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DOMINION BUREAU OF STATISTICS
(CENSUS OF MANUFACTURES)

The Manufacturing Industries of Canada, 1928

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THE MANUFACTURING INDUSTRIES OF CANADA, 1928.¹

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 1, 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 I.—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

¹ Revised by J. C. Macpherson, Chief, Industrial Statistics Branch, Dominion Bureau of Statistics. This Branch publishes individual reports on the manufacturing industries, comprising vegetable products, textiles and miscellaneous industries, also reports on the manufacturing industries generally for Canada and the provinces. For a complete list of publications of this Branch apply to the Dominion Statistician, Dominion Bureau of Statistics, Ottawa.

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 bass-wood. 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 homespun 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.—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 1930, 24·6 p.c. The average *ad valorem* rate of duty on all imports was 16·7 p.c. in 1923 and 15·9 p.c. in 1930. 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 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 Fiji and the British West Indies and wool from England, 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 absorption of the energies of Europe in the war, 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 a gross value of products which has not been exceeded, although when statistics for 1929 are

completed they will probably show a greater value. Even the net value of manufactured products in 1920 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 and completion of the statistics for 1929 will undoubtedly show a continuance of this growth. However, the monthly reports of employers as to numbers employed would indicate that this steady expansion has been halted during 1930, owing to the world-wide recession in business which set in toward the end of 1929, with the result that Canadian manufacturing production in 1930 will probably drop back to near the 1927 level.

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.)

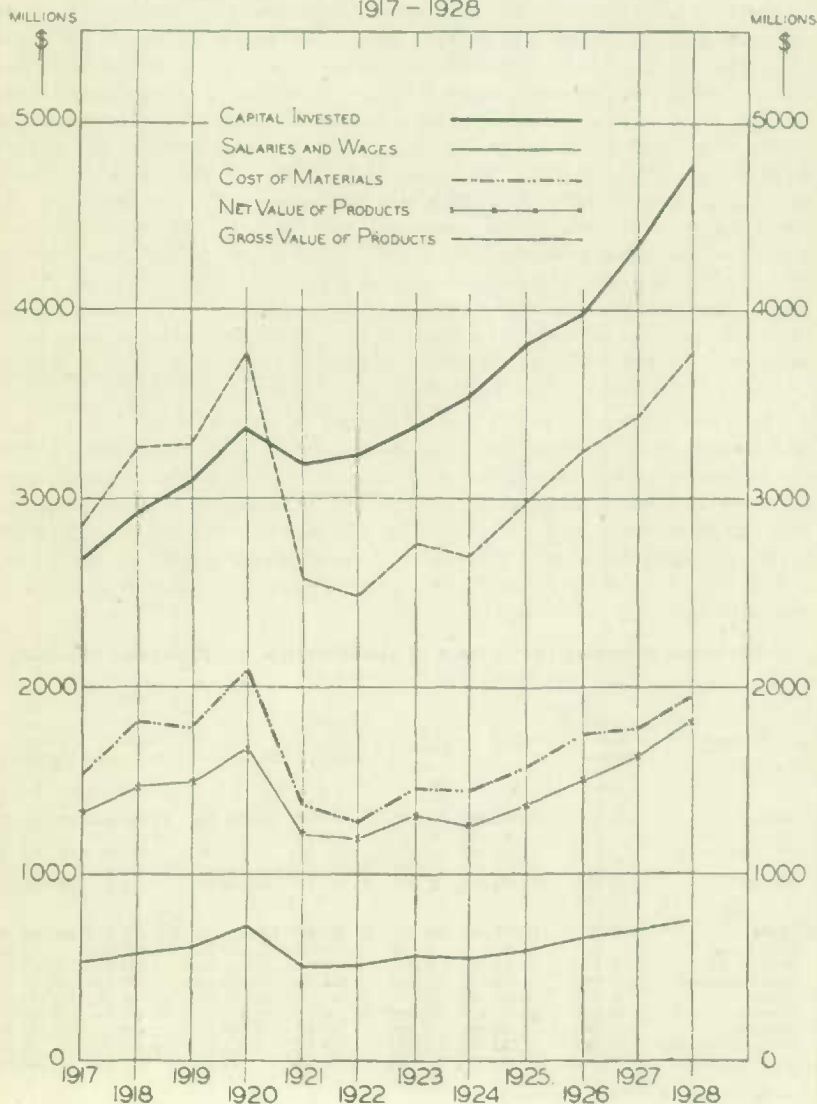
In the Census of Industry for 1917, the limit of output was withdrawn and all establishments reporting to the Bureau were included, the effect being an increase in the number of establishments included from 21,306 in 1915 to 34,392¹ in 1917—an increase due mainly to change of method, rather than to a 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.

¹ 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 I, to 22,938, a comparable figure with the 23,379 establishments recorded in 1928.

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 1930 for the years 1917 to 1929.

TWELVE YEARS OF CANADIAN MANUFACTURES
1917 - 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, 1928 and 1929, however, there was a drop again to 100.0, 97.7, 96.4 and 95.6 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 59 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, 1870–1928.¹

(All establishments irrespective of the number of employees.)

Province.	Estab- lish- ments.	Capital.	Em- ployees.	Salaries and Wages.	Cost of Materials.	Net Value of Products.	Gross Value of Products.
	No.	\$	No.	\$	\$	\$	\$
1870.							
Canada	41,259	77,364,020	187,942	40,851,009	124,907,846	96,709,927	221,617,773
Nova Scotia.....	4,912	6,041,006	15,595	3,176,266	5,806,257	6,531,848	12,338,108
New Brunswick.....	3,479	5,976,176	18,352	3,869,360	9,431,769	7,935,927	17,367,687
Quebec.....	13,818	28,071,868	66,714	12,389,673	44,555,025	32,650,157	77,205,182
Ontario.....	19,050	37,874,010	87,281	21,415,710	65,114,804	49,591,995	114,703,799
1880.							
Canada	49,722	165,302,623	254,935	59,429,002	179,918,593	129,757,475	309,676,068
P. E. Island.....	1,617	2,085,776	5,767	807,208	1,829,210	1,570,998	3,109,208
Nova Scotia.....	5,493	10,183,060	20,390	4,098,445	10,022,030	8,553,296	18,575,326
New Brunswick.....	3,005	8,425,282	19,922	3,866,011	11,069,842	7,451,816	18,512,658
Quebec.....	15,754	59,216,992	85,673	18,333,162	52,563,967	42,098,291	104,662,258
Ontario.....	23,070	80,950,847	118,308	30,604,031	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	79,751	116,187	195,938

¹See note at end of Table 1 on page 15.

1.—Historical Summary of Statistics of Manufactures, by Provinces, 1870-1928¹—con.

(All establishments irrespective of the number of employees.)

Province.	Estab- lish- ments.	Capital.	Em- ployees.	Salaries and Wages.	Cost of Materials.	Net Value of Products.	Gross Value of Products.
1890.	No.	\$	No.	\$	\$	\$	\$
Canada	75,964	353,213,000	369,595	100,415,350	250,759,292	219,089,594	469,847,886
P. E. Island.....	2,679	2,911,963	7,910	1,101,620	2,002,067	2,253,843	4,345,910
Nova Scotia.....	10,495	19,730,736	34,944	7,233,111	16,062,479	14,965,913	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	60,747,087	147,459,583
Ontario.....	32,151	175,972,021	166,324	49,730,359	127,737,371	111,504,555	230,241,926
Manitoba.....	1,031	5,684,237	4,403	1,905,981	5,688,151	4,467,031	10,155,182
British Columbia....	770	14,404,394	11,507	3,586,897	5,119,258	6,880,670	11,999,928
The Territories.....	375	1,713,179	1,081	425,153	846,017	981,293	1,827,310
(Establishments with fire hands and over.)							
Canada	11,065	-	272,033	79,234,311	-	-	368,696,723
1900.							
Canada	14,650	416,916,487	339,173	113,249,350	266,527,858	214,525,517	481,653,375
P. E. Island.....	334	2,081,766	3,804	445,998	1,319,058	1,007,050	2,326,708
Nova Scotia.....	1,188	34,586,416	21,284	5,613,571	11,161,077	10,431,436	23,592,513
New Brunswick....	919	20,741,170	22,158	5,748,000	10,814,014	10,158,456	20,972,470
Quebec.....	4,845	142,403,407	110,329	36,550,655	86,679,779	71,608,215	158,287,994
Ontario.....	6,543	214,972,275	161,757	56,548,286	138,230,400	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	1,680,870	1,108	465,763	1,121,342	843,045	1,904,987
British Columbia....	392	22,901,892	11,454	5,456,538	7,246,684	12,201,094	19,447,778
1905.							
Canada	12,547	833,916,155	483,920	162,155,578	-	-	706,446,578
P. E. Island.....	223	1,553,916	2,770	409,915	-	-	1,096,459
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	110,748	46,514,619	-	-	210,478,496
Ontario.....	6,163	290,875,465	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	-	-	4,979,932
British Columbia....	363	52,403,370	23,480	11,253,263	-	-	37,796,740
1910.							
Canada	19,218	1,247,581,609	515,203	241,008,416	601,509,018	564,466,621	1,165,975,639
P. E. Island.....	442	2,013,365	3,762	531,017	1,816,804	1,319,060	3,136,470
Nova Scotia.....	1,480	79,596,341	28,795	10,628,955	26,058,315	26,647,869	52,706,184
New Brunswick....	1,158	36,125,012	24,755	8,314,212	18,516,090	19,906,266	35,422,302
Quebec.....	6,584	326,946,925	158,207	69,432,967	184,374,053	160,627,603	350,901,656
Ontario.....	8,001	595,394,608	238,817	117,645,784	297,580,125	282,230,100	579,810,225
Manitoba.....	439	47,941,540	17,325	10,012,866	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	17,240,670	29,917,753	35,280,483	65,204,236
1915.							
Canada	15,593	1,958,705,230	-	283,311,505	791,843,433	589,603,792	1,341,547,225
P. E. Island.....	261	1,841,000	-	543,954	1,490,066	1,087,757	2,586,823
Nova Scotia.....	781	125,754,562	-	17,175,816	36,194,004	33,151,815	69,345,819
New Brunswick....	630	45,070,488	-	8,767,230	21,314,643	15,989,257	37,303,000
Quebec.....	5,743	530,312,464	-	80,324,171	213,754,115	167,449,884	381,201,999
Ontario.....	6,538	946,619,114	-	140,609,691	410,670,537	304,861,302	715,531,839
Manitoba.....	499	94,690,750	-	13,389,569	38,529,380	21,952,060	60,481,446
Saskatchewan.....	238	14,736,869	-	2,440,062	7,417,166	5,938,040	13,355,206
Alberta.....	282	41,108,897	-	4,791,281	20,669,967	8,716,254	29,416,221
British Columbia....	621	157,580,405	-	15,269,729	41,864,549	30,457,423	72,321,972
(All establishments irrespective of the number of employees.)							
Canada	22,838	2,696,151,630	621,694	509,382,027	1,541,087,416	1,332,180,762	2,873,264,183
P. E. Island.....	418	2,225,482	1,588	683,149	3,088,718	1,816,080	4,905,704
Nova Scotia.....	1,387	128,052,239	25,814	19,177,657	102,456,085	58,751,437	161,207,522
New Brunswick....	987	64,010,777	20,201	13,192,740	32,496,048	27,996,900	60,462,048
Quebec.....	7,193	793,589,489	191,969	143,291,802	385,466,685	390,539,787	782,026,472
Ontario.....	9,471	1,302,675,630	306,270	264,442,393	785,065,511	685,063,815	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	30,696,623	6,846	5,906,150	22,093,445	15,529,428	37,622,873
Alberta.....	720	69,552,814	10,191	9,323,221	42,725,021	26,105,121	69,830,142
British Columbia....	1,202	215,081,355	38,689	35,864,308	87,704,650	74,978,844	162,743,494
Yukon.....	11	3,739,169	71	118,801	26,403	336,786	363,189

¹See note at end of Table 1 on page 15.²These statistics are not available by provinces.³For 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, 1870-1928—con.

(All establishments irrespective of the number of employees.)

Province.	Estab- lish- ments.	Capital.	Em- ployees.	Salaries and Wages.	Cost of Materials.	Net Value of Products.	Gross Value of Products.
1918.	No.	\$	No.	\$	\$	\$	\$
Canada	22,910	2,926,815,121	618,305	582,457,488	1,829,040,369	1,160,723,777	3,289,764,116
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	1,460,384,037	307,283	300,963,759	974,277,838	760,245,667	1,734,523,505
Manitoba.....	786	96,382,644	20,289	19,740,123	88,545,136	45,006,245	133,641,381
Saskatchewan.....	577	35,435,976	6,348	6,705,910	28,394,364	15,900,874	44,205,238
Alberta.....	638	58,284,599	8,457	8,857,536	53,159,734	24,747,604	77,907,338
British Columbia.....	1,188	237,652,059	41,635	48,119,819	104,023,957	102,038,534	206,062,401
Yukon.....	14	3,633,729	59	102,900	20,834	236,548	257,382
1919.	23,249	3,095,025,799	611,008	618,463,129	1,780,629,840	1,509,870,745	3,290,500,585
P.E. Island.....	402	2,462,324	1,295	789,382	4,005,474	2,225,391	6,230,865
Nova Scotia.....	1,392	126,072,240	23,437	19,992,903	71,100,630	57,179,576	128,280,206
New Brunswick.....	938	87,428,854	22,262	17,710,448	51,643,683	43,647,725	95,291,408
Quebec.....	7,551	906,421,065	186,202	172,373,664	490,716,322	438,879,496	933,595,818
Ontario.....	9,626	1,456,458,331	291,740	304,314,318	894,055,235	732,279,292	1,626,334,527
Manitoba.....	777	101,700,099	21,963	24,528,624	83,948,482	50,330,559	134,279,041
Saskatchewan.....	625	30,065,353	7,210	8,789,389	32,167,014	19,038,862	44,205,876
Alberta.....	664	60,233,769	10,802	12,837,805	52,885,069	34,039,386	86,924,761
British Columbia.....	1,263	260,652,116	46,034	57,067,542	94,091,565	132,065,198	226,186,703
Yukon.....	11	3,552,048	33	59,064	16,426	155,260	171,986
1920.	23,351	3,371,940,653	609,586	732,120,585	2,085,221,649	1,686,978,408	3,722,250,057
P.E. Island.....	384	2,462,324	1,327	888,121	4,104,223	2,221,746	6,385,969
Nova Scotia.....	1,388	141,549,856	23,834	26,127,781	85,721,785	63,271,708	148,999,493
New Brunswick.....	928	105,671,688	19,241	19,505,048	69,812,641	46,910,631	107,723,272
Quebec.....	7,677	1,028,220,105	186,308	205,829,155	553,558,520	517,093,125	1,071,251,645
Ontario.....	9,473	1,668,076,488	300,794	369,846,193	1,071,843,374	822,570,783	1,894,414,157
Manitoba.....	773	112,896,616	24,481	33,357,872	92,729,271	65,492,637	158,221,908
Saskatchewan.....	639	31,727,162	7,182	10,249,392	34,894,105	24,655,529	59,540,634
Alberta.....	722	61,063,132	11,387	15,903,699	56,139,646	32,466,428	88,606,074
British Columbia and Yukon.....	1,367	219,991,887	35,132	50,413,414	125,405,084	111,692,821	237,097,905
1921.	22,225	3,190,026,358	456,076	518,785,137	1,866,893,685	1,209,113,244	2,576,037,029
P.E. Island.....	339	2,308,216	893	522,488	2,516,415	1,336,940	3,873,355
Nova Scotia.....	1,208	105,254,364	14,521	14,400,508	41,099,835	36,384,726	77,384,561
New Brunswick.....	867	99,204,791	12,441	10,678,721	32,151,631	23,103,562	55,345,193
Quebec.....	7,173	981,177,681	146,763	151,474,436	390,119,293	361,964,897	752,084,190
Ontario.....	9,328	1,613,486,222	228,943	274,061,696	704,814,433	625,170,507	1,329,984,940
Manitoba.....	775	93,334,151	14,851	19,945,727	80,596,556	43,431,304	106,027,860
Saskatchewan.....	600	30,265,504	4,343	5,677,449	25,589,403	15,092,337	40,681,740
Alberta.....	709	55,685,908	8,227	10,072,714	33,912,502	26,152,276	60,084,778
British Columbia and Yukon.....	1,236	209,309,521	25,094	31,951,397	76,093,617	74,396,795	150,490,412
1922.	22,541	3,244,302,410	474,420	516,431,312	1,783,774,723	1,198,434,407	2,482,209,130
P.E. Island.....	352	2,946,329	1,127	628,540	2,621,443	1,587,569	4,400,012
Nova Scotia.....	1,163	106,647,616	14,286	12,192,652	38,003,168	29,085,794	67,988,962
New Brunswick.....	897	82,230,895	14,351	12,201,014	38,059,376	26,821,281	64,890,657
Quebec.....	7,410	970,019,442	147,052	144,368,667	337,752,977	370,276,067	708,029,041
Ontario.....	9,388	1,890,738,990	243,297	275,559,066	678,746,675	617,752,828	1,296,499,503
Manitoba.....	781	88,770,517	14,188	18,274,012	54,630,668	41,326,410	95,957,084
Saskatchewan.....	614	31,101,612	4,196	5,018,174	22,450,051	16,457,481	38,807,532
Alberta.....	672	55,514,624	7,461	9,493,543	30,306,395	22,813,091	53,119,486
British Columbia and Yukon.....	1,204	210,323,379	27,572	32,095,704	81,203,970	71,313,880	152,517,850
1923.	22,642	3,380,322,950	525,267	571,470,028	1,470,140,139	1,311,025,375	2,781,165,514
P.E. Island.....	368	2,821,440	2,745	626,693	2,766,092	1,606,729	4,462,821
Nova Scotia.....	1,193	106,047,436	17,179	13,226,378	50,103,942	31,880,906	81,884,848
New Brunswick.....	872	84,503,968	16,221	12,868,164	40,181,251	29,932,752	70,114,006
Quebec.....	7,142	1,009,808,082	163,622	161,356,082	396,714,471	414,388,925	811,103,396
Ontario.....	9,549	1,775,493,340	262,770	307,866,314	779,943,613	671,839,695	1,451,883,308
Manitoba.....	800	92,420,674	14,816	18,394,484	55,973,093	41,361,438	97,334,541
Saskatchewan.....	647	29,891,835	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	54,337,801
British Columbia and Yukon.....	1,345	216,619,970	35,042	38,113,250	93,511,680	82,095,312	175,606,992

*See note at end of Table 1 on page 15.

1.—Historical Summary of Statistics of Manufactures, by Provinces, 1870-1928¹—con.

(All establishments irrespective of the number of employees.)

Province.	Estab- lish- ments.	Capital.	Em- ployees.	Salaries and Wages.	Cost of Materials.	Net Value of Products.	Gross Value of Products.
1924.	No.	\$	No.	\$	\$	\$	\$
Canada	22,178	3,538,813,460	508,503	559,884,045	1,438,109,681	1,256,643,901	2,695,653,582
P.E. Island	313	2,637,844	2,271	548,486	2,281,398	1,439,476	3,720,874
Nova Scotia	1,106	108,535,273	16,093	11,553,900	38,930,734	25,642,358	61,573,082
New Brunswick	846	88,357,818	15,805	12,812,718	40,503,085	20,952,341	67,450,026
Quebec	6,847	1,044,113,969	161,652	162,379,284	385,880,826	390,351,418	776,232,244
Ontario	9,553	1,836,269,551	252,596	296,508,913	754,469,838	643,403,906	1,397,873,744
Manitoba	768	10,011,602	14,778	18,700,742	59,036,763	43,215,250	102,252,013
Saskatchewan	645	30,269,547	4,151	5,544,416	22,179,147	14,134,784	36,313,991
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	181,386,297
1925.							
Canada	22,331	3,808,369,991	544,223	586,015,171	1,587,665,408	1,369,879,007	2,948,545,315
P.E. Island	318	2,576,677	2,317	572,130	2,805,965	1,484,484	4,200,149
Nova Scotia	1,184	117,326,491	16,568	12,082,693	37,854,196	27,179,055	65,033,701
New Brunswick	861	91,509,933	17,275	14,430,252	44,886,292	28,488,368	73,734,660
Quebec	6,995	1,136,033,131	168,245	169,686,055	412,466,003	408,103,754	820,563,757
Ontario	9,386	1,925,593,482	262,183	307,304,007	828,619,608	698,214,992	1,527,154,660
Manitoba	769	126,362,238	20,023	25,286,173	71,683,113	52,462,650	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	11,785,604	45,855,910	29,257,607	75,113,517
British Columbia and Yukon	1,434	313,494,283	43,548	40,112,628	118,826,980	99,948,855	218,775,835
1926.							
Canada	22,708	3,981,569,590	581,539	653,856,933	1,755,158,399	1,492,645,039	3,247,903,438
P.E. Island	299	2,850,010	2,261	690,463	2,638,244	1,431,091	4,000,335
Nova Scotia	1,163	118,050,902	16,782	13,014,767	39,686,139	33,810,593	71,505,642
New Brunswick	910	95,661,154	17,674	14,609,734	41,535,406	29,586,834	74,122,329
Quebec	7,164	1,216,975,958	180,669	189,326,145	448,584,313	456,710,511	905,300,824
Ontario	9,457	1,985,165,921	280,353	335,164,239	924,598,851	783,334,653	1,677,993,504
Manitoba	797	127,445,924	21,291	26,973,850	75,588,993	57,129,459	132,718,452
Saskatchewan	674	33,943,060	4,904	6,397,545	29,142,700	17,965,397	47,108,097
Alberta	749	72,408,286	10,233	12,808,554	50,192,669	33,232,062	83,425,631
British Columbia and Yukon	1,495	329,808,375	47,462	54,965,756	140,191,084	109,428,630	249,619,714
1927.							
Canada	22,936	4,317,631,558	618,933	693,912,228	1,789,574,601	1,635,923,836	3,425,486,546
P.E. Island	291	3,081,504	2,232	687,849	2,855,438	1,638,190	4,493,628
Nova Scotia	1,190	128,155,040	17,864	13,610,944	42,050,320	32,398,977	74,458,297
New Brunswick	872	99,087,327	18,870	14,009,101	42,780,582	29,886,081	72,666,065
Quebec	7,206	1,376,654,019	196,094	203,724,997	474,361,396	516,221,599	960,582,095
Ontario	9,512	2,134,181,377	296,014	355,174,773	939,872,565	818,132,010	1,758,004,575
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	7,280,945	32,165,027	20,015,654	52,180,081
Alberta	776	81,664,730	11,285	13,511,359	59,611,021	34,376,296	84,987,317
British Columbia and Yukon	1,509	325,047,266	47,740	56,007,334	125,358,489	120,676,215	246,034,704
1928.							
Canada	23,379	4,786,296,019	658,023	755,199,372	1,950,804,339	1,819,016,025	3,769,850,361
P.E. Island	277	3,121,568	2,035	712,945	2,747,292	1,697,868	4,445,160
Nova Scotia	1,167	138,809,331	19,222	15,838,394	44,168,441	40,780,167	84,948,008
New Brunswick	794	114,660,886	17,963	14,682,510	39,750,561	27,063,181	67,413,742
Quebec	7,231	1,583,350,884	204,959	217,887,481	510,580,872	562,581,419	1,073,162,291
Ontario	9,900	2,275,924,056	320,729	391,375,947	1,034,501,240	915,222,870	1,949,724,119
Manitoba	871	159,721,124	25,160	32,560,220	88,284,693	71,150,401	159,435,094
Saskatchewan	737	44,622,135	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	133,065,857	270,851,669

¹Statistics 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, jewellery, 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 the "cost of materials" and "net value of products" with those of 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 under the stimulus of inflated values, manufacturing as a whole reached a peak value of gross production in 1920, not exceeded until 1929, the "iron and its products" group reached a high point of gross production in 1918, the last year of the war. The "chemicals and allied products" group reached its greatest development under war conditions, when the value of gross production was 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, 1917-1928.¹

(All establishments irrespective of the number of employees.)

Industrial Group.	Estab- lish- ments.	Capital.	Em- ployees.	Salaries and Wages.	Cost of Materials.	Net Value of Products.	Gross Value of Products.
	No.	\$	No.	\$	\$	\$	\$
1917.							
Totals	22,838	2,696,154,030	621,694	599,382,027	1,541,067,416	1,332,180,767	2,873,268,183
Vegetable products	3,816	274,722,765	61,288	44,780,329	365,483,923	181,072,143	546,556,066
Animal products	5,486	207,165,245	46,994	35,753,133	320,302,039	124,103,990	444,406,029
Textile products	1,360	196,823,197	82,639	51,189,060	132,479,793	115,739,096	248,218,859
Wood and paper	7,255	537,731,225	153,751	115,137,384	149,927,482	248,986,564	398,914,046
Iron and its products	1,404	634,642,989	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	46,445,469	41,039,351	87,484,820
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	175,836,690	56,153	51,505,484	99,068,092	131,381,905	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
1918.							
Totals	22,910	2,926,815,424	614,365	582,452,488	1,829,640,369	1,460,723,777	3,289,264,146
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	137,903,308	320,433,003
Wood and paper	7,281	599,594,273	150,732	130,348,989	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	723,592,078
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	113,333,087
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

¹See note at end of Table 1 on page 15.

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

(All establishments irrespective of the number of employees.)

Industrial Group.	Estab- lish- ments.	Capital.	Em- ployees.	Salaries and Wages.	Cost of Materials.	Net Value of Products.	Gross Value of Products.
1919.	No.	\$	No.	\$	\$	\$	\$
Totals	23,749	3,055,025,799	611,008	618,463,139	1,780,629,441	1,509,870,745	3,299,590,585
Vegetable products.	3,964	336,730,861	66,780	62,545,616	497,887,117	199,785,015	697,672,132
Animal products.	5,433	242,003,094	54,372	50,709,455	401,105,003	142,322,561	543,428,464
Textile products.	1,524	257,860,265	87,275	69,661,851	213,282,721	163,811,906	377,124,717
Wood and paper.	7,923	707,052,570	160,176	157,240,046	215,115,868	359,322,951	574,438,819
Iron and its products.	1,523	611,291,790	129,157	162,103,816	249,399,965	348,540,736	597,940,701
Non-ferrous metals.	311	80,288,911	17,108	18,338,421	33,393,739	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	106,110,959	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
Central electric stations.	805	416,512,010	9,761	11,487,132	-	57,486,458	57,486,458
Totals	23,351	3,371,949,633	609,586	732,129,585	2,045,271,649	1,686,978,198	3,772,259,057
Vegetable products.	4,219	394,123,233	72,380	75,695,830	532,484,195	234,317,527	766,801,722
Animal products.	4,823	221,792,457	48,687	54,291,606	400,496,354	152,995,130	553,491,484
Textile products.	1,304	302,758,185	87,730	84,333,609	256,233,300	173,741,035	429,974,335
Wood and paper.	7,867	772,086,812	143,731	171,610,460	308,282,232	415,784,276	724,066,508
Iron and its products.	1,690	642,904,322	146,204	205,414,509	349,642,666	365,473,097	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.	1,176	223,541,735	27,361	34,406,423	74,200,407	85,216,316	159,416,723
Chemicals and allied products.	464	122,123,730	17,653	22,193,421	62,644,608	65,183,212	127,827,820
Miscellaneous industries.	665	134,954,504	31,985	41,552,885	52,853,767	75,715,577	128,569,344
Central electric stations.	819	448,273,642	10,603	14,620,709	-	65,705,060	65,705,060
Totals	22,235	3,199,026,354	456,076	518,785,137	1,366,893,645	1,209,143,344	2,576,037,029
Vegetable products.	3,946	360,045,194	61,161	63,130,893	364,123,305	205,448,326	569,571,721
Animal products.	5,051	200,607,527	45,726	48,124,667	267,878,165	111,534,101	379,412,266
Textile products.	1,627	260,158,327	76,379	71,321,283	164,139,109	140,773,447	304,912,556
Wood and paper.	7,152	775,207,859	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	98,363,993	194,725,179	187,672,905	382,398,084
Non-ferrous metals.	344	104,079,490	17,936	22,692,784	31,439,989	41,149,894	72,589,883
Non-metallic minerals.	1,075	209,641,529	24,393	28,374,655	67,780,080	75,278,266	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	484,069,451	10,714	15,234,678	-	73,636,094	73,636,094
Totals	22,541	3,244,362,410	471,030	510,431,312	1,283,274,723	1,198,434,607	2,482,269,130
Vegetable products.	4,456	371,361,682	63,217	64,124,322	330,589,052	206,946,740	537,535,891
Animal products.	5,118	201,829,414	49,595	49,933,679	294,078,631	107,473,382	371,552,915
Textile products.	1,709	268,065,238	88,018	76,224,361	153,066,593	155,493,510	308,360,103
Wood and paper.	6,983	761,188,390	118,462	132,084,914	206,682,820	283,131,962	489,814,782
Iron and its products.	1,040	526,109,953	74,588	90,605,157	168,282,265	163,302,638	331,584,903
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	119,025,483	14,082	16,770,503	47,039,926	48,904,259	95,944,185
Miscellaneous industries.	542	88,753,756	15,064	17,236,255	19,796,279	32,948,084	52,744,363
Central electric stations.	905	568,068,752	10,684	14,495,250	-	82,328,866	82,328,866

See note at end of Table 1 on page 15.

19450-3

2.—Summary of Statistics of Manufactures, by Industrial Groups, 1917-1928¹— continued.

(All establishments irrespective of the number of employees.)

Industrial Group.	Estab- lish- ments.	Capital.	Em- ployees.	Salaries and Wages.	Cost of Materials.	Net Value of Products.	Gross Value of Products.
	No.	\$	No.	\$	\$	\$	\$
1923.							
Totals	22,642	3,390,322,950	525,267	571,470,028	1,470,149,139	1,311,025,375	2,281,165,514
Vegetable products.	4,427	385,725,299	65,395	67,441,626	337,790,150	209,884,136	547,674,286
Animal products.	5,078	207,090,471	61,517	52,870,124	273,995,639	110,090,178	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	230,808,842	319,216,193	556,025,035
Iron and its products.	1,000	552,272,800	88,071	115,453,809	256,417,991	209,541,556	465,959,547
Non-ferrous metals.	333	106,644,467	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	56,606,094	111,244,156
Miscellaneous industries.	589	92,817,021	16,580	10,630,918	21,966,080	36,454,817	58,420,897
Central electric stations.	957	581,472,583	11,095	14,784,038	—	91,141,296	91,141,296
1924.							
Totals	22,178	3,538,413,460	508,503	559,884,045	1,438,409,681	1,256,643,901	2,695,853,582
Vegetable products.	4,414	414,922,612	66,183	70,638,304	365,614,854	220,330,748	585,945,602
Animal products.	4,816	208,466,660	57,779	53,270,202	269,993,396	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	216,078,592	300,425,516	546,504,108
Iron and its products.	1,003	535,024,351	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	50,968,079	83,223,373
Non-metallic minerals.	1,095	235,613,111	24,186	29,559,746	61,741,225	76,832,578	138,573,803
Chemicals and allied products.	457	126,495,685	13,790	17,074,529	54,311,013	53,905,324	108,217,237
Miscellaneous industries.	414	96,497,768	15,942	19,254,507	22,881,481	33,317,033	56,198,514
Central electric stations.	951	628,565,093	12,828	17,946,584	—	95,169,768	95,169,768
1925.							
Totals	22,331	3,908,309,981	544,225	596,015,171	1,587,665,408	1,369,879,907	2,948,545,315
Vegetable products.	4,558	439,490,764	72,035	72,796,657	401,684,887	227,526,377	632,211,264
Animal products.	4,892	210,015,438	63,675	55,285,458	315,914,084	115,863,479	431,778,163
Textile products.	1,640	305,776,409	94,531	81,573,988	193,298,590	143,950,124	337,188,084
Wood and paper.	6,652	907,294,530	127,850	148,457,718	246,551,591	310,642,802	557,194,453
Iron and its products.	1,075	567,912,477	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	159,770,026
Non-metallic minerals.	1,191	239,823,825	24,468	29,892,659	65,278,752	78,960,840	144,248,592
Chemicals and allied products.	510	126,483,348	13,951	17,469,157	56,299,219	56,607,527	112,906,746
Miscellaneous industries.	428	103,281,875	16,583	18,427,224	25,292,323	33,988,542	59,280,865
Central electric stations.	1,007	726,721,087	13,263	18,755,907	—	102,587,882	102,587,882
1926.							
Totals	22,708	3,081,569,590	581,539	653,850,933	1,755,138,399	1,492,645,033	3,247,963,438
Vegetable products.	4,529	449,259,094	73,908	75,349,586	414,316,414	244,004,302	658,320,716
Animal products.	4,896	223,938,550	67,843	60,203,986	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	366,334,041
Wood and paper.	5,751	929,589,278	134,187	160,916,729	261,001,976	339,062,685	600,064,661
Iron and its products.	1,142	597,982,098	103,510	137,640,065	258,020,373	247,168,476	505,188,849
Non-ferrous metals.	403	232,503,426	30,065	39,201,147	90,613,004	92,888,739	183,501,723
Non-metallic minerals.	1,240	261,724,184	26,045	31,986,949	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 industries.	436	109,669,565	17,628	21,703,342	30,307,874	39,835,657	70,143,531
Central electric stations.	1,057	756,220,066	13,406	19,943,010	26,534,207	88,933,733	115,467,940

¹See note at end of Table 1 on page 15. ²A belated revision in the cement industry raised the salaries and wages in this group to \$29,561,746 and reduced the gross value of products to \$138,318,637.

2.—Summary of Statistics of Manufactures, by Industrial Groups, 1917-1928¹—concluded.

(All establishments irrespective of the number of employees.)

Industrial Group.	Estab- lish- ments.	Capital.	Em- ployees.	Salaries and Wages.	Cost of Materials.	Net Value of Products.	Gross Value of Products.
	No.	\$	No.	\$	\$	\$	\$
Totals 1927.	22,936	4,337,631,558	618,933	693,932,228	1,789,574,604	1,635,923,936	3,425,498,540
Vegetable products.	4,793	491,176,054	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	325,435,482	132,260,556	457,716,038
Textile products.	1,802	346,512,165	107,519	95,891,243	198,870,157	183,137,300	382,007,457
Wood and paper.	6,811	1,023,301,749	150,550	167,995,734	271,780,232	357,786,924	629,567,150
Iron and its products.	1,148	638,914,893	106,293	143,351,174	261,102,679	264,819,160	525,921,839
Non-ferrous metals.	401	208,957,166	33,443	44,154,695	87,612,666	112,757,295	200,360,961
Non-metallic minerals.	1,184	280,033,057	26,662	33,958,541	86,312,529	89,433,536	175,746,065
Chemicals and allied products.	561	134,618,839	14,559	18,656,851	63,630,588	63,854,084	127,484,672
Miscellaneous industries.	447	111,178,478	18,518	23,739,923	34,699,896	44,466,809	79,160,705
Central electric stations.	1,097	866,825,285	14,708	22,946,315	30,785,270	104,033,297	134,818,567
Totals 1928.	23,379	4,780,296,049	658,023	735,199,372	1,933,804,339	1,819,646,625	3,769,859,364
Vegetable products.	4,845	531,918,725	83,767	88,119,342	439,922,128	317,073,457	756,995,585
Animal products.	4,542	243,550,121	67,777	61,950,631	351,324,498	133,697,490	485,021,904
Textile products.	1,885	365,721,591	113,724	103,451,235	223,730,616	191,671,848	415,402,464
Wood and paper.	7,290	1,158,651,534	158,005	179,244,698	293,159,913	389,389,952	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	47,497,842	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	148,939,920	16,130	20,290,417	74,163,334	72,812,503	146,975,837
Miscellaneous industries.	453	119,602,877	19,351	25,101,208	35,090,248	50,439,849	85,530,097
Central electric stations.	1,049	956,919,603	15,853	24,087,420	31,365,636	112,326,819	143,692,455

¹See note at end of Table 1 on page 15.

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 seven years from 1922 to 1928 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 uninterrupted throughout the 12 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

3.—Summary Statistics of Manufactures, 1922-28.

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

Item.		1922.	1923.	1924.	1925. ¹	1926.	1927.	1928.
Establishments.....	No.	22,541	22,642	22,178	22,331	22,708	22,936	23,379
Capital.....	\$	3,244,302,410	3,380,322,950	3,538,813,460	3,808,309,981	3,981,569,590	4,337,631,558	4,780,296,049
Average capital per establishment.....	\$	143,929	149,295	159,565	170,538	175,338	189,119	204,469
Average capital per employee.....	\$	8,838	8,435	8,069	8,090	8,846	7,008	7,264
Average capital per wage-earner.....	\$	8,143	7,582	8,188	8,162	7,967	8,131	8,434
Total employees.....	No.	474,430	525,267	508,503	544,225	581,530	618,933	658,023
Average number of employees per establishment.....	No.	21.1	23.2	22.9	24.4	25.6	27.0	28.2
Total salaries and wages.....	\$	510,431,312	571,470,028	559,884,045	596,015,171	653,850,933	693,932,228	755,199,372
Average salaries and wages per establishment.....	\$	22,645	25,239	25,243	26,690	28,704	30,255	32,302
Average salaries and wages per employee.....	\$	1,076	1,089	1,101	1,065	1,124	1,121	1,148
Employees on salaries.....	No.	76,049	78,273	76,230	77,623	81,794	85,483	91,243
Average salaried employees per establishment.....	No.	3.4	3.5	3.4	3.5	3.6	3.7	3.9
Salaries.....	\$	136,219,171	142,738,081	139,814,639	143,056,516	152,705,944	162,348,978	174,770,879
Average salary.....	\$	1,791	1,824	1,831	1,843	1,867	1,899	1,915
Employees on wages.....	No.	398,390	446,994	432,273	466,602	499,745	533,450	566,780
Average number of wage-earners per establishment.....	No.	17.7	19.7	19.6	20.9	22.0	23.3	24.3
Wages.....	\$	374,212,141	428,731,347	420,269,406	452,958,655	501,144,989	531,583,250	580,428,493
Average wage.....	\$	939	959	972	971	1,003	997	1,024
Cost of material.....	\$	1,283,774,723	1,470,140,139	1,438,469,681	1,587,065,408	1,755,158,399	1,789,574,604	1,950,804,339
Average cost of material per establishment.....	\$	56,953	64,930	64,858	71,007	77,293	78,025	83,442
Average cost of material per employee.....	\$	2,709	2,801	2,827	2,917	3,018	2,892	2,965
Value added in manufacture.....	\$	1,109,434,407	1,311,025,375	1,256,643,901	1,360,879,907	1,492,645,039	1,635,925,936	1,819,046,025
Average value added per establishment.....	\$	53,167	57,992	56,662	60,941	65,732	71,325	77,807
Average value added per employee.....	\$	2,523	2,494	2,473	2,501	2,567	2,643	2,764
Gross value of product.....	\$	2,482,299,120	2,781,165,514	2,695,053,582	2,948,545,315	3,247,903,438	3,425,498,540	3,769,850,304
Average gross value of product per establishment.....	\$	110,120	122,832	121,519	132,038	143,035	149,135	161,249
Average gross value of product per employee.....	\$	5,232	5,295	5,300	5,418	5,585	5,535	5,729
Power employed ²	H.P.	2,016,563	2,140,003	2,538,535	2,888,164	3,134,248	3,297,582	3,592,184
Average number of horse power per establishment ²	H.P.	95	99	120	135	145	151	161
Average number of horse power per wage-earner ²	H.P.	5.14	4.87	5.97	6.29	6.37	6.27	6.45
Piece workers ³	No.	6,093	8,642	7,674	3,735	2,431	2,939	3,021
Earnings of piece workers ³	\$	1,284,437	1,627,055	1,485,422	692,302	466,708	450,657	456,766

¹ 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 averages for 1925 and later years per employee and wage-earner, as compared to what these averages would have been under the former method.

² 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.

³ These are piece workers employed outside the establishments and are not included in general statistics of number of employees or of earnings.

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 3,592,184 in 1928 or by 116 p.c. in 11 years. In the same period the horse-power used per establishment increased from 75 to 161 and the horse-power per wage-earner from 3.04 to 6.45, indicating the rapidly increasing contribution of power to manufacturing production.

The increases from \$143,929 to \$204,469 in average capital per establishment between 1922 and 1928, and in average number of employees from 21.1 to 28.2 are very significant figures. It is also noteworthy that the percentage of salaried employees to total employees has declined between 1922 and 1928 from 16.0 to 13.9—or approximately from one-sixth to one-seventh. In other words, there were in 1928 six wage-earners employed to each salary earner, as compared with five wage-earners to each salary earner in 1922. This is probably due to the fact that in the depression of 1920-22, 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 1922 staffs was abnormally large.

Value of Products.—The gross value of manufactured products in 1928 was reported as \$3,769,850,364; the cost of materials was \$1,950,804,339, leaving \$1,819,046,025 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 \$1,819,046,025 shown as having been added by manufacture, but not so great as the \$3,769,850,364 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.

Year.	Values.		Prices.		Index No. of Manu- facturing Production.
	Gross Value Manu- facturing Production.	Percentage relative to 1917.	Index No. Prices of Manu- factured Commodi- ties.	Percentage relative to 1917.	
	\$	p.c.		p.c.	
1917.....	2,873,268,183	100.00	113.7	100.0	100.0
1918.....	3,289,704,146	114.49	127.6	112.2	102.0
1919.....	3,290,590,585	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.....	3,247,803,438	113.03	100.0	87.9	128.6
1927.....	3,425,498,540	119.22	96.6	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 1928 was \$4,025,861,300, a figure obtained by adding to the value of manufactured products in 1928 the value of the imports of manufactured and partly manufactured goods during the fiscal year ended Mar. 31, 1929, 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. Iron, vegetable 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 larger than the imports, while textiles and iron and steel products, in addition to a large production showed an excess of imports over exports of \$150,000,000 for textiles and \$256,000,000 for iron and steel products.

5.—Consumption of Manufactured Products, by Groups, 1928, with Totals for 1922-1927.

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.

Group of Industries.	Value of Manufactured Products.	Manufactured and Partly Manufactured Goods.		Value of Manufactured Products Available for Consumption.
		Value of Imports.	Value of Exports. ¹	
	\$	\$	\$	\$
Vegetable products	756,995,585	137,943,085	154,054,047	740,885,223
Animal products	485,021,994	37,263,368	77,556,899	444,728,463
Textile products	415,402,464	158,707,822	8,615,447	565,494,839
Wood and paper products	682,549,865	57,463,697	265,590,713	474,422,849
Iron and its products	609,632,999	342,224,541	86,520,116	865,337,424
Non-ferrous metal products	237,996,927	69,452,287	80,509,143	226,910,071
Non-metallic mineral products	206,082,141	65,924,612	8,016,304	263,900,449
Chemicals and allied products	146,975,837	37,723,046	19,822,869	164,876,014
Miscellaneous industries	85,530,097	68,330,650	14,479,519	139,381,228
Central electric stations	143,692,455	80,467	3,938,182	139,834,740
Totals, 1928	3,769,850,364	975,114,175	719,103,239	4,025,861,300
Totals, 1927	3,425,498,540	825,147,919	648,178,090	3,602,468,459
Totals, 1926	3,247,803,438	767,022,008	673,709,266	3,341,116,190
Totals, 1925	2,948,545,315	671,462,940	695,325,245	2,924,683,010
Totals, 1924	2,695,053,582	576,031,343	591,598,479	2,679,486,346
Totals, 1923	2,781,165,514	639,343,645	591,829,306	2,828,679,853
Totals, 1922	2,482,209,130	574,551,323	515,173,415	2,541,587,088

¹ For 1928 exports include all exports of partly and fully manufactured goods whether of domestic or foreign origin, but for 1927 and previous years exports are of Canadian produce 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 about ten 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 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, sugar factories and rice mills, 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. Since then, the industry has been adversely affected by the difficulties which beset the Canadian grain trade and the great decline in the prices of grains. Exports of wheat flour declined from 11,809,000 barrels in the crop year ended July 31, 1929, to 6,778,000 barrels in the following crop year. The flour manufactured from Canadian hard spring wheat is of very high baking quality and a recovery of purchasing power in Europe and the Orient would contribute toward the return of flour exports to their former volume. 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.

The beverage industries—breweries, distilleries and wineries—which are important elements of the vegetable products group, have expanded from a production of \$30,000,000 in 1922 to \$103,000,000 in 1928, owing partly to the modification of prohibition laws in Canada and also to the fact that a large part of their production was exported to the United States. The tobacco industries, another important factor in the vegetable products group, had a total production in 1928 of nearly \$77,000,000.

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 \$130,000,000 in 1928 coming from no fewer than 2,804 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



A Canadian Automobile Tire Factory.—The manufacture of rubber goods, including tires, footwear, etc., is now the eighth industry in importance. In 1925 the value of the products was 78 million dollars; in 1928 it was 97 million. Canadian tires to the annual value of 16 million dollars are exported to 46 countries.

Courtesy Can. Govt. Motion Picture Bureau

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 199 boot and shoe factories were in operation in 1928, chiefly in Quebec and Ontario, representing a total capital of over \$31,000,000 with an annual output of \$50,000,000, and employing

15,505 men and women. The canning and preserving of fish also calls for reference. Concentrated naturally upon the Pacific and Atlantic coasts, 713 establishments were engaged in 1928 in the canning, curing and packing of various kinds of fish.

Textiles.¹—Although the production of cotton and woollen fabrics, hosiery, knitted goods, men's and women's clothing and so forth amounted in 1928 to a gross total valued at over \$415,000,000, 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 Mar. 31, 1929, were \$158,707,822, or 38 p.c. of the gross value of the manufactured product during the calendar year 1928.

While the most important industry in the textile group in Canada is the manufacture of cotton yarn and cloth, the products of which in 1928 were valued at over \$79,000,000, the chief development of textile industries has been in the manufacture of clothing and wearing apparel from both domestic and imported piece goods and yarns. Thus in 1928, if the men's and women's factory clothing, corsets, men's furnishing goods, hats and caps and hosiery, knit goods and fabric gloves industries be grouped together, the total products amounted to about \$222,000,000 or 54 p.c. of the production in the whole textile group in Canada.

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 120 plants in operation during 1928, 51 were engaged chiefly in manufacturing cloth, 20 in making yarns, 22 in making carpets and rugs and 27 in making miscellaneous woollen goods. The total value of woollen goods manufactured by the four classes of mills during 1928 amounted to \$34,700,000, as compared with \$31,200,000 in 1927.

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 1929 there were 108 pulp and paper-mills, consuming more than 5,278,422 cords of pulpwood in the year and using hydro power to the extent of about 1,400,000 h.p. Production of wood pulp in 1917 was 1,464,308 tons and in 1929, 4,021,229 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.

¹A sketch of the cotton industry, which is the most important of the textile group, is given under the heading of "Typical Individual Manufactures" at p. 429 in the Manufactures section of the Canada Year Book, 1924.

In 1929 the production was 2,725,331 tons, an increase of 13 p.c. over 1928. Included in the totals are hanging and poster papers. Canadian production in 1929 exceeded that of the United States by 1,300,000 tons or 95 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

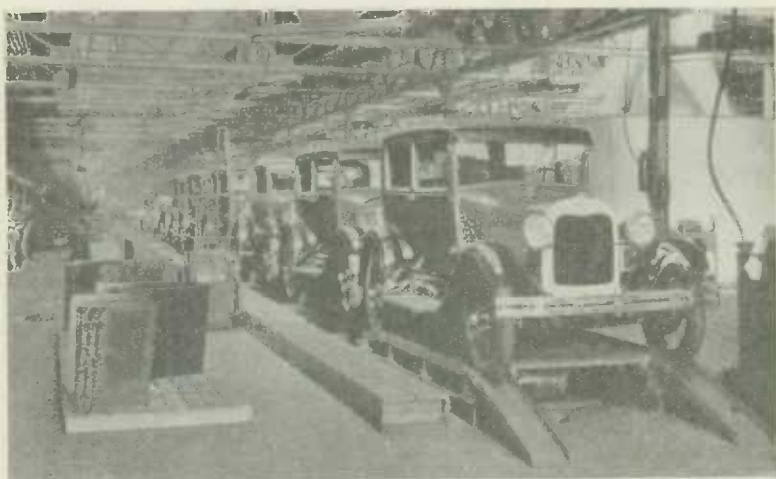


A Modern Newsprint Machine.—This machine, 234 inches wide, is capable of producing over 130 tons of newsprint daily.

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 of low grade ores now known to exist may be utilized.

Iron ore, which was imported chiefly from Newfoundland and the State of Minnesota, was converted into pig iron in 1928 by the following companies:—Steel Company of Canada, Ltd., at Hamilton, Ont.; the Algoma Steel Corporation at Sault Ste. Marie, Ont.; the Canadian Furnace Co. at Port Colborne, Ont.; and the Dominion Iron and Steel Co. Ltd., at Sydney, N.S. These 4 blast furnace plants, together with 23 steel furnaces, 12 rolling mills and one smelter for making ferro-manganese, accounted for a capital of \$114,292,363 and a gross production valued at \$62,071,674. There were, in 1928, no fewer than

1,159 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 \$702,931,186 and had a gross output valued at \$609,632,999. 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 1928 at \$162,867,495, 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.



The Assembly Line in a Canadian Automobile Factory.—The manufacture of automobiles ranked fifth among Canadian industries in 1928; the value of production was nearly 163 million dollars.

Courtesy Can. Govt. Motion Picture Bureau

Non-Ferrous Metals.—During 1928 there were 406 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 35,568 in 1928.

One of the leading industries in this group in recent years has been the manufacture of electrical apparatus and supplies; this industry had in 1928 a gross production of \$93,672,452. The 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.

The non-ferrous smelting and refining industry has shown a marked expansion in recent years, due to the increased capacity of the Trail smelter and the great activity of the copper smelter at Anyox, British Columbia, the enlargement of the nickel-copper smelting facilities and the proposed new copper refinery in the Sudbury district of Ontario, the new copper smelter at Noranda, and the activities of the aluminium plant at Arvida, Quebec. A new smelter which will smelt the ores from the Flin Flon and Sherritt-Gordon mines is practically completed at Flin Flon, Manitoba.

Another industry of some importance consisted of 97 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 \$28,457,430, while the materials were worth \$15,716,748.

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 products industry, which in 1928 produced about 40 p.c. of the gross value of the entire production of the group. This industry included, in 1928, 9 blending plants and 16 plants for the refining of crude oils. The refining 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 coke and gas industry of Canada is chiefly centred in the larger cities, especially in parts of the country where manufacturing predominates. Coke, 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 development 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. By-product coke plants are maintained at Sydney, Hamilton and Sault Ste. Marie by the three principal iron and steel companies and by the Hamilton By-Product Coke Co. The Crow's Nest Pass Co., and the Granby Consolidated Mining, Smelting and Power Co. also operate plants for the manufacture of metallurgical coke.

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. New superphosphate plants are being built at Hamilton, Ont., and Belœil, Que.

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 being saved and made into ammonia by the Casale process. This ammonia is shipped to Belœil and there oxidized to nitric acid for use in the manufacture of explosives and fertilizers.

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. This development involves the enlargement of the sulphuric acid plant using the waste gases from the smelter.

The growth of the ten main groups of chemical industries in Canada may be realized by noting that the total gross production of these industries 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, alkalies, 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 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 later years and introduces a slight element of incomparability with figures for previous years.

The principal statistics of each of the manufacturing industries of Canada during 1928 are presented in Table 6.

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

No.	Group and Kind of Industries.	Establishments.	Capital Employed.	Salaried Employees.		
				Male.	Female.	Salaries.
		No.	\$	No.	No.	\$
	Canada	23,379	4,780,296,649	69,858	21,383	174,770,879
	TOTALS BY PROVINCES.					
1	Prince Edward Island	277	3,121,568	151	31	183,976
2	Nova Scotia	1,167	138,809,331	1,383	385	2,850,760
3	New Brunswick	794	114,660,886	1,313	375	3,130,601
4	Quebec	7,231	1,583,350,884	20,109	5,137	49,485,152
5	Ontario	9,900	2,275,921,056	36,204	12,958	94,376,781
6	Manitoba	871	159,721,124	3,169	829	7,545,721
7	Saskatchewan	737	44,622,135	1,269	236	2,589,414
8	Alberta	778	92,190,476	1,810	458	4,020,520
9	British Columbia and Yukon	1,024	367,898,589	4,450	966	10,587,954
	TOTALS BY GROUPS.					
1	Vegetable products	4,845	531,918,725	9,035	2,755	22,902,282
2	Animal products	4,542	243,550,121	8,764	2,008	16,892,279
3	Textiles and textile products	1,885	365,721,591	6,517	3,234	19,085,001
4	Wood and paper products	7,299	1,158,651,534	15,351	4,691	40,361,890
5	Iron and its products	1,159	702,931,186	11,488	3,314	30,307,217
6	Non-ferrous metal products	406	253,567,370	5,003	1,749	12,748,626
7	Non-metallic mineral products	1,178	298,663,122	2,996	654	6,983,637
8	Chemicals and chemical products	572	148,939,920	3,294	1,217	8,570,680
9	Miscellaneous industries	453	119,602,877	2,407	642	6,451,109
10	Central electric stations	1,049	956,919,603	5,003	1,211	10,450,158
	GROUP 1.—VEGETABLE PRODUCTS.					
	Totals	4,845	531,918,725	9,035	2,755	22,902,282
1	Biscuits, confectionery, cocoa and chocolate	283	52,353,082	1,810	697	4,571,812
2	Bread and other bakery products	2,482	44,377,449	659	322	1,518,595
3	Breweries	78	67,148,686	835	118	2,295,187
4	Cigars and cigarettes	79	37,243,547	1,051	296	2,530,477
5	Coffee and spices	61	14,599,825	435	137	1,247,041
6	Distilleries	18	51,287,103	249	64	771,765
7	Feed and grist mills	896	5,947,496	21	11	45,657
8	Flour mills	423	57,567,079	889	200	2,111,020
9	Fruit and vegetable canning, evaporating, etc.	216	27,920,624	375	124	805,551
10	Ice-cream cones	10	582,128	8	2	24,859
11	Linseed oil and oil cake	8	2,394,331	32	5	90,267
12	Macaroni and vermicelli	11	1,250,832	49	14	89,120
13	Malt mills	6	6,533,330	53	7	122,060
14	Maple syrup and sugar	6	412,566	15	3	40,496
15	Miscellaneous food industries	56	9,650,967	191	76	509,960
16	Miscellaneous vegetable products	6	2,861,429	22	2	58,155
17	Pickles, vinegar and cider	62	8,047,231	142	51	338,797
18	Rice mills	5	1,331,679	22	3	67,076
19	Rubber footwear	11	10,256,188	663	218	1,267,802
20	Rubber tires and other rubber goods	34	54,222,878	986	278	2,334,891
21	Starch and glucose	6	5,446,548	39	19	156,509
22	Sugar refineries	8	48,625,818	239	60	922,969
23	Syrups	6	180,064	5	6	14,394
24	Tobacco, chewing, smoking and snuff	36	9,992,397	192	31	814,481
25	Wines and grape juice	38	5,705,568	53	11	143,681
	GROUP 2.—ANIMAL PRODUCTS.					
	Totals	4,542	243,550,121	8,764	2,008	16,892,279
1	Animal hair goods	6	697,180	17	4	50,055
2	Animal oils and fats	6	850,256	6	5	27,226
3	Belted leather	10	1,847,019	60	16	155,274
4	Boots and shoe findings	14	1,457,276	33	5	93,681
5	Butter and cheese	199	31,433,028	1,002	368	2,713,166
6	Condensed milk	2,804	45,129,836	3,519	594	4,514,041
7	Fish-curing and -packing	29	8,422,489	127	48	324,346
8	Fur dressing and dyeing	713	26,941,283	577	53	853,800
9	Fur goods	12	1,744,997	85	10	170,103
10	Gloves and mittens, leather	225	13,189,290	383	185	1,081,976
11	Harness and saddlery	49	5,345,708	151	66	349,032
12	Human hair goods	214	5,304,020	178	45	338,695
13	Leather goods, n.e.s.	4	47,211	1	1	2,656
14	Leather, tanned, etc.	40	1,493,793	86	41	216,975
15	Sausages and sausage casings	91	31,259,692	240	52	796,768
16	Slaughtering and meat-packing	32	1,220,595	50	14	109,531
17	Trunks, bags, etc.	75	66,198,507	2,200	477	4,898,201
18		19	2,467,077	69	24	190,153

Materials and Value of Products of Canadian Manufacturing Industries, 1928.

Wage-Earners.			Power Installed.	Cost of Fuel Used.	Cost of Materials.	Value of Products.		No.
Male.	Female.	Wages.				Net.	Gross.	
No.	No.	\$	H.P.	\$	\$	\$	\$	
441,189	125,591	590,428,493	6,239,955	59,761,267	1,950,804,339	1,819,046,025	3,769,450,364	
1,121	732	528,969	7,219	110,817	2,747,292	1,607,868	4,445,160	1
14,008	3,436	12,987,634	207,928	2,974,941	44,168,441	40,780,167	84,948,608	2
12,656	3,619	11,551,909	151,489	1,700,741	39,750,501	27,663,181	67,413,742	3
131,279	48,434	168,402,329	3,481,309	17,320,310	510,580,872	562,581,419	1,073,162,291	4
213,754	57,813	296,999,166	3,010,179	28,791,474	1,034,501,240	915,222,879	1,949,724,119	5
17,540	3,028	25,023,502	442,029	2,069,449	88,284,693	71,150,401	159,435,094	6
4,201	467	5,414,163	99,995	1,781,992	34,186,731	24,938,549	50,125,280	7
8,915	1,644	11,382,772	159,202	1,544,523	59,398,097	41,345,704	100,744,401	8
37,715	5,818	48,138,049	819,134	3,407,020	137,185,812	133,965,857	270,851,699	9
48,675	23,299	65,217,060	309,611	6,793,577	439,922,128	317,073,457	756,995,585	1
41,627	15,378	45,058,352	104,166	3,362,773	351,324,498	133,697,496	485,021,994	2
41,156	62,817	84,366,324	163,779	3,084,772	223,730,616	191,671,848	415,402,464	3
126,820	11,233	138,892,808	1,908,738	14,428,373	293,159,013	389,380,952	682,549,865	4
101,159	3,238	138,012,821	488,521	10,647,270	309,618,074	300,014,925	609,632,999	5
24,692	4,124	34,749,216	294,842	3,246,564	98,746,019	139,220,908	237,966,927	6
24,251	749	30,152,814	181,666	12,891,215	93,683,873	112,298,268	206,082,141	7
8,826	2,793	11,710,737	71,401	1,832,453	74,163,334	72,812,503	140,975,837	8
14,342	1,960	18,650,099	69,600	623,805	35,020,248	50,430,849	85,630,007	9
9,641	-	13,628,202	4,789,930	2,280,405	31,365,036	112,326,819	143,692,455	10
44,675	23,299	65,217,060	309,611	6,793,577	439,922,128	317,073,457	756,995,585	
4,554	6,213	7,992,817	19,854	575,370	28,480,230	31,023,993	60,404,223	1
12,495	1,946	15,382,643	12,467	1,588,646	36,151,747	35,075,350	71,227,097	2
4,014	30	4,785,574	38,344	594,716	20,737,486	40,172,912	60,910,398	3
1,966	3,331	3,607,441	2,327	72,920	18,469,843	42,607,889	61,077,732	4
671	425	1,044,002	3,124	42,851	21,257,199	5,944,093	27,201,292	5
1,259	312	1,788,694	7,827	526,545	10,137,114	28,286,629	38,423,743	6
1,238	1	815,602	34,247	83,647	20,164,304	3,462,025	24,626,329	7
4,054	142	4,033,795	84,848	515,124	144,868,517	27,203,278	172,071,795	8
2,396	4,555	2,559,380	10,306	202,470	15,144,100	9,746,329	24,890,429	9
60	30	99,724	84	29,815	136,291	381,143	517,434	10
197	1	232,504	1,997	18,828	5,514,568	766,487	6,281,055	11
130	106	157,301	904	7,754	902,958	573,213	1,476,171	12
167	-	251,478	4,527	175,925	3,972,005	1,545,354	5,517,359	13
30	2	30,397	87	6,303	815,560	185,227	1,000,187	14
513	287	845,661	4,792	86,272	5,766,863	5,910,223	11,677,086	15
87	9	107,493	1,661	51,659	2,795,129	1,338,395	4,133,524	16
649	533	982,974	2,044	113,523	5,054,480	5,368,813	10,423,293	17
46	-	48,441	470	360	1,458,184	253,731	1,711,915	18
4,246	2,892	6,077,169	16,019	175,763	9,935,647	20,811,565	30,747,212	19
6,523	1,289	9,263,808	41,149	429,261	35,182,923	31,278,578	66,461,501	20
420	17	457,291	2,030	218,385	3,778,927	1,676,108	5,455,035	21
1,979	103	2,748,117	18,881	1,163,859	40,551,874	11,533,281	52,085,155	22
15	14	17,330	31	3,71	154,689	96,161	250,850	23
762	1,035	1,073,802	1,003	35,016	6,284,824	9,464,801	15,749,625	24
204	20	213,622	588	14,845	2,206,606	1,467,879	3,674,545	25
41,627	15,378	45,058,352	104,166	3,362,773	351,324,498	133,697,496	485,021,994	
67	23	71,092	377	5,246	255,350	302,129	647,578	1
104	4	110,503	333	23,720	335,088	267,190	602,278	2
183	1	165,897	450	8,414	1,087,247	552,595	1,639,842	3
246	84	236,993	1,499	19,883	675,855	732,302	1,408,157	4
8,563	5,572	12,269,442	6,929	133,858	26,383,043	23,635,750	50,018,802	5
7,077	221	7,241,506	26,879	1,077,462	99,202,776	31,000,532	130,212,308	6
619	52	729,209	3,598	344,430	10,396,900	3,774,406	44,161,306	7
9,053	5,751	4,407,299	11,866	451,540	20,578,767	15,688,965	36,267,732	8
634	97	626,657	870	12,170	260,185	2,261,109	2,521,294	9
1,206	1,230	2,807,799	350	23,244	13,866,832	6,899,239	20,756,071	10
525	87	1,110,036	428	16,340	3,150,901	2,218,055	5,368,956	11
815	83	888,426	896	27,360	2,842,219	2,052,070	4,894,298	12
6	7	14,016	1	272	14,491	23,746	38,237	13
297	368	531,946	150	5,856	1,139,974	1,414,643	2,554,817	14
3,561	99	3,600,060	15,314	378,137	26,253,779	8,948,301	35,202,080	15
186	19	219,489	299	15,109	1,339,790	755,134	2,094,924	16
7,787	780	9,344,161	33,116	803,977	142,396,342	31,700,077	174,096,419	17
598	108	584,794	802	15,946	1,154,950	1,382,145	2,537,095	18

1 Net: see pp. 66 and 67.

6.—Statistics of the Numbers, Capital, Employees, Salaries and Wages, Cost of
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No.	Group and Kind of Industry.	Establish- ments.	Capital Employed.	Salaried Employees.		
				Male.	Female.	Salaries.
		No.	\$	No.	No.	\$
GROUP 3.—TEXTILE PRODUCTS.						
Totals		1,885	345,721,591	6,517	3,234	19,085,001
1	Awnings, tents and sails	58	2,069,798	80	30	180,977
2	Bags, cotton and jute	19	6,084,706	86	32	291,619
3	Batting	8	2,822,676	49	25	194,099
4	Carpets, mats and rugs	22	6,072,610	174	42	442,277
5	Clothing, men's factory	218	27,263,996	1,039	405	2,743,206
6	Clothing, women's factory	444	25,557,610	1,083	748	3,626,651
7	Cordage, rope and twine	14	12,173,549	87	20	276,109
8	Corsets	10	4,917,408	170	176	431,004
9	Cotton and wool waste	7	1,148,423	20	8	67,927
10	Cotton, textiles, n.e.s.	21	1,163,466	39	19	97,195
11	Cotton thread	5	4,357,721	66	27	186,740
12	Cotton yarn and cloth	38	90,960,011	593	127	1,749,021
13	Dyeing, cleaning and laundry work	375	23,592,606	596	420	1,656,129
14	Flax, dressed	14	317,252	5	-	5,762
15	Furnishing goods, men's	159	21,064,504	559	275	1,398,478
16	Hats and caps	159	8,164,615	416	203	1,155,333
17	Hosiery, knit goods and fabric gloves	165	60,399,926	756	455	2,577,904
18	Linen goods	6	1,032,567	14	4	46,356
19	Miscellaneous textiles, n.e.s.	5	3,000,244	44	8	102,879
20	Oiled and waterproof clothing	18	1,238,488	39	19	123,415
21	Silk goods	16	26,159,793	243	96	620,715
22	Woolen cloth	51	18,274,895	224	42	600,201
23	Woolen textiles, n.e.s.	27	8,375,122	85	26	329,768
24	Woolen yarns	20	8,810,695	50	27	181,236
GROUP 4.—WOOD AND PAPER PRODUCTS.						
Totals		7,290	1,158,651,534	15,351	4,601	40,361,890
1	Beekeepers' and poultrymen's supplies	4	57,964	1	-	15,600
2	Blueprinting	15	170,972	16	5	33,375
3	Bouts and canoes	118	2,279,362	48	34	121,446
4	Boxes and bags, paper	132	18,732,564	468	184	1,372,089
5	Boxes and packing cases	125	13,541,673	221	48	555,799
6	Carrriages, wagons and sleighs	399	8,356,233	173	29	338,934
7	Carrriage and wagon materials	6	765,546	16	3	41,884
8	Clothes pins	3	215,615	4	-	10,843
9	Coffins and caskets	38	3,514,906	51	19	151,738
10	Cooperage	77	2,236,754	35	10	93,899
11	Excelsior	9	283,365	7	4	14,999
12	Furniture and upholstery	366	39,829,474	862	346	2,607,611
13	Laets, trees and pegs	15	1,340,889	82	15	112,776
14	Lithographing and engraving	119	10,975,562	725	349	2,453,060
15	Miscellaneous wood products	154	4,943,456	91	33	241,080
16	Paper goods, n.e.s.	36	6,148,032	144	96	483,453
17	Planing mills, sash and door factories, etc.	788	53,431,576	1,099	248	2,472,706
18	Printing and bookbinding	912	38,755,308	1,488	545	4,137,654
19	Printing and publishing	753	60,822,600	4,561	1,647	10,408,930
20	Pulp and paper	110	685,687,459	2,962	545	8,713,671
21	Roofing paper, wall board, etc.	10	4,484,897	99	29	356,723
22	Sawmills	2,967	175,729,448	1,665	233	4,017,039
23	Sporting goods	22	1,843,501	46	24	94,458
24	Stationery and envelopes	31	4,825,518	219	90	505,600
25	Stereotyping and electrotyping	27	1,246,088	71	21	178,406
26	Woodenware	12	844,207	22	7	96,247
27	Wood-turning	30	1,568,202	36	15	89,784
28	All other industries	12	9,020,363	139	42	552,071
GROUP 5.—IRON AND ITS PRODUCTS.						
Totals		1,159	702,931,186	11,488	3,314	30,307,217
1	Agricultural implements	66	91,342,820	1,253	406	2,935,250
2	Automobiles	14	97,056,328	1,740	696	5,255,897
3	Automobile supplies	77	16,343,956	306	103	891,163
4	Bicycles and motorcycles	3	2,828,642	125	39	233,020
5	Boilers, tanks and engines	35	9,352,068	263	55	655,756
6	Castings and forgings	327	95,326,911	1,803	527	4,827,047
7	Hardware and tools	125	31,076,384	576	234	1,777,499
8	Iron and steel products, n.e.s.	70	14,145,791	547	112	1,339,350
9	Machinery	161	69,404,536	1,719	542	4,410,340
10	Railway rolling stock	35	89,053,842	1,391	92	3,221,133
11	Sheet metal products	145	45,346,299	939	309	2,338,525
12	Steel and rolled products, pig iron, ferro-alloys, etc.	40	114,292,363	522	92	1,542,727
13	Wire and wire goods	61	24,561,246	304	107	879,600

Materials and Value of Products of Canadian Manufacturing Industries, 1928—
tinued.

Wage-Earners.			Power Installed.	Cost of Fuel Used.	Cost of Materials.	Value of Products.		2.
Male.	Fe- male.	Wages.				Net.	Gross.	
No.	No.	\$	H.P.	\$	\$	\$	\$	
41,156	62,807	81,366,324	163,779	3,684,772	223,730,616	191,671,848	415,402,464	
237	213	427,283	256	8,799	1,509,610	1,125,105	2,634,715	1
299	648	708,014	1,100	19,749	12,494,239	1,789,157	14,283,396	2
128	109	233,102	664	14,617	1,734,335	1,463,314	3,197,649	3
559	362	854,527	2,267	61,666	2,370,903	2,638,337	5,009,240	4
4,729	5,706	10,342,342	1,436	78,759	24,567,328	23,909,850	48,477,178	5
3,961	10,559	13,059,243	2,875	54,629	36,233,645	27,092,856	63,326,501	6
826	397	1,256,908	7,961	30,951	7,624,155	3,215,806	10,839,961	7
72	1,000	693,280	294	7,381	2,055,418	2,191,532	4,246,918	8
179	104	244,218	1,096	8,956	1,914,870	670,376	2,585,246	9
86	316	267,720	346	8,938	1,231,922	781,152	2,013,071	10
184	475	501,615	1,829	18,769	1,969,340	2,495,641	4,464,981	11
12,139	8,756	15,939,770	80,572	1,062,438	44,704,779	34,514,803	79,210,582	12
4,311	6,342	8,970,202	14,499	1,002,489	3,007,047	20,611,776	23,648,823	13
124	4	46,715	471	6,007	78,662	154,048	232,710	14
1,217	7,858	5,872,397	2,427	65,299	17,321,124	12,993,428	30,314,552	15
1,453	2,645	3,724,072	1,741	73,170	8,290,055	8,683,138	16,973,193	16
5,165	11,598	12,478,792	521,104	521,104	31,251,936	27,290,822	58,551,758	17
65	118	120,004	589	11,251	297,461	248,080	545,541	18
151	127	226,017	626	18,911	2,053,601	514,098	2,567,699	19
141	169	303,199	113	10,912	826,524	897,870	1,724,394	20
1,513	2,081	2,820,834	7,838	167,091	4,638,717	6,258,556	10,897,273	21
1,935	1,795	3,163,737	11,063	279,665	9,270,861	5,791,220	15,062,081	22
715	377	877,269	4,094	80,152	3,494,918	3,414,311	6,909,229	23
767	1,045	1,235,064	3,908	77,409	4,789,168	2,917,572	7,706,740	24
126,820	11,233	138,892,808	1,998,738	14,428,373	293,159,913	389,389,852	682,549,865	
15	-	11,316	41	638	53,965	36,869	90,824	1
60	8	60,234	59	1,199	77,750	200,144	277,894	2
710	6	684,992	1,253	9,888	443,786	1,554,090	1,997,895	3
1,925	2,536	3,470,396	5,817	83,708	10,825,855	10,286,396	21,112,251	4
3,100	274	2,701,778	13,865	36,208	5,333,513	5,239,198	10,573,011	5
2,102	7	2,273,121	4,054	95,813	3,688,371	4,506,565	8,194,936	6
143	1	158,173	708	6,678	430,068	370,053	800,721	7
156	45	123,186	714	60	99,300	292,508	391,808	8
530	97	619,297	2,278	22,834	1,319,555	1,615,350	2,934,905	9
554	3	511,080	2,381	15,128	2,382,415	1,215,074	3,597,489	10
64	23	53,150	558	379	67,158	139,442	226,800	11
10,810	521	11,081,733	20,440	364,579	16,312,469	25,513,065	41,825,534	12
347	123	400,497	4,882	10,304	294,875	971,455	1,266,330	13
3,029	1,267	5,865,132	4,498	75,716	5,858,463	13,349,165	19,207,658	14
1,012	62	755,086	3,313	16,897	1,466,832	2,309,004	3,775,836	15
619	202	894,286	3,094	61,560	4,042,970	3,672,255	7,715,225	16
10,674	110	10,858,423	52,311	158,744	30,021,888	22,678,427	52,700,315	17
7,232	2,529	11,554,482	10,174	147,382	13,321,821	27,096,645	41,018,466	18
8,421	1,484	15,834,976	18,810	308,289	15,696,759	52,183,047	67,879,806	19
29,253	854	38,608,977	1,459,256	12,403,083	88,490,421	144,586,815	233,077,236	20
294	7	379,113	1,138	83,383	2,959,463	2,884,924	5,844,387	21
42,888	76	30,704,481	296,914	363,232	89,451,801	58,072,053	139,424,754	22
317	109	371,681	856	10,118	878,529	1,118,464	1,997,023	23
375	689	953,806	889	13,926	3,960,550	2,709,326	6,660,876	24
258	6	449,087	566	11,338	132,043	1,047,253	1,179,296	25
419	24	316,927	916	7,015	452,992	614,484	1,067,766	26
487	60	384,029	1,837	4,860	443,197	817,240	1,260,437	27
936	110	803,679	1,516	115,421	3,632,404	2,818,212	6,450,676	28
101,159	3,228	138,612,821	488,521	10,647,270	309,618,074	300,011,925	609,632,999	
9,108	100	10,664,703	22,924	510,654	17,607,861	23,501,980	41,199,841	1
14,075	218	24,292,217	34,174	717,601	114,892,190	47,975,305	162,867,495	2
2,835	265	3,865,246	7,373	203,686	8,338,404	8,648,753	17,007,157	3
354	35	414,944	1,023	19,131	1,019,421	1,194,072	2,213,493	4
1,432	2	1,737,444	7,629	87,712	3,228,497	3,278,940	6,507,437	5
18,124	328	21,991,969	53,328	1,553,698	31,530,148	50,374,704	81,904,852	6
5,046	875	10,323,770	15,296	385,140	8,589,661	16,542,160	25,131,821	7
3,672	25	3,939,968	7,965	88,903	7,922,881	9,644,134	17,567,015	8
8,328	266	10,527,756	35,254	367,905	18,076,526	32,066,614	51,446,140	9
20,891	43	29,231,648	90,974	1,321,091	38,110,053	35,312,004	73,422,057	10
6,668	816	8,268,451	16,530	468,245	24,660,978	25,185,693	49,846,671	11
8,410	24	13,928,109	183,177	4,722,021	27,164,463	34,907,211	62,071,674	12
2,807	221	3,156,596	12,874	201,474	7,556,991	11,290,355	18,847,346	13

19450-54

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

CON

No.	Group and Kind of Industry.	Establish- ments.	Capital Employed.	Salaried Employees.		
				Male.	Female.	Salaries.
		No.	\$	No.	No.	\$
GROUP 6.—NON-FERROUS METAL PRODUCTS.						
Totals		406	251,367,370	5,003	1,749	12,748,626
1	Aluminium products	14	5,094,213	54	15	155,473
2	Brass and copper products	97	23,576,863	762	193	1,704,425
3	Electrical apparatus and supplies	137	87,952,674	3,125	1,218	7,797,539
4	Lead, tin and zinc products	25	4,673,882	95	47	268,303
5	Miscellaneous non-ferrous metal products	17	943,914	40	6	113,370
6	Non-ferrous smelting and refining	10	123,035,742	612	73	1,635,580
7	Precious metal products	106	11,093,082	315	197	1,073,876
GROUP 7.—NON-METALLIC MINERAL PRODUCTS.						
Totals		1,178	298,693,122	2,996	654	6,983,637
1	Abrasive products	12	7,317,105	67	25	213,268
2	Aerated and mineral waters	347	11,650,938	442	75	850,034
3	Asbestos and allied products	14	3,064,164	53	13	134,084
4	Cement	11	47,678,841	113	9	256,867
5	Cement products	151	4,140,543	146	12	285,545
6	Clay products, domestic	186	32,473,263	321	48	806,209
7	Clay products from imported clays	14	3,069,562	65	15	217,895
8	Coke and gas products	45	92,145,190	653	230	1,304,534
9	Glass products	59	12,864,882	221	66	574,442
10	Lime	54	6,952,079	84	16	184,732
11	Miscellaneous non-metallic products	17	8,331,500	102	24	263,818
12	Petroleum products	25	56,531,614	412	62	1,169,042
13	Salt	10	4,422,922	45	16	117,376
14	Sand-lime brick	11	1,916,060	29	3	65,343
15	Stone, ornamental and monumental	222	6,305,519	252	40	545,448
GROUP 8.—CHEMICALS AND ALLIED PRODUCTS.						
Totals		572	148,939,926	3,294	1,217	8,579,680
1	Acids, alkalies, salts and compressed gases	41	44,250,661	498	105	1,162,275
2	Coal tar and its products	19	4,924,681	47	13	132,291
3	Explosives, ammunition, fireworks and matches	14	19,361,448	150	15	320,306
4	Fertilizers	12	2,131,905	28	14	79,445
5	Inks, dyes and colours	28	3,052,322	116	37	464,018
6	Medicinal and pharmaceutical preparations	149	17,427,506	584	350	1,783,162
7	Miscellaneous chemical industries	128	10,726,946	476	226	1,233,226
8	Paints, pigments and varnishes	68	24,256,008	774	224	2,076,138
9	Soaps, washing compounds and toilet preparations	115	20,923,508	697	233	1,304,021
10	Wood distillates and extracts	7	1,884,935	14	-	24,798
GROUP 9.—MISCELLANEOUS INDUSTRIES.						
Totals		453	119,692,877	2,407	642	6,451,109
1	Advertising and other novelties	10	273,273	8	4	22,101
2	Artificial leathers and flowers	7	263,355	14	18	39,305
3	Bridge building	10	24,485,779	724	96	2,028,291
4	Brooms, brushes and mops	76	4,303,107	186	71	472,737
5	Buttons	13	1,468,361	48	17	141,940
6	Candles and tapers	11	531,769	14	3	27,298
7	Fountain pens	4	1,390,372	38	17	99,717
8	Ice, artificial	29	4,979,236	39	4	75,898
9	Jewel cases and silverware cabinets	6	223,136	13	12	28,182
10	Mattresses and springs	63	8,155,256	209	65	632,208
11	Motion pictures	7	662,628	36	9	49,111
12	Musical instruments and materials	42	14,050,702	242	100	653,075
13	Refrigerators	11	1,343,842	25	11	81,411
14	Regulin and society emblems	11	222,333	11	12	36,625
15	Scientific and professional equipment	21	16,979,027	119	79	410,049
16	Shipbuilding and repairs	42	37,072,996	533	57	1,239,541
17	Stamps and stencils	31	619,888	61	20	120,184
18	Statuary, art goods and church supplies	30	747,043	37	21	84,597
19	Store and display fixtures	3	244,773	8	6	22,339
20	Toys and games	10	232,118	9	2	19,216
21	Typewriter supplies	4	592,887	26	11	103,746
22	Umbrellas and parasols	9	548,984	21	7	56,304
23	All other industries	3	148,713	4	-	7,144
GROUP 10.—CENTRAL ELECTRIC STATIONS.						
Totals		1,049	956,919,603	5,003	1,211	10,459,158

Materials and Value of Products of Canadian Manufacturing Industries, 1928—cluded.

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.	\$	\$	\$	\$	
24,692	4,124	34,749,216	294,642	3,246,564	98,746,019	139,229,908	237,966,927	
468	72	640,920	2,919	37,194	1,865,328	1,327,368	3,192,696	1
4,067	415	5,092,901	14,976	371,911	15,716,748	12,740,682	28,457,430	2
10,892	2,958	14,058,670	49,748	601,457	38,784,421	54,888,031	93,672,452	3
437	65	491,240	1,953	40,729	4,105,167	1,388,193	5,493,360	4
137	44	456,437	185	5,488	304,387	802,252	1,106,639	5
6,804	37	10,593,158	221,884	2,133,998	33,260,225	61,081,477	94,341,702	6
1,887	533	2,806,900	2,977	55,787	4,709,743	6,992,905	11,702,648	7
24,251	749	39,152,814	181,666	12,861,215	83,683,872	112,398,268	206,082,141	
594	5	835,253	3,894	29,652	2,169,428	4,954,190	7,122,588	1
1,380	90	1,557,827	2,270	80,754	4,705,656	5,972,475	10,677,801	2
250	29	287,364	2,014	43,582	925,661	1,124,771	2,050,432	3
2,285	-	3,148,518	73,609	3,088,979	-	16,739,163	10,739,163	4
1,101	3	1,182,963	2,238	44,833	-	2,875,302	4,136,955	5
4,826	-	4,375,189	25,409	2,005,053	1,261,053	12,381,718	12,381,718	6
568	48	673,230	20,957	1,912,060	708,571	1,750,230	2,458,801	7
3,024	7	4,304,245	7,478	928,767	17,164,246	17,541,201	34,708,447	8
2,607	325	3,303,723	766	181,464	4,791,486	5,773,868	13,565,354	9
1,118	-	1,131,383	4,426	856,890	-	4,534,568	4,534,568	10
696	173	856,955	6,293	143,721	1,790,404	3,009,236	4,799,640	11
3,820	25	5,753,538	22,851	3,219,659	57,383,841	25,738,331	83,122,472	12
358	36	422,399	1,920	234,754	-	1,495,971	1,495,971	13
258	-	286,968	1,474	71,066	322,027	790,439	1,112,466	14
1,386	8	2,033,259	6,056	19,905	2,460,900	4,715,135	7,176,035	15
8,826	2,793	11,719,737	71,401	1,832,453	74,163,234	72,812,563	146,975,837	
2,330	10	2,981,027	45,406	652,033	23,404,991	18,931,855	42,136,846	1
197	4	255,372	446	132,099	2,734,823	1,071,084	4,405,907	2
1,233	590	1,539,933	6,450	156,410	6,652,193	6,869,527	13,521,720	3
206	3	201,604	649	12,135	1,446,800	743,186	2,189,986	4
236	48	341,355	1,049	15,995	1,182,603	2,151,565	3,334,168	5
773	960	1,591,862	1,967	75,242	5,707,934	11,516,417	17,224,351	6
917	404	1,204,200	3,593	142,108	6,033,188	6,799,599	12,832,787	7
1,645	238	1,891,157	6,110	214,142	14,489,934	13,378,112	27,868,046	8
1,066	536	1,484,527	5,211	241,468	11,684,391	9,932,626	21,617,017	9
203	-	219,640	520	190,221	826,477	818,532	1,645,009	10
14,342	1,969	18,650,999	69,660	623,865	35,699,248	50,439,849	85,530,697	
44	62	63,617	35	249	105,757	160,061	265,818	1
15	100	66,089	8	239	141,228	255,096	306,324	2
3,153	2	4,807,919	18,233	149,090	11,208,257	11,375,933	22,584,190	3
916	231	862,152	1,651	24,678	1,952,794	2,448,251	4,401,045	4
225	182	259,828	537	11,428	263,480	673,846	937,326	5
35	23	39,957	15	5,347	217,742	243,110	460,852	6
127	94	189,238	179	2,205	698,400	1,279,580	1,977,980	7
240	4	311,722	7,588	8,443	59,313	1,424,389	1,483,702	8
48	36	75,803	119	1,495	81,751	216,405	298,156	9
1,293	257	1,680,861	3,889	45,444	5,462,006	4,949,324	10,411,330	10
77	25	148,063	17	1,790	354,574	488,468	843,042	11
2,438	203	2,863,777	5,069	112,908	5,083,766	7,198,823	12,282,589	12
288	3	295,168	730	2,922	585,378	901,916	1,487,294	13
23	44	55,032	22	754	96,904	148,167	215,071	14
427	261	761,205	3,195	49,661	3,079,892	3,821,306	6,004,198	15
4,325	12	5,135,511	27,661	187,435	4,001,724	12,342,892	16,344,616	16
192	8	239,005	149	4,872	103,029	558,321	661,350	17
229	194	390,090	137	3,989	877	853,182	1,305,059	18
70	8	93,270	86	2,507	143,380	162,190	305,480	19
72	46	91,839	93	2,435	213,541	216,576	430,117	20
38	18	67,922	141	3,586	267,789	323,992	591,781	21
44	137	123,015	35	463	477,124	329,320	806,444	22
18	10	26,016	71	1,325	40,539	68,794	109,333	23
9,641	-	13,628,212	4,786,900	2,280,465	31,365,638	112,326,819	143,692,455	

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 separate and distinct 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 1927 in summary form, and for 1928 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 22.1 p.c. in 1928. 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 8.9 p.c. in 1928. Producers' materials also rose from 26 p.c. to 28.7 p.c. The percentage of the clothing industries remained about stationary, being 9.5 p.c. in 1928 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 1928 was 22 p.c. of the output of Canadian manufacturing concerns, as compared with an output of 9.5 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 12.5 p.c. of the total for all industries in the case of the food group and 9.9 p.c. for the clothing group. The clothing industries gave employment to approximately 14,000 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 1922-27 and in Detail for 1928.

(All establishments irrespective of the number of employees.)

Purpose Heading.	Estab-lish-ments.	Capital.	Em-ployees.	Salaries and Wages.	Cost of Materials.	Net Value of Products.	Gross Value of Products.
1922, ^{1,2}	No.	\$	No.	\$	\$	\$	\$
Totals	22,181	3,125,772,761	462,573	497,113,551	1,280,527,079	1,159,316,687	2,439,843,766
Food.....	8,215	341,662,489	66,444	67,306,446	490,731,438	181,434,270	672,165,708
Drink and tobacco...	496	104,047,461	13,402	13,777,986	33,027,203	66,502,616	99,529,819
Clothing.....	1,279	175,076,687	70,931	65,595,519	118,749,053	117,804,140	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.....	609	75,168,053	18,032	19,861,883	24,959,960	38,004,090	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	20,865	33,488,604	86,057,295	67,020,630	153,077,925
Producers' materials.....	5,285	1,011,298,819	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	259,472,307	418,043,581
Miscellaneous ³	39	4,960,434	869	1,061,388	2,965,354	1,952,064	4,916,418
Totals	22,642	3,390,322,950	525,267	571,470,028	1,470,140,139	1,311,025,375	2,781,165,514
Food.....	8,227	345,764,285	77,293	69,336,584	495,485,972	182,097,169	677,583,141
Drink and tobacco.....	520	109,441,567	14,081	14,471,362	32,859,746	68,500,180	101,359,932
Clothing.....	2,032	191,922,116	83,124	76,858,924	131,566,228	137,373,130	268,939,358
Personal utilities.....	358	46,847,531	10,301	11,934,908	21,578,596	24,683,219	46,261,815
House furnishings.....	585	64,280,384	16,105	17,515,203	23,195,716	33,963,081	57,159,397
Books and stationery.....	1,536	91,136,337	29,071	38,739,470	29,761,991	73,093,813	102,855,804
Vehicles and vessels.....	1,040	214,335,369	37,748	50,041,177	140,518,004	86,573,861	227,091,835
Producers' materials.....	5,859	1,194,460,970	171,513	189,540,281	408,382,495	436,047,291	844,429,786
Industrial equipment.....	2,332	1,093,181,458	81,698	98,500,993	171,172,400	256,679,901	427,852,451
Miscellaneous.....	153	28,933,924	4,333	4,531,123	15,618,001	12,013,064	27,631,965

¹ For details for the years 1922-1927 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; 1930, p. 410.

² 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 1922-27 and in Detail for 1928—continued.

(All establishments irrespective of the number of employees.)

Purpose Heading.	Estab- lish- ments.	Capital.	Em- ployees.	Salaries and Wages.	Cost of Materials.	Net Value of Products.	Gross Value of Products.
	No.	\$	No.	\$	\$	\$	\$
1924.¹							
Totals	22,178	3,538,813,440	508,503	559,884,045	1,438,409,681	1,256,643,901	2,685,053,582
Food	8,036	304,420,646	74,721	73,119,482	515,708,299	187,005,602	702,713,901
Drink and tobacco	518	124,080,298	14,702	15,748,590	30,159,284	72,718,494	111,877,777
Clothing	1,950	197,041,960	81,729	75,380,919	130,130,048	130,813,958	200,944,006
Personal utilities	341	48,367,616	9,547	11,057,386	20,304,177	21,511,207	41,815,384
House furnishings	587	64,787,015	15,820	17,142,226	22,448,984	32,495,853	54,944,837
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	44,977,007	117,515,075	77,888,209	195,403,284
Producers' materials	5,710	1,251,002,206	163,523	176,046,907	384,533,291	383,226,055	767,750,256
Industrial equipment	2,204	1,149,628,422	80,406	100,883,940	160,470,513	264,765,817	425,256,330
Miscellaneous	150	33,035,383	4,420	4,714,828	15,779,198	11,307,612	27,086,778
1925.¹							
Totals	22,331	3,808,309,881	544,225	596,015,121	1,587,665,108	1,360,879,907	2,918,515,315
Food	8,264	373,825,362	84,590	71,946,850	570,235,628	194,180,294	773,424,932
Drink and tobacco	543	132,829,710	14,985	16,148,056	30,159,284	72,718,494	117,451,908
Clothing	1,820	203,540,060	84,197	77,458,211	141,218,864	134,403,045	275,711,909
Personal utilities	399	48,340,883	9,675	11,370,442	21,861,904	22,187,650	44,049,554
House furnishings	548	63,734,869	15,468	16,475,111	24,101,107	33,036,414	57,137,521
Books and stationery	1,644	103,942,573	30,499	40,928,979	33,184,517	76,681,341	109,805,858
Vehicles and vessels	944	260,962,556	46,700	61,847,302	139,327,253	103,706,994	243,034,247
Producers' materials	5,723	1,349,435,816	170,800	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	277,016,543	447,179,030
Miscellaneous	157	30,045,896	4,290	4,613,633	14,798,685	12,316,364	27,116,049
1926.¹							
Totals	22,708	3,981,569,590	581,539	633,850,933	1,755,158,399	1,492,615,839	3,217,803,438
Food	8,259	394,159,913	87,343	78,113,619	581,403,701	201,819,393	783,223,094
Drink and tobacco	574	137,139,189	15,341	16,817,622	45,115,122	85,790,145	130,805,267
Clothing	1,878	211,149,085	91,215	85,361,018	158,945,630	147,616,042	306,551,672
Personal utilities	384	50,497,988	10,633	12,479,247	24,236,592	25,487,509	49,724,101
House furnishings	543	60,277,954	15,684	16,858,549	22,673,089	32,679,963	55,353,652
Books and stationery	1,716	108,582,186	31,500	43,781,918	34,575,475	81,543,751	116,119,226
Vehicles and vessels	917	271,239,055	50,731	70,315,573	178,568,815	110,565,351	298,004,166
Producers' materials	5,807	1,404,509,475	182,599	206,072,939	453,319,993	482,446,753	985,706,746
Industrial equipment	2,457	1,313,175,892	91,956	118,162,492	240,231,633	302,683,501	542,915,034
Miscellaneous	173	30,838,823	4,537	5,266,956	16,107,849	13,082,631	26,190,486
1927.¹							
Totals	22,936	4,337,631,558	618,933	683,932,228	1,789,574,604	1,635,923,936	3,425,498,540
Food	8,306	418,151,619	88,967	81,722,970	586,128,295	216,875,035	803,004,230
Drink and tobacco	570	160,100,581	16,276	18,312,164	52,850,437	106,706,731	159,557,168
Clothing	1,988	227,438,240	97,918	91,236,118	161,946,983	166,769,340	328,716,323
Personal utilities	391	54,029,497	10,754	12,768,956	20,061,404	27,133,729	53,195,133
House furnishings	553	63,578,269	17,438	19,151,982	26,474,235	36,313,804	68,788,039
Books and stationery	1,795	120,028,624	33,732	46,913,071	38,755,189	90,338,506	120,093,695
Vehicles and vessels	872	279,080,400	49,885	70,622,546	174,846,848	124,565,024	299,411,872
Producers' materials	5,762	1,521,762,956	200,335	219,116,312	550,761,472	519,850,940	970,612,412
Industrial equipment	2,533	1,400,936,792	99,200	120,147,304	255,618,597	333,630,379	589,148,976
Miscellaneous	166	32,524,580	4,428	4,950,805	16,131,144	13,839,548	29,970,692
1928.							
Totals	23,379	4,780,296,649	658,023	755,199,372	1,850,804,339	1,819,046,025	3,769,850,361
Food	8,212	410,873,879	90,373	81,096,261	665,692,730	226,907,892	832,600,712
Breadstuffs	4,116	169,943,075	35,949	37,872,600	236,131,236	100,418,087	336,552,323
Fish	713	26,941,283	15,434	5,261,096	20,578,767	16,088,965	36,267,732
Fruits and vegetables	284	38,829,284	8,945	4,852,550	22,993,709	10,453,537	30,447,246
Meats	107	60,419,102	11,513	14,571,382	143,736,132	32,455,211	176,101,343
Milk products	2,833	53,552,319	12,257	12,809,102	109,589,676	34,783,938	144,373,014
Oils and fats	6	850,226	119	146,788	335,088	267,190	602,278
Sugar industries	20	40,218,388	2,471	3,782,703	41,622,123	11,814,600	53,336,792
Infusions	61	14,599,825	1,668	2,201,043	21,257,199	5,944,093	27,201,292
Miscellaneous	72	19,520,377	2,017	2,509,196	9,545,790	9,082,302	18,628,092
Drink and Tobacco	596	183,628,339	17,806	20,492,585	62,541,589	127,972,285	190,513,874
Beverages, alcoholic	90	118,435,789	6,887	9,641,220	30,874,609	68,459,541	99,334,141
Beverages, non-alcoholic	385	17,356,506	2,255	2,765,164	6,912,322	7,440,054	14,352,376
Tobacco	115	47,235,944	8,644	8,086,201	24,754,667	52,072,690	76,827,357

7.—Principal Statistics of the Manufacturing Industries of Canada, Classified According to the Purpose of the Principal Products, by Main Groups for 1922-27 and in Detail for 1928—concluded.

(All establishments irrespective of the number of employees.)

Purpose Heading.	Estab- lish- ments.	Capital.	Em- ployees.	Salaries and Wages.	Cost of Materials.	Net Value of Products.	Gross Value of Products.
	No.	\$	No.	\$	\$	\$	\$
Clothing	2,062	242,010,963	104,008	98,063,749	179,314,512	180,265,193	359,689,705
Boots and shoes.....	210	47,669,216	23,524	22,327,639	36,318,690	44,447,324	80,706,014
Fur goods.....	237	14,934,287	3,810	4,692,505	14,127,017	9,150,348	23,277,365
Garments and personal furnishings.....	837	78,803,518	39,557	38,166,601	80,177,543	66,187,666	146,365,179
Gloves and mitts.....	49	3,845,708	1,721	1,459,668	3,150,901	2,218,055	5,368,956
Hats and caps.....	166	8,427,970	5,064	4,984,799	8,431,283	8,938,234	17,399,517
Knitted goods.....	165	60,399,926	17,974	15,056,696	31,251,936	27,299,822	58,551,758
Waterproofs.....	18	1,238,488	359	426,614	826,524	897,870	4,724,394
Miscellaneous textiles, n.o.s.....	380	26,691,850	11,999	10,955,227	5,060,648	21,125,874	26,186,522
Personal Utilities	339	54,569,674	11,294	12,999,442	26,245,920	30,284,615	56,527,435
Jewellery and time- piece.....	112	11,313,218	3,041	3,984,661	4,791,494	7,209,310	12,000,804
Recreational supplies.....	74	16,126,621	3,608	4,097,046	6,175,836	8,533,893	14,709,729
Personal utilities, n.o.s.....	204	27,129,835	4,645	4,908,735	15,278,490	14,538,412	29,816,902
House Furnish- ings	598	72,394,155	19,807	21,811,858	31,753,455	41,597,051	73,359,506
Books and Sta- tionery	1,893	131,944,080	36,156	51,992,487	43,099,386	100,848,835	143,939,721
Vehicles and Ves- sels	859	296,174,301	58,022	85,268,214	200,180,697	136,215,594	336,396,291
Producers'							
Materials	6,001	1,729,656,251	210,235	235,916,963	504,241,541	576,796,854	1,080,948,395
Farm materials.....	12	2,131,905	251	281,109	1,446,800	743,186	2,189,986
Manufacturers' materials.....	993	1,292,250,991	118,496	147,785,089	322,817,448	395,073,905	717,891,353
Building materials.....	4,389	350,026,208	72,553	68,918,379	144,062,627	141,064,410	285,127,037
General materials.....	607	84,647,147	18,935	18,832,386	35,914,666	39,825,353	75,740,019
Industrial							
Equipment	2,601	1,595,482,231	105,647	139,693,545	280,923,071	383,193,287	664,116,358
Farming equipment.....	70	91,200,784	10,883	13,626,869	17,061,826	23,628,839	41,299,665
Manufacturing equip- ment.....	176	70,745,425	11,422	15,451,369	19,271,401	33,041,099	52,312,470
Trading equipment.....	77	6,710,057	867	1,119,804	679,268	2,628,863	3,308,131
Service equipment.....	236	39,331,110	4,878	5,989,174	10,913,832	18,294,723	29,208,555
Light, heat and power equipment.....	1,301	1,204,749,068	44,293	2,089,359	149,013,888	214,328,917	363,342,805
General equipment.....	741	182,745,787	33,304	41,416,970	83,382,856	91,270,876	174,653,732
Miscellaneous	167	34,762,276	4,675	5,857,268	16,799,548	15,057,319	31,847,867

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 1926 to 1928. 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.

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 four years from 1924 to 1928, 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 dis-

cover 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 28.4 p.c. in 1928. Similarly, industries of the forest origin group have decreased from 23.8 p.c. in 1924 to 21.3 p.c. in 1928. 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 34.1 p.c. in 1928. This rapid increase in the relative importance of the industries of the mineral 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 1928, the industries of the mineral group exceeded those of any other group in the net value of products with 34.1 p.c. of the total, as compared with 28.4 p.c. for the farm and 21.3 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 29.5 p.c. of the total, followed by the forest group with 24.2 p.c., central electric stations with 20.0 p.c., and the farm group with 19.9 p.c.

8.—Principal Statistics of the Manufacturing Industries of Canada, Classified According to the Origin of the Material Used, 1926-1928.¹

(All establishments irrespective of the number of employees.)

Origin.	Estab- lish- ments.	Capital.	Em- ployees.	Salaries and Wages.	Cost of Materials.	Net Value of Products.	Gross Value of Products.
1926	No.	\$	No.	\$	\$	\$	\$
Totals	22,708	3,991,569,590	581,539	653,850,933	1,755,158,399	1,092,645,039	3,247,893,438
Farm origin—							
(a) From field crops.....	4,097	565,932,312	99,200	95,403,666	486,522,508	284,500,720	773,023,228
Canadian origin.....	4,434	323,033,863	50,017	54,719,806	299,452,868	187,256,154	486,709,022
Foreign origin.....	263	242,898,449	43,183	40,683,860	187,069,640	99,244,566	286,314,206
(b) From animal hus- bandry.....	4,149	238,770,323	68,362	71,675,146	334,243,258	138,517,721	475,760,979
Canadian origin.....	4,137	248,759,804	65,939	69,680,146	333,770,263	133,483,533	467,253,826
Foreign origin.....	12	10,019,519	2,423	1,985,000	3,472,995	5,034,188	8,507,153
(a) Totals, Farm Origin	8,816	821,711,635	167,562	167,078,812	823,765,766	425,018,441	1,248,784,207
Canadian origin.....	8,511	871,793,697	121,959	124,109,952	633,233,161	320,739,687	958,962,848
Foreign origin.....	275	252,917,938	45,606	42,968,860	190,532,605	104,278,754	290,821,359
Wild life origin.....	232	13,324,668	3,662	4,328,731	12,459,350	9,316,338	21,775,688
Marine origin.....	831	28,808,071	17,408	5,622,837	22,634,129	14,156,635	36,190,764
Forest origin.....	6,710	930,726,166	133,428	150,960,652	200,039,804	337,511,793	597,551,657
Mineral origin.....	3,284	1,240,704,022	173,545	226,832,795	489,898,292	492,204,727	982,103,019
Mixed origin.....	1,748	241,017,962	72,559	70,105,196	120,426,791	125,503,372	245,930,163
Central electric stations	1,957	756,220,066	13,406	19,043,090	26,534,207	88,933,733	115,407,940

¹Corresponding figures for 1924 and 1925 will be found in the 1930 Year Book, p. 412
19450—6

8.—Principal Statistics of the Manufacturing Industries of Canada, Classified According to the Origin of the Material used, 1926-1928—concluded.

(All establishments irrespective of the number of employees.)

Origin.	Estab- lish- ments.	Capital.	Em- ployees.	Salaries and Wages.	Cost of Materials.	Net Value of Products.	Gross Value of Products.
1927.	No.	\$	No.	\$	\$	\$	\$
Totals	22,936	4,337,631,558	618,933	693,932,228	1,789,574,604	1,635,923,936	3,425,498,540
Farm origin—							
(a) From field crops.....	4,977	613,455,706	104,850	103,990,849	495,122,606	332,027,953	827,150,559
Canadian origin.....	4,683	358,813,700	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	116,488,666	298,935,309
(b) From animal hus- bandry.....	4,097	283,449,879	70,131	73,587,671	336,059,831	151,765,691	487,825,522
Canadian origin.....	3,993	261,122,061	67,241	71,247,700	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) Totals, Farm Origin	8,081	897,365,585	174,981	177,578,520	831,182,437	483,793,644	1,314,976,081
Canadian origin.....	8,676	619,935,761	125,725	129,730,842	644,719,163	361,750,092	1,006,469,855
Foreign origin.....	308	277,369,824	49,256	47,847,678	186,463,274	122,042,737	308,506,011
Wild life origin.....	244	14,189,527	3,880	4,588,689	13,462,752	9,413,528	22,876,280
Marine origin.....	773	24,454,482	16,607	5,373,951	18,364,846	12,719,763	31,084,609
Forest origin.....	6,770	1,020,144,236	149,738	166,921,448	270,764,265	355,741,746	626,506,011
Mineral origin.....	3,232	1,268,521,442	180,365	239,692,070	497,368,048	528,034,653	1,025,402,701
Mixed origin.....	1,836	245,801,001	78,564	76,830,335	127,646,986	142,187,305	269,834,291
Central electric stations	1,097	866,825,285	14,708	22,946,815	39,785,270	104,033,297	134,818,567
1928.							
Totals	23,379	4,780,296,049	658,023	755,199,372	1,950,804,339	1,819,046,025	3,769,859,354
Farm origin—							
(a) From field crops.....	5,035	654,648,894	110,502	110,960,496	513,481,501	363,530,939	877,012,440
Canadian origin.....	4,740	398,072,152	62,843	63,285,079	331,757,735	247,558,176	579,315,911
Foreign origin.....	295	256,576,742	47,659	47,675,417	181,723,766	115,972,763	297,696,529
(b) From animal hus- bandry.....	3,946	296,631,572	72,592	76,208,206	365,750,609	153,788,029	519,538,638
Canadian origin.....	3,930	270,471,869	68,659	72,766,657	361,111,892	147,529,473	508,641,365
Foreign origin.....	16	26,159,703	3,933	3,441,549	4,638,717	6,258,556	10,897,273
(c) Totals, Farm Origin	8,981	951,280,466	183,094	187,168,702	879,232,110	517,318,968	1,396,351,678
Canadian origin.....	8,670	688,544,021	131,502	136,051,736	692,869,627	395,087,640	1,087,957,276
Foreign origin.....	311	262,736,445	51,592	51,116,966	186,362,483	122,231,319	308,393,802
Wild life origin.....	237	14,934,287	3,810	4,692,505	14,127,017	9,150,348	23,277,365
Marine origin.....	713	26,941,283	15,434	5,261,096	20,578,767	15,688,965	39,267,732
Forest origin.....	7,241	1,155,561,945	157,153	178,151,086	292,149,341	387,224,265	670,373,546
Mineral origin.....	3,256	1,411,098,815	198,676	272,345,046	574,473,014	620,502,715	1,194,975,729
Mixed origin.....	1,902	263,559,650	84,001	83,493,537	138,878,454	156,834,005	295,712,459
Central electric stations	1,049	956,919,603	15,855	24,087,420	31,365,636	112,326,819	143,662,455

Subsection 4.—The Forty Leading Manufacturing Industries.

The Forty Leading Industries in 1928.—All of the ten foremost industries of Canada expanded their production during the year 1928 as compared with the previous year. 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 production was largely suspended in one of the principal plants in Canada, pending a change of models. Petroleum products 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 values 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 value. 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.

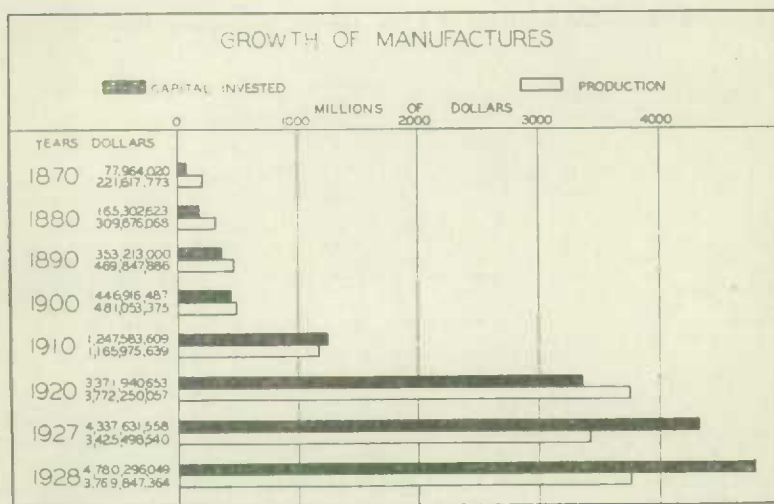
As a measure of the employment provided by an industry the salaries and wages paid are probably a better guide than the number of employees reported, especially in industries where operations are seasonal. In the amount of salaries and wages paid the pulp and paper industry came first, being followed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

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

Industry.	Estab- lish- ments.	Capital.	Em- ployees.	Salaries and Wages.	Cost of Materials.	Value of Products.	
						Net.	Gross.
		\$	No.	\$	\$	\$	\$
Pulp and paper.....	110	685,687,459	33,014	47,422,648	88,490,421	44,586,815	233,077,236
Flour and grist mills....	1,319	63,514,575	6,550	7,006,674	165,032,821	30,665,303	195,698,124
Slaughtering and meat- packing.....	75	86,198,567	11,244	14,242,362	142,396,342	31,700,077	174,096,419
Automobiles.....	14	97,056,328	16,749	29,548,114	114,892,190	47,975,305	162,867,495
Central electric stations	1,049	956,919,603	15,855	24,087,420	31,365,636	12,326,810	143,692,455
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	45,129,830	11,411	11,755,547	99,202,770	31,009,532	130,212,308
Rubber goods, includ- ing footwear.....	45	70,459,066	17,095	18,043,730	45,118,570	2,090,143	97,208,713
Non-ferrous metal smelting.....	10	120,035,742	7,526	12,228,738	33,260,225	41,081,477	94,341,702
Electrical apparatus.....	137	87,952,674	18,194	22,756,209	38,784,421	4,888,031	93,672,452
Petroleum products.....	25	50,531,614	4,319	6,922,580	57,383,841	5,738,331	83,122,172
Castings and forgings.....	327	95,326,911	20,782	26,750,016	31,530,148	0,374,704	81,904,852
Cotton yarn and cloth.....	38	90,960,011	21,615	17,688,791	44,704,779	4,514,803	70,219,582
Railway rolling stock.....	35	89,053,842	22,417	32,452,781	38,110,053	5,312,004	73,422,057
Bread and bakery pro- ducts.....	2,482	44,377,449	15,422	16,901,238	36,151,747	6,075,350	71,227,097
Printing and publishing.....	753	60,822,600	16,113	24,243,900	15,606,759	2,183,047	67,879,806
Clothing, women's fuc- tory.....	444	25,587,610	18,351	10,685,894	36,233,645	7,092,856	63,320,601
Steel and rolled pro- ducts, pig iron, etc.....	40	114,292,363	9,057	15,470,836	27,164,463	14,907,211	62,071,674
Cigars and cigarettes.....	70	37,243,547	6,644	6,197,918	18,469,843	12,067,889	61,077,732
Breweries.....	78	67,148,686	5,003	7,080,761	20,737,486	10,172,912	60,910,398
Biscuits, confectionery, chewing gum, etc.....	283	52,353,082	13,274	12,534,629	28,480,230	11,923,903	60,404,223
Hosiery, knit goods and gloves.....	165	60,399,926	17,971	15,056,696	31,251,933	27,299,822	58,551,758
Planing mills, etc.....	788	53,431,576	12,131	13,330,829	30,021,880	42,678,427	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	22,069,614	51,046,140
Boots and shoes, leather	195	31,433,028	15,505	14,982,608	26,383,043	23,635,759	50,018,802
Sheet metal products.....	145	45,346,290	8,732	10,836,970	24,660,978	4,185,093	49,846,671
Clothing, men's factory	218	27,263,996	11,870	13,085,548	24,567,328	8,909,850	48,477,178
Acids, alkalis, salts and compressed gases	41	44,250,661	2,943	4,143,302	23,404,961	1,931,855	42,336,846
Furniture and upholster- ing.....	366	39,829,474	12,539	13,689,344	16,312,469	5,513,065	41,825,534

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

Industry.	Estab- lish- ments.	Capital.	Em- ployees.	Salaries and Wages.	Cost of Materials.	Value of Products.	
	No.	\$	No.	\$	\$	Net. \$	Gross. \$
Agricultural implements	66	91,142,820	10,867	13,599,953	17,607,861	23,591,980	41,199,841
Printing and bookbind- ing	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	28,286,029	38,423,743
Fish-curing and packing	713	26,941,283	15,434	5,261,096	20,578,767	15,688,965	36,267,732
Leather tanneries	91	31,259,692	3,952	4,486,828	26,253,776	8,948,301	35,202,080
Coke and gas products	45	92,145,190	3,914	5,608,779	17,164,216	17,544,201	34,708,147
Furnishing goods, men's	159	21,061,504	9,909	7,270,875	17,321,124	12,993,428	30,314,552
Brass and copper pro- ducts	97	23,576,863	5,437	6,797,410	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.	91	14,399,825	1,668	2,291,043	21,257,199	5,944,093	27,201,292
Totals, Forty Leading Industries	17,435	3,937,361,857	196,781	577,221,674	1,603,637,823	1,412,769,957	3,016,407,780
Grand Totals, All In- dustries	23,379	4,780,296,049	658,023	755,199,372	1,950,804,339	1,819,046,025	3,769,850,361
Percentages 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 1928 amounted to \$3,022,886,410, or over 80 p.c. of the gross value of manufactured products of the Dominion. Of this amount, Ontario contributed \$1,949,724,119 and Quebec \$1,073,162,291. 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 1928, the third largest gross manufacturing production, \$270,851,669, and Manitoba the fourth, \$159,435,094. Alberta, Nova Scotia and

New Brunswick followed with \$103,744,401, \$84,948,608 and \$67,413,742 respectively, succeeded by Saskatchewan with a production of \$59,125,280 and Prince Edward Island with \$4,445,160.

Subsection 1.—The Manufactures of the Maritime Provinces, 1928.

Table 10 contains statistics of the ten leading industries of each of the Maritime Provinces for the year 1928. In Prince Edward Island the manufacture of butter and cheese, with a gross production in 1928 of \$1,247,128, was the leading industry, followed by fish-curing and -packing, with a gross production of \$756,210. 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 1928 of \$9,709,633 or over 14 p.c. of the total manufacturing production of the province, provided almost 7 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, 1928.

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 railway rolling stock; in Nova Scotia, petroleum, sugar refineries, coke and gas 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.

Industry.	Estab-lish-ments.	Capital.	Em-ployees.	Salaries and Wages.	Cost of Materials.	Gross Value of Products.
	No.	\$	No.	\$	\$	\$
Butter and cheese	38	265,830	109	73,199	1,020,607	1,247,128
Fish-curing and -packing	108	193,293	1,211	83,853	520,469	756,210
Castings and forgings	3	331,136	73	54,768	69,965	199,122
Printing and publishing	4	167,197	96	94,272	31,184	194,796
Central electric stations	12	700,185	39	46,341	481	190,478
Flour and feed mills	16	75,447	17	7,910	137,668	177,344
Bread and bakery products	8	69,787	33	24,576	82,247	150,183
Sawmills	48	135,159	73	16,225	81,983	131,910
Planing mills, etc.	4	189,270	40	35,455	34,975	91,987
Starch and glucose	4	38,384	59	11,842	50,539	91,596
Totals, Ten Leading Industries	245	2,162,685	1,741	428,441	2,041,118	3,236,751
Grand Totals, All Industries	277	3,121,568	2,935	712,945	3,717,392	4,445,160

NOVA SCOTIA.

Industry.	Estab-lish-ments.	Capital.	Em-ployees.	Salaries and Wages.	Cost of Materials.	Gross Value of Products.
	No.	\$	No.	\$	\$	\$
Rolled iron, steel products, pig iron and ferro-alloys	6	29,978,715	2,121	3,263,144	7,067,650	15,625,266
Fish-curing and -packing	219	3,724,210	3,738	1,201,169	5,069,031	7,930,900
Sawmills	352	3,915,452	2,338	658,020	2,017,463	3,441,448
Biscuits, confectionery, cocoa and chocolate	11	4,437,146	1,270	1,094,236	1,620,265	3,439,530
Central electric stations	78	14,130,973	561	665,981	652,060	3,280,348
Butter and cheese	30	1,078,113	274	295,992	2,074,759	2,881,043
Hosiery and knitted goods	4	3,606,214	578	461,200	1,251,706	2,248,578
Shipbuilding and repairs	13	10,999,345	728	720,772	458,188	1,972,433
Printing and publishing	31	2,033,158	643	786,815	494,390	1,923,854
Castings and forgings	15	2,180,800	401	560,293	463,605	1,724,064
Totals, Ten Leading Industries	759	76,081,222	12,712	9,713,631	21,083,047	44,467,401
Grand Totals, All Industries	1,167	133,809,331	19,222	15,838,394	44,168,441	81,918,608

NEW BRUNSWICK.

Industry.	Estab- lish- ments.	Capital.	Em- ployees.	Salaries and Wages.	Cost of Materials.	Gross Value of Products.
	No.	\$	No.	\$	\$	\$
Sawmills.....	180	22,463,064	4,194	2,298,685	6,450,036	9,709,633
Pulp and paper.....	4	25,029,910	1,329	1,622,277	3,847,154	8,225,586
Cotton yarn and cloth.....	4	5,579,783	1,731	1,322,025	2,260,268	3,972,466
Biscuits, confectionery, cocoa and chocolate.....	8	2,209,423	714	558,813	1,500,368	2,001,756
Coffee and spices.....	5	1,819,246	140	164,628	2,512,073	2,883,800
Fish-curing and -packing.....	152	1,622,762	2,035	347,563	1,595,688	2,552,991
Planing mills, sash, doors, etc.....	27	1,769,497	660	564,256	1,561,390	2,498,353
Central electric stations.....	44	22,181,342	302	349,282	489,014	2,389,616
Slaughtering and meat-packing.....	9	1,060,650	195	257,176	1,861,510	2,335,973
Butter and cheese.....	38	917,053	200	197,040	1,258,961	1,859,635
Totals, Ten Leading Industries	471	81,652,730	11,500	7,681,745	23,336,462	39,379,869
Grand Totals, All Industries	791	114,660,886	17,963	14,682,510	39,750,561	67,413,742

Subsection 2.—The Manufactures of Quebec, 1928.

The pulp and paper mills of Quebec, the most important manufacturing unit in the province, produced goods to the gross value of \$127,223,217 in the calendar year 1928. This amount exceeded by nearly \$71,000,000 the gross value of the products of the cotton yarn and cloth mills (\$56,545,069), which in their turn showed an excess of value of products of over \$3,000,000 when compared with establishments engaged in the manufacture of cigars and cigarettes (\$53,324,554). 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, the making of butter and cheese, of men's clothing, 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 55 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 over 71 p.c., the gross value of cigars and cigarettes formed 87 p.c., the value of railway rolling stock 57 p.c., and the value of the boot and shoe products (the eighth industry in order of value of products) over 59 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, 1928.

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

Industry.	Estab- lish- ments.	Capital.	Em- ployees.	Salaries and Wages.	Cost of Materials.	Gross Value of Products.
	No.	\$	No.	\$	\$	\$
Pulp and paper	50	376,351,076	17,743	24,578,601	48,262,196	127,223,217
Cotton yarn and cloth	17	63,828,483	14,435	11,645,259	32,251,365	56,545,069
Cigars and cigarettes	41	31,749,608	6,548	5,158,741	16,219,372	53,324,654
Central electric stations	148	371,750,195	3,912	5,437,762	6,859,708	43,032,444
Railway rolling stock	10	42,745,358	11,699	17,053,862	23,398,384	41,620,368
Butter and cheese	1,400	8,192,991	2,193	1,256,547	25,569,062	31,784,255
Clothing, men's factory	142	16,547,134	7,125	9,428,282	16,215,373	30,162,782
Boots and shoes, leather	117	18,416,466	9,611	9,178,781	15,617,786	29,630,773
Flour and feed mills	304	10,296,741	1,077	1,206,634	25,246,346	24,338,759
Clothing, women's factory	196	10,590,955	6,399	6,457,195	16,023,968	27,314,966
Sawmill products	1,041	37,688,780	9,974	4,946,130	18,158,418	27,173,297
Slaughtering and meat-packing	17	8,655,335	1,947	2,227,611	19,613,433	25,245,963
Non-ferrous metal smelting	3	34,046,722	1,796	2,545,817	6,894,559	21,963,876
Breweries	8	20,294,481	1,678	2,126,631	6,773,926	21,542,886
Electrical apparatus and supplies	17	24,220,711	5,921	7,356,905	9,337,957	20,792,119
Rubber goods, including footwear	12	11,451,850	5,362	4,625,139	6,811,318	20,267,854
Bread and bakery products	835	13,233,720	4,380	4,569,736	10,067,733	19,514,222
Castings and forgings	72	25,661,190	4,883	5,757,130	7,927,198	18,378,848
Machinery	29	23,580,667	4,133	5,568,666	7,575,335	17,248,748
Printing and publishing	62	15,279,128	4,107	5,603,682	3,943,967	16,049,026
Acids, alkalis, salts and com- pressed gases	9	15,198,453	939	1,203,318	9,928,989	15,939,731
Distilleries	7	10,121,529	623	846,562	3,371,496	15,268,267
Biscuits, confectionery, cocoa and chocolate	49	11,874,410	3,461	2,846,248	7,580,505	14,743,227
Petroleum products	5	12,475,081	905	1,396,765	10,338,764	14,690,859
Tobacco, chewing, smoking and snuff	29	9,473,098	1,788	1,708,784	5,241,147	14,455,623
Hosiery, knitted goods and fabric gloves	38	12,771,067	4,068	3,139,482	7,572,381	13,496,411
Planing-mill products	291	12,883,573	2,983	2,847,579	7,534,081	12,995,639
Furnishing goods, men's	73	7,972,722	4,682	2,858,425	6,976,779	11,937,022
Printing and bookbinding	253	9,631,889	3,260	4,121,060	3,368,217	10,522,303
Paints, pigments and varnishes	18	11,965,832	1,165	1,508,273	4,942,721	9,949,333
Sheet metal products	21	8,978,626	1,960	2,169,437	5,145,308	9,478,214
Shipbuilding and repairs	5	11,656,621	2,642	3,383,173	1,890,595	9,374,606
Fur goods	76	6,814,578	1,413	1,711,190	5,803,893	8,836,341
Explosives, ammunition, fireworks and matches	7	11,876,925	1,432	1,273,459	3,564,849	7,644,297
Steel and rolled products, pig iron and ferro-alloys	10	10,282,082	1,737	2,433,334	1,652,038	7,350,581
Hats and caps	65	3,080,621	2,182	2,089,082	3,518,764	7,295,971
Furniture and upholstered goods	70	5,074,433	2,295	2,378,867	2,610,688	7,097,878
Dyeing, cleaning and laundry work	77	7,374,339	3,126	2,815,806	1,042,195	8,860,587
Hardware and tools	26	11,193,486	1,499	1,577,854	1,932,032	6,434,681
Musical instruments	10	5,784,574	1,301	1,521,042	2,537,445	6,052,211
Totals, Forty Leading Industries	5,720	1,367,072,699	167,384	178,558,071	419,330,821	888,577,828
Grand Totals, All Industries	7,231	1,583,350,884	204,959	217,887,481	510,580,872	1,073,162,291
Percentages of forty industries to grand totals	79.10	86.34	81.07	81.95	82.13	82.80

Subsection 3.—The Manufactures of Ontario, 1928.

Ontario is the most important manufacturing province of the Dominion. The gross value of its manufactured products in 1928 represented nearly 52 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 1928 came first in the value of its products, which amounted to \$162,363,825 as compared with \$106,486,641 for the flour and grist milling industry, which held second place. Other important industries in descending order, with the value of their products in 1928, were:—slaughtering and meat-packing, \$90,500,960; rubber goods, \$76,152,513; and pulp and paper, \$74,220,178. As compared with 1927, automobile manufacturing showed an increase of nearly \$34,000,000, while flour and grist mill products decreased by over \$1,000,000. Slaughtering and meat-packing increased by over \$1,000,000, rubber goods by over \$3,000,000, while pulp and paper manufacturing decreased about \$90,000 from the figures for 1927.

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. Outstanding among the industries in which the province of Ontario is pre-eminent is that of automobile manufacturing, which is carried on practically in this province alone. Other important industries in which Ontario leads, with the percentage which its production bore to that of the Dominion in 1928, are as follows:—agricultural implements, 95 p.c.; leather tanneries, 87 p.c.; rubber goods, 78 p.c.; furniture and upholstering, 78 p.c.; fruit and vegetable canning, preserving, etc., 62 p.c.; electric apparatus and supplies, 77 p.c.; castings and forgings, 65 p.c.; steel and rolled products, pig iron, etc., 59 p.c.; slaughtering and meat-packing, 52 p.c.; flour and grist mill products, 54 p.c.; hosiery, knit goods, etc., 70 p.c.

12.—Statistics of the Forty Leading Industries of the Province of Ontario, 1928.

Industry.	Estab-lish-ments.	Capital.	Em-ployees.	Salaries and Wages.	Cost of Materials.	Gross Value of Products.
	No.	\$	No.	\$	\$	\$
Automobiles.....	11	95,571,751	16,391	28,863,826	114,879,949	162,363,825
Flour and grist mills.....	715	30,000,850	3,348	3,671,378	91,542,464	106,486,641
Slaughtering and meat packing.....	25	32,833,629	4,996	6,618,059	74,065,094	90,500,960
Rubber goods, including footwear.....	31	58,510,946	11,643	14,198,415	37,958,741	76,152,513
Pulp and paper.....	43	220,281,502	10,993	15,732,781	29,718,969	74,220,178
Electric apparatus and supplies.....	104	63,062,031	12,061	15,122,478	28,940,059	71,831,640
Central electric stations.....	420	396,344,873	6,654	10,723,034	19,566,558	67,311,989
Butter and cheese.....	1,000	21,944,296	6,170	6,491,908	40,957,982	64,960,854
Castings and forgings.....	184	57,658,842	13,311	17,724,951	20,712,813	54,500,029
Hosiery, knit goods and fabric gloves.....	107	42,219,449	12,714	10,977,379	21,441,827	40,977,220
Agricultural implements.....	44	88,283,656	10,287	12,975,484	19,705,290	39,134,169
Non-ferrous metal smelting and refining.....	5	34,145,647	2,530	3,990,461	8,762,837	37,159,476
Steel and rolled products, pig iron and ferro-alloys.....	16	72,068,748	4,709	9,092,742	17,859,303	36,926,646
Biscuits, confectionery, cocoa and chocolate.....	129	29,657,262	6,510	6,713,379	14,555,946	33,219,234
Bread and bakery products.....	960	19,693,170	7,137	8,120,394	16,511,830	33,098,415
Clothing, women's factory.....	210	13,825,601	9,026	9,418,031	18,357,637	32,806,828
Furniture and upholstered goods.....	217	32,744,027	9,387	10,422,830	12,801,419	32,457,143

12.—Statistics of the Forty Leading Industries of the Province of Ontario, 1928—
concluded.

Industry.	Estab- lish- ments.	Capital.	Em- ployees.	Salaries and Wages.	Cost of Materials.	Gross Value of Products.
	No.	\$	No.	\$	\$	\$
Machinery.....	116	44,343,656	6,429	8,933,960	10,751,421	31,955,826
Sawmill products.....	923	48,003,420	10,948	7,225,112	17,757,266	31,422,230
Sheet metal products.....	77	25,755,585	5,319	6,459,372	15,042,090	30,731,458
Leather, tanned, etc.....	40	26,574,429	3,245	3,733,910	23,025,209	30,683,133
Petroleum products.....	9	20,065,748	1,894	3,093,525	20,902,044	30,515,904
Printing and publishing.....	296	28,082,524	6,861	10,506,039	7,338,772	30,071,044
Flouring mill products.....	336	28,572,322	5,861	6,582,920	15,586,143	26,454,235
Acids, alkalies, salts and com- pressed gases.....	20	27,658,302	1,850	2,699,769	13,162,489	25,001,950
Printing and bookbinding.....	418	21,081,495	5,961	7,909,675	7,033,880	21,828,683
Coke and gas products.....	22	46,629,491	2,163	3,524,093	10,849,003	21,459,356
Distilleries.....	6	29,255,493	1,023	1,426,535	5,510,631	19,883,092
Breweries.....	36	24,055,399	1,870	2,692,424	7,931,062	19,742,431
Brass and copper products.....	65	15,120,933	3,463	4,323,131	11,751,191	19,724,051
Boots and shoes, leather.....	65	11,174,306	5,106	5,107,115	9,338,147	17,071,958
Hardware and tools.....	84	21,311,395	4,950	5,898,619	6,294,765	17,788,230
Cotton yarn and cloth.....	16	19,486,715	5,120	4,409,724	9,339,754	17,635,667
Clothing, men's factory.....	61	9,996,629	4,239	5,225,908	7,613,464	16,803,194
Automobile supplies.....	45	15,510,147	3,188	4,326,488	7,904,282	15,813,930
Fruit and vegetable canning, etc.....	130	20,505,039	4,373	1,972,607	8,961,730	15,360,342
Soaps, washing compounds and toilet preparations.....	56	14,280,294	1,570	1,729,544	8,497,924	14,840,724
Boxes and bags, paper.....	76	11,820,220	3,119	3,219,740	7,060,874	13,834,278
Lithographing and engraving.....	64	14,191,018	3,825	5,957,961	3,991,347	13,547,878
Paints and varnishes.....	33	9,560,590	1,297	1,950,288	7,372,087	13,508,518
Totals, Forty Leading Industries	7,215	1,842,973,454	211,855	299,835,287	838,008,444	1,536,225,872
Grand Totals, All Industries	9,990	2,275,921,056	329,729	391,375,917	1,631,501,240	1,919,724,119
Percentages of forty leading in- dustries to grand totals.....	72.88	80.97	75.41	76.61	81.00	79.51

Subsection 4.—The Manufactures of the Prairie Provinces, 1928.

The flour-milling industry is outstanding among the manufactures of the Prairie Provinces. During 1928, 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 \$18,788,855 in Manitoba, \$15,781,289 in Saskatchewan and \$21,005,113 in Alberta, a combined total of over 17 p.c. of the gross value of the products of manufactures in these provinces. The second industry in point of gross production was slaughtering and meat-packing, with products valued at \$21,328,420 in Manitoba and \$16,152,956 in Alberta. Butter- and cheese-making showed a gross value of production of \$8,749,518 in Manitoba, \$6,966,282 in Saskatchewan and \$6,810,805 in Alberta.

The importance of these industries, based on such 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, 1928.

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 sheet metal products; in Alberta, railway rolling stock and cement. The statistics for these industries are included in the grand totals for the provinces.

MANITOBA.

Industry.	Estab- lish- ments.	Capital.	Em- ployees.	Salaries and Wages.	Cost of Materials.	Gross Value of Products.
	No.	\$	No.	\$	\$	\$
Slaughtering and meat packing.....	6	5,029,265	1,309	1,654,732	17,635,006	21,328,420
Flour and grist mills.....	38	6,050,473	540	657,740	15,203,144	18,788,855
Railway rolling stock.....	3	8,521,649	4,164	6,091,042	4,421,012	11,242,565
Butter and cheese.....	69	3,069,720	852	1,258,181	6,002,957	8,749,518
Central electric stations.....	39	46,634,904	1,355	2,077,126	936,950	6,801,801
Printing and publishing.....	67	3,699,524	1,087	1,831,037	1,050,969	5,383,787
Bags, cotton and jute.....	5	2,161,309	252	290,064	4,394,477	5,043,513
Breweries.....	8	5,672,630	575	841,030	1,379,871	4,913,868
Printing and bookbinding.....	63	4,140,821	1,240	1,764,850	1,476,949	4,214,511
Bread and bakery products.....	115	1,991,688	881	964,678	2,089,775	4,070,991
Totals, Ten Leading Industries	495	87,571,982	12,255	17,431,380	54,592,010	99,567,769
Grand Totals, All Industries	871	159,721,121	21,168	25,923,592	88,284,693	159,435,691

SASKATCHEWAN.

Flour and grist mill products.....	63	0,090,218	594	817,973	12,288,373	15,781,289
Butter and cheese.....	88	4,155,554	602	783,929	4,719,284	6,966,282
Slaughtering and meat-packing....	3	2,663,674	545	674,830	5,007,526	6,353,478
Central electric stations.....	158	11,126,900	562	793,634	20,241	3,775,975
Printing and publishing.....	135	2,753,562	842	1,408,584	768,325	3,588,886
Breweries.....	7	3,334,606	216	277,779	1,440,537	3,531,601
Bread and bakery products.....	111	1,982,896	543	634,083	1,404,589	2,806,277
Pluming mill products.....	16	1,771,123	403	576,225	869,074	1,883,947
Dyeing, cleaning and laundry work	17	824,730	367	377,883	119,209	822,369
Aerated and mineral waters.....	17	573,751	91	111,702	148,147	440,909
Totals, Ten Leading Industries	615	35,277,041	4,765	6,456,602	26,785,305	45,951,007
Grand Totals, All Industries	737	11,622,135	6,173	8,003,577	31,186,731	59,125,280

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Flour and grist mill products.....	66	8,877,209	756	1,033,371	17,032,649	21,005,113
Slaughtering and meat-packing.....	6	9,584,122	1,522	1,823,133	13,345,717	16,152,956
Petroleum products.....	5	5,645,866	442	631,077	7,156,864	11,255,742
Butter and cheese.....	105	3,028,025	498	648,456	5,195,128	6,810,805
Breweries.....	5	8,168,084	317	551,148	1,535,923	6,790,228
Central electric stations.....	71	18,683,585	735	1,195,556	615,746	4,556,289
Bread and other bakery products.....	128	2,752,067	620	704,107	1,736,721	3,520,789
Printing and publishing.....	76	3,519,489	754	1,167,524	572,937	3,319,775
Sawmills.....	65	1,930,042	1,237	688,983	1,198,074	2,547,101
Planing mills, etc.....	18	1,749,121	343	487,635	824,228	1,678,563
Totals, Ten Leading Industries	545	63,937,610	7,224	8,930,990	49,213,987	77,637,300
Grand Totals, All Industries	778	92,190,476	10,559	11,382,772	59,398,697	100,744,401

Subsection 5.—The Manufactures of British Columbia, 1928.¹

British Columbia was in 1928 the third most important manufacturing province in the Dominion, producing goods to a gross value of \$270,851,669. About 23 p.c. of this production, or \$62,536,200, is seen in Table 14 to be that of the sawmilling industry; the predominance of forest products industries

¹ Including Yukon Territory.

in the industrial life of the province is emphasized if to this figure be added \$18,714,056, the gross value of products of the pulp and paper industry and \$3,825,208, 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 \$24,261,345, 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, 1928.

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

Industry.	Estab- lish- ments.	Capital.	Em- ployees.	Salaries and Wages.	Cost of Materials.	Gross Value of Products.
	No.	\$	No.	\$	\$	\$
Sawmills.....	314	57,613,927	15,005	18,281,163	33,668,354	62,530,200
Fish-curing and -packing.....	136	20,961,338	7,176	3,488,386	12,908,187	24,261,345
Pulp and paper.....	6	47,331,108	2,855	4,432,572	5,357,002	18,714,056
Central electric stations.....	79	75,366,646	1,735	2,708,704	2,223,978	12,353,576
Slaughtering and meat-packing.....	7	6,197,315	671	927,375	9,764,492	11,550,009
Petroleum products.....	3	5,388,305	343	627,886	6,031,846	6,951,695
Printing and publishing.....	61	4,271,150	1,106	2,368,496	1,382,792	6,187,566
Bread and bakery products.....	209	3,120,790	1,151	1,317,643	2,680,065	5,160,482
Fruit and vegetable packing.....	24	3,501,466	1,270	782,496	3,231,797	5,073,854
Butter and cheese.....	36	1,878,230	513	750,295	3,397,436	4,932,788
Sheet metal products.....	18	6,999,930	557	811,042	2,665,411	4,842,089
Planing mill products.....	52	2,921,001	1,022	1,306,515	1,765,365	3,825,208
Breweries.....	10	4,475,887	261	463,125	1,436,761	3,795,952
Coffee and spices.....	9	1,001,700	109	136,177	2,772,587	3,681,144
Distilleries.....	3	5,148,685	211	244,030	1,195,107	3,179,341
Shipbuilding and repairs.....	14	5,972,339	840	1,303,312	744,683	2,713,535
Dyeing, cleaning and laundry work.....	58	2,116,942	1,462	1,391,110	210,087	2,670,093
Biscuits, confectionery, cocoa and chocolate.....	44	1,377,126	512	536,097	1,417,257	2,500,940
Coke and gas products.....	6	12,602,896	500	686,869	1,009,010	2,338,628
Castings and forgings.....	28	3,178,532	682	939,806	611,892	2,219,065
Printing and bookbinding.....	73	1,472,462	541	781,939	732,786	2,041,445
Boxes and packing cases.....	13	1,484,078	533	582,571	1,042,417	2,004,728
Flour and feed mills.....	4	1,390,430	105	115,614	1,366,984	1,637,832
Paints and varnishes.....	8	1,387,547	163	199,378	716,704	1,435,004
Furniture and upholstery.....	40	1,353,310	501	551,371	508,763	1,251,700
Totals, Twenty-five Leading Industries.....	1,255	278,519,116	10,122	45,823,711	98,941,733	197,884,443
Grand Totals, All Industries.....	1,624	367,898,589	18,919	58,726,003	137,185,812	270,831,669
Percentages of twenty-five lead- ing industries to grand totals.....	77-27	75-70	81-97	78-03	72-12	73-09

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 1928 in all establishments irrespective of the number of employees was \$4,780,296,049, as compared with \$4,337,631,558 in 1927, and with \$3,190,026,358 in 1921, an increase of 49 p.c. in 7 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, 49.2 p.c. in 1927, and 47.6 p.c. in 1928. The percentage employed in the plants of Quebec was 30.5 in 1920, 30.8 in 1921, 29.5 in 1924, 30.6 in 1926, 31.7 in 1927, and 33.1 p.c. in 1928. British Columbia held third place in 1928 with a capital of 7.7 p.c. of the total, while Manitoba, Nova Scotia, New Brunswick and Alberta 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 1928, with an investment of 24.2 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 11.1 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, 1927 and 1928. The fixed assets amounted to \$3,142,419,861 in 1928, while quick assets, including the materials on hand, stock in process, cash and sundries, were valued at \$1,637,876,188. 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, 1920-1928.

Province.	1920.	1921.	1922.	1923.	1924.	1925.	1926.	1927.	1928.
Prince Edward Island.....	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Nova Scotia.....	4.2	3.3	3.3	3.3	3.2	3.1	3.0	2.9	2.9
New Brunswick.....	3.1	3.1	2.5	2.5	2.5	2.4	2.4	2.3	2.4
Quebec.....	30.5	30.8	29.9	29.9	29.5	29.9	30.6	31.7	33.1
Ontario.....	49.5	50.6	52.3	52.5	51.8	50.4	49.8	49.2	47.6
Manitoba.....	3.4	2.9	2.7	2.7	3.1	3.2	3.2	3.5	3.3
Saskatchewan.....	0.9	1.0	1.0	0.9	0.9	0.8	0.8	0.9	0.9
Alberta.....	1.8	1.7	1.7	1.8	1.9	1.8	1.8	1.9	2.0
British Columbia and Yukon.....	6.5	6.5	6.5	6.5	7.1	8.3	8.2	7.5	7.7
Totals.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

16.—Distribution of Capital Employed in the Manufacturing Industries of Canada by Industrial Groups and Percentages, 1926-1928.

Industrial Group.	1926.		1927.		1928.	
	Amount.	Percentage.	Amount.	Percentage.	Amount.	Percentage.
	\$		\$		\$	
Vegetable products.....	449,259,094	11.3	494,176,054	11.4	531,918,725	11.1
Animal products.....	223,938,559	5.6	233,113,872	5.4	243,550,121	5.1
Textile products.....	317,275,420	8.0	346,512,165	8.0	365,721,591	7.7
Wood and paper.....	929,589,278	23.3	1,023,301,749	23.6	1,158,651,534	24.2
Iron and its products.....	597,982,698	15.0	638,914,893	14.7	702,031,186	14.7
Non-ferrous metals.....	202,503,420	5.1	208,957,166	4.8	253,367,370	5.3
Non-metallic minerals.....	261,724,184	6.6	280,033,057	6.4	298,683,122	6.3
Chemicals and allied products.....	133,407,891	3.3	131,618,839	3.1	148,939,920	3.1
Miscellaneous industries.....	109,669,565	2.8	111,178,478	2.6	119,602,877	2.5
Central electric stations.....	756,220,066	19.0	866,825,285	20.0	956,919,603	20.0
Totals.....	3,981,568,536	100.0	4,337,631,558	100.0	4,786,296,649	100.0

17.—Forms of Capital Employed in the Manufacturing Industries of Canada, by Provinces and by Groups of Industries, 1928.

Province and Group.	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.	\$	\$	\$	\$
Totals	23,379	3,142,419,861	836,980,419	900,895,769	4,780,295,049
PROVINCE.					
Prince Edward Island.....	277	2,190,250	503,978	427,340	3,121,568
Nova Scotia.....	1,107	99,004,153	18,508,073	21,207,403	138,809,331
New Brunswick.....	794	74,272,004	21,201,866	19,180,320	114,660,886
Quebec.....	7,231	1,089,087,730	262,407,699	230,955,455	1,581,350,884
Ontario.....	9,900	1,413,704,065	430,188,189	332,028,802	2,275,921,056
Manitoba.....	871	112,289,985	25,229,009	22,202,130	159,721,124
Saskatchewan.....	737	29,965,089	8,894,731	5,762,315	44,022,135
Alberta.....	778	69,971,445	16,527,881	11,691,150	92,190,476
British Columbia and Yukon.....	1,624	257,034,448	53,518,993	57,345,148	367,898,589
INDUSTRIAL GROUP.					
Vegetable products.....	4,845	287,606,962	139,177,003	105,044,760	531,918,725
Animal products.....	4,542	119,286,669	74,215,651	50,047,801	243,550,121
Textiles and textile products.....	1,885	181,875,194	98,425,504	85,420,893	365,721,591
Wood and paper products.....	7,290	777,940,694	202,470,962	178,236,878	1,158,651,534
Iron and its products.....	1,159	379,937,969	155,343,328	107,649,889	702,931,186
Non-ferrous metal products.....	406	131,348,234	36,568,854	65,450,282	233,367,370
Non-metallic mineral products.....	1,178	215,035,995	46,659,890	36,997,227	298,693,122
Chemicals and allied products.....	572	85,784,820	29,824,371	34,334,726	148,943,920
Miscellaneous industries.....	453	61,942,865	23,723,270	34,936,802	119,602,877
Central electric stations.....	1,049	991,570,518	10,572,574	44,776,511	956,919,603

Subsection 2.—Employment in Manufactures.

The total number of persons engaged in those manufacturing industries of Canada for which statistics were obtained in 1928 was in that year 658,023, as compared with 618,933 in the same industries in 1927 and 456,076 in 1921. The 1928 employees included 91,243 salaried employees, this figure being obtained from the manufacturers at the end of the year, and 566,780 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. Consequently, 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 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 report 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 6.45 in 1928), 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.

Year.	Salaried Employees	Wage- Earners.	Total Employees	Percentage of Number of Employ- ees relative to 1917.	Index Number of Volume of Mfd. Products	Efficiency of Production.
	No.	No.	No.	p.c.		
1917.....	68,728	552,968	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	95.2	97.0
1921.....	74,873	381,203	456,076	73.4	87.4	119.1
1922.....	76,040	398,390	474,430	76.3	97.7	128.1
1923.....	78,273	446,994	525,267	84.5	106.7	126.3
1924.....	79,230	432,273	508,503	81.8	104.7	128.0
1925.....	77,623	466,602	544,225	87.5	112.4	128.5
1926.....	81,794	499,745	581,539	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 1928 derived from the Census of Manufactures, are shown in Table 6 of this report.

According to these statistics, the 23,379 establishments covered employed 91,243 salaried employees and 566,780 wage-earners, a total of 658,023 persons. Out of every 1,000 persons employed in manufacturing, 139 were classed as salary earners and 861 as wage-earners; the former earned 23.2 p.c. and the latter 76.8 p.c. of the total amount paid out as remuneration for services.

Provincial Distribution of Employees in 1928.—An analysis of the returns by provinces shows that 49,162 or 53.8 p.c. of all employees on salaries were employed in Ontario; of this number 36,204 were males and 12,958 were females. The proportion that the male salary workers in Ontario bore to the total number of such workers was 51.8 p.c., while female office employees

constituted 60.6 p.c. of the total. In Quebec, which, with 25,246 persons, recorded the second largest number of salaried workers, were situated 28.8 p.c. of the male and 24.0 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 4.5 p.c. of female salary earners. Of the total salaries, \$94,376,781 or 54.0 p.c. was reported in Ontario, \$49,485,152 or 28.3 p.c. in Quebec, and \$10,587,951 or 6.1 p.c. in British Columbia.

The male wage-earners numbered 441,189 and the female 125,591; 48.4 p.c. of the former and 46.0 p.c. of the latter were employed in Ontario. Quebec manufacturers reported 29.8 p.c. of the males as compared with 38.6 p.c. of the females, while British Columbia had 8.5 p.c. of the males and 4.6 p.c. of the females. As to earnings, Ontario firms paid out 51.2 p.c. of the total, Quebec 29.0 p.c. and British Columbia 8.3 p.c.

Distribution by Industries.—The wood and paper industries, with 19,952 salaried employees, reported a larger number of these than any other group, having 21.9 p.c. of the total and paying 23.1 p.c. of the aggregate salaries; 24.4 p.c. of the total wage-earners belonged to this group, which paid out 23.9 p.c. of the wages. Only 8.9 p.c. of the total females working for wages were in the wood and paper industries, as compared with 28.8 p.c. of the total males on wages. The textile industries had 18.4 p.c. of the wage-earners, who earned 14.5 p.c. of the wages; the number of female workers in these industries formed 50.0 p.c. of the total females and the males only 9.3 p.c. of the aggregate of male wage-earners. In the iron and steel group, 18.4 p.c. of the total workers were paid 23.8 p.c. of the total wages. The number of men employed in these industries constituted 22.9 p.c. of the total male wage-earners in 1928, 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, 1928.

Province and Group.	Employees on Salaries.		Salaries.	Employees on Wages.		Wages.
	Males.	Females.		Males.	Females.	
PROVINCE.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
Prince Edward Island.....	0.2	0.1	0.1	0.3	0.6	0.1
Nova Scotia.....	2.0	1.0	1.6	3.2	2.7	2.2
New Brunswick.....	1.9	1.8	1.8	2.9	2.9	2.0
Quebec.....	28.8	24.0	28.3	20.8	38.6	20.0
Ontario.....	51.8	60.6	54.0	48.4	46.0	51.2
Manitoba.....	4.5	3.9	4.3	4.0	2.9	4.3
Saskatchewan.....	1.8	1.1	1.5	0.9	0.4	0.9
Alberta.....	2.6	2.1	2.3	2.0	1.3	2.0
British Columbia and Yukon.....	6.4	4.5	6.1	8.5	4.6	8.3
Totals.....	100.0	100.0	100.0	100.0	100.0	100.0
INDUSTRIAL GROUP.						
Vegetable products.....	12.9	12.0	13.1	11.0	18.6	11.2
Animal products.....	12.6	9.4	9.6	9.4	12.2	7.8
Textile products.....	9.3	15.1	10.9	9.3	50.0	14.5
Wood and paper products.....	22.0	21.5	23.1	28.8	8.9	23.9
Iron and its products.....	18.4	15.5	17.4	22.9	2.0	23.8
Non-ferrous metal products.....	7.2	8.2	7.3	5.6	3.3	6.0
Non-metallic mineral products.....	4.3	3.1	4.0	5.5	0.6	5.2
Chemicals and allied products.....	4.7	5.7	4.9	2.0	2.2	2.0
Miscellaneous industries.....	3.4	3.0	3.7	3.3	1.6	3.2
Central electric stations.....	7.2	5.6	6.0	2.2	-	2.4

Monthly Record of Employment in Manufactures, 1928.—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 September, when manufacturing generally was at a high level. The number engaged in factories increased steadily from the beginning of 1928 until September; thereafter there was a small monthly reduction until the end of the year. During the period of continuous expansion up to September, 95,500 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 August, the number of female workers was greatest in September, 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 1928 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 and this excess was greatest in the later months of the year.

20.—Total Number of Wage-Earners Employed in the Manufacturing Industries of Canada, by Months, 1927 and 1928.

Month.	1927.			1928.		
	Males.	Females.	Total.	Males.	Females.	Total.
January.....	369,284	103,739	464,023	365,790	107,362	473,152
February.....	370,933	106,691	477,624	379,547	110,764	490,311
March.....	382,119	108,966	491,085	393,416	112,814	506,230
April.....	391,606	108,764	500,370	408,559	114,007	522,566
May.....	406,949	111,813	518,762	432,338	116,874	549,212
June.....	415,228	112,086	527,314	442,945	117,921	560,866
July.....	413,086	112,400	525,486	445,664	116,707	562,371
August.....	408,799	113,130	521,929	447,717	120,082	567,799
September.....	433,837	117,113	550,950	443,069	125,592	568,662
October.....	396,580	118,527	515,107	437,597	125,090	562,687
November.....	383,018	114,966	497,924	422,045	122,168	544,213
December.....	368,692	111,404	480,096	407,257	117,191	524,448

Days in Operation and Hours Worked.—During 1928, each plant, on the average, operated full time 229 days. The average day was 8.5 hours and the average week 49.6 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, 1928.

Province and Group.	Number of Establishments.	Time in Operation—Number of Days.			Average Days in Full Time Operation per Establishment.	Average Hours Worked. ¹	
		Full Time.	Part Time.	Idle.		Per Shift.	Per Week.
By Province.							
Prince Edward Island.....	277	31,802	8,847	40,155	115	8.4	49.8
Nova Scotia.....	1,167	208,777	16,026	135,705	179	9.0	53.4
New Brunswick.....	794	140,936	11,723	88,350	178	8.3	48.9
Quebec.....	7,231	1,578,853	91,771	420,447	218	9.0	52.5
Ontario.....	9,900	2,386,268	166,493	402,564	241	8.3	48.0
Manitoba.....	871	231,751	12,842	22,010	266	8.3	47.8
Saskatchewan.....	737	179,994	35,302	16,285	244	8.7	51.0
Alberta.....	778	202,511	12,762	26,066	260	8.3	48.5
British Columbia and Yukon.....	1,624	393,807	23,404	88,124	243	7.4	47.1
Totals.....	23,379	5,354,789	379,170	1,234,766	229	8.5	49.6
INDUSTRIAL GROUP.							
Vegetable products.....	4,845	1,202,656	96,303	196,259	248	8.8	52.8
Animal products.....	4,542	968,291	34,337	159,125	213	7.3	42.9
Textile products.....	1,885	480,800	43,798	39,566	255	8.5	46.8
Wood and paper products.....	7,290	1,376,568	98,551	741,311	189	9.0	52.6
Iron and its products.....	1,159	330,565	11,894	11,697	285	8.7	48.3
Non-ferrous metal products.....	406	116,439	2,303	5,076	287	8.1	45.5
Non-metallic mineral products.....	1,178	279,723	18,535	59,285	238	8.0	46.7
Chemicals and allied products.....	572	157,421	4,602	12,900	275	7.3	41.9
Miscellaneous industries.....	453	121,780	7,542	8,686	269	8.7	48.8
Central electric stations.....	1,049	320,546	61,105	1,401	305	-	-

¹ Information on these points is incomplete for dairy factories in Prince Edward Island and Quebec and for all central electric stations. These establishments have therefore been eliminated in working out the averages.

Subsection 3.—Wages and Salaries in Canadian Manufacturing Industries, 1928.

The total amount disbursed by manufacturers in salaries and wages during 1928 was \$755,199,372 paid to 658,023 workers, as compared with \$693,932,228 paid to 618,933 persons in 1927 and \$653,850,933 paid to 581,539 persons in 1926. Of the 1928 aggregate, \$174,779,879 or 23.2 p.c. was paid to 91,243 salaried employees who constituted 13.9 p.c. of the total number, and \$580,428,493 or 76.8 p.c. was paid in wages to 566,780 wage-earners, who formed 86.1 p.c. of the aggregate number of employees.

The average salary paid in the manufacturing industries during 1928 was \$1,915, compared with \$1,899 in 1927, \$1,867 in 1926, \$1,843 in 1925, \$1,831 in 1924 and \$1,824 in 1923. The average wage paid was \$1,024 in 1928, \$997 in 1927, \$1,003 in 1926, \$971 in 1925, \$972 in 1924 and \$959 in 1923.

The increase of 9.2 p.c. recorded in aggregate wages in 1928 as compared with the preceding year was accompanied by a 6.2 p.c. gain in the number of operatives employed, while the average wage increased by 2.7 p.c. Employees on salaries increased by 6.7 p.c. and aggregate salaries by 7.6 p.c., while average salaries advanced by 0.8 p.c.

The proportion of female wage-earners per 1,000 was 222 and of male operatives 778 during 1928, while in each 1,000 salary earners 234 were women and 766 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 6.0 p.c. in 1928 as compared with 1927, while there was a gain of 9.1 p.c. in the number of women office help employed. The percentages of increase among wage-earners were 6.6 for the males and 4.9 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 1928 by manufacturers in the various provinces, also average earnings in 1927.

There were successive rises in average salaries from Prince Edward Island to Quebec, which showed the highest average of all the provinces, while the mean in British Columbia and Ontario was slightly lower than in Quebec. In the Prairie Provinces, the averages were also smaller, especially in Saskatchewan and Alberta, where salaries were, on the whole, below those in New Brunswick. In British Columbia and the Yukon the average was \$1,955. 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.

There were general increases in average wages from the eastern provinces through to Manitoba, where the mean for the year, \$1,182, was the highest in the Dominion, being \$158 greater than the general average. In the western provinces 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 37 p.c. of the reported wage-earners in these provinces were engaged, worked on the average only 102 and 91 days respectively during 1928. 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 38.6 p.c. of the total number of women employed in manufacturing in the Dominion, as compared with 29.8 p.c. of the aggregate male operatives, but the 31.7 p.c. of the total wage-earners reported in Quebec received only 29.0 p.c. of the total wages. On the other hand, in Ontario, where the mean was higher than the general average, 48.4 p.c. of the total males and 46.0 p.c. of the total females, or 47.9 p.c. of the general aggregate, were paid 51.2 p.c. of the total wages disbursed. The fact that average wages in Alberta and British Columbia were lower than in Manitoba and Saskatchewan was partly a result of the seasonal nature of some of the industries in the former provinces, especially fish and fruit-preserving and saw-milling in British Columbia.

22.—Employees on Salaries and Wages in Manufacturing Industries, 1928, and Average Salaries and Wages, by Provinces, 1927 and 1928.

Province.	Employees on Salaries.			Average Salaries.		Employees on Wages.			Average Wages.	
	Male.	Female.	Total.	1928.	1927.	Male.	Female.	Total.	1928.	1927.
	No.	No.	No.	\$	\$	No.	No.	No.	\$	\$
Prince Edward Island....	151	31	182	1,011	912	1,121	732	1,853	285	254
Nova Scotia.....	1,383	395	1,778	1,603	1,635	14,008	3,436	17,444	745	675
New Brunswick.....	1,313	375	1,688	1,855	1,817	12,658	3,619	16,275	710	694
Quebec.....	20,109	5,137	25,246	1,960	1,932	131,279	48,434	179,713	937	916
Ontario.....	36,204	12,958	49,162	1,929	1,906	213,754	57,813	271,567	1,094	1,071
Manitoba.....	3,169	829	3,998	1,887	1,863	17,540	3,628	21,168	1,182	1,135
Saskatchewan.....	1,260	236	1,505	1,721	1,684	4,201	467	4,668	1,160	1,142
Alberta.....	1,810	458	2,268	1,755	1,755	8,915	1,644	10,559	1,078	1,065
British Columbia and Yukon.....	1,450	966	5,416	1,955	1,983	37,715	5,818	43,533	1,106	1,077
Totals.....	69,858	21,385	91,243	1,915	1,899	441,189	125,591	566,780	1,021	997

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 1928, together with the average number of days the establishments in each industry operated. Averages for 1927 are also given.

Average Salaries.—In 3 industries the average salaries exceeded \$2,500; in 15 they were from \$2,000 to \$2,500; in 19 they ranged between \$1,500 and \$2,000, while in only 3 were they below \$1,500 during 1928. None of the six groups paying the highest salaries—sugar refineries; leather tanneries; pulp and paper; rolled products, pig iron, steel products and ferro-alloys; petroleum products and distilleries—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, hosiery and knitted goods, furniture and upholstering, printing and bookbinding, 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, fish-curing and packing, and coke and gas industries. 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; while in coke and gas plants the percentage of women on salaries was above the average.

Average Wages.—The highest wages, varying between \$1,300 and \$1,700, were paid in the automobile, rolled products, pig iron, steel products and ferro-alloys, non-ferrous metal smelting, petroleum refining, coke and gas products, central electric stations, printing and publishing, railway rolling stock, and sugar refining industries, in all of which the proportion of female workers was below the general average. In 19 industries, the wages paid averaged between \$1,000 and \$1,300; in 11 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 1928 averaged only 102; the proportion of female workers was also high, being 38.8 p.c., as compared with the general proportion of 19.8 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 with an average wage of \$994. 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 91 days, employing males almost exclusively; these employees were paid an average wage of \$715 during the season of 1928.

23.—Employees by Sex in Forty Leading Canadian Manufacturing Industries during 1928, with Averages of Salaries and Wages Paid and of Number of Days Operated by Plants in each Industry for 1927 and 1928.

SALARIES.

Industry.	Employees on Salaries.			Average Salary.	
	Male.	Female.	Total.	1928.	1927.
	No.	No.	No.	\$	\$
Pulp and paper.....	2,962	545	3,507	2,485	2,550
Flour and grist mill products.....	910	211	1,121	1,924	1,914
Slaughtering and meat-packing.....	2,200	477	2,677	1,828	1,797
Automobiles.....	1,740	696	2,436	2,158	2,231
Central electric stations.....	5,003	1,211	6,214	1,683	1,653
Sawmills.....	1,665	233	1,898	2,116	2,059
Butter and cheese.....	3,519	594	4,113	1,098	1,079
Rubber goods, including footwear.....	1,649	496	2,145	1,684	1,707
Non-ferrous metal smelting.....	612	73	685	2,388	2,408
Electric apparatus and supplies.....	3,125	1,218	4,343	1,796	1,721
Petroleum products.....	412	62	474	2,466	2,300
Castings and forgings.....	1,803	527	2,330	2,072	2,118
Cotton yarn and cloth.....	593	127	720	2,429	2,365
Railway rolling stock.....	1,391	92	1,483	2,178	2,186
Bread and bakery products.....	659	322	981	1,548	1,586
Printing and publishing.....	4,561	1,647	6,208	1,660	1,683
Clothing, women's factory.....	1,083	748	1,831	1,981	1,926
Steel and rolled products, pig iron, ferro-alloys, etc.	522	92	614	2,513	2,470
Cigars and cigarettes.....	1,051	296	1,347	1,889	1,994
Breweries.....	835	118	953	2,408	2,335
Biscuits, confectionery, chocolate, chewing gum, etc.	1,810	697	2,507	1,829	1,838
Hosiery, knitted goods and gloves.....	756	455	1,211	2,130	2,210
Planing mills, sash and door factories.....	1,099	248	1,347	1,846	1,756
Sugar refineries.....	239	60	299	3,087	2,873
Machinery.....	1,719	542	2,261	1,951	1,887
Boots and shoes, leather.....	1,002	368	1,370	1,980	1,974
Shoe metal products.....	939	309	1,248	1,886	1,948
Clothing, men's factory.....	1,039	405	1,444	1,905	1,981
Acids, alkalies, salts and compressed gases.....	498	105	603	1,927	2,088
Furniture and upholstery.....	862	346	1,208	2,172	2,029
Agricultural implements and machinery.....	1,253	400	1,659	1,769	1,599
Printing and bookbinding.....	1,488	545	2,033	2,038	1,995
Distilleries.....	249	64	313	2,406	1,992
Fish-curing and -packing.....	577	53	630	1,355	1,363
Leather tanneries.....	240	52	292	2,729	2,448
Coke and gas products.....	653	230	883	1,477	1,525
Furnishing goods, men's.....	559	275	834	1,677	1,677
Brass and copper products.....	762	193	955	1,785	1,844
Paints and varnishes.....	774	224	998	2,080	2,236
Coffee, spices, etc.....	435	137	572	2,180	2,241
Totals, Forty Leading Industries.....	53,248	15,499	68,747	1,892	1,868
Grand Totals, All Industries.....	69,858	21,385	91,243	1,915	1,899

23.—Employees by Sex in Forty Leading Canadian Manufacturing Industries during 1928, with Averages of Salaries and Wages Paid and of Number of Days Operated by Plants in each Industry for 1927 and 1928—continued.

WAGES.

Industry.	Employees on Wages.			Average Wage.		Average Days in Full and Part Time Operation.	
	Male.	Female.	Total.	1928.	1927.	1928.	1927.
	No.	No.	No.	\$	\$	No.	No.
Pulp and paper.....	29,253	854	30,107	1,282	1,357	271	263
Flour and grist mill products.....	5,292	143	5,435	1,003	093	220	226
Slaughtering and meat-packing.....	7,787	780	8,567	1,092	1,151	289	292
Automobiles.....	14,055	238	14,313	1,098	1,580	308	307
Central electric stations.....	9,641	—	9,641	1,414	1,515	364	365
Sawmills.....	42,888	76	42,964	715	713	01	96
Butter and cheese.....	7,077	221	7,298	993	956	226	220
Rubber goods, including footwear.....	10,769	4,181	14,950	1,029	1,016	281	271
Non-ferrous metal smelting.....	6,804	37	6,841	1,550	1,504	359	354
Electrical apparatus and supplies.....	10,892	2,958	13,850	1,084	1,070	291	296
Petroleum products.....	3,820	25	3,845	1,406	1,407	314	307
Castings and forgings.....	18,124	328	18,452	1,192	1,148	294	285
Cotton yarn and cloth.....	12,139	8,756	20,895	763	755	282	287
Railway rolling stock.....	20,891	43	20,934	1,396	1,358	291	286
Bread and bakery products.....	12,495	1,946	14,441	1,065	1,085	290	297
Printing and publishing.....	8,421	1,484	9,905	1,397	1,099	290	299
Clothing, women's factory.....	3,901	10,559	14,520	899	883	282	277
Steel and rolled products, pig iron, ferro-alloys, etc.....	8,410	24	8,443	1,650	1,529	303	296
Cigars and cigarettes.....	1,900	3,331	5,297	692	678	265	263
Breweries.....	4,014	36	4,050	1,182	1,107	285	286
Biscuits, confectionery, chocolate, chewing gum, etc.....	4,551	6,213	10,767	742	724	275	274
Hosiery, knitted goods and gloves.....	5,165	11,598	16,763	748	733	284	282
Planing mills, sash and door factories.....	10,674	110	10,784	1,007	1,057	266	117
Sugar refineries.....	1,970	103	2,082	1,320	1,203	265	250
Machinery.....	8,328	266	8,594	1,230	1,174	301	294
Boots and shoes, leather.....	8,563	5,572	14,135	808	871	283	287
Sheet metal products.....	6,668	816	7,484	1,109	1,064	293	294
Clothing, men's factory.....	4,729	5,706	10,435	994	986	240	255
Acids, alkalis, salts and compressed gases.....	2,330	10	2,340	1,274	1,353	322	308
Furniture and upholstery.....	10,810	521	11,331	981	989	289	289
Agricultural implements and machinery.....	9,108	100	9,208	1,158	1,147	280	278
Printing and bookbinding.....	7,232	2,529	9,761	1,184	1,115	296	295
Distilleries.....	1,250	312	1,571	1,139	1,208	279	272
Fish-curing and -packing.....	9,053	5,751	14,804	208	280	102	101
Leather tanneries.....	3,569	99	3,660	1,008	991	280	292
Coke and gas products.....	3,024	7	3,031	1,420	1,379	348	—
Furnishing goods, men's.....	1,217	7,858	9,075	647	940	283	290
Brass and copper products.....	4,067	415	4,482	1,137	1,138	296	297
Paints and varnishes.....	1,645	238	1,883	1,004	998	303	296
Coffee, spices, etc.....	671	425	1,096	953	929	295	301
Totals, Forty Leading Industries.....	313,365	81,669	428,034	1,016	1,015	238	237
Grand Totals, All Industries.....	144,189	125,591	566,780	1,021	997	215	245

Real Earnings of Employees in Recent Years.—The total amount paid to the employees in industrial plants during 1928 was \$755,199,372, as compared with \$599,382,027 in 1917. The wage payments in 1928 were \$580,428,493, while the salaried employees received a remuneration of \$174,770,879. The average yearly wage of the wage-earner was \$1,024 in 1928, as compared with \$760 in 1917, an increase of 34.8 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 16.4 p.c. between 1917 and 1928. The details of the computation are given in Table 24.

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

Year.	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	547,599	878	115-5	113-8	101-5
1919	496,570,995	529,327	938	123-4	125-3	98-5
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	420,269,406	432,273	972	127-9	114-5	111-7
1925	452,958,655	466,602	971	127-8	116-0	110-2
1926	501,144,989	499,745	1,003	132-0	116-8	113-0
1927	531,583,250	533,450	997	131-3	115-1	114-1
1928	580,428,493	566,780	1,024	134-8	115-8	116-4

Percentage of Wages and Salaries to Value of Products.—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.

Year.	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	420,094,869	6-7	31-5	38-2
1918	1,460,723,777	101,507,889	480,949,599	6-9	32-9	39-8
1919	1,509,870,745	121,892,144	496,570,995	8-1	32-9	41-0
1920	1,686,978,408	148,267,360	583,853,225	8-8	34-6	43-4
1921	1,209,143,344	136,874,992	381,910,145	11-3	31-6	42-9
1922	1,198,434,407	136,219,171	374,212,141	11-4	31-2	42-6
1923	1,311,025,375	142,738,681	428,731,347	10-9	32-7	43-6
1924	1,256,643,901	139,614,639	420,269,406	11-1	33-4	44-5
1925	1,360,879,907	143,056,616	452,958,655	10-5	33-3	43-8
1926	1,492,645,039	152,705,944	501,144,989	10-2	33-6	43-8
1927	1,635,923,936	162,348,978	531,583,250	9-9	32-5	42-4
1928	1,819,016,025	174,770,879	580,428,493	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 and 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 1928, the 1928 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 1928, and Table 27 the figures by provinces for 1928.

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 686 establishments producing over \$1,000,000 each in 1928 had an aggregate value of products of \$2,281,557,030, or 61 p.c. of the grand total for all manufacturing establishments—a very significant change in the short period of six years when the general trend of prices of manufactured goods was slightly downward.

26.—Manufacturing Establishments Grouped According to Gross Values of Products, with Total and Average Values of Products in each Class, for Canada, 1922 and 1928.

Group	1922.			1928.		
	Estab- lish- ments.	Total Production.	Average Pro- duction.	Estab- lish- ments.	Total Production.	Average Pro- duction.
Gross Value of Products.	No.	\$	\$	No.	\$	\$
Under \$25,000	14,978	114,205,770	7,625	13,832	115,596,912	8,357
\$ 25,000 but under \$ 50,000	2,401	85,075,807	35,433	2,914	102,571,534	35,199
50,000 " 100,000	1,793	129,320,947	72,125	2,214	156,731,006	70,790
100,000 " 200,000	1,355	191,075,689	141,458	1,606	232,587,735	144,304
200,000 " 500,000	1,078	330,533,712	306,617	1,182	400,666,559	310,841
500,000 " 1,000,000	516	363,341,076	704,149	605	420,139,588	694,445
1,000,000 " 5,000,000	364	692,463,530	1,902,372	586	1,180,296,944	2,014,158
5,000,000 and over	56	575,592,599	10,278,439	100	1,101,260,086	11,012,600
Totals	22,541	2,482,209,130	110,119	23,379	3,769,850,364	161,249

27.—Manufacturing Establishments Grouped According to Gross Values of Products, with Total Values of Products in each Class, by Provinces, 1928.

Group	Prince Edward Island.		Nova Scotia.		New Brunswick.	
	Estab- lishments.	Production.	Estab- lishments.	Production.	Estab- lishments.	Production.
Gross Value of Products. (000 omitted.)	No.	\$	No.	\$	No.	\$
Under \$ 25	236	1,566,130	859	5,860,185	561	4,372,730
\$ 25—\$ 50	21	740,075	117	4,017,535	88	3,047,956
50—100	14	973,680	85	6,155,381	44	3,310,509
100—200	5	759,825	49	6,844,928	45	6,588,321
200—500	1	405,450	36	10,373,045	27	8,702,300
500—1,000	—	—	8	5,164,153	16	11,061,161
1,000—5,000	—	—	9	18,334,245	12	21,852,181
5,000 and over	—	—	3	28,190,136	1	8,478,578
Totals	277	4,115,169	1,167	81,948,608	794	67,413,742

Group	Quebec.		Ontario.		Manitoba.	
	Estab- lishments.	Production.	Estab- lishments.	Production.	Estab- lishments.	Production.
Gross Value of Products. (000 omitted.)	No.	\$	No.	\$	No.	\$
Under \$ 25	4,855	37,212,277	5,033	43,967,215	437	3,634,782
\$ 25—\$ 50	751	26,056,111	1,443	51,441,600	103	3,499,976
50—100	511	36,392,194	1,109	78,434,351	125	8,920,443
100—200	395	56,738,550	843	118,251,589	81	11,632,526
200—500	373	115,735,163	793	248,112,388	63	19,102,715
500—1,000	156	108,924,768	324	223,713,670	22	14,569,329
1,000—5,000	150	322,152,258	314	627,391,151	36	67,603,428
5,000 and over	40	369,950,970	41	558,411,794	4	30,447,895
Totals	7,231	1,073,162,291	9,990	1,919,724,119	871	159,425,691

Group	Saskatchewan.		Alberta.		British Columbia.	
	Estab- lishments.	Production.	Estab- lishments.	Production.	Estab- lishments.	Production.
Gross Value of Products. (000 omitted.)	No.	\$	No.	\$	No.	\$
Under \$ 25	529	2,159,342	462	5,501,957	860	11,322,288
\$ 25—\$ 50	79	2,806,487	126	4,446,644	186	6,515,150
50—100	56	3,969,146	78	5,286,311	191	13,288,991
100—200	34	4,328,089	40	5,779,096	154	21,664,510
200—500	19	5,386,794	32	9,282,040	138	43,506,064
500—1,000	11	7,870,214	18	13,248,905	50	35,563,388
1,000—5,000	7	14,040,987	20	41,693,293	38	67,229,401
5,000 and over	2	18,564,221	2	15,506,245	7	71,701,277
Totals	737	59,125,280	778	109,744,404	1,621	279,851,669

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 131,913 employees in our manufacturing industries between 1923 and 1928, 64,306, or almost 49 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 1928.

Group	1923.			1928.		
	Establishments.	Employees.	Average Employed.	Establishments.	Employees.	Average Employed.
	No.	No.	No.	No.	No.	No.
Fewer than 5 employees.....	13,156	23,632	1.7	12,373	23,237	1.8
5 to 20 employees.....	5,310	53,832	10.1	6,021	60,825	10.1
21 " 50 ".....	2,093	67,408	32.2	2,457	79,280	32.2
51 " 100 ".....	1,031	73,449	71.2	1,204	85,402	70.9
101 " 200 ".....	566	79,737	140.8	720	100,902	140.2
201 " 500 ".....	374	115,585	309.0	430	131,585	305.0
501 and over.....	112	112,447	1,004.0	174	176,753	1,015.8
Totals.....	22,612	526,110	23.2	23,379	638,023	28.1

29.—Number of Establishments and of Employees in Canadian Manufactures, by Provinces, and Average Number of Employees per Establishment, 1928.

Province.	Under 5 Employees.	5-20.	21-50.	51-100.	101-200.	201-500.	501 and over.	Total.
Prince Edward Island—								
Establishments.....	164	90	21	2	—	—	—	277
Employees.....	304	974	637	120	—	—	—	2,035
Average per establishment.....	1.8	10.9	30.3	60.0	—	—	—	7.3
Nova Scotia—								
Establishments.....	544	421	138	42	9	10	3	1,167
Employees.....	1,025	4,289	4,212	2,939	1,280	3,146	2,331	19,221
Average per establishment.....	1.8	10.1	30.5	69.9	142.2	314.6	77.7	16.4
New Brunswick—								
Establishments.....	363	268	103	30	15	12	3	794
Employees.....	810	2,775	3,349	2,103	2,212	3,985	2,729	17,963
Average per establishment.....	2.2	10.3	32.5	70.1	147.4	332.1	909.6	22.6
Quebec—								
Establishments.....	4,362	1,504	654	325	185	132	69	7,231
Employees.....	7,869	15,441	20,891	23,089	25,305	41,453	70,911	204,950
Average per establishment.....	1.8	10.2	31.9	71.04	136.7	314.0	1,027.6	28.3
Ontario—								
Establishments.....	4,815	2,714	1,101	583	383	215	89	9,900
Employees.....	8,317	27,156	35,868	41,438	53,610	64,909	89,431	320,729
Average per establishment.....	1.7	10.0	32.5	71.0	139.9	301.9	1,004.8	32.3
Manitoba—								
Establishments.....	412	244	110	59	23	19	4	871
Employees.....	788	2,579	3,624	3,953	3,491	5,482	5,240	25,166
Average per establishment.....	1.9	10.5	32.9	67.9	151.7	288.5	1,312.2	28.8
Saskatchewan—								
Establishments.....	556	116	43	12	6	4	—	737
Employees.....	838	1,065	1,524	833	692	1,021	—	6,173
Average per establishment.....	1.5	9.1	35.4	69.4	148.6	255.2	—	8.3
Alberta—								
Establishments.....	476	184	55	32	22	8	1	778
Employees.....	924	1,650	1,791	2,266	2,869	2,728	599	12,827
Average per establishment.....	1.9	8.9	32.5	70.8	130.4	341.0	599.0	10.4
British Columbia—								
Establishments.....	681	480	232	119	77	30	5	1,624
Employees.....	1,952	5,096	7,493	8,761	11,303	8,841	5,503	48,940
Average per establishment.....	2.8	10.6	32.2	73.6	146.7	294.7	1,100.6	30.1

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 1927 show an increase of 558,664 h.p. or 9.8 p.c. in 1928 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 468,504 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 470,519 h.p., while the steam power installed was slightly reduced. In the provinces with large water-power developments the greatest total primary power increases were made, Quebec leading with an increase of 311,262 h.p., Ontario coming second with an increase of 97,375 h.p., British Columbia third with an increase of 74,144 h.p. and Manitoba fourth with an increase of 55,185 h.p. In the utilization of hydraulic power Quebec exceeded Ontario for the first time in 1925. In 1928, Quebec exceeded Ontario or any other province in the total of installed primary power from all sources.

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 1928 in Table 30. The total primary power increased by 3,102,798 h.p. or 99 p.c. in the 7 years, while the total installation of electric motors increased 1,582,478 h.p. or 156 p.c. in the same time.

30.—Totals, for Canada, of Power Installed in the Manufacturing Industries, 1921-1928, with Details by Provinces and Groups of Industries for 1928.

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 1928.

Province and Group.	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.
Totals, 1921	764,725	53,567	2,318,865	3,137,157	—	—	1,014,216	—
Totals, 1922	833,756	87,022	2,691,081	3,611,862	—	—	1,167,619	—
Totals, 1923	827,870	61,020	2,869,738	3,761,628	958,692	357,136	1,315,828	4,720,320
Totals, 1924	944,267	72,191	3,283,116	4,299,904	1,256,183	398,001	1,654,184	5,556,087
Totals, 1925	992,916	77,435	1,012,756	3,083,107	1,547,754	434,678	1,982,432	6,636,861
Totals, 1926	1,018,533	78,554	4,213,013	5,310,102	1,770,334	392,322	2,162,656	7,080,436
Totals, 1927	1,033,931	79,753	1,567,607	5,681,291	1,924,687	386,555	2,311,242	7,605,978
Totals, 1928	1,033,307	83,861	5,102,784	6,239,953	2,139,129	157,565	2,596,694	8,379,084
PROVINCE, 1928.								
P. E. Island	4,014	809	1,858	6,581	438	555	703	7,219
Nova Scotia	113,523	3,769	62,658	179,950	27,978	40,404	68,382	207,928
New Brunswick	56,672	4,148	54,914	115,734	35,755	22,221	57,976	151,480
Quebec	205,163	7,329	2,326,154	2,539,646	942,063	112,185	1,054,848	3,481,309
Ontario	311,403	36,195	1,819,906	2,167,504	842,675	179,037	1,021,712	3,010,179
Manitoba	44,821	2,245	310,055	358,021	84,608	491	85,009	442,629
Saskatchewan	71,118	14,033	—	85,151	14,844	143	14,987	99,065
Alberta	91,323	5,585	33,537	130,445	28,757	5,052	33,809	159,202
British Columbia	155,270	9,651	492,802	657,723	101,411	97,677	259,088	819,134
GROUP OF INDUSTRIES, 1928								
Vegetable products	56,567	11,599	38,863	107,029	202,582	25,189	227,771	309,611
Animal products	25,937	5,373	1,634	32,944	71,222	3,222	74,144	104,166
Textiles	27,251	1,377	31,342	59,970	103,809	26,298	130,107	163,779
Wood and paper	410,315	14,006	495,615	919,936	988,802	281,819	1,270,621	1,908,738
Iron and its products	144,747	21,557	8,048	174,352	314,169	71,714	385,883	488,521
Non-ferrous metals	19,570	276	68,960	88,806	205,836	29,500	235,426	294,642
Non-metallic minerals	30,053	3,836	4,426	38,315	143,351	16,273	159,624	181,666
Chemicals	15,155	321	8,345	23,821	47,580	3,410	50,990	71,401
Miscellaneous industries	7,401	461	20	7,882	61,778	50	61,828	69,660
Central electric stations	316,311	25,058	4,445,531	4,786,900	—	—	—	4,786,900

Fuel.—The fuel used in industrial establishments in 1928 included 6,639,736 tons of bituminous coal, valued at \$37,871,736, constituting 63.3 p.c. of the total fuel cost. The other chief fuels in order of value were:—fuel oil, comprising 12.2 p.c., gas (principally natural gas) 9.1 p.c., wood 4.1 p.c., anthracite coal 3.5 p.c. and coke 3.0 p.c. Out of a fuel account of nearly \$60,000,000, Ontario expended \$28,800,000 or 48.2 p.c. of the total. The manufacturing concerns of Quebec expended \$17,300,000, those of British Columbia \$3,500,000 and those of Nova Scotia nearly \$3,000,000.

The groups of industry in which fuel was most extensively used in 1928 were:—wood and paper, \$14,428,000; non-metallic minerals, \$12,861,000; iron and steel, \$10,647,000; and vegetable products, \$6,794,000. 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 \$8,120,355 or 15.7 p.c. in the 7 years from 1921 to 1928, covered by the summary figures in Table 31. The fuels which have shown the greatest proportionate increases are gas and oil.

31.—Total Fuel Used in the Manufacturing Industries of Canada, 1921-1928, with Details by Provinces and Groups, 1928.

Province and Group.	Bituminous Coal.		Anthracite Coal.	Coke.	Oil.	Wood.	Gas.	Total.
	Quantity.	Value.						
	tons	\$	\$	\$	\$	\$	\$	\$
Totals, 1921	4,163,671	34,752,681	2,915,732	2,497,100	5,417,800	-	-	51,640,912
Totals, 1922	4,101,463	29,914,585	3,616,185	3,239,016	5,619,071	2,085,144	1,616,802	48,920,505
Totals, 1923	5,338,446	38,283,135	4,614,239	3,238,257	6,241,692	2,514,157	1,904,658	58,736,938
Totals, 1924	5,518,255	34,438,554	4,612,651	2,250,232	5,780,752	2,595,061	4,711,186	57,068,214
Totals, 1925	5,902,497	31,634,531	2,564,489	5,045,239	7,246,961	2,700,979	3,570,197	57,818,701
Totals, 1926	6,409,227	36,723,359	2,266,935	4,176,584	7,371,769	2,645,505	4,233,672	59,695,997
Totals, 1927	6,470,803	38,053,827	2,435,720	3,899,378	7,220,529	2,192,193	5,272,735	60,106,218
Totals, 1928	6,639,736	37,871,736	2,070,959	1,819,317	7,390,552	2,139,101	5,431,865	59,761,267
PROVINCE, 1928.								
P. E. Island	12,898	77,017	469	3,382	15,960	11,397	-	110,817
Nova Scotia	323,429	1,625,179	19,911	78,731	557,010	83,779	574,779	2,974,941
New Brunswick	265,701	1,300,493	16,419	26,590	60,181	172,784	17,127	1,700,741
Quebec	2,032,310	12,322,547	1,088,796	260,345	2,037,177	547,082	506,113	17,320,310
Ontario	3,354,934	18,947,358	842,999	1,229,808	2,648,947	981,603	3,605,246	28,704,474
Manitoba	135,393	957,037	71,016	56,010	283,265	29,950	80,076	2,069,449
Saskatchewan	73,783	486,328	18,722	40,258	346,454	66,024	154,601	1,781,092
Alberta	152,192	522,008	2,065	37,935	106,085	34,451	400,972	1,544,523
British Columbia and Yukon	291,066	1,543,769	10,592	86,288	1,242,473	309,428	95,891	3,467,020
GROUP OF INDUSTRIES, 1928.								
Vegetable products	714,217	3,828,829	408,242	376,530	694,021	490,263	610,977	6,793,577
Animal products	348,320	2,142,241	77,153	42,985	214,350	307,921	65,554	3,362,773
Textiles	481,300	3,057,773	194,644	48,395	88,131	47,994	86,103	3,684,772
Wood and paper	1,048,105	11,529,818	931,448	20,858	831,927	720,901	153,119	14,428,373
Iron and steel	1,072,154	5,472,300	233,802	597,323	2,000,966	65,704	2,017,061	10,647,270
Non-ferrous metals	313,396	1,931,544	66,901	150,908	848,694	62,280	150,343	3,246,564
Non-metallic minerals	1,231,626	6,991,152	81,028	572,268	2,103,678	645,931	2,255,258	12,861,215
Chemicals	283,656	1,537,411	46,020	56,228	70,651	14,227	24,819	1,832,453
Miscellaneous industries	60,878	407,497	23,830	30,339	88,348	8,747	39,180	623,865
Central electric stations	186,095	973,111	7,921	13,504	359,786	75,136	32,301	2,280,405

¹ Includes other kinds of fuel which, in 1928, were as follows: lignite coal, \$1,572,452; gasoline, \$448,616 and other fuels, \$803,666.

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 80 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 55 p.c. In the Prairie Provinces manufacturing is largely confined to a few large urban centres.

The seven chief manufacturing cities of Canada in 1928, in the order named, were Toronto, Montreal, 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 8 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.

Nineteen other important cities with a gross production of manufactured goods of between \$60,000,000 and \$20,000,000 each in 1928 were as follows, in descending order of the value of their products:—Kitchener, London, Three Rivers, Quebec, Ford City, Calgary, Niagara Falls, Windsor, Peterborough, Shawinigan Falls, Brantford, New Toronto, Sarnia, Sault Ste. Marie, St. Boniface, Walkerville, Edmonton, Saint John and Lachine. 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 1928 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, 1928.

Province.	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	31	1,900,902	4,445,100	42.76
Nova Scotia.....	0	274	67,263,193	84,948,608	79.18
New Brunswick.....	10	274	49,290,263	67,413,742	73.12
Quebec.....	50	2,916	932,400,061	1,673,162,291	84.09
Ontario.....	123	6,138	1,775,342,136	1,949,724,119	91.05
Manitoba.....	7	594	148,016,537	159,475,094	92.83
Saskatchewan.....	4	173	50,540,384	59,125,280	85.48
Alberta.....	4	316	82,232,905	100,744,401	81.62
British Columbia.....	14	963	145,169,694	270,851,069	53.60
Canada.....	222	11,679	3,222,158,163	3,769,850,364	85.47

33.—Principal Statistics of the Manufacturing Industries of the Seven Leading Manufacturing Cities of Canada, 1921-1928.

City.		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	81,709,683	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	1,580	469,354,640	86,648	94,725,516	224,134,382	444,852,084
	1925	1,606	523,125,905	91,624	99,755,986	235,404,375	467,055,393
	1926	1,729	542,412,908	95,904	109,147,450	275,322,256	555,269,114
	1927	1,823	552,788,702	98,353	113,797,512	239,104,230	540,267,591
	1928	1,834	481,181,947	101,668	119,225,844	273,015,114	554,311,571
Toronto.....	1921	1,706	370,426,285	66,708	84,147,050	192,588,233	371,090,034
	1922	1,811	392,469,184	78,833	92,930,846	235,568,765	394,065,052
	1923	1,933	389,772,678	82,267	97,417,033	210,786,422	409,829,557
	1924	1,928	410,244,068	80,001	96,551,316	213,463,889	401,367,127
	1925	1,957	429,165,022	83,728	100,769,782	246,399,340	447,098,824
	1926	2,013	451,233,865	86,439	107,734,568	270,290,114	489,522,114
	1927	2,092	475,475,308	92,238	115,556,907	270,275,071	520,066,313
	1928	2,221	505,207,658	100,034	125,579,599	293,839,796	565,444,323
Hamilton.....	1921	399	142,006,725	28,192	28,062,403	53,074,110	109,803,883
	1922	437	143,468,098	23,476	26,256,146	50,844,910	100,280,431
	1923	436	170,378,119	25,797	31,399,136	77,140,899	141,067,732
	1924	427	170,993,755	23,772	28,514,251	56,881,010	118,591,000
	1925	414	166,284,301	23,629	27,987,069	62,110,074	122,305,950
	1926	417	172,345,587	27,087	31,241,176	74,066,846	146,037,029
	1927	422	179,328,754	29,210	36,984,479	72,757,263	152,107,454
	1928	426	204,584,803	30,787	40,276,968	79,114,898	166,262,355
Winnipeg.....	1921	419	67,354,844	11,046	15,521,375	39,701,665	75,180,039
	1922	436	46,251,208	10,679	13,858,116	36,766,698	66,925,392
	1923	425	70,872,528	11,596	14,782,426	38,172,282	70,647,027
	1924	411	87,489,500	11,934	15,395,262	40,837,275	74,755,670
	1925	409	89,698,323	14,346	18,390,797	42,388,504	79,614,829
	1926	446	96,801,995	15,469	20,086,667	46,501,703	87,686,243
	1927	476	108,717,326	16,785	21,215,664	48,986,976	95,592,864
	1928	491	115,678,092	18,340	23,994,480	35,275,785	105,456,065
Vancouver.....	1921	441	72,065,459	10,438	12,146,231	35,287,999	65,035,973
	1922	485	75,030,953	10,598	10,579,482	35,507,418	63,172,964
	1923	507	80,053,508	11,400	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	102,165,028	13,334	16,384,973	42,020,970	75,823,721
	1926	523	106,624,727	14,781	18,347,269	46,120,382	84,831,423
	1927	556	116,754,996	14,897	19,254,035	47,290,240	87,754,347
	1928	620	123,029,880	16,013	20,263,435	49,597,035	94,131,608
Oshawa.....	1921	28	17,444,828	2,896	3,418,396	18,990,616	27,801,398
	1922	34	20,658,430	4,052	4,883,478	28,535,248	40,131,834
	1923	34	23,078,144	5,019	6,229,833	33,338,313	43,876,305
	1924	35	21,311,534	4,554	5,301,282	25,996,264	37,918,669
	1925	34	21,832,973	4,987	6,269,918	30,345,887	47,529,284
	1926	33	23,935,711	5,611	7,391,465	34,447,446	54,571,595
	1927	35	31,883,066	6,846	10,127,271	50,763,745	77,631,290
	1928	37	38,643,526	8,715	12,992,374	56,182,896	84,894,222
Ottawa.....	1921	181	38,184,743	5,841	7,254,469	27,854,285	41,949,894
	1922	203	38,530,758	6,667	7,742,794	34,581,220	49,202,686
	1923	197	43,513,709	7,058	8,454,415	25,706,305	40,965,955
	1924	204	48,347,550	7,379	8,435,969	15,905,187	30,826,930
	1925	192	48,777,659	7,110	8,554,138	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
	1928	195	58,207,109	8,387	10,217,593	43,468,453	61,612,832

34.—Statistics of Manufactures of Municipalities with a Gross Production of \$200,000 or over, and with Three or more Establishments, 1928.

City or Town.	Estab-lish-ments.	Capital.	Em-ployees.	Salaries and Wages.	Cost of Materials.	Gross Value of Products.
	No.	\$	No.	\$	\$	\$
Prince Edward Island—						
Charlottetown.....	31	1,844,302	427	421,571	991,338	1,900,992
Summerside.....	14	417,227	104	81,115	136,284	309,619
Nova Scotia—						
Sydney.....	34	45,147,202	2,444	3,536,158	8,282,402	19,570,385
Dartmouth.....	15	15,901,328	803	1,195,851	12,059,653	17,630,681
Halifax.....	105	31,267,610	3,860	4,984,844	5,078,402	14,403,319
Trenton.....	3	8,926,265	745	1,033,309	2,486,550	4,150,608
Truro.....	24	4,616,924	843	606,697	1,871,073	3,520,013
Amherst.....	24	4,750,561	682	628,195	1,237,182	2,747,080
Yarmouth.....	29	2,861,021	539	479,881	1,230,254	2,448,884
New Glasgow.....	27	2,100,587	477	466,860	590,503	1,613,743
Windsor.....	13	2,211,890	299	180,090	636,347	1,178,480
Canso.....	4	320,915	219	166,651	471,839	837,914
Pictou.....	12	466,232	285	140,126	381,105	647,157
Bridgewater.....	20	825,704	211	127,812	392,954	633,138
Lunenburg.....	14	678,199	224	180,297	262,371	569,352
Stellarton.....	10	695,673	61	64,016	154,900	508,106
Digby.....	7	354,468	67	52,334	200,787	490,687
Middleton.....	8	359,228	52	51,548	340,440	451,148
Port Hawkesbury.....	4	728,284	101	85,785	227,019	407,456
North Sydney.....	13	292,621	118	99,729	188,884	392,094
Lockport.....	5	352,460	125	68,999	241,192	386,307
Clark's Harbour.....	8	62,800	61	26,631	285,427	341,128
Liverpool.....	9	2,995,244	165	105,292	153,171	308,834
Shelburne.....	17	264,564	121	95,933	140,239	301,738
Oxford.....	10	313,968	105	84,091	157,394	292,788
Glace Bay.....	7	260,239	51	56,644	34,008	249,939
Bridgetown.....	9	310,035	108	67,368	141,596	247,110
New Brunswick—						
Saint John.....	126	28,518,719	3,516	3,590,646	15,137,643	23,187,287
Moncton.....	39	7,727,660	2,351	2,760,036	4,166,096	8,052,280
Edmundston.....	10	10,145,382	496	558,049	1,447,518	3,552,310
St. Stephen.....	18	2,692,137	730	686,953	1,939,793	3,439,593
Barthurst.....	13	11,474,661	552	664,987	1,579,627	3,367,911
Fredericton.....	28	3,601,820	620	598,596	1,016,632	2,089,618
Campbellton.....	14	3,343,830	557	444,400	1,253,098	2,002,136
Milltown.....	3	2,160,635	745	566,425	797,676	1,432,765
Sackville.....	11	1,537,235	442	436,991	348,594	1,108,707
Newcastle.....	12	2,917,651	234	174,839	804,810	1,058,656
Chatham.....	11	3,401,785	223	229,766	502,010	874,370
Sussex.....	11	437,063	132	130,557	382,418	738,530
Grand Falls.....	9	409,010	122	104,940	201,861	380,401
Woodstock.....	19	482,430	117	99,435	96,693	280,044
Port Elgin.....	7	151,902	108	44,472	112,482	202,414
Quebec—						
Montreal.....	1,834	481,181,947	101,668	119,226,844	273,015,114	554,311,571
Three Rivers.....	55	79,061,136	7,634	8,258,527	19,209,953	45,441,160
Quebec.....	251	69,857,968	10,243	9,747,565	17,505,822	44,608,105
Shawinigan Falls.....	21	149,846,124	2,938	4,076,874	13,480,984	33,536,961
Lachine.....	29	25,427,082	2,803	4,792,210	7,514,290	20,736,693
Montreal East.....	4	26,511,718	1,710	2,528,304	9,494,444	19,427,957
Sherbrooke.....	76	22,339,310	4,677	4,708,927	9,227,636	19,009,741
Hull.....	41	13,077,202	2,655	2,655,575	5,847,020	11,765,232
Granby.....	26	9,724,593	2,763	2,352,651	4,439,185	11,317,276
Valleyfield.....	25	10,929,551	2,773	2,148,236	3,931,607	9,783,240
Magog.....	13	6,496,232	1,575	1,300,253	6,481,584	9,042,865
Port Alfred.....	4	37,722,732	889	1,313,502	4,251,599	8,986,835
St. Hyacinthe.....	50	8,761,102	2,561	1,899,563	3,135,927	8,905,609
Grand Mère.....	15	64,890,988	1,307	1,965,962	2,298,567	7,976,144
St. John.....	38	8,039,430	2,750	2,828,236	3,621,671	7,720,715
St. Jérôme.....	26	6,349,083	1,853	1,555,746	2,886,997	7,010,937
Drummondville.....	14	18,643,679	2,056	1,890,516	4,063,184	6,892,209
Kenogami.....	3	16,279,477	954	1,429,172	2,563,276	6,875,573
East Angus.....	7	15,299,951	854	844,017	2,816,076	3,263,575
La Tuque.....	11	8,674,704	657	1,005,118	2,631,877	4,062,724
Bélouil.....	9	3,976,087	260	295,983	2,141,691	4,104,734
Lançon.....	8	2,705,002	523	587,603	1,064,205	3,026,217

34.—Statistics of Manufactures of Municipalities with a Gross Production of \$200,000 or over, and with Three or more Establishments, 1928—continued.

City or Town.	Estab- lish- ments.	Capital.	Em- ployees.	Salaries and Wages.	Cost of Materials.	Gross Value of Products.
	No.	\$	No.	\$	\$	\$
Quebec—concluded.						
Victoriaville.....	21	2,384,709	1,208	933,553	1,332,407	3,496,502
Verdun.....	11	3,760,844	851	831,433	1,591,160	3,432,840
St. Joseph d'Alma.....	7	14,824,888	473	713,575	786,131	3,072,211
Beauharnois.....	9	5,880,029	581	618,489	1,190,445	2,777,788
Donnacona.....	3	11,533,207	503	743,596	1,302,057	2,741,145
Chicoutimi.....	25	9,772,595	635	628,248	1,339,155	2,540,647
Bromptonville.....	4	506,769	312	331,827	1,335,793	2,260,030
Joliette.....	37	1,896,530	579	477,688	920,179	2,124,825
Windso.....	7	6,002,789	503	570,010	924,338	2,077,919
Coaticook.....	21	2,300,029	713	461,289	1,088,941	2,010,792
Sorel.....	20	2,953,834	1,320	1,013,164	493,160	1,892,437
Cowansville.....	10	2,344,059	509	450,953	767,141	1,810,802
Chaudière.....	3	3,092,963	463	470,899	748,698	1,756,841
Buckingham.....	14	2,894,127	321	423,022	859,262	1,676,968
Berthier.....	14	6,344,772	259	240,216	638,219	1,645,217
Marieville.....	11	1,086,662	487	414,792	988,804	1,444,381
Jonquière.....	8	1,454,483	205	300,184	587,114	1,369,913
Loronto.....	21	1,153,020	467	332,225	763,846	1,271,078
Portneuf.....	9	1,691,628	197	219,232	651,740	1,256,571
Rock Island.....	13	2,085,434	349	324,812	598,730	1,243,349
Asbestos.....	10	1,212,834	163	184,669	631,640	1,203,708
Laprairie.....	9	7,257,674	422	454,298	56,147	1,196,461
St. Rém.....	10	685,376	132	105,695	923,247	1,193,137
St. Laurent.....	4	1,220,317	298	382,094	404,060	1,125,696
Plessisville.....	16	1,134,027	359	267,512	577,469	1,101,787
Ste. Thérèse.....	11	1,177,544	271	226,429	493,920	1,052,353
Farnham.....	13	1,084,172	368	227,654	541,298	1,037,962
Montmagny.....	15	1,934,247	426	348,804	393,944	1,015,633
Longueuil.....	10	3,667,339	319	424,094	808,767	944,388
Cap de la Madeleine.....	6	250,492	78	47,514	667,130	902,088
Rimouski.....	9	2,952,154	299	310,255	464,659	868,877
Bedford.....	4	931,425	410	315,075	83,330	800,099
Louiseville.....	7	489,215	310	179,563	528,966	772,261
St. Raymond.....	61	963,449	217	152,080	361,921	734,464
Rivière du Loup.....	17	1,953,059	299	293,149	246,231	691,036
La se au Saumon.....	4	2,222,083	216	107,569	340,137	686,421
Westmount.....	6	1,462,759	227	279,723	75,223	672,771
Torrebbonne.....	12	1,168,912	284	230,986	337,215	668,252
Lennoxville.....	8	578,267	109	128,973	370,431	663,634
Acton Vale.....	9	421,489	351	150,475	287,560	630,390
Thurso.....	6	886,629	132	143,090	429,666	609,947
Pont Rouge.....	8	816,952	156	141,650	320,048	604,365
Levis.....	16	785,366	264	197,923	208,587	568,080
Contrecoeur.....	5	300,888	188	144,140	329,667	547,249
Warwick.....	10	526,898	171	134,126	305,128	521,750
Calumet.....	3	604,820	129	116,226	397,499	513,683
Murray Bay.....	10	56,992	64	30,652	384,710	493,741
Outremont.....	3	482,597	112	128,266	304,143	492,709
Disraeli.....	7	1,898,342	179	178,876	141,730	475,860
Iberville.....	7	261,453	181	221,962	113,457	445,113
Danville.....	10	573,697	147	113,483	216,036	410,814
Waterloo.....	9	397,879	182	118,444	164,493	381,833
Ste. Marie.....	13	181,873	136	58,226	261,115	377,835
Megantic.....	7	552,990	114	96,307	179,018	373,489
Gaspé.....	3	952,244	90	41,486	313,010	352,597
Nicolet.....	10	304,875	128	87,476	176,910	347,522
Shawville.....	9	77,994	29	21,538	276,380	346,500
Beebe Plain.....	5	160,496	76	63,026	194,525	329,122
Amos.....	7	426,416	112	105,229	130,462	327,133
Sutton.....	11	285,876	81	59,093	158,059	312,651
Huntingdon.....	9	151,116	41	36,940	206,087	309,115
Begotville.....	3	326,890	10	9,916	16,996	293,704
Mont Laurier.....	8	379,326	39	34,963	215,369	290,685
Beauveville.....	9	230,766	96	64,233	131,805	298,851
St. Pie.....	11	140,353	66	39,581	196,178	261,709
St. Tite.....	11	130,683	92	50,865	163,070	258,928
St. Lambert.....	6	373,858	118	108,277	64,310	256,067
L'Assomption.....	6	304,621	94	62,542	158,745	252,824
Roberval.....	14	231,037	104	66,960	138,749	240,052
Lachute.....	8	523,639	101	77,233	86,525	237,965
Theford Mines.....	14	385,663	104	88,548	93,439	224,127
Macmin.....	5	216,611	104	54,768	113,811	223,070
Trois Pistoles.....	8	64,414	56	34,590	181,856	215,356

34.—Statistics of Manufactures of Municipalities with a Gross Production of \$250,000 or over, and with Three or more Establishments, 1925—continued.

City or Town.	Estab- lish- ments.	Capital.	Em- ployees.	Salaries and Wages.	Cost of Materials.	Gross Value of Products.
	No.	\$	No.	\$	\$	\$
Ontario—						
Toronto.....	2,221	505,207,658	100,034	125,579,599	293,830,796	565,444,323
Hamilton.....	426	201,584,803	30,787	40,276,968	79,114,898	166,262,355
Oshawa.....	37	38,643,526	8,715	12,992,374	56,182,896	84,894,222
Ottawa.....	195	58,207,109	8,387	10,217,593	43,468,453	61,612,832
Kitchener.....	137	40,852,417	8,759	9,688,167	24,508,047	50,117,175
London.....	227	45,123,339	9,716	11,425,574	20,878,152	48,337,680
Ford City.....	10	45,139,262	7,051	13,590,633	26,807,710	44,293,223
Niagara Falls.....	61	41,931,035	3,113	4,420,295	18,498,194	38,729,880
Windsor.....	143	29,275,221	4,211	6,845,057	20,489,496	37,639,930
Peterborough.....	79	24,795,223	5,349	5,712,694	20,844,956	36,124,040
Brantford.....	101	60,061,627	7,714	8,600,204	16,439,312	32,273,886
New Toronto.....	12	23,263,688	3,357	4,736,182	19,766,829	31,114,973
Sarnia.....	41	21,274,999	2,507	3,788,580	17,917,152	27,123,165
Snault Ste. Marie.....	46	63,677,529	2,483	4,430,913	12,266,859	26,980,517
Walkerville.....	55	30,800,940	3,116	5,150,993	14,149,680	25,050,109
Welland.....	41	27,274,192	2,892	3,419,779	10,443,339	19,901,087
Port Colborne.....	16	10,891,200	752	1,048,924	16,971,602	19,894,201
Guelph.....	92	18,270,653	4,515	4,804,920	9,542,111	19,595,669
St. Catharines.....	100	19,746,301	3,905	4,663,401	7,699,563	17,584,863
Leaside.....	7	16,554,423	1,361	2,392,186	11,350,055	16,017,743
Galt.....	79	17,291,000	3,932	4,329,550	7,212,355	15,135,908
Chatham.....	52	14,689,267	2,371	2,992,250	8,673,311	14,568,023
Keewatin.....	3	6,096,954	364	482,804	12,874,723	14,540,450
Cornwall.....	43	22,268,501	4,233	3,968,273	6,273,735	14,353,376
Stratford.....	62	10,932,025	3,249	3,870,933	6,947,040	13,306,646
Thurford.....	16	25,813,140	1,456	2,289,750	5,089,092	13,072,881
Woodstock.....	60	12,877,185	2,863	3,019,814	6,516,122	12,250,714
Iroquoie Falls.....	3	28,541,009	1,035	2,000,939	2,142,590	10,139,984
Brookville.....	33	7,137,127	972	1,031,566	7,428,380	9,983,856
Kenora.....	16	15,850,168	670	807,072	5,960,433	9,441,470
Wallaceburg.....	20	8,202,594	979	1,308,493	6,390,980	9,338,742
Fort William.....	36	29,232,205	1,089	1,201,109	4,746,311	8,574,384
Waterloo.....	34	11,285,286	1,504	1,693,740	3,596,130	7,928,589
Port Frances.....	14	14,425,393	968	1,239,231	3,193,361	7,780,200
Port Arthur.....	20	17,950,029	1,360	1,867,022	2,325,283	7,285,839
Preston.....	33	6,787,066	1,633	1,870,778	3,232,398	6,725,901
Fergus.....	13	1,352,262	646	749,588	2,497,173	6,723,388
Belleville.....	53	9,857,805	1,371	1,424,341	1,862,661	6,289,735
Kingston.....	60	14,451,763	1,455	1,692,387	3,423,623	6,221,074
Owen Sound.....	53	7,064,013	1,822	1,733,078	2,747,326	5,812,280
Goderich.....	20	2,250,686	341	339,623	4,317,270	5,372,029
St. Thomas.....	46	1,088,079	1,145	1,127,900	3,030,005	5,305,064
Leamington.....	15	2,728,754	485	491,900	2,176,005	4,943,442
Simcoe.....	36	4,070,572	761	610,983	2,751,673	4,719,968
Huntsville.....	13	4,180,390	452	427,289	3,256,994	4,677,867
Hawkesbury.....	13	6,954,198	849	957,900	2,365,128	4,606,395
Paris.....	20	5,024,135	1,125	1,081,812	2,123,958	4,215,741
Hespeler.....	15	5,375,714	1,058	1,110,144	2,053,432	4,109,518
St. Marys.....	22	4,973,963	499	594,756	2,106,984	4,097,910
Bowmanville.....	19	4,608,370	675	647,472	1,860,218	4,069,339
Kapuskasing.....	6	30,144,894	886	1,290,870	1,530,920	4,047,719
Midland.....	19	4,210,535	808	663,072	2,658,391	3,968,378
Pembroke.....	16	5,510,263	1,131	759,552	2,040,531	3,904,038
Weston.....	33	4,346,507	885	1,066,870	1,615,344	3,764,896
Newmarket.....	18	2,284,581	640	690,083	1,614,096	3,715,826
Renfrew.....	20	4,291,847	672	745,995	1,947,935	3,672,518
Elmira.....	14	2,430,117	659	674,540	1,392,273	3,655,480
Jagersoll.....	26	3,700,792	694	801,750	1,807,034	3,543,410
Chippawa.....	3	906,681	189	284,787	653,828	3,498,054
Sundwich.....	11	4,602,101	838	1,249,663	752,727	3,484,125
Cardinal.....	8	3,209,475	273	382,807	2,500,897	3,478,429
Orillia.....	35	5,454,318	1,123	1,112,461	1,598,039	3,317,887
Acton.....	14	3,077,049	451	408,054	2,299,053	3,281,594
Bridgeburg.....	23	2,971,856	524	637,841	1,474,620	3,254,990
Petrolia.....	15	1,982,520	184	240,798	1,861,145	3,071,001
Brantford.....	21	2,414,491	897	872,088	1,302,331	3,052,789
Perth.....	23	3,726,893	698	795,620	1,189,067	2,976,078
Dundas.....	21	4,363,888	749	967,279	1,372,436	2,909,282
Merrittton.....	8	4,164,085	482	711,319	1,179,369	2,900,245
Brucebridge.....	20	3,129,733	422	335,804	1,908,875	2,849,068
Oakville.....	19	1,643,927	423	481,301	1,670,630	2,841,663
Gananoque.....	24	2,995,976	635	723,356	1,255,147	2,763,802
Hanover.....	15	3,082,798	675	704,112	1,270,343	2,654,300

34.—Statistics of Manufactures of Municipalities with a Gross Production of \$200,000 or over, and with Three or more Establishments, 1928—continued.

City or Town.	Estab-lish-ments.	Capital.	Em-ploy-ees.	Salaries and Wages.	Cost of Materials.	Gross Value of Products.
	No.	\$	No.	\$	\$	\$
Ontario—continued.						
Aurora.....	7	1,183,262	417	399,081	1,702,026	2,544,130
Tilsonburg.....	23	1,962,101	499	455,471	1,678,091	2,539,371
Georgetown.....	19	2,735,850	559	511,610	1,446,031	2,459,203
Sudbury.....	26	4,442,397	388	460,844	1,090,742	2,399,956
Port Hope.....	30	3,600,872	665	879,701	765,611	2,384,062
Blind River.....	7	6,707,419	377	471,089	1,604,102	2,334,045
Cobourg.....	25	2,650,434	418	433,420	1,131,534	2,330,646
Lindsay.....	35	2,748,682	450	460,511	1,284,105	2,320,823
Amherstburg.....	9	10,128,834	239	376,116	313,590	2,277,049
Smith's Falls.....	21	3,919,497	687	768,225	1,149,012	2,238,994
Aylmer.....	9	1,877,278	198	192,888	1,303,467	2,118,317
Barrie.....	19	1,673,350	325	372,181	1,398,987	2,082,557
Carleton Place.....	19	2,331,893	598	570,440	955,679	2,054,141
Dunnville.....	20	2,308,480	634	641,709	1,037,174	2,037,224
Port Credit.....	4	2,277,701	193	229,722	1,328,063	2,022,997
Trenton.....	27	2,960,316	564	477,020	972,468	2,002,782
Arnprior.....	16	4,125,332	518	581,295	1,147,542	1,977,759
Napanee.....	20	1,382,703	319	321,377	1,066,669	1,917,149
Port Dalhousie.....	5	1,215,217	486	468,196	516,019	1,906,522
Chesterville.....	8	942,583	157	207,661	1,254,932	1,873,710
Cobalt.....	8	15,917,457	212	368,367	64,638	1,863,018
Timmins.....	16	12,657,601	141	178,008	79,344	1,776,259
Tillbury.....	9	795,042	337	424,150	832,988	1,773,356
Listowel.....	19	851,547	360	351,226	894,768	1,642,942
Dryden.....	7	5,095,409	322	407,127	585,357	1,620,628
Campbellford.....	28	2,008,915	355	326,652	955,427	1,612,267
Caledonia.....	10	965,785	221	256,454	740,167	1,610,884
Kincardine.....	12	1,672,585	427	404,020	665,029	1,493,207
Almonte.....	17	1,554,096	491	400,669	814,401	1,491,934
Meaford.....	16	1,448,340	330	304,984	1,008,614	1,478,754
Strathroy.....	16	1,459,759	314	299,800	825,411	1,456,858
Tavistock.....	13	499,248	182	150,260	1,126,715	1,437,779
Milton.....	17	3,020,191	350	414,272	482,919	1,432,058
North Bay.....	23	1,510,091	303	347,459	739,021	1,413,206
Sturgeon Falls.....	9	210,647	327	449,419	789,177	1,389,862
Ayr.....	7	887,612	104	106,789	655,153	1,358,772
Winham.....	17	946,765	266	272,108	769,043	1,309,804
Collingwood.....	23	4,667,642	325	355,894	690,934	1,280,331
Pictou.....	27	1,271,826	282	161,750	724,592	1,264,473
Chesley.....	12	973,953	356	343,818	498,415	1,238,164
New Liskeard.....	17	1,501,780	280	338,390	611,743	1,232,879
Elora.....	9	946,739	308	324,012	384,233	1,172,601
Frankford.....	10	2,342,382	210	154,546	609,495	1,159,757
Woodbridge.....	5	725,936	149	168,192	838,975	1,146,845
Cache Bay.....	3	875,927	189	199,496	753,041	1,137,190
Walkerton.....	21	1,598,373	324	294,643	594,564	1,115,016
Grimsby.....	14	956,677	362	268,502	541,762	1,083,697
Penetanguishene.....	14	1,374,174	348	353,007	413,390	1,071,766
Prescott.....	16	1,059,766	271	221,824	474,055	1,035,310
New Hamburg.....	12	985,719	252	226,823	568,722	1,002,759
Clinton.....	17	722,489	209	183,578	522,944	989,194
Milvorton.....	9	423,181	84	73,688	703,355	958,276
Norwich.....	17	484,536	121	111,514	691,221	953,390
Alexandria.....	17	564,994	171	142,119	539,970	939,610
Kingsville.....	13	1,138,098	183	132,056	636,793	861,095
Mount Forest.....	17	666,182	198	145,433	512,236	820,651
Bloomfield.....	10	944,437	170	74,751	471,313	809,377
Whitby.....	8	790,588	223	245,759	433,349	808,355
Humberstone.....	7	605,562	163	162,391	453,675	762,981
Durham.....	9	500,432	215	188,582	396,386	737,893
Southampton.....	8	923,720	240	230,383	373,942	713,727
Waterford.....	9	619,788	163	85,524	475,108	708,201
Riverside.....	3	873,998	57	89,115	213,959	704,461
Mitchell.....	15	739,436	133	123,445	403,650	660,165
West Lorne.....	7	607,283	98	78,334	481,416	639,749
Orangeville.....	12	672,635	155	114,509	399,335	629,323
Brighton.....	17	815,119	233	69,720	308,695	615,070
Delhi.....	8	648,227	74	61,541	400,379	606,286
Port Elgin.....	10	604,073	167	170,406	282,829	604,644
Dresden.....	14	556,347	150	124,352	325,117	599,087
Gravenhurst.....	8	1,058,350	190	185,434	293,108	595,415
Lucknow.....	15	380,367	84	70,386	385,385	574,671
Burlington.....	6	798,572	134	124,789	331,178	573,348

34.—Statistics of Manufactures of Municipalities with a Gross Production of \$200,000 or over, and with Three or more Establishments, 1928—continued.

City or Town.	Estab-lish-ments.	Capital.	Em-ployees.	Salaries and Wages.	Cost of Materials.	Gross Value of Products.
	No.	\$	No.	\$	\$	\$
Ontario—continued.						
Exeter.....	13	618,218	118	66,760	359,021	570,989
Jarvis.....	6	165,958	23	28,809	419,129	546,990
Warton.....	14	470,497	122	87,344	274,273	545,654
Seaford.....	14	332,927	101	83,240	285,891	542,257
Lakefield.....	13	864,953	216	246,630	194,171	541,590
Tweed.....	14	328,185	130	120,729	306,244	541,049
Burk's Falls.....	7	490,727	138	133,261	321,301	529,166
Harriston.....	11	527,670	139	97,803	323,618	528,069
Coppercliff.....	3	5,541,873	27	41,521	12,821	502,825
Wellington.....	8	658,800	130	55,250	258,921	502,412
Mimico.....	8	1,066,016	111	140,475	18,440	498,646
Essex.....	9	519,425	106	82,702	228,894	493,897
Teeswater.....	11	331,710	63	52,396	302,908	492,623
Forest.....	11	517,197	110	79,931	270,260	482,287
Hagersville.....	6	98,698	16	14,561	390,867	480,326
Stirling.....	13	101,411	52	35,984	372,859	457,903
Streetsville.....	8	179,133	79	92,282	248,332	452,389
Sioux Lookout.....	7	426,304	67	59,526	135,007	446,921
Dutton.....	11	145,793	45	33,587	342,564	438,281
Deseronto.....	10	416,411	102	68,718	221,100	437,787
South River.....	7	450,118	198	109,462	218,212	427,576
Waterdown.....	7	537,085	92	156,316	79,384	423,393
Cusselman.....	10	281,833	91	55,743	315,979	400,116
Palmerston.....	7	150,472	24	24,487	313,117	397,275
Ridgetown.....	17	482,982	84	53,025	209,455	363,220
Port Dover.....	10	406,877	69	46,574	213,252	333,349
Haileybury.....	5	1,013,919	78	96,400	157,929	332,309
Winchester.....	12	111,689	41	27,500	253,310	320,356
Shelburne.....	6	115,858	23	20,725	251,231	319,890
Bancroft.....	10	165,688	113	37,977	200,677	319,465
Kemptville.....	10	292,945	77	58,455	152,177	318,847
Bradford.....	7	232,542	73	66,610	194,324	311,246
Paisley.....	10	114,939	24	21,714	236,162	310,240
Alliston.....	11	196,035	34	29,331	202,468	296,336
Vankleek Hill.....	14	174,120	67	21,892	219,629	287,908
Port Perry.....	12	188,713	37	28,788	201,686	279,488
Drayton.....	8	65,388	15	12,876	219,117	273,514
Finch.....	5	70,337	21	19,296	234,600	273,043
Eganville.....	12	334,822	76	50,500	168,489	265,812
Watford.....	8	402,473	62	50,701	169,597	264,915
Merrickville.....	11	352,977	104	79,621	145,794	264,234
Iroquois.....	11	481,490	51	53,383	137,393	263,836
Perry Sound.....	15	510,638	99	48,712	196,259	248,063
Norwood.....	13	210,381	48	26,372	183,053	247,707
Grand Valley.....	7	52,624	19	14,215	202,090	244,170
Arthur.....	5	57,861	11	9,860	187,089	238,197
Brussels.....	6	51,795	14	10,178	194,891	237,608
Parkhill.....	9	164,527	37	23,196	154,912	226,197
Bolton.....	7	92,617	19	14,715	171,918	222,611
Stouffville.....	7	109,334	21	18,515	159,159	221,464
Morrisburg.....	12	238,514	77	57,502	100,304	220,616
Cobden.....	6	84,213	23	16,431	159,301	219,443
Tara.....	6	63,333	14	10,976	168,976	215,446
Stayner.....	8	85,580	25	16,141	167,595	213,629
Thessalon.....	9	332,991	98	78,026	145,689	210,868
Sutton.....	4	91,932	19	18,084	150,039	208,275
Uxbridge.....	11	112,636	26	20,675	135,080	206,908
Beausville.....	10	115,852	58	46,823	112,869	206,704
Hensall.....	10	113,646	43	24,919	131,356	202,098
Neustadt.....	5	54,549	13	7,292	160,547	201,208
Manitoba—						
Winnipeg.....	491	115,678,092	18,340	23,994,480	35,276,785	105,456,065
St. Boniface.....	35	8,107,117	1,557	1,936,112	19,510,408	26,965,037
Transcona.....	3	7,025,759	2,168	3,168,181	2,281,729	5,737,255
Brandon.....	87	4,109,056	455	608,814	2,377,270	3,799,039
Portage La Prairie.....	14	753,084	222	248,305	1,931,807	2,685,983
Selkirk.....	7	2,025,820	422	563,429	506,898	1,916,428
The Pas.....	7	1,425,268	332	388,527	552,802	1,456,730
Dauphin.....	13	442,473	70	71,699	254,937	457,629
Neepawa.....	4	263,206	29	35,684	205,275	289,361
Shoal Lake.....	4	84,495	18	17,455	191,582	245,369
Rapid City.....	2	28,090	7	12,083	193,383	232,402

34.—Statistics of Manufactures of Municipalities with a Gross Production of \$200,000 or over, and with Three or more Establishments, 1928—concluded.

City or Town.	Estab- lish- ments.	Capital.	Em- ployees.	Salaries and Wages.	Cost of Materials.	Gross Value of Products.
	No.	\$	No.	\$	\$	\$
Saskatchewan—						
Regina.....	70	14,633,807	1,810	2,711,296	10,338,339	19,483,586
Moose Jaw.....	28	6,885,158	879	1,268,872	10,580,977	14,473,385
Saskatoon.....	56	9,199,323	1,303	1,880,486	7,026,455	13,117,818
Prince Albert.....	19	2,214,089	399	482,367	2,127,410	3,465,595
North Battleford.....	11	590,740	93	129,594	285,475	668,137
Estevan.....	8	848,109	118	119,280	322,829	664,388
Swift Current.....	13	745,183	69	107,419	206,068	567,463
Yorkton.....	9	367,617	44	54,878	281,840	460,993
Weyburn.....	11	507,874	54	67,874	174,352	420,940
Melville.....	3	112,350	14	19,099	246,455	268,978
Alberta—						
Calgary.....	146	32,269,048	4,209	5,782,865	24,800,582	42,418,079
Edmonton.....	125	21,237,175	4,229	5,071,978	14,391,653	24,924,826
Medicine Hat.....	22	5,848,213	747	862,818	7,624,739	10,136,277
Lethbridge.....	23	3,815,336	377	552,139	1,638,091	4,753,723
Redcliffe.....	6	1,791,349	289	308,164	253,751	984,339
Raymond.....	3	2,093,165	81	122,626	371,510	604,785
Wetaskiwin.....	9	331,119	37	46,750	290,076	430,358
Camrose.....	9	312,711	39	59,261	190,102	357,013
Red Deer.....	9	229,860	32	43,380	193,411	344,063
Drumheller.....	5	1,536,749	95	223,109	20,691	295,519
Ponoka.....	7	67,981	14	16,535	168,623	237,942
Vegreville.....	7	119,660	20	29,527	163,534	227,448
Stettler.....	6	103,567	117	22,096	154,110	207,807
British Columbia—						
Vancouver.....	620	123,029,880	16,013	20,263,435	49,597,035	94,131,608
New Westminster.....	53	13,726,438	2,316	2,857,847	8,218,153	14,717,644
Victoria.....	140	18,836,174	3,060	3,822,926	4,861,852	13,585,956
North Vancouver.....	18	5,996,636	958	1,387,317	2,141,067	4,261,296
Prince Rupert.....	20	4,519,647	345	587,962	2,200,631	3,337,800
Duncan.....	12	742,646	470	618,060	1,162,681	2,195,633
Roseland.....	8	7,904,315	477	759,216	13,120	2,146,772
Port Alberni.....	8	1,221,513	364	453,556	1,048,511	1,989,326
Port Moody.....	5	1,542,872	332	438,244	948,321	1,820,362
Nelson.....	25	1,880,621	360	467,398	492,903	1,707,264
Nanaimo.....	27	1,324,808	540	435,957	820,821	1,605,514
Kelowna.....	17	898,715	307	270,048	683,401	1,289,338
Fernie.....	6	6,464,359	183	254,959	457,246	1,242,096
Port Coquitlam.....	4	565,303	150	209,014	500,727	1,139,085
Vernon.....	15	782,686	117	121,472	305,465	659,150
Kamloops.....	15	934,083	163	165,164	205,042	571,057
Merritt.....	6	320,613	113	165,206	233,919	494,296
Cranbrook.....	8	278,804	30	52,033	73,228	263,800
Prince George.....	6	167,111	109	155,710	92,286	256,001
Courtenay.....	8	202,362	56	56,783	134,824	238,432

APPENDIX.

Alphabetical List of Products Manufactured in Canada, 1928.

1875

1875

1875

APPENDIX.

Alphabetical List of the Products Reported as having been Manufactured in Canada during 1928.

The appended list of the products of Canadian manufacturing industries presents the value and in most cases the quantity of these products in a new and much more detailed form. Heretofore, in presenting statistics of manufacturing production, the whole production of an establishment has been taken as a unit. This has not only prevented the presentation of production figures for specific products in detail, but has involved numerous inaccuracies in the production statistics of classes of commodities, owing to the fact that commodities which may be the major line of production in one establishment may also be products of secondary importance in another establishment where the major line of production puts the establishment into a different class. *The statistics which follow, however, have been compiled by taking from the individual returns of each of the 23,000 manufacturing establishments covered, the value and, when given, the quantity of each commodity specified as produced by that establishment.* In this way, detailed production figures are obtained for specific commodities and furthermore the total production of each commodity is brought together, no matter how varied may be the operations in different establishments producing it. Nevertheless it should be pointed out to those making use of these figures that there is one element of incompleteness about them. In the returns of many manufacturers products of minor importance are grouped under the name "all other products." As will be seen from the group at the end of the list, the value of products not specified, while they may appear unimportant to the individual manufacturer, are, in the aggregate, a large amount, especially in the industries of the iron and steel group. It is obvious that one manufacturer may consider a product of insufficient importance to report separately for his establishment, while that same product may be reported separately by other establishments. In other words, included in the value of other products not specified at the end of the list, there are doubtless values which, had the products been specified by the manufacturer, would have been included in the values of commodities appearing in the list. However, the products not specified total only about 1.4 per cent in value of the whole manufacturing production, although in the iron and steel group this proportion is 5.4 per cent. With the exception of this group, therefore, the incompleteness of the figures on this account is insignificant.

An analysis of the value of the products of Canadian manufacture, similar to this, was made for the first time from the 1927 returns. In the course of further administrative experience it is hoped that it will be possible to reduce considerably the proportion of the products not specified.

The sum of the values of the commodities as listed here is \$3,769,850,364, which is the gross value of manufacturing production for the year. There is thus no duplication in the listing of products, nor do any of the items include products listed in more detail under another name. It is possible, however, that essentially the same commodity produced in different establishments may have been called by different names; in such a case, which is probably a very rare one, the items would appear separately in the following list.

Alphabetical List of Products Manufactured in Canada, 1928.

Item.	Unit of Measure.	Quantity Reported.	Value of Quantity Reported.	Total Value.
			\$	\$
Abrasive cloth and abrasive paper.....	—	—	—	202,382
Abrasive wheels, sharpening stones, etc.....	—	—	—	905,519
Absorbent cotton.....	lb.	271,700	164,270	171,704
Acetaldehyde.....	"	31,242,715	4,998,834	4,998,834
Acetylene, compressed or dissolved.....	cu. ft.	360,243,954	2,566,974	2,566,974
Acid, acetic.....	lb.	40,243,517	3,785,245	3,785,245
Acid, hydrochloric and hydrofluosilicic.....	—	—	—	167,801
Acid, lactic.....	lb.	28,303	14,152	14,152
Acid, nitric.....	"	6,178,260	365,311	365,311
Acid, phosphoric.....	"	76,350	6,368	6,368
Acid, sulphuric.....	"	197,638,189	1,077,830	1,077,836
Acids, recovered, nitric and sulphuric.....	"	26,754,596	513,243	513,243
Advertising.....	—	—	—	43,074,791
Advertising novelties, n.e.s.....	doz.	21,066	42,145	67,740
Aerated waters. (See "Waters".)	—	—	—	—
Aeroplanes and hydroplanes.....	No.	108	1,124,953	1,124,953
Aeroplane ski sets.....	"	31	7,761	7,761
Agricultural implements, n.e.s.....	—	—	—	496,398
Agricultural implement parts, n.e.s.....	—	—	—	2,685,008
Albums.....	No.	43,661	54,671	54,671
Alcohol, denatured.....	pr. gal.	937,070	540,613	540,613
Alcohol, non-potable.....	"	2,622,315	1,320,844	1,320,844
Alloys and gold-filled wire.....	—	—	—	57,408
Almond paste.....	lb.	78,912	36,415	39,953
Almonds, ground.....	"	4,584	3,445	3,445
Alumina, fused.....	—	78,826,000	3,786,113	3,786,113
Aluminium products, n.s.....	—	—	—	1,774,936
Ammonia, anhydrous and aqua.....	—	—	—	155,279
Ammonia, liquor.....	lb.	1,644,516	25,867	25,867
Ammonia powder.....	—	—	—	410,166
Ammonium phosphate.....	lb.	12,693	1,168	1,168
Ammonium sulphate.....	"	56,179,417	1,108,744	1,108,744
Ammonium.....	—	—	—	2,643,282
Anchors, rail.....	No.	1,470,740	306,648	456,627
Annunciators, signalling apparatus, etc., n.s.....	—	—	—	57,269
Apple butter.....	lb.	74,965	8,955	8,955
Apple chop and waste.....	"	1,399,014	36,583	36,583
Apples, canned. (See "Fruits, canned".)	—	—	—	—
Apples, evaporated.....	"	2,526,399	309,039	309,039
Aprons, fabric.....	—	—	—	212,459
Aprons, leather.....	No.	2,257	4,541	4,541
Aprons, rubber, n.s.....	—	—	—	164,065
Aprons, rubber, sanitary.....	doz.	1,985	11,773	11,773
Arm bands.....	"	32,058	40,224	40,224
Artificial feathers and flowers. (See "Feathers" and "Flowers".)	—	—	—	—
Artificial silk. (See "Silk".)	—	—	—	—
Art work (lithographing and engraving).....	—	—	—	246,325
Asphalt.....	Imp. gal.	22,329,392	2,016,933	2,016,933
Asphalt and wax compounds.....	lb.	279,064	13,953	13,953
Astrakhan. (See "Woollen cloth".)	—	—	—	—
Atomizers.....	—	—	—	70,042
Augers and bits.....	—	—	—	43,257
Automobile anti-freeze.....	—	—	—	255,845
Automobile bodies.....	—	—	—	6,412,023
Automobile bumpers.....	No.	194,756	734,811	1,080,192
Automobile cabs.....	—	—	—	38,122
Automobile chassis.....	No.	48,450	19,108,450	19,108,450
Automobile differentials, transmissions and gears.....	—	—	—	2,584,992
Automobile parts and accessories, n.e.s.....	—	—	—	4,907,083
Automobile panels.....	—	—	—	63,380
Automobile tops.....	—	—	—	410,544
Automobile trailers.....	No.	110	103,991	104,972
Automobiles.....	—	—	—	—
Commercial, 1 ton capacity.....	"	10,844	6,078,651	6,078,651
Commercial, under 1 ton capacity.....	"	4,310	1,963,468	1,963,468
Commercial, 1 ton to under 5 ton capacity.....	"	2,592	3,214,193	3,214,193
Passenger, closed—2 to 3 passenger.....	"	15,315	10,173,486	10,173,486
Passenger, open—2 to 3 passenger.....	"	7,797	4,136,756	4,136,756
Passenger, closed—4 to 5 passenger.....	"	119,042	87,860,702	87,860,702
Passenger, open—4 to 5 passenger.....	"	32,252	13,955,277	13,955,277
Passenger, closed—7 passenger.....	"	1,089	2,133,421	2,133,421
Passenger, open—7 passenger.....	"	635	682,712	682,712
Special, n.s.....	"	26	165,104	165,104

Alphabetical List of Products Manufactured in Canada, 1928—continued.

Item.	Unit of Measure.	Quantity Reported.	Value of Quantity Reported.	Total Value.
Awnings and verandah curtains.....	—	—	\$ —	\$ 580,394
Axes.....	No.	642,436	607,408	607,408
Axles, automobile.....	—	—	—	1,411,895
Axles, car and locomotive.....	1. ton	8,069	727,094	727,094
Babbitt metal.....	lb.	5,514,175	1,693,940	1,693,940
Badges, buttons, rosettes, medals, etc.....	—	—	—	196,511
Bags, fabric, n.s.....	—	—	—	209,638
Bags, bicycle tool.....	No.	20,520	5,854	5,854
Bags, burlap.....	"	964,370	73,863	73,863
Bags, cotton, n.s.....	"	53,437,317	5,003,379	5,003,379
Bags, cotton, tea.....	"	17,418,000	83,333	84,333
Bags, garment and other cretonne goods.....	—	—	—	80,000
Bags, jute.....	No.	50,901,569	8,834,801	8,834,801
Bags, millinery.....	—	—	—	57,082
Bags, repaired.....	No.	828,907	118,153	118,153
Bags, school.....	"	54,639	32,268	32,268
Bags, self-opening (paper).....	—	—	—	1,492,383
Bags, shopping.....	doz.	10,839	47,469	47,744
Bags, sleeping.....	No.	2,600	46,811	46,811
Bags, special, paper.....	—	—	—	1,764,712
Bags (hand), satchels and hat boxes.....	No.	545,015	1,385,005	1,385,005
Bags, travelling—club bags and suitcases.....	"	450,271	1,686,248	1,686,248
Bakelite products.....	—	—	—	211,454
Bale ties, steel.....	lb.	6,882,854	260,860	260,860
Balloons.....	—	—	—	25,000
Balls, golf.....	No.	108,000	26,870	273,048
Balls, other.....	—	—	—	18,291
Bands, rubber.....	—	—	—	97,415
Barley, pot and pearl.....	lb.	3,713,692	134,567	134,567
Bars and stable equipment, n.e.s.....	—	—	—	136,246
Barrels, apple, etc.....	No.	754,156	371,649	379,582
Barrels, fish.....	"	10,911	11,485	11,485
Barrels, flour, sugar, etc.....	"	439,478	358,546	358,546
Barrels, oil, vinegar, etc.....	"	247,442	590,044	590,044
Barrels, steel.....	"	274,015	1,896,060	1,750,717
Barrels, whisky, beer, etc.....	"	200,166	1,318,070	1,318,070
Bars, alloy steel.....	1. ton	4,437	327,807	327,807
Bar, iron and steel, rolled.....	"	215,921	11,442,879	11,442,879
Bars, iron and steel, reinforced, twisted, etc.....	"	46,005	2,220,644	2,220,644
Baskets and crates, fruit and vegetable.....	—	—	—	972,936
Baskets, n.s.....	—	—	—	174,179
Bathing caps.....	—	—	—	2,900
Bathing suits.....	doz.	25,179	473,693	480,219
Bathroom supplies. (See "Sanitary ware".)	—	—	—	—
Bats, baseball.....	—	—	—	21,767
Batteries, storage, dry, radio, etc.....	—	—	—	8,189,573
Battery eliminators.....	No.	3,219	77,541	77,541
Battery mixtures.....	—	—	—	88,493
Battling and wadding.....	lb.	2,456,627	475,005	475,005
Batts, automobile.....	"	1,345,140	136,933	313,657
Batts, flocks and rolls.....	"	1,313,808	82,310	82,310
Bones, baked. (See "Vegetables, canned".)	—	—	—	—
Bearings, roller, ball and automobile.....	No.	131,598	53,721	70,275
Beds and couches.....	—	—	—	—
Beds, brass and brass trimmed.....	No.	65,318	378,942	378,942
Beds, iron.....	"	118,420	765,833	765,595
Beds, metal.....	"	156,077	1,221,030	1,221,030
Beds, n.s.....	—	—	—	1,999
Couches, metal.....	No.	77,409	396,337	396,337
Cots and bunks, metal.....	"	8,003	39,824	39,824
Cribs, metal.....	"	20,802	135,243	138,243
Bed-preads.....	"	136,370	451,031	451,031
Bed-preads, pillow-cases, art needlework, etc.....	—	—	—	76,987
Beef extracts.....	—	—	—	422,004
Beekeepers' supplies.....	—	—	—	179,271
Beer, ale, stout and porter, full strength, in barrels.....	gal.	17,686,655	12,635,117	12,635,117
Beer, ale, stout and porter, full strength, in bottles.....	"	43,424,464	46,341,782	46,341,782
Beer, ale, stout and porter, under full strength, in barrels.....	"	213,417	154,104	154,104
Beer, ale, stout and porter, under full strength, in bottles.....	"	441,859	461,053	461,053
Beer, ginger, root beer, etc.....	—	—	—	29,545
Beet pulp, dry.....	ton	9,860	280,461	280,461
Beet pulp, wet.....	"	9,410	5,085	5,085
Bells and gongs, n.e.s.....	—	—	—	40,701

Alphabetical List of Products Manufactured in Canada, 1928—continued.

Item.	Unit of Measure.	Quantity Reported.	Value of Quantity Reported.	Total Value.
			\$	\$
Belting, duck	ft.	55,000	20,000	27,154
Belting, rubber	lb.	6,006,377	3,033,531	3,033,531
Belting, transmission	"	659,487	1,477,217	1,481,859
Belts, all kinds, n.s.	No.	432,216	279,934	303,416
Belts, ladies	"	—	—	63,843
Belts, men's	doz.	38,474	213,276	213,276
Belts, fan	No.	856,349	215,314	215,314
Belts, sanitary	doz.	5,833	10,742	19,742
Bibs, infants	"	10,249	11,512	12,466
Bicycles	No.	27,999	899,480	899,480
Bicycle parts	"	—	—	747,158
Billiard room supplies	"	—	—	543,733
Binders, corn	No.	165	23,916	23,916
Binders, grain	"	30,314	4,657,612	4,657,612
Binder twine	lb.	73,210,559	7,620,059	7,620,059
Bindings	gr. yds.	682,171	723,780	757,695
Bins and hoppers	"	—	—	38,392
Biscuits, plain and fancy	ton	49,380	17,531,059	17,531,059
Black, acetylene, etc.	"	—	—	114,418
Blackboards, asbestos	sq. ft.	103,500	31,050	31,050
Blades, razor	No.	34,171,297	1,911,934	1,911,934
Blanket cloth. (See "Woollen cloth".)	"	—	—	—
Blankets, cotton	pair	274,805	462,147	490,602
Blankets, cotton mixed	"	—	—	342,048
Blankets, flannelette	yd.	3,282,700	1,380,129	1,380,129
Blankets, all wool	lb.	912,159	808,943	808,943
Blankets, all wool	pair	25,391	162,557	372,134
Blankets, n. s.	"	55,072	371,240	371,240
Blankets, horse	No.	82,136	233,248	470,820
Bleaching	"	—	—	97,120
Blinds, window. (See "Shades and Blinds".)	"	—	—	—
Blocks, butchers	No.	302	8,443	8,443
Blocks, building	"	—	—	440,430
Bloomers	doz.	25,735	118,282	148,890
Blooms, billets and slabs	l. ton	80,461	2,581,638	2,581,638
Blouses and dresses. (See also "Dresses".)	"	—	—	181,978
Blouses and shirtwaists. (See also "Shirts, boys".)	"	—	—	398,049
Blowers	"	—	—	46,567
Blue, laundry	"	—	—	17,199
Blue-priming	"	—	—	248,068
Boards, paper, leather, etc. (See "Paper boards", "Leather boards", etc.)	"	—	—	—
Boats, life and whale	No.	92	34,906	34,906
Boats, motor	"	454	765,458	765,458
Boats, row, sail, skiffs, etc.	"	2,716	245,823	257,787
Boats, steel	"	—	—	77,500
Boiler compounds	"	—	—	329,337
Boiler and engine parts and accessories	"	—	—	490,287
Boilers, heating, all kinds	No.	14,023	2,020,108	2,020,108
Boilers, power	"	639	1,017,032	1,059,544
Boilers, range, galvanized	"	69,097	461,130	461,130
Boilers, n. s.	"	208	238,560	365,744
Bologna and blood pudding	"	—	—	215,415
Bolsters	No.	1,207	78,579	78,579
Bolts, nuts and rivets	lb.	98,017,115	6,338,662	6,338,662
Bone flour and meal	"	—	—	11,113
Bone, raw, ground, etc.	lb.	8,953,876	200,988	200,988
Bookbinding	"	—	—	2,888,306
Books, bunk	No.	203,534	21,923	21,923
Books, counter, check and receipt	"	—	—	793,030
Books, exercise, drawing, scribblers, etc.	No.	29,821,432	997,791	997,791
Books, loose-leaf and blank books	"	—	—	2,105,461
Books, text	"	—	—	453,608
Bowling alley construction	"	—	—	107,650
Bowling alley supplies—	"	—	—	—
Alley bowls	No.	1,815	17,020	17,020
Duck pins	"	2,253	4,472	4,472
Five pins	"	7,306	13,299	13,299
Ten pins	"	8,006	30,801	30,801
Bowls, water	"	25,585	107,814	107,814
Box toes	pair	6,086,985	154,473	178,906
Boxes, metal	No.	313	17,900	17,900
Boxes, paper, corrugated	"	—	—	5,213,186
Boxes, paper, folding	"	—	—	3,831,902
Boxes, paper, round and mailing tubes	"	—	—	186,979

Alphabetical List of Products Manufactured in Canada, 1928—continued.

Item.	Unit of Measure.	Quantity Reported.	Value of Quantity Reported.	Total Value.
			\$	\$
Boxes, paper, stiff.....	—	—	—	5,344,095
Boxes, paper, n.s.....	—	—	—	1,503,313
Boxes, service.....	—	—	—	20,000
Boxes, wooden, berry.....	No.	16,209,872	108,704	108,944
Boxes, wooden, butter.....	"	1,169,421	321,229	322,829
Boxes, wooden, cheese.....	"	1,670,318	268,086	268,086
Boxes, wooden, cigar.....	"	2,206,033	268,738	268,738
Boxes, wooden, rough (shells).....	"	49,704	258,823	258,823
Boxes, wooden, n. s.....	—	—	—	4,766,842
Braids.....	—	—	—	586,138
Brake beams and parts.....	No.	42,892	342,288	342,288
Brakes, brake shoes and parts.....	lb.	25,703,518	645,178	645,178
Bran.....	ton	310,694	8,856,891	8,856,891
Brass and bronze work, architectural.....	—	—	—	488,107
Brass fittings, n. s.....	—	—	—	303,885
Brass fittings, water and steam.....	—	—	—	1,061,271
Brassieres. (See also "Corset covers, etc.").....	gr.	6,861	106,381	106,381
Bread.....	lb.	878,944,378	55,305,324	55,305,324
Breakfast foods. (See "Cereal products".)	—	—	—	—
Breeches. (See "Pants, breeches, etc.").....	—	—	—	—
Breechings, smoke.....	No.	163	32,628	32,628
Bricks, cement.....	M	2,599	40,007	40,007
Bricks, clay.....	"	421,637	7,286,241	7,286,241
Bricks, sand-lime.....	"	82,271	1,038,510	1,038,510
Bridgebuilding.....	—	—	—	3,908,388
Bronze powder.....	—	—	—	246,178
Bronze work, ornamental.....	—	—	—	70,502
Brooms.....	dos.	275,153	1,421,457	1,421,457
Brushes, made of corn or fibre.....	"	282,103	384,115	384,115
Brushes, made of hair or bristles.....	"	51,381	360,184	360,184
Brushes, generator and motor.....	—	—	—	132,269
Brushes, paint.....	dos.	294,396	1,040,451	1,040,451
Brushes, shaving.....	"	10,357	63,065	63,065
Brushes, toilet.....	"	24,811	174,599	174,599
Brushes, tooth.....	"	45,124	115,858	115,858
Brushes, n. s.....	"	53,345	152,451	156,593
Building blocks, hollow cement.....	—	—	—	1,158,508
Building material, n. s.....	—	—	—	1,241,055
Buns.....	—	—	—	2,230,361
Buys.....	—	—	—	85,809
Burners, lamp.....	dos.	27,200	21,290	21,290
Butter, factory made.....	lb.	168,057,984	64,716,153	64,716,153
Butter, whey, factory made.....	"	1,582,364	542,339	542,339
Button covering, hemstitching, pleating, etc.....	—	—	—	795,987
Button moulds.....	gr.	57,000	14,617	14,617
Buttons, celluloid.....	—	23,030	63,380	86,964
Buttons, covered.....	—	—	—	28,403
Buttons, cuff.....	gr. pr.	507	2,206	2,206
Buttons, erinoid.....	—	—	—	12,743
Buttons, ivory.....	gr.	528,541	348,651	348,651
Buttons, lacatoid.....	"	11,348	22,386	22,386
Buttons, metal.....	gr. gr.	17,368	64,261	64,261
Buttons, pearl.....	gr.	475,603	229,092	229,092
Buttons, n. s.....	—	—	—	37,177
Butts and hinges.....	—	—	—	133,502
Butyl acetate.....	lb.	1,481,482	315,582	315,582
Cabinets, ice-cream.....	—	—	—	137,639
Cabinets, medicine.....	No.	1,842	10,135	10,135
Cabinets, silverware.....	"	2,873	43,627	43,627
Cages, wire.....	—	—	—	44,600
Calcium acetate.....	lb.	10,540,702	319,563	319,563
Calcium chloride.....	"	151,014	12,280	12,280
Calcium carbide.....	"	340,800,300	12,277,461	12,277,461
Calcium cyanamid.....	—	276,371,000	4,926,341	4,926,341
Calcium products, n. s.....	—	—	—	14,556
Calendars.....	—	—	—	2,063,740
Calks, horseshoe.....	lb.	1,417,708	123,578	123,578
Cameras.....	No.	177,415	324,049	324,049
Candles.....	—	—	—	470,230
Cans, tin.....	—	—	—	13,216,398
Cans.....	dos.	1,397	8,982	8,982
Canoes.....	No.	4,541	338,839	341,230
Canvas fronts.....	pr.	408,648	224,756	224,756
Canvas goods, n. s.....	—	—	—	21,414

Alphabetical List of Products Manufactured in Canada, 1928—continued.

Item.	Unit of Measure.	Quantity Reported.	Value of Quantity Reported.	Total Value.
			\$	\$
Caps, bottle, metal.....	—	—	—	1,656,997
Caps, milk bottle, paper.....	M	376,864	204,913	253,899
Caps, cloth.....	doz.	332,950	3,317,690	3,317,690
Caps, cotton, advertising.....	—	22,502	19,696	19,696
Caps, fur.....	No.	25,605	77,600	77,600
Caps, uniform.....	doz.	4,372	118,209	118,209
Caps, n.s.....	—	—	—	101,795
Carbon dioxide.....	lb.	5,533,275	515,819	515,819
Cardboard, bristol board, tickets, etc.....	ton	6,882	902,499	902,499
Cards, greeting.....	—	—	—	947,082
Cards, playing.....	No. packs	3,041,969	512,945	512,945
Carpet, jute.....	—	—	—	40,000
Carpet, in rolls, including stair.....	lin. yd.	701,547	1,687,053	1,687,053
Carpet sweepers.....	No.	18,200	68,892	68,892
Carriage and wagon bodies and boxes.....	—	—	—	349,577
Carriage and wagon materials.....	—	—	—	848,273
Carriages and sleighs, baby.....	No.	43,400	697,736	697,736
Carriages and wagons, complete.....	"	9,098	601,724	601,724
Car repairs.....	—	—	—	37,972,043
Carriers, litter.....	No.	2,572	179,590	179,590
Carriers, tire and luggage.....	"	20,213	14,518	14,518
Cars, dump.....	—	—	—	50,700
Cars, electric and railway.....	No.	3,058	11,286,155	11,286,155
Cars, hand, push.....	"	599	48,269	48,269
Cars, mining, narrow gauge.....	"	233	13,613	13,613
Carts, concrete and mortar.....	"	425	8,519	8,519
Carvings, wood.....	—	—	—	27,888
Casein.....	lb.	779,061	113,138	113,138
Cases, eyeglass.....	No.	155,000	25,679	25,680
Cases, fibre.....	—	1,520	10,636	10,636
Cases, first aid.....	No.	3,230	10,442	10,442
Cases, jewelry.....	doz.	4,530	41,942	41,942
Cases, leather, sample and other, n.s.....	—	—	—	24,246
Cases, leather, stationery and music.....	—	—	—	8,553
Cases, metal.....	—	—	—	7,665
Cases, toiletware and silverware, n.s.....	No.	31,348	51,711	51,711
Cases, wooden, n.s.....	"	90	7,000	7,000
Cashmere, chevrets, tweeds, etc. (See "Woolen cloth".)	—	—	—	—
Caskets.....	No.	69,322	2,009,704	2,009,704
Casks, wine, etc.....	"	32,892	40,875	40,875
Castings, alloys, white metal.....	—	—	—	125,273
Castings, aluminium.....	lb.	149,391	51,795	55,154
Castings, brass.....	"	459,704	125,932	125,932
Castings, brass and bronze.....	"	3,385,534	817,561	817,561
Castings, copper.....	"	2,167,276	35,598	35,598
Castings, die.....	—	—	—	171,837
Castings, grey iron.....	lb.	16,086,089	7,086,306	7,086,306
Castings, malleable iron.....	"	44,530,892	3,378,081	3,378,081
Castings and machinery fittings.....	"	26,320,560	6,307,854	6,307,854
Castings, iron, n.s.....	—	—	—	2,972,574
Castings, steel.....	lb.	2,090,590	96,561	96,561
Castings, direct steel.....	l. ton	37,842	6,962,748	6,962,748
Castings, n.s.....	—	—	—	260,443
Castors.....	—	—	—	209,614
Castors, truck.....	—	—	—	52,353
Catalogues.....	—	—	—	496,239
Ceilings and sidings, metal.....	—	—	—	203,527
Celluloid products, n.s.....	—	—	—	704,535
Cement.....	brl.	11,023,928	16,739,163	16,739,163
Cement, boiler and radiator.....	—	—	—	10,000
Cement, caulking.....	—	—	—	253,733
Cement, furnace and silicates.....	lb.	21,384,840	64,877	64,877
Cement, laundry tubs.....	—	—	—	58,955
Cement, rubber.....	—	—	—	308,391
Cereal products, prepared.....	—	—	—	8,023,796
Chains, automobile.....	—	—	—	1,001,766
Chains, other than automobile.....	lb.	12,010,687	1,131,037	1,176,719
Chains, jewellery.....	—	—	—	99,566
Chairs, barber, beauty parlour and dental.....	—	—	—	27,857
Chaplets, foundry.....	—	—	—	25,802
Chapps.....	pr.	807	15,730	15,730
Charcoal.....	bush.	2,580,426	610,708	694,101
Checks and name plates, brass and aluminium.....	—	—	—	3,231
Cheese, factory made, n.s.....	lb.	144,584,619	30,494,463	30,496,723

Alphabetical List of Products Manufactured in Canada, 1928—continued.

Item.	Unit of Measure.	Quantity Reported.	Value of Quantity Reported.	Total Value.
Cheese, skim milk, and cottage	lb.	357,567	\$ 27,428	\$ 27,428
Cheesecloth	yd.	881,697	56,708	56,708
Chemical products, n.s.	lb.	10,548,950	210,917	220,105
Chests, cedar	—	—	—	352,925
Chewing gum	—	—	—	3,599,706
Chicken, canned	case	4,856	53,901	53,901
Chicory, roasted	lb.	440,248	33,913	33,913
Children's coats	doz.	5,233	180,038	227,835
Children's dresses	"	27,763	448,042	773,980
Children's jersey and knitted suits	"	1,110	32,995	32,995
Children's wash suits and rompers	"	73,112	667,263	677,932
Children's waists	"	14,513	56,890	56,890
Children's wear, n.s.	"	2,550	49,000	50,000
Chisels	—	—	—	21,179
Chlorine, liquid	lb.	27,175,130	879,100	879,100
Chocolate	—	9,819,611	2,303,697	2,303,697
Choppers, food	No.	36,106	33,322	33,322
Churns, buckets, etc.	"	3,520	63,308	66,602
Cider	gal.	315,055	103,331	111,086
Cigars	M	184,284	9,321,919	9,321,919
Cigarettes	—	4,225,500	41,706,317	41,706,317
Cigarette rollers	doz.	412	2,340	2,340
Cisterns	—	—	—	2,857
Cleaner, hand	—	—	—	8,890
Cleaner, metal	lb.	181,731	20,724	20,724
Cleaners, vacuum	No.	68,330	2,428,230	2,428,230
Cleaners, vacuum, parts	—	—	—	283,172
Cleaning, carpet, leather, etc.	—	—	—	459,378
Cleaning, n.s.	—	—	—	2,851,532
Clocks	—	—	—	597,658
Cloth, gummed	yd.	25,847,415	157,026	157,026
Cloth, hair	—	—	—	210,008
Cloth, woollen (See "Woollen cloth".)	—	—	—	—
Clothes pins	gr.	1,411,567	140,516	140,516
Clothing, men's, n.s.	—	—	—	1,187,238
Clothing, women's, n.s.	—	—	—	234,713
Clothing, oiled	doz.	10,450	544,132	619,815
Clothing, rubber, coats	No.	103,352	378,832	378,832
Clothing, rubber, headwear	"	18,575	15,881	15,881
Clothing, rubber, n.s.	—	—	—	220,920
Clothing, work, denim	—	—	—	197,237
Clothing, work, other than denim	—	—	—	844,791
Coatings. (See "Woollen cloth".)	—	—	—	—
Coat shells and plates	No.	505	82,724	82,724
Coats—	—	—	—	—
Boys' overcoats and reefers	—	—	—	1,440,934
Men's overcoats and top coats	—	—	—	10,783,385
Women's coats and cloaks	—	—	—	18,934,182
Bhazers	doz.	6,451	229,481	244,481
Dusters, and other cotton coats	"	1,568	26,945	26,945
Leather coats	"	810	118,191	118,916
Mackinaw coats, boys'	—	—	—	17,000
Mackinaw coats, n.s.	doz.	21,748	706,537	813,977
Mackinaw, leather and sheep-lined coats	—	—	—	525,073
Men's washable and office coats	doz.	6,966	128,494	128,494
Raincoats, women's. (See also "Oiled clothing".)	No.	52,136	181,492	181,492
Waterproof and raincoats, n.s.	"	113,620	624,342	983,875
Windbreakers	—	—	—	66,593
Not specified	—	—	—	97,030
Coats, fur—	—	—	—	—
Children's	No.	859	33,167	33,167
Men's	"	5,135	373,511	373,511
Women's	"	78,037	13,547,199	13,547,199
Coats, fur-lined—	—	—	—	—
Children's	"	25	2,000	2,000
Men's	"	599	65,730	65,730
Women's	"	540	66,181	66,181
Cocoa	lb.	3,412,046	1,027,006	1,027,006
Cocoa butter	—	1,403,886	506,806	506,806
Coco-nut, prepared and desiccated	"	3,276,376	550,744	556,744
Coffee, condensed	"	250,347	44,682	44,682
Coffee, roasted	"	17,471,108	7,565,188	7,565,188
Coffins	No.	15,987	162,356	162,356
Coils	—	—	—	211,291

Alphabetical List of Products Manufactured in Canada, 1928—continued.

Item.	Unit of Measure.	Quantity Reported.	Value of Quantity Reported.	Total Value.
			\$	\$
Coke.....	ton	2,177,906	14,263,672	14,263,672
Coke breeze.....	"	136,221	272,039	272,039
Coke, petroleum.....	"	95,908	561,430	561,430
Cold storage doors.....	"	-	-	7,853
Collars, men's.....	doz.	182,093	414,704	414,704
Collars and cuffs, men's.....	"	269,209	667,715	667,715
Collars, fur.....	No.	74,169	751,783	751,783
Collodion.....	gal.	4,000	12,000	12,000
Colouring, butter.....	"	-	-	28,495
Colouring, cheese.....	gal.	4,128	13,416	13,416
Colouring, food.....	"	-	-	7,535
Colouring, sugar.....	"	10,525	12,500	12,500
Colours, dry.....	lb.	2,787,332	456,993	492,024
Colours in oil and japan.....	"	-	-	504,170
Comforters, cotton.....	doz.	21,068	212,009	212,009
Comforters, down.....	No.	31,638	307,648	307,648
Comforters, n.s.....	doz.	3,391	91,340	202,950
Compound, welding, etc.....	"	-	-	18,662
Compressors, air.....	No.	871	1,421,687	1,421,687
Conduit and moulding (interior).....	"	-	-	1,244,126
Conduit pipe.....	"	-	-	1,042,210
Cones, ice-cream. (See "Wafers, ice-cream".)	M	181,260	499,565	500,534
Confectionery, chocolate.....	lb.	66,869,483	20,139,200	20,139,200
Confectionery, sugar.....	"	51,472,729	10,965,007	10,965,007
Confectionery, n.s.....	"	886,360	228,950	434,095
Connections, rubber and force cups.....	"	17,524	5,609	5,609
Containers, n.s.....	"	-	-	184,994
Controllers, rheostats, and auto starters, n.e.s.....	"	-	-	1,045,647
Conveyors.....	"	-	-	622,324
Coolers, water.....	"	-	-	13,591
Cooling units.....	"	-	-	12,144
Cooperage products. (See "Barrels, Casks, etc.".)	"	-	-	12,960
Cooperage, slack, n.s.....	"	-	-	340,708
Cooperage, tight, n.s.....	"	-	-	11,659
Copper carbonate and copper cyanide.....	lb.	2,173,471	340,235	340,235
Copper metal (other than smelter products).....	"	-	-	-
Cords and tassels. (See "Fringes, cords, etc.".)	"	-	-	45,026
Core compound.....	ton	1,141	43,026	43,026
Cores, paper.....	"	-	-	139,144
Cores, radiator.....	"	-	-	15,692
Corn, cracked.....	lb.	40,045,259	882,087	882,087
Corrugated paper and wrappers.....	"	-	-	202,911
Corselettes, corsettes and corsetalls.....	doz.	88,808	1,445,262	1,445,262
Corsets.....	"	143,248	2,250,851	2,250,851
Corset covers, brassieres, bandeaus, etc. (See also "Brassieres".)	"	115,628	673,422	673,422
Cotter pins.....	lb.	62,495	43,076	43,076
Cotton fabrics—				
Bleached or white.....	yd.	71,934,497	10,578,969	10,583,007
Unbleached or grey.....	"	112,570,402	14,889,452	14,889,452
Ducks, hose and belting.....	lb.	12,904,797	5,811,612	5,811,612
Printed, dyed or coloured.....	yd.	88,977,023	17,476,770	17,476,770
Cotton goods, n.s.....	"	196,084	19,935	19,935
Cotton, rubberized.....	"	40,522	24,008	24,008
Counterboard.....	"	-	-	104,581
Counters, butchers' and cold storage.....	"	-	-	25,226
Counters, leather.....	pr.	21,227,534	515,270	515,270
Covering, asbestos, pipe and boiler.....	ft.	3,674,092	376,399	376,399
Covers and vents, battery.....	"	-	-	70,704
Covers, beam and turn.....	"	-	-	3,290
Covers, canvas, not specified.....	"	-	-	252,138
Covers, couch and table.....	No.	24,080	29,593	29,593
Covers, radiator, seat, tire, etc.....	"	-	-	493,380
Covers, leather, tool and spring.....	"	-	-	7,450
Covers, tub.....	"	-	-	26,867
Covers, typewriter, piano and cash register.....	"	-	-	8,500
Cracklings.....	lb.	6,826,007	167,105	167,105
Cream, sold in dairy factories.....	"	14,543,108	9,225,837	9,225,837
Cream, casein.....	"	-	-	74,494
Cream, whey, sold in dairy factories.....	lb.	837,640	275,344	275,344
Cream of tartar, refined.....	"	561,092	160,250	160,250
Cream separators, hand and electric.....	No.	14,921	995,237	995,237
Crests, pennants and emblems.....	"	-	-	25,099
Croquet sets.....	No.	350	1,110	1,110
Cross arms.....	"	-	-	60,275

Alphabetical List of Products Manufactured in Canada, 1928—continued.

Item,	Unit of Measure,	Quantity Reported.	Value of Quantity Reported.	Total Value.
			\$	\$
Croton aldehyde.....	lb.	80,771	54,718	54,718
Crucifixes.....	No.	2,000	4,000	4,000
Crumppets.....	lb.	30,000	4,800	4,800
Crushers, mining.....	No.	40	64,043	64,043
Cuffs, fur.....	"	62,222	522,683	522,683
Cultivators.....	"	15,440	1,059,460	1,059,460
Culverts (sheet metal).....	"	—	—	1,443,245
Cups, paper.....	"	—	—	131,758
Curtain goods.....	yd.	434,560	74,603	74,603
Curtains.....	pr.	227,457	273,338	612,633
Curtain rods.....	—	—	—	122,500
Cashion forms.....	doz.	5,238	30,109	30,109
Cushions.....	"	70,012	614,264	629,886
Cushions and runners.....	—	—	—	23,440
Cutlery, electro-silver plated.....	—	—	—	435,846
Cutlery, stainless, steel.....	—	—	—	72,451
Cutlery, other.....	—	—	—	129,537
Cyanamid, crude.....	—	—	—	704,200
Dairy and cheese factory equipment, n.s.....	—	—	—	1,150,969
Dates, pitted and stuffed.....	lb.	527,157	78,802	103,302
Decorations, confetti, favours, etc.....	—	—	—	10,343
Denims. (See "Cotton fabrics".)	—	—	—	—
Dental cuspidors.....	—	—	—	18,075
Dental supplies.....	—	—	—	174,169
Deodorant.....	—	—	—	8,030
Deoxidine.....	—	—	—	57,047
Derricks.....	—	—	—	7,482
Desk sets and pads.....	No.	13,898	72,831	74,981
Dextri-mulose.....	—	—	—	149,220
Diaphragms and rings, rubber.....	lb.	10,452	10,013	10,013
Dies, n.s.....	—	—	—	148,536
Dies, taps, etc.....	—	—	—	704,551
Digesters, paper-mill.....	—	—	—	38,800
Diggers, potato.....	No.	385	37,570	37,570
Dises, rubber.....	lb.	16,653	12,025	12,025
Disinfectants.....	—	—	—	158,197
Display forms and display mounting.....	—	—	—	110,885
Display stands, metal.....	—	—	—	123,282
Display stands, wood.....	—	—	—	61,079
Distillers' grain.....	—	—	—	938,089
Dog collars and leads.....	—	—	—	12,727
Dolls, china.....	doz.	9,803	151,660	151,660
Dolls, mama and crying voices.....	"	16,800	110,000	122,980
Dolls, n.s.....	"	9,980	92,855	93,045
Doors, tinclad, kalomein and steel.....	—	—	—	269,769
Dowels.....	No.	11,868,058	51,675	53,350
Draperies.....	yd.	58,587	64,790	64,790
Dresses, including house dresses.....	—	—	—	26,852,246
Dressing gowns, negligees, bathrobes, etc.....	—	—	—	740,889
Dressing, belt.....	lb.	14,600	3,210	3,210
Dressing, enlaid.....	gal.	114,604	300,607	300,607
Driers, linoleum.....	"	26,972	46,209	46,209
Driers, rosinat.....	"	147,262	123,652	123,652
Driers, stocking.....	—	—	—	10,000
Drills, grain.....	No.	18,342	2,662,558	2,662,558
Drills of all kinds (tools).....	—	—	—	495,972
Drills, rock.....	—	—	—	795,193
Drug sundries, n.s.....	—	—	—	751,144
Duck, waterproof.....	yd.	86,140	45,654	45,654
Dyeing and bleaching.....	—	—	—	43,500
Dyeing and cleaning of garments.....	—	—	—	3,532,679
Dyeing and finishing of textile goods.....	—	—	—	3,012,800
Dyes, all kinds.....	—	—	—	320,410
Eavestrough and pipe.....	—	—	—	431,700
Egg substitute.....	—	—	—	102,286
Eiderdown.....	—	—	—	24,445
Elastic pieces for corsets.....	—	—	—	27,045
Electrical apparatus, n.s.....	—	—	—	2,327,755
Electrical apparatus and supplies, pneumatic.....	—	—	—	2,040,074
Electrical instruments.....	—	—	—	1,566,287
Electric light and power.....	—	—	—	143,692,455
Electrodes, carbon.....	ton	33,012	1,663,701	1,663,701
Electrode paste.....	—	—	—	48,165

Alphabetical List of Products Manufactured in Canada, 1928—continued.

Item.	Unit of Measure.	Quantity Reported.	Value of Quantity Reported.	Total Value.
			\$	\$
Electrotyping	—	—	—	1,020,626
Elevator parts	—	—	—	191,249
Elevators, grain	—	—	—	79,919
Elevators, passenger and freight	—	—	—	3,935,081
Embalming fluid	—	—	—	22,653
Embossing	—	—	—	322,849
Embroideries and laces	—	—	—	82,335
Emulsion	—	—	—	18,328
Enamelled ware, n.s.	—	—	—	287,591
Enamels	gal.	768,389	1,974,933	1,974,933
Engines, gas and oil	No.	284	45,372	45,372
Engines, gasoline	"	4,441	864,654	869,654
Engines, steam	"	44	104,674	104,674
Engraving	—	—	—	2,190,418
Ensilage cutters	—	—	—	5,210
Envelopes	—	—	—	3,107,726
Erasers	—	—	—	47,846
Etched metal products	—	—	—	147,851
Ether, nitrous, spirits of	gal.	813	5,691	5,691
Ethyl acetate	lb.	1,672,107	200,653	200,653
Evaporators, maple syrup	—	—	—	99,190
Eveners	No.	1,204	8,488	8,488
Excelsior and wood wool	ton	4,936	129,090	132,570
Excelsior wraps, nuts and pads	—	—	—	97,410
Explosives	lb.	45,955,615	6,986,347	6,986,347
Extracts and colours	—	—	—	26,072
Extracts, flavouring	gal.	106,590	727,610	1,536,398
Fabric, furnished	yd.	103,357	27,906	27,906
Facings and parting, foundry	ton	4,362	126,359	126,359
Fanning mills	No.	2,258	488,973	488,973
Fans, electric, desk type	"	2,432	60,813	60,813
Fiction books and sheets	—	—	—	111,658
Fasteners	—	—	—	235,179
Feathers, artificial	—	—	—	3,950
Feed, shorts or middlings	ton	448,292	14,563,623	14,563,623
Feed, chopped	"	876,128	31,592,063	31,592,063
Felt cloth. (See "Woolen cloth")	—	—	—	—
Felt, cotton	lb.	624,579	64,640	64,640
Felt for mattresses	"	283,480	33,477	33,477
Felt, hair	yd.	64,000	49,000	87,535
Felt, harness	lb.	162,890	72,861	72,861
Felt, jute	"	114,971	7,590	7,590
Felt, shoe	yd.	230,484	213,929	213,929
Felt, padding	"	346,781	91,597	165,926
Felt, trimming and lining	"	70,000	53,854	53,854
Felt, saturated	ton	1,493	108,901	108,901
Felt, saturated and sheathings	"	12,859	829,173	831,851
Felt, tarred and sheathings	"	8,971	735,311	735,311
Felt, wool and cotton, for pulp and paper making	lb.	2,625,440	3,398,942	3,398,942
Felt, n.s.	—	—	—	28,849
Felt goods, n.s.	—	—	—	67,100
Fence and railing, iron	—	—	—	243,433
Fence rods and posts	lb.	2,608,208	107,967	107,967
Fencing wire	"	55,275,680	2,622,377	2,622,377
Fencing, wooden	—	—	—	23,360
Ferro-alloys	—	—	—	3,398,056
Ferro-silicon	lb.	6,270,700	42,231	42,231
Fertilizers, complete	"	148,875,804	2,945,998	3,027,998
Fibre and fibre products	—	—	—	359,490
Fibre board	—	—	—	75,942
Files and rasps	—	—	—	419,806
Filing system supplies	—	—	—	296,271
Fillers and flats, egg-case	—	—	—	162,928
Fillers, cork	lb.	32,018	4,115	4,115
Fillers, wood	"	10,000	5,000	5,000
Fillings, pie and cake	"	1,539,420	156,058	156,058
Filter cloth	—	—	—	4,391
Filter presses	—	—	—	81,905
Filter sheaths and discs	—	—	—	6,274
Firebrick from imported clay	—	—	—	313,637
Firebrick from domestic clay	No.	4,939,778	234,460	234,460
Fireclay from domestic clay	ton	5,123	35,284	35,284
Fireclay blocks and shapes from domestic clay	—	—	—	105,091
Fire department supplies, n.s.	—	—	—	286,028

Alphabetical List of Products Manufactured in Canada, 1928—continued.

Item.	Unit of Measure.	Quantity Reported.	Value of Quantity Reported.	Total Value.
Fire escapes and steps.	—	—	\$ —	\$ 192,337
Fire-fighting equipment.	—	—	—	1,043,416
Fire hose. (See "Hose, linen".)	—	—	—	—
Fireplace furnishings.	—	—	—	86,653
Firesand. (Included under "Silicon-carbide".)	—	—	—	—
Fireworks.	—	—	—	106,010
Fish, canned and otherwise prepared in factories.	—	—	—	27,992,063
Fish, fresh, marketed for consumption, sold by factories.	—	—	—	8,524,695
Fish waste.	—	—	—	2,852
Fishing nets.	—	—	—	44,752
Fishing tackle.	—	—	—	18,394
Fittings, boat.	—	—	—	10,000
Fittings for gas stoves.	—	—	—	90,000
Fittings, trunks.	—	—	—	47,275
Fixtures, lighting.	—	—	—	2,013,194
Flags and hunting.	—	—	—	102,279
Flannels. (See "Woollen cloth".)	—	—	—	—
Flannelettes. (See "Cotton fabrics".)	—	—	—	—
Flatware, electro-silver plated.	—	—	—	1,518,199
Flax, dressed.	lb.	25,000	6,000	6,000
Flax products, n.s.	—	—	—	2,000
Flax seed.	bush.	25,389	50,187	50,187
Flax seed screenings.	—	—	—	10,603
Floor covering, saturated and other.	—	—	—	5,879,137
Flooring, hardwood.	M ft. R.M.	71,274	4,586,038	4,586,038
Flooring, steel.	—	—	—	13,615
Floss, dental.	—	—	—	6,845
Flour and meal, barley.	lb.	500,700	11,105	11,105
Flour and meal, rye.	"	1,604,775	51,549	51,549
Flour, buckwheat.	"	3,571,517	152,503	152,503
Flour, corn.	"	5,902,118	152,710	152,710
Flour, graham and whole wheat.	—	—	—	30,591
Flour, low grade or feed.	ton	37,870	1,660,769	1,660,769
Flour, malt.	lb.	169,750	18,994	18,994
Flour, prepared, self-raising, etc.	"	5,731,239	418,577	428,387
Flour, wheat, blended.	brl.	626,408	3,964,352	3,964,352
Flour, wheat (fall or winter).	"	1,288,486	8,047,530	8,047,530
Flour, wheat (spring).	"	18,474,648	112,762,398	112,762,398
Flowers, artificial.	doz.	129,751	208,077	249,836
Flowers, artificial and novelties.	—	—	—	128,288
Flowers and feathers.	—	—	—	112,974
Fluids, machine.	gal.	25,565	7,941	7,941
Fly pads.	—	—	—	3,367
Fly swatters.	—	—	—	4,164
Foil.	lb.	107,122	91,054	91,054
Food, fox.	"	1,010,400	32,392	32,392
Food, poultry.	"	1,476,540	37,080	37,080
Food, poultry and stock.	"	2,096,000	93,425	93,425
Food and remedies, poultry and stock.	—	—	—	3,295,764
Food, infants.	—	—	—	54,480
Food, dietetic.	—	—	—	377,040
Footwear, felt uppers—	—	—	—	—
Babies.	pr.	44,757	30,585	30,585
Boys.	"	48,595	60,371	60,371
Children's.	"	139,327	155,354	155,354
Men's.	"	451,419	663,790	663,790
Women's.	"	561,178	504,938	504,938
Footwear, leather or fabric uppers—	—	—	—	—
Babies.	pr.	1,279,440	1,262,603	1,262,603
Boys.	"	1,337,671	2,816,462	2,816,462
Children's.	"	2,345,451	3,434,960	3,434,960
Men's.	"	5,431,994	17,547,088	17,547,088
Women's.	"	7,613,049	21,566,468	21,566,468
Footwear, Shoe-packs, harrigans and moccasins—	—	—	—	—
Babies.	pr.	15,866	8,900	8,900
Boys.	"	67,459	94,951	94,951
Children's.	"	27,871	20,638	20,638
Men's.	"	207,345	458,607	458,607
Women's.	"	52,077	52,243	52,243
Not specified.	"	30,096	47,800	93,843
Footwear, rubber—	—	—	—	—
Boots, knee and hip.	"	2,048,836	5,701,563	5,701,563
Lumbermen's boots.	"	1,893,799	4,496,425	4,496,425
Light overshoes, including Jersey storms.	"	6,179,130	5,080,574	5,080,574

Alphabetical List of Products Manufactured in Canada, 1928—continued.

Item.	Unit of Measure.	Quantity Reported.	Value of Quantity Reported.	Total Value.
			\$	\$
Footwear; rubber—concluded.				
Overshoes, not including Jersey storms.....	pr.	3,647,258	8,153,385	8,153,385
Tennis, balmorals.....	"	1,158,039	1,275,629	1,275,629
Tennis, oxfords.....	"	9,014,102	7,705,035	7,705,035
Not specified.....	"	—	—	100,299
Forges and blowers.....	No.	1,043	109,652	109,652
Forgings.....	lb.	68,155,749	4,720,672	4,720,672
Forks, hand implements.....	No.	800,948	605,849	605,849
Formaldehyde.....	lb.	1,424,293	128,186	128,186
Forms, register.....	—	—	—	100,000
Frames and cases, spectacle.....	—	—	—	176,770
Frames, furniture.....	—	—	—	231,141
Fringes, cords and tassels.....	—	—	—	183,436
Fruit butter.....	lb.	327,881	36,045	36,045
Fruit juices and extracts. (See "Syrups".)	—	—	—	—
Fruit peel, candied.....	lb.	1,493,724	217,156	217,156
Fruits, canned—				
Apples.....	case	177,282	420,211	420,211
Cherries.....	"	73,559	335,944	335,944
Peaches.....	"	128,386	404,614	404,614
Pears.....	"	310,525	940,811	940,811
Plums.....	"	141,999	343,567	343,567
Raspberries.....	"	47,529	234,249	234,249
Strawberries.....	"	40,587	232,877	232,877
Small fruits, all other.....	"	46,092	176,597	176,597
Fruits, n.s.....	"	53,493	195,003	195,003
Fruits, fancy, packed.....	lb.	43,861	21,930	21,930
Fruits, glaces.....	"	1,063,874	369,672	369,672
Fruits, crushed and preserved.....	gal.	137,585	404,155	425,331
Fumigators, formaldehyde.....	—	—	—	3,503
Furnace parts, n.s.....	—	—	—	60,388
Furnaces, electro-metallurgical.....	—	—	—	243,128
Furnaces, hot-air.....	No.	34,379	2,580,292	2,580,292
Furnaces, industrial.....	—	—	—	15,622
Furniture—				
Bedroom.....	—	—	—	6,117,970
Dining room.....	—	—	—	5,529,832
Kitchen.....	—	—	—	1,683,817
Parlour.....	—	—	—	5,510,481
Other, household.....	—	—	—	2,690,314
Camp.....	—	—	—	16,450
Hospital, steel.....	—	—	—	142,189
Office, steel.....	—	—	—	728,572
Office and store, n.s.....	—	—	—	5,091,164
School, lodge, church and theatre.....	—	—	—	1,255,965
Wicker, reed, rattan, etc.....	—	—	—	1,304,772
Other, n.s.....	—	—	—	2,013,044
Furs, dressed and dyed.....	—	—	—	2,758,724
Furs, remodeled, repaired, etc.....	—	—	—	2,879,400
Fuses, railway.....	No.	1,116,919	116,346	116,346
Fuses and fuse wire.....	—	—	—	438,208
Gaiters, spats and leggings.....	dos. pr.	22,688	226,904	228,776
Galvanized ware.....	—	—	—	992,895
Garages and garage equipment.....	—	—	—	264,983
Gas, artificial, from gas and coke plants.....	M cu. ft.	35,058,920	16,810,183	16,810,183
Gas, still, from petroleum refineries.....	"	2,489,346	572,847	572,847
Gas, other, n.s.....	—	—	—	1,902
Gasoline.....	Imp. gal.	344,129,861	52,228,842	52,228,842
Gates.....	—	—	—	182,654
Gauges.....	—	—	—	7,040
Gears, carriage and wagon.....	No.	11,067	460,045	518,753
Gear wheels and chain sprockets.....	—	—	—	43,493
Generators, steam.....	No.	3	34,792	34,792
Generators, alternating current.....	"	77	4,762,889	4,762,889
Generators, direct current.....	"	113	279,103	279,103
Ginghams. (See "Cotton fabrics".)	—	—	—	—
Glass, bevelled and ground edge plates.....	—	—	—	1,159,806
Glass, bent.....	—	—	—	16,269
Glass, cut.....	—	—	—	342,648
Glass, leaded.....	—	—	—	239,313
Glass, mirror, silvered.....	—	—	—	664,783
Glass, ornamental.....	—	—	—	69,760
Glass, plain sheet and window.....	—	—	—	223,811
Glass, plate.....	—	—	—	249,190

Alphabetical List of Products Manufactured in Canada, 1928—continued.

Item.	Unit of Measure.	Quantity Reported.	Value of Quantity Reported.	Total Value.
Glass, pressed and blown	—	—	\$ —	\$ 9,323,968
Glass, show-case	—	—	—	218,146
Glass, sign	—	—	—	4,580
Glass, silvered, electric reflector	—	—	—	40,178
Glass, store-front	—	—	—	325,124
Glass, violet-ray	—	—	—	5,906
Glass, window, memorial	—	—	—	126,365
Glassware	—	—	—	70,527
Gloves, mittens and gauntlets, fabric, working	doz. pr.	305,120	484,497	484,497
Gloves, mittens and gauntlets, fabric, n.s.	"	101,918	364,361	374,174
Gloves, mittens and gauntlets, silk	"	66,924	716,593	716,593
Gloves, mittens and gauntlets, fur and fur-lined	pr.	874	4,832	5,029
Gloves, mittens and gauntlets, leather, dress—				
Men's	doz. pr.	99,139	1,638,439	1,638,439
Women's and children's	"	24,498	303,546	303,546
Gloves, mittens and gauntlets, leather, working—				
Boys'	doz. pr.	61,701	269,803	269,803
Men's	"	343,369	2,049,781	2,049,781
Gloves, mittens and gauntlets, leather, n.s.	"	5,078	56,198	79,094
Glucose and dextrose	lb.	43,202,804	1,627,652	1,627,652
Glue	"	980,262	71,833	71,833
Glue, mucilage and paste	—	—	—	1,244,302
Glue stock	lb.	22,045,387	190,709	190,709
Gluten	"	38,807,725	750,504	750,504
Glycerine, crude	"	2,203,588	195,343	195,343
Glycerine, refined	"	5,223,765	830,105	830,105
Gold, including dental gold	—	—	—	853,530
Gold, leaf	—	—	—	7,087
Golf bags and clubs	—	—	—	3,224
Golf stick heads	No.	50,281	63,297	63,297
Golf stick shafts	"	44,506	105,900	105,906
Grain blowers	—	—	—	16,685
Grain cleaners	No.	137	13,834	13,834
Grain cutters and rollers	—	—	—	12,399
Grain grinders	No.	3,233	200,288	201,088
Grain tanks	"	1,154	51,561	51,561
Granaries	—	—	—	130,555
Granite, cut and polished	—	—	—	2,033,541
Grape juice	gal.	70,147	125,265	125,265
Graphite, artificial	—	—	—	16,228
Grute bars	lb.	1,345,239	61,384	61,384
Grease, n.s.	"	6,594,184	471,525	508,274
Grease lubrication	"	15,100,960	348,915	348,915
Grill work, metal	—	—	—	3,200
Grill and plates, electric	No.	47,254	284,492	284,492
Grinders, metal-working	"	30	44,197	44,197
Grips, bicycle	pr.	32,400	6,642	6,642
Guards, furniture	—	—	—	2,406
Guards, wire	—	—	—	205,515
Guards, highway	—	—	—	30,021
Gymnasium supplies, n.s.	—	—	—	34,952
Gypsum products, n.s.	—	—	—	1,056
Hair, animal, raw	—	—	—	230,052
Hair, brush	—	—	—	17,049
Hair, curled	—	—	—	141,584
Hair goods, made from human hair	—	—	—	37,031
Halters	No.	95,854	118,471	126,143
Hammers	—	—	—	22,701
Hammers	No.	550,000	64,529	64,529
Hammock-couch stands	—	—	—	21,335
Hamrocks	—	—	—	19,356
Handkerchiefs	doz.	236,868	156,001	266,363
Handles, axe and long tool	No.	2,015,745	425,006	425,096
Handles, small tool	"	4,296,704	179,421	179,421
Handles, broom and mop	"	4,658,363	124,683	166,611
Handles, dowels, etc.	—	—	—	42,000
Hangers, garment	—	—	—	161,492
Hardware, builders, n.s.	—	—	—	2,714,908
Hardware, carriage and saddlery	—	—	—	216,565
Hardware, casket	—	—	—	85,523
Hardware, other	—	—	—	1,738,873
Harness, double	No.	29,510	1,398,494	1,398,494
Harness, single	"	10,470	228,973	228,973
Harness collars	"	179,893	688,790	688,790

Alphabetical List of Products Manufactured in Canada, 1928—continued.

Item.	Unit of Measure.	Quantity Reported.	Value of Quantity Reported.	Total Value.
			\$	\$
Harness parts, n.s.	No.	-	-	867.989
Harrow	"	41,689	1,539.070	1,539.070
Harrow parts	"	-	-	142.617
Harvesters	No.	270	60.678	60.678
Hat blocks	"	-	-	20.313
Hat linings	doz.	632,181	367.763	367.763
Hat shapes, buckram	"	-	-	254.005
Hats—				
Fur felt	doz.	186,495	3,638.029	3,638.029
Silk	"	3,323	95.204	95.204
Straw	"	196,133	3,058.974	3,058.974
Velour	"	4,679	139.667	139.667
Velvet	"	33,147	672.545	672.545
Wool	"	115,989	2,117.903	2,117.903
All other	"	135,425	2,723.582	2,967.997
Hats, cleaned, reblocked, etc.	"	-	-	72.842
Hay carriers	No.	6,145	243.772	243.772
Hay forks	"	4,896	15.965	15.965
Hay knives	"	-	-	12.780
Hay loaders	No.	1,429	97.424	97.424
Hay presses	"	8	1.250	1.250
Hay racks, wooden	"	-	-	8.000
Hay rakes	No.	7,855	240.415	240.415
Hay rakes, side delivery and tedder combined	"	1,178	76.093	76.093
Hay tedders	"	124	5.345	5.345
Hay sling	"	-	-	1.459
Heating	M pr.	2,740	192.383	192.383
Heaters, boiler	No.	106	315.375	315.375
Heaters, electric, n.s.	"	-	-	22.150
Heaters, electric, water and air	No.	49,380	387.946	387.946
Heaters, water tank	"	26,826	329.565	329.565
Heating and ventilating equipment, n.s.	"	-	-	2,751.312
Heeling	"	-	-	86.571
Heels, n.s.	pr.	5,922,288	278.007	281.192
Heels, rubber and composition	"	20,600,402	1,611.319	1,611.319
Heels, wooden	No.	2,463,090	592.304	592.304
Heamp	"	-	-	6.276
Hosiery	yd.	1,065,007	114.757	114.757
Hides	"	-	-	7,667.003
Hockey pucks	"	-	-	6.135
Hockey sticks	No.	615,732	185.947	185.947
Hoes, hand	"	243,243	135.388	135.388
Hoes, horse	"	2,624	34.811	34.811
Honks	"	110	208.544	212.454
Hollow-ware and flatware, sterling silver	"	-	-	661.933
Hollow-ware, silver plated	"	-	-	1,382.209
Hollow-ware, brass and copper	"	-	-	288.708
Hollow-ware, iron and steel, enamelled	"	-	-	379.115
Hollow-ware, iron and steel, not enamelled	"	-	-	648.291
Hollow-ware, nickel-plated	"	-	-	19.840
Hooks, eyes, notions, etc.	"	-	-	224.331
Hoops, n.s.	M	6,946	104.816	104.816
Hoops, steel	"	-	-	131.940
Horseradish	lb.	93,400	29.380	29.380
Horseshoes	No.	7,249,987	381.634	381.634
Hose, linen, fire	ft.	691,656	111.186	111.186
Hose, rubber	lb.	5,109,685	2,096.549	2,096.549
Hosiery—				
Cotton	doz. pr.	1,622,715	1,637.587	1,637.587
Elastic	pr.	5,108	30.746	30.746
Mercerized	doz. pr.	112,827	265.256	265.256
Merino and mixed	"	487,425	1,783.925	1,783.925
Silk, artificial and mixed	"	683,491	2,985.713	2,985.713
Silk or silk mixed	"	1,103,183	10,154.413	10,154.413
Woolen and cotton	"	3,837	15.346	15.346
Woolen and worsted	"	947,521	4,172.603	4,172.603
Not specified	"	66,334	752.233	793.089
Hydrants	No.	1,185	93.130	93.130
Hydrogen	cu. ft.	44,491,114	44.491	44.491
Hydrogen peroxide	"	-	-	38.022
Hydrogen sulphide	"	-	-	5.108
Ice, artificial	ton	307,842	1,263.361	1,267.331
Ice-cream	gal.	8,524,662	11,620.971	11,620.971
Ice-cream mix	"	396,335	385.625	391.925

Alphabetical List of Products Manufactured in Canada, 1929—continued.

Item.	Unit of Measure.	Quantity Reported.	Value of Quantity Reported.	Total Value.
Ice-cream sundries.....	—	—	\$ —	\$ 34,722
Ice-cream cones. (See "Cones, ice-cream".)	—	—	—	—
Icings and icing paste.....	lb.	100,385	19,441	19,441
Ignition accessories.....	—	—	—	3,089
Incinerators.....	—	—	—	32,905
Incubators and poultrymen's supplies.....	—	—	—	18,730
Infants' wear, n.s.....	—	—	—	47,000
Ingots and bars.....	—	—	—	78,822
Ingots, steel.....	—	—	—	59,948
Ink powder and pellets.....	—	—	—	1,422
Ink, printing.....	lb.	7,607,566	2,026,637	2,026,637
Ink, writing.....	—	—	—	359,277
Innersole board.....	—	—	—	27,118
Innersoling, canvas and other, n.s.....	—	—	—	69,635
Insecticides.....	—	—	—	639,828
Insulating material, n.s.....	—	—	—	76,502
Insulating pins and brackets.....	No.	1,482,244	57,518	57,518
Insulators, porcelain.....	—	—	—	1,321,556
Insulators, rubber.....	—	—	—	20,570
Insulin.....	—	—	—	367,505
Iodine, resublimed.....	lb.	4,286	23,356	23,356
Iron products made of corrugated iron.....	—	—	—	2,692,100
Iron, pig.....	l. ton	258,479	5,085,091	5,085,091
Iron phosphide.....	—	—	—	6,134
Ironing boards.....	—	—	—	14,763
Ironers, electric.....	No.	250	22,500	27,421
Irons, flat, electric.....	—	219,082	419,294	419,294
Irons, gasolene.....	—	—	—	22,431
Ironwork, ornamental and architectural, n.s.....	—	—	—	1,469,089
Ivory ornaments.....	—	—	—	5,500
Jacks, hand.....	No.	240,108	189,169	231,790
Jacks, logging.....	—	—	—	4,963
Jacks, pump.....	No.	742	8,636	8,636
Jams.....	lb.	45,528,696	5,339,602	5,340,644
Jars, battery.....	No.	238,992	158,056	188,514
Javelle water.....	—	—	—	300,740
Jellies.....	lb.	2,397,050	290,386	290,386
Jersey cloth, stockinette and tricolette.....	yd.	991,328	961,135	1,375,912
Jerseys.....	doz.	28,952	309,047	309,047
Jewellery.....	—	—	—	3,530,837
Jewellery store accessories, n.s.....	—	—	—	1,215
Kalsomine.....	lb.	3,973,576	262,888	262,888
Kegs, beer, fish, etc.....	No.	9,513	31,223	31,223
Kegs, nail, etc.....	—	1,294,919	398,511	398,511
Kerosene.....	Imp. gal.	55,081,919	7,340,544	7,340,544
Ketchup. (See "Sauces, etc.".)	—	—	—	—
Kitchen equipment, n.s.....	—	—	—	167,011
Kitchenware—	—	—	—	—
Aluminium.....	—	—	—	1,457,679
Enamelled.....	—	—	—	1,229,510
Not specified.....	—	—	—	491,768
Knitted goods, fancy.....	—	—	—	205,912
Knitted goods, miscellaneous.....	—	—	—	562,482
Knives, machine.....	No.	126,220	204,912	204,912
Labels, paper, gummed.....	M rolls	100	53,853	53,853
Labels, woven.....	—	—	—	309,465
Laces, sho.....	gr. pr.	1,098,315	330,820	525,308
Lacquers, Japan.....	gal.	135,882	130,256	130,256
Lacquers, nitrocellulose.....	—	527,932	1,954,774	1,954,774
Lacrosse sticks.....	No.	14,220	35,538	35,538
Ladders, step and extension.....	—	23,954	64,012	227,626
Lamps and lanterns, railway, mine, marine, etc.....	—	—	—	487,852
Lamps, automobile.....	No.	642,100	801,557	801,557
Lamps, floor and table.....	—	49,500	166,265	221,987
Lamps, incandescent.....	—	25,051,535	5,054,834	5,137,051
Lamp shades.....	—	80,159	387,683	737,006
Lamp stands.....	—	15,954	104,866	104,866
Lard.....	lb.	51,362,134	8,383,698	8,383,698
Lard compound.....	—	19,550,113	2,864,580	2,864,580
Last blocks.....	—	—	—	26,138
Lasts, shoe, aluminium.....	—	—	—	79,798
Lasts, trees and shoe findings.....	—	—	—	597,662

Alphabetical List of Products Manufactured in Canada, 1928—continued.

Item.	Unit of Measure.	Quantity Reported.	Value of Quantity Reported.	Total Value.
Lathes, metal working.....	No.	79	\$ 306,140	\$ 306,140
Lathes, woodworking.....	"	52	12,516	12,516
Laths, metal.....	"	—	—	602,428
Laths, wooden.....	M	1,138,417	4,802,616	4,882,304
Laundry cloths and nets.....	"	—	—	16,267
Laundry work.....	"	—	—	13,557,284
Lead arsenate.....	lb.	180,327	28,512	28,512
Lead and zinc, white.....	"	107,960	19,217	19,217
Lead antimonial.....	"	3,097,553	208,544	208,544
Lead metal (other than smelter products).....	"	503,783	36,805	36,805
Lead, red.....	"	2,601,664	208,909	208,909
Lead, sheet.....	"	2,367,215	192,022	192,022
Lead bars and ingots.....	"	1,750,870	133,193	133,193
Lead, white, basic carbonate, dry.....	"	8,769,360	757,496	757,496
Lead, white, basic carbonate, in oil.....	"	15,149,714	1,603,264	1,603,264
Leads for pencils.....	"	—	—	46,482
Leather—				
Belting.....	lb.	845,486	299,536	299,536
Bookbinders.....	sq. ft.	160,407	43,679	43,679
Glove, trunk and pocket-book.....	"	8,334,168	1,474,065	1,474,065
Harness.....	lb.	6,416,485	2,643,104	2,643,104
Lace.....	"	—	—	122,745
Moccasin.....	"	—	—	8,280
Oiled, tanned, etc.....	lb.	297,162	110,221	110,221
Shoe, upper, calf skins.....	sq. ft.	8,542,677	3,352,256	3,352,256
Shoe, upper, cattle or horse hides.....	"	12,635,759	3,856,128	3,856,128
Shoe, upper, chrome splits.....	"	5,316,338	815,672	815,672
Shoe, upper, goat skins.....	"	2,003,287	531,330	531,330
Shoe, upper, patent and enamelled.....	"	13,165,418	4,266,652	4,266,652
Shoe, upper, sheep skins.....	"	12,113,436	1,639,762	1,639,762
Shoe, upper, wax splits.....	"	487,400	73,795	73,795
Splits, n.e.s.....	"	—	—	808,079
Not specified.....	"	—	—	231,262
Sole, chrome.....	lb.	516,000	194,470	194,470
Sole, hemlock.....	"	60,320	39,468	39,468
Sole, oak.....	"	24,495,805	10,584,752	10,584,752
Sole, union.....	"	6,456,858	2,787,922	2,787,922
Sole, splits.....	"	423,693	64,232	64,232
Upholstering.....	sq. ft.	867,462	188,553	188,553
Leatherboard.....	"	—	—	21,399
Leather tanning (custom).....	"	—	—	421,986
Leather goods made of artificial leather.....	"	—	—	831,086
Leather goods, n.s.....	"	—	—	582,127
Lens.....	"	—	—	18,988
Lenses.....	"	—	—	338,435
Life preservers.....	"	—	—	9,741
Lifts, automobile.....	"	—	—	48,739
Lighthouse apparatus.....	"	—	—	66,000
Lighting apparatus, n.e.s.....	"	—	—	7,663
Lighting arresters, n.e.s.....	"	—	—	508,857
Line, hydrated.....	lb.	366,864,580	1,861,815	1,861,815
Line, quirk.....	bush.	12,254,857	3,552,191	3,552,191
Limestone.....	"	—	—	2,993,742
Line material.....	"	—	—	209,271
Linen.....	sq. yd.	546,868	198,567	198,567
Linses, tagle, including centres, runners, etc.....	"	—	—	66,092
Linings, brake, asbestos.....	ft.	2,178,278	439,431	439,431
Linings, brake, cotton.....	"	—	—	1,307
Linings, glove and shoe.....	"	—	—	182,514
Linoecum. (See "Floor covering".)	"	—	—	—
Lithotyping.....	"	—	—	194,895
Liqueurs, cordials, etc.....	"	—	—	151,398
Litharge.....	lb.	4,483,572	356,791	356,791
Lithography.....	"	—	—	8,097,180
Locks.....	"	—	—	1,061,931
Locomotive parts.....	"	—	—	435,374
Locomotives, new.....	No.	48	3,086,266	3,086,266
Loops and slides, wire.....	"	—	—	24,160
Lubricators.....	"	—	—	46,157
Lubricating systems, automobile.....	"	—	—	620,473
Lumber, asbestos.....	sq. ft.	897,652	78,260	78,260
Lumber, matched.....	M ft. B.M.	115,596	5,479,693	5,479,693
Lumber, planed.....	"	267,261	11,135,493	11,137,024
Lumber, sawn.....	"	4,337,253	103,590,035	103,590,035

Alphabetical List of Products Manufactured in Canada, 1928—continued.

Item.	Unit of Measure.	Quantity Reported.	Value of Quantity Reported.	Total Value.
			\$	\$
Lumber, n.s.	—	—	—	5,098,757
Lye	lb.	2,685,270	376,958	376,958
Macaroni	lb.	865,081	85,422	85,422
Macaroni, vermicelli, spaghetti, noodles, etc.	"	18,062,465	1,423,746	1,423,746
Macaroni, canned	case	70,505	309,400	309,400
Machines, adding	No.	8,599	2,198,827	2,198,827
Machinery—				
Bakers	—	—	—	489,684
Boot and shoe	—	—	—	365,648
Boring (woodworking)	No.	39	28,838	28,838
Bottlers, n.e.s.	—	—	—	196,060
Box and basket making	—	—	—	8,715
Brewery and distillery	—	—	—	90,000
Canning	—	—	—	27,482
Cement mill	—	—	—	7,500
Cheese factory	—	—	—	18,785
Clay working	—	—	—	15,791
Cleaning and pressing	—	—	—	259,728
Coal handling	—	—	—	30,000
Concrete and cement-making	—	—	—	134,143
Concrete mixers	No.	1,012	328,359	328,359
Confectioners	—	—	—	86,088
Cutting	—	—	—	5,257
Elevating	—	—	—	151,817
Flour and grist-mill, n.e.s.	—	—	—	980,453
Fog signalling	—	—	—	30,000
Glue spreading	—	—	—	29,088
Grain elevator	—	—	—	941,964
Hand-knitting	No.	2,598	155,880	155,880
Hoisting	—	—	—	1,330,618
Ice-making	—	—	—	15,732
Laundry	—	—	—	1,193,612
Leather-working	—	—	—	22,442
Lumber and shingle drying	—	—	—	39,961
Metal-working	—	—	—	122,148
Metering	—	—	—	124,884
Milling	No.	3,382	384,864	384,864
Milling-cutter	—	—	—	123,580
Mining and metallurgical	—	—	—	755,404
Office and business, n.e.s.	No.	584	64,044	64,469
Paint-making	—	—	—	9,000
Packing-house	—	—	—	15,000
Pipe-cutting and threading	—	—	—	111,696
Printing	—	—	—	8,365
Pulp and paper, n.e.s.	—	—	—	7,542,686
Pulverized fuel	—	—	—	198,280
Road and excavating	—	—	—	835,403
Rubber-mill	—	—	—	294,879
Saw and planing-mill	—	—	—	631,169
Sawing, band	No.	78	48,276	48,276
Sewing	"	155,475	3,050,945	3,050,945
Shipbuilding	—	—	—	237,559
Stone-working	—	—	—	218,000
Textile	—	—	—	13,351
Transmission	—	—	—	1,345,246
Vulcanizing	—	—	—	25,995
Washing, electric	No.	60,871	7,724,740	7,724,740
Washing, hand	"	22,048	372,741	372,741
Washing, other power	"	3,478	213,778	213,778
Well-drilling	—	—	—	3,800
Woodworking n.s.	—	—	—	311,231
Not specified	—	—	—	1,334,892
Machinery parts, n.s.	—	—	—	744,476
Mackinaw	sq. yd.	536,376	630,406	703,738
Mackinaws. (See "Coats, mackinaw".)	—	—	—	103,225
Magnesite flooring	—	—	—	42,926
Malt	bush.	4,541,492	4,593,088	4,593,088
Malt coolings and malt sprouts	—	—	—	665,345
Malt extract and malt syrups	—	—	—	90,936
Malt screenings	—	—	—	137,169
Mantles	—	—	—	304,618
Manure spreaders	No.	2,262	301,818	301,818
Maple butter	lb.	41,210	12,363	12,363
Maps	—	—	—	29,185

Alphabetical List of Products Manufactured in Canada, 1928—continued.

Item.	Unit of Measure.	Quantity Reported.	Value of Quantity Reported.	Total Value.
			\$	\$
Marble, cut and polished.....	—	—	—	1,287,134
Marble chips and dust.....	—	—	—	24,677
Marine and fishermen's supplies.....	—	—	—	73,499
Marking devices.....	—	—	—	50,025
Marmalades.....	lb.	7,973,072	880,167	880,167
Match blocks and match splints.....	M	39,115	543,305	543,305
Matchers (woodworking).....	No.	17	108,816	108,816
Matches.....	—	—	—	1,336,686
Mats and matting, coco.....	—	—	—	18,725
Mats and matting, rubber.....	lb.	2,265,465	427,105	427,105
Mats, coir.....	—	—	—	99,000
Mats, n.s.....	—	—	—	863
Mattresses.....	No.	724,916	4,913,215	4,977,757
Mattress materials, n.e.s.....	—	—	—	5,300
Meal, alfalfa.....	ton	1,611	39,640	39,640
Meal, corn.....	lb.	61,174,224	1,508,624	1,508,624
Meal, linseed and oil cake.....	—	—	—	1,861,814
Meal, rice.....	ton	1,812	54,225	54,225
Meal, n.s.....	—	—	—	8,123
Meats, canned, all kinds.....	lb.	6,815,051	947,225	956,101
Meats, cooked, all kinds.....	"	23,385,050	7,140,477	7,143,127
Meats, cured or salted—				
Bacon and sides.....	"	52,079,038	14,247,317	14,247,317
Beef.....	"	2,621,709	377,914	377,914
Hams.....	"	28,233,187	7,326,077	7,326,077
Pork.....	"	35,224,450	6,165,208	6,165,208
Shoulders.....	"	10,063,612	1,964,118	1,964,118
Other.....	"	29,324,326	5,485,105	5,491,105
Meats, sold fresh—				
Beef.....	"	353,116,079	49,660,545	49,660,545
Buffalo.....	"	39,174	4,310	4,310
Fancy meats, n.s.....	"	15,097,375	1,388,771	1,388,771
Mutton and lamb.....	"	28,609,768	5,984,751	5,984,751
Pork.....	"	141,356,588	23,624,518	23,624,518
Veal.....	"	36,574,056	5,863,106	5,863,106
All other. (See also "Poultry").	"	246,222	47,244	47,244
Meats, pickled.....	"	1,405,655	264,410	264,410
Medicines, patent and proprietary.....	—	—	—	7,355,384
Metal products, n.s.....	—	—	—	494,838
Meters, gas.....	No.	31,719	428,983	428,983
Meters, gasoline.....	"	2,021	45,068	45,068
Meters, water.....	"	18,116	202,661	202,661
Methyl hydrate, crude.....	Imp. gal.	435,146	247,272	247,272
Methyl hydrate, pure.....	—	338,438	243,626	250,631
Mica products.....	—	—	—	67,574
Microtomes.....	—	—	—	1,000
Milk acidophilus.....	—	—	—	3,3061
Milk, sold in dairy factories.....	gal.	43,708,410	19,369,286	19,369,286
Milk, buttermilk, sold in dairy factories.....	—	—	—	370,336
Milk, buttermilk, condensed.....	lb.	552,456	21,462	21,462
Milk, condensed.....	"	27,728,995	2,926,477	2,926,477
Milk, skimmed, condensed.....	"	7,920,255	437,721	437,721
Milk, skimmed, sold in dairy factories.....	—	—	—	17,156
Milk, cream and milk drinks.....	—	—	—	23,374
Milk, evaporated.....	lb.	51,654,377	4,815,638	4,815,638
Milk, homogenized.....	—	—	—	6,570
Miner's outfit.....	lb.	3,349,349	363,953	363,953
Mirrors.....	—	—	—	25,406
Molasses.....	yd.	527,582	1,354,454	1,354,454
Molasses.....	—	—	—	346,875
Monuments, lettered.....	—	—	—	773,975
Mop heads.....	gr.	1,017	31,576	31,576
Mops, all kinds.....	—	—	—	483,138
Mosquito bars.....	—	—	—	1,327
Motion picture films.....	—	—	—	2,770,877
Motor generator sets.....	—	—	—	651,971
Motors, alternating current.....	—	—	—	4,433,339
Motors, direct current.....	—	—	—	1,109,121
Motors, n.s.....	—	—	—	19,328
Motors, phonograph.....	—	—	—	132,644
Moulders (woodworking).....	No.	41	119,562	119,562
Mouldings.....	—	—	—	142,042
Mowers, n.s.....	No.	23,121	1,280,673	1,280,673
Mowers, lawn.....	"	46,263	327,018	327,018
Muffs.....	—	—	—	309

Alphabetical List of Products Manufactured in Canada, 1928—continued.

Item.	Unit of Measure.	Quantity Reported.	Value of Quantity Reported.	Total Value.
			\$	\$
Music, printed.....	—	—	—	5,000
Musical instruments and parts, n.s.....	—	—	—	97,322
Musical instruments in process of manufacture.....	—	—	—	69,387
Mustard, dry.....	lb.	420,129	92,609	92,609
Mustard, prepared.....	gal.	357,060	311,455	312,061
Nails and tacks, cut.....	lb.	3,062,968	374,178	443,378
Nails, horseshoe.....	—	2,452,813	222,627	222,627
Nails, tacks and brads, wire.....	—	122,185,110	4,185,172	4,185,172
Naptha.....	—	—	—	662,941
Neckties.....	doz.	582,935	3,670,172	3,670,172
Neckwear, n.s.....	—	45,812	355,756	636,406
Neckwear, fur.....	—	—	—	1,521,950
Needles, knitting, and hooks.....	—	—	—	9,454
Needles, knitting-machine.....	—	—	—	722,406
Neverleak polish.....	—	—	—	21,480
Nickel-silver components.....	—	—	—	17,961
Nickel salts, n.s.....	—	—	—	8,151
Night dresses.....	doz.	66,601	554,711	554,711
Night shirts.....	—	7,159	94,065	91,065
Nitrogen.....	—	—	—	3,501
Nitroglycerine.....	lb.	10,009,088	1,398,526	1,398,526
Novelties, Christmas.....	—	—	—	37,300
Oars and paddles.....	—	—	—	37,076
Oatmeal.....	lb.	15,861,456	528,708	528,708
Oats, rolled.....	—	143,655,467	6,521,023	6,521,023
Offal.....	—	—	—	1,941,745
Oil burners and parts.....	No.	3,371	880,840	942,799
Oilcloth, cotton.....	lin. yd.	3,857,889	1,008,145	1,008,145
Oil, engine.....	ton	4,714	198,214	198,214
Oil, core.....	gal.	49,867	42,613	42,613
Oil, corn, crude.....	lb.	3,314,111	295,599	297,087
Oil, corn, refined.....	—	1,851,594	307,365	307,365
Oil, creosote, and other.....	Imp. gal.	7,552,768	1,416,836	1,418,013
Oil, floor.....	—	—	—	5,427
Oil, fuel and gas.....	Imp. gal.	361,391,850	14,451,334	14,451,334
Oil, kerosene.....	—	—	—	7,125
Oil, kerosene.....	—	—	—	120,957
Oil, lard.....	gal.	110,517	159,057	120,957
Oil, linseed, boiled.....	Imp. gal.	1,067,770	842,281	994,361
Oil, linseed, raw.....	—	3,398,583	2,089,551	2,689,551
Oil, lubricating.....	—	20,297,396	3,808,594	3,809,075
Oil, olive.....	lb.	2,948,402	330,600	330,600
Oil, olive.....	gal.	7,788	50,986	50,986
Oil, paint and elixir.....	—	133,196	123,076	123,076
Oil, silk.....	—	—	—	26,609
Oil, refined, n.s.....	—	—	—	778,152
Oils, fruit.....	—	—	—	12,000
Oils, light.....	Imp. gal.	4,052,859	500,365	500,365
Oils, stand, blown or enamel.....	gal.	148,892	211,272	211,272
Oils, sulphurated.....	lb.	436,026	45,594	45,594
Oils, terpeness.....	—	—	—	16,000
Oils, n.s.....	lb.	2,403,734	296,081	553,805
Olive, packed.....	gal.	270,222	687,336	687,336
Organs, pipe.....	No.	93	785,024	785,024
Organs, reed.....	—	469	65,949	65,949
Organs, n.s.....	—	—	—	4,747
Ornaments, church and other, n.s.....	—	—	—	18,607
Ornaments, hat, dress, etc.....	—	—	—	8,478
Ornaments, composition.....	—	—	—	4,945
Orthopedic appliances. (See "Surgical appliances").....	—	—	—	—
Ovens, bakers'.....	—	—	—	214,062
Ovens, enamelling, tempering, etc.....	—	—	—	48,692
Overalls.....	doz.	314,103	5,330,189	5,330,189
Oxygen.....	cu. ft.	138,688,619	1,471,218	1,471,218
Packing, asbestos.....	lb.	383,837	218,904	218,904
Packing, metal.....	—	—	—	7,000
Packing, rubber, sheet.....	lb.	399,346	91,710	91,710
Packing, rubber, other than sheet.....	—	—	—	23,414
Paddings, buckram, etc.....	yd.	100,221	14,063	14,063
Pads and doily mats, asbestos.....	—	—	—	20,852
Pads, couch.....	—	—	—	14,214
Pads, horseshoe.....	—	—	—	31,789

Alphabetical List of Products Manufactured in Canada, 1928—continued.

Item.	Unit of Measure.	Quantity Reported.	Value of Quantity Reported.	Total Value.
			\$	\$
Pads, stamp	—	—	—	17,872
Pails and tubs	—	—	—	204,641
Paints, asphaltic and tar	gal.	204,619	170,891	170,891
Paints, automobile	—	—	—	10,000
Paints, mixed, ready for use	gal.	3,495,326	9,051,497	9,051,497
Paints and enamels	—	292,563	243,086	243,086
Paints, cold water	lb.	947,398	71,915	71,915
Paints, paste	—	8,568,771	879,370	879,370
Paints, red oxide dipping	—	—	—	19,380
Panel boards, electric and cabinets	—	—	—	737,187
Pans, tin	—	—	—	47,023
Pants	—	—	—	5,592,026
Pants and bloomers, cotton, for boys	doz.	6,138	64,752	64,752
Pants, baby, rubber	—	—	—	99,893
Pants, breeches and knickers	—	—	—	209,953
Pants, outing, nude of duck or denim	doz.	82,377	1,450,470	1,452,620
Paper—	—	—	—	—
Adding machine	—	—	—	11,483
Asbestos	lb.	2,815,259	84,457	84,457
Blotting	ton	482	86,760	86,760
Blue and brown print and linen	—	—	—	88,424
Book, wood fibre chief ingredient	ton	30,591	4,480,428	4,480,428
Book and writing, cover	"	1,018	175,060	175,060
Book and writing, plate, map, etc.	"	1,267	216,178	216,178
Building, roofing, etc.	—	—	—	4,969,057
Carbon	—	—	—	386,197
Cigarette tube	—	—	—	11,086
Coated	ton	9,305	2,167,038	2,167,038
Corrugated. (See "Corrugated paper and wrappers")	—	—	—	—
Dry transfers	—	—	—	240,995
Foolscap and type	M sh.	509,207	57,700	57,700
Glassine, etc.	lb.	351,414	173,057	173,057
Gummed	"	3,407,165	456,103	456,103
Kraft	ton	60,876	6,528,369	6,528,369
Newsprint, hanging	"	7,788	579,004	579,004
Newsprint, in sheets	"	9,842	592,301	592,301
Newsprint, in rolls	"	2,396,238	142,907,187	142,907,187
Newsprint, poster	"	525	68,140	68,140
Parchment	lb.	615,791	141,032	141,032
Vegetable parchment	ton	1,000	313,721	313,721
Saturated	"	1,061	79,611	79,611
Tissue paper	"	4,512	927,235	927,235
Toilet paper	"	6,384	1,119,971	1,119,971
Wall paper	roll	24,301,191	2,936,576	2,936,576
Waterproof	lb.	1,630,616	126,819	126,819
Waxed	"	8,990,445	1,607,090	2,081,087
Wrapping, bogus or wood manila	ton	6,432	618,392	618,392
Wrapping, manila	"	4,139	482,567	482,567
Wrapping, heavy	"	26,794	1,087,332	1,087,332
Wrapping, n.s.	"	13,426	1,707,557	1,707,557
Writing, n.s.	"	32,201	7,215,052	7,886,426
Paper, fine, n.s.	—	—	—	1,356,372
Paper, miscellaneous	—	—	—	517,439
Paper board—	—	—	—	—
Chipboard	ton	29,592	1,375,004	1,375,004
Mounting board	—	—	—	136,769
Newsboard	ton	306	16,830	16,830
Strawboard	"	14,993	799,886	799,886
Testboard	"	28,394	1,605,380	1,605,380
Trunk, leather binders and press boards	"	197	14,075	14,075
Wall-board	"	7,250	487,938	938,419
Wood-pulp board	"	85,165	4,573,338	4,573,338
All other	"	27,158	1,783,749	1,783,749
Paper ruled, meter charts, etc.	—	—	—	36,008
Paper-mill supplies, n.s.	—	—	—	54,915
Paper towels	ton	295	68,419	68,419
Papeteries	No.	1,697,178	456,945	456,945
Paraldehyde	—	—	—	26,623
Paste, fish and meat	—	—	—	8,640
Paste, flour	lb.	1,223,440	22,640	22,640
Paste, tooth	—	—	—	1,190,372
Patterns and models, wood	—	—	—	194,984
Patterns and models, n.s.	—	—	—	365,261
Patterns, paper, n.s.	—	—	—	690,976

Alphabetical List of Products Manufactured in Canada, 1928—continued.

Item.	Unit of Measure.	Quantity Reported.	Value of Quantity Reported.	Total Value.
			\$	\$
Patterns, rug	No.	-	-	76,545
Patterns, shoe	No.	239,706	110,401	110,401
Peanut butter	lb.	3,680,324	632,730	632,739
Peanuts, roasted and salted	"	4,260,238	814,098	814,098
Peas, split	"	1,384,535	55,695	55,695
Peavies, cant-hooks and pike poles	-	-	-	245,346
Peetin	-	-	-	386,645
Pencils, fancy	No.	519,975	373,408	373,408
Pens, fountain	"	862,461	1,546,947	1,546,947
Pens, fountain, parts	-	-	-	63,581
Penstocks and riveted steel pipe	-	-	-	180,914
Percolators, electric	-	-	-	41,278
Perfumes	-	-	-	600,470
Petrolatum	lb.	27,190	4,052	4,052
Pharmaceutical preparations	-	-	-	5,680,599
Phonograph accessories	-	-	-	325,193
Phonograph cabinets	-	-	-	106,618
Phonograph records	No.	5,955,984	2,278,286	2,278,286
Phonographs and gramophones	-	-	-	3,306,015
Phosphorus	lb.	3,069,589	460,434	460,434
Photo-engraving	-	-	-	3,596,213
Photographic material	-	-	-	4,183,195
Photostat	-	-	-	10,035
Piano actions	No.	18,454	441,098	441,098
Piano, player, actions	"	3,222	226,831	226,831
Piano and organ keys	set	15,630	304,510	304,510
Piano hammers	"	14,467	66,822	66,822
Piano plates	No.	4,200	59,651	59,651
Piano strings	set	9,206	27,057	27,057
Pianos—				
Grand	No.	668	351,830	351,830
Grand, player, electric	"	49	54,442	54,442
Upright	"	9,918	1,937,471	1,937,471
Upright, player	"	2,499	700,034	700,034
Upright, player, electric	"	42	23,256	23,256
Other, a.s.	-	-	-	4,607
Pickets	M	34,896	394,124	394,124
Pickles, all kinds	gal.	1,540,275	2,300,829	2,300,829
Picture frames, mouldings, etc.	-	-	-	963,657
Pies, cakes and pastry	-	-	-	13,368,169
Pigments, iron oxide	lb.	136,362	12,101	12,101
Piling	M lin. ft.	135	28,404	28,404
Pillows	pr.	180,203	466,419	466,419
Pillow cases. (See "Bedspreads, etc.")	-	-	-	-
Pins	-	-	-	154,125
Pipe, brass and copper	-	-	-	11,729
Pipe, cast iron	lb.	126,362,461	3,814,270	3,814,270
Pipe, cast iron soil	"	35,464,819	1,400,910	1,400,910
Pipe, drain, cement	-	-	-	145,908
Pipe, lead	lb.	4,906,410	477,667	477,667
Pipe, malleable iron, and fittings	"	7,894,290	974,799	974,799
Pipe, sewer, from domestic clay	-	-	-	1,723,644
Pipe, sewer, from imported clay	-	-	-	127,943
Pipe, sewer and culvert tile, cement	-	-	-	1,233,885
Pipe, steel	lb.	189,229,891	8,179,029	8,179,029
Pipe, wooden	-	-	-	223,149
Pipe, wrought iron	lb.	56,385,396	2,657,305	2,657,305
Pipe (tubercles) cleaners	-	-	-	40,910
Pipes, tobacco	doz.	4,623	26,288	27,135
Piston rings, locomotive and auto	-	-	-	110,617
Pitch	lb.	108,095,427	585,027	585,027
Planes, hand	-	-	-	7,786
Planters, corn	No.	2,435	134,369	134,369
Planters, potato	"	133	14,554	14,554
Plasterwork, ornamental	-	-	-	14,262
Plaster board	sq. ft.	27,514,368	757,482	757,482
Plaster, land	-	-	-	5,651
Plasters, medicated	-	-	-	337,409
Plates and sheets, brass, copper, etc.	-	-	-	3,509,679
Plates, boiler and other	-	-	-	61,048
Plates, lignone, name, etc.	-	-	-	22,508
Platforms, steel	-	-	-	54,490
Plating blanks	-	-	-	91,113
Platinum, other than refinery products	-	-	-	10,791
Ploughs	No.	66,957	3,459,219	3,459,219

Alphabetical List of Products Manufactured in Canada, 1928—continued.

Item.	Unit of Measure.	Quantity Reported.	Value of Quantity Reported.	Total Value.
			\$	\$
Plugs, wooden	—	—	—	68,000
Plumbers' supplies, washers, stoppers, etc.	—	—	—	433,944
Plumbers' supplies, iron	—	—	—	295,033
Poison, gopher and rat	—	—	—	29,642
Poles, all kinds	No.	73,772	206,704	206,704
Polish, automobile	—	—	—	22,442
Polish, furniture	—	—	—	237,323
Polish and soap, harness	—	—	—	14,791
Polish, metal	—	—	—	103,175
Polish, shoe	—	—	—	321,663
Polish, stove and pipe	—	—	—	200,033
Polish and waxes, floor	—	—	—	515,743
Polishes and dressings, n.s.	—	—	—	9,910
Polishers, floor, electric	No.	480	14,328	14,328
Pontons	—	—	—	28,640
Popcorn	lb.	1,127,112	358,446	358,446
Posts	No.	146,414	23,134	23,434
Posts, fence, iron	—	—	—	49,317
Posts, poles and piles of cement	—	—	—	17,748
Polish and mother liquor	—	—	—	14,649
Potassium iodide	lb.	9,372	38,026	38,026
Pots, glue, electric	—	—	—	2,348
Pottery from imported clay	—	—	—	38,144
Pottery from domestic clay	—	—	—	356,193
Poultry, fresh	lb.	5,930,432	1,891,206	1,891,206
Powder, baking	"	10,108,068	2,232,473	2,232,473
Powder, buttermilk	"	380,442	28,745	28,745
Powder, cleaning or scouring	—	—	—	1,037,784
Powder, cream	lb.	114,835	57,599	57,599
Powder, custard	—	—	—	82,079
Powder, ice-cream, jelly, custard, etc.	—	—	—	12,390
Powder, jelly	lb.	2,632,201	542,893	1,394,395
Powder, junket	—	—	—	16,692
Powder, lemon	lb.	35,400	24,780	24,780
Powder, milk	"	2,314,490	578,088	578,088
Powder, pudding	"	225,741	38,144	38,144
Powder, skimmed milk	"	12,509,187	1,236,277	1,236,277
Powder, talcum	—	—	—	136,480
Powder, whipping, icing, orangeade, etc.	—	—	—	17,344
Power-house equipment, n.s.	—	—	—	2,931
Press cloths	—	—	—	71,314
Presses, soil	No.	1,422	7,895	10,068
Presses, hydraulic and other power, n.s.	—	—	—	70,280
Pressure systems	—	—	—	19,652
Printing, commercial	—	—	—	38,356,249
Prints. (See "Cotton fabrics".)	—	—	—	—
Protein	lb.	23,247	13,948	13,948
Publications, subscriptions and sales of	—	—	—	15,461,592
Puddings	—	—	—	292,811
Pulleys, wood	—	—	—	6,754
Pulp, fruit	lb.	266,008	7,899	7,899
Pulp, purple, tomato	—	—	—	37,304
Pulpers and slicers	No.	244	2,843	2,843
Pulpwood	cord	908,446	11,030,608	11,030,608
Pulp, wood—	—	—	—	—
Ground wood	ton	201,636	4,907,434	4,907,434
Screenings	"	47,834	711,417	711,417
Soda fibre	"	10,212	661,060	661,060
Sulphate fibre	"	188,116	10,543,019	10,543,019
Sulphite fibre, bleached	"	277,863	20,508,497	20,508,497
Sulphite fibre, unbleached	"	243,728	11,276,913	11,276,913
Not specified	"	206	6,540	6,540
Pumps, centrifugal	No.	933	525,127	525,127
Pumps, hand	"	52,706	634,071	634,071
Pumps, piston, gasoline	"	278	45,943	45,943
Pumps, piston, steam	—	—	—	208,368
Pumps, piston, other power	No.	8,253	793,742	1,024,525
Pumps, wooden	"	3,087	40,956	40,956
Pumps, other, and pump parts	—	—	—	190,549
Punches, metal working	—	—	—	70,875
Purses, pocket books and folders	No.	515,332	415,397	415,397
Putty and other fillers	lb.	6,701,896	283,517	283,517
Pyjamas	—	—	—	1,390,631
Pyroxylin, compounds and thinners	gal.	576,260	1,077,643	1,077,643

Alphabetical List of Products Manufactured in Canada, 1928—continued.

Item.	Unit of Measure.	Quantity Reported.	Value of Quantity Reported.	Total Value.
Quilts	No.	158,091	\$ 212,900	\$ 214,420
Quilted goods	yd.	101,073	67,824	67,824
Racquets, tennis	No.	54,023	177,649	185,982
Radiators, automobile	—	—	—	780,207
Radiators and parts, heating	—	—	—	2,945,875
Radios, complete	No.	84,083	7,486,302	7,486,302
Radio cabinets	—	44,546	899,498	899,498
Radio speakers	"	1,518	21,757	21,757
Radio vacuum tubes	—	1,556,927	2,043,473	2,043,473
Radio apparatus and supplies, n.s.	—	—	—	659,001
Rail, brass and other	—	—	—	11,116
Rails, steel	l. ton	349,007	16,109,847	16,109,847
Railway fish plates	"	15,179	957,447	957,447
Railway tie plates	"	71,523	3,910,522	3,910,522
Railway track equipment	—	—	—	1,458,346
Railway equipment, n.s.	—	—	—	1,379,026
Rakes, hand	No.	231,697	119,378	119,378
Razors, safety	"	1,075,050	408,069	408,069
Reapers	"	1,412	134,627	134,627
Reaper-threshers, combined	"	2,429	2,010,473	2,010,473
Recorders, time	"	1,176	285,110	285,110
Rectifiers for storage battery chargings	—	—	—	109,128
Reels, cable	—	—	—	58,723
Refining equipment, oil	—	—	—	6,000
Refrigerators	No.	45,025	1,613,047	1,983,047
Refrigerators, electric	"	3,108	780,802	780,802
Regalia, all kinds	—	—	—	200,885
Registers, account	No.	653	83,094	83,094
Registers and grills	—	—	—	295,912
Registers, cash	—	—	—	1,669,625
Removers, paint, varnish and enamel	gal.	17,111	118,004	118,004
Rennet, cheese	—	21,993	56,164	56,164
Repair gums and fabrics	lb.	1,819,503	864,347	864,347
Repair kits and blow-out boots	—	—	—	91,464
Repair patches, tire	—	—	—	108,533
Rosin, prepared	—	—	—	9,151
Ribbons, inked	—	—	—	11,032
Ribbons	yd.	10,853,420	307,095	308,710
Ribbon novelties	—	—	—	32,144
Rice, cleaned, etc.	ton	14,694	1,648,920	1,648,920
Rifles	No.	13,200	40,200	40,200
Rims, automobile	—	—	—	339,208
Rings and loops	—	—	—	5,584
Rings, rubber	lb.	388,099	113,411	113,411
Robes, fur and other	No.	1,728	32,267	32,267
Robes, imitation buffalo	"	5,200	48,000	48,000
Robes and cloths, n.s.	—	—	—	534,310
Robes, sleeping	—	—	—	94,488
Rods, metal	—	—	—	5,340,805
Rods, wire	l. ton	45,032	1,765,168	1,765,168
Roll covering, wringer	—	—	—	51,893
Roll covering other than wringer	—	—	—	222,726
Rollers, land, and hand packers	No.	1,321	40,674	40,674
Rollers, printers	—	—	—	280,764
Roofing preparations and materials, n.s.	—	—	—	71,872
Rope	—	—	—	2,342,689
Rope, steel wire	—	—	—	368,000
Rubber, hard	—	—	—	271,657
Rubber proofing	—	—	—	25,198
Rubber, reclaimed	—	—	—	441,290
Rubber, n.s.	—	—	—	60,282
Rubber goods, moulded	—	—	—	129,193
Rubber goods, coated cotton	—	—	—	523,340
Rubber goods, sanitary	doz.	38,789	107,975	124,217
Rubber goods, n.s.	—	—	—	148,766
Rugs, woven whole, 4' 6" x 7' 6" or longer	carpet yd.	419,600	1,165,574	1,296,254
Rugs, woven whole, small	lin. yd.	788,613	2,012,227	2,030,984
Rugs, n.s.	—	—	—	166,864
Rugs, made from old carpets	—	—	—	13,151
Rules, wooden	—	—	—	74,656
Ruling	—	—	—	497,122
Saddles	No.	5,900	83,337	83,337
Saddle parts	—	—	—	27,594

Alphabetical List of Products Manufactured in Canada, 1928—continued.

Item.	Unit of Measure.	Quantity Reported.	Value of Quantity Reported.	Total Value.
			\$	\$
Saddlery specialties.....	—	—	—	37,790
Safes, vaults, and fittings.....	—	—	—	1,237,751
Sails, all kinds.....	—	—	—	66,063
Salt.....	ton	299,445	1,495,971	1,495,971
Salts, galvanizing.....	—	—	—	1,518
Sanders, woodworking.....	No.	99	70,935	70,935
Sanitary towels. (See "Towels".)	—	—	—	—
Sanitary ware, enamelled.....	—	—	—	3,818,414
Sanitary ware, n.s.....	—	—	—	66,123
Sanitary ware from imported clay.....	—	—	—	520,871
Sash, doors and millwork.....	—	—	—	21,448,731
Sash, steel.....	—	—	—	1,025,600
Sash weights.....	lb.	2,532,129	37,816	37,816
Sauces, ketchups and relishes.....	gal.	1,719,110	2,863,800	2,866,343
Sauerkraut.....	lb.	3,228,587	130,623	130,623
Sausage casings.....	—	—	—	1,901,384
Sausage, fresh or cured.....	lb.	47,347,877	8,689,039	8,689,039
Saw benches.....	No.	158	5,922	5,922
Saw parts and saw outfits.....	—	—	—	284,427
Saws, all kinds.....	—	—	—	1,458,483
Sawdust.....	—	—	—	2,565
Scales.....	No.	34,269	2,314,396	2,314,396
Scarves and mufflers.....	—	—	—	799,235
Scows.....	—	—	—	44,596
Scrap, aluminium.....	—	—	—	3,046
Scrap and scale, brass and copper.....	—	—	—	65,291
Scrap, iron and steel.....	lb.	153,611,644	787,135	1,061,514
Scrap, n.s.....	—	—	—	256,777
Scrapers, road.....	No.	6,916	115,665	145,665
Screen doors.....	"	38,692	74,783	74,783
Screens, n.s.....	—	—	—	431,870
Screens, window.....	No.	116,586	40,541	40,541
Screw products.....	—	—	—	474,196
Screws.....	—	—	—	2,092,556
Scufflers.....	No.	12,766	104,370	104,370
Sculptures, plaster.....	—	—	—	2,340
Sculptures, wood.....	—	—	—	4,556
Scythes, sickles and hay knives.....	No.	118,660	129,500	129,500
Seals, corporation and other.....	—	—	—	15,564
Seals and labels, lithographed and embossed.....	—	—	—	107,791
Searchlights, projectors, headlights, etc.....	—	—	—	76,822
Seats, chair.....	—	—	—	13,849
Seats, toilet.....	—	—	—	6,956
Seeders, horse and power.....	No.	513	24,316	24,316
Separators, boilers.....	—	—	—	21,020
Separators, battery.....	—	—	—	4,800
Shades and blinds, window.....	—	—	—	520,814
Shade cloth and rollers.....	—	—	—	726,836
Shade rollers, spring.....	—	—	—	249,515
Shanks, shoe.....	—	—	—	98,458
Shapers and jointers, woodworking.....	No.	136	96,401	96,401
Shapers, metal-working.....	—	—	—	492,748
Shawls, woven.....	No.	12,365	24,752	30,821
Sheaf loaders.....	"	135	119,457	119,457
Sheepskin socks and fillers.....	—	—	—	137,032
Sheeting, rubber, hospital.....	yd.	185,825	84,842	84,842
Sheeting, rubber, n.s.....	—	2,375	1,425	1,425
Sheeting, rubber, crib.....	—	—	—	6,429
Sheet metal products, n.s.....	—	—	—	238,004
Sheets, galvanized.....	ton	48,023	4,435,889	4,435,889
Sheets, iron and steel.....	l. ton	26,322	1,754,214	1,754,214
Shellac.....	gal.	194,832	595,223	595,223
Shields, dress.....	—	—	—	84,024
Shims, railroad.....	—	—	—	35,000
Shingle bands.....	—	—	—	56,522
Shingles.....	M	2,865,094	10,321,341	10,330,832
Shingles, asbestos.....	—	—	—	107,585
Shingles, composition.....	—	—	—	1,689,681
Shipbuilding and repairs.....	—	—	—	12,486,163
Shirts and blouses for boys.....	doz.	72,658	501,310	501,310
Shirts, fine.....	"	415,978	7,088,488	7,088,488
Shirts, work.....	"	363,554	4,078,140	4,136,140
Shirts, n.s.....	—	—	—	38,975
Shock absorbers, automobile.....	—	—	—	615,902
Shoddy, mungo and wool extract.....	lb.	5,117,468	703,691	703,691

Alphabetical List of Products Manufactured in Canada, 1928—continued.

Item.	Unit of Measure.	Quantity Reported.	Value of Quantity Reported.	Total Value.
			\$	\$
Shoe laces. (See "Laces".)	—	—	—	16,731
Shoe supplies.	—	—	—	2,474
Shoe trimmings.	pr.	176,497	2,474	12,500
Shoe uppers.	"	5,000	12,500	5,149,898
Shooks, box.	—	—	—	4,239,298
Shortening (animal).	lb.	30,487,575	4,239,298	2,899,151
Shortening and lard compound (vegetable).	"	21,535,233	2,899,151	131,239
Shot.	lb.	1,657,005	131,239	1,500
Shovels, wood.	—	—	—	107,940
Shrinking.	—	—	—	32,283
Shrinking cloth.	yd.	1,291,421	32,283	9,500
Sifters, ash.	—	—	—	30,186
Signals, train and other.	—	—	—	93,279
Signs, U.S.	—	—	—	10,424
Signs and scenery.	—	—	—	26,637
Signs, brass, name plates, etc.	—	—	—	27,005
Silicates, n.s.	—	—	—	2,139,977
Silicon carbide, crude.	lb.	38,016,266	2,098,199	2,961,481
Silk piece goods.	yd.	2,282,408	2,952,331	1,136,283
Silk fabrics, artificial.	"	1,031,593	1,136,283	621,891
Silk knitted goods, artificial.	lb.	239,423	415,275	608,146
Silk yarn.	—	156,240	608,146	3,612,999
Silk yarn, artificial.	"	3,230,662	3,612,999	31,410
Silos and troughs.	—	—	—	19,678
Silver, other than smelter products.	—	—	—	39,117
Silver nitrate.	lb.	5,839	39,117	283,067
Size.	—	—	—	570,752
Skates.	—	—	—	22,765
Skewers.	—	—	—	74,247
Skis.	pr.	36,372	74,247	651,592
Skins, calf.	No.	221,191	651,592	1,033,569
Skins, sheep.	"	564,923	1,033,569	245,509
Skins, sheep, pickled.	doz.	31,016	245,509	592,293
Skirts.	—	—	—	965,357
Slabs and edgings, wood.	—	—	—	23,990
Sledges.	—	—	—	696,475
Sleeve supporters. (See "Armlets".)	—	—	—	270,877
Sleighs.	No.	15,765	696,475	79,600
Sleighs, children's.	"	148,981	270,877	44,167
Slicers, meat.	"	406	79,600	15,972
Slippers, cloth and carpet—	—	—	—	64,986
Babies'.	pr.	100,797	44,167	80,291
Boys'.	"	22,861	15,972	761,384
Children's.	"	113,605	64,986	2,757
Men's.	"	85,550	80,291	94,341,702
Women's.	"	847,446	761,384	875,978
Not specified.	—	—	—	11,729
Smelter and refinery products.	—	—	—	60,920
Smocks.	doz.	53,937	868,178	61,240
Smoker's sets.	—	—	—	12,504
Smokestacks, steel.	—	—	—	202,462
Snaths, scythe.	doz.	4,440	61,240	3,393,588
Snowshoes.	—	—	—	5,415,315
Soap, hard, n.s.	lb.	2,343,069	202,462	106,573
Soap, household, n.s.	"	44,916,489	3,393,588	17,842
Soap, laundry and soap chips.	"	66,225,955	5,415,315	20,970
Soap, liquid.	"	1,048,662	105,281	391,400
Soap, medicated.	—	—	—	98,835
Soap, polishing and scouring.	lb.	353,711	20,970	138,791
Soap powder.	"	6,045,901	391,400	4,000,841
Soap, soft.	"	1,390,590	98,835	66,638
Soap, textile.	"	1,803,723	138,791	180,307
Soap, toilet.	"	18,479,868	4,000,841	14,503
Soap stock.	—	—	—	745,859
Soap, n.s.	lb.	1,319,178	166,570	—
Society emblems and paraphernalia.	—	—	—	—
Sockets, receptacles, rosettes, plugs, etc.	—	—	—	—
Soda water. (See "Waters, aerated".)	—	—	—	—
Sodium bichlorate.	lb.	47,675	4,768	4,768
Sodium bisulphate (nitre cake).	"	5,325,936	6,465	1,618,385
Sodium carbonate (soda ash).	—	—	—	3,593,647
Sodium cyanide.	lb.	29,034,646	3,593,647	890,747
Sodium hydroxide (caustic soda).	"	30,337,563	890,747	2,036
Sodium hypochlorite.	"	50,970	2,036	—
Sodium sulphate (Glauber's salt).	"	4,398,861	45,484	45,484

Alphabetical List of Products Manufactured in Canada, 1928—continued.

Item.	Unit of Measure.	Quantity Reported.	Value of Quantity Reported.	Total Value.
			\$	\$
Sodium sulphate (salt cake).....	lb.	6,384,650	57,788	57,788
Softeners, water.....	"	307,338	42,369	42,369
Solders.....	"	3,361,987	851,385	851,385
Soleing, rubber.....	"	-	-	26,201
Soleing, rubber and composition soles.....	pr.	3,534,885	896,363	896,363
Soleing, rubber and composition half-soles.....	"	499,163	130,128	130,128
Soles, felt.....	"	-	-	4,506
Sole tops and heel lifts.....	"	-	-	222,370
Soup, canned.....	case	408,265	1,390,612	1,390,612
Spades and shovels.....	No.	1,170,568	831,982	831,982
Spark plugs.....	"	3,720,379	960,808	960,808
Spices, mixed, whole or ground.....	lb.	3,758,698	1,550,675	1,550,675
Spikes, railway.....	"	38,859,040	1,258,906	1,258,906
Spinning wheels.....	No.	550	3,605	3,605
Spools, bobbins and shuttles.....	"	-	-	434,900
Spoolwood.....	"	-	-	308,262
Sporting goods, n.s.....	"	-	-	549,791
Sprayers, barrel or tank.....	No.	399	23,774	23,774
Sprayers, hand.....	"	4,726	23,108	23,108
Sprayers, power.....	"	245	34,600	34,600
Sprayers, n.s.....	"	-	-	30,406
Springs, automobile.....	"	-	-	2,572,058
Springs, steel and wire.....	"	-	-	290,049
Springs, upholstering.....	"	-	-	33,941
Springs, flat, and railway coil.....	"	-	-	242,340
Springs, bed, box.....	No.	8,567	189,255	189,255
Springs, bed, woven wire.....	"	28,909	105,089	105,089
Springs, bed, n.s.....	"	358,990	1,781,474	1,895,721
Stains.....	gal.	508,315	777,835	777,835
Stairs, iron.....	"	-	-	542,653
Stampings, automobile.....	"	-	-	352,945
Stampings, metal, n.s.....	"	-	-	480,211
Stamps, metal and rubber.....	"	-	-	290,230
Stamps, metal, n.s.....	"	-	-	12,505
Stamps, steel and dies.....	"	-	-	32,465
Standpipes, railway.....	"	-	-	14,080
Staples, wire.....	lb.	4,816,979	175,322	175,322
Starch, n.s.....	"	-	-	34,055
Starch, corn, edible.....	lb.	18,265,559	1,003,882	1,003,882
Starch, corn, laundry.....	"	8,190,392	407,616	407,616
Starch, potato.....	"	2,410,601	96,732	96,732
Stationery goods, n.s.....	"	-	-	2,251,255
Statues, n.s.....	"	-	-	60,688
Statues and church supplies, plaster.....	"	-	-	231,531
Staves.....	M	29,305	375,519	375,519
Stearine.....	lb.	1,437,376	112,205	112,205
Steel, cold drawn.....	"	14,052,000	514,083	514,083
Steel, cold rolled.....	"	21,725,543	936,128	936,128
Steel, structural and ornamental.....	l. ton	32,065	1,483,768	1,483,768
Steel, structural, for buildings and bridges.....	"	-	-	16,024,759
Steel shapes, structural.....	"	-	-	7,430,602
Steel work, n.s.....	"	-	-	1,649,801
Stencils.....	"	-	-	29,648
Stereotyping.....	"	-	-	635,669
Stockinette and tricolette. (See "Jersey cloth".)	"	-	-	-
Stoker parts.....	"	-	-	57,733
Stokers, mechanical.....	No.	8	28,905	28,905
Stone, artificial.....	"	-	-	1,173,645
Stools, benches, etc.....	"	-	-	132,913
Stove pipes.....	"	-	-	697,320
Stove parts, n.s.....	"	-	-	327,911
Stoves, coal and wood.....	No.	205,091	6,068,320	6,068,320
Stoves, electric.....	"	46,849	3,075,391	3,075,391
Stoves, gas.....	"	66,382	1,837,905	1,837,905
Stoves, oil and gasoline.....	"	1,249	25,663	169,333
Straps, leather.....	doz.	100,402	75,328	75,328
Straps, deekle.....	"	-	-	4,194
Straps, watch.....	doz.	7,010	29,804	29,804
Straw, retted.....	ton	551	33,080	33,080
Straws, soda.....	"	-	-	89,554
Strings, violin and ukelele.....	"	-	-	1,217
Strops, razor.....	No.	63,808	22,029	22,029
Sugar butter.....	lb.	774,421	87,577	87,577
Sugar, granulated.....	"	829,850,567	46,158,093	46,158,093
Sugar, invert.....	"	-	-	19,920

Alphabetical List of Products Manufactured in Canada, 1928—continued.

Item.	Unit of Measure.	Quantity Reported.	Value of Quantity Reported.	Total Value.
Sugar, grape.....	lb.	4,946,381	\$ 172,998	\$ 172,998
Sugar, maple.....	"	2,897,753	585,175	585,175
Sugar of milk.....	"	—	—	7,491
Sugars, soft.....	lb.	97,766,317	5,144,804	5,144,504
Suit cases. (See "Bags, etc.")	—	—	—	—
Suits and pants, boys.....	—	—	—	3,820,736
Suits, men's.....	—	—	—	20,303,245
Suits, women's.....	—	—	—	1,135,256
Suits, jersey, n.s. (See also "Children's jersey suits")	dos.	8,191	114,198	114,198
Superheaters and equipment.....	—	—	—	34,305
Superphosphate.....	lb.	3,646,000	29,168	29,168
Surcingles.....	—	—	—	26,008
Surfucers (woodworking).....	No.	53	69,058	69,058
Surgical and orthopedic appliances—	—	—	—	—
Artificial limbs.....	No.	507	67,214	67,214
Braces.....	"	59	800	800
Corsets and brassieres.....	"	5,189	24,757	24,757
Foot easers and arch supports.....	pr.	33,168	62,555	62,555
Foot plates.....	No.	438	3,249	3,449
Heel cushions and walk strates.....	pr.	50,076	10,943	10,943
Supports, n.s. (See also "Trusses")	No.	480	10,663	10,663
Surgical belts.....	"	14,474	25,861	34,056
Surgical, elastic stockings.....	"	3,968	6,647	13,950
Surgical elastic stockings, suspensories, etc.....	—	—	—	67,355
Surgical and athletic supporters.....	dos.	7,779	60,052	60,052
Not specified.....	—	—	—	32,331
Surgical bandages.....	gr.	4,352	76,757	76,757
Surgical dressing.....	yd.	4,428,679	161,543	333,449
Suspenders, supporters and garters.....	dos.	362,567	1,278,285	1,280,285
Swathers.....	No.	129	35,505	35,505
Sweaters, cardigans, jackets, etc.....	—	—	—	8,983,934
Sweat pads.....	—	—	—	402,825
Sweeping compounds.....	—	—	—	84,041
Swings, lawn.....	No.	2,072	11,800	11,800
Switchboards, light and power.....	—	—	—	2,955,697
Switches and accessories.....	—	—	—	2,495,968
Syrup, corn.....	lb.	17,046,631	780,080	780,080
Syrup, maple.....	"	1,098,530	332,946	332,946
Syrup, table, fountain, etc.....	gal.	246,585	238,349	238,349
Syrups, fountain and fruit juices.....	—	—	—	1,681,287
Syrups, other, n.s.....	lb.	5,599,849	202,133	202,133
Tablets, memorial.....	—	—	—	17,627
Tags and labels, shipping.....	—	—	—	244,935
Tags, dog, bicycle and licence.....	—	—	—	1,067
Tailors' supplies.....	—	—	—	347,118
Tallow.....	lb.	19,179,543	1,556,436	1,556,436
Tallow, refined.....	—	—	—	20,170
Tankage, animal.....	lb.	38,078,537	838,594	838,594
Tanks, gasoline and oil.....	—	—	—	800,609
Tanks, pressure.....	—	—	—	126,017
Tanks, steel, n.s.....	—	—	—	32,540
Tanks, storage.....	—	—	—	2,083,532
Tanks, n.s.....	—	—	—	865,864
Tape, friction and splicing compound.....	lb.	685,460	232,064	232,064
Tape, paper, gummed.....	—	—	—	7,393
Tapes, measuring.....	No.	146,115	73,834	73,834
Tapes, cotton. (See also "Bindings")	—	—	—	263,073
Tapestries.....	yd.	669,705	379,247	379,247
Taps, brass.....	—	—	—	1,024,319
Tar, coal and tar products.....	Imp. gal.	27,141,332	1,721,432	1,721,432
Tar, crude and refined, tarco, tarvia, etc.....	"	9,453,666	1,208,635	1,208,635
Tar products, n.s.....	—	—	—	1,693
Targets, blackbird and duck.....	—	—	—	8,129
Tarpaulins. (See "Covers, canvas")	—	—	—	—
Tea, blended, etc.....	lb.	25,178,537	13,819,924	13,819,924
Telephone material.....	—	—	—	7,162,406
Tenoners and mortisers (woodworking).....	No.	63	42,929	42,929
Tents.....	—	—	—	782,835
Thermits.....	lb.	31,590	12,161	12,161
Thread, cotton.....	dos. spls.	5,981,651	3,484,368	3,892,650
Thread, crochet cotton.....	—	211,368	560,949	560,949
Thread, artificial silk.....	lb.	1,500	3,400	3,400
Thread, silk, twist and floss.....	"	106,590	860,796	860,796

Alphabetical List of Products Manufactured in Canada, 1928—continued.

Item.	Unit of Measure.	Quantity Reported.	Value of Quantity Reported.	Total Value.
			\$	\$
Threshers.....	No.	3,439	2,466,909	2,466,909
Ties, sawn.....	"	6,637,669	4,301,598	4,391,598
Tile, ceramic, floor, from imported clay.....	—	—	—	133,411
Tile drain, from domestic clay.....	No.	22,627,992	656,054	656,054
Tile, floor from domestic clay.....	sq. ft.	171,520	45,729	45,729
Tile, gypsum and other, n.s.....	—	—	—	87,783
Tile, roofing and hollow blocks.....	—	—	—	1,936,587
Tiling and flooring, rubber.....	lb.	746,257	170,444	170,444
Timber, square.....	M ft.	26,239	572,797	572,797
Timbers, mine.....	M lin. ft.	139	6,131	6,131
Tin.....	lb.	88,015	47,723	47,723
Tinsel garlands.....	gr. yd.	18,910	48,654	48,654
Tinsel ornaments.....	gr.	2,951	12,752	12,752
Tinsel ribbon.....	—	—	—	25,547
Tinware, japanned or not.....	—	—	—	1,804,363
Tire fabrics.....	lb.	7,997,805	3,813,403	3,813,403
Tire sleeves.....	—	—	—	11,167
Tires and tubes, balloon casings.....	No.	2,621,448	21,706,002	21,706,002
Tires and tubes, balloon inner tubes.....	"	2,387,717	3,633,126	3,633,126
Tires and tubes, pneumatic casings.....	"	1,717,130	19,369,592	19,369,592
Tires and tubes, pneumatic inner tubes.....	"	2,250,712	3,725,434	3,725,434
Tires, bicycle.....	—	186,623	181,193	181,193
Tires, carriage, solid rubber.....	lb.	542,210	170,675	170,675
Tires, motorcycle.....	No.	36,467	203,764	203,764
Tires, solid rubber, n.s.....	—	—	—	604,109
Tires, railway car.....	ton	3,177	315,134	315,134
Toasters, electric.....	No.	94,980	273,756	273,756
Tobacco—				
Chewing, cut and twist.....	lb.	280,150	280,239	280,239
Chewing plug.....	"	4,941,551	4,439,101	4,439,101
Smoking, leaf.....	"	6,305,396	1,589,659	1,589,659
Smoking, package, cut.....	"	13,922,510	16,145,342	16,145,342
Smoking, plug.....	"	1,892,314	2,037,160	2,037,160
Smoking, twist.....	"	15,431	10,782	10,782
Snuff.....	"	1,008,041	1,277,230	1,277,230
Stems and cuttings.....	—	—	—	18,808
Toboggans.....	No.	12,671	41,576	41,576
Toilet preparations.....	—	—	—	4,370,869
Toilet systems, chemical.....	—	—	—	80,437
Tools, pneumatic and parts.....	—	—	—	172,812
Tools, edged, n.s.....	—	—	—	11,097
Tools, machine.....	—	—	—	92,245
Tools, n.s.....	—	—	—	1,952,596
Toothpicks.....	—	—	—	37,781
Tow.....	ton	1,601	112,417	112,417
Towelling.....	yd.	1,406,549	236,170	236,170
Towels.....	doz.	165,245	558,977	558,977
Towels, dish.....	"	18,259	15,399	15,399
Towels, face cloths.....	"	126,471	83,437	83,437
Towels, sanitary.....	gr.	305,347	1,072,979	1,072,979
Toy animals.....	doz.	1,435	19,397	19,397
Toy brooms.....	"	5,500	6,434	6,434
Toy furniture.....	—	—	—	83,167
Toy vehicles—dolls' carriages.....	—	—	—	50,098
Toy vehicles—wagons, carts, coasters, etc.....	—	—	—	297,248
Toys, wooden.....	—	—	—	212,462
Toys, n.s.....	—	—	—	45,484
Tractors, gasoline.....	No.	185	237,180	237,180
Tractors, steam.....	"	6	14,000	14,000
Transformers.....	"	3	6,389	6,389
Traps and fittings, lead.....	lb.	763,469	100,443	100,443
Traps, game.....	No.	957,660	194,937	194,937
Traps, steam.....	—	—	—	258,182
Trays, display, optical, etc.....	—	—	—	43,711
Trays, communion.....	No.	500	2,500	2,500
Trays, laundry, cement.....	—	—	—	18,192
Tricycles.....	No.	48,551	273,080	273,080
Trimming, fur.....	—	—	—	242,910
Trimnings, dress and other.....	—	—	—	156,565
Troughs.....	—	—	—	58,855
Trousers. (See "Pants, etc.").....	—	—	—	—
Trucks, factory and warehouse.....	—	—	—	193,382
Trunks of all kinds.....	No.	92,906	788,482	788,482
Trussers.....	"	589	43,181	43,181

Alphabetical List of Products Manufactured in Canada, 1928—continued.

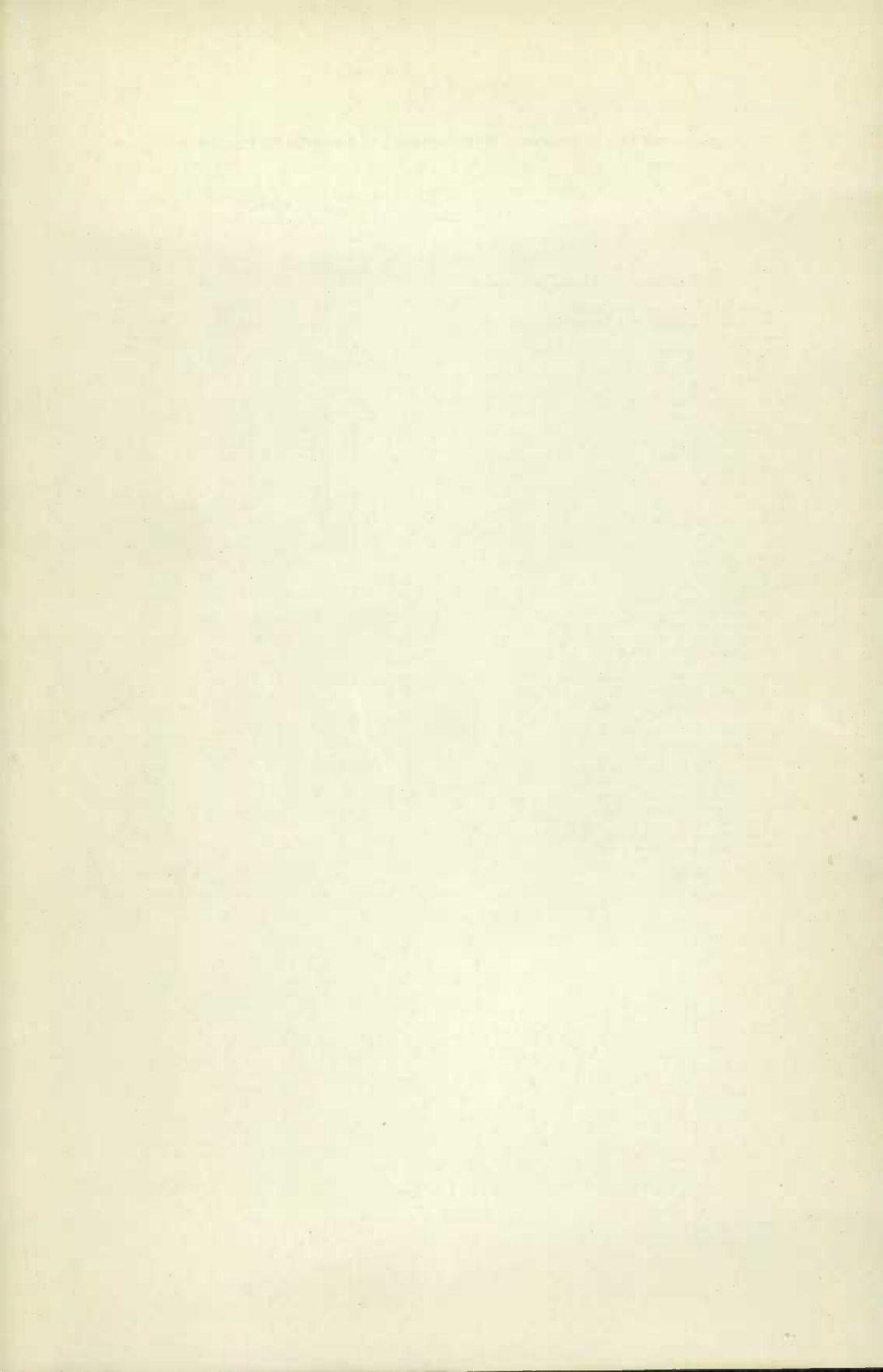
Item.	Unit of Measure.	Quantity Reported.	Value of Quantity Reported.	Total Value.
			\$	\$
Trusses, surgical	No.	246	2,588	2,588
Trusses, surgical supports, etc.	"	23,150	46,878	46,878
Tubes, bicycle	"	207,747	91,010	91,010
Tubes, motorcycle	"	22,394	23,633	23,633
Tubes, collapsible, and other	gr.	105,388	381,359	381,359
Tubes, vacuum, X-ray, etc., not inc. radio tubes	"	-	-	149,207
Tubing, carriage	lb.	65,734	10,009	10,009
Tubing, copper	"	3,973	1,907	1,907
Tubing, rubber, n.s.	yd.	370,718	27,285	38,374
Tubing, steel	lb.	5,682,433	534,834	534,834
Tubing, steel, bed-spring	"	-	-	425,437
Tubing and wristing, glove	lb.	25,650	14,483	14,483
Tubs, butter and ice-cream	"	-	-	4,000
Turbines and water wheels	"	-	-	2,237,671
Turning, wood	"	-	-	310,707
Turpentine	U.S. gal.	30,580	14,400	14,400
Twines—				
All hemp	lb.	1,006,348	245,523	245,523
All cotton	"	133,919	102,333	102,333
All jute	"	2,384,891	387,331	387,331
Other	"	13,978	6,989	6,989
Twine and cordage	"	3,312,883	1,412,329	1,412,329
Type and type metal	"	2,475,724	253,619	253,619
Typesetting	"	-	-	418,537
Typewriter ribbons	doz.	52,380	205,973	205,973
Typewriters	No.	4,262	245,037	245,037
Umbrellas	doz.	53,708	981,307	981,307
Undertakers' supplies, n.s.	"	-	-	597,067
Underwear—				
Combination, all cotton	doz.	412,401	3,848,648	3,848,648
Combination, all wool	"	42,902	1,030,058	1,030,058
Combination, merino and mixed	"	97,975	1,810,222	1,810,222
Combination, silk or silk mixed	"	11,400	137,479	137,479
Combination, artificial silk	"	161,995	1,053,283	1,053,283
Separate, all cotton	"	1,384,782	5,693,825	5,693,825
Separate, all wool	"	125,161	1,456,079	1,456,079
Separate, merino and mixed	"	189,970	1,826,150	1,826,150
Separate, silk or silk mixed	"	4,126	50,298	50,298
Separate, artificial silk	"	305,839	2,976,553	2,976,553
Not specified	"	-	-	3,680,340
Uniforms, firemen's duty coats	"	-	-	14,908
Uniforms, hospital, and hospital garments	doz.	3,535	65,400	104,242
Uniforms, maids' and waiters'	"	550	17,000	17,000
Uniforms, military and athletic	"	-	-	201,540
Uniforms, n.s.	"	-	-	575
Upholstering	"	-	-	4,997,059
Upholstering material, n.e.s.	"	-	-	29,766
Valves	No.	63,177	184,116	184,116
Valves, brass and bronze	"	-	-	1,791,701
Valves, gaskets and washers	"	-	-	20,350
Valves, iron	No.	23,362	599,378	882,222
Varnishes, oil	gal.	2,933,948	5,073,940	5,073,940
Vases	"	-	-	6,733
Vaults, burial, cement	"	-	-	8,019
Vaults, burial, steel	"	-	-	50,540
Vegetables, canned—				
Beans, baked	cases	1,246,356	3,358,940	3,358,940
Beans, green or wax	"	216,802	643,845	643,845
Corn	"	917,846	2,300,446	2,300,446
Peas	"	1,032,806	2,536,556	2,536,556
Tomatoes	"	1,864,956	4,288,849	4,288,849
Other	"	205,694	571,245	651,342
Velours and plushes. (See "Woollen cloth".)	"	-	-	-
Veneer	"	-	-	738,291
Veneer panels	"	-	-	375,947
Vests, fancy	"	-	-	49,433
Vests, leather	doz.	8,185	135,040	135,040
Vests, men's	"	-	-	91,816
Vinegar	gal.	4,396,866	1,506,589	1,506,589
Visors	"	-	-	37,987
Wafers, ice cream	"	-	-	17,197
Wagon and sleigh parts	"	-	-	240,358

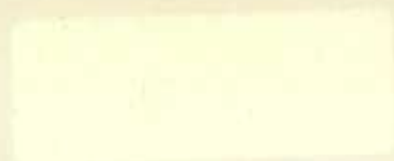
Alphabetical List of Products Manufactured in Canada, 1928—continued.

Item.	Unit of Measure.	Quantity Reported.	Value of Quantity Reported.	Total Value.
Wagons, complete	No.	5,433	243,126	243,126
Wallboard, asbestos	—	—	—	16,552
Wallboard, gypsum	—	—	—	1,009,693
Wall coating, gypsum	lb.	6,140,735	399,148	399,148
Wall paper. (See "Paper".)	—	—	—	—
Wall plaster, gypsum	ton	27,729	311,961	311,961
Washboards	No.	215,043	121,166	121,166
Washers, metal	—	—	—	107,279
Washers, leather	—	—	—	28,827
Washing compounds	—	—	—	299,994
Waste—	—	—	—	—
Cotton	lb.	14,859,951	807,061	808,664
Cotton and wool	"	12,327,327	1,345,945	1,468,845
Cotton and flocks	—	—	—	211,982
Wool	lb.	947,247	206,476	236,893
Wool and noils	—	—	—	46,088
Not specified	—	—	—	512,017
Waste, sawmill and other wood waste	—	—	—	41,766
Water, distilled	—	—	—	16,750
Water, mineral, natural	—	—	—	261,977
Water, aerated	—	—	—	9,730,250
Watches and watch cases	—	—	—	705,389
Waterproof clothing. (See "Clothing".)	—	—	—	—
Wax, paraffin	lb.	15,883,074	535,814	549,757
Wax, sealing	—	—	—	31,278
Weatherstrip	—	—	—	173,784
Webbing, automobile	—	—	—	43,380
Webbing, duck and jute	—	—	—	7,202
Webbing, elastic and non-elastic	lb.	880,158	1,089,674	1,478,649
Weeders	No.	2,112	127,803	127,803
Weed killer (chemical)	gal.	651,349	247,699	247,699
Welding apparatus and accessories	—	—	—	105,080
Wetting	—	—	—	243,027
Wheelbarrows and parts	—	—	—	159,005
Wheels, automobile	No.	452,124	1,863,502	1,863,502
Wheels, disc, for toy carts	—	—	—	32,290
Wheels, railway car	No.	461,471	4,276,449	4,292,045
Wheels, n.s.	"	30,256	68,155	68,155
Whey	—	—	—	3,978
Whip lashes	—	—	—	7,250
Whips	No.	232,096	61,518	61,518
Whiskies and other potable spirits	pr. gal.	12,216,326	35,894,597	35,894,597
Whisks	doz.	36,958	82,628	82,628
White, satin	lb.	986,700	14,678	14,678
Windbreakers. (See "Coats".)	—	—	—	—
Windmills	No.	1,529	99,380	99,380
Window blinds and shades. (See "Shades".)	—	—	—	—
Wine, fermented	gal.	4,351,123	3,531,290	3,531,290
Wine, unfermented	—	—	—	1,425
Wines, medicated	—	—	—	105,731
Wiping cloths and rugs	lb.	3,299,199	505,728	505,728
Wire, barbed	"	22,108,020	709,212	709,212
Wire, bare, copper	"	1,639,296	302,969	302,969
Wire, brass	"	75,865	21,977	21,977
Wire, cold rolled, flat	"	471,935	33,933	33,933
Wire, galvanized	"	35,007,350	1,441,320	1,441,320
Wire, millinery	—	—	—	9,257
Wire, nickel, silver	—	—	—	4,712
Wire, coated, other, n.s.	lb.	8,048,407	400,784	400,784
Wire, plain	"	84,099,080	2,783,812	2,838,005
Wire, welding	"	262,934	32,222	32,222
Wire cloth, brass	sq. ft.	2,204,401	1,073,045	1,077,045
Wire cloth, copper	—	—	—	2,900
Wire cloth, iron and steel	—	—	—	499,789
Wire netting	—	—	—	321,711
Wire shapes, garment hangers, baskets, etc.	—	—	—	90,846
Wires and cables	—	—	—	19,777,224
Wire work, iron	—	—	—	64,044
Wiring material, n.s.	—	—	—	261,745
Wooden products, n.s.	—	—	—	2,083,344
Woodenware, n.s.	—	—	—	203,320
Woodenware, kitchen, n.s.	—	—	—	40,043
Wood flour	—	—	—	27,940
Wood preservation	—	—	—	3,514,100
Woodwork, sanitary and other, n.s.	—	—	—	509,538

Alphabetical List of Products Manufactured in Canada, 1928—concluded.

Item.	Unit of Measure.	Quantity Reported.	Value of Quantity Reported.	Total Value.
Wool.....	lb.	1,489,341	\$ 708,398	\$ 708,398
Wool, pulled.....	"	1,045,433	461,148	461,148
Woollen cloth—overcoatings, cloakings, jerseys, etc.....	—	—	—	8,342,928
Woollen cloth—velours and plushes.....	lin. yd.	700,000	1,500,000	1,500,000
Woollen cloth—flannels for underwear.....	sq. yd.	374,206	121,033	121,533
Woollen cloth, n.s.....	—	—	—	358,484
Wrenches and spanners.....	—	—	—	45,140
Wringers, clothes.....	No.	40,016	220,944	220,944
Wringers, mop.....	—	—	—	22,465
Yarn, bleached and dyed, cotton.....	lb.	3,572,875	1,499,933	1,499,933
Yarn, grey, cotton.....	"	23,830,037	9,700,637	9,700,637
Yarn, cotton, n.s.....	"	927,026	280,730	280,730
Yarn, cotton and merino.....	"	20,000	17,000	17,000
Yarn, hemp and sisal.....	"	544,372	96,472	96,472
Yarn, silk. (See "Silk".)	—	—	—	—
Yarn, woollen.....	lb.	6,106,179	3,290,135	3,290,135
Yarn, worsted.....	"	6,369,625	6,930,963	6,930,963
Yeast.....	"	10,433,438	1,606,604	1,613,281
Yeast and yeast food.....	"	1,400,201	144,911	154,731
Zinc.....	"	949,086	69,702	121,530
Zinc products, n.s.....	—	—	—	5,759
Custom work and repairs—	—	—	—	—
Vegetable products group.....	—	—	—	1,388
Animal products group.....	—	—	—	703,365
Textiles and textile products group.....	—	—	—	2,806,021
Wood and paper products group.....	—	—	—	3,130,420
Iron and steel products group.....	—	—	—	19,200,714
Non-ferrous metal products group.....	—	—	—	1,509,269
Non-metallic mineral products group.....	—	—	—	23,197
Chemicals and chemical products group.....	—	—	—	69,626
Miscellaneous industry group.....	—	—	—	1,058,488
All other products, not specified—	—	—	—	—
Vegetable products group.....	—	—	—	1,990,691
Animal products group.....	—	—	—	1,277,460
Textiles and textile products group.....	—	—	—	663,110
Wood and paper products group.....	—	—	—	7,604,190
Iron and steel products group.....	—	—	—	33,019,295
Non-ferrous metal products group.....	—	—	—	1,832,801
Non-metallic mineral products group.....	—	—	—	1,679,998
Chemicals and chemical products group.....	—	—	—	2,703,737
Miscellaneous industry group.....	—	—	—	3,482,487
Total.....	—	—	—	3,769,850,364





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