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(CENSUS OF MANUFACTURES)

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**The Manufacturing Industries  
of Canada, 1927**

(WITH SUMMARY FIGURES FOR 1928)

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# THE MANUFACTURING INDUSTRIES OF CANADA, 1927.

(WITH SUMMARY FIGURES FOR 1928)

Manufacture is defined as the operation of making wares from raw materials by the hands, by tools or by machinery, thus adding, in the phraseology of the economist, new utilities, and therefore additional value, to the already existing utilities and values of the raw material. Manufacture, in primitive societies and in the pioneer stages of new communities, is normally carried on within the household for the needs of the household, as was the case among the early settlers of Canada in the seventeenth and eighteenth centuries, when domestic manufactures were carried on in combination with the cultivation of the soil, mainly at the times of the year when agricultural operations were suspended. At a later period in the evolution of society, small manufactures were carried on in specialized workshops for the needs of the immediate locality or neighbourhood, as was generally the case in Eastern Canada in the first half of the nineteenth century. Later still, as a consequence of the introduction of machinery operated by steam or electric power—the so-called “industrial revolution”—and of the cheapening of transportation, manufacture has to an ever-increasing extent been concentrated in factories, often employing hundreds and even thousands of persons and producing for a national or even an international market. So far as Canada is concerned, this “industrial revolution” may be said to have commenced shortly before Confederation and to be still in progress. The growth of manufacturing production since 1870 is outlined in this article and the accompanying Table I, while the increasing importance of Canadian manufacturing for the international market may be illustrated by the fact that Canadian exports of manufactured produce increased from less than \$3,000,000 per annum on the average of 1871-1875 to \$614,000,000 in the post-war fiscal year ended Mar. 31, 1920. Exports of “fully or chiefly manufactured” products in the fiscal year ended Mar. 31, 1929, amounted in value to \$507,170,677, and exports of “partly manufactured” products to \$195,144,120.

## Section 1.—The Evolution of Canadian Manufacturing Industries.

**Early Manufactures.**—The type of manufactures established in a community will in the beginning be largely determined, more especially where transportation charges are high, by the raw materials available in that community. For example, probably the first agricultural process to be carried on by Europeans in what is now the Dominion of Canada was the raising of a crop of grain at Port Royal, Nova Scotia, in 1605; the first corresponding manufacturing process was the grinding of the grain in the autumn of that year. Other early manufactures were also necessarily connected with the satisfaction of the primary needs of human beings for food, clothing and shelter, and with the other primary need for protection. At a census of occupations taken in 1681, we find enumerated a comparatively large number of tailors and shoemakers, masons and carpenters, gunsmiths and edge tool makers.

The earlier manufactures were necessarily of a rather crude and primitive type, concerned with the production of commodities which were too bulky to bear the heavy transportation charges of those days, when only one round trip per year could be made between France and Quebec, and vessels were constantly subject to the storms of

the North Atlantic and very frequently to the attacks of the English. Indeed, although the colonial policy of France under the old *régime* aimed at preventing the manufacture in Canada of any article which could be imported from the mother country, the uncertainties of transportation due to the colonial wars of the period—France and England were at war for 34 years out of the 74 years between 1689 and 1763—led to a necessary relaxation of restrictions. On the occasion of the English capture of a convoy in 1705, the colonists were driven to manufacture rough cloth out of whatever fibres they could obtain, such as the Canadian nettle and the inner bark of the basswood. Such events led to the introduction of sheep raising and the manufacturing of homespun woollens. The number of sheep in the colony increased from 1,820 in 1706 to 12,175 in 1720, 28,022 in 1765, 84,696 in 1784 and 829,122 in Lower Canada alone in 1827. This increase in sheep approximately measures the growth of the manufacture of home-spun woollens. In the same year, according to census records, there were in Lower Canada 13,243 spinning-wheels, while 1,153,673 French ells of home-made cloth, 808,240 French ells of home-made flannel and 1,058,696 French ells of home-made linen were produced. In 1842 Upper Canada produced 433,527 yards of home-made cloth, 166,881 yards of home-made linen and 727,286 yards of home-made flannel and, in 1848, 624,971 yards of fulled cloth, 71,715 yards linen and 1,298,172 yards flannel. Nova Scotia in 1851 produced 119,698 yards fulled cloth, 790,104 yards non-fulled cloth and 219,352 yards flannel. Such production of homespun goods did not materially interfere with the market for the more elaborate factory-made goods imported from the United Kingdom, but supplied the daughters of pioneer families with useful work in their own homes.

In the days when ships were built of wood, Canada was advantageously situated with respect to their production. Pont-Gravé built two small vessels at Port Royal in 1606 and one at Tadoussac in 1608. Talon, in 1666, built on his private account a ship of 120 tons, and in 1672 a vessel of over 400 tons was on the stocks at Quebec. Ships were built for the French navy and for the West India trade. Under the British *régime* shipbuilding was conducted on a large scale in Quebec and New Brunswick, the industry reaching its climax of prosperity about 1865, when 105 Quebec-built ships with a tonnage of 59,333 were placed on the register. Thereafter iron and steel ships gradually supplanted the wooden vessels, but the forests of Canada have since provided the raw material for the pulp and paper and other important industries.

The manufacture of mineral products has been of comparatively recent date. Iron deposits in the St. Maurice region were worked as early as 1733, and furnaces set up there for smelting in 1737 were in fairly constant operation until 1883. The iron and steel used in manufacturing in Canada, as well as the coal which has supplied the manufacturing industries with power, has in the main been imported from the United States, chiefly because the principal manufacturing centres of this country in the St. Lawrence and Great Lakes region are fairly conveniently situated with regard to the coal and iron supplies of the United States and far away from the coal and iron supplies of the Maritime Provinces. In recent years the shortage of coal has been made up for by the increasing use of electric power, while the great bulk of the pig iron used in Canadian manufactures is now made in domestic blast-furnaces.

**The Introduction of the Factory System.**—In Canada, as in the United States and in Great Britain, it was inevitable that manufactures, carried on in the household or in small adjoining workshops, should be supplanted in the leading industries of the country by manufactures carried on in factories. A factory has



been defined as "an establishment where several workmen are collected for the purpose of obtaining greater and cheaper conveniences for labour than they could procure individually at their homes, for producing results by their combined efforts which they could not accomplish separately and for preventing the loss occasioned by carrying articles from place to place during several processes necessary to complete their manufacture". Such factories began to exist in Canada in the 60's and the 70's of the last century and have now become the dominant type of Canadian manufacturing industry.

**Encouragement of Manufactures by Protective Tariffs.**<sup>1</sup>—In all new and developing countries producing food products and raw materials in abundance, there comes, at a certain stage, a movement for working up these commodities within the country. Thus a movement to promote a rise of manufacturing industries in Canada took place in the 50's of the last century, and in 1858 the Canadian Legislature enacted a protective tariff against which English exporters of manufactured goods vehemently protested. Canada, however, claimed the right to raise her revenue in the manner which suited herself and Great Britain did not contest the point. From that day to this, there has been an element of protection in Canadian tariff legislation. For a considerable time, the protection afforded to Canadian manufacturers was described as "incidental protection", and after Confederation the tariff was reduced in deference to the low tariff sentiment prevailing in the Maritime Provinces, which were commercial rather than manufacturing communities. However, after a commercial depression which took place in the 1870's the people of Canada, at the general election of 1878, voted in favour of a higher tariff.

The policy of protection was definitely adopted in 1879, when the manufacturer was given an increase in the duty on his finished product, offset in some cases, it is true, by higher duties on his raw materials. Sugar and molasses products comprised some twelve tariff items, seven bearing a compound duty, the average *ad valorem* duty imposed being 26.25 p.c. On the lines of cotton goods likely to be manufactured in Canada, duties were raised from 17½ p.c. to rates, specific and *ad valorem*, equivalent, on the importations of 1881, to 30 p.c. The duties on woollens, which were all in the 17½ p.c. schedule in 1878, were practically doubled. On some of the 36 iron and steel articles enumerated in the schedule, the duties were specific, on some compound, but on the whole there was an average duty of 16.17 p.c. Pig iron, previously free, was made to pay \$2 a ton. The duty on iron billets, bars and rods was increased from 5 p.c. to 10 p.c. and 17½ p.c., while manufactured iron and steel products and machinery were given 25 p.c. to 35 p.c. protection. On coal, both bituminous and anthracite, a duty of 50 cents a ton was imposed. The average *ad valorem* rate of duty on dutiable imports in 1880 was 26.1 p.c. as compared with 21.4 p.c. in 1878. The maximum percentage was reached in 1889, when the rate was 31.9 p.c. By 1896 there was a slight drop in the rate to 30.0 p.c., and the declining trend continued until 1918 and 1919, when a rate of 21.5 p.c. was recorded. In 1923 the rate was 24.9 p.c., in 1927, 24.1 p.c., and in 1929, 24.4 p.c. The average *ad valorem* rate of duty on all imports was 16.7 p.c. in 1923 and 15.8 p.c. in 1929. These rates are based on the gross sums collected; if the refunds and drawbacks were allowed for, the net rate of customs duty would be substantially lower.

**Growth of Canadian Manufactures Prior to the War.**—Until the later 90's, the growth of Canadian manufacturing industry was not particularly rapid, though the great fall in the prices of commodities during the period from 1873 to

<sup>1</sup>On this subject, see also the chapter on External Trade, p. 453 of the Canada Year Book, 1939.

1897 was largely responsible for the comparatively slow growth of the values of manufactured commodities from \$221,600,000 in 1870 to \$469,800,000 in 1890. Afterwards there was a change and the prices of commodities commenced to rise, while the industries generally shared in the advantages of the great growing period from 1900 to 1912. The gross product of establishments with five hands or over increased from \$368,700,000 in 1890 to \$1,166,000,000 in 1910 and to \$1,381,500,000 in 1915. The fundamental advantages of the position of Canada, her abundant raw material, her inexhaustible water power, her growing home market in the expanding West, had contributed to this result.

In the present as in the past, Canadian manufacturing production has been chiefly dependent upon the use of Canadian raw material, though this is less true than formerly. Raw cotton, for example, is imported from the Southern States, hides from Argentina, rubber from the Straits Settlements and Malay peninsula, sugar from Cuba and the British West Indies and wool from Australia and New Zealand, to supply the raw material for Canadian manufacturing industries.

**The Influence of the War.**—The influence of the war upon the manufactures of Canada was profound and far-reaching, tending to promote the diversification of products and the production at home of many commodities which had previously been imported. On account of the practical suspension of the importation of manufactured goods of many kinds from Europe, enterprising Canadian manufacturers were given opportunities of entering upon new lines of manufacture with practical control of the market. There was added to this the reflex effect of the great prosperity of agriculture, produced by the unprecedented prices of war time, with the general result that industry worked at high pressure, not only to produce munitions and military supplies for the armies of the Allies, but also to make the manifold varieties of goods required for the stimulated civilian consumption. The world shortage of staple commodities, coupled with a strong domestic demand, gave Canadian industries in general a pronounced stimulus toward greater production, and in a great number of cases the capacity of manufacturing plants was increased; this increase created a demand for greater supplies of raw material. Incidentally, factory methods became more specialized and a high degree of administrative and mechanical efficiency was attained, and Canada, partly owing to the industrial inactivity of Europe, assumed a new position as one of the leading manufacturing countries of the world. The inflation of the war period also led to unprecedented figures of values produced.

The great boom in Canadian manufactures described above reached its height in the summer of 1920, statistics for that year showing greatest gross values of products, while even the net value of manufactured products in that year was not exceeded until 1928. Statistics for 1921, as published in Table 1, show a great decline in values from those of 1920, which does not mean a corresponding decline in quantity of production, though a certain decline undoubtedly took place. There was also some decline in 1922, followed, however, by a general improvement during 1923. During the early months of 1924 the general outlook was good, but final statistics for that year were a little below those of 1923. The statistics for 1925, 1926, 1927 and 1928 show a steady and notable growth in both gross and net values of products. The monthly reports of employers as to numbers employed would indicate still greater increases in 1929. Indeed, on the basis of these reports it may be estimated with considerable confidence that the gross value of manufacturing production in 1929 will certainly be in excess of \$4,000,000,000 and will probably reach \$4,100,000,000.

**Subsection 1.—Growth of Manufacturing Production in the Dominion and the Provinces since 1870.**

The growth of large-scale production in manufactures during the past half-century is evident from the statistics of Table 1, though this tendency has been less marked in Canada than in more highly developed industrial communities, with larger populations able to absorb a larger amount of standardized commodities. Even so, in the electoral district of South Toronto, the most important manufacturing centre of Ontario, the census of 1911 showed that one-half of the industrial establishments employed 90 p.c. of the workers. In the period immediately preceding the Great War many consolidations of independent manufacturing plants were effected, with large economies in the purchase of materials and in selling expenses.

The historical Table 1 shows fairly well the advance of the "Industrial Revolution" (which might better be called "evolution") in Canada. The average capital per manufacturing establishment, the average number of employees per establishment and the average value of product per establishment, if allowance be made for the inflation of values and generally disturbed conditions of the war period, have continued to increase. If the consolidation of industry lessens the chances of an employee becoming a master, it must also be remembered that the amounts paid to employees in salaries and wages have also increased, so that the position of the average employee has been greatly ameliorated, though the lack of statistics of Canadian retail prices before 1890 prevents any detailed comparison of the purchasing power of the average wages of the worker of 1870 and of the employee of the present time.

**The Censuses of Manufactures.**—The comparability of the statistics of various censuses is seriously affected by the different methods employed in census-taking. In the censuses of 1870, 1880 and 1890, all manufacturing establishments were included, the instructions to enumerators running as follows:—"An industrial establishment is a place where one or several persons are employed in manufacturing, altering, making up or changing from one shape into another materials for sale, use or consumption, quite irrespectively of the amount of capital employed or of the products turned out. All repairs, mending or custom work are understood to be industrial products and are to be entered accordingly, by value, in the returns of industrial establishments."

In the statistics of 1900, 1905 and 1910, however, only establishments employing five hands and upwards were included. The 1901 instructions were that no manufacturing establishment or factory was to be recognized for census purposes if it did not employ at least five persons, either in the establishment itself or as piece-workers employed outside of it. This, however, did not apply to cheese and butter factories nor to certain mineral industries. The 1911 instructions stated that every factory in operation during the whole or part of 1910, and employing five or more persons, was to make a full report. All flour mills, saw and shingle-mills, lime kilns, brick and tile works, butter and cheese factories, fish-curing plants, electric light and power plants whatsoever were nevertheless to be included. The statistics for 1915 included only establishments having an output of \$2,500 or over, irrespective of the number of persons employed, except in the case of flour and grist-mills, butter and cheese factories, fish-preserving factories, sawmills, brick and tile yards, lime kilns and electric light plants, where all plants were included.

Under the Statistics Act of 1918, the policy of including mines, fisheries, manufactures and other industrial production in the decennial census was given up and an

annual "Census of Industry" substituted therefor. (See First Annual Report of the Dominion Statistician, 1919, pp. 30-36.)

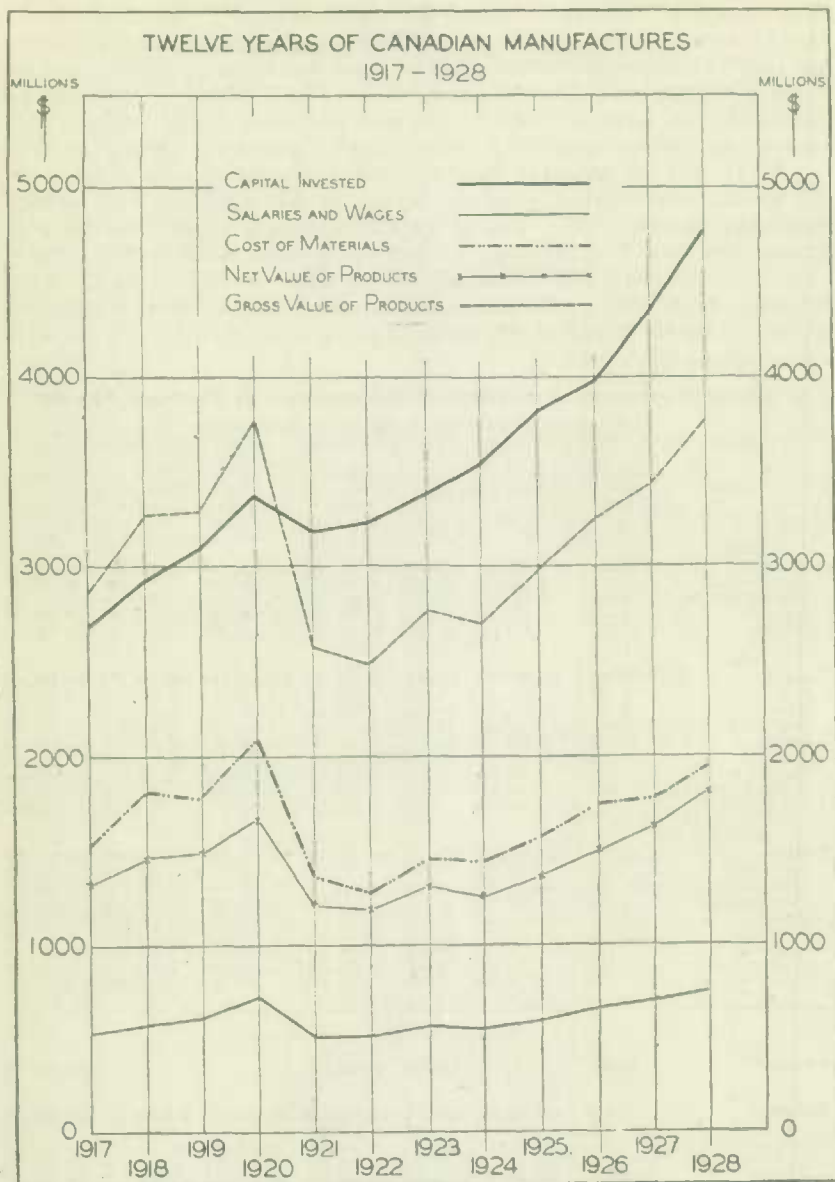
In the Census of Industry for 1917, the limit of output was withdrawn and all establishments reporting to the Bureau were included, the effect being an increase in the number of establishments included from 21,306 in 1915 to 34,392<sup>1</sup> in 1917—an increase due mainly to change of method, rather than to a change in the actual number of industrial establishments existing in the Dominion. The statistics in regard to a large number of the custom and repair industries were not collected for 1922, resulting in the dropping from the compilation of the entire group of "construction, hand trades and repairs". Again, several custom industries, such as the custom clothing industry in the textile group, were not included for 1922. For 1923, again, statistics of ship- and bridge-building and of various clay products industries were collected and included for the first time. The result has been that, in order to restore the desired comparability between statistics of various years, a complete revision of all figures from 1917 to 1924 had to be made. Considerable changes have resulted, but statistics of these years are now free of all inaccuracies due to changes in methods of collection or compilation. In 1925 statistics of the non-ferrous metal smelting industry were for the first time included in the figures for manufacturing. In 1926 certain duplications in the gross revenue of central electric stations were eliminated in a net figure and the difference shown as "cost of material", while the method of compiling the number of employees was changed for 1925 and subsequent years in the following respect:—the yearly average of employees for each establishment was computed by dividing the sum of employees reported in each month by the number of months in operation instead of, as formerly, by 12 whether the industry was seasonal and only operated part of the year or not. These changes have created a slight incomparability with the statistics for the preceding years.

**Censuses of Manufactures in Recent Years.**—The census of manufactures has been taken annually since 1917 by the Dominion Bureau of Statistics, instead of quinquennially as theretofore. The last of the quinquennial censuses was taken in 1916 for the calendar year 1915, and annual censuses have been taken in the years from 1918 to 1929 for the years 1917 to 1928.

In any comparison between the results of the 1915 quinquennial census and the subsequent annual censuses, the rapid rise and fall in prices must be borne in mind, and in comparisons between these annual censuses themselves the same factor must be taken into account. Thus, the new Canadian weighted index number of wholesale prices, compiled by the Dominion Bureau of Statistics, with 1926 as a base, was 155.9 in 1920, as compared with 133.9 in 1919, 127.4 in 1918, 114.3 in 1917 and 70.4 in 1915. In 1921, however, there was a great decline to 110.0—a decline of approximately 29.4 p.c. from the preceding year. Under such circumstances, it was inevitable that up to 1920 phenomenal advances in the money value of manufactured products should have been recorded, and that wages and salaries paid should also have greatly advanced since 1915. It was equally inevitable that in all these respects 1921 should show a great decline, due in much larger measure to the fall in values than to the decrease in the volume of production. In 1922 the index number showed a further drop to 97.3, but afterwards there was a rise from 98.0 in 1923 to 99.4 in 1924 and 102.6 in 1925. In 1926, 1927 and 1928, however, there

<sup>1</sup>The subsequent decision to omit the group of "construction, hand trades and repairs" from the census of manufactures, together with other less important changes, accounts for the reduction of the number of manufacturing establishments in 1917, as appearing in Table 1, to 22,838, a comparable figure with the 23,379 establishments recorded in 1928.





was a drop again to 100.0, 97.7 and 96.4 respectively, this last being the lowest figure since 1916. This would indicate that the comparatively small decline in the gross production of manufactured goods in 1922 was entirely due to declining values and that the increased production of 1923 resulted from larger quantities, the slight recession in 1924 being due to lessened volume. The 1925 total was swelled by increases in both values and volume, while gross production in 1926, 1927 and 1928 showed large increases in spite of a definite decline in price levels. (See Table 4.)

In Table 1 are presented statistics showing by provinces the development of Canadian manufacturing industries during the 58 years from 1870 to 1928. Particularly notable is the increase in the manufactures of British Columbia from \$2,900,000 in 1880 to \$271,000,000 in 1928 and of Manitoba from \$3,400,000 in 1880 to \$159,000,000 in 1928. Saskatchewan also shows an increase from \$2,400,000 in 1905 to \$59,000,000 in 1928 and Alberta from \$5,000,000 in 1905 to \$101,000,000 in 1928. Thus the West is rapidly becoming an important contributor to Canadian manufacturing production.

### 1.—Historical Summary of Statistics of Manufactures, by Provinces, 1870-1928.<sup>1</sup>

(All establishments irrespective of the number of employees.)

Provinces.	Estab- lish- ments.	Capital.	Em- ployees.	Salaries and Wages.	Cost of Materials.	Net Value of Products.	Gross Value of Products.
	No.	\$	No.	\$	\$	\$	\$
<b>1870.</b>							
<b>Canada.</b>	<b>41,259</b>	<b>77,964,920</b>	<b>187,942</b>	<b>40,851,009</b>	<b>124,907,846</b>	<b>96,709,927</b>	<b>221,617,773</b>
Nova Scotia.	4,912	6,041,966	15,595	3,176,266	5,896,257	6,531,848	12,338,105
New Brunswick.	3,479	5,976,176	18,352	3,863,360	9,431,700	7,935,927	17,307,687
Quebec.	13,818	28,071,868	66,714	12,389,673	44,555,025	32,050,157	77,205,182
Ontario.	19,050	37,874,010	87,281	21,415,710	65,114,804	49,591,995	114,706,799
<b>1880.</b>							
<b>Canada.</b>	<b>49,722</b>	<b>165,382,623</b>	<b>251,935</b>	<b>59,429,002</b>	<b>179,918,593</b>	<b>129,757,475</b>	<b>309,676,068</b>
P.E. Island.	1,617	2,085,776	5,767	807,208	1,829,210	1,570,995	3,400,208
Nova Scotia.	5,493	10,183,066	20,390	4,098,445	10,622,030	8,553,296	18,575,326
New Brunswick.	3,005	8,425,282	19,922	3,866,011	11,060,842	7,451,816	18,512,658
Quebec.	15,754	59,216,992	85,673	18,333,162	62,563,967	42,098,291	104,662,258
Ontario.	23,070	80,950,847	118,308	30,694,031	91,164,156	66,825,714	157,989,870
Manitoba.	344	1,383,331	1,921	755,507	1,924,821	1,488,205	3,413,026
British Columbia.	415	2,952,835	2,871	929,213	1,273,816	1,652,968	2,926,784
The Territories.	24	104,500	83	35,425	70,751	116,187	185,938
<b>1890.</b>							
<b>Canada.</b>	<b>75,964</b>	<b>353,213,000</b>	<b>369,593</b>	<b>100,415,350</b>	<b>250,759,292</b>	<b>219,048,594</b>	<b>489,417,886</b>
P.E. Island.	2,079	2,911,963	7,910	1,101,620	2,092,067	2,253,843	4,345,910
Nova Scotia.	10,495	19,730,736	34,944	7,233,111	16,062,479	14,905,913	30,968,392
New Brunswick.	5,429	15,821,855	26,675	5,970,914	12,501,453	11,348,202	23,849,655
Quebec.	23,034	116,974,615	116,753	30,461,315	80,712,496	66,747,087	147,459,583
Ontario.	32,151	175,972,021	169,322	49,730,359	127,737,371	111,594,555	239,241,926
Manitoba.	1,031	5,684,237	4,403	1,905,081	5,698,151	4,467,031	10,155,182
British Columbia.	770	14,404,394	11,507	3,586,897	5,119,258	6,880,670	11,090,920
The Territories.	375	1,713,179	1,081	425,153	846,017	981,293	1,827,310
<b>1890.</b>							
<b>Canada.</b>	<b>14,065</b>		<b>272,033</b>	<b>79,234,311</b>			<b>368,696,723</b>
<b>1900.</b>							
<b>Canada.</b>	<b>14,650</b>	<b>416,916,487</b>	<b>339,173</b>	<b>113,219,350</b>	<b>266,527,858</b>	<b>214,525,517</b>	<b>481,053,375</b>
P.E. Island.	334	2,081,766	3,804	445,998	1,319,058	1,007,650	2,326,708
Nova Scotia.	1,188	34,586,416	23,284	5,613,571	13,161,077	10,434,436	23,592,513
New Brunswick.	919	20,741,170	22,158	5,748,990	10,814,014	10,158,456	20,972,470
Quebec.	4,845	142,403,407	110,329	36,550,655	86,679,779	71,638,215	158,287,994
Ontario.	6,543	214,972,275	161,757	56,548,286	138,230,460	103,303,086	241,533,486
Manitoba.	324	7,539,691	5,219	2,419,549	7,955,504	4,971,935	12,927,439
Alberta and Saskatchewan.	105	1,689,870	1,168	403,763	1,121,342	843,645	1,904,987
British Columbia.	392	22,901,892	11,454	5,456,538	7,246,684	12,201,094	19,447,778

<sup>1</sup> See note at end of Table 1 on page 13.

<sup>2</sup> These statistics are not available by provinces.

## 1.—Historical Summary of Statistics of Manufactures, by Provinces, 1870-1928—con.

(Establishments with five hands or over.)

Provinces.	Estab- lish- ments.	Capital.	Em- ployees.	Salaries and Wages.	Cost of Materials.	Net Value of Products.	Gross Value of Products.
1905.	No.	\$	No.	\$	\$	\$	\$
<b>Canada</b> .....	<b>12,547</b>	<b>833,916,155</b>	<b>383,920</b>	<b>162,155,578</b>	-	-	<b>786,446,578</b>
P. E. Island.....	223	1,553,916	2,770	400,915	-	-	1,606,459
Nova Scotia.....	720	74,599,538	23,754	9,139,371	-	-	31,987,449
New Brunswick.....	531	26,461,664	19,170	6,497,161	-	-	21,833,564
Quebec.....	4,115	251,730,182	116,748	46,514,619	-	-	210,478,496
Ontario.....	6,163	393,875,465	184,526	80,729,889	-	-	361,372,741
Manitoba.....	280	27,070,665	10,113	5,800,707	-	-	27,857,396
Saskatchewan.....	55	3,820,975	1,376	681,381	-	-	2,443,801
Alberta.....	97	5,400,371	1,983	1,129,272	-	-	4,976,932
British Columbia.....	363	52,403,379	23,480	11,233,263	-	-	37,796,740
<b>1910.</b>							
<b>Canada</b> .....	<b>19,218</b>	<b>1,247,583,609</b>	<b>515,283</b>	<b>241,008,416</b>	<b>601,569,018</b>	<b>564,460,621</b>	<b>1,165,975,639</b>
P. E. Island.....	442	2,013,365	3,762	531,017	1,816,804	1,319,666	3,136,470
Nova Scotia.....	1,480	79,596,341	28,705	10,628,055	26,058,315	26,047,869	52,706,184
New Brunswick.....	1,158	36,125,012	24,755	8,314,212	18,516,096	16,906,206	35,422,302
Quebec.....	6,584	326,946,925	158,207	69,432,967	184,374,053	168,527,603	350,901,655
Ontario.....	8,001	595,394,608	238,817	117,645,784	297,580,125	282,230,100	579,810,226
Manitoba.....	439	47,941,540	17,325	10,912,866	30,499,829	23,173,780	53,673,609
Saskatchewan.....	173	7,019,951	3,250	1,936,284	2,747,266	3,584,866	6,332,132
Alberta.....	290	29,518,346	6,980	4,365,661	9,998,777	8,790,048	18,788,825
British Columbia.....	651	123,027,521	33,312	17,240,676	29,917,753	35,286,483	65,204,236
<b>1915.</b>							
<b>Canada</b> .....	<b>15,593</b>	<b>1,938,705,236</b>	-	<b>283,311,505</b>	<b>791,943,433</b>	<b>589,663,792</b>	<b>1,381,517,723</b>
P. E. Island.....	261	1,841,690	-	543,954	1,499,066	1,087,757	2,586,823
Nova Scotia.....	781	125,754,512	-	17,175,818	36,194,004	33,151,815	69,345,819
New Brunswick.....	930	45,970,488	-	8,767,230	21,314,643	15,989,257	37,303,990
Quebec.....	5,743	530,312,404	-	80,324,171	213,754,115	167,449,884	381,203,999
Ontario.....	6,538	946,019,114	-	140,609,691	410,670,537	304,861,302	715,531,839
Manitoba.....	499	94,690,750	-	13,389,569	38,529,386	21,952,080	60,481,446
Saskatchewan.....	238	14,736,860	-	2,440,062	7,417,166	5,938,404	13,355,200
Alberta.....	282	41,198,987	-	4,791,281	20,669,967	8,716,254	20,416,221
British Columbia.....	621	157,580,405	-	15,269,729	41,864,549	30,457,423	72,321,972
<b>1917.</b>							
(All establishments irrespective of the number of employees.)							
<b>Canada</b> .....	<b>22,838</b>	<b>2,696,154,030</b>	<b>621,694</b>	<b>509,382,027</b>	<b>1,341,087,416</b>	<b>1,332,180,767</b>	<b>2,873,268,183</b>
P. E. Island.....	418	2,225,482	1,588	683,149	3,088,718	1,810,986	4,905,704
Nova Scotia.....	1,387	128,052,230	25,814	19,177,057	102,456,085	58,751,437	161,207,522
New Brunswick.....	987	64,010,777	20,201	13,192,740	32,466,048	27,996,000	60,462,048
Quebec.....	7,193	763,589,489	191,969	143,291,802	385,486,685	396,539,787	782,026,472
Ontario.....	9,471	1,302,675,630	306,270	254,442,393	795,095,511	685,063,845	1,480,159,356
Manitoba.....	816	95,530,452	20,055	17,381,806	69,884,850	45,062,533	114,947,383
Saskatchewan.....	633	30,096,623	6,846	5,906,150	22,093,445	15,529,428	37,622,873
Alberta.....	720	60,552,814	10,191	9,323,221	42,725,021	26,105,121	68,830,142
British Columbia.....	1,202	215,681,355	38,689	35,864,308	87,764,650	74,978,844	162,743,494
Yukon.....	11	3,739,169	71	118,801	20,403	336,786	363,189
<b>1918.</b>							
<b>Canada</b> .....	<b>22,910</b>	<b>2,926,915,424</b>	<b>614,305</b>	<b>582,457,488</b>	<b>1,829,040,369</b>	<b>1,460,723,777</b>	<b>3,298,764,146</b>
P. E. Island.....	390	2,606,886	1,266	670,093	3,354,829	1,737,195	5,092,024
Nova Scotia.....	1,357	126,563,220	23,909	20,475,961	89,667,282	57,838,599	147,505,881
New Brunswick.....	909	72,783,311	18,443	13,338,342	33,222,984	32,231,038	65,454,022
Quebec.....	7,350	833,095,963	190,646	163,483,036	454,373,411	420,651,473	875,024,884
Ontario.....	9,701	1,460,384,637	307,283	300,063,759	974,277,838	760,245,667	1,734,523,565
Manitoba.....	786	96,382,644	20,289	19,740,123	88,545,136	45,096,245	133,641,381
Saskatchewan.....	577	35,435,978	6,348	6,705,910	24,341,364	15,990,874	44,295,238
Alberta.....	638	58,284,599	8,457	8,857,536	53,159,734	24,747,094	77,907,338
British Columbia.....	1,188	237,015,059	41,605	48,119,819	104,023,957	102,018,534	206,062,491
Yukon.....	14	3,633,729	59	102,809	20,834	236,548	257,382

<sup>1</sup>See note at end of Table 1 on page 13.<sup>2</sup>For 1915 the number of employees in establishments employing 5 hands and over has not been compiled.

## 1.—Historical Summary of Statistics of Manufactures, by Provinces, 1870-1923—con.

(All establishments irrespective of the number of employees.)

Provinces.	Estab- lish- ments.	Capital.	Em- ployees	Salaries and Wages.	Cost of Materials.	Net Value of Products.	Gross Value of Products.
	No.	\$	No.	\$	\$	\$	\$
<b>1919.</b>							
<b>Canada</b> .....	<b>23,249</b>	<b>3,095,925,799</b>	<b>611,008</b>	<b>618,463,133</b>	<b>1,780,629,846</b>	<b>1,509,876,745</b>	<b>3,290,500,585</b>
P.E. Island.....	402	2,462,324	1,295	789,381	4,005,474	2,225,391	6,230,865
Nova Scotia.....	1,392	128,072,240	23,437	19,992,993	71,109,630	57,179,576	128,280,206
New Brunswick.....	938	87,428,854	22,262	17,710,448	51,643,683	41,647,725	95,291,408
Quebec.....	7,551	906,421,665	186,202	172,373,664	496,716,322	438,870,496	935,595,818
Ontario.....	9,026	1,516,458,331	291,740	304,314,318	894,055,235	732,279,292	1,626,334,527
Manitoba.....	777	101,708,099	21,963	24,528,634	83,948,482	50,330,559	134,279,041
Saskatchewan.....	625	30,035,352	7,240	8,789,389	32,167,044	19,038,862	51,256,876
Alberta.....	664	60,233,769	10,802	12,837,893	52,885,069	34,039,386	86,821,455
British Columbia.....	1,293	269,652,116	46,034	57,067,542	94,091,595	132,095,198	226,186,703
Yukon.....	11	3,552,048	33	59,061	16,426	155,269	171,686
<b>1920.</b>							
<b>Canada</b> .....	<b>23,351</b>	<b>3,371,940,655</b>	<b>609,586</b>	<b>732,129,585</b>	<b>2,085,271,619</b>	<b>1,686,978,408</b>	<b>3,772,750,057</b>
P.E. Island.....	384	2,734,719	1,327	888,121	4,164,223	2,221,746	6,385,969
Nova Scotia.....	1,388	141,549,856	23,834	26,127,781	85,724,785	61,274,708	148,999,493
New Brunswick.....	928	105,671,688	19,241	19,505,048	69,812,641	46,910,611	107,723,272
Quebec.....	7,677	1,028,226,105	186,308	205,829,155	553,558,529	517,693,125	1,071,251,645
Ontario.....	9,473	1,608,970,498	300,791	369,846,195	1,071,813,373	822,570,787	1,826,414,157
Manitoba.....	773	112,896,616	24,481	33,357,872	92,729,271	65,492,637	158,221,908
Saskatchewan.....	630	31,727,162	7,185	10,249,391	34,894,166	24,635,529	59,549,634
Alberta.....	722	61,063,132	11,387	15,903,639	56,139,646	32,466,428	88,696,074
British Columbia and Yukon.....	1,367	219,991,837	35,132	50,443,444	125,405,084	111,692,821	237,097,905
<b>1921.</b>							
<b>Canada</b> .....	<b>22,235</b>	<b>3,191,026,358</b>	<b>456,076</b>	<b>518,785,137</b>	<b>1,366,893,681</b>	<b>1,209,143,344</b>	<b>2,576,037,029</b>
P.E. Island.....	339	2,398,216	897	522,488	2,516,415	1,356,940	3,873,355
Nova Scotia.....	1,208	105,254,864	14,521	14,400,509	41,099,835	30,384,726	77,484,561
New Brunswick.....	867	99,294,791	12,441	10,678,721	32,151,631	23,193,562	55,345,193
Quebec.....	7,173	981,177,081	146,763	151,474,436	390,119,293	361,064,897	752,084,191
Ontario.....	9,328	1,613,486,222	228,043	271,061,690	704,814,432	625,170,507	1,329,984,540
Manitoba.....	775	93,314,151	24,481	19,945,727	63,596,556	45,431,304	106,027,890
Saskatchewan.....	690	30,265,504	4,342	5,677,449	25,589,403	15,092,337	40,681,740
Alberta.....	769	55,685,908	8,227	10,072,714	33,912,502	26,152,276	60,064,778
British Columbia and Yukon.....	1,236	269,309,521	25,094	31,951,397	76,093,617	74,396,795	150,499,412
<b>1922.</b>							
<b>Canada</b> .....	<b>22,541</b>	<b>3,214,362,410</b>	<b>474,431</b>	<b>510,431,312</b>	<b>1,283,274,722</b>	<b>1,198,434,407</b>	<b>2,482,209,130</b>
P.E. Island.....	352	2,946,329	1,127	628,540	2,621,442	1,787,569	4,409,012
Nova Scotia.....	1,163	106,647,616	14,286	12,192,652	38,003,168	29,983,704	67,988,962
New Brunswick.....	897	82,230,895	14,351	12,201,014	38,039,376	26,821,284	64,580,637
Quebec.....	7,410	970,019,442	147,952	144,268,667	337,752,977	307,276,067	708,029,044
Ontario.....	9,388	1,696,738,990	243,297	276,559,096	678,746,674	617,732,828	1,296,499,593
Manitoba.....	781	88,779,517	14,188	18,274,012	54,630,668	41,326,416	95,957,084
Saskatchewan.....	614	31,101,612	4,196	5,618,174	22,450,051	16,357,481	38,807,532
Alberta.....	672	55,514,624	7,461	9,493,543	30,366,395	22,813,091	53,119,486
British Columbia and Yukon.....	1,264	210,323,379	27,572	32,095,704	81,203,970	71,313,880	152,517,850
<b>1923.</b>							
<b>Canada</b> .....	<b>22,642</b>	<b>3,380,327,950</b>	<b>525,267</b>	<b>571,470,028</b>	<b>1,470,140,139</b>	<b>1,311,025,375</b>	<b>2,781,165,514</b>
P.E. Island.....	368	2,821,141	2,745	620,692	2,766,092	1,600,729	4,462,821
Nova Scotia.....	1,193	106,047,436	17,179	13,220,378	50,103,942	31,880,060	81,984,848
New Brunswick.....	872	84,563,968	15,221	12,868,164	40,181,251	29,932,753	70,114,000
Quebec.....	7,142	1,009,898,982	163,622	164,356,082	396,714,471	414,388,925	811,103,396
Ontario.....	9,549	1,775,493,340	262,770	307,860,314	779,943,613	671,939,603	1,451,883,308
Manitoba.....	803	92,426,674	14,816	18,394,484	55,973,093	41,301,438	97,534,531
Saskatchewan.....	647	29,891,833	4,105	5,384,958	19,333,620	15,004,191	34,337,811
Alberta.....	723	61,659,305	8,767	10,633,705	31,612,377	22,725,424	54,337,891
British Columbia and Yukon.....	1,345	216,619,970	35,042	38,113,250	93,511,680	82,093,312	175,696,992
<b>1924.</b>							
<b>Canada</b> .....	<b>22,178</b>	<b>3,538,813,468</b>	<b>508,565</b>	<b>559,881,045</b>	<b>1,438,409,681</b>	<b>1,256,643,501</b>	<b>2,695,053,582</b>
P.E. Island.....	313	2,637,834	2,271	548,496	2,281,398	1,439,476	3,720,874
Nova Scotia.....	1,166	108,535,273	16,093	11,553,990	38,930,734	25,642,358	64,573,092
New Brunswick.....	846	88,357,818	15,805	12,812,718	40,503,685	26,952,341	67,456,026
Quebec.....	6,847	1,044,113,969	161,652	162,379,284	385,880,826	390,351,418	776,232,244
Ontario.....	9,453	1,836,209,551	252,596	296,598,913	754,469,838	643,403,906	1,397,873,744
Manitoba.....	768	110,011,692	14,778	18,706,742	59,036,763	43,215,250	102,252,013
Saskatchewan.....	645	30,269,547	4,151	5,544,416	22,179,147	14,131,784	36,313,931
Alberta.....	739	67,565,979	8,150	10,709,140	39,102,975	26,142,386	65,245,361
British Columbia and Yukon.....	1,401	251,051,877	33,007	41,120,436	96,024,315	85,361,982	191,886,297

<sup>1</sup> See note at end of Table 1 on page 13.



**1.—Historical Summary of Statistics of Manufactures, by Provinces, 1870-1928\*—con.**  
*(All establishments irrespective of the number of employees.)*

Provinces.	Estab- lish- ments.	Capital.	Em- ployees.	Salaries and Wages.	Cost of Materials.	Net Value of Products.	Gross Value of Products.
	No.	\$	No.	\$	\$	\$	\$
<b>1925.</b>	<b>22,331</b>	<b>3,908,309,981</b>	<b>544,725</b>	<b>596,015,171</b>	<b>1,567,665,408</b>	<b>1,360,879,907</b>	<b>2,848,345,315</b>
Canada.....	22,331	3,908,309,981	544,725	596,015,171	1,567,665,408	1,360,879,907	2,848,345,315
P. E. Island.....	318	2,576,677	2,317	572,130	2,895,665	1,484,484	4,299,149
Nova Scotia.....	1,184	117,320,491	16,568	12,082,693	37,854,196	27,179,505	65,033,701
New Brunswick....	861	91,509,933	17,275	14,430,252	44,886,292	28,488,368	73,374,660
Quebec.....	6,995	1,136,033,133	168,245	169,686,055	412,460,003	408,103,754	820,563,757
Ontario.....	9,386	1,925,593,482	262,487	307,304,007	828,919,668	698,214,992	1,527,154,660
Manitoba.....	769	120,362,238	20,023	25,286,173	71,683,113	52,402,650	124,145,763
Saskatchewan.....	650	31,607,896	4,402	5,755,629	24,353,581	15,739,692	40,093,273
Alberta.....	734	69,805,848	9,364	11,785,634	45,855,910	29,257,607	75,113,517
British Columbia and Yukon.....	1,434	313,494,283	43,548	49,112,628	118,826,980	99,948,855	218,775,835
<b>1926.</b>	<b>22,708</b>	<b>3,941,569,580</b>	<b>581,539</b>	<b>653,850,933</b>	<b>1,755,158,399</b>	<b>1,492,645,039</b>	<b>3,247,803,428</b>
Canada.....	22,708	3,941,569,580	581,539	653,850,933	1,755,158,399	1,492,645,039	3,247,803,428
P. E. Island.....	299	2,850,010	2,261	690,403	2,638,244	1,441,091	4,099,335
Nova Scotia.....	1,163	118,050,902	16,782	13,014,707	39,086,139	33,810,503	73,595,642
New Brunswick....	919	95,661,154	17,674	14,609,734	44,535,406	29,580,933	74,022,239
Quebec.....	7,164	1,210,975,958	184,069	189,326,145	448,584,313	456,716,513	905,300,824
Ontario.....	9,457	1,985,165,921	283,351	335,164,230	924,598,851	753,334,033	1,677,933,504
Manitoba.....	707	127,445,924	21,201	26,973,850	75,588,993	57,129,420	132,718,452
Saskatchewan.....	674	33,943,060	4,904	6,397,545	29,142,700	17,965,397	47,108,097
Alberta.....	749	73,468,286	10,233	12,808,554	50,192,669	33,232,902	83,425,031
British Columbia and Yukon.....	1,495	329,008,375	47,462	54,865,756	140,191,084	109,428,630	249,019,714
<b>1927.</b>	<b>22,036</b>	<b>4,337,631,558</b>	<b>618,933</b>	<b>693,932,728</b>	<b>1,789,574,604</b>	<b>1,635,923,936</b>	<b>3,425,498,540</b>
Canada.....	22,036	4,337,631,558	618,933	693,932,728	1,789,574,604	1,635,923,936	3,425,498,540
P. E. Island.....	291	3,081,504	2,232	687,849	2,855,438	1,638,190	4,491,628
Nova Scotia.....	1,180	128,155,040	17,864	13,010,944	42,059,326	32,398,977	74,458,267
New Brunswick....	872	99,687,327	18,976	14,999,101	42,780,582	29,880,083	72,666,005
Quebec.....	7,206	1,376,054,014	186,094	203,724,997	474,361,396	516,221,599	997,582,995
Ontario.....	9,512	2,124,181,377	296,034	355,174,773	939,872,565	818,132,010	1,753,004,575
Manitoba.....	859	151,373,047	23,031	28,934,926	79,510,766	62,578,912	142,089,678
Saskatchewan.....	721	38,387,248	5,683	7,280,946	32,165,027	21,015,654	52,180,081
Alberta.....	776	81,664,730	11,285	13,511,359	50,611,021	31,376,296	84,987,317
British Columbia and Yukon.....	1,509	325,047,266	47,740	56,007,334	125,358,489	120,670,215	246,034,704
<b>1928.</b>	<b>23,379</b>	<b>4,780,296,049</b>	<b>658,023</b>	<b>755,199,372</b>	<b>1,950,984,339</b>	<b>1,819,045,025</b>	<b>3,769,850,361</b>
Canada.....	23,379	4,780,296,049	658,023	755,199,372	1,950,984,339	1,819,045,025	3,769,850,361
P. E. Island.....	277	3,121,568	2,035	712,945	2,747,292	1,697,868	4,415,119
Nova Scotia.....	1,167	138,809,331	19,222	15,838,394	44,168,441	40,780,167	84,918,608
New Brunswick....	79	114,060,886	17,96	14,682,510	39,750,561	27,063,181	67,413,742
Quebec.....	7,231	1,583,350,881	20,959	217,887,481	510,580,872	562,581,419	1,073,162,291
Ontario.....	9,900	2,275,350,056	320,720	391,375,947	1,045,501,20	915,222,879	1,949,724,119
Manitoba.....	871	159,724,124	25,100	32,569,223	88,281,693	71,150,401	159,435,094
Saskatchewan.....	717	44,621,135	6,173	8,003,577	34,186,731	24,938,549	59,125,280
Alberta.....	778	92,190,476	12,827	15,403,292	59,398,697	41,345,704	100,744,401
British Columbia and Yukon.....	1,624	367,898,589	48,949	58,726,003	137,185,812	133,665,857	270,851,669

\* Statistics of the construction and custom and repair industries have not been collected since 1921; the figures for these industries for 1917 to 1921 have consequently been deducted from the totals as previously published. The industries excluded comprise custom clothing, dyeing and laundry work, boot, jewelry, automobile and bicycle repairing, blacksmithing, and custom and repair work by foundries.

Statistics of the non-ferrous metal smelting industry were included in manufactures for the first time in 1925. The introduction in 1926 of the use of the gross and net revenue of the Central Electric Station industry as gross and net production and the inclusion of the difference with "cost of materials" impairs the comparability of 1926 and later figures for "cost of materials" and "net value of products" with those for earlier years.

**Subsection 2.—Twelve Years of Manufacturing in the Industrial Groups.**

The commodities required of the manufacturers of a country in time of war differ considerably from those needed in time of peace. Thus, while manufacturing as a whole reached its maximum value of gross production in 1920, under the stimulus of inflated values, the "iron and its products" group reached its highest point of gross production in 1918, the last year of the war. The "chemicals and allied products" group was another group which reached its greatest development under

war conditions, when the value of gross production was more than twice as great as in 1928. On the other hand, the central electric station industry has shown rapid and consistent growth, uninterrupted by changes from war to peace conditions or the consequent drastic changes in price levels, throughout all the years from 1917 to 1928 covered by this record. In the 12 years the gross value of production by this industry has risen from \$44,500,000 to \$143,700,000, while the capital investment has grown from \$356,000,000 to \$957,000,000. The "non-ferrous metals" group has also shown striking progress since the war. The statistics for this group are not comparable throughout the 12 years, owing to the fact that the non-ferrous metal smelting and refining industry was included for the first time in 1925. But the gross production of the group in 1924, the last year before the smelters were included, almost equalled that of the peak year 1920, while since 1925 the expansion has been very rapid.

## 2.—Summary of Statistics of Manufactures, by Industrial Groups, 1917-1928.<sup>1</sup>

(All establishments irrespective of the number of employees.)

Industrial Groups.	Estab-lish-ments.	Capital.	Em-ployees.	Salaries and Wages.	Cost of Materials.	Net Value of Products.	Gross Value of Products.
1917.	No.	\$	No.	\$	\$	\$	\$
<b>Total.</b>	<b>22,838</b>	<b>2,696,154,030</b>	<b>621,694</b>	<b>599,392,927</b>	<b>1,541,087,416</b>	<b>1,332,180,767</b>	<b>2,873,268,183</b>
Vegetable products.	3,816	274,722,765	61,288	44,789,329	365,483,923	181,072,143	546,556,060
Animal products.	5,466	207,165,245	46,994	35,753,133	320,302,030	124,193,090	444,406,020
Textile products.	1,360	196,823,197	82,639	51,189,069	132,479,763	115,739,096	218,218,859
Wood and paper.	7,253	537,781,225	153,751	115,137,384	149,927,482	248,986,564	395,914,046
Iron and its products.	1,404	624,642,089	142,416	140,334,255	357,688,333	334,616,810	692,305,143
Non-ferrous metals.	296	69,421,911	18,220	15,898,890	46,445,400	41,039,351	87,494,820
Non-metallic minerals.	1,410	150,328,144	22,284	19,360,952	38,724,530	60,802,754	99,527,284
Chemicals and allied products.	539	175,828,690	56,153	51,505,484	99,068,092	131,381,995	230,450,087
Miscellaneous industries.	606	93,477,696	29,102	27,644,825	30,967,785	49,901,216	80,869,001
Central electric stations.	666	356,004,168	8,847	7,777,715	-	44,536,848	44,536,848
<b>Total.</b>	<b>22,916</b>	<b>2,926,815,424</b>	<b>618,365</b>	<b>582,457,488</b>	<b>1,829,049,369</b>	<b>1,460,723,777</b>	<b>3,289,764,146</b>
Vegetable products.	3,824	310,556,340	63,197	49,788,771	409,813,120	188,009,655	597,822,775
Animal products.	5,493	225,949,731	51,085	40,970,545	348,773,348	131,220,539	479,993,887
Textile products.	1,394	232,678,413	82,144	54,754,968	182,529,695	137,993,308	326,433,003
Wood and paper.	7,281	599,594,273	150,732	130,348,986	168,154,574	282,110,061	450,264,635
Iron and its products.	1,397	631,390,223	127,246	148,361,634	393,204,670	330,388,308	723,592,978
Non-ferrous metals.	286	78,075,726	17,741	17,635,814	40,988,990	38,406,413	79,395,403
Non-metallic minerals.	1,264	168,367,861	20,940	20,497,078	56,541,480	56,791,607	113,333,08
Chemicals and allied products.	534	162,912,627	56,391	66,741,341	178,227,423	157,923,196	336,150,619
Miscellaneous industries.	642	115,347,828	35,956	43,004,106	50,807,069	84,521,557	135,328,626
Central electric stations.	795	401,942,402	12,873	10,354,242	-	53,449,133	53,449,133
<b>Total.</b>	<b>23,249</b>	<b>3,095,025,799</b>	<b>611,008</b>	<b>618,463,139</b>	<b>1,780,629,846</b>	<b>1,509,870,745</b>	<b>3,299,500,585</b>
Vegetable products.	3,964	336,730,801	69,780	62,545,616	497,887,117	197,785,015	697,672,132
Animal products.	5,433	242,003,094	54,372	50,709,455	401,105,903	142,322,561	543,438,464
Textile products.	1,524	267,860,265	87,275	69,661,851	213,282,721	163,841,996	377,124,717
Wood and paper.	7,623	707,052,570	166,176	157,240,646	215,115,868	359,322,951	574,438,819
Iron and its products.	1,523	611,291,790	129,157	162,108,816	249,399,965	348,540,736	597,940,701
Non-ferrous metals.	311	80,288,911	17,108	18,338,421	33,393,730	38,113,823	71,507,562
Non-metallic minerals.	1,048	201,452,109	22,852	25,443,422	64,768,623	63,111,247	127,879,870
Chemicals and allied products.	406	106,110,859	14,719	15,255,350	45,399,060	49,168,100	94,567,160
Miscellaneous industries.	612	135,723,230	39,808	45,677,430	60,276,844	88,177,858	148,454,702
Canadian electric stations.	805	416,512,010	9,761	11,487,132	-	57,486,458	57,486,458

See note at end of Table 1 on page 13.

2.—Summary of Statistics of Manufactures, by Industrial Groups, 1917-1928—  
continued.

(All establishments irrespective of the number of employees.)

Industrial Groups.	Estab- lish- ments.	Capital.	Em- ployees.	Salaries and Wages.	Cost of Materials.	Net Value of Products.	Gross Value of Products.
	No.	\$	No.	\$	\$	\$	\$
<b>1920.</b>							
<b>Total</b> .....	<b>23,351</b>	<b>3,371,940,653</b>	<b>609,596</b>	<b>732,120,585</b>	<b>2,835,271,649</b>	<b>1,696,978,408</b>	<b>3,772,250,657</b>
Vegetable products.....	4,219	394,123,233	72,380	75,695,530	532,484,195	234,317,527	760,801,722
Animal products.....	4,823	221,792,457	48,687	54,291,000	400,406,334	152,995,130	553,491,484
Textile products.....	1,304	302,758,185	87,730	84,433,609	250,233,300	173,741,035	429,974,335
Wood and paper.....	7,867	772,080,812	143,731	171,610,460	308,282,232	415,784,270	724,066,508
Iron and its products.....	1,690	642,904,322	146,204	205,414,599	349,642,666	365,473,067	715,115,763
Non-ferrous metals.....	324	109,382,033	23,162	27,895,343	48,434,120	52,847,178	101,281,298
Non-metallic minerals.....	1,170	223,541,735	27,361	34,406,423	74,200,407	85,216,316	159,416,723
Chemicals and allied products.....	404	122,123,730	17,653	22,193,421	62,644,008	65,183,212	127,827,820
Miscellaneous industries.....	605	134,954,504	31,935	41,552,886	52,853,767	75,715,577	128,569,344
Central electric stations.....	819	448,273,642	10,693	14,626,709	—	65,705,060	65,705,060
<b>1921.</b>							
<b>Total</b> .....	<b>22,235</b>	<b>3,190,676,358</b>	<b>456,076</b>	<b>518,785,137</b>	<b>1,266,933,685</b>	<b>1,209,143,344</b>	<b>2,576,937,629</b>
Vegetable products.....	3,946	360,945,194	61,161	63,130,893	364,123,395	205,448,320	569,571,721
Animal products.....	5,051	200,697,527	45,726	48,124,667	267,878,165	111,534,101	379,942,266
Textile products.....	1,637	260,158,327	76,376	71,321,283	164,139,109	190,773,447	304,912,556
Wood and paper.....	7,152	775,207,850	111,322	131,089,861	203,856,170	283,260,565	487,116,735
Iron and its products.....	1,138	575,680,424	77,080	98,363,983	194,725,179	187,072,905	382,398,084
Non-ferrous metals.....	344	104,079,490	17,930	22,692,784	31,430,989	41,149,894	72,589,883
Non-metallic minerals.....	1,075	209,641,529	24,393	28,374,655	67,780,080	75,278,290	143,058,376
Chemicals and allied products.....	468	118,382,642	12,571	16,192,457	43,108,870	45,495,135	88,604,005
Miscellaneous industries.....	577	100,563,915	18,794	24,259,876	29,842,728	44,894,581	74,737,309
Central electric stations.....	857	484,660,451	10,714	15,234,678	—	73,636,094	73,636,094
<b>1922.</b>							
<b>Total</b> .....	<b>22,541</b>	<b>3,244,302,410</b>	<b>474,430</b>	<b>510,431,312</b>	<b>1,263,771,723</b>	<b>1,199,434,407</b>	<b>2,482,209,130</b>
Vegetable products.....	4,355	371,361,682	63,217	64,424,922	330,589,052	206,940,749	537,535,801
Animal products.....	5,118	201,829,414	49,595	40,933,679	264,078,631	107,473,382	371,552,013
Textile products.....	1,709	263,065,238	88,016	76,224,361	153,066,593	155,493,510	308,560,103
Wood and paper.....	6,983	761,188,396	118,402	132,084,914	200,682,820	283,131,002	489,814,782
Iron and its products.....	1,040	526,109,953	74,588	90,605,157	168,282,265	163,302,638	331,584,003
Non-ferrous metals.....	325	102,208,275	18,222	21,451,629	30,861,895	39,993,798	70,855,693
Non-metallic minerals.....	1,095	238,691,461	22,468	27,204,642	63,377,262	77,911,159	141,288,421
Chemicals and allied products.....	469	118,025,483	14,082	16,770,503	47,039,926	48,904,250	95,944,185
Miscellaneous industries.....	542	88,753,756	15,064	17,236,255	19,796,279	32,948,084	52,744,383
Central electric stations.....	905	568,068,752	10,684	14,495,250	—	82,328,866	82,328,866
<b>1923.</b>							
<b>Total</b> .....	<b>22,642</b>	<b>3,380,322,559</b>	<b>525,267</b>	<b>571,470,028</b>	<b>1,470,140,139</b>	<b>1,311,623,375</b>	<b>2,781,165,514</b>
Vegetable products.....	4,427	385,725,299	65,395	67,441,626	337,790,150	208,581,136	547,674,286
Animal products.....	5,078	207,090,471	61,517	52,870,124	273,995,639	110,090,176	384,085,815
Textile products.....	1,817	283,248,204	92,669	81,244,205	176,445,427	157,993,769	334,439,196
Wood and paper.....	6,875	801,085,402	128,404	147,315,373	236,808,842	319,216,193	556,025,035
Iron and its products.....	1,000	552,272,800	88,071	115,453,809	258,417,991	209,541,556	465,850,547
Non-ferrous metals.....	333	100,644,467	21,409	25,015,665	42,775,264	45,424,062	88,199,326
Non-metallic minerals.....	1,091	243,519,222	24,978	29,280,591	69,302,684	74,673,276	143,975,960
Chemicals and allied products.....	475	126,537,481	15,149	18,433,679	54,638,062	50,606,094	111,244,156
Miscellaneous industries.....	589	92,817,021	16,580	19,630,918	21,966,080	38,454,817	58,420,897
Central electric stations.....	957	581,472,583	11,095	14,784,038	—	91,141,296	91,141,296

\*See note at end of Table 1 on page 13.

2.—Summary of Statistics of Manufactures, by Industrial Groups, 1917-1928<sup>1</sup>—  
continued.

(All establishments irrespective of the number of employees.)

Industrial Groups.	Estab- lish- ments.	Capital.	Em- ployees.	Salaries and Wages.	Cost of Materials.	Net Value of Products.	Gross Value of Products.
	No.	\$	No.	\$	\$	\$	\$
<b>1924.</b>							
<b>Total</b> .....	<b>22,178</b>	<b>3,538,812,460</b>	<b>508,503</b>	<b>559,881,045</b>	<b>1,438,309,681</b>	<b>1,256,643,901</b>	<b>2,695,053,582</b>
Vegetable products.....	4,414	414,922,612	68,183	70,638,304	365,614,854	220,330,748	585,945,602
Animal products.....	4,816	208,466,666	57,779	53,270,202	209,093,396	109,783,926	379,777,322
Textile products.....	1,781	298,665,942	90,254	77,924,749	179,551,579	141,803,602	321,355,181
Wood and paper.....	6,906	879,307,261	127,551	148,529,075	246,078,502	300,425,516	546,504,108
Iron and its pro- ducts.....	1,003	535,924,351	78,314	99,567,510	195,981,347	174,107,327	370,088,674
Non-ferrous metals.....	341	114,354,971	21,670	26,118,839	42,255,294	50,998,079	93,223,373
Non-metallic minerals.....	1,095	235,613,111	24,186	29,559,746	61,741,225	76,832,578	138,573,903
Chemicals and allied products.....	457	126,495,685	13,796	17,074,529	54,311,913	53,905,324	108,217,237
Miscellaneous in- dustries.....	414	96,497,768	15,942	19,254,507	22,881,481	33,317,033	56,198,514
Central electric sta- tions.....	951	628,565,093	12,826	17,946,584	-	95,169,768	95,169,768
<b>1925.</b>							
<b>Total</b> .....	<b>22,331</b>	<b>3,808,309,981</b>	<b>544,235</b>	<b>596,015,121</b>	<b>1,587,663,408</b>	<b>1,360,879,907</b>	<b>2,948,545,315</b>
Vegetable products.....	4,558	430,490,764	72,035	72,796,657	404,684,887	227,526,377	632,211,264
Animal products.....	4,802	210,015,438	63,675	55,285,458	315,914,681	115,863,479	431,778,163
Textile products.....	1,640	305,776,409	94,531	81,573,988	193,238,560	143,950,124	337,188,084
Wood and paper.....	6,652	907,204,530	127,859	148,457,748	246,551,591	310,642,862	557,194,453
Iron and its pro- ducts.....	1,075	567,012,477	90,125	117,642,470	206,337,132	205,041,508	411,378,640
Non-ferrous metals.....	378	181,600,227	27,735	35,713,903	74,068,260	85,701,766	159,770,028
Non-metallic min- erals.....	1,191	239,823,825	24,468	29,892,659	65,278,752	78,969,840	144,248,502
Chemicals and allied products.....	510	126,483,348	13,951	17,469,157	56,299,219	56,607,527	112,906,746
Miscellaneous in- dustries.....	428	103,281,876	16,583	18,427,224	25,292,323	33,988,542	59,280,863
Central electric sta- tions.....	1,007	726,721,087	13,263	18,755,907	-	102,587,882	102,587,882
<b>1926.</b>							
<b>Total</b> .....	<b>22,768</b>	<b>3,981,569,590</b>	<b>581,539</b>	<b>653,850,933</b>	<b>1,755,158,399</b>	<b>1,492,645,039</b>	<b>3,247,893,438</b>
Vegetable products.....	4,529	449,259,094	73,908	75,349,580	414,316,414	244,034,302	658,320,716
Animal products.....	4,896	223,078,559	67,843	60,203,956	329,114,267	122,920,658	452,034,925
Textile products.....	1,698	317,275,429	100,572	88,596,752	202,832,383	163,502,261	366,334,644
Wood and paper.....	6,751	929,589,278	134,187	160,916,729	261,001,976	339,062,685	600,644,661
Iron and its pro- ducts.....	1,142	597,992,098	103,510	137,640,065	258,020,373	247,168,476	505,198,849
Non-ferrous metals.....	403	202,505,426	30,095	39,261,147	90,613,004	92,888,719	183,501,723
Non-metallic min- erals.....	1,240	261,724,184	26,045	31,986,049	82,293,319	91,863,604	174,156,923
Chemicals and allied products.....	556	133,407,891	14,345	18,309,377	60,124,582	62,464,944	122,589,526
Miscellaneous in- dustries.....	436	109,669,565	17,628	21,703,342	30,307,874	39,835,657	70,143,531
Central electric sta- tions.....	1,057	756,220,066	13,406	19,943,000	26,534,207	88,983,733	115,467,940
<b>1927.</b>							
<b>Total</b> .....	<b>22,936</b>	<b>4,337,631,558</b>	<b>618,933</b>	<b>693,932,228</b>	<b>1,789,574,604</b>	<b>1,635,923,936</b>	<b>3,425,498,540</b>
Vegetable products.....	4,793	494,176,054	78,300	81,830,734	429,325,105	283,374,975	712,700,080
Animal products.....	4,692	233,113,872	68,381	61,407,018	325,455,482	132,240,556	457,716,038
Textile products.....	1,802	346,512,165	107,519	95,801,243	198,879,157	189,137,300	382,007,457
Wood and paper.....	6,811	1,023,301,749	150,550	167,995,734	271,780,232	357,780,924	620,667,156
Iron and its pro- ducts.....	1,148	638,914,893	106,203	143,351,174	261,102,679	264,819,189	525,921,839
Non-ferrous metals.....	401	208,957,166	33,443	44,154,695	87,612,606	112,757,295	200,369,961
Non-metallic min- erals.....	1,184	280,033,057	26,662	33,958,541	86,312,529	89,433,536	175,746,065
Chemicals and al- lied products.....	561	134,618,839	14,559	18,656,851	63,630,589	63,854,084	127,484,672
Miscellaneous indus- tries.....	447	111,178,478	18,518	23,739,923	34,699,896	44,466,809	79,166,705
Central electric sta- tions.....	1,097	866,825,285	14,708	22,946,315	30,785,270	104,033,207	134,818,567

<sup>1</sup>See note at end of Table 1 on page 13. <sup>2</sup>A belated revision in the cement industries raised the salary and wages paid in this group to \$39,561,746 and reduced the gross value of products to \$138,318,637.



## 2.—Summary of Statistics of Manufactures, by Industrial Groups, 1917-1928—concluded.

(All establishments irrespective of the number of employees.)

Industrial Groups.	Estab-lish-ments.	Capital.	Em-ployees.	Salaries and Wages.	Cost of Materials.	Net Value of Products.	Gross Value of Products.
1928.	No.	\$	No.	\$	\$	\$	\$
<b>Total</b> .....	<b>23,379</b>	<b>4,780,296,649</b>	<b>658,023</b>	<b>755,199,372</b>	<b>1,950,804,339</b>	<b>1,819,016,025</b>	<b>3,769,850,364</b>
Vegetable products.....	4,815	531,918,725	83,764	88,119,342	439,922,128	317,073,457	756,005,585
Animal products....	4,542	243,550,121	67,777	61,950,631	351,324,498	133,607,496	485,021,994
Textile products....	1,885	365,721,561	113,724	103,451,235	223,730,616	161,671,848	415,402,464
Wood and paper....	7,290	1,158,651,534	158,005	179,244,068	203,159,913	389,380,052	682,549,865
Iron and its products.....	1,159	702,931,186	119,199	168,320,038	309,618,074	300,014,925	609,632,999
Non-ferrous metals.....	406	253,367,370	35,568	47,467,842	98,746,019	139,220,908	237,966,927
Non-metallic minerals.....	1,178	298,693,122	28,650	37,136,451	93,683,873	112,398,268	206,082,141
Chemicals and allied products....	572	148,839,920	16,130	20,290,417	74,163,334	72,812,503	146,975,837
Miscellaneous industries.....	453	110,602,877	19,351	25,101,208	35,090,248	50,439,849	85,530,097
Central electric stations.....	1,049	950,919,603	15,855	24,087,420	31,365,636	112,326,819	143,692,455

<sup>1</sup>See note at end of Table 1 on page 13.

### Subsection 3.—Summary Statistics of Manufacturing Production.

**Summary Statistics of Manufactures.**—In Table 3 will be found an analysis of the most important statistics of manufactures for the five years from 1923 to 1927, here brought together in order that the tendencies in Canadian manufacturing industries may be traced as clearly as possible through this latest period of their development. Corresponding figures for the years from 1917 to 1922 were given at p. 384 of the 1926 Year Book, but the inflation of values in the war and immediate post-war periods makes the figures for these years largely incomparable. One very important figure, however, where the trend of development proceeds clearly and uninterruptedly throughout the 10 years, is concerned with the use of power. In the analysis here given the aim is to show the position of power as a factor in general manufacturing production. Therefore the power installation of central electric stations has been excluded. Unfortunately this was not done for the earlier years shown in the 1926 Year Book. When this change is made it will be found that the total horse-power employed increased from 1,664,578 in 1917 to 3,287,582 in 1927 or by 97 p.e. in 10 years. In the same period the horse-power used per establishment increased from 75 to 151 and the horse-power per wage-earner from 3.04 to 6.27, indicating the rapidly increasing contribution of power to manufacturing production.

The increases from \$143,469\* to \$189,119 in average capital per establishment between 1921 and 1927, and in average number of employees from 20.5 to 27.0 are very significant figures. It is also noteworthy that the percentage of salaried employees to total employees has declined between 1921 and 1927 from 16.4 to 13.8—or approximately from one-sixth to one-seventh. In other words, there were in 1927 six wage-earners employed to each salary earner, as compared with five wage-earners to each salary earner in 1921. This is probably due to the fact that in the depression of 1920-21, wage-earners, with a less secure tenure of their positions, were laid off to a proportionately much greater extent than salary earners, so that the proportion of salary earners on the 1921 staffs was abnormally large.

## 3.—Summary Statistics of Manufactures with Averages, 1923-27.

(All establishments, other than construction and custom and repair industries, irrespective of the number of employees.)

Items.	1923.	1924.	1925. <sup>1</sup>	1926.	1927.
Establishments.....No.	22,642	22,178	22,331	22,708	22,936
Capital.....\$	3,380,322,950	3,538,813,400	3,808,309,981	3,981,569,590	4,337,631,558
Av. capital per establishment.....\$	149,295	159,563	170,538	175,338	189,119
Av. capital per employee.....\$	6,435	6,959	6,999	6,846	7,008
Av. capital per wage-earner.....\$	7,562	8,186	8,162	7,967	8,131
Employees.....No.	525,267	508,503	544,225	581,539	618,933
Av. no. employees per establishment.....No.	23.2	22.9	24.4	25.6	27.0
Total salaries and wages.....\$	571,470,028	559,884,045	596,015,171	653,850,933	693,932,228
Av. salaries and wages per establishment.....\$	25,239	25,245	26,690	28,794	30,255
Av. salaries and wages per employee.....\$	1,089	1,101	1,095	1,124	1,121
Employees on salaries.....No.	78,230	76,230	77,623	81,794	85,483
Av. salaried employees per establishment.....No.	3.5	3.4	3.5	3.6	3.7
Salaries.....\$	142,738,681	139,614,639	143,056,516	152,705,944	162,348,078
Av. salary.....\$	1,824	1,831	1,843	1,867	1,899
Employees on wages.....No.	446,994	432,273	466,602	499,745	533,450
Av. no. of wage-earners per establishment.....No.	19.7	19.5	20.9	22.0	23.3
Wages.....\$	428,731,347	420,269,406	452,958,655	501,144,989	531,583,250
Av. wage.....\$	959	972	971	1,003	997
Cost of material.....\$	1,470,140,139	1,438,409,681	1,537,665,408	1,755,158,399	1,789,574,604
Av. cost of material per establishment.....\$	64,930	64,858	71,097	77,293	78,025
Av. cost of material per employee.....\$	2,801	2,827	2,917	3,018	2,892
Value added in manufacture.....\$	1,311,025,375	1,256,643,901	1,360,879,907	1,462,645,039	1,635,923,936
Av. value added per establishment.....\$	57,902	56,662	60,941	65,732	71,325
Av. value added per employee.....\$	2,494	2,473	2,501	2,567	2,643
Gross value of product.....\$	2,781,165,514	2,695,053,582	2,948,545,315	3,247,803,438	3,425,498,540
Av. gross value of product per establishment.....\$	122,832	121,519	132,038	143,025	149,350
Av. gross value of product per employee.....\$	5,295	5,300	5,418	5,585	5,535
Power employed <sup>2</sup> .....h.p.	2,146,903	2,538,535	2,888,164	3,134,248	3,287,582
Av. no. of horse-power per establishment <sup>2</sup> .....h.p.	99	120	135	145	151
Av. no. of horse-power per wage-earner <sup>2</sup> .....h.p.	4.87	5.97	6.29	6.37	6.27
Piece workers <sup>3</sup> .....No.	8,642	7,674	3,735	2,431	2,939
Earnings of piece workers <sup>3</sup> .....\$	1,627,055	1,485,422	692,302	466,708	450,057

<sup>1</sup> A change in the method of computing the number of employees in 1925 and later years increased the number somewhat over that which the method previously used would have given. There was therefore a proportionate reduction in the 1925 averages per employee and wage-earner as compared to what these averages would have been under the former method.

<sup>2</sup> The figures of power in this table represent the installation in manufactures exclusive of central electric stations, which are also excluded from the number of establishments and of employees in working out the averages. These figures are thus not comparable with those given on pp. 384-385 in the 1926 Year Book.

<sup>3</sup> Not included in general statistics of number of employees or of earnings.

**Value of Products.**—The gross value of manufactured products in 1927 was reported as \$3,425,498,540; the cost of materials was \$1,789,574,604, leaving \$1,635,923,936 as the value added by manufacture. As the finished products of one branch or manufacture are constantly used as materials in other branches in the ascending scale of modern industry, it follows that they are counted over and over again, swelling in this manner the total gross value of products. The total value of manufactured products, strictly defined, would include:—(1) the value of all raw materials obtained from the extractive and primary production industries which have entered into the manufacturing output, and (2) the entire value added to these raw materials by manufacturing processes from the time they first entered any

factory up to the close of the census year. This total value would be very much greater than the \$1,635,923,936 shown as having been added by manufacture, but not so great as the \$3,425,498,540 shown as the gross value of production.

**Volume of Manufacturing Production in Recent Years.**—An investigation of the greatest importance, especially in a period when values are rapidly changing, is that of the volume of manufacturing production as distinguished from its value. This is a difficult subject of research, particularly on account of the constant changes in the commodities manufactured and in their relative proportions. It is, however, a matter in which tentative conclusions are better than none, and accordingly an estimate of the volume of manufacturing production in recent years has been attempted in Table 4, on the following plan. First, the gross value of the manufactured commodities produced in 1917, the first year of the annual census of manufactures, is taken as 100, and later years given as a percentage of this. Gross values, although they include numerous duplications, are used since the purpose is to determine changes in the volume of manufactured commodities produced irrespective of the relative value of the raw materials used. A better figure than gross values would be the one outlined above, *i.e.*, the sum of the values of all original raw materials used plus the values added in the various ascending stages of manufacture. But unfortunately such a figure is not available. Next, the average index number of the wholesale prices of the 276 manufactured commodities used in the Bureau's index number of wholesale prices is given for each year, and, in the next column, reduced to a percentage relative to 1917. Finally, the values, expressed as a percentage, are divided by the prices, also expressed as a percentage, and the quotient is considered to indicate the volume of manufacturing production. In the table which follows may be noted the decline in the volume of production between 1918 and 1920, in spite of increasing values, the recovery in the volume of production in 1922, 1923 and 1924, in spite of diminished values, and the increase in both volume and values in 1925, when the volume of manufacturing production, thus estimated, was about one-eighth greater than in 1917. In 1928, although the prices of manufactured goods were more than 16 p.c. below the level of 1917, total value had increased by 31 p.c. and volume by 57 p.c.

4.—Volume of Manufacturing Production, 1917-1928.

Years.	Values.		Prices.		Index No. Volume of Manufacturing Production.
	Gross Value Manufacturing Production.	Percentage relative to 1917.	Index No. Prices of Manufactured Commodities.	Percentage relative to 1917.	
	\$	p.c.		p.c.	
1917.....	2,873,268,183	100-00	113-7	100-0	100-0
1918.....	3,289,764,146	114-49	127-6	112-2	102-0
1919.....	3,290,500,585	114-52	132-5	116-5	98-3
1920.....	3,772,250,057	131-28	156-8	137-9	95-2
1921.....	2,576,037,029	89-65	116-7	102-6	87-4
1922.....	2,482,209,130	86-38	100-5	88-4	97-7
1923.....	2,781,165,514	96-79	103-1	90-7	106-7
1924.....	2,695,053,582	93-80	101-9	89-6	104-7
1925.....	2,948,545,315	102-62	103-8	91-3	112-4
1926.....	3,247,803,418	113-03	100-0	87-9	128-6
1927.....	3,425,498,540	119-22	96-5	84-9	140-4
1928.....	3,769,850,364	131-20	95-0	83-5	157-1

**Consumption of Manufactured Products.**—One of the beneficial results of placing the classification of external trade and of production upon a common

basis is exhibited in Table 5, where the value of commodities made available for consumption in Canada is derived from the statistics of the two important fields. For example, the value of all manufactured commodities made available in a period approximately corresponding to 1927 was \$3,602,468,459, a figure obtained by adding to the value of manufactured products in 1927 the value of the imports of manufactured and partly manufactured goods during the fiscal year ended Mar. 31, 1928, and deducting the value of the corresponding exports for the same period. In this table, as in the preceding one, more accurate statistics could be presented were it possible to exclude from the gross value of manufactured products the duplications involved when the products of one manufacturing establishment become the materials worked upon in another. Vegetable, iron and textile products led the other groups in the value of finished goods made available for consumption. The large amount of vegetable products made available for consumption was due to the large production, as the exports were nearly as large as the imports, while textiles and iron and steel products, in addition to a large production, showed an excess of imports over exports of \$143,000,000 for textiles and \$177,000,000 for iron and steel products.

#### 5.—Consumption of Manufactured Products, by Groups, 1927, with Totals for 1922-1926.<sup>1</sup>

NOTE.—Statistics of manufacturing production are for the calendar year. Imports and exports of manufactured and partly manufactured goods are for the fiscal years ended Mar. 31 of the following years, and owing to unavoidable omissions or duplications the sum of the groups does not exactly equal the totals for the year.

Groups of Industries.	Value of manufactured products.	Manufactured and partly manufactured goods.		Value of manufactured products available for consumption.
		Value of imports.	Value of Canadian exports.	
	\$	\$	\$	\$
Vegetable products.....	712,700,080	158,330,173	136,751,301	734,278,952
Animal products.....	457,716,038	29,357,921	78,858,394	408,215,565
Textile products.....	382,007,457	144,385,500	1,450,239	524,942,718
Wood and paper products.....	624,567,156	49,208,925	255,471,159	423,304,922
Iron and its products.....	525,921,839	245,275,930	67,819,249	704,378,520
Non-ferrous metal products.....	200,369,961	53,159,628	61,101,571	192,368,018
Non-metallic mineral products.....	175,746,065	51,458,035	6,686,308	220,517,792
Chemicals and allied products.....	127,484,672	33,313,500	17,854,915	142,943,257
Miscellaneous industries.....	79,166,705	62,804,101	16,359,226	125,611,580
Central electric stations.....	134,818,567	87,132	4,798,061	130,107,638
<b>Total 1927.....</b>	<b>3,425,498,540</b>	<b>825,147,919</b>	<b>648,178,000</b>	<b>3,602,468,459</b>
<b>Total 1926.....</b>	<b>3,247,803,438</b>	<b>767,022,008</b>	<b>673,709,266</b>	<b>3,341,116,180</b>
<b>Total 1925.....</b>	<b>2,948,545,315</b>	<b>671,462,940</b>	<b>695,325,245</b>	<b>2,924,683,010</b>
<b>Total 1924.....</b>	<b>2,695,653,582</b>	<b>576,031,243</b>	<b>591,398,479</b>	<b>2,679,486,346</b>
<b>Total 1923.....</b>	<b>2,781,165,511</b>	<b>639,343,615</b>	<b>591,929,306</b>	<b>2,828,679,853</b>
<b>Total 1922.....</b>	<b>2,482,219,130</b>	<b>574,551,323</b>	<b>515,173,415</b>	<b>2,541,587,038</b>

<sup>1</sup> Totals for 1928 were as follows:—value of manufactured products, \$3,769,847,364; net imports of manufactured goods, \$954,468,018; exports of Canadian manufactured goods, \$702,314,797; value of manufactured products made available for consumption, \$4,022,000,585. "Net imports of manufactured goods" are imports less foreign exports. These foreign exports were included in imports on entering the country and therefore should be deducted again when re-exported. It is possible to apply this correction for foreign exports to the figures for 1928 only, since foreign exports for previous years have never been analysed as raw materials, partly or fully manufactured goods. Therefore in this table the value of manufactured products made available for consumption for the years 1922 to 1927 inclusive, is an overstatement by the amount of the foreign exports of manufactured goods in each year, probably varying from about \$11,000,000 in 1922 to \$18,000,000 in 1927.



## Section 2.—Production of Industrial Groups and Individual Industries.

One of the factors in the progress of Canada is the possession of many natural resources favourable to industrial growth. It is upon the country's agricultural resources, forests, minerals and wild life that Canada's industries are mainly based. The sea and lake fisheries also make an important contribution of raw materials to the manufacturing industries of the Dominion. Nevertheless, the industrial development of Canada was a matter of small beginnings and gradual growth over a period of many years, and the comparatively small home market, restricted at the present time to a population of nine and three-quarter millions, a large part of it in scattered agricultural areas, is still one of the difficulties of the situation. Yet Canada is now not merely the second largest manufacturing country in the British Empire; her exports to the other Dominions consist largely of manufactured goods. The exports of manufactured and partly manufactured goods to the United States also exceed the exports of raw materials. The rate at which this movement is to continue will depend almost entirely upon growth within the Dominion—upon the further development of the many-sided physical assets of the country.

### Subsection 1.—Manufactures Grouped by Chief Component Materials.

A classification based on the chief component materials in the various products of each manufacturing establishment was applied for the first time in the compilation of the returns for 1920. The number of groups was reduced from fifteen to nine to correspond with the external trade classification and the classes of industry were somewhat altered to conform with recent industrial developments. Subsequently the central electric stations industry was taken out of the miscellaneous class and now forms a class by itself.

**Vegetable Products.**—With the exception of rubber, coffee and spices and sugar factories, the industries of this group are dependent mainly upon domestic farm products as raw materials. The milling industry, which has existed to meet domestic needs for more than 300 years, is one of the Dominion's oldest industries, but it is only within recent times that its progress has become spectacular. The war, and the demand it created, gave a great impetus to this trade, and the 423 flour mills, many of them of the most modern type and highest efficiency, have now attained a capacity far in excess of Canada's demands. During 1928, productive capacity reached about 121,000 barrels per day, and during the crop year ended July 31, 1929, nearly 11,809,000 barrels were exported to many countries, Great Britain receiving the largest consignments. The flour manufactured from Canadian hard spring wheat is particularly sought after in overseas markets and is finding a ready sale in the Far East, where wheat bread is being consumed to a greater extent than formerly. Other industries contributing largely to food manufacture are sugar refineries, bread, biscuits, etc., and, to a lesser degree, plants engaged in the canning of fruits and vegetables.

Raw material imported from tropical countries forms the basis for an industry of a different character. Canada is now among the leading countries of the world as a manufacturer of rubber goods. Existing plants represented in 1928 a capital of over \$70,000,000 and gave employment to more than 17,000 workers receiving \$19,000,000 in wages and salaries and producing goods to the value of over \$97,000,000.

**Animal Products.**—Another form of food manufacture—that of slaughtering and meat-packing—has also made great strides. It comes as a surprise to many that slaughtering and meat-packing was until lately at the head of all the single industries in regard to the value of the products, and is now only surpassed by the pulp and paper and flour-milling industries. Another industry which manufactures a product of farm animals and has been for many years of leading importance in Canada is the butter and cheese industry. Originating in the agricultural districts of the Maritime Provinces, the Eastern Townships of Quebec, and the southern counties of Ontario, it is now developing rapidly in the Prairie Provinces and in the more recent northern settlements of Quebec and Ontario. For an industry so large in the aggregate, it is unique in having shown very little tendency toward consolidation in large units, the gross production of \$123,000,000 in 1927 coming from no fewer than 2,872 plants, mostly small and scattered at convenient points throughout the farming communities. Many of the plants are operated on the co-operative basis. The leather industries also have long been established on a considerable scale, mainly, of course, because the large number of cattle raised and slaughtered provide a ready supply of hides. There are large tanneries in the eastern provinces, and no fewer than 191 boot and shoe factories were in operation in 1927, chiefly in Quebec and Ontario, representing a total capital of \$32,000,000 with an annual output of \$47,000,000, and employing 8,161 men and women. The canning and preserving of fish also calls for reference. Concentrated naturally upon the Pacific and Atlantic coasts, this industry has become one of the most important, not perhaps so much from the point of view of achievement as of promise. In 1928 there were in existence 713 establishments engaged in the canning, curing and packing of various kinds of fish.

**Textiles.**—Although the production of cotton and woollen fabrics, hosiery, knitted goods, men's and women's clothing and so forth amounted in 1927 to a total valued at over \$382,000,000, considerable quantities of yarns and cloth are still imported into Canada. Canadian textile factories are capable of supplying ordinary domestic needs without undertaking the production of the highest grade materials such as are manufactured in Great Britain, where for several centuries hereditary skill has been developed. The imports of manufactured or partly manufactured textiles during the fiscal year ended March, 1928, were \$144,385,500, or 38 p.c. of the gross value of the manufactured product during the calendar year 1927.

The woollen industry may be divided into four sections, according as the chief product of value is cloth, yarn, carpets and mats, or miscellaneous goods. Of the 114 plants in operation during 1927, 55 were engaged chiefly in manufacturing cloth, 17 in making yarns, 18 in making carpets and rugs and 24 in making miscellaneous woollen goods. The total value of woollen goods manufactured by the four classes of mills during 1927 amounted to \$31,200,000, as compared with \$31,400,000 in 1926.

A sketch of the cotton industry, which is the most important of the textile group, is given under the heading of "Typical Individual Manufactures" at page 429 in the Manufactures section of the Canada Year Book, 1924.

**Wood and Paper.**—An outstanding feature of the general expansion of Canadian commerce since the opening of the century has been the change in the industries associated with forestry. Lumber output has fluctuated greatly and actually decreased in recent years, as a result of the post-war depression. For example, in 1911 the output of manufactured lumber was 4,918,000 M board feet, valued at

\$75,831,000, as compared with 4,337,253 M feet, valued at \$103,590,035, in 1928. In contrast with this is the progress in pulp and paper production. The census of 1881 recorded only 36 paper-and 5 pulp-mills in existence in Canada. In 1928 there were 110 pulp and paper-mills, consuming more than 4,791,000 cords of pulpwood in the year and using hydro power to the extent of over 1,300,000 h.p. Production of wood pulp in 1917 was 1,464,308 tons and in 1928, 3,610,724 tons. Production of newsprint in 1917 was 689,847 tons, in 1921, 805,114 tons, in 1923, 1,252,000 tons and in 1924, 1,388,081 tons. In 1928 the production was 2,414,393 tons, an increase of 16 p.c. over 1927. Included in the totals are hanging and poster papers. Canadian production in 1928 exceeded that of the United States by nearly 1,000,000 tons or 70 p.c., so that Canada now occupies first place among the countries of the world in the production of newsprint paper.

**Iron and Steel.**—The primary production of iron and steel in Canada has always been handicapped by the fact that nowhere in Canada have workable deposits of coal and iron ore been found in juxtaposition. The nearest approach is in Nova Scotia, where there is an abundant supply of coal, while iron ore is obtained from Newfoundland. In Central Canada, where the secondary iron and steel industries are chiefly located, there are at present neither supplies of coal nor high-grade deposits of iron ore. There is a possibility, however, that high-grade bodies of ore may be found, and eventually the huge reserves now known to exist, though they require an unduly expensive smelting process, will become more valuable. From the manufacturing standpoint conditions are much more favourable, as these areas are abundantly supplied with both hydro-electric power and metals, such as nickel, chromium, molybdenum, etc., used in the manufacture of alloy steels, which form an increasingly large part of the output from modern steel works.

Iron ore, which was imported largely from Newfoundland and the State of Minnesota, was treated in 1927 in 36 active furnaces and rolling mills, with a capital of \$96,295,734 and a gross production valued at \$45,571,264. There were, in 1927, no fewer than 1,148 establishments handling iron and steel products, aside from the numerous custom and repair shops engaged in re-conditioning iron and steel goods. The plants represented a capital of \$638,914,893 and had a gross output valued at \$525,921,839. A great deal of this output is represented by agricultural implements, for which there is a large domestic demand, by factory and railway equipment and commercial and passenger motor vehicles. The output of automobiles has increased rapidly in recent years, the total production in 1922 being valued at \$81,956,429, in 1925 at \$110,835,380, in 1926 at \$133,598,456, and in 1927 at \$128,700,514, so that this industry had in recent years a greater production than any other in the iron and steel group and in 1928 stood fourth in gross production among all the industries of Canada.

**Non-Ferrous Metals.**—During 1927 there were 401 plants in Canada manufacturing products from metals other than iron and steel. Employment showed an increase from 18,222 in 1922 to 21,409 in 1923, 27,735 in 1925, and 33,443 in 1927.

The largest industry in this group in 1927 was the manufacture of electrical apparatus and supplies with a gross production of \$78,558,730. This industry is showing rapid growth in keeping with the widely increasing development and utilization of hydro-electric energy in Canada. The development of cheap electric power has done much to popularize the use of electrical equipment for both domestic and industrial purposes, and the future demand for such apparatus will probably be limited only by the development of adequate power.



Another reason for the recent development of the electrical equipment industry is that its raw materials are being provided in increasing quantity in Canada by the simultaneous expansion of the non-ferrous smelting and refining industry. Due to the developments at Trail and Anyox in B.C., Sudbury in Ontario, and Rouyn and Arvida in Quebec, this industry has made great strides, and, at the time of writing, a new smelter is being built at Flin Flon in Manitoba, while the plants at Sudbury are being greatly enlarged. Indeed, the electrical equipment industry and the non-ferrous metals smelting and refining industry account in large measure for the fact that the production of manufactured commodities of the non-ferrous metals group has increased more rapidly in recent years than any other group.

The aluminium industry in America dates from 1890, when the first successful process was worked out for the economical extraction of the metal from its ores. The lightness and ductility of the metal, and the fact that it is not readily attacked by organic acids, air or water, together with its capacity for transmitting heat readily, soon brought it into favour as a material for kitchen utensils, and in this connection it has become well known. Large quantities of aluminium wire are now used for electric transmission lines and quantities are used in the manufacture of such apparatus as cream separator parts and other light machinery. Alloyed with magnesium, it possesses great tensile strength and finds extensive use. Aluminium bronzes, too, are widely used, and during the war great quantities were utilized in the manufacture of aeroplane engines and parts.

Another industry of some importance consisted of 99 firms engaged principally in the rolling, casting, and manufacturing of brass and copper, the principal products being castings and machinery fittings, brass steam fittings, plates and sheets, rods and wire cloth. The selling value of the products was \$24,054,657, while the materials were worth \$12,546,718.

**Non-Metallic Minerals.**—The gradual recovery in business conditions since 1921 is demonstrated by developments in the non-metallic mineral group. The recent expansion is accentuated by the growth of the petroleum-refining industry, which in 1927 produced nearly 37 p.c. of the gross value of the entire production of the group. The 23 plants were located with a view to economy of distribution, based on the greatest accessibility to the source of supply and the proximity of the markets. The refineries on the eastern and western coasts obtain their crude petroleum from South America, Mexico and the United States by tank steamers, bringing transportation costs to a minimum. Those situated in the central part of the Dominion are necessarily supplied by rail or pipeline. The more general use of the automobile has resulted in a continually expanding demand for gasoline and lubricating oils. The installation of oil-using equipment in industrial plants for generating power and in buildings of various kinds for heating purposes has also increased the consumption of fuel oil.

The illuminating and fuel gas industry of Canada is chiefly centred in the larger cities, especially in parts of the country where manufacturing predominates. Coal gas and carburetted water gas are the most important products, but pintsch gas is made at many divisional points along the railways to meet the demand for lighting purposes on passenger trains. Acetylene gas is used in several small towns where the size of the municipality is not sufficient to warrant a coal gas plant. The facility with which by-products, such as coke, tar and light oils, are turned out in connection with large-scale production, becomes an incentive to plant expansion, provided that a demand is assured by increasing population and industrial develop-



ment in the vicinity. The burning of coke in the house furnace, the necessity of enriching the soils with nitrates, the increase of refrigerating operations and the extended use of tar products have prompted the larger plants to increase their output. The industry is also intimately connected with the iron and steel industry and depends upon the demand of the non-ferrous smelting plants. Coke plants are maintained at Sydney, Hamilton and Sault Ste. Marie by the three principal iron and steel companies. Hamilton By-Product Coke Ovens, the Crow's Nest Pass Co., and Granby Consolidated Mining, Smelting and Power Co. also operate plants.

Other industries of a varied nature included in this group are the manufacture of asbestos products, the glass industry, the manufacture of abrasives, the preparation of ornamental and monumental stone, the bottling of aerated waters and the manufacture of various clay products and cement.

**Chemicals.**—New developments in Canada's chemical industries serve to focus attention on the growth of these great enterprises. At the present time the expansion in this field is more noticeable than at any other period since the abnormal expansion during 1914-1918, when war demands necessitated the establishment of many new lines of production.

At Trail, B.C., large chemical plants are shortly to be erected. The sulphuric acid plant, using the gases from the zinc roasting process, will be enlarged. Nitrogen obtained through the liquefaction of air will be converted to ammonia, and both ammonium phosphate and ammonium sulphate will be made, as well as superphosphate of lime for use as fertilizer.

At Sandwich, Ontario, where caustic soda and chlorine have been made for many years by the electrolysis of brine, by-product hydrogen formerly wasted is to be saved and made into ammonia by the Casale process.

In the Sudbury area, owing to the growth of the nickel-copper industry which uses large quantities of acid sodium sulphate in the smelting process, a new chemical plant is being erected to make acid sodium sulphate from the Saskatchewan natural sulphate. This is a notable development in that the new works will produce only a material that was formerly considered to be a waste product.

The growth of the ten main groups of chemical industries in Canada may be realized by noting that gross production in 1921 was about \$89 millions and in 1928 nearly \$147 millions.

The chemical industries of the Dominion may be arranged in the following order of importance, based on the gross value of product: (1) acids, alkalis, salts and compressed gases, (2) paints, pigments and varnishes, (3) soaps, washing compounds and toilet preparations, (4) medicinal and pharmaceutical preparations, (5) explosives, ammunition, fireworks and matches, (6) coal tar products, (7) inks, dyes and colours, (8) fertilizers, (9) wood distillates, and (10) a miscellaneous group of industries not otherwise classified. These industries contribute in no small measure to the diversification of Canadian manufactures and add appreciably to the volume of production. If the larger definition of chemical industries be taken as including all industries using chemical processes, the field covered represents not less than one-fifth of the aggregate of Canadian manufactures.

**Central Electric Stations.**—Beginning with 1926, central electric stations have been taken out of group 9—Miscellaneous Industries—and shown as a separate group. The purpose of the separation is to facilitate the presentation of the statistics of the power installed in manufacturing establishments. Practically all other

(See page 32 for continuation)

## 6.—Statistics of the Numbers, Capital, Employees, Salaries and Wages, Cost of

No.	Groups and Kinds of Industries.	Establishments.	Capital Employed.	Salaried Employees.		
				Male.	Female.	Salaries.
		No.	\$	No.	No.	\$
	<b>Canada</b> .....	<b>22,436</b>	<b>1,337,631,558</b>	<b>65,886</b>	<b>19,597</b>	<b>162,348,978</b>
	TOTALS BY PROVINCES.					
1	Prince Edward Island.....	291	3,081,504	156	29	168,632
2	Nova Scotia.....	1,190	128,155,040	1,237	379	2,642,451
3	New Brunswick.....	872	99,087,327	1,302	329	2,963,336
4	Quebec.....	7,206	1,376,654,019	18,969	4,782	45,886,411
5	Ontario.....	9,512	2,134,181,377	33,964	11,831	87,274,358
6	Manitoba.....	859	151,373,047	3,041	785	7,128,588
7	Saskatchewan.....	721	38,387,248	1,246	215	2,460,504
8	Alberta.....	776	81,664,730	1,765	402	3,805,066
9	British Columbia and Yukon.....	1,509	325,047,266	4,206	845	10,019,632
	TOTALS BY GROUPS.					
1	Vegetable products.....	4,793	494,176,054	8,456	2,446	21,201,169
2	Animal products.....	4,692	233,113,872	9,090	1,930	16,913,119
3	Textiles and textile products.....	1,802	346,512,165	5,954	2,857	17,268,057
4	Wood and paper products.....	6,811	1,023,301,749	14,252	4,193	37,260,725
5	Iron and its products.....	1,148	638,014,893	10,608	3,008	27,822,059
6	Non-ferrous metal products.....	1,401	208,957,166	4,676	1,570	11,584,812
7	Non-metallic mineral products.....	1,184	280,033,057	2,971	716	6,815,208
8	Chemicals and chemical products.....	561	134,618,839	2,788	1,054	7,791,994
9	Miscellaneous industries.....	447	111,178,478	2,288	607	5,923,025
10	Central electric stations.....	1,097	866,825,285	4,793	1,216	9,768,810
	GROUP 1.—VEGETABLE PRODUCTS.					
	<b>Total</b> .....	<b>4,793</b>	<b>494,176,054</b>	<b>8,456</b>	<b>2,446</b>	<b>21,201,169</b>
1	Biscuits, confectionery and chewing gum.....	294	46,448,311	1,559	564	3,901,618
2	Bread and other bakery products.....	2,443	40,559,259	598	248	1,342,088
3	Breweries.....	73	62,358,117	755	100	1,996,084
4	Cigars and cigarettes.....	79	34,371,252	994	253	2,486,827
5	Cocoa and chocolate.....	4	5,319,652	123	32	336,221
6	Coffee and spices.....	61	13,593,564	407	129	1,201,015
7	Distilleries.....	17	37,528,954	209	49	513,873
8	Feed and grist mills.....	884	5,695,314	23	9	41,157
9	Flour mills.....	431	56,366,699	881	212	2,111,720
10	Fruit and vegetable canning, evaporating, etc.....	212	26,807,630	367	141	777,960
11	Ice cream cones.....	10	694,902	6	2	22,290
12	Lined oil and oil cake.....	8	2,341,733	28	5	87,659
13	Macaroni and vermicelli.....	11	1,239,819	42	12	81,748
14	Malt mills.....	5	5,437,053	49	4	119,630
15	Maple syrup and sugar.....	6	362,800	14	3	44,448
16	Miscellaneous food industries.....	53	8,470,618	168	70	444,595
17	Miscellaneous vegetable products.....	6	2,255,426	21	2	49,261
18	Pickles, vinegar and cider.....	60	7,104,602	143	45	301,471
19	Rice mills.....	6	1,402,285	24	3	74,721
20	Rubber footwear.....	10	15,060,521	565	204	1,114,725
21	Rubber tires and other rubber goods.....	34	51,205,543	892	239	2,129,263
22	Starch and glucose.....	4	5,121,901	40	19	155,709
23	Sugar refineries.....	8	50,039,122	290	56	993,890
24	Syrups.....	8	213,805	17	6	28,264
25	Tobacco, chewing, smoking and snuff.....	36	9,772,145	184	29	684,802
26	Wines and grape juice.....	30	4,405,027	57	10	160,064
	GROUP 2.—ANIMAL PRODUCTS.					
	<b>Total</b> .....	<b>4,692</b>	<b>233,113,872</b>	<b>9,090</b>	<b>1,930</b>	<b>16,913,119</b>
1	Animal hair goods.....	6	702,983	17	3	47,384
2	Animal oils and fats.....	6	691,332	7	5	27,583
3	Belting leather.....	9	1,482,840	55	16	160,716
4	Boot and shoe findings.....	15	1,491,142	35	4	100,915
5	Boots and shoes, leather.....	191	31,921,002	1,003	338	2,647,626
6	Butter and cheese.....	2,872	43,375,302	3,670	636	4,645,904
7	Condensed milk.....	27	7,429,830	122	41	297,680
8	Fish curing and packing.....	773	24,454,482	582	57	871,211
9	Fur dressing and dyeing.....	11	1,824,531	57	8	180,183
10	Fur goods.....	233	12,664,990	345	197	980,690
11	Gloves and mittens, leather.....	46	3,231,401	156	48	313,405
12	Harness and saddlery.....	233	5,950,857	174	52	325,504
13	Human hair goods.....	5	52,629	1	1	2,003
14	Leather goods, n.e.s.....	38	1,368,945	83	32	199,134
15	Leather, tanned, etc.....	98	32,320,323	254	53	751,454
16	Sausages and sausage casings.....	35	1,261,080	34	11	85,826
17	Slaughtering and meat packing.....	76	60,612,029	2,437	408	5,113,402
18	Trunks, bags, etc.....	18	2,278,168	58	20	162,409

## Materials and Value of Products of Canadian Manufacturing Industries, 1927.

Wage-earners.			Power installed.	Cost of Fuel used.	Cost of Materials.	Value of Products.		No.
Male.	Fe- male.	Wages.				Net.	Gross.	
No.	No.	\$	H.P.	\$	\$	\$	\$	
<b>413,634</b>	<b>119,816</b>	<b>531,583,250</b>	<b>5,681,291</b>	<b>60,106,218</b>	<b>1,789,574,604</b>	<b>1,635,923,936</b>	<b>3,425,498,540</b>	
1,232	815	519,217	6,741	108,940	2,855,438	1,638,190	4,493,628	1
12,835	3,413	10,968,493	196,642	2,318,477	42,059,320	32,398,977	74,458,297	2
13,501	3,838	12,035,765	121,060	1,902,846	42,780,582	29,886,083	72,066,665	3
125,510	46,824	157,838,586	3,088,698	16,471,746	474,361,396	516,221,599	990,582,985	4
196,155	54,084	267,900,415	2,852,433	29,635,533	930,872,565	818,132,010	1,758,004,575	5
15,822	3,383	21,806,338	383,384	1,995,588	79,510,766	62,578,912	142,089,678	6
3,824	398	4,820,441	98,224	1,722,526	32,165,027	20,015,654	62,180,681	7
7,840	1,272	9,706,293	151,784	1,470,699	50,611,021	34,376,296	84,987,317	8
36,900	5,789	45,987,702	707,012	4,473,854	125,358,489	120,676,216	246,034,704	9
46,169	21,229	60,629,565	280,170	6,940,596	429,325,105	283,375,975	712,700,080	1
41,543	15,818	44,493,899	101,650	3,436,788	325,455,482	132,260,556	457,716,038	2
38,869	59,839	78,023,186	157,055	3,512,308	198,870,157	183,137,300	382,007,457	3
121,657	10,448	130,735,009	1,770,999	14,631,308	271,780,232	357,796,924	629,567,156	4
89,629	3,048	115,529,115	451,576	9,279,931	261,102,679	264,819,160	525,921,830	5
23,262	3,935	32,569,883	237,520	4,830,290	87,612,666	112,737,295	200,369,961	6
21,977	998	27,143,333	160,196	12,696,487	86,312,529	89,433,536	175,746,065	7
8,096	2,621	10,864,857	65,808	1,784,782	63,680,588	63,854,084	127,481,672	8
13,733	1,880	17,816,898	62,608	690,911	34,699,890	44,460,899	79,166,705	9
8,699	-	13,177,505	4,318,390	2,302,817	30,755,270	104,033,297	134,818,567	10
46,169	21,229	60,629,565	280,170	6,940,596	429,325,105	283,375,975	712,700,080	1
4,433	5,930	7,497,976	18,654	557,305	25,149,428	27,979,460	53,128,888	2
11,786	1,782	14,726,059	11,353	1,518,293	35,779,690	32,946,572	68,726,262	3
3,763	44	4,440,636	19,977	605,761	17,471,299	34,057,725	61,528,024	4
1,773	322	3,390,041	2,257	72,641	17,350,343	38,450,905	53,801,338	5
249	271	424,371	3,132	34,669	2,931,913	1,826,058	4,757,969	6
648	420	901,083	2,918	36,073	20,392,675	5,895,831	26,288,506	7
916	227	1,381,211	6,862	423,024	6,351,689	19,309,296	25,660,985	8
1,203	1	773,204	33,457	86,288	20,456,869	3,687,270	24,144,145	9
3,921	134	4,446,589	83,948	511,254	143,255,728	24,341,597	167,597,325	10
2,155	3,894	2,144,768	10,403	252,194	13,103,786	8,519,285	21,623,071	1
56	30	60,873	70	25,314	114,246	336,982	451,228	2
205	1	220,943	1,850	23,580	4,840,168	999,146	5,839,314	3
130	121	161,501	974	10,555	970,402	576,957	1,547,359	4
124	-	196,544	2,655	141,166	3,382,740	1,405,139	4,787,879	5
33	2	32,337	92	7,591	877,249	1,417,413	1,294,662	6
504	245	757,410	4,328	103,903	4,820,894	5,057,456	9,878,350	7
180	7	193,504	1,816	63,004	2,671,470	1,205,561	3,877,031	8
604	440	824,189	1,909	103,514	4,108,813	4,602,138	8,710,951	9
61	-	52,477	580	572	1,588,108	406,645	1,994,813	10
3,705	2,266	4,891,819	13,985	151,409	9,203,686	17,193,957	26,397,643	11
6,146	1,048	8,485,736	37,052	498,483	35,520,816	29,495,271	65,016,087	12
418	16	456,124	1,945	249,822	3,379,075	1,566,950	4,936,025	13
2,253	112	2,845,562	18,565	1,408,407	47,138,854	13,363,810	60,502,664	14
21	19	28,395	36	3,416	249,309	105,858	355,167	15
730	975	1,042,526	921	38,034	6,689,777	8,633,390	15,323,167	16
162	17	163,057	431	14,324	1,526,018	1,005,209	2,531,227	17
41,543	15,818	44,493,899	101,650	3,436,788	325,455,482	132,260,556	457,716,038	1
69	23	69,474	497	6,219	249,667	359,747	609,414	2
97	4	118,420	327	24,747	281,816	272,173	553,989	3
152	2	165,798	352	8,111	839,210	553,455	1,392,665	4
241	83	239,185	1,484	19,826	758,051	733,413	1,491,464	5
8,562	5,530	12,280,218	7,193	133,999	24,566,423	22,806,126	47,372,549	6
6,571	249	6,516,741	23,560	1,041,939	93,101,006	29,422,876	122,523,882	7
617	54	720,755	3,606	351,835	9,633,072	3,753,976	13,387,048	8
9,748	6,310	4,502,740	11,761	435,056	18,364,846	12,719,763	31,084,009	9
616	118	694,133	804	11,518	284,795	2,844,121	3,128,916	10
1,228	1,311	2,733,683	406	26,656	13,177,957	6,569,407	19,747,304	11
570	804	1,008,829	411	16,479	2,576,604	2,296,587	4,873,191	12
891	77	975,289	873	31,781	2,936,725	2,180,727	5,117,452	13
11	8	20,233	1	428	14,281	42,600	56,980	14
260	321	466,518	145	5,103	986,793	1,170,120	2,156,913	15
3,679	102	3,746,752	14,903	411,216	22,347,228	10,142,661	32,489,889	16
189	17	243,425	336	16,633	1,299,885	716,963	2,016,848	17
7,492	711	9,437,846	34,087	881,593	133,076,361	34,144,531	167,220,892	18
550	94	553,864	794	13,949	960,762	1,531,211	2,491,973	19

\* Net; see pp. 61 and 62.

### 6.—Statistics of the Numbers, Capital, Employees, Salaries and Wages, Cost of

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No.	Groups and Kinds of Industries.	Establishments.	Capital Employed.	Salaried Employees.		
				Male.	Female.	Salaries.
		No.	\$	No.	No.	\$
<b>GROUP 3.—TEXTILE PRODUCTS.</b>						
<b>Total</b> .....		<b>1,802</b>	<b>346,512,165</b>	<b>5,954</b>	<b>2,857</b>	<b>17,268,057</b>
1 Awnings, tents and sails.....	55	2,341,301	81	31	163,643	
2 Bags, cotton and jute.....	17	6,746,733	83	29	281,467	
3 Batting.....	8	2,885,031	65	26	191,196	
4 Carpets, mats and rugs.....	18	4,343,572	117	26	339,427	
5 Clothing, men's factory.....	204	24,919,334	991	367	2,693,703	
6 Clothing, women's factory.....	428	24,250,925	1,009	694	3,280,433	
7 Cordage, rope and twine.....	14	14,890,220	82	24	287,321	
8 Corsets.....	16	4,806,157	183	209	395,598	
9 Cotton and wool waste.....	7	1,088,826	21	11	63,265	
10 Cotton textiles, n.e.s.....	18	1,048,250	33	12	87,373	
11 Cotton thread.....	5	4,279,408	69	24	181,660	
12 Cotton yarn and cloth.....	39	84,927,745	518	111	1,487,427	
13 Dyeing, cleaning and laundry work.....	355	20,029,231	450	299	1,387,254	
14 Flax, dressed.....	15	417,004	1		700	
15 Furnishing goods, men's.....	146	19,493,876	548	256	1,348,380	
16 Hats and caps.....	150	7,853,564	402	198	1,003,727	
17 Hosiery, knit goods and fabric gloves.....	168	56,852,977	696	362	2,337,795	
18 Linen goods.....	6	1,055,134	13	6	49,015	
19 Miscellaneous textiles, n.e.s.....	5	3,089,460	41	6	94,661	
20 Oiled and waterproof clothing.....	18	1,168,207	40	17	108,294	
21 Silk goods.....	14	22,327,818	149	57	389,197	
22 Woolen cloth.....	55	20,170,185	234	36	612,880	
23 Woolen textiles, n.e.s.....	24	7,758,050	84	22	310,330	
24 Woolen yarns.....	17	9,761,057	44	20	173,311	
<b>GROUP 4.—WOOD AND PAPER PRODUCTS.</b>						
<b>Total</b> .....		<b>6,811</b>	<b>1,023,361,749</b>	<b>14,252</b>	<b>4,183</b>	<b>37,266,725</b>
1 Buckskin and poultrymen's supplies.....	5	34,960				
2 Blueprinting.....	14	156,041	12	2	31,071	
3 Boats and canoes.....	100	1,976,346	48	17	103,234	
4 Boxes and boxes, paper.....	117	10,681,256	400	171	1,288,242	
5 Boxes and packing cases.....	123	10,016,524	196	30	479,725	
6 Carriages, wagons and sleighs.....	419	8,016,540	140	31	283,420	
7 Carriage and wagon materials.....	8	1,188,235	19	6	49,505	
8 Clothes pins.....	4	150,220	3		10,739	
9 Coffins and caskets.....	34	3,272,828	49	17	149,187	
10 Cooperage.....	83	2,117,564	41	8	88,666	
11 Excelsior.....	9	272,911	9	5	22,022	
12 Furniture and upholstery.....	334	36,682,976	808	266	2,185,513	
13 Laths, trees and pegs.....	15	1,216,907	53	13	115,672	
14 Lithographing and engraving.....	117	17,007,373	597	319	2,186,291	
15 Miscellaneous wood products.....	74	4,877,973	86	32	231,633	
16 Paper goods, n.e.s.....	34	6,142,352	121	81	407,903	
17 Planing mills, sash and door factories, etc.....	771	50,861,289	1,004	210	2,131,485	
18 Printing and bookbinding.....	862	35,263,910	1,412	483	3,780,494	
19 Printing and publishing.....	729	55,831,150	4,235	1,512	9,671,199	
20 Pulp and paper.....	114	579,853,552	2,679	495	8,093,830	
21 Roofing paper, wallboard, etc.....	12	5,016,586	116	35	379,071	
22 Sawmills.....	2,720	169,378,939	1,705	238	3,999,948	
23 Sporting goods.....	20	1,889,484	44	34	101,311	
24 Stationery and envelopes.....	27	4,359,769	193	88	551,081	
25 Stereotyping and electrotyping.....	21	1,268,029	69	23	181,865	
26 Wall paper.....	4	3,823,553	151	36	555,673	
27 Woodenware.....	9	431,317	10	4	30,782	
28 Wood-turning.....	32	1,624,233	33	12	77,455	
29 All other industries.....	9	3,888,924	19	3	53,708	
<b>GROUP 5.—IRON AND ITS PRODUCTS.</b>						
<b>Total</b> .....		<b>1,148</b>	<b>638,914,893</b>	<b>19,668</b>	<b>3,068</b>	<b>27,822,659</b>
1 Agricultural implements.....	65	88,981,203	1,134	384	2,427,643	
2 Automobiles.....	11	88,831,668	1,547	570	4,723,711	
3 Automobile supplies.....	78	13,065,260	277	70	747,391	
4 Bicycles and motorcycles.....	3	2,254,813	46	9	90,158	
5 Boilers, tanks and engines.....	33	9,329,528	230	53	579,318	
6 Castings and forgings.....	328	89,505,687	1,773	508	4,899,497	
7 Hardware and tools.....	128	32,523,774	619	222	1,656,961	
8 Iron and steel products, n.e.s.....	69	12,210,158	463	97	1,173,970	
9 Machinery.....	160	62,006,808	1,501	486	3,749,772	
10 Railway rolling stock.....	35	81,519,850	1,306	89	3,049,222	
11 Sheet metal products.....	144	38,795,028	985	352	2,604,009	
12 Steel and rolled products, pig iron, ferro-alloys, etc.....	36	96,295,734	449	80	1,306,614	
13 Wire and wire goods.....	58	23,595,273	278	88	814,793	



Materials and Value of Products of Canadian Manufacturing Industries, 1927—  
tinued.

Wage-earners.			Power installed.	Cost of Fuel used.	Cost of Materials.	Value of Products.		No.
Male.	Fe- male.	Wages.				Net.	Gross.	
No.	No.	\$	H.P.	\$	\$	\$	\$	
38,949	59,839	78,623,186	157,055	3,512,308	198,870,157	183,137,300	382,007,457	
215	191	307,198	268	7,380	1,349,207	964,640	2,313,937	1
300	625	670,013	1,089	21,694	10,906,830	2,025,949	12,932,779	2
143	115	230,382	604	16,700	1,522,462	1,572,842	3,095,304	3
531	274	681,021	2,310	62,406	1,092,111	2,323,228	4,015,339	4
4,709	5,352	9,981,345	1,491	76,824	21,335,688	21,950,926	43,286,614	5
3,757	10,137	12,270,063	2,997	57,215	31,899,654	24,416,410	56,316,064	6
958	376	1,271,666	7,807	31,186	7,499,649	3,327,760	10,827,418	7
63	896	613,897	369	7,422	1,925,962	1,865,780	3,791,748	8
188	78	201,842	1,003	7,284	1,651,843	644,524	2,296,367	9
97	247	228,784	271	7,676	1,099,234	598,039	1,697,273	10
182	503	536,212	1,870	19,029	2,094,749	2,545,787	4,640,536	11
11,493	9,261	15,659,500	76,243	917,517	39,297,188	36,521,688	75,818,876	12
3,752	5,458	7,744,864	12,526	925,976	2,584,894	17,517,005	20,101,889	13
142	4	56,293	615	2,167	61,028	173,211	234,239	14
1,104	7,072	5,230,843	2,549	69,285	15,673,819	12,421,896	28,095,715	15
1,616	2,627	3,486,477	1,608	69,819	7,593,496	8,302,563	15,896,059	16
4,874	11,285	11,839,370	16,037	542,088	28,269,830	26,952,565	55,222,395	17
73	141	144,578	586	11,868	315,251	278,529	593,780	18
154	127	233,185	571	32,008	1,943,479	688,623	2,632,102	19
117	193	212,994	108	7,323	749,585	691,048	1,430,633	20
946	1,738	1,950,774	7,089	151,666	4,016,631	5,554,286	9,570,917	21
2,086	1,879	3,082,630	11,850	289,120	7,991,590	6,326,779	14,318,369	22
615	392	801,627	4,014	78,868	2,939,986	2,994,383	5,934,369	23
714	870	1,117,048	3,240	99,621	4,455,911	2,488,824	6,044,765	24
121,657	10,448	130,735,009	1,770,909	14,631,308	271,780,232	357,788,924	629,567,156	
12	-	7,352	44	507	18,048	30,449	48,497	1
60	9	48,737	55	1,051	91,211	165,357	256,568	2
609	3	647,387	1,037	9,958	374,706	1,436,562	1,811,268	3
1,768	2,367	3,106,072	4,345	85,511	9,256,235	9,046,892	18,303,127	4
2,812	262	2,445,302	13,701	33,686	4,359,447	4,713,850	9,073,306	5
1,773	7	1,913,068	4,746	110,763	2,070,372	3,727,669	6,698,041	6
174	-	190,248	1,356	11,952	576,656	479,217	1,055,873	7
157	48	115,205	712	60	70,620	258,401	329,021	8
405	91	571,315	1,255	23,797	1,174,276	1,431,062	2,605,338	9
504	1	467,836	1,949	15,129	1,975,925	1,162,617	3,138,542	10
86	22	63,393	585	2,338	104,625	141,159	245,784	11
9,528	435	9,855,908	19,631	377,677	14,154,730	21,579,088	35,733,818	12
366	116	326,822	1,641	11,559	253,873	1,114,140	1,368,013	13
2,963	1,192	5,301,737	5,148	64,737	5,244,565	11,595,811	18,840,376	14
877	58	851,953	4,840	17,486	1,278,896	2,210,495	3,489,381	15
572	199	840,286	2,698	65,749	3,729,909	3,475,359	7,196,268	16
10,127	95	10,080,224	55,022	172,554	26,343,318	21,612,230	47,955,548	17
6,772	2,376	10,201,545	8,658	145,526	11,580,271	24,237,168	35,826,430	18
7,892	1,389	12,368,071	17,502	310,086	14,502,065	47,528,831	62,030,890	19
28,889	813	37,580,463	1,309,960	12,537,498	84,813,080	134,516,673	219,329,753	20
302	6	375,990	1,078	80,825	2,896,587	2,677,190	5,573,777	21
42,571	84	30,421,596	308,251	388,682	77,438,700	56,181,854	133,620,554	22
318	61	328,952	866	10,442	850,459	1,005,862	1,856,321	23
362	626	879,733	909	14,943	3,441,660	2,296,664	5,738,324	24
262	1	462,158	703	15,048	1,655,508	1,039,316	1,204,824	25
390	108	431,254	937	37,503	1,145,088	1,918,049	3,063,737	26
263	22	176,426	768	1,895	189,126	416,330	605,456	27
450	55	366,439	2,027	5,904	565,252	758,521	1,353,773	28
405	2	308,637	579	77,942	2,184,434	1,030,099	3,214,533	29
89,629	3,048	115,529,115	451,576	9,279,931	261,192,679	264,819,160	525,921,839	
9,398	95	10,887,857	21,212	582,136	19,317,415	23,678,873	42,996,288	1
8,746	200	14,139,135	23,188	551,256	88,451,757	40,248,757	128,700,514	2
2,397	222	3,098,794	5,447	176,965	7,697,812	7,174,804	14,862,616	3
321	32	330,832	873	19,356	611,023	583,448	1,194,471	4
1,369	2	1,680,966	7,201	88,922	2,833,851	3,091,743	5,945,654	5
16,516	352	19,369,999	50,516	1,439,457	26,792,119	42,603,224	69,395,343	6
4,940	878	5,602,656	16,389	383,259	7,342,625	17,128,031	24,470,657	7
2,457	37	2,919,674	7,533	75,612	5,652,811	7,481,854	13,134,665	8
7,734	226	9,341,278	28,559	358,747	15,277,973	29,324,162	44,602,135	9
19,906	45	27,220,674	90,114	1,408,554	38,518,449	35,948,463	74,466,912	10
6,298	761	7,510,882	15,489	445,212	22,149,452	21,705,964	43,855,416	11
6,864	3	10,502,584	174,941	3,553,042	18,993,940	26,577,324	45,571,264	12
2,593	195	2,921,884	12,114	197,413	9,273,352	9,273,513	16,725,925	13

6.—Statistics of the Numbers, Capital, Employees, Salaries and Wages, Cost of  
con

No.	Groups and Kinds of Industries.	Establish- ments.	Capital Employed.	Salaried Employees.		
				Male.	Female.	Salaries.
		No.	\$	No.	No.	\$
<b>GROUP 6.—NON-FERROUS METAL PRODUCTS.</b>						
	<b>Total</b>	<b>401</b>	<b>208,957,166</b>	<b>4,676</b>	<b>1,570</b>	<b>11,584,812</b>
1	Aluminium products.....	12	4,189,658	53	14	133,864
2	Brass and copper products.....	99	22,425,179	697	160	1,580,023
3	Electrical apparatus and supplies.....	130	80,475,999	2,916	1,106	6,923,139
4	Lead, tin and zinc products.....	25	4,295,256	92	40	246,218
5	Miscellaneous non-ferrous metal products.....	16	965,937	36	5	116,188
6	Non-ferrous smelting and refining.....	10	85,366,662	584	60	1,551,036
7	Precious metal products.....	109	11,238,475	298	185	1,034,344
<b>GROUP 7.—NON-METALLIC MINERAL PRODUCTS.</b>						
	<b>Total</b>	<b>1,184</b>	<b>289,621,057</b>	<b>2,971</b>	<b>716</b>	<b>6,815,298</b>
1	Aerated and mineral waters.....	335	11,665,086	432	62	760,753
2	Asbestos and allied products.....	13	2,860,945	46	9	118,543
3	Cement.....	12	40,509,319	113	12	270,328
4	Cement products.....	151	2,671,273	117	11	189,515
5	Clay products, domestic.....	194	30,437,607	313	47	744,307
6	Clay products from imported clays.....	13	2,834,820	71	17	207,769
7	Coke.....	6	29,879,157	32	1	98,224
8	Gas, illuminating and fuel.....	42	60,231,873	690	316	1,488,257
9	Glass products.....	54	12,736,057	219	71	574,599
10	Lime.....	60	6,200,481	83	14	168,195
11	Miscellaneous non-metallic products.....	31	13,331,203	129	38	345,518
12	Petroleum products.....	23	56,135,564	447	72	1,193,466
13	Salt.....	11	3,194,802	40	14	121,100
14	Sand-lime brick.....	11	1,586,064	22	2	47,354
15	Stone, ornamental and monumental.....	228	5,758,806	217	30	487,220
<b>GROUP 8.—CHEMICALS AND ALLIED PRODUCTS.</b>						
	<b>Total</b>	<b>561</b>	<b>134,618,839</b>	<b>2,788</b>	<b>1,654</b>	<b>7,791,994</b>
1	Acids, alkalis, salts and compressed gases.....	42	35,312,251	408	99	1,056,303
2	Coal tar and its products.....	17	4,298,391	37	8	93,835
3	Explosives, ammunition, fireworks, matches.....	16	18,328,869	155	23	375,830
4	Fertilizers.....	12	1,999,811	29	13	80,912
5	Inks, dyes and colours.....	30	2,915,682	117	35	419,177
6	Medicinal and pharmaceutical preparations.....	136	17,542,111	531	305	1,601,084
7	Miscellaneous chemical industries.....	125	9,900,455	440	201	1,177,134
8	Paints, pigments and varnishes.....	62	23,162,000	614	189	1,795,696
9	Soaps, washing compounds and toilet preparations.....	110	19,252,665	439	182	1,156,939
10	Wood distillates and extracts.....	11	1,907,514	18	-	35,084
<b>GROUP 9.—MISCELLANEOUS INDUSTRIES.</b>						
	<b>Total</b>	<b>447</b>	<b>111,178,478</b>	<b>2,298</b>	<b>607</b>	<b>5,923,025</b>
1	Advertising and other novelties.....	8	145,166	8	2	23,530
2	Artificial feathers and flowers.....	7	263,958	20	19	54,212
3	Bridge building.....	9	16,159,490	665	81	1,709,307
4	Brooms, brushes and mops.....	80	3,976,645	181	68	468,561
5	Buttons.....	13	1,393,132	49	16	147,762
6	Candles and tapers.....	9	474,956	6	1	17,366
7	Fountain pens.....	4	1,287,632	38	17	103,315
8	Ice, artificial.....	28	4,595,623	30	10	82,066
9	Jewel cases and silverware cabinets.....	6	210,197	8	9	25,939
10	Mattresses and springs.....	59	7,131,382	163	51	578,293
11	Motion pictures.....	8	655,455	96	19	128,520
12	Musical instruments and materials.....	47	15,415,158	242	97	662,655
13	Refrigerators.....	8	637,208	13	5	38,081
14	Regalia and society emblems.....	11	220,389	11	12	36,509
15	Scientific and professional equipment.....	21	16,388,314	126	85	400,758
16	Shipbuilding and repairs.....	37	39,324,683	480	51	1,040,720
17	Stamps and stencils.....	31	557,483	54	19	101,263
18	Statuary, art goods and church supplies.....	30	680,913	39	18	91,765
19	Store and display fixtures.....	3	217,655	7	5	17,291
20	Toys and games.....	12	219,807	12	4	26,970
21	Typewriter supplies.....	4	518,930	25	10	96,005
22	Umbrellas and parasols.....	9	571,261	22	8	65,657
23	All other industries.....	3	133,031	3	-	6,480
<b>GROUP 10.—CENTRAL ELECTRIC STATIONS.</b>						
	<b>Total</b>	<b>1,097</b>	<b>846,925,285</b>	<b>4,793</b>	<b>1,216</b>	<b>9,768,810</b>

## Materials and Value of Products of Canadian Manufacturing Industries, 1927—cluded.

Wage-earners.			Power installed.	Cost of Fuel used.	Cost of Materials.	Value of Products.		Σ
Male.	Fe- male.	Wages.				Net.	Gross.	
No.	No.	\$	H.P.	\$	\$	\$	\$	
23,262	3,335	37,569,883	237,520	4,838,290	87,612,666	112,757,295	200,363,961	1
345	73	491,805	1,696	26,538	976,901	1,341,693	2,319,891	2
3,601	374	4,483,048	15,261	357,785	12,546,718	11,507,939	24,054,657	3
9,926	2,865	13,690,453	43,298	589,046	32,734,875	45,823,855	78,558,730	4
4,098	62	456,080	2,007	70,477	3,854,979	1,294,113	5,149,092	5
164	29	193,048	90	5,199	281,940	665,765	947,705	6
6,999	28	10,569,204	172,182	3,724,493	32,516,687	45,479,578	77,966,265	7
1,819	504	2,683,645	2,986	56,752	4,700,566	6,644,052	11,344,618	8
21,977	998	27,142,323	160,196	12,696,487	86,312,529	89,423,536	175,746,065	9
1,234	74	1,292,290	2,300	79,073	3,461,311	5,251,116	8,712,427	10
224	21	240,410	1,986	45,231	797,975	805,325	1,603,300	11
2,145	-	2,873,004	64,989	2,784,987	-	14,391,937	14,391,937	12
711	3	746,538	2,083	38,294	912,686	1,750,379	2,663,065	13
4,410	-	4,024,940	24,445	1,814,589	-	11,173,189	11,173,189	14
513	51	635,760	8,682	1,043,813	567,519	1,520,710	2,088,238	15
618	1	1,020,314	3,934	728,099	10,436,112	4,892,708	15,318,880	16
2,475	13	3,262,324	6,439	1,095,405	6,178,791	12,547,078	18,725,869	17
2,527	303	3,302,300	691	171,082	5,257,950	8,906,136	14,164,086	18
1,035	-	965,513	3,437	783,032	-	3,923,388	3,923,388	19
971	454	1,384,259	9,915	319,130	3,582,815	6,048,489	10,231,301	20
3,311	26	4,904,750	21,852	3,440,614	53,059,921	11,468,899	64,528,820	21
285	37	378,867	1,885	271,765	-	1,614,667	1,614,667	22
230	-	252,904	1,529	51,860	258,777	681,134	939,911	23
1,252	15	1,768,418	6,026	21,983	1,798,672	3,808,312	5,606,984	24
9,096	2,621	10,864,857	65,698	1,784,782	63,630,588	63,854,084	127,484,672	25
1,770	9	2,406,758	41,312	591,023	15,661,786	15,079,060	30,740,846	26
175	2	220,444	284	131,266	2,358,228	1,438,487	3,796,715	27
1,209	567	1,551,022	6,049	190,332	6,871,855	6,049,224	12,921,079	28
190	1	143,652	1,056	7,353	1,200,030	644,002	1,844,032	29
263	40	336,869	1,150	17,069	1,184,921	2,036,756	3,221,677	30
604	938	1,559,718	1,970	74,977	5,762,019	10,487,172	16,249,191	31
873	358	1,144,521	3,271	122,901	5,404,310	6,496,211	11,900,521	32
1,538	222	1,756,890	6,028	216,234	12,934,639	12,294,815	25,229,454	33
1,001	484	1,504,766	4,225	240,770	11,387,719	8,605,734	19,993,453	34
273	-	240,217	543	192,857	865,081	722,623	1,587,704	35
13,733	1,880	17,816,894	62,608	690,911	34,699,896	41,466,808	79,166,705	36
17	48	35,869	20	257	92,760	110,051	202,811	37
12	115	73,712	9	446	161,121	262,320	423,441	38
2,596	-	3,899,373	13,723	146,858	9,698,411	8,982,981	18,681,302	39
888	233	820,912	1,638	26,065	1,789,972	2,437,705	4,227,677	40
220	193	264,908	525	12,515	306,498	648,899	955,397	41
36	17	40,082	30	4,002	192,840	214,375	407,215	42
125	68	161,072	179	2,787	629,399	1,200,736	1,830,135	43
236	3	320,226	7,440	12,256	60,692	1,212,286	1,272,968	44
35	36	61,843	88	1,372	64,698	155,069	210,767	45
1,106	213	1,526,292	3,500	46,932	4,677,255	4,613,743	9,290,998	46
57	19	113,431	45	2,888	330,808	402,371	733,179	47
2,655	207	3,127,185	5,308	136,058	5,710,793	6,045,681	11,756,471	48
231	2	189,612	674	1,754	336,919	508,418	845,337	49
19	48	52,183	22	602	122,907	161,173	284,080	50
571	322	1,021,051	3,122	46,149	3,616,016	4,190,412	7,815,428	51
4,291	9	5,165,109	25,580	232,273	5,463,000	10,944,127	16,407,127	52
186	10	229,484	141	4,699	95,804	508,740	604,550	53
219	157	340,502	120	2,720	393,115	744,517	1,137,032	54
77	10	83,014	70	2,358	60,882	204,070	264,052	55
68	30	81,154	119	2,733	173,730	107,839	371,569	56
36	15	63,143	141	3,589	236,561	298,456	535,017	57
40	118	122,064	38	254	442,095	349,560	791,661	58
16	7	21,050	70	1,344	43,630	58,268	101,898	59
8,699	-	12,177,505	4,318,396	2,302,817	30,785,270	104,033,297	134,818,567	60

(Continued from page 25.)

industries produce either wholly finished goods or products which are used as materials for further processes of manufacture. The product of the central electric station industry is not a material in the same sense, but is electrical energy which supplies the power for many of the manufacturing processes, as well as for mining enterprises, electric railways and the various lighting and domestic services. Included in the establishments reported as central electric stations, in addition to the plants where power is generated from water, steam or some other primary source, are numerous distributing plants which buy power at high voltage from the generating establishments and transform and distribute it to local consumers. In such cases, where the distributing stations are separate organizations from the generating system, there is therefore a duplication in the gross revenue reported from the sale of power. The economic function performed by the distributing station is similar to that of a manufacturing industry which transforms materials to meet the requirements of the consumer. Therefore the cost of power purchased by distributing stations is regarded as a cost of material, and a figure of net revenue is given from which all duplications are eliminated. This treatment has been applied to the figures for 1926, and introduces a slight element of incomparability with figures for previous years.

The principal statistics of each of the manufacturing industries of Canada during 1927 are presented in Table 6.

#### Subsection 2.—Manufactures Classified by the Purpose of the Products.

**Production of Manufactured Goods according to the Purpose Classification.**—In addition to the classification according to the chief component material of the products, used by the industrial census in detailed presentation, a parallel classification, based on the chief purpose of the products, was applied for the first time to the census returns of 1922 and is presented for the years 1922 to 1926 in summary form, and for 1927 in more detail, in Table 7.

During the period covered by the table, the gross production of the food industries dropped from 27.5 p.c. of the total of all industries in 1922 to 23.4 p.c. in 1927. On the other hand the gross production of the group "vehicles and vessels", which includes automobiles, rose from 6.3 p.c. of the total for 1922 to 8.7 p.c. in 1927. Producers' materials also rose from 26 p.c. to 28.3 p.c. The percentage of the clothing industries remained about stationary, being 9.6 p.c. in 1927 as compared with 9.7 p.c. in 1922.

In analysing the relative standing of the two purpose groups which are perhaps of greatest interest, it is noted that the gross production of the food industries in 1927 was 23 p.c. of the output of Canadian manufacturing concerns, as compared with an output of 9.6 p.c. for the clothing industries. The greater production of the food group was in part due to the higher cost of raw materials, the value added by manufacturing being 13.3 p.c. of the total for all industries in the case of the food group and 10.2 p.c. for the clothing group. The clothing industries gave employment to approximately 9,000 more employees than the food industries.



**7.—Principal Statistics of the Manufacturing Industries of Canada, Classified according to the Purpose of the Principal Product, by Main Groups for 1922-26<sup>1</sup> and in detail for 1927.**

(All establishments irrespective of the number of employees.)

Purpose Headings. <sup>2</sup>	Estab- lish- ments.	Capital.	Em- ployees.	Salaries and Wages.	Cost of Materials.	Net Value of Products.	Gross Value of Products.
	No.	\$	No.	\$	\$	\$	\$
<b>1922<sup>2</sup></b>							
<b>Total</b>	<b>22,184</b>	<b>3,125,772,761</b>	<b>462,573</b>	<b>497,113,554</b>	<b>1,290,527,079</b>	<b>1,159,316,487</b>	<b>2,439,843,766</b>
Food	8,245	341,682,489	66,444	67,306,446	490,731,438	181,434,270	672,105,708
Drink and tobacco	496	104,047,461	13,402	13,777,980	33,027,203	66,502,616	99,529,819
Clothing	1,279	175,076,687	70,931	65,595,519	118,749,053	117,804,146	236,553,193
Personal utilities	936	56,060,262	16,904	17,080,049	21,879,031	35,379,445	57,258,476
House furnishings	600	75,168,053	18,032	19,861,883	24,956,960	38,004,060	62,961,050
Books and stationery	1,557	82,240,691	28,103	36,920,804	27,190,071	71,928,898	99,118,969
Vehicles and vessels	1,116	158,708,055	26,805	33,488,634	86,067,295	67,020,630	153,077,925
Producers' materials	5,285	1,011,208,819	135,845	139,533,410	316,400,400	319,818,227	636,218,627
Industrial equipment	2,640	1,116,579,810	85,178	102,487,465	158,571,274	256,472,307	418,043,541
Miscellaneous	30	4,960,434	869	1,061,388	2,964,354	1,052,061	4,916,418
<b>1923.</b>							
<b>Total</b>	<b>22,442</b>	<b>3,390,322,950</b>	<b>525,267</b>	<b>571,470,028</b>	<b>1,479,149,139</b>	<b>1,311,625,325</b>	<b>2,781,165,514</b>
Food	8,227	345,704,285	77,293	69,336,584	495,485,972	182,007,160	677,583,141
Drink and tobacco	520	109,441,567	14,081	14,471,362	32,859,746	68,500,186	101,359,632
Clothing	2,032	191,932,116	83,124	76,858,924	131,568,228	137,373,130	268,939,538
Personal utilities	358	46,847,531	10,301	11,934,908	21,578,590	29,683,219	46,261,815
House furnishings	585	61,280,384	16,105	17,515,203	23,195,716	33,963,081	57,150,397
Books and stationery	1,536	91,136,337	29,071	38,739,470	29,761,991	73,063,813	102,655,804
Vehicles and vessels	1,040	174,335,309	37,748	50,041,177	140,518,064	86,573,861	227,091,865
Producers' materials	5,859	1,104,469,979	171,513	189,540,284	408,382,495	436,047,291	844,429,765
Industrial equipment	2,332	1,093,181,458	81,098	98,500,923	171,172,490	256,679,961	427,852,431
Miscellaneous	153	28,933,924	4,333	4,531,123	15,618,901	12,013,064	27,311,065
<b>1924.</b>							
<b>Total</b>	<b>22,178</b>	<b>3,538,813,460</b>	<b>508,563</b>	<b>559,884,045</b>	<b>1,438,400,681</b>	<b>1,256,643,901</b>	<b>2,695,053,583</b>
Food	8,036	364,420,616	74,721	73,119,482	515,708,299	187,005,602	702,713,901
Drink and tobacco	518	124,000,298	15,702	15,748,590	39,156,283	72,718,494	111,877,777
Clothing	1,856	197,041,969	81,720	75,380,919	130,130,048	130,813,958	260,944,006
Personal utilities	341	48,367,616	9,547	11,067,386	20,304,177	21,511,127	41,515,384
House furnishings	587	61,787,015	15,820	17,142,226	22,448,984	32,495,853	50,914,837
Books and stationery	1,690	100,017,954	29,486	40,212,100	32,360,935	74,911,094	107,272,020
Vehicles and vessels	980	205,551,891	34,149	44,977,637	117,515,075	77,888,209	195,403,284
Producers' materials	5,716	1,251,062,266	163,523	176,646,967	384,533,201	383,226,055	767,759,256
Industrial equipment	2,204	1,140,628,422	80,406	100,883,940	160,470,513	264,765,817	425,236,330
Miscellaneous	150	33,035,383	4,420	4,714,828	15,779,166	11,307,042	27,086,778
<b>1925.</b>							
<b>Total</b>	<b>22,331</b>	<b>3,808,309,981</b>	<b>544,225</b>	<b>596,015,121</b>	<b>1,587,665,409</b>	<b>1,360,979,997</b>	<b>2,918,515,313</b>
Food	8,204	373,825,362	84,596	74,046,850	579,235,028	194,180,294	773,424,922
Drink and tobacco	543	132,329,719	14,985	16,184,956	45,204,177	72,247,720	117,451,003
Clothing	1,820	203,546,069	84,197	77,458,211	141,218,664	134,403,045	275,711,000
Personal utilities	369	48,340,883	9,075	11,370,442	21,861,004	22,187,050	44,049,554
House furnishings	548	63,734,860	15,468	16,475,111	24,101,107	33,036,414	57,137,521
Books and stationery	1,644	103,042,573	30,499	40,928,979	33,184,517	76,681,341	109,865,858
Vehicles and vessels	944	260,962,556	46,700	61,847,302	139,327,253	103,706,960	243,034,247
Producers' materials	5,723	1,349,435,816	170,860	187,777,736	418,569,586	435,004,736	853,574,322
Industrial equipment	2,319	1,242,146,247	82,955	104,411,931	170,162,687	277,016,342	447,179,030
Miscellaneous	157	30,045,806	4,290	4,613,653	14,799,685	12,316,364	27,110,049
<b>1926.</b>							
<b>Total</b>	<b>22,768</b>	<b>3,981,569,590</b>	<b>581,559</b>	<b>633,850,933</b>	<b>1,755,158,399</b>	<b>1,492,615,039</b>	<b>3,247,863,428</b>
Food	8,250	394,159,943	87,343	78,143,619	581,403,701	201,819,303	783,223,094
Drink and tobacco	574	137,139,189	15,341	16,817,622	45,115,122	85,789,145	130,895,267
Clothing	1,878	211,149,085	91,215	85,361,018	158,035,630	147,616,042	306,551,672
Personal utilities	384	50,497,988	10,613	12,470,247	21,230,592	25,487,500	49,724,101
House furnishings	543	63,277,954	15,684	16,858,549	22,673,089	32,679,003	55,353,652
Books and stationery	1,716	109,582,126	31,500	43,781,918	34,575,475	81,543,751	116,119,286
Vehicles and vessels	917	271,239,065	50,731	70,315,573	178,558,815	119,505,351	298,064,166
Producers' materials	5,807	1,404,509,475	182,500	208,672,939	433,319,993	482,446,753	935,766,746
Industrial equipment	2,457	1,313,175,892	91,956	118,162,492	240,231,533	302,683,501	542,915,034
Miscellaneous	173	30,838,823	4,537	5,266,956	16,107,849	13,082,631	29,190,480

<sup>1</sup> For details for the years 1922-1926 see previous editions of the Canada Year Book as follows:—1924, p. 393; 1925, p. 410; 1926, p. 396; 1927-28, p. 426; 1929, p. 423.

<sup>2</sup> In the original compilation of manufacturing statistics for 1922 certain industries, notably ship-building, bridge-building, and some non-metallic mineral industries were excluded. Later these industries were included and the statistics by provinces and groups for 1922 appearing in Tables 1 and 2 were revised accordingly, but a similar revision has not been worked out for the purpose classification.

**7.—Principal Statistics of the Manufacturing Industries of Canada, Classified according to the Purpose of the Principal Product, by Main Groups for 1922-26 and in detail for 1927—concluded.**

(All establishments irrespective of the number of employees.)

Purpose Headings.	Estab- lish- ments.	Capital.	Em- ployees.	Salaries and Wages.	Cost of Materials.	Net Value of Products.	Gross Value of Products.
1927.	No.	\$	No.	\$	\$	\$	\$
<b>Total.....</b>	<b>22,936</b>	<b>4,337,631,558</b>	<b>618,933</b>	<b>693,932,228</b>	<b>1,786,574,604</b>	<b>1,635,923,936</b>	<b>3,425,498,546</b>
<b>Food.....</b>	<b>8,306</b>	<b>418,151,619</b>	<b>88,967</b>	<b>81,722,970</b>	<b>586,128,293</b>	<b>216,875,835</b>	<b>863,604,230</b>
Breadstuffs.....	4,084	157,843,642	33,938	35,610,195	230,697,271	91,680,628	322,377,809
Fish.....	773	24,454,482	16,687	5,373,951	18,364,846	12,719,763	31,084,609
Fruits and vege- tables.....	278	36,167,658	7,999	4,291,153	19,884,069	14,326,084	34,211,053
Meats.....	111	61,873,109	11,299	14,880,501	134,376,246	34,861,494	169,237,740
Milk products.....	2,899	50,805,132	11,960	12,181,080	102,734,678	33,176,852	135,910,930
Oils and fats.....	6	691,332	113	146,003	281,816	272,173	553,989
Sugar industries.....	22	50,615,727	2,826	3,972,932	48,265,412	13,887,081	62,152,493
Infusions.....	65	18,913,216	2,279	2,953,290	23,324,588	7,721,887	31,046,475
Miscellaneous.....	68	16,787,321	1,856	2,313,865	8,109,969	8,229,073	16,429,492
<b>Drink and tobacco.....</b>	<b>570</b>	<b>160,100,581</b>	<b>16,276</b>	<b>18,312,164</b>	<b>52,850,437</b>	<b>108,706,731</b>	<b>159,557,168</b>
Beverages, alcoholic.....	90	99,887,071	6,063	8,331,804	23,822,988	53,366,021	77,189,009
Beverages, non-alco- holic.....	365	16,070,113	2,048	2,376,164	4,987,329	6,256,325	11,243,654
Tobacco.....	115	44,143,397	8,165	7,604,196	24,040,120	47,084,383	71,124,505
<b>Clothing.....</b>	<b>1,988</b>	<b>227,438,240</b>	<b>97,918</b>	<b>91,236,118</b>	<b>161,916,983</b>	<b>166,769,346</b>	<b>328,716,323</b>
Boots and shoes.....	201	46,981,523	22,173	20,934,388	33,770,109	40,000,083	73,770,102
Fur goods.....	244	14,489,527	3,880	4,588,680	13,462,752	9,413,528	22,876,280
Garments and per- sonal furnishings.....	794	73,470,292	37,407	35,814,262	70,835,123	69,655,918	131,490,141
Gloves and mitts.....	46	3,231,401	1,578	1,322,234	2,576,604	2,290,587	4,873,191
Hats and caps.....	157	8,117,522	5,009	4,618,128	7,554,617	8,564,883	16,319,500
Knitted goods.....	168	56,852,077	17,217	14,177,165	28,269,830	26,952,563	55,222,395
Waterproofs.....	18	1,168,207	367	321,288	749,585	681,048	1,430,633
Miscellaneous textiles, n.e.s.....	360	23,118,691	10,287	9,459,964	4,528,363	18,205,628	22,733,991
<b>Personal utilities.....</b>	<b>391</b>	<b>54,029,497</b>	<b>10,754</b>	<b>12,758,956</b>	<b>26,061,404</b>	<b>27,133,729</b>	<b>53,195,133</b>
Jewelry and time- pieces.....	115	11,448,672	2,894	3,808,771	4,765,264	6,799,121	11,564,385
Recreational supplies.....	79	17,524,449	3,772	4,328,227	6,734,982	7,249,382	13,984,364
Personal utilities, n.e.s.....	197	25,056,376	4,088	4,621,958	14,561,158	13,085,226	27,046,384
<b>House furnish- ings.....</b>	<b>553</b>	<b>63,578,269</b>	<b>17,438</b>	<b>19,151,982</b>	<b>26,474,235</b>	<b>36,313,804</b>	<b>62,788,639</b>
Books and station- ery.....	1,795	129,028,624	33,732	46,913,671	38,755,189	99,338,506	129,093,695
<b>Vehicles and ves- sels.....</b>	<b>872</b>	<b>279,080,100</b>	<b>49,885</b>	<b>70,622,546</b>	<b>174,846,848</b>	<b>124,565,024</b>	<b>299,411,872</b>
<b>Producers' materials.....</b>	<b>5,767</b>	<b>1,521,762,956</b>	<b>290,335</b>	<b>219,116,317</b>	<b>450,761,472</b>	<b>519,850,940</b>	<b>970,612,412</b>
Farm materials.....	12	1,098,811	233	224,566	1,200,030	644,002	1,844,032
Manufacturers' materials.....	1,022	1,113,815,780	112,945	136,963,112	285,914,312	353,817,901	639,732,213
Building materials.....	4,151	326,939,674	69,533	64,369,032	131,786,118	128,219,236	260,935,354
General materials.....	597	79,008,682	17,624	17,559,604	31,861,012	37,169,801	69,030,813
<b>Industrial equipment.....</b>	<b>2,533</b>	<b>1,460,938,782</b>	<b>99,200</b>	<b>129,147,304</b>	<b>255,618,597</b>	<b>333,539,379</b>	<b>589,148,976</b>
Farming equipment.....	70	89,016,163	11,023	13,322,852	19,335,463	23,709,322	43,044,785
Manufacturing equip- ment.....	175	62,223,715	10,495	13,536,544	15,531,846	30,438,302	45,970,148
Trading equipment.....	74	6,034,857	808	1,051,891	546,689	2,333,609	2,880,298
Service equipment.....	229	38,539,621	4,958	5,977,331	11,276,234	17,264,534	28,540,768
Light, heat and power equipment.....	1,340	1,104,360,246	41,402	58,204,050	136,888,130	182,410,095	319,289,225
General equipment.....	645	159,762,190	30,514	37,054,636	72,040,235	77,383,517	149,423,752
<b>Miscellaneous.....</b>	<b>166</b>	<b>32,524,580</b>	<b>4,428</b>	<b>4,850,865</b>	<b>16,131,144</b>	<b>13,839,548</b>	<b>29,970,692</b>

### Subsection 3.—Manufactures Classified by Origin of the Materials.

**Classification of Manufacturing Production according to the Origin of the Materials Worked Upon.**—The principal statistics of the manufactures of Canada, classified upon the basis of "origin", are presented in Table 8 for the years 1924 to 1927. By this means Canadian manufacturing production may be analysed from a new angle, one by means of which interesting comparisons may be made with the external trade classification according to origin (see p. 548, 1930 Year Book).

The manufacturing statistics for 1924 were the first to be analysed upon the origin basis. While the period available for review only covers, therefore, the short space of the three years from 1924 to 1927, interesting changes have taken place in the relative importance of the industries based on materials from the different origins. Since the purpose of such a comparison is to discover the relative importance of the manufactures developed to work upon materials from the different origins, the figures of net value of products or the value added to the raw materials by the manufacturing processes will give a more accurate measure of the importance of the industrial groups than the figures of gross value of products. The values added by the manufacture of materials of farm origin, while increasing in amount, have dropped from 30.7 p.c. of the total for all industries in 1924 to 29.6 p.c. in 1927. Similarly, industries of the forest origin group have decreased from 23.8 p.c. in 1924 to 21.7 p.c. in 1927. The values added by industries of the mineral origin group on the other hand have increased from 27.9 p.c. of the total for all industries in 1924 to 32.3 p.c. in 1927. This rapid increase in the relative importance of the industries of the mineral origin group is probably due to a number of influences. The expansion of the motor vehicle industry, the rapid growth in the use of electrical equipment, increasing activity in construction which absorbs large quantities of steel, cement and various other manufactured mineral products, and the development of metallurgical plants in Canada are some factors in the growing importance of the mineral group of industries. Another factor in this trend is the growing appreciation and development of the wealth of the mineral resources of Canada. Not only do the various mining activities make the raw materials for mineral industries more readily available, but those activities also require large quantities of machinery, electrical apparatus and other finished products of mineral origin.

In the year 1927, the industries of the mineral group exceeded those of any other group in the net value of products with 32.3 p.c. of the total, as compared with 29.6 p.c. for the farm and 21.7 p.c. for the forest origin groups. These three principal groups stood in the same order of importance with regard to employees engaged and salaries and wages paid. In the matter of capital invested the mineral group also leads with 29.2 p.c. of the total, followed by the forest group with 23.5 p.c., the farm group with 20.7 p.c. and central electric stations with 20.0 p.c.

## 8.—Principal Statistics of the Manufacturing Industries of Canada, Classified according to the Origin of the Material used, 1924-1927.

(All establishments irrespective of the number of employees.)

Origins.	Estab- lish- ments	Capital.	Em- ployees.	Salaries and Wages.	Cost of Materials.	Net Value of Products.	Gross Value of Products.
1924.	No.	\$	No.	\$	\$	\$	\$
<b>Total</b> .....	<b>22,178</b>	<b>3,538,813,460</b>	<b>598,503</b>	<b>559,884,045</b>	<b>1,438,439,681</b>	<b>1,256,642,901</b>	<b>2,695,053,562</b>
Farm origin—							
(a) From field crops.....	4,595	525,717,371	89,426	87,789,237	433,443,376	258,069,883	691,513,259
Canadian origin.....	4,311	299,158,049	51,462	53,783,131	270,753,367	169,719,464	440,469,831
Foreign origin.....	284	226,559,322	37,974	33,996,106	162,690,009	88,353,419	251,043,428
(b) From animal hus- bandry.....	4,086	253,858,982	64,671	66,696,501	285,502,644	127,504,777	413,007,421
Canadian origin.....	4,068	247,073,900	63,052	65,424,526	282,604,516	125,161,890	407,766,406
Foreign origin.....	18	6,785,082	1,619	1,271,975	2,898,128	2,342,887	5,241,015
(c) <b>Total farm origin</b> .....	<b>8,881</b>	<b>779,576,353</b>	<b>154,107</b>	<b>154,485,738</b>	<b>718,946,026</b>	<b>385,574,660</b>	<b>1,101,520,680</b>
Canadian origin.....	8,379	546,231,946	114,514	119,217,057	553,357,883	204,878,354	848,236,237
Foreign origin.....	502	233,344,404	39,592	35,268,681	165,588,143	80,696,306	253,284,443
Wild life origin.....	226	10,837,249	2,944	3,194,217	7,506,169	5,880,697	13,386,266
Marine origin.....	836	20,304,785	11,157	3,344,348	16,089,332	10,548,630	26,637,962
Forest origin.....	6,873	876,149,932	126,907	147,719,245	245,183,429	299,099,168	544,282,597
Mineral origin.....	2,806	1,010,517,944	136,837	171,068,497	349,800,585	350,201,512	700,002,097
Mixed origin.....	1,805	212,861,904	63,725	62,125,429	100,884,146	110,170,066	211,054,212
Central electric stations.....	951	628,565,093	12,822	17,946,584	—	95,109,763	95,169,768
<b>Total</b> .....	<b>22,331</b>	<b>3,808,309,981</b>	<b>544,225</b>	<b>596,015,171</b>	<b>1,587,665,408</b>	<b>1,360,879,907</b>	<b>2,948,545,315</b>
Farm origin—							
(a) From field crops.....	4,724	550,930,521	97,097	91,567,352	475,475,138	265,271,859	740,746,997
Canadian origin.....	4,459	310,364,866	54,938	52,931,797	296,599,421	169,145,736	465,745,157
Foreign origin.....	265	240,565,655	42,159	38,575,555	178,875,717	96,126,123	275,001,840
(b) From animal hus- bandry.....	4,123	252,880,383	64,720	66,635,408	329,853,432	130,638,516	460,491,948
Canadian origin.....	4,112	243,656,159	62,993	65,270,551	326,492,397	128,516,188	455,008,585
Foreign origin.....	11	9,224,224	1,727	1,364,857	3,361,035	2,122,328	5,483,363
(c) <b>Total farm origin</b> .....	<b>8,847</b>	<b>803,810,904</b>	<b>161,817</b>	<b>158,142,760</b>	<b>805,328,570</b>	<b>395,910,733</b>	<b>1,201,238,945</b>
Canadian origin.....	8,571	534,021,025	117,931	118,202,348	623,091,818	297,661,924	920,753,742
Foreign origin.....	276	269,789,879	43,886	39,940,412	182,236,752	98,248,815	280,485,203
Wild life origin.....	228	11,714,850	3,028	3,408,045	9,408,529	6,466,341	15,874,870
Marine origin.....	846	21,139,985	16,272	4,971,167	16,680,686	11,700,306	30,280,992
Forest origin.....	6,617	904,101,837	127,189	147,622,749	245,681,698	309,098,833	554,780,531
Mineral origin.....	3,095	1,119,870,868	155,791	203,158,857	400,883,859	423,960,965	824,844,824
Mixed origin.....	1,688	220,960,456	66,875	62,955,686	107,682,066	111,155,205	219,837,271
Central electric stations.....	1,007	726,721,087	13,263	18,765,907	—	102,587,882	102,587,882
<b>Total</b> .....	<b>22,706</b>	<b>3,981,569,500</b>	<b>581,533</b>	<b>653,850,933</b>	<b>1,755,158,399</b>	<b>1,492,645,039</b>	<b>3,247,993,438</b>
Farm origin—							
(a) From field crops.....	4,697	565,932,312	99,200	95,403,666	488,522,508	286,500,720	773,023,228
Canadian origin.....	4,434	323,633,863	56,017	54,710,106	299,452,868	187,256,154	486,709,022
Foreign origin.....	263	242,898,449	42,183	40,693,560	187,069,640	99,244,566	286,314,206
(b) From animal hus- bandry.....	4,149	258,779,322	68,207	71,675,146	334,243,258	138,517,721	475,769,979
Canadian origin.....	4,137	248,759,804	65,939	69,691,146	333,770,293	133,483,533	467,258,826
Foreign origin.....	12	10,019,519	2,268	1,983,999	3,472,965	5,034,188	8,507,153
(c) <b>Total farm origin</b> .....	<b>8,846</b>	<b>824,711,635</b>	<b>167,407</b>	<b>167,078,811</b>	<b>822,765,766</b>	<b>425,018,441</b>	<b>1,248,784,207</b>
Canadian origin.....	8,571	571,793,667	121,650	124,469,952	633,223,161	320,739,687	953,962,848
Foreign origin.....	275	253,017,968	45,757	42,608,859	189,542,605	104,278,754	294,821,359
Wild life origin.....	232	13,321,668	3,662	4,328,731	12,459,350	9,316,338	21,775,688
Marine origin.....	831	28,868,071	17,408	5,622,837	22,034,129	14,156,635	36,190,764
Forest origin.....	6,710	926,726,166	133,428	159,969,652	200,039,864	337,511,793	597,551,657
Mineral origin.....	3,284	1,200,704,022	173,515	226,802,705	469,898,292	492,204,727	932,103,019
Mixed origin.....	1,748	231,017,962	72,558	70,105,196	120,426,791	125,503,372	245,930,163
Central electric stations.....	1,057	756,220,666	13,406	19,943,000	26,534,207	88,933,733	115,467,940



### 8.—Principal Statistics of the Manufacturing Industries of Canada, Classified according to the Origin of the Material used, 1924-1927—concluded.

(All establishments irrespective of the number of employees.)

Origins.	Estab- lish- ments	Capital.	Em- ployees.	Salaries and Wages.	Cost of Materials.	Net Value of Products.	Gross Value of Products.
	No.	\$	No.	\$	\$	\$	\$
<b>Total 1927.</b>	<b>22,936</b>	<b>4,337,631,558</b>	<b>618,933</b>	<b>683,932,725</b>	<b>1,789,574,604</b>	<b>1,635,923,936</b>	<b>3,425,498,546</b>
Farm origin—							
(a) From field crops.....	4,977	613,855,706	104,850	102,990,849	405,122,606	332,027,933	827,150,559
Canadian origin.....	4,683	358,813,720	58,484	58,483,142	312,675,963	215,539,287	528,215,250
Foreign origin.....	294	255,042,006	46,366	45,507,707	182,446,643	116,488,606	298,935,309
(b) From animal hus- bandry.....	4,007	283,449,879	70,131	73,587,671	336,050,831	151,765,691	487,825,522
Canadian origin.....	3,993	261,122,061	67,241	71,247,708	332,043,200	146,211,405	478,254,605
Foreign origin.....	14	22,327,818	2,890	2,339,971	4,016,631	5,554,286	9,570,917
(c) <b>Total farm origin.....</b>	<b>8,984</b>	<b>897,305,585</b>	<b>174,981</b>	<b>177,578,520</b>	<b>831,184,437</b>	<b>493,794,641</b>	<b>1,314,976,681</b>
Canadian origin.....	8,676	619,935,761	125,725	129,730,842	644,719,163	361,750,692	1,006,469,835
Foreign origin.....	308	277,369,824	49,256	47,847,678	186,465,274	122,042,737	308,506,011
Wild life origin.....	244	14,489,527	3,880	4,588,688	13,462,752	9,413,528	22,876,280
Marine origin.....	773	24,454,482	16,697	5,373,951	18,364,846	12,719,763	31,084,609
Forest origin.....	6,770	1,020,144,236	149,778	166,921,448	270,764,265	355,741,746	626,506,011
Mineral origin.....	3,232	1,268,521,442	180,365	239,692,970	497,368,048	528,034,653	1,025,402,701
Mixed origin.....	1,836	245,891,001	78,564	76,830,335	127,646,986	142,187,305	269,834,291
Central electric stations.....	1,097	866,825,285	14,708	22,946,315	30,785,270	104,033,297	134,818,567

#### Subsection 4.—The Forty Leading Manufacturing Industries.

**The Forty Leading Industries in 1927.**—The seven foremost industries during 1927 were pulp and paper-making, the milling of grain, meat-packing, the generation and distribution of electric light and power, sawmilling, the manufacture of automobiles, and of butter and cheese. Each of these industries produced in 1927 goods with a gross value of more than \$120,000,000, while the gross value of the products of the leading industry—pulp and paper—amounted to more than \$219,000,000. On the basis of gross production values, the first three of the above industries, together with sawmills, have, with slight changes in the order of their rank, been the four chief industries since 1920. Significant changes in 1927 are that the central electric station industry moved up from seventh place in 1926 to fourth in 1927, and the manufacture of electrical apparatus and supplies from fourteenth place in 1926 to ninth place in 1927, while the manufacture of butter and cheese has dropped from fifth place in 1925 to seventh in 1927. Gross production in the automobile industry was nearly \$5,000,000 less in 1927 than in 1926, owing to the fact that in 1927 production was largely suspended in one of the principal plants in Canada, pending a change of models. However, the automobile industry has increased in relative importance in recent years, rising from eighth place in 1921 to sixth in 1927. Accompanying the growth of the automobile industry, there has been a remarkable development in the manufacture of rubber goods, principally vehicle tires, and this industry has risen from twenty-ninth place in 1921 to eighth in 1927. Another industry which has grown very rapidly since the war is that of non-ferrous metal smelting and refining. This industry was not included in the general statistics of manufactures prior to 1925, but if it had been it would have been in thirty-second place in 1921. In 1927 it had risen to tenth place and the gross value of its products had more than trebled.

Electric light and power plants have a greater invested capital than any other industry, with pulp and paper mills and sawmills next in order.

It is interesting to note that of the ten leading industries, seven, including the five leading manufactures, the manufacture of butter and cheese and non-ferrous metal smelting, are directly dependent upon Canadian natural resources, while in

the manufacture of automobiles, electrical apparatus and rubber goods the materials worked upon are largely imported in a raw or semi-finished state.

Lack of space prevents further analysis of the relative importance of the 40 leading industries on the basis of employment provided, salaries and wages paid and value added in manufacture. Statistics on these important subjects are included in Table 9.

9.—Principal Statistics of Forty Leading Industries, 1927.

Industries.	Estab- lish- ments.	Capital.	Em- ployees.	Salaries and Wages.	Cost of Materials.	Net Value of Products.	Gross Value of Products.
	No.	\$	No.	\$	\$	\$	\$
Pulp and paper.....	114	579,853,552	32,876	45,674,293	84,813,080	134,516,673	219,329,753
Flour and grist mills....	1,315	62,062,013	6,384	7,372,670	163,712,597	28,028,873	191,741,470
Slaughtering and meat- packing.....	76	60,612,029	11,048	14,551,250	133,076,361	34,144,531	167,220,892
Central electric stations	1,097	866,825,285	14,708	22,946,315	30,785,270	104,033,297	134,818,567
Sawmills.....	2,720	169,378,939	44,598	34,421,544	77,438,700	56,181,854	133,620,554
Automobiles.....	11	88,831,668	11,063	18,862,846	88,451,757	40,248,757	128,700,514
Butter and cheese.....	2,872	43,376,302	11,126	11,162,645	93,101,006	29,422,876	122,523,882
Rubber goods, including footwear.....	44	66,266,064	15,065	16,621,543	44,724,502	46,689,228	91,413,730
Electrical apparatus and supplies.....	130	80,475,999	16,813	20,613,592	32,734,875	45,823,855	78,558,730
Non-ferrous metal smelting.....	19	85,366,662	7,671	12,120,240	32,516,687	45,479,578	77,996,265
Cotton yarn and cloth....	39	84,927,745	21,383	17,146,927	39,297,188	36,521,688	75,818,876
Railway rolling stock....	35	81,519,950	21,430	30,269,896	38,518,449	35,948,463	74,466,912
Castings and forgings.....	328	89,505,687	19,149	24,267,396	26,792,119	42,603,224	69,395,343
Bread and other bakery products.....	2,443	40,559,259	14,414	16,068,147	35,779,690	32,946,572	68,726,262
Petroleum refining.....	23	56,135,564	3,856	6,188,226	53,059,921	11,468,899	64,528,820
Printing and publishing	720	55,831,150	15,028	22,040,170	14,502,065	47,528,831	62,030,896
Sugar refineries.....	8	50,039,122	2,711	3,839,488	47,138,854	13,363,810	60,502,664
Clothing, women's fac- tory.....	428	24,259,925	15,597	15,550,496	31,899,654	24,416,410	56,316,064
Cigars and cigarettes....	79	34,371,252	6,247	5,876,868	17,350,343	38,450,995	55,801,338
Hosiery, knit goods and gloves.....	168	56,852,077	17,217	14,177,165	28,269,830	26,952,565	55,222,395
Biscuits, confectionery and chewing gum....	294	46,448,311	12,486	11,399,594	25,149,428	27,979,460	63,128,888
Breweries.....	73	62,358,117	4,662	6,436,720	17,471,299	34,056,725	51,528,024
Planing mills, sash and door factories.....	771	50,861,269	11,436	12,211,709	26,343,318	21,612,230	47,955,548
Hoots and shoes, leather	191	31,921,002	15,433	14,927,844	24,566,423	22,806,126	47,372,549
Steel and rolled pro- ducts, pig iron, etc....	36	96,295,734	7,396	11,809,198	18,993,940	26,577,324	45,571,264
Machinery.....	160	62,006,808	9,947	13,094,050	15,277,973	29,324,162	44,602,135
Sheet metal products....	144	38,795,028	8,396	10,114,891	22,149,452	21,705,964	43,855,416
Clothing, men's factory	204	24,919,334	11,479	12,675,048	21,335,688	21,950,926	43,286,614
Agricultural implements	65	88,981,203	11,011	13,315,500	19,317,415	23,678,873	42,996,288
Printing and bookbind- ing.....	862	35,263,910	11,043	13,982,039	11,589,271	24,237,168	35,826,439
Furniture and upholster- ing.....	334	36,682,976	11,038	12,041,421	14,154,730	21,579,088	35,733,818
Leather tanneries.....	98	32,320,323	4,088	4,498,206	22,347,228	10,142,661	32,489,889
Fish-curing and packing	773	24,454,482	16,697	5,373,951	18,364,846	12,719,763	31,084,609
Acids, alkalis, salts and compressed gases	42	35,312,251	2,285	3,463,061	15,661,786	15,079,060	30,740,846
Furnishing goods, men's	146	19,493,876	8,880	6,579,223	15,673,819	12,421,896	28,095,715
Coffee and spices.....	61	13,593,561	1,634	2,192,698	20,392,675	5,895,631	26,288,506
Distilleries.....	17	37,528,954	1,401	1,895,084	6,351,689	19,309,296	25,660,985
Paints and varnishes....	62	23,162,090	2,563	3,552,586	12,934,639	12,294,815	25,220,454
Hardware and tools.....	128	32,523,774	6,659	7,259,617	7,342,625	17,128,031	24,470,656
Brass and copper pro- ducts.....	99	22,425,179	4,832	6,065,671	12,546,718	11,507,939	24,054,657
<b>Total, forty leading industries.....</b>	<b>17,220</b>	<b>3,492,397,429</b>	<b>471,826</b>	<b>532,659,828</b>	<b>1,461,927,910</b>	<b>1,266,778,317</b>	<b>2,728,766,227</b>
<b>Grand Total, all in- dustries.....</b>	<b>22,936</b>	<b>4,337,631,558</b>	<b>618,933</b>	<b>693,932,228</b>	<b>1,789,374,604</b>	<b>1,635,923,326</b>	<b>3,425,496,540</b>
Percentage of forty lead- ing industries to all industries.....	75-08	80-51	76-23	76-75	81-09	77-45	79-66

**The Forty Leading Industries in 1928.**—The early completion of part of the compilation of the Census of Manufactures for 1928 permits the inclusion before going to press of a table (9A) of the forty leading industries in that year. All of the ten foremost industries of Canada expanded their production during this latest year for which figures are available. The pulp and paper industry again exceeded all others in gross value of products. Indeed there was very little change in the order of the ten leading industries when compared on this basis with 1927. The automobile industry rose from sixth to fourth place, the expansion of \$34,000,000 in the gross value of its products being partly due to the fact that production was abnormally low in the previous year as explained in the introduction to Table 9. Petroleum refining moved up from fifteenth place in 1927 to eleventh in 1928. The gross value of the products of the sugar refining industry were over \$8,000,000 less in 1928 than 1927, but this was the only important industry to show an appreciable decline.

The net value of products provide a better measure of an industry's contribution to the national income than gross values do. On the basis of net value, or value added by manufacture, the order of importance of the industries in 1928 was very different from that based on gross values. The pulp and paper industry was foremost in this respect, also, but it was followed by central electric stations, non-ferrous metal smelting, sawmills, electrical apparatus, printing and publishing, rubber goods, castings and forgings, automobiles, cigars and cigarettes and breweries.

The central electric station industry represented the greatest investment of capital, while next in order were pulp and paper, sawmills, non-ferrous metal smelting and iron blast furnaces and steel mills.

As a measure of the employment provided by an industry the salaries and wages paid are probably a better guide than the number of employees reported, especially in industries where operations are seasonal. In the amount of salaries and wages paid the pulp and paper industry came first, being followed by sawmills, railway rolling stock, automobiles, castings and forgings, central electric stations, printing and publishing, electrical apparatus, rubber goods and cotton yarn and cloth.

9A.—Principal Statistics of Forty Leading Industries, 1928.

Industries.	Estab- lish- ments.	Capital.	Em- ployees.	Salaries and Wages.	Cost of Materials.	Value of Products.	
						Net.	Gross.
	No.	\$	No.	\$	\$	\$	\$
Pulp and Paper.....	110	685,687,459	33,614	47,322,648	88,490,421	144,586,815	233,077,236
Flour and grist mills....	1,319	63,514,575	6,556	7,606,674	165,032,821	30,665,303	195,698,124
Slaughtering and meat- packing.....	75	66,198,507	11,244	14,242,362	142,396,342	31,700,077	174,066,419
Automobiles.....	14	97,056,328	16,749	29,548,114	114,892,190	47,975,305	162,867,495
Central electric stations	1,049	950,919,603	15,855	24,087,420	31,365,630	112,326,819	143,602,455
Sawmills.....	2,967	175,729,448	44,862	34,721,520	80,451,801	58,972,953	139,424,754
Butter and cheese.....	2,804	45,129,839	11,411	11,755,647	99,202,770	31,009,532	130,212,308
Rubber goods, includ- ing footwear.....	45	70,459,066	17,095	18,943,730	45,118,570	52,090,143	97,208,713
Non-ferrous metal smelting.....	10	120,035,742	7,526	12,228,738	33,260,225	61,081,477	94,341,702
Electrical apparatus....	137	87,952,674	18,193	22,756,209	38,784,421	54,889,031	93,672,452
Petroleum refining.....	25	50,531,614	4,319	6,922,580	57,385,841	25,739,331	83,122,172
Castings and forgings...	327	95,326,911	20,782	26,750,016	31,530,148	50,374,704	81,904,852
Cotton yarn and cloth...	38	90,960,011	21,615	17,688,791	44,704,779	34,514,803	70,219,582
Railway rolling stock...	35	89,053,842	22,417	32,452,781	38,110,053	35,312,004	73,422,067
Bread and bakery pro- ducts.....	2,482	44,377,449	15,422	16,901,238	36,151,747	35,075,350	71,227,097
Printing and publishing	753	60,822,000	16,113	24,243,906	15,696,759	52,183,047	67,879,806
Clothing, women's fac- tory.....	444	25,557,610	16,351	16,685,894	36,233,645	27,092,856	63,326,501

## 9A.—Principal Statistics of Forty Leading Industries, 1928—concluded.

Industries.	Establishments.	Capital.	Employees.	Salaries and Wages.	Cost of Materials.	Value of Products.	
						Net.	Gross.
	No.	\$	No.	\$	\$	\$	\$
Steel and rolled products, pig iron, etc....	40	114,292,363	9,057	15,470,836	27,164,463	34,907,211	62,071,674
Cigars and cigarettes....	79	37,243,547	6,644	6,197,918	18,469,843	42,607,880	61,077,732
Breweries.....	78	67,148,686	5,003	7,080,761	20,737,486	40,172,912	60,910,398
Biscuits, confectionery, chewing gum, etc....	283	52,353,082	13,274	12,534,629	28,480,230	31,923,993	60,404,223
Hosiery, knit goods and gloves.....	185	60,399,926	17,974	15,056,696	31,251,936	27,299,822	58,551,758
Planing mills, etc.....	788	53,431,576	12,131	13,330,829	30,021,888	22,678,427	52,700,315
Sugar refineries.....	8	48,625,818	2,381	3,671,086	40,551,874	11,533,281	52,085,155
Machinery.....	161	69,404,536	10,855	14,938,096	18,976,526	32,069,614	51,046,140
Boots and shoes, leather	190	31,433,028	15,505	14,982,608	26,383,043	23,635,759	50,018,802
Sheet metal products....	145	45,346,299	8,732	10,636,976	24,660,978	25,185,693	49,846,671
Clothing, men's factory	218	27,263,996	11,879	13,085,548	24,567,328	23,909,850	48,477,178
Acids, alkalis, salts and compressed gases	41	44,250,661	2,043	4,143,302	23,404,991	18,931,855	42,336,846
Furniture and upholstering.....	366	39,829,474	12,539	13,689,344	16,312,469	25,513,065	41,825,534
Agricultural implements	66	91,142,820	10,867	13,599,953	17,607,861	23,591,980	41,190,841
Printing and bookbinding.....	912	38,755,308	11,794	15,692,133	13,321,821	27,696,645	41,018,466
Distilleries.....	18	51,287,103	1,884	2,560,459	10,137,114	28,286,629	38,423,743
Fish-curing and packing	713	26,941,283	15,434	5,261,696	20,578,767	15,688,965	36,267,732
Leather tanneries.....	91	31,259,692	3,052	4,486,828	26,253,779	8,948,301	35,202,080
Coke and gas products....	45	92,145,190	3,914	5,608,770	17,164,216	17,544,201	34,708,447
Furnishing goods, men's	159	21,094,504	9,909	7,270,875	17,321,124	12,993,428	30,314,552
Brass and copper products.....	97	23,576,863	5,437	6,797,416	15,716,748	12,740,682	28,457,430
Paints and varnishes....	68	24,256,008	2,881	3,967,295	14,489,934	13,378,112	27,868,046
Coffee, spices, etc.....	61	14,559,825	1,668	2,201,043	21,257,199	5,944,093	27,201,292
<b>Total, forty leading industries.....</b>	<b>17,435</b>	<b>3,937,364,857</b>	<b>496,781</b>	<b>577,221,674</b>	<b>1,663,637,823</b>	<b>1,412,769,957</b>	<b>3,016,407,790</b>
<b>Grand total, all industries.....</b>	<b>23,379</b>	<b>4,780,296,049</b>	<b>658,023</b>	<b>755,199,372</b>	<b>1,950,804,339</b>	<b>1,819,046,025</b>	<b>3,769,850,364</b>
Percentage of forty leading industries to all industries.....	74.57	82.36	75.48	76.43	82.20	77.67	80.00

## Section 3.—Provincial Distribution of Manufacturing Production.

Ontario and Quebec are the most important manufacturing provinces of Canada. Their combined production in 1927 amounted to \$2,748,587,570, or almost 80 p.c. of the gross value of manufactured products of the Dominion. Of this amount, Ontario contributed \$1,758,004,575 and Quebec \$990,582,995. The proximity of Ontario to the coal fields of Pennsylvania, the water power resources of the two provinces and their nearness to the larger markets of Canada and the United States have all contributed to the above result. British Columbia had, in 1927, the third largest gross manufacturing production, \$246,034,704, and Manitoba the fourth, \$142,089,678. Alberta, Nova Scotia and New Brunswick followed with \$84,987,317, \$74,458,297 and \$72,666,665 respectively, succeeded by Saskatchewan with a production of \$52,180,681 and Prince Edward Island with \$4,493,628.

## Subsection 1.—The Manufactures of the Maritime Provinces, 1927.

Table 10 contains statistics of the ten leading industries of each of the Maritime Provinces for the calendar year 1927. In Prince Edward Island the manufacture of butter and cheese, with a gross production in 1927 of \$1,143,554, was the leading industry, followed closely by fish curing and packing, with a gross production of \$919,795. Manufacturing in Nova Scotia and New Brunswick is, of course, to a



considerable extent dominated by the steel industry in the former and the forest industries in the latter, although there is a large sugar refinery in each province. Fish-curing and -preserving, the manufacture of biscuits and confectionery, electric light and power production and butter- and cheese-making are also of considerable relative importance. The sawmilling industry of New Brunswick, with a gross value of products in 1927 of \$11,835,035 or over 16 p.c. of the total manufacturing production of the province, provided almost 9 p.c. of the total of the gross production of the industry throughout the Dominion.

#### 10.—Statistics of Ten Leading Industries of each of the Maritime Provinces, 1927.

NOTE.—Other leading industries, statistics of which cannot be given because there are fewer than three establishments in each industry, are:—in Prince Edward Island, tobacco and cigars, coffins and caskets, slaughtering and meat-packing and several iron industries; in Nova Scotia, petroleum and sugar refineries and wire products; in New Brunswick, sugar refineries and railway rolling stock. The statistics for these industries are included in the grand totals.

##### PRINCE EDWARD ISLAND.

Industries.	Estab- lish- ments.	Capital.	Em- ployees.	Salaries and Wages.	Cost of Materials.	Gross Value of Products.
	No.	\$	No.	\$	\$	\$
Butter and cheese.....	36	254,026	106	64,917	937,617	1,143,554
Fish-curing and -packing.....	137	250,640	1,461	102,887	665,493	919,795
Flour and grist mills.....	15	72,700	17	7,786	174,812	215,342
Printing and publishing.....	4	163,321	107	75,615	30,764	195,084
Castings and forgings.....	3	224,050	67	53,500	60,262	192,460
Central electric stations.....	12	772,041	41	41,526	495	172,692
Bread and other bakery products.....	6	60,935	25	18,429	71,784	135,222
Sawmills.....	40	123,375	61	15,088	81,737	126,410
Printing and bookbinding.....	5	53,305	24	14,094	12,545	38,582
Harness and saddlery.....	3	14,033	8	7,315	7,472	17,778
<b>Total, ten leading industries</b>	<b>261</b>	<b>2,689,326</b>	<b>1,917</b>	<b>401,157</b>	<b>2,642,981</b>	<b>3,156,919</b>
<b>Grand Total, all industries</b>	<b>291</b>	<b>3,051,504</b>	<b>2,232</b>	<b>687,849</b>	<b>2,955,438</b>	<b>4,493,628</b>

##### NOVA SCOTIA.

Rolled iron, steel products, pig iron and ferro-alloys.....	5	25,107,583	1,240	1,707,614	4,328,996	9,870,155
Fish-curing and -packing.....	225	3,306,389	3,616	1,078,804	4,456,299	6,951,407
Sawmills.....	364	4,814,032	2,462	770,816	2,051,474	3,630,062
Biscuits and confectionery.....	13	4,191,394	1,087	937,083	1,652,898	3,295,299
Central electric stations.....	74	13,727,065	514	626,390	566,831	3,024,754
Butter and cheese.....	31	931,896	258	267,399	2,140,876	2,786,637
Railway rolling stock.....	3	5,671,510	357	413,299	1,544,535	2,411,723
Hosiery, knit goods and gloves.....	3	3,170,262	523	398,396	1,016,637	1,922,902
Printing and publishing.....	31	1,917,163	633	770,062	356,969	1,690,655
Castings and forgings.....	16	1,945,618	493	619,051	457,919	1,535,383
<b>Total, ten leading industries</b>	<b>762</b>	<b>64,785,912</b>	<b>11,153</b>	<b>7,588,944</b>	<b>18,567,334</b>	<b>37,127,947</b>
<b>Grand Total, all industries</b>	<b>1,190</b>	<b>128,155,049</b>	<b>17,864</b>	<b>13,610,944</b>	<b>42,059,320</b>	<b>71,458,297</b>

##### NEW BRUNSWICK.

Sawmills.....	233	20,555,201	5,243	2,946,529	7,060,731	11,835,035
Pulp and paper.....	5	18,322,185	4,344	1,712,610	4,224,382	8,934,580
Cotton yarn and cloth.....	4	5,762,992	1,953	1,477,772	1,911,895	4,505,046
Coffee and spices.....	5	2,112,170	130	150,750	2,443,818	2,833,026
Biscuits and confectionery.....	8	2,269,655	672	524,214	1,302,760	2,531,796
Fish-curing and -packing.....	172	1,626,776	2,140	336,983	1,406,806	2,221,241
Central electric stations.....	42	10,420,005	285	336,357	426,600	1,929,628
Butter and cheese.....	38	795,239	190	188,111	1,171,413	1,683,065
Flour and grist mills.....	23	287,175	65	51,599	1,510,825	1,679,490
Boots and shoes, leather.....	5	1,109,778	521	463,397	921,042	1,676,591
<b>Total, ten leading industries</b>	<b>545</b>	<b>63,271,177</b>	<b>12,555</b>	<b>8,186,322</b>	<b>22,992,350</b>	<b>39,929,496</b>
<b>Grand Total, all industries</b>	<b>872</b>	<b>99,087,327</b>	<b>18,970</b>	<b>14,999,101</b>	<b>42,780,582</b>	<b>72,666,665</b>

## Subsection 2.—The Manufactures of Quebec, 1927.

The pulp and paper mills of Quebec, the most important manufacturing unit in the province, produced goods to the gross value of \$114,405,475 in the calendar year 1927. This amount exceeded by over \$59,000,000 the gross value of the products of the cotton yarn and cloth mills (\$55,096,042), which in their turn showed an excess of value of products of over \$6,000,000 when compared with establishments engaged in the manufacture of cigars and cigarettes (\$48,602,509). These three industries were followed in order of gross value of products by the generation of electric light and power, the manufacture of railway rolling stock, sawmills, the making of butter and cheese, and of leather boots and shoes.

The importance of the pulp and paper industry in Quebec is shown by a comparison with the industry throughout the Dominion. The Quebec industry, in addition to supplying nearly 12 p.c. of the total gross value of all products manufactured in the province, furnished nearly 52 p.c. of the products of pulp and paper mills throughout the country. The gross value of cotton yarn and cloth products from Quebec mills formed almost 73 p.c., the gross value of cigars and cigarettes formed 87 p.c., the value of railway rolling stock over 54 p.c., and the value of the boot and shoe products (the eighth industry in order of value of products) over 60 p.c. of the Dominion totals for these products. Thus Quebec is an outstanding manufacturing province rather on account of her great individual industries than because of the diversification of her industrial activities.

## 11.—Statistics of Forty Leading Industries of the Province of Quebec, 1927.

NOTE.—Leading industries having fewer than 3 establishments are sugar refineries and bridge-building.

Industries.	Estab-lish-ments.	Capital.	Em-ployees.	Salaries and Wages.	Cost of Materials.	Gross Value of Products.
	No.	\$	No.	\$	\$	\$
Pulp and paper.....	50	295,505,452	16,663	22,268,204	43,155,848	114,405,475
Cotton yarn and cloth.....	17	58,511,702	14,221	11,197,832	29,051,358	55,096,042
Cigars, cigarettes, etc.....	41	29,309,823	5,163	4,784,433	15,089,020	48,602,509
Central electric stations.....	166	308,580,159	3,532	4,653,844	8,016,448	41,778,415
Railway rolling stock.....	10	37,484,546	10,720	15,609,976	22,780,450	40,795,460
Sawmills.....	1,056	37,528,360	10,566	5,219,406	19,937,369	29,631,518
Butter and cheese.....	1,450	8,319,115	2,213	1,232,842	23,348,280	29,101,969
Boots and shoes, leather.....	113	19,199,715	9,744	9,362,266	14,639,173	28,801,652
Flour and grist mills.....	370	9,992,556	1,041	1,147,981	23,357,675	26,588,146
Clothing, men's factory.....	137	16,114,652	7,091	7,358,732	13,487,549	26,401,653
Slaughtering and meatpacking	19	8,198,053	1,857	2,320,115	19,033,538	24,143,265
Clothing, women's factory.....	193	9,517,803	6,006	5,908,049	13,380,414	23,327,223
Electrical apparatus.....	16	24,801,682	5,548	7,015,521	9,580,542	20,402,198
Breweries.....	9	20,563,180	1,635	2,047,128	6,161,446	20,065,498
Bread and bakery products.....	838	12,498,864	4,258	4,498,791	10,171,046	19,310,546
Rubber goods including foot- wear.....	13	11,099,371	4,693	4,009,562	6,336,349	18,133,255
Cashings and forgings.....	69	22,714,064	4,600	5,505,020	7,036,071	16,853,990
Machinery.....	27	19,661,837	3,796	4,820,392	6,369,128	16,416,131
Non-ferrous metal smelting....	3	22,596,525	2,296	2,961,130	5,059,200	16,410,013
Printing and publishing.....	62	14,355,470	3,868	6,062,808	3,771,151	14,912,808
Tobacco, chewing, smoking and snuff.....	29	9,266,490	1,754	1,584,811	5,535,740	13,941,113
Planing mills, etc.....	304	12,714,796	3,259	2,902,257	7,209,626	12,713,480
Hosiery, knit goods and fabric gloves.....	36	12,333,556	3,851	2,937,753	6,779,118	12,373,290
Biscuits and confectionery.....	49	9,697,473	3,319	2,552,742	6,057,127	11,759,189
Furnishing goods, men's.....	68	7,853,525	4,286	2,525,032	6,546,981	11,372,228
Petroleum products.....	5	12,665,994	785	1,159,663	11,192,165	11,254,508
Paints and varnishes.....	17	11,973,810	1,095	1,458,140	4,853,099	10,419,371
Shipbuilding and repairs.....	5	14,409,753	2,683	3,489,359	3,530,591	10,115,022
Printing and bookbinding.....	241	9,106,343	3,072	3,693,323	2,984,152	9,150,348
Sheet metal products.....	21	9,436,436	1,908	2,025,205	4,523,976	8,955,089
Acids, alkalis, salts and com- pressed gases.....	10	10,405,094	710	1,025,391	4,118,125	8,548,937
Fur goods.....	84	6,553,591	1,474	1,668,294	5,649,725	8,462,455

**11.—Statistics of Forty Leading Industries of the Province of Quebec, 1927—conc.**

NOTE.—Leading industries having fewer than 3 establishments are sugar refineries and bridge-building.

Industries.	Estab-lish-ments.	Capital.	Em-ployees.	Salaries and Wages.	Cost of Materials.	Gross Value of Products.
	No.	\$	No.	\$	\$	\$
Distilleries.....	7	8,824,874	401	500,120	1,861,525	8,386,316
Explosives, etc., and matches.	7	11,933,512	1,470	1,392,852	3,859,320	7,732,605
Hardware and tools.....	26	10,171,728	1,516	1,542,770	1,676,674	7,640,697
Hats and caps.....	66	2,079,482	2,378	2,052,570	3,399,655	7,382,106
Gas, illuminating and fuel.....	4	6,883,966	800	1,108,697	2,065,794	6,663,667
Steel and rolled products, pig iron and ferro-alloys.....	10	10,056,862	1,660	2,143,270	1,392,396	6,433,538
Dyeing, cleaning and laundry work.....	76	6,943,417	2,858	2,572,895	1,006,382	6,201,024
Furniture and upholstery.....	65	4,271,046	2,047	2,076,324	2,440,513	5,980,070
<b>Total, forty leading industries.....</b>	<b>5,789</b>	<b>1,175,126,667</b>	<b>160,876</b>	<b>167,386,541</b>	<b>386,467,729</b>	<b>816,667,929</b>
<b>Grand Total, all industries.....</b>	<b>7,206</b>	<b>1,376,654,019</b>	<b>196,091</b>	<b>203,724,997</b>	<b>474,361,396</b>	<b>990,592,995</b>
Percentage of forty industries to grand total.....	80.34	85.36	82.04	82.11	81.47	82.44

**Subsection 3.—The Manufactures of Ontario, 1927.**

Ontario is the most important manufacturing province of the Dominion. The gross value of its manufactured products in 1927 represented nearly 51 p.c. of those of the whole Dominion, while those of Quebec, the second province in importance in this respect, amounted to about 28 p.c. This premier position in manufacturing has been fairly uniformly maintained by Ontario over a long period, as the following percentages show:—in 1926, 52 p.c.; 1920, 50 p.c.; 1918, 53 p.c.; 1910, 50 p.c.; 1900, 50 p.c.; 1890, 51 p.c. and 1880, 51 p.c. Thus, in spite of the rapid industrial development in recent years in other provinces such as Quebec, British Columbia and Manitoba, Ontario is maintaining a manufacturing production more than equal to that of the remainder of the Dominion.

The automobile manufacturing industry of Ontario in 1927 came first in the value of its products, which amounted to \$128,700,514 as compared with \$107,-646,593 for the flour- and grist-milling industry, which held second place. Other important industries in descending order, with the value of their products in 1927, were:—slaughtering and meat-packing, \$89,309,580; pulp and paper, \$74,309,603; and rubber goods, \$72,896,820. As compared with 1926, automobile manufacturing showed a loss of nearly \$5,000,000, while flour- and grist-mill products increased over \$2,000,000. Slaughtering and meat-packing and pulp and paper manufacturing, each decreased by over \$6,000,000 from the figures for 1926.

As an indication of the greater diversification of industry in Ontario as compared with Quebec, the percentages which the 40 leading industries bear to the total manufacturing of the province are higher in nearly every particular in Quebec than in Ontario, especially in the capital employed and the number of establishments and employees. This feature of industrial development in Ontario is more marked if the ten leading industries be taken and comparison made with provinces other than Quebec. Outstanding among the industries in which the province of Ontario is pre-eminent is that of automobile manufacturing, which is carried on in this province alone. Other important industries in which Ontario leads, with the percentage which its production bore to that of the Dominion in 1927, are as follows:—

agricultural implements, 91 p.c.; leather tanneries, 87 p.c.; rubber goods, 80 p.c.; furniture and upholstering, 79 p.c.; fruit and vegetable canning, preserving, etc., 63 p.c.; electric apparatus and supplies, 73 p.c.; castings and forgings, 65 p.c.; steel and rolled products, pig iron, etc., 61 p.c.; slaughtering and meat-packing, 53 p.c.; flour- and grist-mill products, 56 p.c.

### 12.—Statistics of the Forty Leading Industries of the Province of Ontario, 1927.

Industries	Estab- lish- ments.	Capital.	Em- ployees.	Salaries and Wages.	Cost of Materials.	Gross Value of Products.
	No.	\$	No.	\$	\$	\$
Automobiles.....	11	88,831,668	11,063	18,862,846	88,451,757	128,700,514
Flour and grist mills.....	701	29,929,851	3,251	3,586,902	92,846,762	107,616,593
Slaughtering and meat-packing.....	23	31,751,196	5,133	6,996,907	70,794,953	89,309,580
Pulp and paper.....	44	201,761,009	10,916	15,683,778	31,312,894	74,309,603
Rubber goods and footwear.....	29	54,627,952	10,315	12,737,345	38,186,202	72,896,820
Central electric stations.....	435	393,043,877	6,501	11,866,866	19,023,429	63,197,412
Butter and cheese.....	1,016	20,640,935	5,952	6,150,158	46,734,018	61,616,184
Electrical apparatus.....	99	55,085,945	11,067	13,340,175	22,713,818	57,200,647
Castings and forgings.....	188	56,429,712	12,126	15,589,277	17,483,060	44,927,917
Agricultural implements.....	43	80,526,649	10,544	12,787,494	18,550,547	41,256,777
Hosiery, knit goods and fabric gloves.....	112	39,804,932	12,227	10,361,081	19,519,343	39,134,751
Bread and bakery products.....	947	19,056,396	6,882	7,062,239	16,880,022	32,745,604
Clothing, women's factory.....	198	13,730,925	8,729	8,871,884	16,708,056	30,107,031
Resin and confectionery.....	144	26,358,812	6,206	6,243,507	13,134,970	26,645,999
Leather, tanned, curried, etc.....	41	27,191,713	3,312	3,715,035	10,432,505	28,194,709
Furniture and upholstering.....	204	31,016,459	8,456	9,340,219	11,125,531	28,121,153
Steel and rolled products, pig iron, ferro-alloys, etc.....	15	59,352,279	4,101	7,474,972	12,884,127	27,769,202
Printing and publishing.....	298	24,140,379	6,433	9,816,941	6,749,220	27,551,325
Non-ferrous metal smelting.....	5	33,596,136	2,271	3,457,264	9,764,694	27,501,519
Sawmills.....	642	44,778,165	9,189	6,541,212	15,429,498	27,399,391
Sheet metal products.....	75	23,715,372	5,023	6,221,823	13,605,963	27,270,386
Machinery.....	116	41,048,157	5,868	7,869,041	8,501,757	26,505,394
Petroleum products.....	8	19,878,344	1,827	2,960,120	19,150,970	25,610,720
Planting mills, etc.....	327	27,550,288	5,340	6,008,021	14,165,762	24,827,043
Acids, alkalies, salts and com- pressed gases.....	20	23,543,573	1,421	2,199,236	11,189,521	21,003,442
Printing and bookbinding.....	394	19,010,950	5,591	7,105,686	6,011,808	18,945,322
Brass and copper products.....	65	14,062,859	3,158	3,988,213	9,579,743	16,655,436
Boots and shoes, leather.....	61	10,985,003	4,876	4,857,695	8,501,954	16,041,853
Hardware and tools.....	86	20,786,338	4,859	5,404,839	5,401,575	16,039,119
Railway rolling stock.....	15	22,660,886	4,010	5,494,390	8,282,310	15,863,988
Clothing, men's factory.....	55	8,200,708	3,938	4,490,276	7,196,325	15,637,495
Breweries.....	23	20,350,795	1,666	2,120,865	6,168,025	15,827,375
Cotton yarn and cloth.....	17	18,676,355	4,867	4,162,686	7,629,722	14,704,399
Automobile supplies.....	46	12,393,954	2,679	3,469,882	7,324,806	13,907,357
Distilleries.....	5	24,156,892	834	1,182,057	3,559,492	13,811,490
Fruit and vegetable canning.....	134	20,116,162	4,017	1,769,406	8,002,461	13,727,977
Soaps, washing compounds and toilet preparations.....	56	12,659,742	1,244	1,572,093	8,322,628	13,504,684
Boxes and bags, paper.....	67	10,976,682	2,921	2,933,586	6,339,276	12,357,440
Condensed milk.....	23	7,049,449	753	926,043	8,634,588	12,172,354
Woolen cloth.....	40	16,923,478	3,496	3,105,040	6,738,751	12,073,192
<b>Total, forty leading indus- tries.....</b>	<b>6,838</b>	<b>1,712,673,095</b>	<b>223,056</b>	<b>269,283,123</b>	<b>762,043,653</b>	<b>1,385,527,171</b>
<b>Grand Total, all industries</b>	<b>9,512</b>	<b>2,134,181,377</b>	<b>296,634</b>	<b>355,174,773</b>	<b>939,572,565</b>	<b>1,758,064,575</b>
Percentage of forty indus- tries to grand total.....	71.89	80.25	75.35	75.81	81.08	79.38

### Subsection 4.—The Manufactures of the Prairie Provinces, 1927.

The flour-milling industry is outstanding among the manufactures of the Prairie Provinces. During 1927, as will be seen from Table 13, the gross value of the products of flour mills was greater in each province except Manitoba than that of any other industry and amounted to \$17,577,133 in Manitoba, \$16,746,267 in Saskatchewan and \$19,040,218 in Alberta, a combined total of over 19 p.c. of the



gross value of the products of manufactures in these provinces. The second industry in point of gross production is slaughtering and meat-packing, with products valued at \$21,239,412 in Manitoba and \$14,425,772 in Alberta. Butter- and cheese-making showed a gross value of production of \$8,385,844 in Manitoba, \$6,414,373 in Saskatchewan and \$6,888,049 in Alberta.

The importance of these industries, based on the natural resources of the Prairie Provinces as grain-growing and cattle-raising areas, is evident. Attention may also be drawn to the generation of electric light and power in all three provinces and to the refining of petroleum in Alberta.

### 13.—Statistics of Ten Leading Industries of Manitoba, Saskatchewan and Alberta, 1927.

NOTE.—Other leading industries, statistics of which cannot be given because there are fewer than three establishments in each industry, are:—in Saskatchewan, petroleum refining, and slaughtering and meat-packing; in Alberta, men's furnishing goods, railway rolling stock and cement. The statistics for these industries are included in the grand totals for the provinces.

#### MANITOBA.

Industries.	Estab-lish-ments.	Capital.	Em-ployees.	Salaries and Wages.	Cost of Materials.	Gross Value of Products.
	No.	\$	No.	\$	\$	\$
Slaughtering and meat-packing	7	7,172,232	1,408	1,807,051	17,287,097	21,239,412
Flour and grist mills	38	6,461,905	566	731,550	13,447,058	17,577,133
Railway rolling stock	3	8,481,180	4,153	5,689,392	3,617,881	10,010,183
Butter and cheese	71	3,673,026	809	1,149,254	5,957,754	8,385,844
Central electric stations	40	43,663,433	1,064	1,604,613	618,554	6,057,796
Printing and publishing	67	3,852,977	1,150	1,447,379	1,069,790	5,095,408
Breweries	8	4,676,736	541	930,420	1,429,913	4,812,900
Bugs, cotton and jute	4	2,188,527	257	293,291	3,750,333	4,567,337
Bread and bakery products	120	1,943,325	799	881,393	1,953,961	3,809,554
Printing and bookbinding	59	3,708,412	1,115	1,552,092	1,304,782	3,766,293
<b>Total, ten leading industries</b>	<b>417</b>	<b>85,921,753</b>	<b>11,862</b>	<b>16,083,448</b>	<b>51,542,914</b>	<b>85,321,947</b>
<b>Grand Total, all industries</b>	<b>839</b>	<b>151,373,047</b>	<b>23,031</b>	<b>28,934,926</b>	<b>79,510,766</b>	<b>142,089,678</b>

#### SASKATCHEWAN.

Flour and grist mills	66	5,074,421	593	807,011	13,635,610	16,746,267
Butter and cheese	91	3,959,109	597	762,707	4,413,525	6,414,373
Central electric stations	163	9,800,550	496	691,713	17,721	3,389,538
Printing and publishing	125	3,194,063	732	1,257,948	660,237	3,309,693
Breweries	4	1,898,538	120	188,091	903,011	2,297,372
Bread and bakery products	101	1,276,471	407	469,114	1,035,211	2,032,142
Planing mills, etc.	15	1,571,997	359	455,128	750,916	1,588,888
Sawmills	10	566,977	493	260,533	301,404	601,260
Dyeing, cleaning and laundry work	15	690,105	275	296,858	92,415	640,381
Printing and bookbinding	19	369,795	120	182,132	124,673	401,398
<b>Total, ten leading industries</b>	<b>609</b>	<b>28,392,621</b>	<b>4,192</b>	<b>5,367,221</b>	<b>21,981,731</b>	<b>37,561,415</b>
<b>Grand Total, all industries</b>	<b>721</b>	<b>38,387,248</b>	<b>5,683</b>	<b>7,280,915</b>	<b>32,165,027</b>	<b>52,180,681</b>

#### ALBERTA.

Flour and grist mills	65	8,366,728	710	892,385	15,810,292	19,040,218
Slaughtering and meat-packing	6	6,688,316	1,293	1,698,159	11,300,737	14,425,772
Butter and cheese	105	3,477,703	551	706,451	5,293,966	6,988,049
Petroleum products	4	5,632,534	302	498,556	4,380,392	6,758,782
Breweries	6	8,210,434	360	529,658	1,209,211	4,417,990
Central electric stations	95	10,386,917	630	858,376	401,301	3,981,504
Bread and bakery products	120	1,870,844	535	596,593	1,540,726	3,181,721
Printing and publishing	61	3,261,499	613	1,051,981	483,030	2,882,571
Sawmills	58	2,033,331	1,161	503,397	1,034,195	2,172,880
Planing mills, etc.	18	1,758,270	316	351,207	627,340	1,290,111
<b>Total, ten leading industries</b>	<b>538</b>	<b>57,648,576</b>	<b>6,471</b>	<b>7,777,257</b>	<b>42,087,188</b>	<b>65,039,598</b>
<b>Grand Total, all industries</b>	<b>776</b>	<b>81,664,730</b>	<b>11,285</b>	<b>13,511,359</b>	<b>50,611,021</b>	<b>81,987,417</b>

Subsection 5.—The Manufactures of British Columbia, 1927.<sup>1</sup>

British Columbia was in 1927 the third most important manufacturing province in the Dominion, producing goods to a gross value of \$246,034,704. Almost 23 p.c. of this production, or \$56,121,543, is seen in Table 14 to be that of the sawmilling industry; the predominance of forest products industries in the industrial life of the province is emphasized if to this figure be added \$18,783,989, the gross value of products of the pulp and paper industry and \$3,050,014, that of the planing mills and sash and door factories. Second in importance among the industries of the province is that of fish-curing and -packing, with a gross value of products of \$20,261,794, followed by the pulp and paper industry, electric light and power generation, and slaughtering and meat-packing.

14.—Statistics of Twenty-five Leading Industries of British Columbia, 1927.<sup>1</sup>

NOTE.—Other leading industries, statistics of which cannot be given because there are fewer than 3 establishments in each industry, are non-ferrous metal smelting, sugar refining, cement, coke and explosives. The statistics for these industries are included in the grand total of all industries in the province.

Industries.	Estab-lish-ments.	Capital.	Em-ploy-ees.	Salaries and Wages.	Cost of Materials.	Gross Value of Products.
	No.	\$	No.	\$	\$	\$
Sawmills.....	301	56,286,039	14,748	17,619,649	30,054,355	56,121,543
Fish-curing and -packing.....	149	18,854,350	8,246	3,725,315	11,369,361	20,261,794
Pulp and paper.....	7	50,089,435	3,145	5,164,804	5,944,497	18,783,989
Central electric stations.....	70	70,431,238	1,645	2,476,636	1,689,879	11,286,828
Slaughtering and meat-packing.....	6	3,864,874	644	916,613	8,597,697	10,369,659
Petroleum products.....	3	5,002,593	248	458,599	5,169,570	5,886,606
Printing and publishing.....	51	3,900,678	1,221	2,090,279	1,182,769	5,272,617
Bread and bakery products.....	199	2,977,077	980	1,160,612	2,681,446	4,842,636
Butter and cheese.....	34	1,323,363	450	633,806	3,100,527	4,504,237
Fruit and vegetable packing.....	24	3,538,682	1,111	699,743	2,753,913	4,384,768
Sheet metal products.....	19	2,320,355	600	796,800	2,537,476	1,135,085
Coffee and spices.....	10	936,776	108	128,447	3,001,342	3,809,361
Breweries.....	9	5,642,564	247	484,777	1,320,975	3,639,204
Distilleries.....	3	3,462,197	129	170,758	833,305	3,279,476
Planing mills, etc.....	35	2,473,703	901	1,191,246	1,246,576	3,050,014
Dyeing and laundry work.....	56	1,925,224	1,310	1,275,859	187,314	2,451,321
Biscuits and confectionery.....	40	1,135,702	481	525,334	1,192,699	2,347,296
Shipbuilding and repairs.....	12	4,612,583	741	1,054,329	568,236	2,237,800
Castings and forgings.....	26	3,039,698	734	1,036,191	606,513	2,153,311
Printing and bookbinding.....	70	1,311,658	517	712,885	612,644	1,834,592
Flour and grist mills.....	5	1,458,104	101	116,267	1,366,172	1,635,624
Boxes and packing cases.....	13	1,268,476	406	445,354	780,204	1,447,757
Gas, illuminating and fuel.....	4	10,232,949	440	545,794	379,013	1,374,048
Paints and varnishes.....	8	1,344,042	147	155,837	626,909	1,298,708
Rice mills.....	4	550,471	36	67,793	864,317	1,008,439
<b>Total, twenty-five leading industries.....</b>	<b>1,158</b>	<b>257,983,871</b>	<b>39,336</b>	<b>43,653,728</b>	<b>87,767,703</b>	<b>177,398,313</b>
<b>Grand Total, all industries.....</b>	<b>1,509</b>	<b>325,047,266</b>	<b>47,740</b>	<b>56,007,334</b>	<b>125,358,489</b>	<b>246,034,704</b>
Percentage of 25 industries to grand total.....	76.74	79.37	82.40	77.92	70.01	72.10

<sup>1</sup> Including Yukon Territory.

## Section 4.—Principal Factors in Manufacturing Production.

## Subsection 1.—Capital Employed.

In a retrospective study of capital employed in Canadian manufactures since 1900, the remarkable increase denotes rapid growth in industrial operations. From 1900 to 1905 the capital increased from \$446,900,000 to \$833,900,000, and advanced to \$1,958,700,000 in 1915. During this period returns were received from establishments with 5 hands and over, and while the rise of wholesale prices did not exceed 37 p.c., the capital employed in manufactures increased nearly 340 p.c.

The capital investment in 1927 in all establishments irrespective of the number of employees was \$4,337,631,558, as compared with \$3,981,569,590 in 1926, and with \$3,190,026,358 in 1921, an increase of 37 p.c. in 6 years.

The provincial distribution of the manufactures of Canada may be illustrated by the investments of capital. Capital employed in Ontario during 1920 was 49.5 p.c. of the total, 50.6 p.c. in 1921, 52.5 p.c. in 1923, 50.4 p.c. in 1925, 49.8 p.c. in 1926, 49.2 p.c. in 1927. The percentage employed in the plants of Quebec was 30.5 in 1920, 30.8 in 1921, 29.9 in 1923, 29.9 in 1925, 30.6 in 1926 and 31.7 in 1927. British Columbia held third place in 1927 with a capital of 7.5 p.c. of the total, while Manitoba, Nova Scotia and New Brunswick followed in the order named, with proportions of between 4 p.c. and 2 p.c. each. (Table 15.)

From a survey of the industrial groups in which the capital of the country is invested, it appears that the wood and paper group led in 1927, with an investment of 23.6 p.c. of the total. The central electric station industry was second with 20.0, the iron and steel group third with 14.7, and the vegetable products group fourth with 11.4 p.c. (Table 16.)

The statistics of capital employed in the manufacturing industries are of interest in deducing the proportions of fixed and liquid assets. In 1921, lands, buildings and machinery constituted 60 p.c. of the total capital, while in 1923 the proportion had increased to 64 p.c., in 1924 to 65 p.c., and to 66 p.c. in 1926 and 1927. The fixed assets amounted to \$2,866,366,199 in 1927, while quick assets, including the materials on hand, stock in process, cash and sundries, were valued at \$1,471,265,359. Details by industrial groups and by provinces are given in Table 17.

**15.—Provincial Distribution of Capital Employed in the Manufacturing Industries of Canada, in Percentages, 1919-1927.**

Provinces.	1919	1920	1921	1922	1923	1924	1925	1926	1927
Prince Edward Island.....	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Nova Scotia.....	4.1	4.2	3.3	3.3	3.2	3.1	3.1	3.0	2.9
New Brunswick.....	2.8	3.1	3.1	2.5	2.5	2.5	2.4	2.4	2.3
Quebec.....	29.3	30.5	30.8	29.9	29.9	29.5	29.9	30.6	31.7
Ontario.....	49.0	49.5	50.6	52.3	52.5	51.8	50.4	49.8	49.2
Manitoba.....	3.3	3.4	2.9	2.7	2.7	3.1	3.2	3.2	3.5
Saskatchewan.....	1.0	0.9	1.0	1.0	0.9	0.9	0.8	0.8	0.9
Alberta.....	1.9	1.8	1.7	1.7	1.8	1.9	1.8	1.8	1.9
British Columbia and Yukon.....	8.5	6.5	6.5	6.5	6.5	7.1	8.3	8.3	7.5
<b>Total.....</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.00</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

**16.—Distribution of Capital Employed in the Manufacturing Industries of Canada, by Industrial Groups and Percentages, 1925-1927.**

Industrial Groups.	1925.		1926.		1927.	
	Amount.	Percent- age.	Amount.	Percent- age.	Amount.	Percent- age.
	\$		\$		\$	
Vegetable products.....	439,490,764	11.5	449,259,094	11.3	494,176,054	11.4
Animal products.....	219,015,438	5.5	223,938,559	5.6	233,113,872	5.4
Textile products.....	305,776,409	8.1	317,275,429	8.0	346,513,165	8.0
Wood and paper.....	907,204,530	23.8	929,589,278	23.3	1,023,301,749	23.6
Iron and its products.....	567,912,477	14.3	597,982,068	15.0	638,914,893	14.7
Non-ferrous metals.....	181,690,227	4.8	202,503,426	5.1	208,957,166	4.8
Non-metallic minerals.....	239,823,825	6.3	261,724,184	6.6	280,033,067	6.4
Chemicals and allied pro- ducts.....	120,483,348	3.3	133,407,891	3.3	134,618,839	3.1
Miscellaneous industries.....	103,281,876	2.7	109,069,565	2.8	111,178,478	2.6
Central electric stations.....	726,721,987	19.1	736,220,066	19.0	866,825,285	20.0
<b>Total.....</b>	<b>3,898,300,981</b>	<b>100.0</b>	<b>3,981,569,590</b>	<b>100.0</b>	<b>4,337,631,558</b>	<b>100.0</b>

## 17.—Forms of Capital Employed in the Manufacturing Industries of Canada, by Provinces and by Groups of Industries, 1927.

Provinces and Groups.	Estab- lish- ments.	Land, buildings, fixtures, machinery and tools.	Materials on hand, stocks in process, finished products, etc.	Cash, trading and operating accounts and bills receivable.	Total capital.
	No.	\$	\$	\$	\$
<b>Grand Total.....</b>	<b>22,936</b>	<b>2,866,366,199</b>	<b>773,824,436</b>	<b>697,440,923</b>	<b>4,337,631,558</b>
<b>PROVINCES.</b>					
Prince Edward Island.....	291	2,224,101	515,478	341,925	3,081,504
Nova Scotia.....	1,190	91,888,054	17,911,970	18,355,016	128,155,040
New Brunswick.....	872	86,277,512	19,757,086	13,051,829	99,087,327
Quebec.....	7,206	958,180,521	230,167,808	188,296,690	1,376,654,019
Ontario.....	9,512	1,325,640,334	409,644,354	398,887,689	2,134,181,377
Manitoba.....	859	106,141,446	24,741,257	20,499,344	151,373,047
Saskatchewan.....	721	26,165,711	6,956,510	5,265,027	38,387,248
Alberta.....	776	56,846,394	14,062,162	10,756,174	81,664,730
British Columbia and Yukon....	1,509	232,984,126	50,066,911	41,996,229	325,047,266
<b>INDUSTRIAL GROUPS.</b>					
Vegetable products.....	4,793	271,735,851	128,831,608	93,608,595	494,176,054
Animal products.....	4,692	112,267,795	71,143,285	49,792,792	233,113,872
Textiles and textile products.....	1,802	170,612,437	90,246,201	85,653,527	346,512,165
Wood and paper products.....	6,811	694,790,573	182,774,216	145,736,960	1,023,301,749
Iron and its products.....	1,148	351,873,123	137,310,078	149,741,692	638,914,893
Non-ferrous metal products.....	401	114,752,712	51,908,752	42,295,702	208,957,166
Non-metallic mineral products.....	1,184	207,106,051	43,375,601	29,351,405	280,033,057
Chemicals and allied products.....	561	75,763,649	28,652,076	30,203,114	134,618,839
Miscellaneous industries.....	447	58,239,366	21,115,566	31,825,606	111,178,478
Central electric stations.....	1,067	809,224,642	18,469,113	39,131,530	866,825,285

## Subsection 2.—Employment in Manufactures.

The total number of persons engaged in those manufacturing industries of Canada for which statistics were obtained in 1927 was in that year 618,933, as compared with 581,539 in the same industries in 1926 and 544,225 in 1925.<sup>1</sup> The 1927 employees included 85,483 salaried employees, this figure being obtained from the manufacturers at the end of the year, and 533,450 wage-earners, the average number employed, as derived from the manufacturers' records of the numbers on the pay-rolls on the 15th of each of the twelve months. Prior to 1925, the number of wage-earners was computed as the sum of the number recorded each month divided by 12 whether the establishment was operating the 12 months or not. Beginning with the statistics for 1925, in seasonal industries which are in operation only a limited number of months in each year, such as sawmilling, fruit and vegetable canning, etc., the average was computed by dividing the sum of the wage-earners reported on the 15th of each month by the number of months in operation. This change of method increased the apparent number of employees, especially in seasonal industries, but also in the groups containing such seasonal industries and in provincial and Dominion totals. Similarly, the change of method exerted a reducing influence on apparent average wages and on all other averages per wage-earner and per employee.

The number of salaried employees and of wage-earners, as thus ascertained, is given for each of the years since 1917, the year of the first annual census of manufacturing production, in Table 18. Then, taking the percentage of those employed

<sup>1</sup>For statistics showing the trend of employment in manufacturing industries in 1928 and 1929, see "Employment as reported by employers", pp. 733-738 of the Canada Year Book, 1930.



in each year to those employed in 1917, and dividing it into the volume of manufacturing production in each year (see Table 4 of this chapter for method used in obtaining this figure), the quotient gives a tentative conclusion regarding the efficiency of production per person employed in years subsequent to 1917, as compared with that year. This index of the efficiency of production per employee is, of course, affected by the change explained above in the method of computing the number of employees in 1925 and subsequent years as compared with 1924 and previous years. Inasmuch as the change increased the apparent number of employees in 1925 and later years, it proportionately decreased the index of the efficiency of production. How far the increased efficiency of recent years may be due to the use of improved appliances of production (the horse-power used per wage-earner employed increased from 3.04 in 1917 to 6.27 in 1927), how far to increased efficiency in the employees and how far to improvements in methods of organization, is a problem which cannot be solved for the country as a whole with our present information. It may, however, be possible for those having intimate knowledge of the business of individual firms to solve this problem with approximate accuracy for their own particular plants. The table here published may be considered as supplying satisfactory evidence of a general gain in volume of production per person employed. In this connection it should be remembered, however, that in 1917, owing to the large numbers overseas, many persons of low efficiency were being employed, their inefficiency being concealed at the time by the prevailing inflation of prices.

**18.—Salaried and Wage-Earning Employees in the Manufacturing Industries of Canada, with Volume of Manufacturing Production and Comparative Efficiency of Production, 1917-1928.**

Years.	Salaried Employees.	Wage-earners.	Total Employees.	Percentage of Number of Employees relative to 1917.	Index Number of Volume of Mfd. Products.	Efficiency of Production.
	No.	No.	No.	p.c.		
1917.....	68,726	532,968	621,694	100.0	100.0	100.0
1918.....	70,706	547,599	618,305	99.5	102.0	102.5
1919.....	81,681	529,327	611,008	98.3	98.3	100.0
1920.....	83,015	526,571	609,586	98.1	96.2	97.0
1921.....	74,873	381,203	456,076	73.4	87.4	119.1
1922.....	76,010	398,390	474,430	76.3	97.7	128.1
1923.....	78,273	446,991	525,267	84.5	106.7	126.3
1924.....	76,230	432,273	508,503	81.8	101.7	128.0
1925.....	77,623	466,602	544,225	87.5	112.4	128.5
1926.....	81,791	469,745	551,539	93.5	128.6	137.5
1927.....	85,483	533,450	618,933	99.6	140.4	141.0
1928.....	91,243	566,780	658,023	105.8	157.1	148.5

Statistics of employment in manufacturing industries during 1927, derived from the Census of Manufactures, are shown in Table 6 of this Report.

According to these statistics, the 22,936 establishments covered employed 85,483 salaried employees and 533,450 wage-earners, a total of 618,933 persons. Out of every 1,000 persons employed in manufacturing, 138 were classed as salary earners and 862 as wage-earners; the former earned 23.4 p.c. and the latter 76.6 p.c. of the total amount paid out as remuneration for services.

**Provincial Distribution of Employees in 1927.**—An analysis of the returns by provinces shows that 45,795 or 53.6 p.c. of all employees on salaries were employed in Ontario; of this number 33,964 were males and 11,831 were females. The proportion that the male salary workers in Ontario bore to the total number of such

workers was 51.5 p.c., while female office employees constituted 60.4 p.c. of the total. In Quebec, which, with 23,751 persons, recorded the second largest number of salaried workers, were situated 28.8 p.c. of the male and 24.4 p.c. of the female salaried employees. British Columbia also had a higher proportion of male than female salaried employees, having 6.4 p.c. of male to 4.3 p.c. of female salary earners. Of the total salaries, \$87,274,358 or 53.8 p.c. was reported in Ontario, \$45,886,411 or 28.3 p.c. in Quebec, and \$10,019,632 or 6.2 p.c. in British Columbia.

The male wage-earners numbered 413,634 and the female 119,816; 47.4 p.c. of the former and 45.1 p.c. of the latter were employed in Ontario. Quebec manufacturers reported 30.4 p.c. of the males as compared with 39.1 p.c. of the females, while British Columbia had 8.9 p.c. of the males and 4.8 p.c. of the females. As to earnings, Ontario firms paid out 50.4 p.c. of the total, Quebec 29.7 p.c. and British Columbia 8.6 p.c.

**Distribution by Industries.**—The wood and paper industries, with 18,445 salaried employees, reported a larger number of these than any other group, having 21.6 p.c. of the total and paying 23.0 p.c. of the aggregate salaries; 24.8 p.c. of the total wage-earners belonged to this group, which paid out 24.6 p.c. of the wages. Only 8.7 p.c. of the total females working for wages were in the wood and paper industries, as compared with 29.4 p.c. of the total males on wages. The textile industries came next in order in respect of workers, having 18.5 p.c. of the wage-earners, who earned 14.8 p.c. of the wages; the number of female workers in these industries formed 49.9 p.c. of the total females and the males only 9.4 p.c. of the aggregate of male wage-earners. In the iron and steel group, 17.4 p.c. of the total workers were paid 21.7 p.c. of the total wages. The number of men employed in these industries constituted 21.7 p.c. of the total male wage-earners in 1927, while only 2.6 p.c. of the total female wage-earners were engaged in iron and steel plants.

**19.—Percentages of Male and Female Employees on Salaries and Wages, by Provinces and Groups of Industries, 1927.**

Provinces and Groups.	Employees on Salaries.		Salaries.	Employees on Wages.		Wages.
	Males.	Females.		Males.	Females.	
PROVINCES.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
Prince Edward Island.....	0.2	0.1	0.1	0.3	0.7	0.1
Nova Scotia.....	1.9	1.0	1.6	3.1	2.9	2.1
New Brunswick.....	2.0	1.7	1.8	3.3	3.2	2.3
Quebec.....	28.8	24.4	28.3	30.4	39.1	29.7
Ontario.....	51.5	60.4	53.8	47.4	45.1	50.4
Manitoba.....	4.6	4.0	4.4	3.8	2.8	4.1
Saskatchewan.....	1.9	1.1	1.5	0.9	0.3	0.9
Alberta.....	2.7	2.1	2.3	1.9	1.1	1.8
British Columbia and Yukon....	6.4	4.3	6.2	8.9	4.8	8.6
<b>Total.....</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>INDUSTRIAL GROUPS.</b>						
Vegetable products.....	12.8	12.5	13.1	11.2	17.7	11.4
Animal products.....	13.8	9.8	10.4	10.0	13.2	8.4
Textile products.....	9.0	14.6	10.6	9.4	49.9	14.8
Wood and paper products.....	21.6	21.4	23.0	29.4	8.7	24.6
Iron and its products.....	16.1	15.3	17.1	21.7	2.6	21.7
Non-ferrous metal products.....	7.1	8.0	7.1	5.6	3.3	6.1
Non-metallic mineral products...	4.5	3.7	4.2	5.3	0.8	5.1
Chemicals and allied products...	4.2	5.4	4.8	2.0	2.2	2.0
Miscellaneous industries.....	3.6	3.1	3.7	3.3	1.6	3.4
Central electric stations.....	7.3	6.2	6.0	2.1	—	2.5

**Monthly Record of Employment in Manufactures, 1927.**—A monthly record of the number of wage-earners employed in Canadian manufactures, as compiled by the Census of Industry, is given by sex in Table 20, which shows that the peak of employment was in June, when manufacturing generally was at a high level. The number engaged in factories increased steadily from the beginning of 1927 until June; thereafter there was a small monthly reduction until the end of the year. During the period of continuous expansion up to June, 63,891 persons were added to the pay rolls of the reporting manufacturers.

While employment for male operatives expanded from the beginning of the year to its maximum in June, the number of female workers was greatest in October, chiefly on account of seasonal activity in the vegetable and fruit preserving group, which employs a considerable proportion of women. Textiles, the one group in which the majority of workers are women, also reported more than average employment during the autumn. Indicative of the expansion of industrial operations during 1927 is the fact that in every month of that year the number of wage-earners employed exceeded the total for the corresponding month of the previous year.

**20.—Total Number of Wage-Earners Employed in the Manufacturing Industries of Canada, by Months, 1926 and 1927.**

Months.	1926.			1927.		
	Males.	Females.	Total.	Males.	Females.	Total.
January.....	334,656	97,483	432,139	360,284	103,739	464,023
February.....	344,800	100,379	445,179	370,933	106,691	477,624
March.....	357,560	101,994	459,554	382,119	108,966	491,085
April.....	370,259	102,829	473,088	391,606	108,764	500,370
May.....	388,408	105,748	494,156	406,949	111,813	518,762
June.....	400,593	107,296	507,889	415,228	112,686	527,914
July.....	402,407	108,480	510,887	413,086	112,400	525,486
August.....	396,952	108,965	505,917	408,799	113,130	521,929
September.....	393,652	113,265	506,917	403,837	117,113	520,950
October.....	389,812	113,867	503,679	396,580	118,527	515,107
November.....	373,974	110,426	484,400	383,018	114,906	497,924
December.....	358,396	106,852	465,248	368,692	111,404	480,096

**Days in Operation and Hours Worked.**—During 1927, each plant, on the average, operated full time 226 days. The average day was 8·8 hours and the average week 51·8 hours. The time in operation and the average number of hours worked are shown by provinces and industrial groups in Table 21.

**21.—Number of Days in Operation and of Hours Worked per Shift and per Week in the Manufactures of Canada, by Provinces and Groups, 1927.**

Provinces and Groups.	Number of Establishments.	Time in Operation—Number of Days.			Average Days in Full Time Operation per Establishment.	Average Hours Worked.	
		Full time.	Part time.	Idle.		Per shift.	Per week.
By Provinces.							
Prince Edward Island.....	291	30,797	9,100	45,289	106	9-0	54-5
Nova Scotia.....	1,190	201,621	20,186	141,843	172	9-2	53-7
New Brunswick.....	872	144,919	13,995	101,936	166	9-0	52-2
Quebec.....	7,206	1,545,629	111,947	408,828	214	9-0	52-8
Ontario.....	9,512	2,321,983	157,385	313,100	244	8-8	52-0
Manitoba.....	859	225,324	16,219	19,615	262	8-5	48-8
Saskatchewan.....	721	158,000	51,213	15,817	219	8-8	51-6
Alberta.....	776	191,129	23,376	26,881	246	8-3	50-1
British Columbia and Yukon.....	1,509	360,527	22,974	80,678	239	8-1	47-3
Total.....	22,936	5,182,939	426,385	1,187,017	226	8-8	51-8
Industrial Groups.							
Vegetable products.....	4,793	1,192,206	89,233	197,569	249	8-9	54-1
Animal products.....	4,692	975,279	38,992	172,194	208	9-2	54-2
Textile products.....	1,802	458,267	43,424	39,429	254	8-5	47-2
Wood and paper products.....	6,811	1,311,964	89,755	672,074	193	9-0	52-8
Iron and its products.....	1,148	314,367	15,387	11,826	214	8-5	48-2
Non-ferrous metal products.....	401	113,044	4,677	4,903	281	8-1	45-6
Non-metallic mineral products.....	1,184	264,763	16,849	66,091	224	8-1	48-2
Chemicals and allied products.....	561	153,533	3,971	13,607	274	7-4	42-5
Miscellaneous industries.....	447	120,486	6,975	8,123	270	8-7	48-9
Central electric stations.....	1,097	278,973	120,122	1,310	254	-	-

<sup>1</sup> Information on this point is incomplete for a number of industrial groups.

**Subsection 3.—Wages and Salaries in Canadian Manufacturing Industries, 1927.**

The total amount disbursed by manufacturers in salaries and wages during 1927 was \$693,932,228 paid to 618,933 workers, as compared with \$653,850,933 paid to 581,539 persons in 1926, and \$596,015,171 paid to 544,225 employees in 1925. Of the 1927 aggregate, \$162,348,978 or 23.4 p.c. was paid to 85,483 salaried employees who constituted 13.8 p.c. of the total number, and \$531,583,250 or 76.6 p.c. was paid in wages to 533,450 wage-earners, who formed 86.2 p.c. of the aggregate number of employees.

The average salary paid in the manufacturing industries during 1927 was \$1,899, compared with \$1,867 in 1926, \$1,843 in 1925, \$1,831 in 1924 and \$1,824 in 1923. The average wage paid was \$997 in 1927, \$1,003 in 1926, \$971 in 1925, \$972 in 1924 and \$959 in 1923.

The increase of 6.1 p.c. recorded in aggregate wages in 1927 as compared with the preceding year was accompanied by a 6.8 p.c. gain in the number of operatives employed, while the average wage decreased by 0.6 p.c. Employees on salaries increased by 4.5 p.c. and aggregate salaries by 6.3 p.c., while average salaries advanced by 1.7 p.c.

The proportion of female wage-earners per 1,000 was 225 and of male operatives 775 during 1927, while in each 1,000 salary earners 229 were women and 771 were



men. The proportion of females among wage-earners was slightly less, while that among salaried employees was greater than in the preceding year. The number of male salary earners increased by 3.8 p.c. in 1927 as compared with 1926, while there was a gain of 7.0 p.c. in the number of women office help employed. The percentages of increase among wage-earners were 7.4 for the males and 4.6 for the females.

**Average Earnings, by Provinces, of Persons Employed in Manufactures.**—Table 22 shows the number of salary and wage-earners and the average salary and wage paid in 1927 by manufacturers in the various provinces, also average earnings in 1926.

There were successive rises in average salaries from Prince Edward Island to Quebec, which showed the highest average of all the provinces except British Columbia, while the mean in Ontario was slightly lower than in Quebec. In the Prairie Provinces, the averages were also smaller, especially in Saskatchewan, where salaries were, on the whole, below those in New Brunswick. In British Columbia and the Yukon the average was \$1,983. Over 60 p.c. of the total female salary earners were employed in Ontario, as compared with only 52 p.c. of the total male salaried workers; in Quebec and British Columbia, on the other hand, the proportion of women workers was lower than that of men.

As in previous years, there were steady increases in average wages from the eastern provinces through to Saskatchewan, where the mean for the year, \$1,142, was the highest in the Dominion, being \$145 greater than the general average. In that province, where the number employed in manufacturing was not large, there was an unusually small proportion of women workers, while many of the male employees were engaged in the better-paid wood and paper, electric light and power industries. In the four provinces situated to the east, average wages in manufacturing were lower than the mean for the Dominion, while from Ontario westward the opposite was the case.

The seasonal nature of some of the leading manufactures, notably fish-preserving and lumbering, tended to reduce the mean wage in the Maritime Provinces. These industries, in which 40.8 p.c. of the reported wage-earners in these provinces were engaged, worked on the average only 101 and 96 days respectively during 1927. Quebec, where the mean wage was below the general average, reported a larger proportion of female workers than the other provinces; of these a considerable number were employed in the textile, food and other industries. That province had 39.1 p.c. of the total number of women employed in manufacturing in the Dominion, as compared with 30.4 p.c. of the aggregate male operatives, but the 32.3 p.c. of the total wage-earners reported in Quebec received only 29.7 p.c. of the total wages. On the other hand, in Ontario, where the mean was higher than the general average, 47.4 p.c. of the total males and 45.1 p.c. of the total females, or 46.9 p.c. of the general aggregate, were paid 50.4 p.c. of the total wages disbursed. The fact that average wages in Alberta and British Columbia were lower than in Saskatchewan was partly a result of the seasonal nature of some of the industries in these provinces, especially fish and fruit-preserving and sawmilling in British Columbia.

**22.—Employees on Salaries and Wages in Manufacturing Industries, 1927, and Average Salaries and Wages, by Provinces, 1926 and 1927.**

Provinces.	Employees on Salaries.			Average Salaries.		Employees on Wages.			Average Wages.	
	Male.	Female.	Total.	1927.	1926.	Male.	Female.	Total.	1927.	1926.
	No.	No.	No.	\$	\$	No.	No.	No.	\$	\$
Prince Edward Island....	156	29	185	912	856	1,232	815	2,047	254	253
Nova Scotia.....	1,237	379	1,616	1,635	1,541	12,835	3,413	16,248	675	695
New Brunswick.....	1,302	329	1,631	1,817	1,817	13,501	3,838	17,339	691	729
Quebec.....	18,909	4,782	23,751	1,932	1,915	125,519	40,824	172,343	916	926
Ontario.....	33,904	11,831	45,795	1,906	1,871	190,155	54,084	250,239	1,071	1,079
Manitoba.....	3,011	785	3,826	1,893	1,838	15,822	3,383	19,205	1,135	1,156
Saskatchewan.....	1,246	215	1,461	1,684	1,676	3,824	398	4,222	1,142	1,174
Alberta.....	1,765	402	2,167	1,755	1,781	7,846	1,272	9,118	1,065	1,116
British Columbia and Yukon.....	4,203	845	5,051	1,983	1,884	36,900	5,789	42,689	1,077	1,071
<b>Total.....</b>	<b>65,886</b>	<b>19,597</b>	<b>85,483</b>	<b>1,899</b>	<b>1,867</b>	<b>413,634</b>	<b>119,816</b>	<b>533,450</b>	<b>997</b>	<b>1,003</b>

**Average Earnings in 40 Leading Industries.**—Table 23 is a record of employees by sex and of average salaries and wages paid in the 40 leading industries of Canada during 1927, together with the average number of days the establishments in each industry operated. Averages for 1926 are also given.

**Average Salaries.**—In 17 industries the average salaries were in excess of \$2,000; in 21 they ranged between \$1,500 and \$2,000, while in only two were they below \$1,500 during 1927. None of the five groups paying the highest salaries—sugar refineries; pulp and paper; rolled products, pig iron, steel products and ferro-alloys; leather tanneries; and non-ferrous metal smelting—reported a proportion of female workers equal to the general percentage in the 40 industries, while the numbers employed were rather small except in the pulp and paper industry. In the groups paying an average salary of over \$2,000, only the automobile, castings and forgings, hosiery and knit goods, furniture and upholstering, coffee and spices, and paints and varnishes industries employed more than the general proportion of female office help.

The lowest salaries, ranging between \$1,000 and \$1,500, were reported in the butter and cheese, and fish-curing and -packing industries, in both of which the percentage of women workers was below the average. Various factors contributed to reduce the mean yearly remuneration of these groups. Fish-preserving plants operate during a very short active season; butter and cheese factories, which also work less than the average number of days, are mainly situated in small towns and country places.

**Average Wages.**—The highest wages, varying between \$1,300 and \$1,700, were paid in the printing and publishing, automobile, rolled products, pig iron, steel products and ferro-alloys, central electric station, non-ferrous metal smelting, petroleum refining, railway rolling stock, pulp and paper, and acids, alkalies, salts and compressed gases industries, in all of which the proportion of female workers was below the general average. In 14 industries, the wages paid averaged between \$1,000 and \$1,300; in 16 groups, they averaged between \$500 and \$1,000; while in

one highly seasonal industry—fish-curing and -packing—they were under \$500. In this industry, the number of days in operation throughout the Dominion during 1927 averaged only 101; the proportion of female workers was also high, being 39·3 p.c., as compared with the general proportion of 20·3 p.c. in the 40 industries. In the textile divisions wages were generally low, employees in men's clothing factories receiving the highest remuneration in the group. The proportion of women workers employed in these trades was large, while the number of days in operation was above the average. Sawmills worked on the average 96 days, employing males almost exclusively; these employees were paid an average wage of \$713 during the season of 1927.

**23.—Employees by Sex and Average Salaries and Wages Paid in Forty Leading Canadian Manufacturing Industries during 1927, with Average Number of Days Operated by Plants in each Industry for 1926 and 1927.**

SALARIES.

Industries.	Employees on Salaries.			Average Salary.	
	Male.	Female.	Total.	1927.	1926.
	No.	No.	No.	\$	\$
Pulp and paper.....	2,679	495	3,174	2,550	2,418
Flour and grist mills.....	901	221	1,125	1,914	1,897
Slaughtering and meat-packing.....	2,437	408	2,845	1,797	1,801
Central electric stations.....	4,793	1,216	6,009	1,653	1,572
Sawmills.....	1,765	238	1,943	2,039	1,931
Automobiles.....	1,547	570	2,117	2,231	2,305
Butter and cheese.....	3,670	636	4,306	1,079	1,040
Rubber goods, including footwear.....	1,457	443	1,900	1,707	1,734
Electrical apparatus and supplies.....	2,916	1,106	4,022	1,721	1,739
Non-ferrous metal smelting.....	584	60	644	2,408	1,054
Cotton yarn and cloth.....	518	111	629	2,305	2,397
Railway rolling stock.....	1,306	89	1,395	2,180	2,006
Castings and forgings.....	1,773	508	2,281	2,148	2,071
Bread and other bakery products.....	598	248	846	1,580	1,598
Petroleum refining.....	447	72	519	2,300	2,137
Printing and publishing.....	4,235	1,512	5,747	1,083	1,578
Sugar refineries.....	200	56	256	2,873	2,817
Clothing, women's factory.....	1,009	694	1,703	1,921	1,931
Cigars and cigarettes.....	994	253	1,247	1,961	1,956
Hosiery, knit goods and gloves.....	696	362	1,058	2,210	2,016
Biscuits, confectionery and chewing gum.....	1,559	534	2,123	1,838	1,889
Breweries.....	756	100	855	2,355	2,728
Planing mills, sash and door factories.....	1,094	210	1,214	1,750	1,706
Boots and shoes, leather.....	1,003	338	1,341	1,974	1,970
Roller products, pig iron, steel products, etc.....	449	80	529	2,470	2,509
Machinery.....	1,501	486	1,987	1,887	1,851
Sheet metal products.....	985	352	1,337	1,918	1,846
Clothing, men's factory.....	991	367	1,358	1,984	1,929
Agricultural implements.....	1,134	384	1,518	1,599	1,608
Printing and bookbinding.....	1,412	483	1,895	1,995	2,013
Furniture and upholstery.....	808	269	1,077	2,025	2,021
Leather tanneries.....	254	53	307	2,448	2,308
Fish-curing and -packing.....	582	57	639	1,343	1,344
Acids, alkalis, salts and compressed gases.....	408	98	506	2,088	2,104
Furnishing goods, men's.....	518	258	804	1,677	1,676
Coffee and spices.....	407	129	536	2,241	2,270
Distilleries.....	209	49	258	1,992	2,295
Paints and varnishes.....	614	189	803	2,236	2,125
Hardware and tools.....	619	222	841	1,970	1,980
Brass and copper products.....	697	160	857	1,844	1,885
<b>Total, forty leading industries.....</b>	<b>50,497</b>	<b>14,144</b>	<b>64,641</b>	<b>1,874</b>	<b>1,831</b>
<b>Grand Total, all industries.....</b>	<b>65,886</b>	<b>19,597</b>	<b>85,483</b>	<b>1,899</b>	<b>1,867</b>

**23.—Employees by Sex and Average Salaries and Wages Paid in Forty Leading Canadian Manufacturing Industries during 1927, with Average Number of Days Operated by Plants in each Industry for 1926 and 1927—concluded.**

## WAGES.

Industries.	Employees on Wages.			Average Wage.		Average number of days in operation.	
	Male.	Female.	Total.	1927.	1926.	1927.	1926.
	No.	No.	No.	\$	\$	No.	No.
Pulp and paper.....	28,889	813	29,702	1,357	1,302	263	281
Flour and grist mills.....	5,124	135	5,259	993	970	223	223
Slaughtering and meat-packing.....	7,402	711	8,203	1,151	1,101	292	288
Central electric stations.....	8,009	-	8,099	1,515	1,423	365	365
Sawmills.....	42,571	84	42,655	713	936	96	100
Automobiles.....	8,746	200	8,946	1,580	1,535	307	306
Butter and cheese.....	6,571	249	6,820	955	1,002	220	224
Rubber goods, including footwear.....	9,851	3,311	13,165	1,016	984	271	268
Electrical apparatus and supplies.....	9,926	2,865	12,791	1,070	1,061	296	291
Non-ferrous metal smelting.....	6,999	28	7,027	1,501	1,492	354	383
Cotton yarn and cloth.....	11,493	9,261	20,754	755	702	287	282
Railway rolling stock.....	19,995	45	20,041	1,358	1,329	286	277
Castings and forgings.....	16,516	352	16,868	1,148	1,138	285	294
Bread and other bakery products.....	11,786	1,782	13,568	1,085	1,069	297	299
Petroleum refining.....	3,311	26	3,337	1,497	1,479	307	309
Printing and publishing.....	7,892	1,389	9,281	1,699	1,365	299	299
Sugar refineries.....	2,253	112	2,365	1,203	1,157	250	245
Clothing, women's factory.....	3,757	10,137	13,894	883	880	277	283
Cigars and cigarettes.....	1,773	3,227	5,000	678	658	263	273
Hosiery, knit goods and gloves.....	4,874	11,285	16,159	733	728	282	283
Biscuits, confectionery and chewing gum.....	4,433	5,930	10,363	724	719	274	279
Breweries.....	3,763	44	3,807	1,167	1,185	286	293
Planing mills, sash and door factories.....	10,127	95	10,222	1,057	1,017	117	202
Boots and shoes, leather.....	8,562	5,530	14,092	871	883	287	287
Roller products, pig iron, steel products, etc.....	6,861	3	6,867	1,520	1,392	296	288
Machinery.....	7,734	226	7,960	1,174	1,166	294	301
Sheet metal products.....	6,298	761	7,059	1,064	1,059	194	298
Clothing, men's factory.....	4,769	5,352	10,121	980	1,000	255	249
Agricultural implements.....	9,398	95	9,493	1,147	1,178	278	293
Printing and bookbinding.....	6,772	2,376	9,148	1,115	1,156	295	295
Furniture and upholstery.....	9,526	435	9,961	989	960	289	288
Leather tanneries.....	3,679	102	3,781	991	983	292	287
Fish-curing and -packing.....	9,748	6,310	16,058	280	290	101	99
Acids, alkalis, salts and compressed gases.....	1,770	9	1,779	1,353	1,366	308	314
Furnishing goods, men's.....	1,101	7,072	8,173	640	646	290	290
Coffee and spices.....	648	420	1,068	929	877	301	299
Distilleries.....	916	227	1,143	1,298	1,109	272	268
Paints and varnishes.....	1,538	222	1,760	998	977	296	289
Hardware and tools.....	4,910	878	5,818	963	970	281	288
Brass and copper products.....	3,601	374	3,975	1,128	1,126	207	286
<b>Total, forty leading industries.....</b>	<b>321,709</b>	<b>82,476</b>	<b>404,185</b>	<b>1,011</b>	<b>1,015</b>	<b>237</b>	<b>235</b>
<b>Grand Total, all industries.....</b>	<b>413,634</b>	<b>119,816</b>	<b>533,450</b>	<b>997</b>	<b>1,003</b>	<b>226</b>	<b>232</b>

**Real Earnings of Employees in Recent Years.**—The total amount paid to the employees in industrial plants during 1927 was \$693,932,228, as compared with \$509,382,027 in 1917. The wage payments in 1927 were \$531,583,250, while the salaried employees received a remuneration of \$162,348,978. The average yearly wage of the wage-earner was \$997 in 1927, as compared with \$760 in 1917, an increase of 31.3 p.c. in average earnings. When the index number representing the average yearly wages, with 1917 as a base, is divided by the index number of the cost of living, converted to the same base, it is seen that real wages advanced by 14.1 p.c. between 1917 and 1927. The details of the computation are given in Table 24. The figures for 1928, added in proof, show further advances, real wages being up by 16.4 p.c. as compared with 1917.



24.—Average Yearly Earnings and Real Wages of Wage-Earners in Manufacturing Industries, 1917-1928.

Years.	Amount of wages paid.	Average number of wage-earners.	Average yearly earnings.	Index Numbers.		
				Average yearly earnings.	Cost of living.	Real value of average yearly earnings.
	\$	No.	\$			
1917.....	420,094,869	552,968	760	100-0	100-0	100-0
1918.....	480,949,599	517,599	878	115-5	113-8	101-5
1919.....	496,570,995	520,327	938	123-4	125-3	98-6
1920.....	583,853,225	526,571	1,109	145-9	145-2	100-4
1921.....	381,910,145	381,203	1,002	131-8	127-6	103-2
1922.....	374,212,141	398,390	939	123-6	116-8	105-8
1923.....	428,731,347	446,994	959	126-1	116-8	107-9
1924.....	420,269,405	432,273	972	127-9	114-5	111-7
1925.....	452,958,655	406,602	971	127-8	116-0	110-2
1926.....	501,114,989	499,745	1,003	132-0	119-8	113-0
1927.....	531,583,250	533,450	997	131-3	115-1	114-1
1928.....	589,428,493	566,780	1,024	134-8	116-8	116-4

**Percentage of Wages and Salaries to Value of Product.**—An interesting inquiry is that regarding the relation between wages and salaries paid by manufacturers and the total net value of production. Figures of gross production are often used in such calculations, but the values out of which the wages of employees must in the long run come are the values added to the raw materials while they are in the factory. Such added values constitute the real production of the manufacturing plant, and are alone available for payment of wages and salaries; of interest, rent and taxes; and of charges for fuel, power, lighting, repairs, and all other overhead charges. While amounts paid on some of these accounts are not readily ascertainable, amounts paid in wages and salaries are available from the statistics of the Census of Manufactures. These figures are given for 1917 and subsequent years in Table 25, and show the increasing part of the manufacturer's dollar which has gone to his salaried and wage-earning employees. In the eight latest years, salaries seem to bear a particularly large percentage to the total net production, although a steady decline has taken place since 1924; on the other hand the percentage of wages to total net product was almost the same in 1928 as in 1917.

25.—Percentages of Wages and Salaries paid to Total Net Value of Manufacturing Production, 1917-1928.

Years.	Value added by process of manufacture.	Salaries paid.	Wages paid.	Percentage—		
				of salaries to values added.	of wages to values added.	of total salaries and wages to values added.
	\$	\$	\$	p.c.	p.c.	p.c.
1917.....	1,332,180,767	89,287,158	420,094,819	6-7	31-5	28-2
1918.....	1,410,723,777	101,507,889	480,949,599	6-9	32-9	39-8
1919.....	1,509,870,745	121,892,144	406,570,995	8-1	32-9	41-0
1920.....	1,689,978,408	148,267,360	583,853,225	8-8	34-6	43-4
1921.....	1,209,113,314	136,874,992	381,910,145	11-3	31-6	42-9
1922.....	1,198,431,407	136,219,171	374,212,141	11-4	31-2	42-6
1923.....	1,311,053,375	112,738,681	428,731,317	10-9	32-7	43-6
1924.....	1,258,653,901	139,614,639	420,269,406	11-1	33-4	44-5
1925.....	1,360,879,907	143,054,516	452,958,655	10-5	33-3	43-8
1926.....	1,492,645,039	152,705,914	501,114,989	10-2	33-6	43-8
1927.....	1,635,923,937	162,318,978	531,583,250	9-9	32-5	42-4
1928.....	1,819,046,025	174,770,879	589,428,493	9-7	31-9	41-5

#### Subsection 4.—Size of Manufacturing Establishments.

An essential characteristic of the recent evolution of industry has been the increase in the size of the typical manufacturing establishment. The full utilization of highly specialized machinery necessitates large-scale production, while the improvements in transportation have widened the market, and the development of more efficient methods of business administration has made it possible for the individual manufacturer to supervise effectively a larger plant. An increase in the scale of production of the typical manufacturing establishment has been experienced in all industrial countries which have been affected by the so-called "Industrial Revolution", and not least in Canada, where the rise of the factory system in industry has taken place approximately since Confederation.

The size of the manufacturing establishment is generally measured either by the number of employees or by the value of product, but each of these methods has its limitations. The former takes no account of the differences in capital equipment at different times or in various industries; obviously the increased use of machinery, as in the flour-milling industry, may lead to increased production concurrently with a decrease in the number of employees. The latter measure has to be adjusted for changes in the price level; and, as between industries, it makes those which handle expensive raw materials appear to operate on a larger scale. Both measures are subject to two limitations: firstly, they depend on the fluctuation of business activity and the demand of the consumer; secondly, over any lengthy period of time there is the difficulty of comparability resulting from changes in the method of the census.

Thus, while it is possible in a general way to state that the average size of the manufacturing establishment in Canada has increased between 1870 and 1927, the 1927 figures are not on the same basis as the 1870 figures, especially since they do not include all the small custom and repair establishments included at the earlier date. The same difficulty arises right up to the most recent times. It is only in the last few years that the statistics have been so analysed as to be strictly comparable, and the results of this analysis are given in Tables 26 to 29.

**Size as Measured by Gross Value of Products.**—In Tables 26 and 27 the size of the establishments reporting to the Census of Manufactures is shown by the gross value of products—Table 26 giving comparative figures for 1922 (the first year for which the figures are available) and 1927, and Table 27 the figures by provinces for 1927.

The comparative Table 26 shows that while in 1922 the 420 establishments which had each a gross production of over \$1,000,000 had an aggregate value of products of \$1,268,056,129 or 51 p.c. of the total production of all manufacturing industries, the 613 establishments producing over \$1,000,000 each in 1927 had an aggregate value of products of \$2,026,544,130, or 59 p.c. of the grand total for all manufacturing establishments—a very significant change in the short period of five years when the general trend of prices of manufactured goods was slightly downward.

**26.—Manufacturing Establishments Grouped according to Gross Value of Products, with Total and Average Values of Products in each Class, 1922 and 1927.**

Gross Value of Products.	1922.			1927.		
	Estab-lish-ments.	Total production.	Average pro-duction.	Estab-lish-ments.	Total production.	Average pro-duction.
	No.	\$	\$	No.	\$	\$
Under \$25,000.....	14,978	114,205,770	7,626	13,811	94,180,419	6,812
\$ 25,000 but under \$ 50,000.....	2,401	85,075,807	35,433	2,763	97,781,269	35,389
50,000 " 100,000.....	1,793	120,320,917	72,125	2,164	153,727,749	71,038
100,000 " 200,000.....	1,355	191,675,689	141,458	1,627	230,426,373	141,626
200,000 " 500,000.....	1,078	330,533,712	306,617	1,334	415,043,177	311,126
500,000 " 1,000,000.....	516	363,341,076	704,149	624	407,786,433	653,503
1,000,000 " 5,000,000.....	364	692,463,530	1,902,372	519	1,040,783,651	2,005,363
5,000,000 and over.....	50	575,592,599	10,278,439	94	985,760,476	10,486,813
<b>Total.....</b>	<b>22,541</b>	<b>2,482,299,130</b>	<b>110,119</b>	<b>22,936</b>	<b>3,425,498,540</b>	<b>149,356</b>

**27.—Manufacturing Establishments Classified according to Gross Value of Products, with Total Value of Products in each Class, by Provinces, 1927.**

Gross Value of Products. (000 omitted.)	Prince Edward Island.		Nova Scotia.		New Brunswick.	
	Estab-lish-ments.	Production.	Estab-lish-ments.	Production.	Estab-lish-ments.	Production.
	No.	\$	No.	\$	No.	\$
Under \$25.....	252	1,577,422	897	5,331,886	921	4,789,881
\$ 25—\$ 50.....	19	848,612	116	3,893,476	88	3,065,226
50—100.....	11	767,553	81	5,699,844	65	4,771,858
100—200.....	8	1,053,366	48	6,671,865	43	6,279,512
200—500.....	1	440,675	29	8,223,871	30	9,101,308
500—1,000.....	—	—	8	4,856,624	14	10,076,162
1,000—5,000.....	—	—	8	14,940,867	10	19,942,677
5,000 and over.....	—	—	3	24,879,864	1	14,640,041
<b>Total.....</b>	<b>291</b>	<b>4,493,628</b>	<b>1,190</b>	<b>74,458,297</b>	<b>872</b>	<b>72,666,665</b>
—	Quebec.		Ontario.		Manitoba.	
Under \$25.....	4,915	47,608,929	4,893	16,691,845	453	3,169,081
\$ 25—\$ 50.....	693	24,286,906	1,337	47,827,496	108	3,831,367
50—100.....	494	35,132,459	1,099	77,463,312	106	7,982,304
100—200.....	384	53,815,563	811	119,394,733	77	11,218,361
200—500.....	344	107,359,799	720	224,378,799	59	19,689,240
500—1,000.....	199	109,833,617	308	214,919,518	21	15,533,241
1,000—5,000.....	143	207,384,390	270	533,607,450	32	58,376,282
5,000 and over.....	34	306,170,332	44	523,751,422	3	23,289,802
<b>Total.....</b>	<b>7,246</b>	<b>990,582,995</b>	<b>9,512</b>	<b>1,758,004,575</b>	<b>859</b>	<b>142,689,678</b>
—	Saskatchewan.		Alberta.		British Columbia.	
Under \$25.....	522	2,307,251	485	4,260,909	771	7,359,215
\$ 25—\$ 50.....	83	2,876,724	119	4,199,475	200	7,181,977
50—100.....	60	4,402,592	63	4,375,136	85	13,162,691
100—200.....	28	3,812,098	46	6,503,018	152	21,710,827
200—500.....	11	3,545,268	26	8,074,251	114	35,232,963
500—1,000.....	9	5,805,805	20	15,071,472	45	31,689,994
1,000—5,000.....	6	11,533,887	15	31,531,170	36	63,446,931
5,000 and over.....	2	16,807,056	2	10,971,853	6	66,250,106
<b>Total.....</b>	<b>721</b>	<b>52,180,681</b>	<b>776</b>	<b>84,987,317</b>	<b>1,599</b>	<b>216,634,704</b>

**Size of Establishments, as Measured by Number of Employees.**—In Tables 28 and 29 the establishments reporting to the Census of Manufactures are classified by the number of their employees. In the comparative Table 28, it is shown that out of a total increase of 92,823 employees in our manufacturing industries between 1923 and 1927, 46,341, or almost 50 p.c., were in establishments with over 500 employees.

**28.—Number of Establishments and of Employees in Canadian Manufactures, Grouped according to the Number of Employees per Establishment, 1923 and 1927.**

Employees per Establishment.	1923.			1927.		
	Estab-lish-ments.	Em-ployees.	Average Em-ployed.	Estab-lish-ments.	Em-ployees.	Average Em-ployed.
	No.	No.	No.	No.	No.	No.
Fewer than 5 persons.....	13,158	23,632	1.7	12,245	26,166	2.1
5 to 20 persons.....	5,310	53,852	10.1	5,897	59,624	10.1
21 " 50 ".....	2,093	67,408	32.2	2,369	76,266	32.1
51 " 100 ".....	1,031	73,449	71.2	1,193	84,281	70.6
101 " 200 ".....	566	79,737	140.8	673	94,025	136.7
201 " 500 ".....	374	115,585	309.0	395	119,783	303.2
501 and over.....	112	112,447	1,004.0	164	158,788	957.2
<b>Total</b> .....	<b>22,642</b>	<b>526,110</b>	<b>23.2</b>	<b>22,936</b>	<b>618,933</b>	<b>27.0</b>

**29.—Number of Establishments and of Employees in Canadian Manufactures, by Provinces and Average Number of Employees per Establishment, 1927.**

Provinces.	Under 5 Employees.	5-20.	21-50.	51-100.	101-200.	201-500.	501 and over.	Total.
<b>Prince Edward Island—</b>								
Establishments.....	161	102	24	4	-	-	-	291
Employees.....	332	1,031	637	232	-	-	-	2,232
Average per establishment.....	2.06	10.1	26.5	58.0	-	-	-	7.6
<b>Nova Scotia—</b>								
Establishments.....	578	422	127	37	14	11	1	1,190
Employees.....	1,121	4,357	3,703	2,531	1,813	3,457	879	17,864
Average per establishment.....	1.9	10.3	29.1	68.4	129.5	314.2	879	15.01
<b>New Brunswick—</b>								
Establishments.....	374	319	114	37	15	9	4	872
Employees.....	1,182	3,308	3,539	2,526	2,127	2,940	3,354	18,970
Average per establishment.....	3.1	10.3	31.04	68.2	141.4	326.6	838.5	21.7
<b>Quebec—</b>								
Establishments.....	4,394	1,476	650	322	173	127	64	7,206
Employees.....	9,973	14,969	21,028	22,485	24,292	39,961	63,486	196,094
Average per establishment.....	2.2	10.1	32.3	69.8	140.4	313.8	991.9	27.2
<b>Ontario—</b>								
Establishments.....	4,677	2,556	1,078	561	319	198	83	9,512
Employees.....	9,513	25,800	35,005	39,830	48,936	58,546	78,433	296,034
Average per establishment.....	2.03	10.05	32.4	70.09	142.7	295.5	944.9	31.1
<b>Manitoba—</b>								
Establishments.....	428	242	88	59	23	14	5	859
Employees.....	833	2,541	2,902	4,050	3,383	3,963	5,459	23,031
Average per establishment.....	1.9	10.5	32.9	68.6	147.08	275.9	1,001.8	26.8
<b>Saskatchewan—</b>								
Establishments.....	553	113	35	9	7	4	-	721
Employees.....	848	1,017	1,220	666	916	1,016	-	5,683
Average per establishment.....	1.5	9	34.8	74	130.8	254	-	7.8
<b>Alberta—</b>								
Establishments.....	488	183	53	29	16	7	-	776
Employees.....	1,030	1,725	1,837	2,060	2,164	2,469	-	11,285
Average per establishment.....	2.1	9.4	34.6	71.03	135.2	352.7	-	14.5
<b>British Columbia—</b>								
Establishments.....	592	474	200	135	76	25	7	1,509
Employees.....	1,334	4,876	6,394	9,898	10,400	7,661	7,177	47,740
Average per establishment.....	2.2	10.2	31.9	73.3	136.8	306.4	1,025.2	31.6



### Subsection 5.—Power and Fuel.

**Power.**—The power equipment installed in manufacturing establishments is a very good barometer of the industrial development of Canada, inasmuch as the production is dependent on the power equipment. Increases and decreases in productive capacity, measured in horse-power, are not the result of temporary fluctuations in costs and values in the same manner as capital investments, values of products, etc. Power equipment will not reflect temporary depressions, but over a period of several years will indicate industrial growth or decline.

Central electric stations, which generate electricity for both lighting and power purposes, are included in Table 30 with the other groups of industries and are included also with the industries of each province. The note with Table 30 explains the duplications in power equipment involved where other manufacturing plants are operated by power purchased from central electric stations. Internal combustion engines include all gasoline engines, natural, coal and producer gas engines, and diesel and semi-diesel or other engines which produce power by burning the fuel in the cylinder.

Comparisons with the data for 1926 show an increase of 371,189 h.p. or 7.0 p.c. in 1927 in the total primary power equipment installed in manufacturing establishments, by far the largest increase being in the central electric stations, where the increase was 372,208 h.p., there being a decrease in primary power installation in some of the other groups due to the replacement of steam equipment by electrical equipment operated by purchased power. The water power development of central electric stations increased by 365,627 h.p. In the provinces with large water power developments the greatest total primary power increases were made, Quebec leading with an increase of 233,322 h.p., Ontario coming second with an increase of 49,830 h.p., Manitoba third with an increase of 39,944 h.p. In the utilization of hydraulic power Quebec exceeded Ontario for the first time in 1925. In 1927, Quebec exceeded Ontario or any other province in the total of installed primary power from all sources, further hydraulic development more than offsetting the greater amount of other primary power developed in Ontario.

The rapid increase in the development of power in Canada and in its utilization in manufacturing industries is illustrated by the summary figures for the years 1921 to 1927 in Table 30. The total primary power increased by 2,544,134 h.p. or 81 p.c. in the 6 years, while the total installation of electric motors increased 1,297,026 h.p. or 126 p.c. in the same time.

**30.—Totals, for Canada, of Power Installed in the Manufacturing Industries, 1921-1927, with Details by Provinces and Groups of Industries for 1927.**

Note.—Total power equipment employed (Col. 8) is the sum of total primary power (Col. 4) and electric motors operated by purchased power (Col. 5). Since the power purchased (Col. 5) is generated by primary equipment already included in Col. 4, there is a duplication by the amounts of Col. 5 in the total power equipment figures of Col. 8 as applied to the totals for Canada and for each of the provinces. In the case of each of the groups of industries, however, since this purchased power is practically all generated by central electric stations, there is no duplication in the figures of total power equipment employed (Col. 8). The net growth in the power developed in Canada is shown in Col. 4 for the years 1921 to 1927.

Provinces and groups.	Primary power.				Electric motors.			Total power equipment employed.
	Steam engines and turbines.	Internal combustion engines.	Hydraulic turbines and water wheels.	Total primary power.	Operated by purchased power.	Operated by power generated by establishments.	Total electric motors.	
	Col. 1.	Col. 2.	Col. 3.	Col. 4.	Col. 5.	Col. 6.	Col. 7.	
	h.p.	h.p.	h.p.	h.p.	h.p.	h.p.	h.p.	h.p.
<b>Total 1921.....</b>	<b>764,725</b>	<b>53,567</b>	<b>2,318,865</b>	<b>3,137,157</b>	-	-	<b>1,014,216</b>	-
<b>Total 1922.....</b>	<b>833,756</b>	<b>87,022</b>	<b>2,691,084</b>	<b>3,611,862</b>	-	-	<b>1,162,649</b>	-
<b>Total 1923.....</b>	<b>827,870</b>	<b>64,029</b>	<b>2,869,738</b>	<b>3,761,628</b>	<b>958,692</b>	<b>357,136</b>	<b>1,315,828</b>	<b>4,720,326</b>
<b>Total 1924.....</b>	<b>944,267</b>	<b>72,491</b>	<b>3,283,146</b>	<b>4,299,904</b>	<b>1,256,183</b>	<b>398,001</b>	<b>1,654,184</b>	<b>5,556,087</b>
<b>Total 1925.....</b>	<b>992,916</b>	<b>77,435</b>	<b>4,012,756</b>	<b>5,083,107</b>	<b>1,547,754</b>	<b>434,678</b>	<b>1,982,432</b>	<b>6,636,861</b>
<b>Total 1926.....</b>	<b>1,018,535</b>	<b>78,554</b>	<b>4,213,013</b>	<b>5,310,102</b>	<b>1,770,334</b>	<b>392,322</b>	<b>2,162,656</b>	<b>7,080,436</b>
<b>Total 1927.....</b>	<b>1,038,931</b>	<b>79,753</b>	<b>4,562,607</b>	<b>5,681,291</b>	<b>1,924,687</b>	<b>386,555</b>	<b>2,311,242</b>	<b>7,665,978</b>
<b>PROVINCES, 1927.</b>								
Prince Edward Island.....	3,825	949	1,494	6,268	473	314	787	6,741
Nova Scotia.....	114,224	3,561	54,695	172,480	24,162	40,400	64,562	196,642
New Brunswick.....	65,967	4,212	38,134	108,313	12,747	24,618	37,365	121,060
Quebec.....	197,017	8,138	2,022,229	2,227,384	861,314	82,077	943,991	3,088,698
Ontario.....	296,480	33,115	1,740,534	2,070,129	782,304	149,340	931,644	2,852,433
Manitoba.....	45,630	2,277	254,929	302,836	80,548	145	80,693	383,384
Saskatchewan.....	71,040	13,235	2	84,277	13,947	128	14,075	98,224
Alberta.....	87,898	4,587	33,540	126,025	26,759	4,909	30,068	151,784
British Columbia and Yukon.....	156,850	9,679	417,050	583,579	123,433	84,024	207,457	707,012
<b>GROUPS OF INDUSTRIES, 1927.</b>								
Vegetable products.....	57,526	11,172	39,275	107,973	172,197	22,905	195,102	280,170
Animal products.....	25,895	5,702	1,990	33,587	68,063	2,848	70,911	101,650
Textiles and textile products.....	27,794	1,543	28,519	57,856	90,190	20,862	120,061	157,055
Wood and paper products.....	398,324	13,469	436,490	848,283	922,626	229,497	1,152,123	1,770,909
Iron and its products.....	137,751	20,938	3,942	162,631	288,945	67,176	356,121	451,576
Non-ferrous metals.....	19,790	178	68,860	88,828	148,692	29,046	177,738	237,520
Non-metallic minerals.....	27,503	3,515	47	31,065	129,131	11,039	140,170	160,196
Chemicals and allied products.....	15,723	320	8,470	24,513	41,385	3,132	44,517	65,898
Miscellaneous industries.....	7,851	306	2	8,159	54,449	50	54,499	62,608
Central electric stations.....	320,774	22,610	3,975,012	4,318,396	-	-	-	4,318,396

**Fuel.**—The fuel used in industrial establishments in 1927 included 6,470,803 tons of bituminous coal, valued at \$36,053,827, constituting 60.0 p.c. of the total fuel cost. The other chief fuels in order of value were: fuel oil, comprising 12.0 p.c., gas (principally natural gas) 8.8 p.c., coke 6.5 p.c., wood 4.2 p.c. and anthracite coal 4.1 p.c. Out of a fuel account of over \$60,000,000, Ontario expended \$29,600,000 or 49.3 p.c. of the total. The manufacturing concerns of Quebec expended \$16,500,000, those of British Columbia \$4,500,000 and those of Nova Scotia over \$2,300,000.

The groups of industry in which fuel was most extensively used in 1927 were; wood and paper, \$14,631,000; non-metallic minerals, \$12,696,000; iron and steel, \$9,280,000; and vegetable products, \$6,941,000. Fuel is used quite generally throughout the industrial field for the generation of power by means of internal combustion and steam engines. The principal industries where fuel is used as a material that enters into the actual composition of the product are the manufactures of coke and gas. The most important industries where heat is applied directly to materials to transform them or to facilitate their manipulation are foundries and machine shops, blast-furnaces and steel mills, smelting plants, brick-, tile-, lime- and cement-making, petroleum-refining and the glass industry.

The total annual expenditure on fuel increased by \$8,465,306 or 16.4 p.c. in the 6 years from 1921 to 1927, covered by the summary figures in Table 31. The fuels which have shown the greatest proportionate increase are gas, coke and oil.

**31.—Total Fuel Used in the Manufacturing Industries of Canada, 1921-1927, with Details by Provinces and Groups, 1927.**

Provinces and Groups,	Bituminous coal.		Anthracite coal.	Coke.	Oil.	Wood.	Gas.	Total. <sup>1</sup>
	Quantity.	Value.						
	Tons.	\$	\$	\$	\$	\$	\$	\$
<b>Total, 1921....</b>	<b>4,163,671</b>	<b>34,752,681</b>	<b>2,915,752</b>	<b>2,497,400</b>	<b>5,417,800</b>	<b>-</b>	<b>-</b>	<b>51,640,912</b>
<b>Total, 1922....</b>	<b>4,101,463</b>	<b>29,914,585</b>	<b>3,616,185</b>	<b>3,299,016</b>	<b>5,649,071</b>	<b>2,085,444</b>	<b>1,616,802</b>	<b>48,320,565</b>
<b>Total, 1923....</b>	<b>5,238,446</b>	<b>38,283,135</b>	<b>4,614,239</b>	<b>3,238,257</b>	<b>6,241,692</b>	<b>2,514,157</b>	<b>1,904,058</b>	<b>58,736,939</b>
<b>Total, 1924....</b>	<b>5,518,255</b>	<b>34,438,554</b>	<b>4,642,651</b>	<b>2,250,232</b>	<b>5,780,752</b>	<b>2,595,064</b>	<b>4,711,186</b>	<b>57,068,211</b>
<b>Total, 1925....</b>	<b>5,902,197</b>	<b>34,634,531</b>	<b>2,564,489</b>	<b>5,045,239</b>	<b>7,246,961</b>	<b>2,700,979</b>	<b>3,570,180</b>	<b>57,818,701</b>
<b>Total, 1926....</b>	<b>6,409,227</b>	<b>36,723,359</b>	<b>2,266,935</b>	<b>4,176,584</b>	<b>7,371,769</b>	<b>2,645,505</b>	<b>4,233,073</b>	<b>59,685,997</b>
<b>Total, 1927....</b>	<b>6,470,803</b>	<b>36,653,827</b>	<b>2,435,720</b>	<b>3,890,378</b>	<b>7,220,529</b>	<b>2,492,495</b>	<b>5,272,735</b>	<b>60,106,218</b>
<b>PROVINCES, 1927.</b>								
Prince Edward Island.....	12,425	80,020	978	1,588	10,161	14,035	-	108,949
Nova Scotia.....	192,101	973,550	18,829	74,659	597,080	56,482	547,602	2,318,477
New Brunswick....	272,141	1,520,752	18,486	26,699	75,979	218,672	10,903	1,902,846
Quebec.....	1,792,547	11,231,100	1,398,872	277,436	2,107,016	528,180	387,658	16,471,746
Ontario.....	3,520,058	18,717,199	876,281	2,390,955	2,318,401	1,072,466	3,630,317	29,635,533
Manitoba.....	199,791	1,055,876	50,897	61,161	218,059	214,759	40,271	1,995,688
Saskatchewan.....	65,054	448,813	27,429	20,887	419,355	83,227	133,420	1,722,826
Alberta.....	184,411	526,855	1,926	11,126	96,235	31,875	368,432	1,476,099
British Columbia and Yukon.....	271,265	1,494,653	38,022	1,029,867	1,317,613	272,799	139,082	4,473,854
<b>GROUPS OF INDUSTRIES, 1927.</b>								
Vegetable products.....	700,424	3,995,228	463,091	413,136	668,695	513,067	536,113	6,940,596
Animal products.....	360,841	2,233,966	74,029	62,217	169,825	343,272	68,903	3,436,788
Textiles and textile products.....	437,386	2,800,427	234,164	52,008	104,787	55,115	79,620	3,512,308
Wood and paper products.....	2,128,407	11,411,325	1,155,979	21,125	870,391	738,008	137,662	14,631,308
Iron and its products.....	785,691	4,115,343	248,433	474,671	1,004,619	67,051	2,158,393	9,279,931
Non-ferrous metal products.....	255,648	1,577,766	56,976	2,261,027	684,964	47,571	178,907	4,830,290
Non-metallic mineral products....	1,248,388	6,029,006	69,313	507,444	2,377,192	596,549	1,989,723	12,606,487
Chemicals and allied products...	254,945	1,440,451	90,952	60,009	60,090	24,539	23,382	1,784,782
Miscellaneous industries.....	66,908	453,780	23,511	37,154	90,034	8,756	52,194	690,911
Central electric stations.....	232,165	1,090,535	18,672	1,587	1,946,436	98,507	37,838	2,302,817

<sup>1</sup>Includes other kinds of fuel which, in 1927, were as follows:—lignite coal, \$1,333,131; gasoline, \$420,437; and all other fuels, \$986,966.

### Section 5.—Manufacturing Industries in Cities and Towns.

The prosperity of most of the cities and towns of Canada, especially in the East, is intimately connected with their manufacturing industries, which provide employment for a large proportion of their gainfully employed population. In the West, the cities are more largely distributing centres, though manufactures are rapidly increasing there also.

Table 32, indicating the extent to which the manufacturing industries of Canada are concentrated in urban centres, shows by provinces the proportion of the gross manufacturing production which is produced in cities and towns having a gross production of over \$1,000,000 each. In the more highly industrialized provinces of Ontario and Quebec such cities and towns account for over 85 p.c. of the total, while in British Columbia and Prince Edward Island, where sawmilling, fish-packing, and dairying are leading industries, the proportion falls to less than 52 p.c.

The seven chief manufacturing cities of Canada in 1927, in the order named, were Montreal, Toronto, Hamilton, Winnipeg, Vancouver, Oshawa and Ottawa, with a gross production of over \$60,000,000 each. Statistics showing the trend of production in these cities, during the last 7 years for which the figures are available, are given in Table 33.

According to the census of 1921, Hamilton is proportionately the most largely dependent of these cities upon manufacturing industries. About 45 p.c. of its gainfully employed population was employed in manufacturing industries, as compared with 30 p.c. in Montreal and Toronto, 17 p.c. in Winnipeg and Vancouver and 13 p.c. in Ottawa.

Eighteen other important cities with a gross production of manufactured goods of between \$50,000,000 and \$20,000,000 each in 1927 were as follows, in descending order of the value of their products:—Three Rivers, Kitchener, London, Quebec, Calgary, Niagara Falls, Peterborough, Brantford, New Toronto, Windsor, Saint John, St. Boniface, Walkerville, Edmonton, Sarnia, Ford, Shawinigan Falls and Sault Ste. Marie. Statistics of the manufactures of all cities and towns with a gross production of \$200,000 and over and with three or more manufacturing establishments are given for 1927 in Table 34.

**32.—Cities and Towns with a Gross Manufacturing Production of over \$1,000,000 each, Number of Establishments and Total Gross Production in such Cities and Towns as a percentage of the Grand Total, by Provinces, 1927.**

Provinces.	Cities and towns with a gross production of over \$1,000,000 each.	Establishments reporting in cities and towns producing over \$1,000,000 each.	Total production in cities and towns producing over \$1,000,000 each.	Total production in each province.	Production in cities and towns as a percentage of total production in each province.
	No.	No.	\$	\$	p.c.
Prince Edward Island.....	1	30	1,881,181	4,493,628	41-86
Nova Scotia.....	7	25	57,625,217	74,458,237	77-39
New Brunswick.....	10	28	53,199,386	72,666,665	73-21
Quebec.....	47	2,84	851,551,165	990,582,993	85-96
Ontario.....	118	5,927	1,601,534,816	1,758,004,575	91-10
Manitoba.....	5	538	127,996,248	142,089,678	90-09
Saskatchewan.....	4	163	41,679,932	52,180,681	79-88
Alberta.....	5	373	72,613,582	84,987,317	85-43
British Columbia.....	12	86	126,848,026	246,031,704	51-55
<b>Canada.....</b>	<b>201</b>	<b>11,258</b>	<b>2,934,959,553</b>	<b>3,425,498,540</b>	<b>85-68</b>



### 33.—Principal Statistics of the Manufacturing Industries of the Seven Leading Manufacturing Cities of Canada, 1921-1927.

Cities.		Estab- lish- ments.	Capital.	Em- ployees.	Salaries and Wages.	Cost of Materials.	Gross Value of Products.
		No.	\$	No.	\$	\$	\$
Montreal.....	1921	1,326	437,159,896	74,320	81,700,683	212,796,716	413,475,166
	1922	1,468	456,898,909	79,996	83,973,965	200,918,219	406,846,230
	1923	1,451	473,624,425	85,603	93,943,718	226,198,441	459,254,656
	1924	1,560	469,351,640	86,648	91,755,516	224,134,382	444,852,084
	1925	1,660	523,125,905	91,621	99,755,988	235,301,377	467,055,393
	1926	1,729	512,412,908	95,904	100,147,150	275,322,258	555,269,114
	1927	1,823	552,788,702	98,353	113,797,512	259,104,230	540,267,591
Toronto.....	1921	1,700	370,426,285	66,708	84,147,050	192,588,233	371,090,034
	1922	1,811	392,469,184	78,633	92,930,816	205,568,765	394,065,052
	1923	1,933	389,772,678	82,267	97,447,033	210,786,422	409,829,557
	1924	1,928	410,244,068	80,001	96,554,310	213,493,889	401,367,127
	1925	1,957	429,165,022	82,728	100,769,782	246,399,340	447,098,824
	1926	2,013	451,233,965	86,439	107,734,568	270,290,114	469,522,114
	1927	2,092	475,475,308	92,238	115,556,907	270,275,071	520,066,313
Hamilton.....	1921	399	142,001,725	28,192	28,042,403	53,074,110	109,803,883
	1922	437	143,158,098	23,476	26,256,146	50,844,910	100,280,131
	1923	436	170,378,119	25,797	31,399,136	77,110,899	141,097,732
	1924	427	170,993,755	23,772	28,513,251	56,884,010	118,591,000
	1925	414	166,284,301	23,629	27,987,009	62,110,974	122,305,950
	1926	417	172,315,587	27,087	33,244,170	74,066,846	116,087,029
	1927	422	179,328,754	29,210	36,984,470	72,757,263	152,107,454
Winnipeg.....	1921	419	67,351,814	11,016	15,521,375	39,701,665	75,180,039
	1922	434	46,251,208	10,679	13,858,116	36,766,668	66,925,392
	1923	425	70,872,528	11,500	14,782,426	38,172,282	70,647,027
	1924	411	87,489,566	11,931	15,395,262	40,837,275	74,755,670
	1925	409	89,688,323	14,316	18,390,797	42,388,504	79,614,829
	1926	446	96,801,995	15,459	20,086,607	46,501,703	87,686,243
	1927	476	108,717,326	16,785	21,215,664	48,986,976	95,592,864
Vancouver.....	1921	441	72,035,459	10,438	12,446,231	35,287,999	65,035,973
	1922	485	75,630,953	10,598	10,579,482	35,567,418	63,172,964
	1923	507	80,053,568	11,100	13,815,995	40,518,790	71,221,905
	1924	498	93,699,451	13,417	16,920,959	43,691,647	77,860,759
	1925	507	102,105,028	13,334	16,384,973	42,020,070	75,823,721
	1926	523	106,624,727	14,781	18,347,299	46,120,382	84,831,423
	1927	556	116,754,996	11,897	19,251,035	47,290,240	87,751,347
Oshawa.....	1921	28	17,444,828	2,806	3,418,396	18,990,614	27,801,398
	1922	31	20,654,430	4,052	4,883,478	28,535,248	40,131,834
	1923	31	23,978,160	5,919	6,223,833	33,338,313	43,876,305
	1924	35	21,311,531	4,554	5,301,281	25,996,264	37,918,669
	1925	31	21,832,973	4,987	6,269,918	30,345,887	47,529,284
	1926	33	23,935,711	5,011	7,394,165	31,447,446	51,571,595
	1927	35	31,883,016	6,816	10,127,271	50,763,745	77,631,290
Ottawa.....	1921	181	38,184,743	5,841	7,251,469	27,854,285	41,949,894
	1922	203	38,530,758	6,667	7,742,794	34,581,220	49,202,086
	1923	197	43,513,700	7,658	8,454,415	25,766,305	40,965,955
	1924	204	48,317,550	7,379	8,435,060	15,905,187	30,826,930
	1925	192	48,777,659	7,110	8,551,138	15,932,660	31,303,494
	1926	207	52,310,095	7,593	9,028,482	43,589,670	59,491,881
	1927	201	56,466,275	7,858	9,373,881	45,764,916	63,118,092

**34.—Statistics of Manufactures of Municipalities with a Gross Production of \$200,000 or over, and with three or more Establishments, 1927.**

Cities and Towns.	Estab- lish- ments.	Capital.	Em- ployees.	Salaries and Wages.	Cost of Materials.	Gross Value of Products.
	No.	\$	No.	\$	\$	\$
<b>Prince Edward Island—</b>						
Charlottetown.....	30	1,873,244	429	403,927	1,002,997*	1,881,181
Summerside.....	13	353,980	92	69,970	207,072	374,612
<b>Nova Scotia—</b>						
Sydney.....	20	42,367,891	1,061	2,648,275	7,052,243	16,988,479
Dartmouth.....	15	16,008,628	854	1,184,634	14,106,038	10,331,681
Halifax.....	100	31,003,880	3,472	3,660,131	4,819,189	13,069,488
New Glasgow.....	29	6,152,348	717	753,212	1,889,445	3,651,768
Truro.....	25	4,282,982	795	644,012	1,657,407	3,147,466
Yarmouth.....	33	3,006,403	519	494,740	1,077,800	2,324,872
Amherst.....	22	4,075,626	613	589,124	934,815	2,111,460
Windsor.....	15	1,993,397	281	171,749	511,990	992,429
Canso.....	4	413,190	227	155,953	435,536	684,473
Pictou.....	16	483,001	327	146,983	297,810	557,173
Middleton.....	8	347,897	62	45,670	426,866	529,445
Lunenburg.....	13	613,994	196	151,822	201,588	470,305
Stellarton.....	11	622,642	47	52,721	140,693	437,508
Bridgewater.....	20	811,584	190	116,803	290,161	433,305
Oxford.....	11	391,426	143	100,068	231,303	405,513
North Sydney.....	14	263,312	123	100,460	159,361	361,015
Lockport.....	5	360,271	108	47,367	200,669	318,103
Port Hawkesbury.....	3	425,602	64	55,177	191,276	281,113
Bridgetown.....	10	322,846	138	81,068	115,867	249,484
Digby.....	9	295,582	66	48,956	112,053	225,742
Clarks Harbour.....	7	66,871	64	23,061	178,531	224,998
Glace Bay.....	6	238,270	42	54,227	32,401	224,356
Wolfville.....	6	126,400	28	30,097	138,067	215,283
<b>New Brunswick—</b>						
Saint John.....	129	33,487,639	3,494	3,467,098	18,632,862	28,060,757
Moncton.....	40	7,633,891	2,359	2,666,502	3,680,229	7,350,483
Edmundston.....	10	6,708,529	437	551,123	1,864,022	3,760,024
Bathurst.....	14	8,311,585	594	733,302	1,305,264	3,360,292
St. Stephen.....	16	2,427,710	520	490,718	1,473,294	2,614,753
Fredericton.....	31	3,331,028	705	673,677	1,214,491	2,428,377
Milltown.....	3	2,329,538	863	687,403	688,927	1,806,947
Newcastle.....	16	3,349,394	545	432,553	1,201,136	1,706,695
Sackville.....	11	1,520,730	410	448,442	441,819	1,093,101
Campbellton.....	16	2,370,571	325	290,045	549,635	1,017,957
Chatham.....	12	2,537,264	245	233,355	446,933	920,288
Sussex.....	14	413,006	170	123,977	429,026	807,159
Grand Falls.....	11	377,335	169	144,207	290,744	449,894
Dalhousie.....	3	767,830	114	69,287	281,685	400,530
Woodstock.....	17	420,908	114	97,666	79,796	272,229
St. George.....	4	532,263	81	94,570	65,853	208,964
<b>Quebec—</b>						
Montreal.....	1,823	552,788,702	98,353	113,797,512	259,104,230	540,267,591
Three Rivers.....	54	67,037,070	7,384	8,046,150	18,212,158	44,303,881
Quebec.....	263	43,080,873	9,764	8,319,755	15,504,295	35,258,333
Shawinigan Falls.....	20	65,494,137	2,338	2,971,236	7,929,420	20,609,086
Sherbrooke.....	76	23,045,210	4,451	4,455,171	7,390,106	18,429,959
Lachine.....	25	18,891,354	2,523	4,022,855	7,114,042	15,878,574
Montreal East.....	4	23,848,875	1,539	2,168,136	10,878,433	15,633,773
Hull.....	38	13,771,199	2,672	2,791,622	4,850,619	11,623,773
Valleyfield.....	24	10,804,298	2,889	2,315,430	3,354,163	10,061,326
Granby.....	28	8,951,300	2,430	2,071,855	4,256,776	9,965,459
Magog.....	13	4,752,328	1,422	1,102,017	6,093,027	8,806,061
Grand Mère.....	15	51,567,070	1,280	2,001,173	2,316,241	8,773,013
St. Hyacinthe.....	48	9,093,056	2,537	1,855,489	4,378,924	7,921,507
Kenogami.....	3	15,810,035	933	1,442,263	2,498,940	7,907,530
St. Jérôme.....	28	4,838,863	1,884	1,485,763	2,014,787	7,420,039
Port Alfred.....	3	23,005,193	920	1,276,226	2,136,492	7,328,575
St. John.....	30	7,321,056	2,360	2,317,893	3,133,175	6,442,514
Drummondville.....	17	17,820,681	1,438	1,168,244	3,091,883	5,324,262
East Angus.....	5	13,393,927	793	853,680	2,769,051	5,046,840
Laizon.....	5	4,047,221	604	664,855	1,691,578	4,756,774
La Tuque.....	10	7,958,221	601	805,721	1,880,173	4,304,363
Bélœil.....	8	4,299,950	234	303,165	2,503,466	4,279,450
Victoriaville.....	24	4,167,054	1,164	920,463	1,363,790	4,052,011
Donnacoona.....	3	11,444,207	499	826,835	1,735,745	3,517,837
St. Joseph d'Alma.....	5	11,208,201	473	720,808	809,825	3,492,074
Chicoutimi.....	20	13,159,946	670	701,034	1,892,482	3,394,780

**34.—Statistics of Manufactures of Municipalities with a Gross Production of \$200,000 or over, and with three or more Establishments, 1927—continued.**

Cities and Towns.	Estab- lish- ments.	Capital.	Em- ployees.	Salaries and Wages.	Cost of Materials.	Gross Value of Products.
	No.	\$	No.	\$	\$	\$
<b>Quebec—concluded—</b>						
Verdun.....	9	1,683,193	797	763,083	1,625,809	3,166,780
Berthier.....	11	4,223,520	389	301,878	675,018	2,603,617
Sorel.....	19	3,479,337	1,391	1,123,241	859,566	2,531,861
Beauharnois.....	9	5,283,340	533	509,622	1,107,881	2,469,913
Windsor.....	7	3,670,991	491	560,845	953,500	2,196,101
Joliette.....	37	1,712,630	562	426,391	987,911	2,082,518
Bromptonville.....	3	413,743	311	402,461	1,185,897	1,958,191
Cotticook.....	24	2,433,090	728	450,162	1,010,258	1,803,666
Chandler.....	4	2,931,631	449	466,555	775,321	1,836,491
Marieville.....	10	1,581,135	489	391,001	985,335	1,862,530
Buckingham.....	14	2,787,741	334	390,059	748,918	1,645,873
Cowansville.....	11	2,203,149	484	439,339	699,534	1,628,840
Longueuil.....	7	2,322,587	249	356,391	97,014	1,470,216
Outremont.....	3	503,118	449	477,868	550,619	1,399,816
Jonquière.....	10	1,672,726	216	311,331	534,047	1,317,869
Rock Island.....	15	2,162,484	365	323,353	624,206	1,301,180
Cap de la Madeleine.....	6	316,330	110	81,573	1,003,492	1,189,400
Montmagny.....	20	3,113,564	357	317,111	409,375	1,075,870
St. Rémi.....	11	597,460	134	85,971	839,110	1,059,313
Asbestos.....	10	1,350,822	105	176,243	572,735	1,056,818
Rimouski.....	10	3,270,225	351	308,099	431,555	1,011,740
Laprairie.....	9	7,164,490	303	469,595	51,756	998,049
St. Laurent.....	5	1,231,572	391	517,593	361,524	972,131
Ste. Thérèse.....	13	1,107,090	266	210,551	441,039	969,013
Charlemagne.....	4	1,149,526	74	15,599	802,658	942,778
Farnham.....	12	592,687	314	205,048	524,958	939,311
Lorretteville.....	16	865,855	317	241,152	480,005	885,593
Plessisville.....	15	1,037,081	327	207,209	439,665	879,905
Louiseville.....	8	527,353	318	155,033	716,663	879,922
Portneuf.....	7	1,111,614	142	154,818	436,882	837,011
St. Raymond.....	13	925,133	244	151,543	345,150	777,839
Laie au Saunon.....	3	300,536	192	111,453	384,019	677,683
Pont Rouge.....	8	1,135,349	182	151,167	337,875	670,231
Beilford.....	5	822,605	345	282,297	58,695	621,169
Thurso.....	5	811,757	172	196,503	319,954	568,578
Terrobonne.....	10	809,291	221	198,329	271,074	550,855
Rivière du Loup.....	17	1,922,196	251	269,877	166,679	549,744
Lévis.....	16	731,855	237	171,722	190,873	541,122
Contrecoeur.....	3	268,911	189	139,264	329,357	538,500
Calumet.....	3	681,605	99	116,387	372,885	530,428
Lennoxville.....	7	486,818	109	111,024	212,871	518,337
Westmount.....	4	1,283,468	140	192,866	19,975	481,433
Warwick.....	10	503,496	148	128,206	235,799	463,849
Danville.....	10	583,137	152	110,388	221,582	422,324
Acton Vale.....	12	302,998	433	70,024	308,681	412,710
Arnos.....	8	466,978	170	89,614	187,125	356,497
Shawville.....	9	80,448	35	23,362	284,359	355,582
St. Lambert.....	6	417,649	152	131,835	85,621	342,863
Lachute.....	6	413,343	65	57,911	215,548	335,785
Disraeli.....	4	1,541,052	217	164,136	101,257	335,221
Nicolet.....	8	314,618	130	87,161	175,845	333,500
Beebe Plain.....	0	105,311	86	47,774	190,550	326,245
St. Tite.....	14	168,180	141	72,230	170,604	284,591
Thetford Mines.....	16	565,921	103	86,967	85,678	266,223
Sutton.....	8	198,786	54	38,864	152,835	253,675
Waterloo.....	9	350,245	103	81,285	100,132	246,626
Iberville.....	9	171,848	91	54,158	98,226	213,599
Roberval.....	14	285,905	119	57,978	113,639	213,355
St. Césaire.....	13	138,488	91	28,169	156,256	211,129
St. Geneviève.....	7	158,316	69	47,402	139,528	202,689
<b>Ontario—</b>						
Toronto.....	2,092	475,475,308	92,238	115,556,907	270,275,071	520,066,313
Hamilton.....	422	179,328,754	29,210	36,984,470	72,757,263	152,107,454
Oshawa.....	35	31,883,066	6,846	10,127,271	50,763,745	77,631,290
Ottawa.....	201	56,460,275	7,858	9,373,881	45,764,916	63,118,092
Kitchener.....	136	38,147,021	7,812	8,492,474	20,982,907	44,047,658
London.....	227	44,893,471	9,573	10,745,671	18,151,824	41,862,911
Niagara Falls.....	60	38,124,035	2,595	3,612,032	15,932,378	33,833,423
Peterboro.....	80	24,623,192	5,154	5,405,442	20,833,209	33,320,667
Brantford.....	93	57,700,583	7,184	8,052,922	16,068,448	32,295,183
New Toronto.....	11	21,547,100	3,296	4,846,594	20,234,035	31,183,884
Windsor.....	138	25,343,714	3,727	5,689,741	16,210,165	30,167,871

## 34.—Statistics of Manufactures of Municipalities with a Gross Production of \$200,000 or over, and with three or more Establishments, 1927—continued.

Cities and Towns.	Estab- lish- ments.	Capital.	Em- ployees	Salaries and Wages.	Cost of Materials.	Gross Value of Products.
	No.	\$	No.	\$	\$	\$
<b>Ontario—continued—</b>						
Walkerville.....	53	27,000,724	3,074	4,008,114	12,483,363	23,004,408
Warram.....	38	22,018,923	2,584	3,795,135	15,831,277	23,053,656
Ford City <sup>1</sup> .....	10	47,685,990	4,218	7,888,465	10,915,310	22,745,267
Sault Ste. Marie.....	43	62,702,070	2,108	3,686,951	9,830,363	20,545,524
Guelph.....	89	15,914,351	4,179	4,472,089	9,224,762	17,875,175
Welland.....	39	20,383,847	2,732	3,031,700	9,352,477	17,032,516
St. Catharines.....	92	19,339,889	3,848	4,543,043	7,102,270	15,097,047
Port Colborne.....	13	8,721,093	654	865,012	12,640,474	15,600,316
Clutham.....	55	15,443,712	2,401	2,826,757	9,103,039	15,008,017
Galt.....	76	10,241,958	3,761	4,191,393	6,835,091	14,939,449
Keewatin.....	4	6,249,520	395	540,399	12,671,280	14,553,121
Thorold.....	16	26,686,439	1,398	2,273,103	4,985,665	13,530,977
Cornwall.....	46	19,374,317	3,720	3,534,158	5,948,130	13,287,808
Stratford.....	62	11,241,464	3,057	3,686,855	6,300,069	12,065,953
Leaside.....	4	11,848,429	1,142	1,885,841	8,092,077	11,703,928
Kenora.....	16	15,230,705	704	947,910	6,899,107	10,717,203
Fort William.....	38	16,461,224	1,174	1,422,393	5,159,973	9,753,293
Iroquois Falls.....	3	35,085,840	1,040	1,859,160	2,616,418	9,426,595
Woodstock.....	60	10,399,102	2,187	2,254,242	4,727,926	8,771,664
Wallaceburg.....	19	7,957,467	1,009	1,316,078	5,260,170	8,207,092
Kingston.....	59	13,895,818	1,680	1,894,357	4,067,868	8,253,314
Port Frances.....	13	14,000,870	892	1,202,741	3,111,999	7,499,980
Brookville.....	33	5,494,402	783	799,261	4,300,391	7,040,108
Waterloo.....	34	11,249,983	1,316	1,492,983	3,134,271	6,461,725
Preston.....	33	5,829,571	1,507	1,739,637	2,694,739	5,758,070
Port Arthur.....	24	10,972,987	1,418	1,956,075	1,670,402	5,579,987
Goderich.....	20	2,391,894	334	345,067	4,514,086	5,531,605
Hawkesbury.....	12	7,312,922	818	881,569	2,580,162	5,227,815
St. Thomas.....	45	4,140,754	1,104	1,107,487	2,612,717	5,158,101
Belleville.....	40	8,538,150	1,208	1,253,353	1,319,002	6,003,615
Owen Sound.....	48	6,666,004	1,026	1,568,023	2,036,203	4,998,933
Simcoe.....	35	3,955,914	764	566,465	2,772,624	4,692,070
Midland.....	20	4,591,916	798	800,255	3,140,660	4,580,593
Fergus.....	13	1,242,918	598	541,226	1,775,014	4,578,668
Leamington.....	15	2,752,084	467	502,220	1,048,135	4,456,583
Huntsville.....	13	5,019,758	467	440,585	2,734,855	4,335,783
Pembroke.....	36	7,208,655	1,204	915,154	2,282,349	3,952,339
Paris.....	20	5,863,036	1,112	967,759	1,082,454	3,880,040
Reelfreew.....	19	4,159,567	721	760,720	2,164,601	3,803,510
St. Marys.....	22	4,429,370	510	581,255	1,793,780	3,791,140
Hespeler.....	14	6,750,931	1,155	1,044,661	1,916,186	3,732,384
Orillia.....	34	5,641,838	1,033	1,065,816	1,766,073	3,625,128
Bowmanville.....	19	3,063,983	614	601,980	1,910,416	3,580,735
Acton.....	13	3,157,356	436	411,505	2,208,300	3,509,192
Newmarket.....	15	2,102,442	571	608,918	1,581,123	3,396,810
Cardinal.....	8	3,108,658	312	389,803	2,340,663	3,291,195
Ingersoll.....	26	3,515,260	417	683,697	1,904,400	3,227,285
Elmira.....	15	2,183,946	588	585,088	1,186,327	3,086,975
Petrolia.....	18	2,377,300	202	249,468	2,081,660	3,075,774
Clappanwa.....	3	800,929	162	254,251	583,377	2,053,363
Aurora.....	8	1,327,193	410	434,088	2,112,399	2,033,757
Merriton.....	8	1,757,738	489	735,201	1,203,382	2,752,029
Dundas.....	19	4,424,823	745	883,738	1,225,568	2,701,850
Perth.....	22	3,638,066	652	704,214	1,107,465	2,633,125
Weston.....	10	3,665,136	683	812,169	1,170,707	2,607,513
Brantford.....	22	2,317,171	827	829,468	1,288,415	2,601,432
Oakville.....	20	1,551,836	405	458,461	1,715,325	2,568,251
Gananoque.....	25	3,083,602	628	727,377	1,111,259	2,615,049
Hanover.....	15	2,983,825	637	676,894	1,191,899	2,502,671
Lindsay.....	38	2,742,098	504	506,943	1,352,134	2,497,071
Tillsonburg.....	23	1,937,269	528	503,523	1,590,925	2,448,321
Cobourg.....	29	2,683,057	451	419,513	1,036,819	2,383,595
Kapuskasing.....	5	18,445,218	427	516,931	1,028,179	2,350,456
Georgetown.....	14	2,612,211	462	458,885	1,357,185	2,321,660
Smiths Falls.....	22	3,755,761	648	708,718	1,117,680	2,301,666
Port Hope.....	31	3,280,293	591	747,361	736,161	2,248,854
Amherstburg.....	10	9,195,774	285	405,268	322,118	2,164,526
Sanwich.....	10	3,881,297	394	635,777	397,416	2,160,209
Aylmer.....	9	1,803,914	196	189,831	1,353,187	2,153,085
Sudbury.....	26	4,000,746	359	417,925	1,032,035	2,142,812
Carleton Place.....	21	2,720,545	577	576,469	930,592	2,062,380

<sup>1</sup> Now East Windsor.



34.—Statistics of Manufactures of Municipalities with a Gross Production of \$200,000 or over, and with three or more Establishments, 1927—continued.

Cities and Towns.	Estab- lish- ments.	Capital.	Em- ployees	Salaries and Wages.	Cost of Materials.	Gross Value of Products.
	No.	\$	No.	\$	\$	\$
<b>Ontario—continued—</b>						
Campbellford .....	26	1,976,441	380	367,124	1,025,586	1,996,910
Bridgeburg .....	20	1,341,252	183	269,609	937,031	1,910,582
Timmins .....	24	17,081,921	182	222,152	111,618	1,863,357
Arnprior .....	13	4,062,366	470	460,386	952,484	1,862,704
Dunnville .....	17	1,987,579	573	590,760	779,146	1,848,582
Chesterville .....	7	1,012,326	134	165,651	1,245,081	1,809,031
Kincardine .....	14	1,680,998	446	414,724	811,197	1,806,341
Sturgeon Falls .....	8	71,465	463	658,947	1,218,713	1,801,930
Napanee .....	22	1,316,311	322	310,343	1,023,825	1,758,530
Port Credit .....	3	2,061,919	172	229,278	1,003,034	1,739,103
Penetanguishene .....	15	1,579,708	370	381,044	856,028	1,672,020
Port Dalhousie .....	5	1,103,158	481	418,260	513,264	1,630,874
Galesburg .....	11	684,768	181	219,130	853,651	1,605,788
Listowel .....	21	938,773	392	321,460	937,006	1,581,714
Barrie .....	18	1,545,185	301	312,088	965,559	1,570,518
Trenton .....	26	2,394,987	509	404,476	705,658	1,537,565
Bracebridge .....	19	2,613,570	330	280,900	953,170	1,532,976
Tillbury .....	9	779,220	263	319,137	593,596	1,498,888
Blind River .....	6	1,242,147	256	211,034	860,060	1,498,000
Milton .....	14	2,917,255	418	380,725	538,029	1,448,926
Tavistock .....	12	490,128	180	152,132	1,119,609	1,440,907
Meaford .....	10	1,390,924	332	296,872	944,821	1,435,621
Cobalt .....	8	14,340,509	170	250,413	52,024	1,401,695
Strathroy .....	17	1,424,755	284	260,477	771,827	1,358,995
Collingwood .....	24	4,718,873	344	357,735	743,741	1,354,710
Wingham .....	19	950,919	256	256,883	745,662	1,314,383
Dryden .....	6	4,765,421	249	347,203	439,850	1,290,576
North Bay .....	21	1,398,219	254	316,988	620,691	1,295,604
Almonte .....	18	1,070,604	417	350,292	653,617	1,270,126
Ast .....	7	626,758	98	108,094	589,726	1,201,377
Flora .....	12	958,789	307	311,081	447,949	1,198,639
Pictou .....	26	1,284,570	242	134,840	665,543	1,132,323
New Liskeard .....	14	1,047,584	213	225,201	561,344	1,101,272
Frankford .....	11	2,241,207	207	162,790	555,484	1,085,995
Kingsville .....	14	1,077,043	124	104,723	880,204	1,082,430
Walkerton .....	20	1,380,299	313	260,076	690,133	1,044,876
Chesley .....	12	972,568	332	331,637	427,065	992,518
Norwich .....	16	447,118	116	120,479	665,087	977,412
Grimsby .....	16	1,003,044	381	269,634	502,736	969,778
Clinton .....	18	700,807	205	181,519	582,933	963,970
Milverton .....	8	492,043	71	66,279	667,590	921,841
Alexandria .....	21	631,081	169	127,080	564,652	890,820
Woodbridge .....	6	452,731	108	119,203	573,271	871,802
Cashe Bay .....	3	941,769	128	165,068	429,500	854,292
Whitby .....	9	758,564	239	252,155	428,917	830,701
New Hamburg .....	12	889,584	213	189,239	429,015	815,415
Bloomfield .....	10	939,559	141	67,724	482,366	783,491
Durham .....	10	512,734	190	187,939	415,399	755,260
Gravenhurst .....	8	556,858	229	235,318	273,911	733,235
Mount Forest .....	18	630,078	168	119,951	395,719	704,455
Thessalon .....	8	462,314	183	183,555	280,143	693,871
Southampton .....	7	718,799	208	206,378	342,877	687,413
Mitchell .....	13	679,148	118	122,244	417,542	608,913
West Lorne .....	7	763,103	99	81,502	452,833	623,632
Brighton .....	10	804,256	211	71,761	333,253	619,745
Exeter .....	14	667,392	145	86,751	356,432	613,943
Orangeville .....	12	645,772	157	102,458	319,071	573,142
Burks Falls .....	6	483,061	138	142,502	282,532	566,282
Tweed .....	14	271,986	134	115,967	337,077	561,024
Jarvis .....	7	180,349	31	31,038	449,473	559,770
Humberstone .....	5	533,342	118	109,760	272,469	539,517
Waterford .....	9	684,620	145	74,010	383,829	538,477
Lucknow .....	10	365,357	88	71,854	365,729	535,655
Port Elgin .....	9	592,854	162	165,728	262,533	533,646
Seaforth .....	14	319,367	112	81,580	308,207	533,309
Dresden .....	13	573,849	118	87,582	328,452	522,727
Harrington .....	12	384,889	98	83,230	310,518	498,743
Wellington .....	8	600,273	110	50,291	257,315	486,430
Forest .....	11	554,320	114	80,835	266,392	483,031
Teeswater .....	13	334,484	76	68,996	294,870	469,881
Sterling .....	13	98,660	51	35,029	382,728	466,556
Delhi .....	7	628,781	66	48,282	317,038	466,269
Warton .....	12	475,248	93	77,472	269,452	465,187

**34.—Statistics of Manufactures of Municipalities with a Gross Production of \$200,000 or over, and with three or more Establishments, 1927—continued.**

Cities and Towns.	Estab- lish- ments.	Capital.	Em- ployees	Salaries and Wages.	Cost of Materials.	Gross Value of Products.
	No.	\$	No.	\$	\$	\$
<b>Ontario—concluded—</b>						
Victoria Harbour.....	3	948,319	138	150,095	293,298	448,429
Wagersville.....	7	109,351	20	17,282	357,142	431,783
Windsor.....	10	967,302	122	169,614	51,300	428,698
Windsor Lookout.....	9	414,521	100	51,692	174,097	425,486
Windsor.....	10	293,200	60	66,633	145,531	407,741
Windsor.....	8	180,630	34	26,883	309,896	402,207
Kemptville.....	12	206,368	66	64,681	224,129	399,234
Dutton.....	12	117,668	40	26,009	302,827	396,202
Burlington.....	5	395,623	89	98,294	223,067	370,972
Deseronto.....	8	314,862	68	43,300	229,990	369,388
Iroquois.....	15	492,689	59	57,393	201,818	355,952
Shelburne.....	8	152,694	29	26,977	299,955	355,532
Casselman.....	12	270,110	107	58,149	256,603	339,078
Streetsville.....	8	207,876	101	60,915	202,306	334,377
Port Dover.....	10	420,912	80	42,864	212,150	331,464
Winchester.....	12	181,581	51	40,325	215,561	324,536
Alliston.....	13	233,004	31	29,213	218,446	321,158
Lakefield.....	10	115,072	225	251,471	246,581	319,459
Ridgetown.....	16	482,829	72	46,164	174,337	317,191
Waterdown.....	7	452,720	78	99,728	61,550	311,183
Fairley.....	10	114,065	28	22,503	246,511	309,917
Port Perry.....	12	176,144	40	31,863	183,098	281,255
Watford.....	9	319,314	63	57,578	102,349	280,609
Windsorbury.....	4	904,744	56	71,174	79,744	277,415
Windsor.....	10	168,551	90	42,792	166,807	266,681
Windsor Hill.....	13	166,496	49	22,428	206,716	265,427
Bolton.....	7	98,208	22	17,294	189,802	256,410
Perry Sound.....	11	513,959	104	49,975	121,051	255,091
Grand Valley.....	8	58,726	22	14,284	192,636	234,212
Norwood.....	11	214,019	38	23,769	166,479	232,663
Parkhill.....	7	165,000	32	18,339	164,036	231,267
Isleton.....	4	59,353	10	8,209	183,534	230,562
Markdale.....	9	111,967	42	19,610	171,364	222,601
Stavely.....	7	105,601	18	15,868	166,591	219,010
Cobden.....	6	87,801	22	15,066	165,329	216,344
Bradford.....	6	204,808	91	21,740	153,786	215,858
Stouffville.....	8	139,904	23	18,461	156,135	213,585
Morrisburg.....	12	235,753	69	53,167	103,990	213,224
Tottenham.....	6	64,579	16	14,998	155,451	213,134
Eganville.....	10	240,705	46	23,341	165,485	213,123
Lara.....	6	62,276	14	11,125	167,270	212,227
Arthur.....	5	55,176	9	7,187	164,512	210,456
Oranmore.....	5	223,598	46	23,109	163,978	209,057
Newstead.....	5	57,788	15	7,731	175,342	207,757
Drayton.....	6	54,380	13	10,835	166,358	206,748
Brussels.....	6	54,773	12	8,679	164,418	204,285
<b>Manitoba—</b>						
Winnipeg.....	476	108,717,326	16,785	21,215,664	48,986,976	95,592,864
St. Boniface.....	34	9,886,851	1,451	1,893,598	18,530,326	25,691,498
Brandon.....	36	4,124,838	445	564,709	2,118,021	3,602,178
Portage la Prairie.....	15	700,318	191	223,986	1,726,847	2,345,729
The Pas.....	7	1,432,166	325	379,519	585,318	1,363,979
Dauphin.....	14	440,389	64	60,488	294,626	477,606
Selkirk.....	9	1,132,273	191	241,416	387,360	424,265
Shoal Lake.....	4	68,965	19	18,819	222,640	282,463
Rapid City.....	4	32,315	11	13,886	226,406	280,488
Neepawa.....	4	230,822	26	30,503	188,856	265,731
<b>Saskatchewan—</b>						
Regina.....	64	13,808,252	1,756	2,627,210	8,557,824	15,088,266
Moose Jaw.....	26	5,573,184	823	1,202,881	11,254,445	14,870,155
Saskatoon.....	54	7,857,119	1,131	1,585,872	4,280,566	8,535,893
Prince Albert.....	19	1,832,429	366	416,832	1,901,153	3,185,678
North Battleford.....	9	493,205	78	99,757	254,281	529,461
Yorkton.....	10	756,375	46	54,740	270,660	493,317
Swift Current.....	16	694,240	61	79,733	186,092	423,408
Weyburn.....	9	458,598	44	55,065	169,876	341,514
Estevan.....	7	379,298	69	85,534	122,414	330,506
Melville.....	5	228,373	21	29,968	168,121	259,287

**31.—Statistics of Manufactures of Municipalities with a Gross Production of \$200,000 or over, and with three or more Establishments, 1927—concluded.**

Cities and Towns.	Estab- lish- ments.	Capital.	Em- ployees.	Salaries and Wages.	Cost of Materials.	Gross Value of Products.
	No.	\$	No.	\$	\$	\$
<b>Alberta—</b>						
Calgary.....	144	37,745,801	3,680	4,983,651	19,719,049	34,513,864
Edmonton.....	128	19,702,395	4,171	5,082,993	13,496,403	23,830,562
Medicine Hat.....	21	5,422,325	619	754,234	8,048,627	10,329,755
Lethbridge.....	24	3,882,733	350	511,834	1,313,757	2,862,277
Roselife.....	6	1,468,136	253	291,245	331,747	1,017,124
Raymond.....	4	2,210,803	94	143,341	392,062	680,550
Wetaskiwin.....	8	309,046	35	46,401	322,460	476,190
Red Deer.....	8	218,110	28	51,217	164,985	293,524
Drumheller.....	0	779,245	43	75,788	35,549	287,147
Camrose.....	11	267,343	37	44,766	166,176	280,385
Stettler.....	8	147,090	24	32,319	161,387	216,250
Blairmore.....	7	377,235	82	78,637	127,294	257,993
Vermilion.....	6	128,464	18	24,052	150,518	243,609
Ponoka.....	5	65,693	11	11,915	164,815	224,105
Vegreville.....	8	180,209	27	30,702	129,328	206,069
<b>British Columbia—</b>						
Vancouver.....	556	116,751,996	14,897	19,254,035	47,290,240	87,754,347
New Westminster.....	52	11,016,028	2,269	2,682,160	7,474,904	12,326,163
Victoria.....	130	17,830,734	2,688	3,403,686	3,979,650	11,323,478
North Vancouver.....	16	5,131,140	846	1,190,629	1,388,230	3,393,688
Prince Rupert.....	14	3,293,897	200	337,672	2,017,896	2,794,907
Roseland.....	7	7,399,122	582	771,451	6,988	1,919,466
Fernie.....	6	6,077,027	200	267,219	607,200	1,316,186
Port Moody.....	5	1,662,574	271	359,460	661,657	1,274,488
Nelson.....	21	1,522,028	240	314,143	377,994	1,270,437
Kelowna.....	21	985,948	420	281,873	665,168	1,214,116
Duncan.....	10	633,780	360	393,849	542,132	1,158,533
Nanaimo.....	26	1,181,616	469	431,887	620,772	1,112,157
Port Coquitlam.....	4	609,820	122	117,372	394,759	537,107
Kamloops.....	10	888,804	101	142,913	173,112	484,656
Merritt.....	6	192,991	143	150,874	245,656	482,388
Vernon.....	14	679,939	117	110,932	202,531	428,140
Cranbrook.....	12	421,000	101	121,649	120,868	374,878
Courtenay.....	7	349,725	78	91,665	207,244	335,725
Prince George.....	7	167,898	74	89,647	109,451	262,492

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