..	57	421	39	154,102	118,352	100,548	365,979	629,924
†Portland ..	58	518	62	205,483	134,892	216,930	485,214	879,126
Horsham ..	52	379	148	163,689	164,816	101,424	492,525	768,077
†Stawell ..	49	481	176	220,140	109,950	120,389	636,286	1,064,308
†Mildura ..	111	1,214	425	531,611	328,093	414,848	751,717	1,682,729
†Swan Hill ..	59	376	75	143,729	140,182	160,584	367,941	692,773
Cobuna ..	19	138	25	63,936	40,282	58,866	501,358	630,003
Bendigo (including Eaglehawk)	159	1,966	985	1,010,644	987,792	1,905,769	2,654,216	4,367,602
Strathfeldsaye ..	5	668	36	307,525	238,747	83,503	532,312	958,834
Echuca ..	33	210	62	83,226	54,641	42,830	425,171	583,121
Rodney ..	50	499	408	301,695	361,327	408,528	1,716,197	2,378,893
†Shepparton ..	84	818	232	399,271	364,004	284,575	1,645,379	2,317,190
Benalla ..	46	276	129	118,393	96,011	65,801	480,900	735,928
†Wangaratta ..	63	647	249	319,536	179,778	592,197	1,028,196	1,633,854
Bairnsdale ..	47	275	94	117,118	101,327	67,494	339,382	532,322
Salc ..	37	300	138	129,817	83,365	113,993	304,260	655,731
Maffra ..	18	544	104	295,170	172,492	401,396	2,190,691	2,811,884
Woorayl ..	15	125	40	59,939	74,312	71,300	836,364	944,444
Morwell ..	31	2,060	317	1,268,186	1,471,420	5,928,892	1,801,231	6,618,472
Narracan ..	52	469	92	197,764	102,787	157,531	712,203	1,084,056
Warragul ..	31	299	181	158,561	111,332	89,796	740,207	1,074,059
Buln Buln ..	23	323	28	147,660	65,117	97,184	518,859	849,786
Other Municipalities ..	1,580	9,365	2,977	3,801,631	2,759,991	4,518,772	13,788,621	19,861,035
Total Country ..	3,819	42,299	13,700	20,073,853	14,443,326	22,688,493	56,976,399	96,845,685
Total State ..	12,702	208,184	83,822	112,410,440	73,383,784	76,079,598	244,486,168	446,837,879

\* Includes Corio, Geelong West, and Newtown and Chilwell.

† Includes Shire of same name.

Included in the item "Other Municipalities" in the foregoing table were *inter alia*:—Fern Tree Gully, 46 factories £508,786, value of output; Lillydale, 49, £364,391; Frankston and Hastings, 41, £592,521; Berwick, 37, £211,451; Upper Yarra, 30, £587,421; Healesville, 34, £507,527; Daylesford, 14, £606,499; Otway, 39, £240,999; Heytesbury, 21, £540,439; Dunmunkle, 25, £597,627; Dimboola, 39, £299,188; Kerang, 35, £524,648; Marong, 4, £557,180; Bright, 24, £734,273; Rutherglen, 38, £257,850; Orbost, 30, £382,619; Traralgon, 39, £459,845.

### VALUE OF VICTORIAN PRODUCTION.

The value of production as estimated hereunder is based to a large extent on returns received annually from individual producers throughout the State. As a measure of total production it is incomplete, as it does not include the building and construction industry, it omits factories employing less than four hands (unless power-driven machinery is used) and excludes agriculturists with holdings of less than 1 acre.

Gross value is defined as the value placed on recorded production at the wholesale price realized in the principal markets. In cases where primary products are absorbed locally, or where they become raw material for secondary industry, these points are presumed to be the principal markets. Care is taken to prevent as far as possible all overlapping or double counting. The primary value of dairy production, in accordance with the above definition, is the price paid at the factory for milk or cream sold by the farmer; the value added by the process of manufacture into butter, &c., is included in manufacturing production.

### VICTORIA—GROSS VALUE OF PRODUCTION.

Division of Industry.	Year ended 30th June—				
	1945.	1946.	1947.	1948.	1949.
	£	£	£	£	£
Agriculture .. ..	23,911,774	33,156,746	41,055,961	61,250,238	50,432,196
Pastoral .. ..	27,409,567	20,753,083	32,426,683	47,144,410	58,522,344
Dairying .. ..	17,864,037†	18,866,694†	21,525,932†	23,547,860†	26,844,959†
Poultry and Bees ..	7,455,981	7,506,706	7,617,341	8,754,807	11,105,714
Trapping .. ..	2,553,735	3,271,866	3,175,171	3,626,472	4,029,562
Forestry .. ..	2,884,556	3,127,887	3,840,530	4,523,451	5,284,460
Fisheries .. ..	400,720	548,081	624,094	525,873	606,225
Mining .. ..	2,176,539	2,506,043	3,026,554	3,341,233	3,830,397
Manufacturing* ..	122,377,307	122,406,082	131,496,150	158,501,020	182,760,376
Total .. ..	207,034,216	212,143,188	244,788,416	311,215,364	343,416,233

\* Manufacturing is included at its net or added value because the gross or wholesale-selling value contains so much duplication of products, the finished article of one class of manufacture forming in numerous cases the raw material for others.

† Includes Subsidy—1944-45, £3,226,620; 1946-46, £3,147,000; 1946-47, £2,867,670; 1947-48, £3,423,346; 1948-49, £2,118,602.

The ultimate aim of the valuation of production is to arrive at the sum available for distribution among those concerned in each class of industry, i.e.—

- (a) Workers in all grades of the industry.
- (b) Proprietors (including landlords) of any of the instruments of production concerned.
- (c) Providers of capital, including debenture holders and mortgagees.

It is, therefore, necessary to deduct from the gross values of realization all costs of marketing and production, the former including freight, cartage, brokerage, commission, insurance, and containers, and the latter such items as stock feed, seed costs, manures, spraying, animal dips, fuel, power, water, all other materials consumed in the process of production, and depreciation. Complete details of these costs are not yet available for the forestry and fishing industries in Victoria, but the following table gives the value of production in detail after deduction of marketing costs, and may be considered to represent with a fair degree of accuracy the value of Victorian production at the place of production.

### VICTORIA—VALUE AT THE PLACE OF PRODUCTION.

Produce.	Value in Year ended 30th June—				
	1945.	1946.	1947	1948.	1949.
	£	£	£	£	£
<b>Agriculture .. ..</b>	<b>21,598,093</b>	<b>29,315,445</b>	<b>36,438,799</b>	<b>55,375,993</b>	<b>45,164,048</b>
Barley .. ..	206,589	408,369	695,393	2,252,029	1,095,624
Maize .. ..	59,805	112,558	129,029	140,128	121,768
Oats .. ..	535,928	1,129,836	1,239,044	4,704,161	1,255,072
Wheat .. ..	1,896,500	8,621,711	17,581,748	29,910,971	23,349,112
Onions .. ..	697,289	585,789	396,417	746,422	429,832
Potatoes .. ..	3,064,501	2,377,434	2,210,471	1,969,229	2,586,450
Hay and Straw .. ..	4,650,837	5,704,774	3,875,362	5,178,371	5,579,709
Fruit—					
Orchards .. ..	2,700,113	2,550,527	2,667,005	2,741,361	2,788,965
Vineyards .. ..	2,096,206	2,751,473	2,742,418	3,562,365	3,104,972
Other Crops .. ..	5,690,325	5,072,974	4,901,912	4,170,956	4,902,544
<b>Pastoral .. ..</b>	<b>25,457,318</b>	<b>19,348,301</b>	<b>29,990,974</b>	<b>42,989,486</b>	<b>54,060,585</b>
Wool .. ..	11,149,746	8,955,354	17,336,538	27,082,608	34,197,832
Sheep, slaughtered .. ..	7,533,893	4,736,249	5,958,346	6,862,317	7,726,358
Cattle, slaughtered .. ..	6,773,679	5,656,698	6,696,090	9,044,561	12,136,395
Horses .. ..	..	..	..	..	..
<b>Dairying .. ..</b>	<b>17,237,829*</b>	<b>18,232,630*</b>	<b>20,676,900*</b>	<b>22,671,396*</b>	<b>25,686,607*</b>
Cream for butter .. ..	6,099,988	7,203,179	9,098,464	9,897,433	12,026,065
Milk for cheese .. ..	862,385	1,306,779	1,448,104	1,500,920	2,048,227
Milk for condensing, con- centrating, &c. .. ..	1,454,077	1,563,341	1,769,089	2,017,810	3,118,468
Whole milk consumed .. ..	2,823,019	3,006,575	3,297,225	3,339,990	3,567,523
Pigs .. ..	2,771,740	2,005,756	2,196,348	2,491,897	2,807,722

\* Inclusive of Subsidy—1944-45, £3,226,620; 1945-46, £3,147,000; 1946-47, £2,867,670; 1947-48, £3,423,346; 1948-49, £2,118,602.



VALUE AT THE PLACE OF PRODUCTION—*continued*.

Produce.	Value in Year ended 30th June—				
	1945.	1946.	1947.	1948.	1949.
	£	£	£	£	£
<b>Poultry and Bees .. ..</b>	<b>6,889,068</b>	<b>6,936,341</b>	<b>7,029,677</b>	<b>8,085,634</b>	<b>10,256,968</b>
Eggs .. ..	5,817,338	5,208,664	5,285,687	5,992,999	7,720,672
Poultry .. ..	1,450,606	1,612,496	1,488,245	1,896,567	2,289,280
Honey and beeswax ..	121,124	116,181	255,745	196,068	247,016
<b>Trapping, &amp;c. .. ..</b>	<b>2,451,538</b>	<b>3,174,158</b>	<b>3,036,896</b>	<b>3,434,725</b>	<b>3,776,262</b>
Rabbits and hares ..	325,131	279,220	657,116	1,425,515	2,394,801
Rabbit and hare skins, &c.	2,126,407	2,894,938	2,379,780	2,009,210	1,381,461
<b>Forestry .. ..</b>	<b>2,565,264</b>	<b>2,826,229</b>	<b>3,450,103</b>	<b>4,023,451</b>	<b>4,743,217</b>
Sawmills .. ..	1,340,415	1,675,443	1,947,902	2,113,451	2,655,662
Firewood .. ..	1,178,753	1,118,180	1,437,924	1,840,000	2,007,377
Bark for tanning ..	46,096	32,606	64,277	70,000	80,178
<b>Fisheries .. ..</b>	<b>339,043</b>	<b>465,625</b>	<b>534,828</b>	<b>450,656</b>	<b>521,887</b>
Fish .. ..	336,392	461,846	528,033	446,560	498,736
Crayfish .. ..	1,947	3,613	6,628	4,078	23,069
Oysters .. ..	704	166	167	18	82
<b>Mining .. ..</b>	<b>2,037,838</b>	<b>2,345,366</b>	<b>2,814,424</b>	<b>3,096,868</b>	<b>3,450,984</b>
Gold .. ..	566,211	658,850	932,643	908,153	734,100
Coal—					
Black .. ..	377,624	468,096	386,362	287,976	341,580
Brown .. ..	565,055	641,089	706,462	925,887	1,142,915
Other Metals and Minerals	153,077	120,206	153,908	174,852	253,086
Quarrying .. ..	375,871	457,145	635,049	800,000	979,303
<b>Total Primary .. ..</b>	<b>78,575,991</b>	<b>82,644,095</b>	<b>103,972,601</b>	<b>140,128,209</b>	<b>147,660,558</b>
<b>Manufacturing .. ..</b>	<b>122,377,307</b>	<b>122,406,082</b>	<b>131,496,150</b>	<b>158,501,020</b>	<b>182,760,376</b>
<b>Grand Total .. ..</b>	<b>200,953,298</b>	<b>205,050,177</b>	<b>235,468,751</b>	<b>298,629,229</b>	<b>330,420,934</b>

The values of production of the various classes of industry, as they appear in the previous table for the year 1948-49, are shown hereafter, together with the costs of production where available. The difference between the two figures represents the net value of production or the net return available to the producers for wages, rent, interest, and profits. As previously explained, the deductions are incomplete, and depreciation (see next page) has been here disregarded, but the margin of error is considered to be small in view of the comparative unimportance of the industries concerned from the point of view of production costs.

## VICTORIA—NET VALUE OF PRODUCTION, 1948-49.

Industry.	Value at Place of Production.	Cost of Production.*	Net Value.	Net Value per Head of Population.
	£	£	£	£ s. d.
Agriculture .. ..	45,164,048	9,125,408	36,038,640	17 1 0
Pastoral .. ..	54,060,585	2,136,033	51,924,552	24 11 5
Dairying .. ..	25,686,607	3,428,005	22,258,602	10 10 8
Poultry and Bees ..	10,256,968	2,180,945	8,076,023	3 16 5
Trapping, Forestry, and Fisheries .. ..	9,041,366	803,000†	8,238,366	3 18 0
Mining .. ..	3,450,984	1,279,037	2,171,947	1 0 7
Manufacturing .. ..	182,760,376	..	182,760,376	86 9 7
Total .. ..	330,420,934	18,952,428	311,468,506	147 7 8

\* Costs of production include stock feed, seed costs and pickling, manures, spraying, sheep and cattle dips, power, fuel, water, and all other materials used in production.

† Incomplete.

**Employment in factories.** Every factory in Victoria submits an annual statement showing the number of persons employed on the 15th day of each month, and from these data an index of employment is constructed.

It will be appreciated that, in order to publish figures to the latest possible date, it is necessary to anticipate these annual statements. Consequently, in the table which follows, the figures from July, 1948, are estimates based on the monthly pay-roll tax returns rendered by factories. It is considered that such returns cover 90 per cent. of total factory employment in Victoria.

## INDEX OF FACTORY EMPLOYMENT.

(Base—July, 1933, 136,793 = 1,000.)

Month.	1944-45.	1945-46.	1946-47.	1947-48.	1948-49.	1949-50.	1950-51.
July ..	1,832	1,805	1,887	1,930	1,984	2,018	2,094
August ..	1,829	1,803	1,898	1,940	1,989	2,021	2,096
September ..	1,825	1,771	1,911	1,943	1,992	2,027	2,099
October ..	1,827	1,749	1,913	1,954	1,996	2,038	2,070
November ..	1,826	1,747	1,865	1,954	2,005	2,053	2,092
December ..	1,826	1,747	1,811	1,956	2,005	2,049	2,126
January ..	1,813	1,752	1,812	1,944	2,004	2,055	2,129
February ..	1,830	1,797	1,861	1,968	2,019	2,069	2,146
March ..	1,838	1,826	1,858	1,977	2,037	2,090	2,148
April ..	1,825	1,847	1,854	1,987	2,027	2,086	2,159
May ..	1,812	1,860	1,893	1,984	2,032	2,090	..
June ..	1,808	1,864	1,907	1,987	2,026	2,094	..

\* Revised figures for each month of 1948-49 and July and August respectively for 1949-50.

**Employment  
in Retail  
Trade.**

In peace-time the volume of employment in retail trade is a valuable indicator of economic conditions.

A sample collection of 102 large Victorian retail stores was made by the Government Statist from July, 1933, to December, 1941. This collection was then discontinued because of institution of the pay-roll tax. Figures collected in conjunction with this tax cover all retail establishments whose pay-roll is more than £20 per week.

The following table shows a monthly index of total employment in retail establishments based mainly on the latter source:—

**VICTORIA—INDEX OF RETAIL EMPLOYMENT.**

(Base July, 1941, 58,500 = 1,000.)

Month.	1941-42.	1946-47.	1947-48.	1948-49.	1949-50.	1950-51.
July .. ..	1,000	987	1,052	1,107	1,130	1,146
August .. ..	987	994	1,050	1,100	1,125	1,148
September .. ..	993	1,004	1,058	1,104	1,132	1,150
October .. ..	996	1,014	1,070	1,106	1,130	1,158
November .. ..	1,004	1,053	1,096	1,137	1,154	1,191
December .. ..	1,038	1,069	1,120	1,169	1,167	1,206
January .. ..	964	1,046	1,083	1,125	1,139	1,182
February .. ..	954	1,048	1,090	1,123	1,142	1,181
March .. ..	949	1,045	1,093	1,125	1,144	1,182
April .. ..	935	1,050	1,097	1,127	1,148	1,187
May .. ..	907	1,044	1,099	1,128	1,148	..
June .. ..	895	1,048	1,103	1,132	1,150	..

## BUILDING STATISTICS.

Building statistics collected by the Government Statist and published in the *Year-Books* from 1928-29 to 1947-48 inclusive, were of value in showing the trend of building activities in the State; but, due to acknowledged difficulties in getting complete information, they could not be regarded as an absolute measure of work done.

That particular collection has now been discontinued, and the tables which follow, comprise certain particulars of the building industry in Victoria, collected and compiled by the Commonwealth Statistician.

The figures shown relate to the operations of private contractors, Government authorities and "owner-builders." They exclude the value of land and refer only to new buildings—alterations, additions, renovations, &c., are excluded. The operations of "owner-builders" are included except when they relate to buildings in areas where building permits are not required, nor are they included in the tables relating to employment.

An "owner-builder" is one who is actually building his own house or is having it built under his own direction without the services of a contractor.

VICTORIA—(a) NUMBER OF NEW BUILDINGS AND (b) VALUE  
(WHEN COMPLETED) OF NEW BUILDINGS.  
(Including owner-built houses.)

Period.	New Houses, Flats, Shop Dwellings.			Other New Buildings.		
	Com- menced During Period.	Com- pleted During Period.	Under Con- struction at End of Period.	Com- menced During Period.	Com- pleted During Period.	Under Con- struction at End of Period.

## (a) Number of New Buildings.

Year ended—	No.	No.	No.	No.	No.	No.
30th June, 1946 ..	*	3,688	6,222	*	1,632	300
30th June, 1947 ..	13,882	7,560	12,056	1,453	1,341	401
30th June, 1948 ..	15,987	12,080	15,362	1,880	1,728	600
30th June, 1949 ..	16,170	14,764	16,763	2,327	2,167	735
30th June, 1950 ..	21,579	16,042	22,300	2,497	2,293	1,126

## (b) Value (when completed) of Buildings mentioned above.

Year ended—	£'000	£'000	£'000	£'000	£'000	£'000
30th June, 1946 ..	*	3,838	7,540	*	1,633	2,277
30th June, 1947 ..	17,577	9,515	16,271	2,845	1,552	3,062
30th June, 1948 ..	22,534	16,372	22,911	4,307	1,519	6,662
30th June, 1949 ..	27,808	23,357	29,765	8,517	4,000	11,842
30th June, 1950 ..	39,238	30,044	42,526	7,259	4,629	13,203

\* Not available.

VICTORIA—(a) NUMBER OF NEW BUILDINGS AND (b) VALUE (WHEN COMPLETED) OF NEW BUILDINGS COMPLETED DURING PERIODS MENTIONED AND CLASSIFIED ACCORDING TO KIND.

(Including owner-built houses.)

Period.	Houses,			Flats (Units).	Shops with Dwelling.	All- Other than Private Dwellings.
	Brick, Brick Veneer, Concrete, &c.	Wood.	Other (including Fibro- Cement).			
(a) Number of New Buildings.						
Year ended—	No.	No.	No.	No.	No.	No.
30th June, 1946 ..	1,982	1,190	494	14	8	1,632
30th June, 1947 ..	4,060	2,532	844	86	38	1,341
30th June, 1948 ..	6,510	3,893	1,443	167	67	1,728
30th June, 1949 ..	7,118	5,591	1,569	368	118	2,167
30th June, 1950 ..	6,408	7,699	1,496	246	193	2,293
(b) Value (when completed) of Buildings mentioned above.						
Year ended—	£'000	£'000	£'000	£'000	£'000	£'000
30th June, 1946 ..	2,285	1,158	359	7	29	1,633
30th June, 1947 ..	5,879	2,709	772	99	56	1,552
30th June, 1948 ..	10,047	4,545	1,457	200	123	1,519
30th June, 1949 ..	12,952	7,763	1,827	528	287	4,000
30th June, 1950 ..	13,854	12,937	2,052	663	538	4,629

VICTORIA—NUMBER OF NEW HOUSES ACCORDING TO LOCATION (METROPOLITAN OR OTHER).

(Including owner-built houses but excluding flats, shops with dwellings, converted military huts, &c.)

Period.	Commenced During Period.		Completed During Period.		Under Construction at End of Period.	
	Metro-politan.	Other.	Metro-politan.	Other.	Metro-politan.	Other.
Year ended—	No.	No.	No.	No.	No.	No.
30th June, 1946 ..	*	*	2,017	1,649	4,247	1,888
30th June, 1947 ..	7,711	5,270	4,246	3,190	7,712	3,968
30th June, 1948 ..	8,658	6,220	6,884	4,962	9,486	5,226
30th June, 1949 ..	9,106	6,381	8,237	6,041	10,355	5,566
30th June, 1950 ..	11,292	9,743	8,975	6,455	12,463	8,890

\* Not available.

In the above table metropolitan comprises Melbourne and suburbs within boundaries defined for statistical purposes.

**VICTORIA—NUMBER OF EMPLOYERS AND EMPLOYEES  
ENGAGED ON JOBS CARRIED OUT BY BUILDERS OF  
NEW BUILDINGS.**

(Excluding persons working on houses being built by owner-builders.)

Particulars.	As at—				
	30th June, 1946.	30th June, 1947.	30th June, 1948.	30th June, 1949.	30th June, 1950.
	No.	No.	No.	No.	No.
Contractors (a) ..	2,458	3,094	3,470	3,291	3,317
Sub-contractors (a) ..	2,461	2,931	3,221	3,493	3,614
Wage Earners ..	12,510	16,086	20,037	21,658	24,753
Total ..	17,429	22,111	26,728	28,442	31,684

(a) Actually working on jobs.

**VICTORIA—NUMBER OF TRADESMEN ENGAGED ON JOBS  
CARRIED OUT BY BUILDERS OF NEW BUILDINGS.**

(Including contractor and sub-contractor principals, but excluding persons working on houses being built by owner-builders.)

Tradesmen.	As at—				
	30th June, 1946.	30th June, 1947.	30th June, 1948.	30th June, 1949.	30th June, 1950.
	No.	No.	No.	No.	No.
Carpenters .. ..	6,621	8,907	11,156	12,160	13,703
Bricklayers .. ..	1,877	2,351	2,623	2,550	2,501
Painters .. ..	1,654	1,962	2,231	2,574	3,078
Electricians .. ..	701	921	1,070	1,392	1,222
Plumbers .. ..	1,375	1,693	1,945	2,211	2,264
Builders' Labourers ..	2,586	3,064	3,782	4,131	5,165
Other .. ..	2,615	3,213	3,921	3,424	3,751
Total ..	17,429	22,111	26,728	28,442	31,684