Chapter 7

INDUSTRY

The importance of industry in the development of Melbourne is evident from the fact that almost half the entire metropolitan work force is now engaged in secondary production, including manufacturing, building and construction, and mining and quarrying. Melbourne accounts for 28% of the total factory output of the whole Commonwealth and 85% of the factory output of the State of Victoria. In terms of the proportion of its working population engaged in industry, it is the most heavily industrialised capital city in Australia. It is also the administrative and manufacturing centre for some of Australia's largest industrial organisations and a high proportion of its output is for distribution throughout the Commonwealth.

Melbourne's future growth is largely dependent on industrial development, and adequate provision for the needs of industry must be regarded as one of the most important features of any successful planning scheme for the city's future development. Apart from providing the bulk of the city's employment and output, industry is responsible for generating most of its daily traffic. It is therefore a key factor in determining the future pattern of living throughout the whole metropolitan area.

For the purposes of this analysis, industry has been classified into the following three broad groups:

Building and Construction: This includes all activity concerned with the construction and maintenance of buildings, roads, railway installations and other public works.

Extractive Industry: All mining and quarrying activities.

Manufacturing Industry: All activity concerned with the manufacture, assembly, processing and servicing of goods.

For the purposes of assessing land requirements, manufacturing industry has been further classified into two sections, namely, *oil and explosives*, and *general manufacturing*.

HISTORY OF INDUSTRIAL GROWTH

The history of Melbourne's industrial development has been closely related to the pattern of industrial development of Australia as a whole which has been characterised by the gradual decline in the proportion of the population engaged in primary production and the corresponding rise in the proportion engaged in secondary and tertiary production. The most marked rise of industrial development has been in the sphere of manufacturing where over the past 50 years the proportion of the population engaged has increased by some 60 per cent. as shown by the figures of Table 28.

The structure of industry has also changed over the years. At the beginning of the century industrial activity consisted mainly of the production of clothing and food, and of the products of the basic heavy engineering trades such as iron and steel smelting, foundry work, the manufacture of agricultural implements and the making of railway equipment. At that time clothing accounted for about 40 per cent. of industrial employment, food and engineering about 13 per cent., and mining and the building trades most of the remainder. The great bulk of heavy and light machinery, tools and household equipment was then imported. The textile, chemical and rubber industries were relatively undeveloped.

World War I gave impetus to the development of additional industries, particularly in the fields of engineering and textiles and to a lesser degree chemicals, woodwork and rubber. This trend continued until World War II when the need and opportunity arose to develop many new industries as overseas supplies were restricted and defence needs created new demands. As a result, the base of the industrial structure of Australia was broadened and developed considerably. The engineering, chemical, food and textile industries expanded into many new fields, and this in turn resulted in the growth of many associated industries.

These new industries received further stimulus immediately after the war with the influx and expansion of several large

Ta	ible	2	8

PERCENTAC	GE O	F AUST	RALIAN	W	ORK	FORCE
ENGAGED	IN N	ANUFA	CTURIN	IG	INDU	JSTRY

 1891	17.6	
1901	16.8	
1911	19.7	
1921	21.4	
1933	19.1	
1939	25.2	
1947	28.0	



28 GROWTH OF VICTORIAN INDUSTRY 1903-1948

industrial organisations from Great Britain and the United States and from the enlarged market resulting from the rise in the Australian population. This industrial development has been chiefly centred in the cities of Melbourne and Sydney, which now jointly account for about half the total industrial employment in Australia, over 70% of which is located in Victoria and New South Wales. The growth in the development of various sections of industry within Victoria is shown in the Table 29 and diagram 28. The figures given exclude building and construction as comparable figures are not available over the period shown.

The principal features shown by this development are:

- (a) The tremendous rise in the proportion of the work force engaged in engineering over the past 20 years.
- (b) The fairly steady increase over the years of clothing, textiles, food, paper and printing and rubber.
- (c) The recent rapid growth of textiles, chemicals, food and miscellaneous industries.
- (d) The more irregular development of timber and furniture, mine and quarry products, leather, skins and furs, heat, light and power.

EXISTING STRUCTURE OF INDUSTRY

The industrial structure of Melbourne now covers a wide range of industry, although it is still largely dominated in terms of employment by the four main groups—engineering, clothing, textiles and food. These account for almost threequarters of total factory employment in Melbourne. A considerable proportion of the factories are small, mainly as a result of the rapid growth in the number of such factories over the past ten years. However, the bulk of the industrial work force is still engaged in the larger factories. This is shown by the fact that although 90 per cent. of all factories employ fewer than 50 persons each, nearly 50 per cent. of all workers engaged in industry are employed in factories employing more than 100 persons each, while nearly onefifth of the industrial work force is working in factories employing over 500 persons each.

The general distribution of factory employment among the broad groups of industry is shown in the Table 30 and illustrated in diagram 29.

Engineering

The engineering trades which normally form the basis of any highly industrialised community now comprise about one-third of factory employment in Melbourne, although the area is deficient in the basic raw materials, coal, iron and steel, which have to be brought from other States. It seems unlikely, therefore, that any large-scale smelting and rolling will ever be undertaken in Melbourne. Despite this, Melbourne is now the principal centre in the Commonwealth for two of the most highly developed and expanding sections of engineering-namely, the automobile and agricultural implement industries, which jointly account for about 35 per cent. of employment in the engineering field. The headquarters and principal manufacturing plants for the six largest automobile and agricultural implement organisations now established in Australia are located in Victoria, and five are in the metropolitan area of Melbourne.

Melbourne has also developed a fairly extensive range of heavy engineering, including iron and steel foundries, heavy machinery manufacture and structural steel fabrication. The heavy engineering section provides about 31 per cent. of engineering employment, and is made up chiefly of large organisations producing for the whole Australian market. In the field of light general engineering and electrical engineering, which together account for about 21 per cent. of employment in the engineering field, there is a mixture of

Table 29

I. Inden	1903		1921		1948	
Industry.	Employees	%	Employees	%	Employees	%
Engineering	13,141	(18.0)	30,316	(21.5)	89,771	(32.2)
Clothing	24,232	(33.1)	35,715	(25.4)	44,506	(16.0)
Textiles	2,007	(2.7)	8,399	(6.0)	32,745	(11.8)
Food	11,716	(16.0)	18,485	(13.1)	35,708	(12.8)
Paper and Printing	6,525	(8.9)	10,281	(7.3)	15,674	(5.6)
Timber and Furniture	5,760	(7.9)	13,639	(9.7)	16,903	(6.1)
Chemicals	2,131	(2.9)	4,431	(3.1)	11,030	(4.0)
Skins, Leather and Furs	2,333	(3.2)	4,852	(3.5)	5,518	(2.0)
Rubber	593	(0.8)	2,657	(1.9)	4,242	(1.5)
Miscellaneous	872	(1.2)	2,367	(1.7)	10,472	(3.8)
Heat, Light and Power	843	(1.1)	4,115	(2.9)	3,315	(1.2)
Mine & Quarry Products	3,076	(4.2)	5,486	(3.9)	8,387	(3.0)
Total	73,229	(100)	140,743	(100)	278,271	(100)

DEVELOPMENT OF VICTORIAN INDUSTRY 1903-48 (EXCLUDING BUILDING AND CONSTRUCTION)

both large and small organisations, many of which tend to specialise in certain lines for Commonwealth distribution. Although there are many small factories in the engineering field, most workers are employed in fairly large organisations. Forty-five per cent. of total employment in the engineering trades is in factories employing over 200 persons each and 28 per cent. in factories with over 500 employees. On the other hand, 90 per cent. of the total number of engineering factories employ fewer than 50 persons each, but all these together only account for 27 per cent. of total engineering employment. One of the chief reasons why many large engineering organisations have centred their operations in Melbourne is its central location with regard to Commonwealth distribution.

Clothing and Textiles

Melbourne is the chief Commonwealth centre for the clothing and textile industry, which before the war was the largest employer of industrial labour. The bulk of employment in the clothing industry is in the manufacture of clothing apparel of all types and in dressmaking which together total about 64 per cent. of the industry. This industry is comprised of a large number of small organisations, each specialising in certain lines, and employs the highest percentage of female labour of all industry. Ninetyfour per cent. of factories employ fewer than 50 persons each, and these small factories account for more than half the total employment in the clothing trade. The next largest group in the clothing field is the boot and shoe trade, of which Melbourne is by far the largest centre in the Commonwealth. This industry employs about 24 per cent. of labour in the clothing industry and is highly centralised.

In the textile field, the two main groups are spinning and weaving, which employ 44 per cent. of the labour in this field, and hosiery and knitted goods which employ about 41 per cent. Both these groups have grown steadily over the past 20 years. The spinning and weaving industry generally comprises large organisations, although there are a number of smaller mills engaged in weaving. The hosiery industry is made up of a few large and a series of mediumsize mills spread around the suburbs. In knitted goods, factories are a mixture of both large and small organisations. More than one-half of all employment in the textile field is in factories employing over 200 persons, while about onequarter is in factories employing over 500 persons each.

Food

The food industry consists of three broad groups-food, drink and tobacco. The food section accounts for 75 per

Table 30

FACTORY	EMPLO	YMENT	IN	MELBOURNE,	1949
				,	

Industry	Employees	%
Engineering	79,799	33.4
Clothing	41,952	17.5
Textiles	24,961	10.5
Food	24,818	10.4
Paper and Printing	14,079	5.9
Timber and Furniture	13,435	5.6
Chemicals	10,595	4.4
Skins, Leather and Furs	5,202	2.2
Rubber	4,272	1.8
Heat, Light and Power	2,148	1.0
Mine and Quarry Products	6,419	2.7
Miscellaneous	10,955	4.6
	238,635	100