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# IRON AND STEEL

AND

## THEIR PRODUCTS IN CANADA

### 1925

Published by Authority of the Hon. Jas. Malcolm, M.P.  
Minister of Trade and Commerce



OTTAWA  
F. A. ACLAND  
PRINTER TO THE KING'S MOST EXCELLENT MAJESTY  
1927

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#### STATISTICS OF MANUFACTURES—based chiefly on minerals.

General reports on the sections of manufactures covered by the Mining, Metallurgical and Chemical Branch are issued as follows:—

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**Iron and Steel and Their Products:** Pig Iron and Ferro-Alloys—Steel and Rolled Products — Castings and Forgings — Boilers, Tanks and Engines — Agricultural Implements — Machinery — Automobiles — Auto Accessories — Bicycles — Railway Rolling Stock — Wire and Wire Goods — Sheet Metal Products — Hardware and Tools — Miscellaneous Iron and Steel Products.

**Manufactures of Non-Ferrous Metals:** Aluminium and Aluminum Ware—Brass and Copper Products—Lead, Tin and Zinc Products—Precious Metal Products—Electrical Apparatus and Supplies—Miscellaneous Non-Ferrous Metal Products.

**Manufactures of Non-Metallic Minerals:** Aerated Waters—Asbestos and Allied Products—Cement Products and Sand-Lime Brick—Coke and By-Products—Glass (blown, cut, ornamental, etc.)—Illuminating and Fuel Gas—Products from Imported Clay—Monumental and Ornamental Stone—Petroleum Products—Miscellaneous Non-Metallic Mineral Products, including (a) Artificial Abrasives, (b) Abrasive Products, (c) Artificial Graphite and Electrodes, (d) Gypsum Products, (e) Mica Products.

**Chemicals and Allied Products.** Coal Tar and its Products—Acids, Alkalies, Salts and Compressed Gases—Explosives, Ammunition, Fireworks and Matches—Fertilizers—Medicinal and Pharmaceutical Preparations—Paints, Pigments and Varnishes—Soaps, Washing Compounds and Toilet Preparations—Inks, Dyes and Colours — Wood Distillates and Extracts — Miscellaneous Chemical Products, including (a) Adhesives, (b) Baking Powder, (c) Boiler Compounds, (d) Celluloid Products, (e) Flavouring Extracts, (f) Insecticides, (g) Polishes and Dressings, (h) Sweeping Compounds, (i) Chemical Products, n.e.s.

*Annual Bulletins.*—In addition to the foregoing printed reports, a series of bulletins is issued annually, each of which presents the principal statistics relative to production: (a) in a particular industry, e.g. Automobiles—Petroleum Products, etc. (b) in each of the four main groups of industries. These are published in mimeograph form from time to time during the year as the necessary material becomes available.

##### *Monthly—*

**Production of Iron and Steel in Canada.**  
**Coke Statistics for Canada.**  
**Automobile Statistics for Canada.**

#### SPECIAL REPORTS—

Report on the Consumption of Prepared Non-Metallic Minerals in Canada.  
Report on the Consumption of Mine and Mill Materials in Canada.  
Annual Summary Report on the Mineral Industry and the Manufacturing Industries Related Thereto.

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## STATISTICS OF PRODUCTION

In the collection of production data, the Dominion Bureau of Statistics makes a division between primary and secondary production. In the first-named class, there are separate sections for the collection of statistics on (a) **Agricultural Products**, (b) **Furs**, (c) **Fish**, (d) **Forest Products**, (e) **Mineral Products**. In the second are included (a) **Manufacturing** and (b) **Construction**.

The scheme of classification used for the collection of data on the manufacturing industries of Canada provides for a grouping of producing concerns according to the principal component material of the major products made. For example, leather goods industry is classified under "Animal Products"; the pulp and paper industry, under "Wood and Paper," etc.

In order that students of the Bureau reports on manufactures may have a true conception of the plan followed, an outline of the scheme of classification in use is given below.

### MANUFACTURES OF:—

- (1) **Vegetable Products**, including—Coffee and Spices; Cocoa and Chocolate; Preserved and Canned Products; Pickles, Vinegar and Cider; Flour and Cereals; Bread and other Bakery Products; Macaroni and Vermicelli; Distilled and Brewed Liquors and Wines; Rubber Products; Starch and Glucose; Sugar; Tobacco Products; Linseed Oil and Oil Cake.
- (2) **Animal Products**, including—Fish and Fish Products; Dairy Factory Products; Meat and Meat Products; Leather and Leather Products; Furs and Fur Products.
- (3) **Textiles and Textile Products**, including—Cotton Textiles (Cloth Yarn, Thread and Waste); Woollen Textiles (Cloth, Yarn, Blankets, Felt and Waste); Silk Products; Factory-Made Clothing; Carpets, Rugs and Mats; Cordage, Rope and Twine.
- (4) **Wood and Paper**, including—Pulp and Paper Mill Products; Paper Goods; Printing, Publishing and Lithographing; Saw and Planing Mill Products; Furniture; Carriages, Wagons and Sleighs; Wooden Containers; Woodenware; Turned Wood Products; and the Output of Similar Wood-Using Industries.
- (5) **Iron and Steel and their Products**, including Pig Iron and Ferro-Alloys; Steel and Rolled Products; Castings and Forgings; Boilers, Tanks and Engines; Agricultural Implements; Machinery; Automobiles; Auto Accessories; Bicycles; Railway Rolling Stock; Wire and Wire Goods; Sheet Metal Products; Hardware and Tools; Miscellaneous Iron and Steel Products.
- (6) **Manufactures of Non-Ferrous Metal Products**, including—Aluminium and Aluminium Ware; Brass and Copper Products; Lead, Tin and Zinc Products; Precious Metal Products; Electrical Apparatus and Supplies; Miscellaneous Non-Ferrous Metal Products.
- (7) **Manufactures of Non-Metallic Mineral Products**, including—Aerated Waters; Asbestos and Allied Products; Cement Products and Sand-Lime Brick; Coke and By-Products; Illuminating and Fuel Gas; Products from imported clay; Glass (blown, cut, ornamental, etc.); Monumental and Ornamental Stone; Petroleum Products; Miscellaneous Manufactured Non-Metallic Mineral Products, including (a) Artificial Abrasives, (b) Abrasives Products, (c) Electrodes, (d) Gypsum Products, (e) Mica Trimmings.
- (8) **Chemicals and Allied Products**, including—Coal Tar and its Products; Acids, Alkalies, Salts and Compressed Gases; Explosives, Ammunition, Fireworks and Matches; Fertilizers; Medicinal and Pharmaceutical Preparations; Paints, Pigments and Varnishes; Soaps, Washing Compounds, and Toilet Preparations; Inks, Dyes and Colours; Wood Distillates and Extracts; Miscellaneous Chemical Products, including (a) Adhesives, (b) Baking Powder, (c) Boiler Compounds, (d) Celluloid Products, (e) Flavouring Extracts, (f) Insecticides, (g) Polishes and Dressings, (h) Sweeping Compounds, (i) Chemical Products, n.e.s.
- (9) **Miscellaneous Products**, including—Brooms and Brushes; Electric Light and Power; Musical Instruments, etc.

Statistics of manufactures are also classified according to the **use** or **purpose** of the end product as follows:—

- (1) **Food**, including—Breadstuffs; Fish; Nuts, Fruits and Vegetables; Meats; Milk Products; Oil and Fats; Sugar; Infusions; Miscellaneous.
- (2) **Drink and Tobacco**, including—Beverages, alcoholic; Beverages, non-alcoholic; Tobacco.
- (3) **Clothing**, including—Boots and Shoes; Fur Goods; Garments and Personal Furnishings; Gloves and Mitts; Hats and Caps; Knitted Goods; Waterproofs; Miscellaneous.
- (4) **Personal Utilities**, including—Jewellery and Time Pieces; Recreational Supplies; Personal Utilities, n.e.s.
- (5) **House Furnishings**.
- (6) **Books and Stationery**.
- (7) **Vehicles and Vessels**.
- (8) **Producers' Materials**, including—Farm Materials; Manufacturers' Materials; Building Materials; General Materials.
- (9) **Industrial Equipment**, including—Farming Equipment; Manufacturing Equipment; Trading Equipment; Service Equipment; Light, Heat and Power Equipment; General Equipment.
- (10) **Miscellaneous**.

## PREFACE

The present is the sixth annual report issued by the Bureau of Statistics on the subject of Iron and Steel and Their Products. In general, the report conforms in style to those issued in recent years. It deals with the production in Canada of pig iron, primary steel, rolling mill products and the manufactures of products in which iron and steel form the chief component materials of value.

As thus defined, the industry included 1,075 operating plants in 1925, representing a capital investment of nearly \$568,000,000 and saleable products valued at \$411,378,640, exclusive of products made for the further use of reporting firms. More than 90,000 hands were employed and their earnings totalled \$117,642,470. As materials used in the manufacture of the many products cost \$206,337,132, the value added by the processes of manufacturing as represented by this group of industries, totalled \$205,041,508. Shipbuilding, construction and general repair work are not included.

A feature of especial interest in this report, is the historical sketch tracing the development of the industry from earliest times.

Following a general review by industries and by provinces are several chapters, each of which is devoted to a brief review of a particular industrial group. The convenience of having the principal data for each industry in a single chapter will be apparent. Another feature is the inclusion of an alphabetical list of products for the iron and steel industry as a whole; this table shows at a glance the total production of any listed commodity in the iron and steel industry in Canada. In many cases a given commodity is made by several firms whose different major products place them in various industrial groups so that the tables for an individual industry do not show the total Canadian production of such commodities; the alphabetical list of products provides a co-ordination of the data shown in the production tables in the several chapters. A similar table shows an alphabetical list of materials used in the iron and steel industries as a whole.

A directory showing the names, addresses and plant locations of the firms reporting to the Bureau in this industry has been included; this shows the scope of the report and provides valuable publicity for the reporting firms.

On the next preceding page will be found a description of the Bureau's classification of industries for the collection of production statistics indicating the place of the iron and steel industry in the general scheme.

The preparation of this report has been carried out under the direction of Mr. S. J. Cook, B.A., A.I.C., F.C.I.C., Chief of the Mining, Metallurgical and Chemical Branch, by Mr. H. McLeod, B.Sc.

R. H. COATS,

*Dominion Statistician.*

DOMINION BUREAU OF STATISTICS,

OTTAWA, April 25, 1927.



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Table 1.—Summary Statistics of Iron and Steel and Their Products in Canada by Industrie  
1921-1925

Year	Number of plants	Capital employed	Number of employees	Salaries and wages	Cost of materials	Selling value of products	Value added by manu- facturing
		\$		\$	\$	\$	\$
PIG IRON AND FERRO-ALLOYS, STEEL AND ROLLED PRODUCTS							
1921.....	36	121,859,860	6,466	9,970,360	34,799,003	56,201,810	21,402,807
1922.....	25	78,687,321	5,886	7,825,286	22,355,289	35,427,053	13,071,765
1923.....	26	82,880,333	6,049	10,816,201	42,929,121	66,070,771	23,141,650
1924.....	29	79,805,201	5,325	7,201,588	19,410,742	33,551,443	14,142,701
1925.....	32	82,593,940	5,101	7,291,172	16,433,911	35,337,685	18,903,774
CASTINGS AND FORGINGS							
1921.....	366	82,266,395	16,758	20,613,263	20,626,750	55,220,144	34,593,394
1922.....	329	80,872,431	16,484	19,383,896	19,817,117	54,418,262	34,601,145
1923.....	321	88,325,248	19,146	23,634,438	26,741,217	70,283,006	43,541,789
1924.....	317	88,674,538	17,217	20,878,462	22,182,216	57,494,594	35,312,378
1925.....	324	84,812,441	17,120	21,039,510	22,522,361	61,754,339	39,231,978
BOILERS TANKS AND ENGINES							
1921.....	39	9,783,160	3,105	2,455,769	2,479,032	6,960,170	4,484,138
1922.....	43	10,370,771	1,616	2,045,712	2,036,213	4,904,613	2,868,400
1923.....	34	8,907,457	1,422	1,856,115	2,144,355	4,929,920	2,785,565
1924.....	32	9,140,981	1,242	1,619,323	1,588,530	3,667,610	2,079,080
1925.....	32	8,638,759	1,367	1,832,540	2,322,798	4,540,700	2,217,908
AGRICULTURAL IMPLEMENTS							
1921.....	90	100,285,688	9,198	11,808,700	18,854,537	38,947,968	20,033,431
1922.....	73	92,566,964	6,221	7,084,947	7,967,767	18,240,381	10,272,614
1923.....	67	92,277,040	7,792	9,112,214	11,592,401	26,026,419	14,434,018
1924.....	63	82,877,387	6,700	8,192,861	11,700,641	26,447,171	14,746,527
1925.....	61	81,861,961	7,559	9,089,221	11,089,186	24,770,216	13,681,030
MACHINERY							
1921.....	148	56,096,202	7,878	10,565,690	9,027,261	30,965,619	21,938,358
1922.....	135	50,431,723	7,368	8,038,933	6,151,409	22,428,430	16,277,021
1923.....	141	50,908,442	8,422	10,613,860	9,044,475	28,901,052	19,856,577
1924.....	148	54,658,263	8,260	10,563,171	9,884,892	24,100,997	19,216,105
1925.....	151	55,431,604	8,313	10,767,051	10,985,865	30,462,650	19,476,785
AUTOMOBILES							
1921.....	14	40,080,269	5,475	7,887,173	45,119,345	67,050,209	21,930,864
1922.....	15	47,761,964	7,384	11,273,643	54,408,719	81,956,429	27,547,710
1923.....	60	18,241,996	9,305	5,484,903	13,301,152	96,614,176	24,762,543
1924.....	12	60,766,886	9,233	14,219,137	64,448,584	88,480,418	24,331,837
1925.....	11	74,678,451	10,301	17,249,270	74,166,378	110,835,380	36,669,002
AUTO PARTS AND ACCESSORIES							
1921.....	64	15,700,288	2,232	3,235,185	8,229,855	14,783,017	6,553,162
1922.....	62	16,545,641	3,173	4,296,554	10,674,176	19,007,824	8,333,648
1923.....	60	18,241,996	3,705	5,484,903	13,301,152	22,000,640	8,699,488
1924.....	60	14,894,462	2,623	3,786,464	9,336,308	15,744,388	6,408,080
1925.....	68	9,023,906	2,029	2,684,766	6,215,283	11,234,828	5,019,545

Table 1.—Summary Statistics of Iron and Steel and Their Products in Canada by Industries, 1921-1925—Concluded

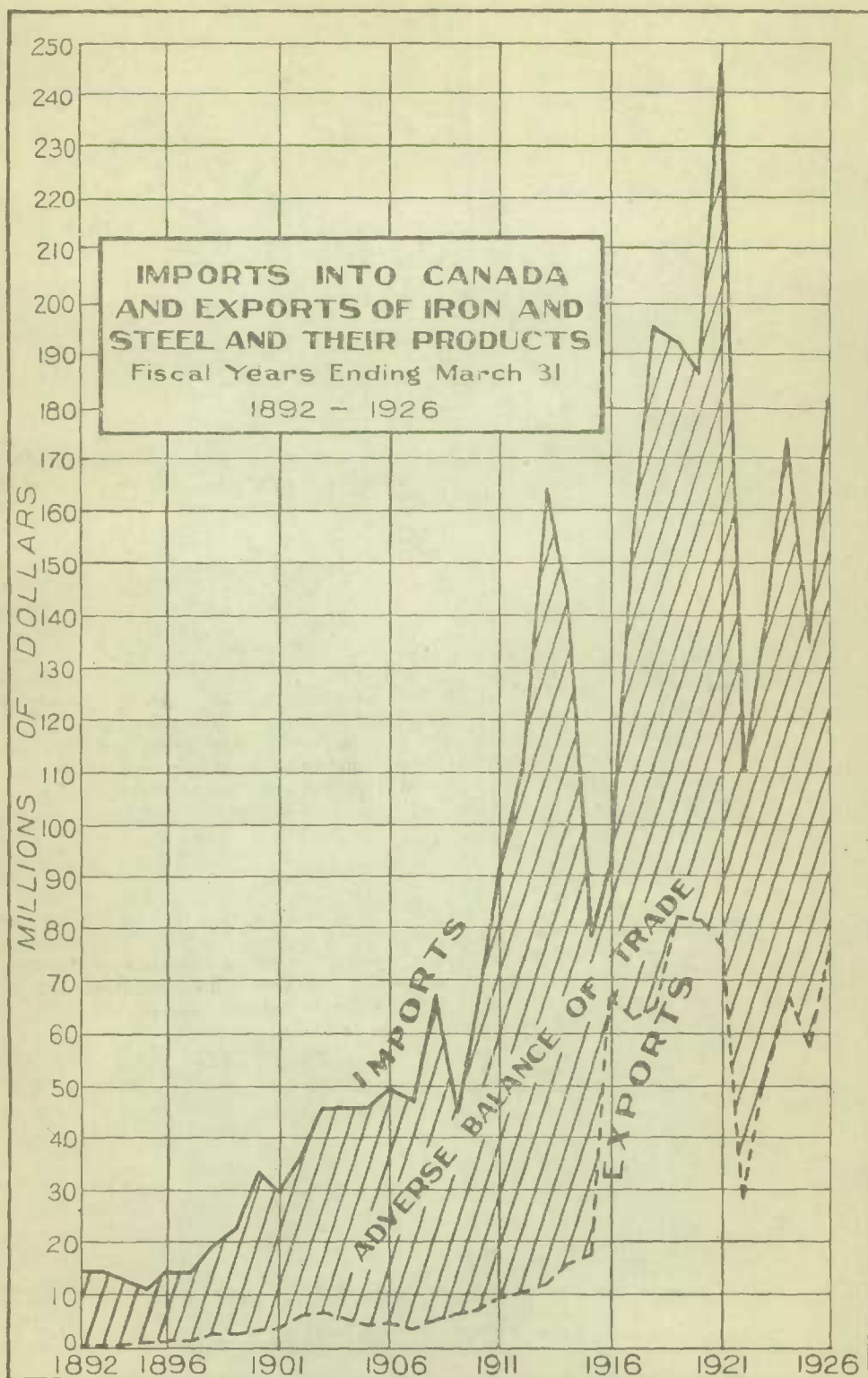
Year	Number of plants	Capital employed	Number of employees	Salaries and wages	Cost of materials	Selling value of products	Value added by manufacturing
		\$		\$	\$	\$	\$
BICYCLES							
1921.....	5	2,273,307	252	310,130	329,692	708,805	379,113
1922.....	5	1,076,701	392	390,305	475,575	959,295	483,720
1923.....	4	1,091,467	496	460,773	492,889	1,079,298	586,409
1924.....	4	1,979,538	458	436,883	548,033	1,211,010	662,977
1925.....	5	2,348,323	516	595,141	766,457	1,445,901	679,444
RAILWAY ROLLING STOCK							
1921.....	21	57,736,688	9,295	12,469,618	25,215,741	44,500,365	19,284,624
1922.....	28	54,653,320	10,045	11,912,706	11,835,740	28,295,688	16,459,948
1923.....	21	59,237,975	13,316	17,417,983	40,205,444	68,213,887	28,008,443
1924.....	23	50,793,093	10,668	13,835,344	26,230,930	45,129,671	18,898,741
1925.....	35	78,039,179	20,202	26,580,356	25,895,490	53,050,665	27,155,175
WIRE AND WIRE GOODS							
1921.....	44	17,009,842	2,988	3,215,234	7,455,336	14,784,891	7,329,555
1922.....	48	17,327,775	3,128	3,324,279	9,112,850	15,616,454	6,503,604
1923.....	48	18,388,722	3,313	3,782,605	10,722,141	19,991,525	9,269,384
1924.....	47	23,770,829	2,873	3,230,145	5,378,744	14,655,256	9,276,512
1925.....	52	19,015,655	2,996	3,451,405	7,329,688	16,223,924	8,894,236
SHEET METAL PRODUCTS							
1921.....	129	27,681,041	5,374	6,415,473	13,219,712	26,774,936	13,555,224
1922.....	125	30,614,573	6,434	7,165,555	16,128,924	30,203,584	14,080,660
1923.....	105	29,072,727	6,395	7,280,999	16,221,926	31,020,322	14,798,396
1924.....	108	32,419,951	6,298	7,169,038	17,017,423	30,568,526	13,551,097
1925.....	127	29,624,294	6,730	7,730,165	18,454,685	34,442,488	15,987,803
HARDWARE AND TOOLS							
1921.....	127	34,619,157	5,481	5,991,934	5,314,192	16,150,400	10,836,208
1922.....	111	36,729,088	5,331	5,534,426	4,884,307	14,978,409	10,094,102
1923.....	106	31,675,780	6,060	6,552,797	6,600,835	20,320,224	13,719,389
1924.....	103	32,275,750	5,231	5,620,794	4,933,120	15,570,170	10,637,050
1925.....	112	30,774,622	5,528	6,184,925	5,950,922	17,882,650	11,931,728
IRON AND STEEL PRODUCTS, N.E.S.							
1921.....	52	10,288,526	2,575	3,425,449	4,032,935	9,349,750	5,316,815
1922.....	47	8,471,681	1,872	2,513,216	3,089,721	7,127,392	4,037,671
1923.....	57	11,119,418	2,650	3,442,650	4,570,402	10,508,307	5,937,905
1924.....	59	10,089,156	2,468	3,296,891	4,114,079	9,619,239	5,505,160
1925.....	65	11,069,342	2,363	3,236,948	4,204,108	9,397,208	5,193,100

Note.—Total for Canada shown at end of Table 2.



Table 2.—Summary Statistics of Iron and Steel and their Products in Canada by Provinces, 1921-1925

Year	Number of plants	Capital employed	Number of employees	Salaries and wages	Cost of materials	Selling value of products	Value added by manufacturing
		\$		\$	\$	\$	\$
PRINCE EDWARD ISLAND							
1921.....	7	435,782	87	92,445	145,255	330,308	185,053
1922.....	4	736,945	98	83,879	131,972	339,893	207,921
1923.....	4	494,498	104	81,936	131,888	356,891	225,006
1924.....	5	466,261	97	82,202	143,327	316,034	172,707
1925.....	4	450,929	95	80,838	131,391	268,482	131,089
NOVA SCOTIA							
1921.....	39	36,372,501	2,393	3,294,116	11,450,348	20,909,346	9,518,998
1922.....	35	26,125,568	2,415	2,572,861	6,950,258	11,840,370	4,890,112
1923.....	36	24,513,206	3,038	3,681,882	16,554,399	24,662,553	8,108,154
1924.....	36	26,726,882	2,895	2,611,471	9,401,206	13,522,833	4,121,567
1925.....	35	27,115,650	2,363	2,523,575	6,711,496	11,658,621	4,944,125
NEW BRUNSWICK							
1921.....	25	3,597,888	789	880,516	1,036,873	2,712,389	1,675,516
1922.....	24	3,772,679	771	844,182	1,083,519	2,510,921	1,427,402
1923.....	20	3,058,226	743	860,947	1,092,326	2,563,679	1,471,356
1924.....	20	2,273,714	642	729,880	791,587	1,820,883	1,029,296
1925.....	21	6,512,685	1,982	2,448,503	1,941,741	4,046,857	2,105,416
QUÉBEC							
1921.....	211	115,409,584	20,178	24,368,011	35,258,280	76,653,263	41,394,983
1922.....	203	102,051,533	18,600	20,924,216	22,072,575	55,511,456	33,438,883
1923.....	180	107,097,589	23,445	28,691,952	48,726,412	97,485,897	48,759,485
1924.....	171	109,470,425	20,644	24,974,128	34,978,970	75,759,638	40,780,062
1925.....	195	111,758,428	22,281	27,635,615	32,460,122	77,394,080	44,933,958
ONTARIO							
1921.....	701	403,536,572	50,930	65,301,439	141,260,091	267,486,261	126,226,47
1922.....	645	384,605,747	50,166	62,734,176	131,510,681	248,696,521	117,185,84
1923.....	643	401,617,252	57,540	77,874,530	182,723,004	325,355,757	152,632,75
1924.....	645	382,938,429	51,072	67,358,128	143,393,691	265,020,581	121,030,88
1925.....	672	394,850,993	54,725	73,487,270	153,452,372	290,464,906	136,982,52
MANITOBA							
1921.....	42	8,697,479	1,280	2,069,272	2,665,953	7,183,856	4,517,903
1922.....	32	7,849,106	1,798	2,469,241	3,862,032	7,798,066	3,936,033
1923.....	31	8,048,185	1,501	2,076,812	3,276,987	7,739,855	4,363,768
1924.....	32	8,114,547	1,486	1,998,853	2,703,223	6,448,089	3,651,866
1925.....	34	15,775,743	5,664	7,458,524	5,607,401	15,440,453	9,773,052
SASKATCHEWAN							
1921.....	10	1,025,512	90	132,385	145,181	412,691	267,510
1922.....	10	781,734	53	76,231	75,294	234,783	159,489
1923.....	3	246,322	32	44,448	61,083	157,209	96,126
1924.....	6	385,704	63	80,946	96,289	195,403	99,114
1925.....	6	677,150	118	130,066	184,236	504,629	320,393
ALBERTA							
1921.....	36	1,134,707	347	586,990	465,518	1,357,704	892,186
1922.....	27	999,096	321	430,080	259,200	953,165	702,985
1923.....	17	966,445	251	371,057	230,655	803,414	572,759
1924.....	18	1,054,851	272	367,336	285,426	841,389	555,969
1925.....	27	3,242,796	1,150	1,523,868	1,149,086	2,940,777	1,791,691
BRITISH COLUMBIA							
1921.....	70	5,470,399	983	1,035,779	2,275,892	5,292,263	3,016,371
1922.....	69	5,187,455	1,112	1,494,624	3,001,277	5,681,010	2,689,383
1923.....	66	6,180,817	1,374	1,770,245	3,522,140	6,834,289	3,312,149
1924.....	69	6,215,231	1,485	1,957,013	3,991,466	7,348,244	3,323,778
1925.....	81	7,528,176	1,747	2,351,181	4,633,284	8,680,846	4,056,556
Total for Canada							
1921.....	1,135	575,686,424	77,077	98,363,983	194,703,391	382,394,081	187,694,693
1922.....	1,046	526,109,953	75,334	91,629,191	168,937,807	333,569,815	164,632,008
1923.....	1,000	532,272,800	88,071	115,463,869	276,417,991	465,959,547	209,541,556
1924.....	1,005	537,546,035	78,656	100,056,011	196,474,248	371,212,497	171,768,245
1925.....	1,075	567,912,477	90,125	117,642,470	206,337,132	411,378,640	205,011,508



## DOMINION BUREAU OF STATISTICS

R. H. COATS, B.A., F.S.S., (Hon.) F.R.S.C., Dominion Statistician.

S. J. COOK, B.A., A.I.C., F.C.I.C., Chief of the Mining, Metallurgical and Chemical Branch.

# IRON AND STEEL AND THEIR PRODUCTS IN CANADA, 1925

## CHAPTER ONE

### GENERAL REVIEW

#### (a) Historical

**Early Iron and Steel Plants.**—*St. Maurice Forges.*—The bog ore in the St. Maurice district near Three Rivers, though previously known to the Indians and Jesuits, was first reported in 1667. Mining operations were begun three years later by Frontenac, but it was not until 1730 that M. Frencheville was granted a licence to work the mines. The enterprise was not successful, and five years afterwards the firm surrendered its rights to the crown. The first blast furnace was built in 1737 by Cugnet & Cie. or "La Compagnie des Forges," who were advanced 100,000 livres by Louis XV for the purpose. Six years later the works reverted to the crown and were operated in the name of the king. Skilled workmen were sent out from France, who rebuilt in part the blast furnace and erected a Walloon hearth for refining. The plant included two pairs of forges, wooden bellows and melting ovens. The chief products, in addition to such intermediate goods as iron bars, included cannons and mortars for military operations, and kettles and stoves which found a ready sale throughout the colony. The iron was obtained from bog ore lying in veins six to eighteen inches deep, resting on white sand and covered with a thin mould. Limestone was used as a flux, and the surrounding forests yielded abundant supplies of charcoal. When the plant was inspected by M. Franquet in 1752 considerable expansion had been effected. Water power was utilized for running the machinery. The molten metal was poured into a gutter of sand and moulded into stoves, pots and kettles, or cooled and hammered into bars. The iron was of excellent quality, selling at the king's stores at Quebec at the rate of from 25 to 30 castors (beaver skins) per hundredweight.

In 1767, the enterprise was rented by the British Government for 25 pounds per annum and for a time was quite successful until part of the output was put into munitions and sold to the invading American forces; with the proceeds of this sale the manager decamped to the United States. From 1783 to 1809 the plant was in operation and produced kettles, stoves and other castings. In 1861 the property including furnaces, forges, foundries and other buildings was sold by the government for \$1,700. Operations continued for another twenty years until the supply of suitable ore failed and it became increasingly difficult to secure a supply of charcoal. In 1883, when the plant was abandoned, it was the oldest active iron works on the North American continent.

The manufacture of iron was described in 1809 as the most important industry of Canada, and a considerable export trade in cast-iron articles, particularly stoves, was enjoyed. The plant was most active about 1830, when mill machinery, large potash kettles, and other cast-iron goods, as well as wrought iron for distribution within the province, were the principal articles manufactured, and a quantity of pig iron and bar iron was produced for exportation. The employees numbered from 250 to 300 men, of whom the overseers and employees in the model department were English and Scotch and the unskilled workers generally Canadians.

*The Rodnor Forges.*—The Rodnor Forges at Fermont in the Seigneurie of Cap de la Madeleine of the county of Champlain, were situated about ten miles from Three Rivers, and



were erected about 1860 by Messrs. Larue and Co. The establishment was extensive, consisting of a blast furnace, forge and large rolling mill, as well as a car wheel foundry in Three Rivers; 40,000 acres of land also formed a part of the property. The annual production was 2,000 tons of cast iron, resulting from the use of from 4,000 to 5,000 tons of bog ore. Employees varied in number from 200 to 400 men, some of whom were engaged in digging and transporting the ore to the plant. Finished products included car wheels manufactured in the auxiliary foundry at Three Rivers, whilst the rolling mill furnished iron for the manufacture of scythes and nail rods.

*First Furnace in Ontario.*—The first attempt to manufacture iron in Ontario was made at Lyndhurst, then called Furnace Falls, on the Gananoque river, where in 1800 a blast furnace was erected and water power utilized to drive the machinery and work the blast. After two years the blast furnace was abandoned on account of the inferior quality of the ore and its distance from the plant. An attempt to cast hollowware for the use of settlers proved a complete failure. A forge for the manufacture of bar iron was active until 1812, when operations were discontinued because of the war.

*Normandale Furnace.*—The next attempt was made in 1815 at Normandale in the county of Norfolk, near lake Erie. A furnace to smelt bog ores was built by John Mason, who was attracted by the favourable factors of the location, including a supply of water power furnished by a nearby creek, moulding sand conveniently located on the site of the furnace, and a supply of timber available for the manufacture of charcoal. Six years later a new blast furnace was constructed by Joseph Van Norman and his associates. In the early stages the entire production of iron was converted into various kinds of castings, as there was no market for pig iron. Some were exported to Buffalo, and a vessel load of stoves and castings was sent to Chicago. After the opening of the Welland canal, two vessels were employed in the distribution of iron wares to the district within reach of lake Erie and lake Ontario. On account of the limited circulation of money in the country, business was carried on largely by barter. Products which the customers had for sale were brought to the furnace and exchanged for the wares, or due bills were taken payable in iron ware. Among the articles manufactured were sugar kettles and kettles for making the potash which was the chief exportable article of the time. This plant continued in operation until 1847.

*First Furnace in Nova Scotia.*—Coal and iron ore were discovered in the Maritime Provinces as early as 1604, but it was not until the third decade of the nineteenth century that a small quantity of bar iron was made in a Catalan forge from the ores at Nietaux. The Annapolis Mining Company erected a large smelting furnace, coal houses and stores at an expenditure of £30,000. Smelting and casting went on favourably for a short time, as the iron produced was excellent both for foundry work and for making refined bars. The works, because of their small maximum capacity (not over 13 tons of cast iron per week), were unable to compete with British-made goods.

*Londonderry.*—The plant at Londonderry, operated from 1850 to 1879, was the most pretentious endeavour that had been made up to that time in the iron and steel industry of Nova Scotia. The ironworks, consisting of Catalan forges, one puddling furnace, one heading furnace, one furnace, one metal helve and one blower, together with ore crushing rolls, were built in 1850 and later years, with the purpose of developing the iron deposits of the Cobequid mountains, which had been favourably reported upon by Sir William Dawson. The building of the Inter-colonial railway near the plant was a favourable factor, and a new company under the chairmanship of Dr. Siemens was formed in 1873 to take over the property and manufacture steel by the Siemens open-hearth process. The company expended \$2,500,000 in building a modern rotatory furnace and a melting furnace with regenerative gas furnaces. Like all pioneer enterprises the company had many difficulties to contend with, and in 1885 the concern was in liquidation.

**Later Developments.**—The indifferent success of the early ventures in the manufacture of iron was due to several factors, including the supply and character of the ores and fuel and the extent and nature of the market. Of the iron ore deposits that were known, few were satisfactory; the most successful of the early enterprises, those at Normandale and St. Maurice, were discontinued as the beds within reach were exhausted. Lack of fuel supply occasioned the greatest

difficulty. Though Canada was well supplied with hardwoods for making charcoal, these were not always found within reasonable distance of the furnace.

During the period from 1879 to 1896, the difficulty in smelting the ores of Ontario was such a discouraging factor that no furnaces were in blast. A bounty was established in 1883 to encourage the production of pig iron. Outputs fluctuated between 20,000 and 60,000 tons per annum in the next twelve years, most of which was from the charcoal furnaces of Quebec, and the Londonderry and New Glasgow furnaces of Nova Scotia. Toward the end of the century, activity increased, and in the period from 1900 to 1914 higher levels were reached.

*Nova Scotia Steel and Coal Company.*—Pioneers of the now extensive iron and steel industry in Nova Scotia, were a pair of metal workers, Fraser and Mackay, who in 1872 founded in New Glasgow, N.S., a small forging plant called the Hope Iron Works. This business gradually expanded and in 1878 was incorporated under the name of Nova Scotia Forge Company and the plant was removed to Trenton, outside New Glasgow. In order to supply raw material for the forging plant, the Nova Scotia Steel Company was formed in 1882; this company made steel in an open-hearth furnace by the Siemens process and it was from this plant that the first steel ingots were cast in Canada. These companies united in 1889 under the name "Nova Scotia Steel and Forge Company."

In 1890, the New Glasgow Iron, Coal and Railway Company, organized to work some ore deposits near New Glasgow, constructed a blast furnace at Ferrona. This blast furnace was blown in during 1892 and was quite successful until the supply of iron ore was exhausted. In 1895, the Nova Scotia Steel and Forge Company and the New Glasgow Iron, Coal and Railway Company united under the name Nova Scotia Steel Company. This company mined ore and coal, made pig iron, coke, and manufactured steel in a variety of forms. Its supply of ore was rapidly being exhausted about the time that the Bell Island deposits came to notice. Possession of part of these deposits was obtained in 1894 and the first cargo was shipped to Ferrona in 1895. As the supply of coal from the Pictou field proved inadequate, the mining properties of the General Mining Association at Sydney Mines were purchased in 1900, and in the following year the Nova Scotia Steel and Coal Company was formed to acquire the several enterprises in question. Coke ovens were built at the new property, but owing to the depreciation of coke by transportation and also because of the shorter distance from Wabana mines, it was decided to move to Sydney Mines where a new blast furnace was constructed in 1904; the old furnace at New Glasgow was then closed down. Additional equipment, consisting of 30 Bauer retort coke ovens, three batteries of 40 Bernard retort ovens, three 40-ton open hearth steel furnaces and a rolling furnace to be used as a mixer, were put in operation during the next year. Two new rolling mills with the necessary power plant were installed at New Glasgow in 1910, and two years afterwards the Eastern Car Company was organized to build steel railway cars at New Glasgow, using steel made at the plant of the associated company.

*Dominion Iron and Steel Company.*—The Dominion Coal Company revolutionized the whole coal trade in 1893 by expanding the market to New England and St. Lawrence ports. The Canadian market was limited after the close of navigation on the St. Lawrence, and the New England market was interfered with, by the Boston smoke nuisance law and increased import duties. The Dominion Iron and Steel Company was formed by allied interests to establish an iron and steel plant at Sydney as a regular purchaser of the coal. Extensive building operations carried on during 1900 included 4 blast furnaces with a capacity of 250 to 400 tons of pig iron daily, 10 basic open hearth steel furnaces of 1,000 tons daily capacity, a 35-inch blooming mill, 400 Hoffman coke ovens, a coal-washing plant, a machine shop and foundry. The wire rod mill was in operation in 1904 and the rail mill commenced the execution of government orders in the following year. A further expansion was effected in 1912, when two open-hearth mixers with a capacity of 500 tons each were added to eliminate the necessity of purchasing expensive ores. A third Bessemer furnace was ready in the autumn of 1911 to assure a sufficient supply of iron and a larger output of steel per furnace; 120 coke ovens were put in full blast late in the season, and a new cold rolling mill and extensions to the old cold rolling mill, which was converted into a bar and rod mill, were also added. A new merchant bar mill for rolling all sizes of merchant bar, rivet, steel bolt, and bar material, was also installed. The nail mill was operating by 1912, consuming a considerable portion of the product of the wire rod and wire mills.

*British Empire Steel Corporation.*—In 1909, the Dominion Coal Company and the Dominion Iron and Steel Company were merged to form the Dominion Steel Corporation. This left two large companies, the Nova Scotia Steel and Coal Company, and the Dominion Steel Corporation in possession of the field. Their properties were interlaced and their field of action identical. The natural thing was to join forces and this was accomplished in 1921 when the British Empire Steel Corporation was formed.

*The Steel Company of Canada.*—The Hamilton Blast Furnace Company, encouraged by the favourable terms offered by the city of Hamilton, erected a blast furnace with all modern improvements in 1895, and a steel plant, a spike factory and puddling furnaces, were added two years later. To obtain the full benefit of the Dominion and Ontario bounties, it was intended to use eastern Ontario ores exclusively, but the content of sulphur was too great and it became necessary to import lake Superior iron ore. Several 15-ton basic open hearth furnaces were built in 1900, and a 250-ton blast furnace was built seven years later to supply a large amount of iron to consumers in Hamilton. New bolt and bar mills were also added to the equipment. The Steel Company of Canada was formed in 1910 to amalgamate the Hamilton Iron and Steel Company with the Montreal Rolling Mills Company and other concerns. The additional equipment installed in 1911 included a blooming mill, a rod and bar mill at Hamilton, and 2 more 50-ton open hearth furnaces were put in operation in the following year.

*Algoma Steel Company.*—The Algoma Steel Company was formed in 1901, and a large plant consisting of two Bessemer converters, a blooming mill and a rail mill with a daily capacity of 600 tons of Bessemer steel ingots and 100 tons of rails, was constructed. As the Helen mine ore did not contain the proper percentage of phosphorus, ore was imported from Minnesota. Contracts were let in 1905 for new open hearth furnaces of 200 tons capacity suitable for use of Helen mine ore. During the next two years new coke ovens were built and plans laid for new coke blast furnaces and steel furnaces, to keep the finishing mills supplied with raw materials. Further expansion in 1910 included the purchase of the stock of the Cannelton Coal and Coke Company, operating 6,000 acres of coal areas in West Virginia. One hundred and ten by-product Koppers coke ovens were built and in the next year an 18-inch and a 12-inch merchant mill to produce track fastenings, were installed. From 1910 until the outbreak of war the expansion of the plant was almost continuous. A 35-inch blooming mill, a 28-inch rail mill, a 350-ton tilting melting furnace for the open hearth department, three 40-ton open hearth furnaces and a 500-ton blast furnace were added to the equipment in 1911 and 1912. Additional open hearth furnaces and a merchant mill for the production of heavy structural steel were completed in 1914.

*Other Companies.*—The *Standard Iron Company* at one time operated two small furnaces, one at Deseronto and one at Parry Sound. These furnaces have been idle for some time.

At Midland, on Georgian bay, a modern blast furnace was erected about fifteen years ago. This furnace was not operated after 1913 and in 1917 was sold to the Algoma Steel Company who dismantled it and re-erected it at their works at Sault Ste. Marie.

At Port Colborne, on lake Erie, there is a comparatively new blast furnace owned by the *Canadian Furnace Company*. This furnace closed down in November, 1924, and has not since been in operation.

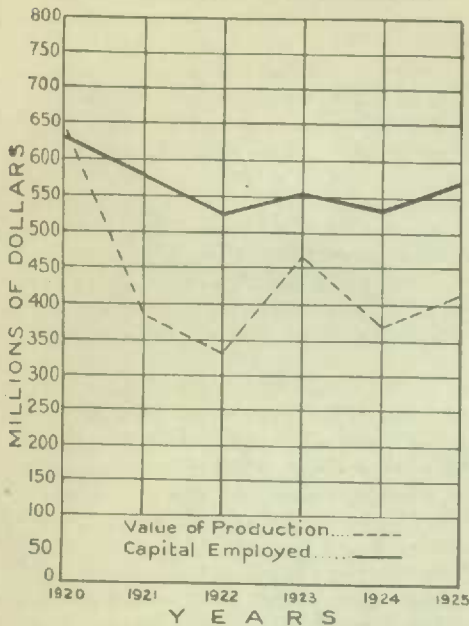
The *Atikokan Iron Company* erected a blast furnace and coke ovens at Port Arthur to utilize ore near that point, but as the ore required to be roasted before it could be used, operations were not successful. The furnace has been out of blast since 1911.

### (b) Summary

Improved conditions were general throughout the iron and steel industry in Canada during 1925. In that year, the 1,075 plants in Canada engaged in the manufacture of iron and steel products reported an aggregate output valued at \$411,378,640, an increase of 10.8 per cent or 40 million dollars over the production value for 1924. Capital employed amounted to \$567,912,477 as compared with a figure of \$537,546,035 in the previous year, and the average number of employees stood at 90,125 as against 78,656 in 1924.



## IRON AND STEEL AND THEIR PRODUCTS IN CANADA



With only one or two exceptions each of the industrial groups in the iron and steel industry showed higher production values. Sales of pig iron, steel ingots, steel castings, and rolled iron and steel products totalled \$35,337,685, an increase of 2 million dollars over the corresponding figure for 1924; casting and forgings showed a gain of 4.3 million dollars, sheet metal products were worth 4 million dollars more than in 1924; hardware and tools advanced 2.3 million dollars in value; automobile production values increased 22.4 million dollars to \$110,835,380 and the number of cars (161,970) was the highest on record for the industry; the production of industrial, office and household machinery was up 1.4 million dollars; the wire and wire goods industry showed a similar increase; the boilers, tanks and engines industry showed a gain of nearly a million dollars; and the miscellaneous iron and steel products group and the bicycle industry maintained the output values of the previous year. There was a general reduction in the outputs from the plants producing railway rolling stock but the value as shown in this report was higher due to inclusion of returns from several repair shops which were not included in 1924; not including repairs, production was valued

at \$22,934,514, or 22 million dollars below the figure for 1924. The industry producing automobile parts and accessories showed a loss of 4.5 million dollars in output value, but the production of parts and accessories in the automobile industry showed an appreciable gain; the agricultural implements group showed a decline of 1.7 million dollars in the value of output.

Production values as given for 1924 and 1925 are not directly comparable with those of other years because of a change made in the Bureau's method of compilation. Following a conference between officials of the primary iron and steel companies and the Dominion Bureau of Statistics, a new method of compiling the production figures for the primary industries was adopted. It was considered advisable to show as the value of production in these groups only the value of products finally sold instead of the sum of the values of interplant transfers and sales as in previous years. Similarly, the cost of materials used, shows only the cost of purchased materials instead of the sum of purchased materials and interplant transfers. The method of compilation does away with considerable duplication of values and gives a better production figure for the industry as a whole. This change affects only the pig iron, steel and rolled products, and the wire and wire goods industries. Figures for all other industries are directly comparable with those for earlier years.

For the industry as a whole, comparative figures of production values in 1921, 1922, 1923 and 1924 obtained by omitting the values of interplant transfers, were as follows:—in 1921—\$364,754,901; in 1922—\$322,956,797; in 1923—\$443,371,245; in 1924—\$371,242,493. Production in the iron and steel industry in 1925, then showed an increase of 40 million dollars in value and excepting 1923, was the highest on record during the last five years.

Primary iron and steel plants in Canada fall into two natural geographical divisions. One has its base on the Great Lakes and draws its supply of coal and ore from the United States. In this division lie the plants of the Algoma Steel Corporation at Sault Ste. Marie, and the Steel Company of Canada at Hamilton, Ontario. The other division, in Nova Scotia, is entirely self-sustaining and has ample supplies of coal in the province and of iron ore on Bell Island, Newfoundland. Here are the plants of the British Empire Steel Corporation.

Canada today produces practically no iron ore. Small iron mines have flourished in various districts from time to time, and some of them have produced good ore but none ranks with even the smaller producers of the Lake Superior district in United States. In those mines in which

the ore was of good grade, the supply was soon exhausted; in others, low iron content or high phosphorus or sulphur, rendered a preliminary treatment necessary and made it impracticable to mine the ore in competition with United States producers. Today the iron and steel industry in Canada representing an investment in plant and equipment of half-a-billion dollars and employing 90,000 men is dependent on ore imported either from the United States or Newfoundland. Extensive deposits of low grade iron ore in Canada might be utilized for blast furnace purposes after a preliminary concentration, but at the present time, no process has been worked out on a commercial basis; it is possible that, in the near future, some attempt may be made to utilize these large deposits.

Statistical records reveal the growth of the iron and steel industry in Canada. In 1870 according to the census records for that year, there were 4,000 firms in the iron and steel industry in Canada employing 27,666 men and a capital in the neighbourhood of 9.3 million dollars. By 1900, the industry had expanded until it employed 34,000 people and produced goods valued at about 48 million dollars. The development between 1900 and the outbreak of the war was practically continuous but the disorganization during the first two years of the war period brought about a temporary setback. Then munition orders and the restriction of import trade created an increased demand which was immediately reflected in the activity of the iron and steel plants throughout the country; in 1917 production values totalled \$693,872,364 and 144,413 persons were given employment and in 1918, production reached a peak value of \$793,080,850. After the war it was necessary to convert plants and machinery from war-time to peace-time production and to find markets for the surplus output from establishments that had been greatly expanded. During the resulting depression and general adaptation to new conditions the output value dropped in 1919 to \$489,756,971. In 1920, a considerable recovery was recorded when the total investment in the iron and steel industry in Canada mounted to \$624,558,400 and the output was valued at \$640,233,785. Beginning with 1921 a period of serious depression was ushered in which lasted throughout the following year, but in 1923 the industry experienced a slight revival of activity and produced commodities having an aggregate value of \$465,959,547. Then a decline occurred at the very beginning of 1924 and continued until the last quarter of the year when some improvement in conditions was recorded. During 1925, the iron and steel industry showed a renewed activity in all its phases and production rose about 40 million dollars in value to reach a total of \$411,378,640.

Throughout 1925, prices of iron and its products showed a slightly downward trend. Based on 1913 prices as 100, the Bureau of Statistics index number on iron and its products which showed an average of 161.0 in 1924 declined to an average for the year of 151.6 showing a variation from 158.8 in February to 147.1 in November. That is to say, while a given quantity of the 26 representative products listed in the index cost \$100 in 1913, the cost of an equal quantity of the same materials in 1925 was \$151.6 as against a cost of \$161.0 in 1924.

When considering the actual volume of production in the iron and steel industry it is necessary to allow for the price fluctuations from year to year. By applying the Bureau's index numbers to the actual production values it is possible to obtain figures which more nearly represent the growth in quantity production than do the gross selling values of the products made each year. For example, the aggregate production 1921 was valued at \$382,398,684; the index number for iron and its products for that year was 185.7 in comparison with 100 for 1913 prices; the application of this factor to the gross value of production given above shows that the output of iron and steel products in 1921 based on 1913 prices, was actually worth \$205,922,500. Computed on the same basis the production in each of the succeeding years was as follows:—1922—\$219,742,960; 1923—\$277,356,873; 1924—\$230,585,400; 1925—\$271,357,942. However, it has been pointed out before that the figures prior to 1924 included the value of interplant transfers and are, therefore, not directly comparable with the production data shown for 1924 and 1925. By eliminating the values of interplant transfers in the preceding years and reducing the output values to the basis of 1913 prices the following set of figures are obtained:—1921—\$196,421,594; 1922—\$212,751,514; 1923—\$263,911,455; 1924—\$230,585,400; 1925—\$271,357,942. These figures are directly comparable and represent the actual variation in volume of production during the last five years. It is apparent, then, that the actual volume of production in 1925 was the highest on record during these years and was 18 per cent above 1924 and 6 per cent higher than in 1923 although in the latter year the actual selling value of products made, was considerably above the corresponding figure for 1925.

Of the 1,075 firms in Canada engaged in 1925 in the manufacture of iron and steel products, 672 were located in Ontario, 195 in Quebec, 81 in British Columbia, 35 in Nova Scotia, 34 in Manitoba, 27 in Alberta, 21 in New Brunswick, 6 in Saskatchewan and 4 in Prince Edward Island. The total number of concerns in operation was 70 above the number reporting in the previous year, there being an increase of 27 in Ontario, 21 in Quebec, 12 in British Columbia, 9 in Alberta, 2 in Manitoba, 1 in New Brunswick and a loss of 1 in each province of Nova Scotia and Prince Edward Island.

Plants in Ontario produced commodities valued in the aggregate at \$290,434,990 or 25.4 million dollars above the corresponding figures for the previous year, and the output from plants in Quebec was valued at \$77,394,080, a gain of 1.6 million dollars over 1924. Production values for the remaining provinces followed in order: Manitoba, \$15,440,453; Nova Scotia, \$11,658,621; British Columbia, \$8,689,840; New Brunswick, \$4,046,857; Alberta, \$2,940,777; Saskatchewan, \$504,629; and Prince Edward Island, \$268,483.

In point of production values, the automobile industry led the list at \$110,835,380, followed by the castings and forgings group at \$61,754,339, railway rolling stock at \$53,050,665, the primary iron and steel group at \$35,337,685 and sheet metal products at \$34,442,488. Industrial machinery was slightly above the 30 million dollar mark; agricultural implements amounted in value to nearly 25 million dollars; hardware and tools, and wire and wire goods ranged around 17 million dollars in output value; auto parts and accessories and miscellaneous iron and steel products amounted to about 10 million dollars each; boilers and engines 4.5 millions, and bicycles, 1.4 million dollars.

Including the value of lands, buildings and equipment and also the total working capital as represented by cash on hand and in the bank, book value of collectable accounts, etc., the capital employed by the various plants in operation in 1925 amounted to \$567,912,477, an increase of 30 million dollars over the corresponding figure for 1924. Of the total capital employed in the industry in 1925, Ontario accounted for \$394,850,993, or 70 per cent, and Quebec accounted for \$111,758,425, or 20 per cent of the total. An advance in the amount of capital employed marked the primary iron and steel industry, machinery, automobiles, railway rolling stock, bicycles, sheet metal products and the miscellaneous iron and steel products industry. Recessions in capital employed, occurred in the other groups.

Considered in relation to the capital employed, the iron and steel industry in Canada showed an output value of \$72.5 for every \$100 of capital employed. In the primary iron and steel group the value of output for every \$100 of capital employed stood at \$42.7; the castings and forgings industry showed a production of \$72.8 per \$100 of capital; boilers and engines, \$52.8; agricultural implements, \$30.3; machinery, \$55.0; automobiles \$148.4; auto parts \$124.8; bicycles \$62.8; wire and wire goods \$85.4; railway rolling stock \$68.0; sheet metal products \$116.4; hardware and tools \$58.0; and for the miscellaneous iron and steel industry the output value was \$85.5 for every \$100 invested in the industry.

Employment was afforded to 90,125 workers in the iron and steel industries in Canada during 1925 as compared with 78,656 on the rolls in the preceding year. For the entire group the maximum of employment was reached in May when 81,123 wage-earners and 12,190 salaried employees were engaged in the various plants. Gradual advances in the number of workers employed, were recorded during the first quarter but then a recession set in and the number declined to a minimum in August; during the final quarter, an upward trend was apparent. Plants in Ontario employed 54,725 people; in Quebec, 22,281 people; Manitoba, 5,664; in Nova Scotia, 2,363; New Brunswick, 1,982; British Columbia, 1,747; Alberta, 1,150; Saskatchewan, 118; and in Prince Edward Island, 95.

Salaries and wages distributed in 1925 totalled \$117,642,470 as compared with \$100,050,011 in 1924, and \$115,453,809 in 1923. The total salaries and wages paid in 1920, the best year for the industry amounted to \$158,504,947.

Fuel and electricity used for heating and power purposes by the firms classified in the iron and steel industries cost \$11,970,846 in 1925. Electricity reached a total cost of \$3,291,525, while coal gas, fuel oil, wood and other fuel was valued at \$8,679,321 delivered at the works. Plants in Ontario and Quebec were the principal users of fuel and electricity. Consumption of electricity in Ontario amounted in value to \$2,072,759, and Quebec plants used electricity worth \$755,169. Consumption of bituminous coal in the iron and steel industries totalled 851,234 tons worth \$4,646,262 of which 468,989 tons were used in Ontario and 160,771 tons in Quebec.



Fuel oil and gasoline used during the year amounted to 15,745,811 imperial gallons worth \$1,507,487 and 38,086,732 M cubic feet of gas cost \$1,205,014. Anthracite coal cost \$206,476; coke, \$461,249; wood, \$97,802; and other fuel, \$555,031.

As herein reviewed, the iron and steel industry has been divided into 13 main groups or industries which are arranged according to the principal products made. In grouping the individual firms, first consideration was given to the type of product which constituted the major portion of the output. In a great many cases, many entirely dissimilar commodities are made in an individual plant so that a given commodity often appears among the outputs of two or three different industries. In the table showing an alphabetical list of products for the iron and steel industry as a whole, a consolidation of these items has been made to present a compilation showing the total production in Canada of each commodity listed. A similar table is shown for materials used.

Little mention is made in this report of general construction, bridge-building and ship-building, in all of which iron and steel are extensively used. Similarly, although iron and steel enter largely into the commodities produced by certain firms whose outputs consist of non-ferrous metal products these have also been omitted, as statistics on these industries are to be found in detail in other publications of the Bureau. Numerous repair shops have not been included.

Imports into Canada of iron and steel and their products during the calendar year were valued at \$166,573,076, as compared with \$137,979,471 in 1924. Of this total 86 per cent came from the United States and 11 per cent from the United Kingdom. Exports totalled \$69,356,468, of which 11.3 per cent went to the United Kingdom, 9.7 per cent to the United States and 79 per cent to other countries. Automobiles and parts at \$39,417,614 made up 57 per cent of Canada's exports of iron and steel and their products.

### (c) By Industries

**Pig Iron, Steel and Rolled Products.**—(a) **PIG IRON AND FERRO-ALLOYS.**—In 1925, pig iron was produced in Canada by the Algoma Steel Corporation at Sault Ste. Marie, Ontario, the Steel Company of Canada at Hamilton, Ontario, and the Dominion Iron and Steel Company at Sydney, N.S. These 3 firms also operated steel furnaces and rolling mills in conjunction with the blast furnaces.

Production of pig iron in Canada in 1925 totalled 570,766 long tons as compared with 593,049 long tons in 1924. This was a decline of 22,283 long tons, or 3.7 per cent. In Nova Scotia, the production of pig iron was 201,795 long tons as compared with 177,078 tons in 1924, while in Ontario the tonnages were 368,971 tons in 1925 and 415,971 tons in 1924. By grades, the 1925 production included: basic iron, 409,590 long tons; foundry iron, 101,968 long tons; and malleable iron, 59,208 long tons. In 1924 the quantities were: basic, 357,704 long tons; foundry, 173,663 long tons; malleable, 61,665 long tons; and castings made direct from blast furnace, 17 long tons.

Blast furnace plants in Canada afforded employment to 656 persons to whom \$939,723 was paid in salaries and wages. In 1924 an average of 610 men were given work and salaries and wages totalled \$823,594.

Electric furnaces for the production of ferro-alloys were operated in Ontario at Hamilton, Niagara Falls, Thorold and Welland. Production amounted to 25,709 long tons as compared with 26,400 tons in 1924.

Exports of pig iron during the calendar year 1925 amounted to 6,333 tons valued at \$140,634 as compared with 14,946 tons in 1924 and 54,285 tons in 1923.

Exports of ferro-alloys during the calendar year of 1925 totalled 24,793 long tons worth \$1,694,030, as against 26,812 long tons valued at \$1,031,907 for the same period in 1924.

Imports into Canada for the calendar year 1925 included 25,885 long tons of pig iron valued at \$527,875, and 4,112 long tons of ferro-alloys (ferrosilicon and ferromanganese) worth \$393,070. In 1924 the corresponding figures were 30,702 long tons of pig iron worth \$701,665, and 7,824 long tons of ferro-alloys valued at \$655,495.

(b) **STEEL INGOTS AND CASTINGS.**—Production of steel ingots in 1925 totalled 734,277 long tons as against 634,954 long tons in 1924 and the output of steel castings amounted to 18,226 long tons as compared with 24,813 long tons in the previous year.

Steel ingots and castings were produced in 18 different plants in Canada in 1925. In addition to the 3 primary plants manufacturing pig iron and also steel ingots and castings there were 10



plants operating electric furnaces for the production of steel castings and 5 other establishments producing ingots or castings from small open hearth or bessemer furnaces.

The average monthly production of steel ingots and castings during 1925 was 63,000 long tons. The maximum monthly output for the year was attained in October when production totalled 109,000 tons and the minimum was reached in July when only 22,000 tons were made.

Steel furnace plants employed 1,823 men in 1925. Salaries and wages totalled \$2,526,793.

(c) **ROLLED IRON AND STEEL PRODUCTS.**—Rolled iron and steel products were produced in 13 plants in Canada in 1925, located as follows: 2 in Nova Scotia; 4 in Quebec; 6 in Ontario; and 1 in Manitoba. These rolling mills gave employment to 2,622 persons the year round and produced \$25,341,746 worth of commodities for sale, as well as large quantities of materials for transfer to the wire drawing plants.

Products included open hearth steel rails, steel bars, wire rods, blooms, billets and slabs, plain sheets, rail joints, tie plates, fish plates, horseshoes, nails and spikes, as principal items.

**Castings and Forgings.**—In 1925, there were 324 plants in Canada that reported in the castings and forgings group. Representing a capital investment of 84.8 million dollars, these plants employed 17,120 persons throughout the year and produced commodities valued at \$61,754,339. In 1924, capital invested stood at 88.7 million dollars, employees numbered 17,217, and production totalled \$57,494,594.

Plants in operation in 1925 were distributed as follows: Prince Edward Island, 2; Nova Scotia, 17; New Brunswick, 10; Quebec, 67; Ontario, 188; Manitoba, 5; Saskatchewan, 2; Alberta, 9; and British Columbia, 24.

Production from plants in Ontario totalled \$40,613,286 in value, or 65.8 per cent of the total. Quebec accounted for \$15,569,672 or 73.6 per cent of the remainder.

**Boilers, Tanks and Engines.**—In the boilers, tanks and engines group there were 32 plants in operation during 1925. During the year 2 concerns in Ontario went out of business, but 2 new plants were opened in that province leaving the same number in operation as in 1924. The number of employees rose to 1,367 from 1,242 in 1924 and the value of production at \$4,540,706 was a million dollars above the corresponding figure for 1924. Ontario's 18 plants sold products valued at \$3,370,017 or 74.2 per cent of the total.

The chief products of this industry include boilers of all kinds, storage and pressure tanks, steam engines and gas engines. Similar products are also made in the castings and forgings group and in the machinery industry. Complete production figures are given in Table 30 of this report.

**Agricultural Implements.**—In 1925, the number of firms in Canada manufacturing agricultural implements as a principal product was 61, distributed as follows: Prince Edward Island, 1; Quebec, 11; Ontario, 43; Manitoba, 3; Alberta, 2; British Columbia, 1. In 1924 a total of 63 plants reported to the Bureau in this industry.

Production amounted to \$24,770,216 in value as compared with \$26,447,171 in 1924. Employees numbered 7,559, as against 6,700 in the preceding year, and capital employed stood at \$81,861,961, or a million dollars below the figure reported for a year ago.

**Machinery.**—Industrial, office and household machinery constituted the principal production of 151 plants reporting to the Bureau in 1925 as compared with 148 in the preceding year. Most of the plants were located in Ontario where there were 111 such establishments, but Quebec, Manitoba, British Columbia, Saskatchewan and New Brunswick were also represented.

The output of the industry was valued at \$30,462,650 as compared with \$29,100,997 in 1924. Production from plants in Ontario totalled \$18,962,328 in value. Quebec with a production valued at \$10,469,144 was second.

Capital employed in the machinery industry in 1925 amounted to \$55,431,604, an increase of 1.5 million dollars over that for 1924. Of the total investment, \$36,908,205 was invested in Ontario plants and \$17,516,138 in Quebec plants.

The average number of employees for the year was 8,313, and salaries and wages reached a total of \$10,767,051.

**Automobiles.**—Production of motor vehicles in Canada in 1925 reached a record total of 161,970 cars, which included 124,458 passenger cars, 22,144 trucks, and 15,368 chassis, valued in the aggregate at \$110,835,380 factory selling prices. The 1925 output was 22.2 per cent above

the number and 25.5 per cent higher in value of cars produced than in 1924 when the output totalled 132,580 cars worth \$88,480,418 at the factories.

Capital employed in the industry in 1925 amounted to \$74,678,451, which was a new high point for the industry, and an increase of 23 per cent over the figure for 1924.

Employment was afforded to 10,301 workers as against 9,293 in the previous year. Salaries and wages totalled \$17,249,270 as compared with \$14,219,137 in 1924.

All 11 plants producing cars or trucks were located in Ontario.

Imports of motor cars, and parts other than engines during the calendar year of 1925 rose 42 per cent in value to \$35,240,298. Automobile parts valued at \$20,690,989 comprised 57 per cent of this total.

Exports increased in value to \$39,417,614 in 1925 from \$31,501,442 in 1924. The number of passenger cars sent to foreign countries was 58,005 which was about 46 per cent of the total Canadian production. Trucks numbered 16,146 and parts were valued at \$6,372,728.

**Automobile Parts and Accessories.**—In 1925, production of auto parts and accessories in plants other than those producing completed cars was valued at \$11,234,828 which was about 4.5 million dollars below the corresponding figure for 1924. Capital employed stood at 9 million dollars as against 14.9 million in 1924 and employment was furnished to 2,029 workers as compared with 2,623 in the previous year.

The industry is centred in Ontario. Of the 68 plants in the industry, 43 were situated in Ontario; these plants produced parts valued at 10.4 million dollars or 93 per cent of the total for Canada.

Imports of parts into Canada during the calendar year 1925 were valued at \$20,690,989 as compared with \$15,173,108 in 1924. Exports totalled \$6,372,728 as against \$4,992,049 in the same period for 1924.

**Bicycles.**—Production of the bicycle industry in Canada reached a value of \$1,445,901 in 1925 as compared with \$1,211,010 in 1924. In the 5 operating plants, 516 men were employed to whom \$505,141 were paid in salaries and wages. Capital employed totalled \$2,348,323, a substantial increase of half a million dollars over the figure for 1924. All the plants were located in Ontario.

**Railway Rolling Stock.**—Manufacturing steam and electric cars and locomotives, as well as parts such as car wheels, brakes, tires, etc., the railway rolling stock industry was represented in 1925 by 35 concerns employing 20,202 hands, and made products worth \$53,050,665. A number of the larger repair shops which also produce large quantities of parts of various kinds have been included in the totals for 1925 but were not included in former years. Actually this industry showed a decline in output value of 22 million dollars.

**Wire and Wire Goods.**—There were 52 plants engaged in manufacturing wire or wire products in 1925 and 47 in 1924. Capital employed declined to \$19,015,655 from \$23,770,829 in 1924, but the number of employees rose to 2,996 in 1925 from 2,873 in the preceding year.

Income from sales of wire and wire goods produced in Canada in 1925 amounted to \$16,223,924 as compared with \$14,655,256 in 1924. These figures are not directly comparable with the recorded production values shown for 1923, and previous years, as these latter figures include also the value assigned to interplant transfers. Ontario with 34 plants, an employment roll of 1,883 people, and an output worth in the neighbourhood of 9 million dollars was the centre of the wire and wire goods industry.

**Sheet Metal Products.**—Production of sheet metal products in Canada in 1925 showed a substantial increase. The 127 operating plants reported a production valued at \$34,442,488 as compared with an output value of \$30,568,526 for the 108 plants that reported in 1924. The number of employees stood at 6,730 as compared with 6,298 in 1924, and capital employed amounted to \$29,624,294 as against the figure of \$28,419,951 reported for the previous year.

The industry is centred in Ontario. In 1925 the 67 plants in Ontario produced goods worth 20.9 million dollars, or 60.7 per cent of the total Canadian production.

**Hardware and Tools.**—Production in the hardware and tools industry was valued at \$17,882,650 in 1925, a gain of 2.3 million dollars from the output value shown for 1924. Operating plants numbered 112 as against 103 in 1924, but capital employed at \$30,774,622 showed a decrease of 1.5 million dollars. Employees numbered 5,528 as against 5,231 in 1924, and salaries and wages totalled \$6,184,925 as compared with \$5,620,704 in the preceding year.

Hardware and tools are also produced by firms whose major product places them in another classification. For the complete output of any commodity reference should be made to Table 30 of this report.

**Miscellaneous Iron and Steel Products.**—This group includes those plants engaged chiefly in the fabrication of building materials, ornamental iron work and other miscellaneous products which cannot be properly classified in any of the other groups.

The number of establishments in this industry was 65 in 1925 as compared with 59 in 1924. The average number of employees was 2,363, and salaries and wages amounted to \$3,236,948. The value of products was \$9,397,208, which was only slightly lower than the output value for 1924.

#### (d) By Provinces

**Prince Edward Island.**—In 1925, only 4 plants in Prince Edward Island produced commodities of iron and steel. There were 2 establishments in the castings and forgings group, 1 plant in the agricultural implements industry, and 1 in the sheet metal section. Representing a capital investment of \$450,929 these plants had a production amounting in value to \$268,483 and employed 95 persons throughout the year. In 1924, there were 5 plants in operation in this province, and the total output value stood at \$316,034.

**Nova Scotia.**—With 35 operating plants and a production valued at \$11,658,621 in 1925, Nova Scotia ranked fourth among the provinces as a producer of iron and steel commodities. Capital employed amounted to \$27,115,650, and the average number of persons employed during the year stood at 2,363. Salaries and wages totalled \$2,523,575. Raw materials cost \$6,714,496.

Nova Scotia is the only province in Canada with an abundant supply of coal and a readily available supply of high grade iron ore (in the adjacent island of Newfoundland). The plants of the British Empire Steel Corporation are located in this province; this company operates blast furnaces, steel furnaces, rolling mills, coke ovens and coal mines, and its vast interests extend over the whole province.

Primary iron and steel industries are the most important in the province. There were 4 plants in pig iron, steel and rolled products; 17 plants in the castings and forgings group; 4 in the boilers and engines industry; 3 in the railway rolling stock group; 1 in the wire and wire goods section; 3 in the sheet metal industry; and 3 in the hardware and tool industry.

**New Brunswick.**—New Brunswick was represented in the iron and steel group by 10 plants producing castings and forgings, 1 establishment manufacturing machinery, 3 plants making wire or wire goods, 1 in the railway rolling stock industry, 3 making sheet metal products, and 3 producing hardware and tools; 21 plants in all or 1 more than in 1924. Capital employed by these plants totalled \$6,512,685, employees numbered 1,982 and production was valued at \$4,046,857. In the previous year, 642 workers were employed, and production reached a total value of \$1,820,883.

**Quebec.**—Quebec ranks next to Ontario as a producer of iron and steel products. Production in 1925 was valued at \$77,394,080 as compared with \$75,759,038 in 1924. Quebec has no blast furnaces and produces no pig iron, but has a number of plants operating electric furnaces for the production of steel castings from scrap iron and steel. Several rolling mills also are located in this province.

The 195 plants in operation in 1925 were distributed amongst the various industries as follows: steel and rolled products, 9; castings and forgings, 67; boilers, tanks and engines, 3; agricultural implements, 11; machinery, 25; automobile accessories, 6; railway rolling stock, 9; wire and wire goods, 9; sheet metal products, 16; hardware and tools, 23; and miscellaneous iron and steel products, n.e.s., 17. These plants represented a capital investment of \$111,758,425 and afforded employment to 22,281 workers, to whom \$27,635,615 were paid in salaries and wages during the year. Over 2.4 million dollars were expended for fuel and electricity, and \$32,460,122 were paid for raw materials.

In 1924 there were 174 plants, employees averaged 20,644 in number, and production reached a value of \$75,759,038.

**Ontario.**—Ontario leads in the production of iron and steel products. Out of a total of 1,075 operating plants in the Dominion in this industry, 672 were located in Ontario, and of a Dominion production valued at \$411,378,640, Ontario's plants accounted for \$290,434,900. Capital employed amounted to \$394,850,993, and employees numbered 54,725.



Although Ontario possesses no workable deposits of coal and the iron ore deposits, while extensive are low grade, the primary iron and steel industries were represented by the Algoma Steel Corporation and the Steel Company of Canada operating blast furnaces, steel furnaces and rolling mills at Sault Ste. Marie and Hamilton respectively, and producing pig iron, steel and a variety of rolled products. The Algoma Steel Corporation also produced considerable tonnages of alloy steels while several other plants in Ontario produced ferro-alloys.

With an output valued at \$110,835,380, the automobile industry took first place among the 14 main groups. All 11 motor factories were located in Ontario. Castings and forgings came next with 188 plants and an output valued at \$40,613,286. There were also 14 plants in the pig iron, steel and rolled products group, 18 in boilers, tanks and engines, 43 in agricultural implements, 111 in machinery, 43 in auto accessories, 5 in bicycles, 17 in railway rolling stock, 34 in wire and wire goods, 67 in sheet metal products, 79 in hardware and tools and 42 in the miscellaneous iron and steel products, n.e.s. There was, thus, a net gain of 27 plants over 1924.

**Manitoba.**—Iron and steel products were made in 34 different plants in Manitoba during 1925. These plants employed 5,664 persons throughout the year and used 5.7 million dollars' worth of raw materials in the manufacture of completed products valued at \$15,440,453. Three plants in Manitoba operated steel furnaces for the production of castings and 1 of these also reported in the rolling mill group; 5 plants produced castings and forgings; 3 establishments made agricultural implements; 2 made industrial machinery; 4 produced automobile supplies; 3 plants were included in the railway rolling stock; 10 produced sheet metal goods; and 3 establishments reported under the miscellaneous iron and steel industry. In 1924, there were only 32 establishments and production was valued at \$6,448,089. Inclusion of 2 additional plants in the railway rolling stock group account for the great increase in output value shown for this province.

**Saskatchewan.**—Saskatchewan was represented in the iron and steel industry by only 6 plants which employed 118 persons during the year and produced \$504,629 worth of iron and steel commodities. Two plants produced castings and forgings; 2 reported in the machinery industry; and 2 made sheet metals.

**Alberta.**—Production of iron and steel products in Alberta reached a value of \$2,940,777 in 1925 as compared with \$841,389 in 1924. There were 27 plants in operation in 1925 distributed by industries as follows: castings and forgings, 9; agricultural implements, 2; automobile parts, 4; railway rolling stock, 2; sheet metal products, 9; and 1 other establishment was classified under the miscellaneous iron and steel products group. Capital employed amounted to slightly over 3 million dollars, employees averaged 1,150 for the year, and raw materials used in manufacture cost \$1,149,086. The inclusion of 2 of the large railway repair shops account for the increases shown in this province.

**British Columbia.**—With 81 plants and a production valued at \$8,689,840 in 1925, British Columbia ranked fifth among the provinces as a producer of iron and steel products. Capital employed amounted to \$7,528,176 and employees numbered 1,747, to whom \$2,354,181 were paid in salaries and wages.

The castings and forgings industry with 24 plants representing a capital investment of nearly 2.5 million dollars, was the most important of the iron and steel groups in this province. Production in this group was valued at \$1,678,974, and materials used cost \$500,580. There were also 7 establishments in the boilers and engines group, 1 plant making agricultural machinery, 1 operating a steel furnace, 10 producing industrial and household machinery, 11 manufacturing automobile supplies, 5 in the wire and wire goods industry, 16 engaged in the manufacture of sheet metal goods, 4 producing hardware and tools, and 2 in the miscellaneous iron and steel products group.

In 1924 there were 69 establishments in operation, employees numbered 1,485 and production totalled \$7,318,244 in value. There was an increase of 12 in the number of operating-plants in 1925.

#### (e) External Trade

Canada's external trade in iron and its products during the calendar year 1925 reached a total value of 237.6 million dollars as compared with a figure of 196.6 million in the previous year. During the year iron and steel products valued at \$166,573,076 were imported into Canada; exports of Canadian produce in the same year totalled \$69,356,468 in value and foreign produce



to the value of \$2,648,133 was exported, giving Canada an unfavourable trade balance of 94.6 million dollars in iron and steel commodities. In the previous year Canada imported iron and steel products having a declared value of \$137,979,471, and exported \$58,621,047 worth of iron and steel products made in Canada and re-exported foreign produce worth \$2,758,381.

Imports of iron and steel of all kinds during the calendar year 1925 amounted in value to \$166,573,076. This figure compared favourably with a total of \$137,979,471 for 1924. United States supplied 86 per cent of the imports in 1925 and the United Kingdom only 11 per cent. Imports from the United States during 1925 increased to \$143,634,462, and the importations from the United Kingdom showed only a slight increase and amounted to \$18,145,950 as compared with \$17,530,012 in 1924 and \$17,673,671 in 1923. Rolling mill products, machinery of all kinds and motor vehicles and parts formed the bulk of Canada's imports.

Exports during the calendar year amounted in value to \$69,356,468 as compared with \$58,621,047 in 1924. New Zealand provided our best market, purchasing products valued at 7.5 million dollars, or nearly 11 per cent of the total; Argentine bought 11 per cent; United Kingdom about 12 per cent; Australia, 12 per cent; United States, 11 per cent; British East Indies, 11 per cent, and Africa, about 7 per cent. Exports of automobiles and parts at \$39,417,614 made up 57 per cent of the total shipments; agricultural implements made up 20 per cent, and other machinery 8 per cent.

An historical table showing the value of Canada's foreign trade in iron and steel for the fiscal years ending March, 1891, to 1926, and a table showing details for the fiscal years 1924 and 1925 are included in this report.

#### (f) Prices

The index number for iron and its products was 151.6 in 1925 as compared with 161.0 in 1924. The decline in the group was general and is to be explained by quietness in the construction industries during 1925. Neither in building nor in the railways was there a sufficient demand for materials to give strength to the price situation in iron and steel products. No. 1 foundry pig iron at Montreal commenced the year at \$31.20 per ton, fell to \$27.25 by June and ended the year at \$28.75. The average for the year was \$28.71 per ton as compared with \$29.26 in 1924. Basic pig iron at mill, was \$25.00 in February, \$21.00 in June and \$23.00 in December. The 1925 average was \$22.41 and that of 1924-\$23.16. Scrap iron No. 1 railroad fell from \$12.04 to \$10.25. Steel billets, mild, were \$39.92 as compared with \$43.60 and steel merchant bars \$48.75 and \$57.50 respectively in 1925 and 1924. Steel rails fell from \$49.38 to \$48.37. Galvanized sheets No. 28 U.S.A. gauge, were \$4.49 per cwt., in 1925 and \$4.82 in 1924. Tin plate dropped from \$5.50 per base box to \$5.40, wire nails from \$3.96 to \$3.75 per keg and horseshoes from \$6.78 to \$6.55 per keg. Car axles were \$80.00 per ton for both 1924 and 1925.

Table 3.—Historical Summary of the Iron and Steel Industry in Canada, 1870 to 1925

Year	Establishment	Number of employees	Salaries and wages	Capital	Cost of materials	Value of products	Value added by manufacture
	No.	No.	\$	\$	\$	\$	\$
1870	4,000	27,666	5,119,414	9,288,604	16,125,631	28,158,189	12,032,558
1880	1,202	20,980	7,510,831	19,515,290	12,005,991	25,683,054	13,677,063
1890	1,494	31,954	12,940,872	391,500,180	21,134,867	47,277,277	28,142,410
1900	362*	34,010	13,261,678	61,800,987	20,824,451	48,271,553	27,447,102
1905	864*	45,327	20,586,239	104,215,293		80,243,452	
1910	975*	66,314	34,389,912	195,696,098	74,038,394	156,434,604	82,396,210
1915	977*	77,808	40,093,378	341,360,749	92,315,043	179,991,200	87,676,157
1917	1,409	144,413	135,426,469	576,814,790	343,634,834	693,872,364	347,472,731
1918	1,352	128,399	45,773,485	547,932,654	431,448,368	793,080,850	359,089,124
1919	1,360	88,300	102,328,199	541,791,187	228,351,993	489,756,971	261,404,978
1920	1,475	115,761	158,504,947	624,558,400	321,298,396	640,233,785	318,935,389
1921	1,135	77,077	98,363,983	575,680,424	194,703,391	382,398,084	187,694,693
1922	1,046	75,334	91,629,491	526,109,953	168,937,807	333,569,814	164,632,008
1923	1,000	98,071	115,453,809	552,272,800	256,417,991	465,959,547	209,541,556
1924	1,005	78,656	100,050,011	537,546,035	196,474,248	371,242,493	174,768,245
1925	1,075	90,125	117,642,470	567,912,477	206,337,132	411,378,640	205,041,508

\*The scope of the industrial census in censal years from 1900 to 1915 inclusive was restricted to firms employing five hands and upwards.

**Table 4.—Imports into Canada and Exports of Iron and Its Products, by Principal Countries, Fiscal Years Ending March 31, 1891-1926**

Fiscal year ending March 31	Imports				Exports			
	United Kingdom	United States	Other Countries	Total Imports	United Kingdom	United States	Other Countries	Total Exports
	\$	\$	\$	\$	\$	\$	\$	\$
1891.....	8,585,959	5,885,220	671,436	15,142,615	175,736	129,024	251,767	556,527
1892.....	7,779,785	6,185,707	584,646	14,550,138	324,369	118,701	249,219	692,289
1893.....	7,685,614	6,404,116	636,908	14,726,638	306,877	138,586	366,603	812,066
1894.....	6,673,781	5,546,845	689,028	12,909,654	240,832	73,663	507,287	821,782
1895.....	4,122,491	6,193,431	439,680	10,755,602	403,727	157,346	476,003	1,037,076
1896.....	4,430,328	8,270,565	692,869	13,393,762	444,318	225,754	518,182	1,188,254
1897.....	3,580,713	9,956,789	444,798	13,982,300	494,533	168,251	979,371	1,642,155
1898.....	3,447,815	15,565,426	431,560	19,444,801	773,246	199,096	1,525,814	2,498,156
1899.....	3,701,498	18,428,633	478,276	22,608,407	850,464	223,950	1,800,914	2,875,328
1900.....	7,603,200	25,041,652	831,294	33,476,146	801,273	614,684	1,931,525	3,347,482
1901.....	4,835,067	24,361,795	759,074	29,955,936	831,805	752,077	2,195,015	3,778,897
1902.....	7,874,718	26,085,892	2,372,213	36,332,823	1,614,609	2,083,112	2,346,641	6,044,362
1903.....	11,955,353	29,702,827	3,818,431	45,476,611	816,131	3,215,323	2,494,482	6,525,936
1904.....	10,462,458	31,544,249	3,522,255	45,528,962	1,036,856	1,709,915	2,778,383	5,525,154
1905.....	7,951,775	36,255,026	1,656,706	45,863,507	670,177	1,028,435	2,548,634	4,247,246
1906.....	9,809,201	37,840,723	1,786,916	49,436,840	489,392	1,250,032	2,965,872	4,705,296
1907*.....	10,418,541	35,494,667	1,568,475	47,481,683	514,046	620,770	2,796,133	3,930,949
1908.....	16,640,255	48,431,842	2,201,408	67,273,535	819,057	755,413	4,007,371	5,581,841
1909.....	9,833,650	33,214,367	1,565,614	44,613,631	770,951	839,509	4,949,026	6,559,486
1910.....	13,156,100	50,698,808	2,037,630	65,892,538	835,75	1,435,128	5,215,137	7,486,017
1911.....	16,991,249	71,882,597	3,094,334	91,968,180	1,023,851	1,719,238	7,141,254	9,884,346
1912.....	15,608,176	92,589,960	2,943,647	111,141,783	998,313	1,530,696	7,512,336	10,041,345
1913.....	16,340,274	144,044,025	3,633,168	164,017,467	932,965	1,867,083	9,321,821	12,221,870
1914.....	17,262,813	121,342,038	5,259,884	143,864,735	1,430,540	2,044,031	12,008,900	15,483,491
1915.....	8,480,803	67,355,925	2,007,054	77,843,782	6,327,570	3,147,583	8,402,483	17,877,636
1916.....	4,430,209	86,655,760	969,926	92,065,895	37,985,196	5,552,955	22,588,948	66,127,099
1917.....	5,128,767	146,930,196	1,192,416	153,251,379	23,470,695	8,663,830	28,175,538	63,310,063
1918.....	4,345,335	189,769,921	1,133,454	195,248,713	11,575,497	12,124,875	41,136,851	64,837,223
1919.....	6,132,274	185,116,309	1,278,794	192,527,377	11,315,853	22,696,645	47,898,428	81,910,926
1920.....	6,637,067	178,661,606	1,021,203	186,319,876	15,874,157	25,717,121	40,194,551	81,785,829
1921.....	16,698,085	226,855,725	2,071,893	245,625,703	17,653,826	19,630,413	39,216,502	76,500,741
1922.....	8,985,903	99,938,235	1,286,401	110,210,539	4,758,888	4,693,020	18,860,364	28,312,272
1923.....	12,671,433	124,370,193	1,682,829	138,724,455	11,556,627	9,409,265	30,172,020	51,137,912
1924.....	18,241,86	152,176,749	3,054,888	173,478,503	9,872,536	9,091,971	48,011,064	66,975,571
1925.....	17,794,421	113,541,924	3,348,089	134,684,441	6,689,169	5,063,148	45,653,623	57,405,940
1926.....	17,907,204	158,027,944	5,261,652	181,196,800	8,307,441	7,582,833	58,844,803	74,735,077

\* 9 months.

**TREND IN CANADA'S FOREIGN TRADE  
IN IRON AND ITS PRODUCTS  
BY FIVE YEAR PERIODS FOR THE  
FISCAL YEARS ENDING MARCH 31  
1892 - 1926**

**IMPORTS.....** **EXPORTS.....**




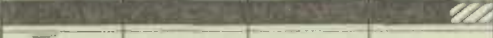




Fiscal Years Ending March 31	IMPORTS		EXPORTS	
	Value in Dollars	Percentage of Total Trade	Value in Dollars	
1892-97	66,335,794		4,551,467	
97-1902	119,467,590		14,142,018	
1902-07	222,638,743		27,047,994	
1907-12	317,229,567		33,442,639	
1912-17	588,933,662		121,751,441	
1917-21	972,973,048		368,344,702	
1921-26	738,289,735		278,566,772	
<b>SUMMARY</b>				
1892-1926	3,025,868,142		847,847,113	

Table 5.—Principal Statistics Pertaining to Iron and Steel and Their Products in Canada, by Industries and by Provinces, 1924

Industry	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan and Alberta	British Columbia	*Canada
<b>PIG IRON, STEEL AND ROLLED PRODUCTS—</b>								
Number of plants.....	4		9	12	4			29
Capital employed.....\$			13,907,174	47,519,607	1,500,655			79,805,201
Salaried employees—								
Male.....			79	221	26			355
Female.....			20	22	2			44
Wage-earners—								
Male.....			1,374	2,003	272			4,923
Female.....			3					3
Total employees.....			1,476	2,246	300			5,325
Salaries and wages—								
Salaries.....\$			180,806	643,257	80,261			905,964
Wages.....\$			1,524,344	3,564,869	270,668			6,215,624
Total.....\$			1,705,150	4,208,126	350,929			7,201,588
Cost of fuel and electricity.....\$			428,103	3,872,662	155,746			5,561,674
Cost of materials.....\$			1,293,095	11,246,410	251,629			19,410,742
Value of products.....\$			5,260,236	20,276,155	1,067,072			33,553,443
<b>CASTINGS AND FORGINGS—</b>								
Number of plants.....	18	11	64	187	6	7	21	317
Capital employed.....\$	1,829,820	1,331,449	22,349,327	58,642,514	1,635,828	616,868	1,921,782	88,674,538
Salaried employees—								
Male.....	55	29	475	1,225	36	24	56	1,911
Female.....	17	15	92	383	5	2	8	525
Wage-earners—								
Male.....	389	392	3,021	9,821	203	128	475	14,474
Female.....	1	4	78	218			2	307
Total employees.....	462	440	3,666	11,646	244	155	541	17,217
Salaries and wages—								
Salaries.....\$	123,154	89,964	1,129,351	3,154,297	70,980	63,606	143,381	4,795,910
Wages.....\$	392,758	422,227	3,140,862	11,113,401	242,906	171,766	556,382	16,082,552
Total.....\$	515,912	512,191	4,270,213	14,267,698	313,886	235,369	669,763	20,878,462
Cost of fuel and electricity.....\$	60,140	33,214	441,616	1,331,672	24,493	8,745	41,256	1,946,315
Cost of materials.....\$	323,624	356,065	5,445,142	15,113,659	388,329	131,223	369,177	22,182,216
Value of products.....\$	1,014,672	1,049,619	12,133,683	40,048,339	1,014,649	494,055	1,568,169	57,194,594
<b>BOILERS TANKS AND ENGINES—</b>								
Number of plants.....	4		3	19			6	32
Capital employed.....\$	900,138		201,736	7,680,892			358,215	9,140,981
Salaried employees—								
Male.....	13		6	168			9	196
Female.....	5			50				55
Wage-earners—								
Male.....	79		64	780			65	988
Female.....	1			2				3
Total employees.....	98		70	1,000			74	1,242
Salaries and wages—								
Salaries.....\$	31,849		16,439	427,021			35,283	510,592
Wages.....\$	87,413		71,725	856,561			93,032	1,108,731
Total.....\$	119,262		88,164	1,283,582			128,315	1,619,323
Cost of fuel and electricity.....\$	17,603		5,710	110,926			2,745	136,984
Cost of materials.....\$	86,557		54,136	1,315,336			82,501	1,588,530
Value of products.....\$	221,927		189,833	2,973,113			282,736	3,667,610
<b>AGRICULTURAL IMPLEMENTS AND MACHINERY—</b>								
Number of plants.....			10	44	3	4	1	63
Capital employed.....\$			1,668,589	80,244,785	527,267	356,701		82,877,387
Salaried employees—								
Male.....			42	929	18	7		999
Female.....			7	276	4	1		289
Wage-earners—								
Male.....			177	5,010	59	48		5,304
Female.....			1	107				108
Total employees.....			227	6,322	81	56		6,700
Salaries and wages—								
Salaries.....\$			77,485	2,183,308	38,512	21,316		2,317,521
Wages.....\$			163,878	5,591,913	56,262	55,004		5,875,340
Total.....\$			241,363	7,774,221	94,774	67,320		8,192,861
Cost of fuel and electricity.....\$			15,079	575,176	9,606	4,294		605,614
Cost of materials.....\$			148,139	11,269,935	192,093	54,927		11,700,644
Value of products.....\$			592,989	25,269,205	379,371	118,609		26,447,171
<b>MACHINERY—</b>								
Number of plants.....		1	25	109	2	2	9	148
Capital employed.....\$			16,622,084	36,446,978			383,723	54,058,263
Salaried employees—								
Male.....			421	898			24	1,366
Female.....			128	308			2	443
Wage-earners—								
Male.....			2,613	3,467			55	6,231
Female.....			154	63				220
Total employees.....			3,316	4,736			81	8,260



**Table 5.—Principal Statistics Pertaining to Iron and Steel and Their Products in Canada, by Industries and by Provinces, 1924—Continued**

Industry	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan and Alberta	British Columbia	*Canada
<b>MACHINERY—Con.</b>								
Salaries and wages—								
Salaries.....\$			1,040,589	2,219,719			46,754	3,365,073
Wages.....\$			3,013,852	3,983,989			74,940	7,198,094
Total.....\$			4,054,441	6,203,708			121,694	10,563,171
Cost of fuel and electricity.....\$			252,647	260,484			2,118	523,508
Cost of materials.....\$			3,941,236	5,649,665			138,817	9,884,892
Value of products.....\$			10,617,938	17,502,199			379,226	29,190,997
<b>AUTOMOBILES—</b>								
Number of plants.....				12				12
Capital employed.....\$				60,766,886				60,766,886
Salaries and wages—								
Male.....				1,050				1,050
Female.....				355				355
Wage-earners—								
Male.....				7,691				7,691
Female.....				197				197
Total employees.....				9,293				9,293
Salaries and wages—								
Salaries.....\$				3,280,935				3,280,935
Wages.....\$				10,938,202				10,938,202
Total.....\$				14,219,137				14,219,137
Cost of fuel and electricity.....\$				545,910				545,910
Cost of materials.....\$				64,148,581				64,148,581
Value of products.....\$				88,480,418				88,480,418
<b>AUTOMOBILE PARTS AND ACCESSORIES—</b>								
Number of plants.....			2	40	4	5	9	60
Capital employed.....\$				14,491,542	75,973	38,085	253,812	14,894,462
Salaries and wages—								
Male.....				214	6	6	17	247
Female.....				88	1	1	2	93
Wage-earners—								
Male.....				2,000	16	20	80	2,126
Female.....				145	9		1	157
Total employees.....				2,447	32	27	100	2,623
Salaries and wages—								
Salaries.....\$				605,797	10,544	6,909	44,609	677,799
Wages.....\$				2,928,249	27,629	29,005	110,342	3,108,665
Total.....\$				3,534,046	38,173	35,914	155,011	3,786,464
Cost of fuel and electricity.....\$				277,979	702	1,213	4,164	284,216
Cost of materials.....\$				9,092,074	66,803	16,584	131,497	9,336,388
Value of products.....\$				15,119,940	143,154	64,857	356,937	15,744,388
<b>BICYCLES—</b>								
Number of plants.....				4				4
Capital employed.....\$				1,979,538				1,979,538
Salaries and wages—								
Male.....				41				41
Female.....				10				10
Wage-earners—								
Male.....				377				377
Female.....				30				30
Total employees.....				458				458
Salaries and wages—								
Salaries.....\$				82,549				82,549
Wages.....\$				354,334				354,334
Total.....\$				436,883				436,883
Cost of fuel and electricity.....\$				37,106				37,106
Cost of materials.....\$				548,033				548,033
Value of products.....\$				1,211,010				1,211,010
<b>RAILWAY ROLLING STOCK—</b>								
Number of plants.....	3		7	12	1			23
Capital employed.....\$			31,179,450	13,759,407				50,793,093
Salaries and wages—								
Male.....			492	247				772
Female.....			36	48				87
Wage-earners—								
Male.....			7,563	1,671				9,797
Female.....			9	1				12
Total employees.....			8,160	1,967				10,668
Salaries and wages—								
Salaries.....\$			1,078,076	494,919				1,675,336
Wages.....\$			9,550,848	2,065,137				12,220,088
Total.....\$			10,628,924	2,560,056				13,895,344
Cost of fuel and electricity.....\$			799,576	257,920				1,148,792
Cost of materials.....\$			18,765,149	4,792,929				26,239,930
Value of products.....\$			31,721,611	9,277,947				45,129,671

**Table 5.—Principal Statistics Pertaining to Iron and Steel and Their Products in Canada, by Industries and by Provinces, 1924—Continued**

Industry	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan and Alberta	British Columbia	*Canada
<b>WIRE AND WIRE GOODS—</b>								
Number of plants.....	1	3	7	31			5	47
Capital employed..... \$			6,216,830	15,426,206			705,240	23,770,829
Salaried employees—								
Male.....			45	192			12	266
Female.....			6	88				98
Wage-earners—								
Male.....			497	1,346			66	2,298
Female.....			20	175			2	211
Total employees.....			568	1,801			80	2,873
Salaries and wages—								
Salaries..... \$			122,350	530,854			27,807	726,277
Wages..... \$			512,187	1,602,879			82,299	2,503,868
Total..... \$			634,537	2,133,733			110,106	3,230,145
Cost of fuel and electricity..... \$			75,534	214,715			7,233	379,688
Cost of materials..... \$			694,142	3,751,930			442,412	5,378,744
Value of products..... \$			3,692,214	8,163,596			689,270	14,653,256
<b>SHEET METAL PRODUCTS—</b>								
Number of plants.....	3	2	12	62	10	5	13	108
Capital employed..... \$	581,577		6,255,030	17,186,178	2,049,173	181,891	2,028,612	28,419,951
Salaried employees—								
Male.....	12		152	485	73	13	75	813
Female.....	4		26	148	36	4	15	233
Wage-earners—								
Male.....	136		1,029	2,740	265	37	399	4,633
Female.....			215	349			42	619
Total employees.....	152		1,422	3,722	374	54	531	6,298
Salaries and wages—								
Salaries..... \$	37,259		289,812	1,155,587	162,078	19,598	138,596	1,836,560
Wages..... \$	131,123		1,060,134	3,215,378	298,218	41,176	470,221	5,272,478
Total..... \$	168,382		1,349,946	4,430,965	460,896	60,774	608,820	7,109,038
Cost of fuel and electricity..... \$	26,281		89,303	310,306	14,897	1,327	21,740	493,982
Cost of materials..... \$	115,509		2,418,003	10,930,472	763,419	102,487	2,614,090	17,017,429
Value of products..... \$	508,965		4,992,596	19,735,767	1,369,079	218,676	3,619,543	30,568,526
<b>HARDWARE AND TOOLS—</b>								
Number of plants.....	3	3	23	71			3	103
Capital employed..... \$	699,669	198,335	9,449,979	21,806,848			120,919	32,275,750
Salaried employees—								
Male.....	8	7	124	352			5	496
Female.....	3	2	48	172			2	227
Wage-earners—								
Male.....	74	31	809	2,913			25	3,852
Female.....	3		310	342			1	656
Total employees.....	88	40	1,291	3,779			33	5,231
Salaries and wages—								
Salaries..... \$	16,137	13,038	342,806	1,040,152			10,878	1,423,011
Wages..... \$	71,288	27,989	982,408	3,087,044			28,964	4,197,693
Total..... \$	87,425	41,027	1,325,214	4,127,196			39,842	5,620,704
Cost of fuel and electricity..... \$	9,577	6,785	110,023	397,073			2,072	526,130
Cost of materials..... \$	53,902	39,844	1,185,546	3,601,074			52,756	4,933,120
Value of products..... \$	176,357	97,375	4,443,718	10,742,587			110,133	15,570,170
<b>IRON AND STEEL PRODUCTS, N.E.S.—</b>								
Number of plants.....			12	42	2	1	2	59
Capital employed..... \$			1,585,176	6,587,039				10,089,156
Salaried employees—								
Male.....			63	303				407
Female.....			14	66				91
Wage-earners—								
Male.....			413	1,249				1,932
Female.....			1	37				38
Total employees.....			491	1,655				2,468
Salaries and wages—								
Salaries..... \$			186,442	895,101				1,035,408
Wages..... \$			466,434	1,482,676				2,261,483
Total..... \$			652,856	2,173,777				3,296,891
Cost of fuel and electricity..... \$			26,268	85,904				133,780
Cost of materials..... \$			1,004,037	2,479,596				4,114,079
Value of products..... \$			2,047,719	6,220,306				9,619,239

**Table 5.—Principal Statistics Pertaining to Iron and Steel and Their Products in Canada, by Industries and by Provinces, 1924—Concluded**

Industry	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan and Alberta	British Columbia	*Canada
<b>ALL INDUSTRIES—</b>								
Number of plants.....	36	20	174	645	32	24	69	1,065
Capital employed.....	\$ 26,726,882	2,273,714	109,470,425	382,838,420	8,114,547	1,440,555	6,215,231	537,546,035
<b>Salaried employees—</b>								
Male.....	147	56	1,963	6,324	214	56	205	8,919
Female.....	32	22	378	2,014	62	8	30	2,550
<b>Wage-earners—</b>								
Male.....	2,709	544	17,570	41,068	1,201	268	1,202	64,626
Female.....	7	20	793	1,666	9	3	48	2,561
<b>Total employees.....</b>	<b>2,895</b>	<b>642</b>	<b>20,644</b>	<b>51,072</b>	<b>1,486</b>	<b>335</b>	<b>1,485</b>	<b>78,656</b>
<b>Salaries and wages—</b>								
Salaries.....	\$ 388,616	147,398	4,474,016	16,544,496	552,935	114,525	466,048	22,712,935
Wages.....	\$ 2,222,855	582,482	20,500,112	50,813,632	1,355,918	333,750	1,470,955	77,337,076
<b>Total.....</b>	<b>\$ 2,611,471</b>	<b>729,880</b>	<b>24,974,128</b>	<b>67,358,128</b>	<b>1,908,853</b>	<b>448,276</b>	<b>1,937,013</b>	<b>100,050,011</b>
<b>Cost of fuel and electricity \$</b>	<b>1,363,237</b>	<b>69,906</b>	<b>2,244,615</b>	<b>8,307,833</b>	<b>229,833</b>	<b>18,386</b>	<b>83,480</b>	<b>12,325,699</b>
<b>Cost of materials \$</b>	<b>9,401,266</b>	<b>791,587</b>	<b>34,978,976</b>	<b>143,989,694</b>	<b>2,793,223</b>	<b>381,709</b>	<b>3,994,466</b>	<b>196,474,248</b>
<b>Value of products \$</b>	<b>13,522,833</b>	<b>1,820,883</b>	<b>75,759,038</b>	<b>265,020,580</b>	<b>6,448,089</b>	<b>1,036,792</b>	<b>7,318,244</b>	<b>371,242,493</b>

\*Where only 1 or 2 firms reported in a given province for any industry, statistics for the province have not been shown separately but have been included in the Canadian totals. Data for 3 plants in castings and forgings, 1 in agricultural implements and machinery and 1 in sheet metal products in Prince Edward Island, are also included in the Canada totals.

**Table 6.—Principal Statistics Pertaining to Iron and Steel and Their Products in Canada, by Industries and by Provinces, 1925**

Industry	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan and Alberta	British Columbia	*Canada
<b>PIG IRON, STEEL AND ROLLED PRODUCTS—</b>								
Number of plants.....	4		9	14	4		1	32
Capital employed.....	\$17,184,711		12,550,280	51,392,949	1,466,000			82,593,940
<b>Salaried employees—</b>								
Male.....	22		04	240	26			352
Female.....			15	33	2			50
<b>Wage-earners—</b>								
Male.....	1,168		1,106	2,184	237			4,695
Female.....			4					4
<b>Total employees.....</b>	<b>1,190</b>		<b>1,189</b>	<b>2,457</b>	<b>265</b>			<b>5,101</b>
<b>Salaries and wages—</b>								
Salaries.....	\$ 61,788		222,771	707,288	72,583			1,064,430
Wages.....	\$ 1,074,345		1,220,189	3,613,776	318,432			6,226,742
<b>Total.....</b>	<b>\$ 1,136,133</b>		<b>1,442,960</b>	<b>4,321,064</b>	<b>391,015</b>			<b>7,291,172</b>
<b>Cost of fuel and electricity \$</b>	<b>1,153,716</b>		<b>533,060</b>	<b>2,242,911</b>	<b>187,197</b>			<b>4,116,884</b>
<b>Cost of materials \$</b>	<b>4,046,019</b>		<b>1,011,769</b>	<b>11,057,354</b>	<b>312,154</b>			<b>16,433,911</b>
<b>Value of products \$</b>	<b>6,967,662</b>		<b>4,597,849</b>	<b>22,348,471</b>	<b>1,308,203</b>			<b>35,337,685</b>
<b>CASTINGS AND FORGINGS—</b>								
Number of plants.....	17	10	67	188	5	11	24	324
Capital employed.....	\$ 1,881,767	1,288,072	20,967,600	55,475,604	1,493,084	900,512	2,484,552	84,812,441
<b>Salaried employees—</b>								
Male.....	53	30	458	1,042	36	30	76	1,733
Female.....	13	13	90	345	5	3	11	483
<b>Wage-earners—</b>								
Male.....	358	355	3,132	9,776	194	192	485	14,539
Female.....	1	2	69	287		1	2	365
<b>Total employees.....</b>	<b>425</b>	<b>400</b>	<b>3,749</b>	<b>11,450</b>	<b>235</b>	<b>226</b>	<b>574</b>	<b>17,120</b>
<b>Salaries and wages—</b>								
Salaries.....	\$ 120,308	100,628	1,078,208	2,799,911	80,042	79,417	190,445	4,465,459
Wages.....	\$ 374,027	363,434	3,216,048	11,450,673	234,315	262,698	630,876	16,571,051
<b>Total.....</b>	<b>\$ 494,335</b>	<b>464,062</b>	<b>4,294,256</b>	<b>14,250,584</b>	<b>314,357</b>	<b>342,115</b>	<b>821,321</b>	<b>21,039,510</b>
<b>Cost of fuel and electricity \$</b>	<b>58,939</b>	<b>25,812</b>	<b>439,588</b>	<b>1,294,049</b>	<b>25,867</b>	<b>11,948</b>	<b>45,728</b>	<b>1,908,345</b>
<b>Cost of materials \$</b>	<b>322,826</b>	<b>292,200</b>	<b>5,385,356</b>	<b>15,357,728</b>	<b>387,218</b>	<b>212,711</b>	<b>500,580</b>	<b>22,522,361</b>
<b>Value of products \$</b>	<b>1,005,837</b>	<b>968,914</b>	<b>15,569,672</b>	<b>40,613,286</b>	<b>1,018,756</b>	<b>736,635</b>	<b>1,678,974</b>	<b>61,754,339</b>

**Table 6.—Principal Statistics Pertaining to Iron and Steel and Their Products in Canada, by Industries and by Provinces, 1925—Continued**

Industry	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan and Alberta	British Columbia	*Canada
<b>BOILERS, TANKS AND ENGINES—</b>								
Number of plants.....	4		3	18			7	32
Capital employed.....\$	942,078		202,589	6,704,517			789,575	8,438,759
Salaried employees—								
Male.....	21		6	180			18	225
Female.....	6			50			1	57
Wage-earners—								
Male.....	95		62	766			160	1,083
Female.....				2				2
Total employees.....	122		68	998			179	1,367
Salaries and wages—								
Salaries.....\$	39,479		17,026	425,640			55,211	537,365
Wages.....\$	94,094		61,735	917,874			221,472	1,295,175
Total.....\$	133,573		78,761	1,343,523			276,683	1,832,540
Cost of fuel and electricity.....\$	18,582		5,417	88,270			10,673	122,942
Cost of materials.....\$	96,157		93,650	1,875,472			257,519	2,322,798
Value of products.....\$	242,875		216,027	3,370,017			711,787	4,540,706
<b>AGRICULTURAL IMPLEMENTS AND MACHINERY—</b>								
Number of plants.....			11	43	3		2	61
Capital employed.....\$			2,015,523	79,115,119	597,487			81,861,961
Salaried employees—								
Male.....			48	993	17			1,063
Female.....			7	278	3			290
Wage-earners—								
Male.....			221	5,748	80			6,081
Female.....			1	124				125
Total employees.....			277	7,143	100			7,559
Salaries and wages—								
Salaries.....\$			98,179	2,103,337	40,505			2,254,068
Wages.....\$			176,033	6,526,440	97,800			6,853,153
Total.....\$			274,212	8,629,777	138,305			9,089,221
Cost of fuel and electricity.....\$			15,045	610,797	12,394			642,769
Cost of materials.....\$			188,909	10,613,864	257,726			11,089,186
Value of products.....\$			692,662	23,361,259	627,815			24,770,216
<b>MACHINERY—</b>								
Number of plants.....		1	25	111	2	2	10	151
Capital employed.....\$			17,516,138	36,908,205			379,283	55,431,604
Salaried employees—								
Male.....			416	881			20	1,339
Female.....			114	288			3	413
Wage-earners—								
Male.....			2,580	3,584			72	6,330
Female.....			157	74				231
Total employees.....			3,267	4,827			95	8,313
Salaries and wages—								
Salaries.....\$			1,052,824	2,142,874			43,643	3,301,514
Wages.....\$			3,161,156	4,096,765			87,687	7,465,537
Total.....\$			4,213,980	6,239,639			131,330	10,767,051
Cost of fuel and electricity.....\$			222,771	245,600			5,069	481,146
Cost of materials.....\$			4,442,057	6,252,294			118,549	10,985,865
Value of products.....\$			10,469,144	18,962,328			321,502	30,462,650
<b>AUTOMOBILES—</b>								
Number of plants.....				11				11
Capital employed.....\$				74,678,451				74,678,451
Salaried employees—								
Male.....				1,227				1,227
Female.....				369				369
Wage-earners—								
Male.....				8,497				8,497
Female.....				208				208
Total employees.....				10,301				10,301
Salaries and wages—								
Salaries.....\$				3,517,421				3,517,421
Wages.....\$				13,731,849				13,731,849
Total.....\$				17,249,270				17,249,270
Cost of fuel and electricity.....\$				1,023,390				1,023,390
Cost of materials.....\$				74,166,378				74,166,378
Value of products.....\$				110,835,380				110,835,380
<b>AUTOMOBILE PARTS AND ACCESSORIES—</b>								
Number of plants.....			6	43	4	4	11	68
Capital employed.....\$			117,320	8,488,408	100,127	46,569	271,422	9,023,906
Salaried employees—								
Male.....			17	170	5	3	23	218
Female.....			2	60	2	1	1	66



**Table 6.—Principal Statistics Pertaining to Iron and Steel and Their Products in Canada, by Industries and by Provinces, 1925—Continued**

Industry	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan and Alberta	British Columbia	*Canada
<b>AUTOMOBILE PARTS AND ACCESSORIES—Con.</b>								
Wage-earners—								
Male.....			21	1,454	18	21	93	1,607
Female.....			7	117	13		1	138
Total employees.....			47	1,801	38	25	118	2,029
Salaries and wages—								
Salaries.....\$			27,641	487,939	15,917	4,703	51,075	587,275
Wages.....\$			24,556	1,884,582	34,036	26,173	128,150	2,097,491
Total.....\$			52,191	2,372,521	49,953	30,876	179,225	2,684,766
Cost of fuel and electricity.....\$			1,127	209,008	855	1,074	4,839	216,903
Cost of materials.....\$			76,876	5,874,548	90,308	15,164	158,387	6,215,283
Value of products.....\$			179,170	10,385,695	184,972	57,336	427,655	11,234,828
<b>BICYCLES—</b>								
Number of plants.....				5				5
Capital employed.....\$				2,348,323				2,348,323
Salaries and wages—								
Male.....				51				51
Female.....				12				12
Wage-earners—								
Male.....				414				414
Female.....				39				39
Total employees.....				516				516
Salaries and wages—								
Salaries.....\$				101,667				101,667
Wages.....\$				403,474				403,474
Total.....\$				505,141				505,141
Cost of fuel and electricity.....\$				39,814				39,814
Cost of materials.....\$				766,457				766,457
Value of products.....\$				1,445,901				1,445,901
<b>RAILWAY ROLLING STOCK—</b>								
Number of plants.....		3	9	17	3		2	35
Capital employed.....\$	5,012,107		35,640,048	22,321,459	8,485,115			78,039,179
Salaries and wages—								
Male.....	31		732	419	170			1,447
Female.....	3		36	51	8			100
Wage-earners—								
Male.....	135		8,838	3,386	4,160			18,621
Female.....	1		30	3				34
Total employees.....	170		9,036	3,859	4,338			20,202
Salaries and wages—								
Salaries.....\$	71,891		1,522,799	856,221	432,931			3,122,230
Wages.....\$	181,170		11,258,792	4,242,264	5,202,100			23,458,126
Total.....\$	253,061		12,781,591	5,098,485	5,635,031			26,580,356
Cost of fuel and electricity.....\$	30,052		807,367	337,196	359,259			1,813,011
Cost of materials.....\$	567,204		14,331,642	5,388,087	3,610,046			25,895,190
Value of products.....\$	795,309		27,816,287	10,405,571	9,863,162			53,050,665
<b>WIRE AND WIRE GOODS—</b>								
Number of plants.....	1	3	9	34			5	52
Capital employed.....\$			3,488,705	13,533,010			788,959	19,015,655
Salaries and wages—								
Male.....			58	194			21	290
Female.....			9	80			3	96
Wage-earners—								
Male.....			540	1,449			75	2,403
Female.....			32	160				267
Total employees.....			639	1,883			99	2,996
Salaries and wages—								
Salaries.....\$			171,255	547,431			50,846	808,207
Wages.....\$			574,967	1,611,140			91,322	2,643,198
Total.....\$			746,222	2,158,571			145,168	3,451,405
Cost of fuel and electricity.....\$			73,124	205,935			8,394	399,065
Cost of materials.....\$			900,902	4,071,279			477,745	7,329,688
Value of products.....\$			4,169,845	8,802,714			740,718	16,223,924
<b>Sheet Metal Products—</b>								
Number of plants.....	3	3	16	67	10	11	16	127
Capital employed.....\$	611,855	107,772	7,462,734	17,133,609	1,535,291	527,456	2,184,652	29,624,294
Salaries and wages—								
Male.....	12	2	165	452	69	28	77	805
Female.....	4	1	37	150	35	13	15	261
Wage-earners—								
Male.....	113	18	1,259	2,800	282	87	448	5,017
Female.....		1	216	364			54	647
Total employees.....	129	22	1,677	3,772	386	128	594	6,730

**Table 6.—Principal Statistics Pertaining to Iron and Steel, and Their Products in Canada by Industries and by Provinces, 1925—Concluded**

Industry	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan and Alberta	British Columbia	*Canada
<b>SHEET METAL PRODUCTS—</b>								
Salaries and wages—								
Salaries.....\$	36,085	3,150	436,397	1,120,756	162,986	57,046	174,041	1,990,464
Wages.....\$	121,602	19,003	1,362,319	3,304,872	318,821	98,149	505,379	5,739,701
Total.....\$	157,690	22,153	1,798,716	4,425,628	481,807	155,195	679,420	7,730,165
Cost of fuel and electricity.....\$	24,114	395	113,490	359,195	11,159	3,904	23,629	537,717
Cost of materials.....\$	121,450	22,607	3,666,137	10,937,809	554,404	216,448	2,881,830	18,454,685
Value of products.....\$	527,473	62,258	6,961,175	20,892,643	1,245,737	447,695	4,231,007	34,442,488
<b>HARDWARE AND TOOLS—</b>								
Number of plants.....	3	3	23	79			4	112
Capital employed.....\$	699,657	190,697	10,218,338	19,481,265			184,665	30,774,622
Salaried employees—								
Male.....	6	6	140	348			5	565
Female.....		2	48	172			2	224
Wage-earners—								
Male.....	60	30	790	3,156			39	4,075
Female.....	5		337	380			2	724
Total employees.....	71	38	1,315	4,056			48	5,528
Salaries and wages—								
Salaries.....\$	12,700	12,739	387,526	1,078,450			10,843	1,502,258
Wages.....\$	61,120	27,432	978,212	3,570,727			45,176	4,682,667
Total.....\$	73,820	40,171	1,365,738	4,649,177			56,019	6,184,925
Cost of fuel and electricity.....\$	6,211	5,782	110,399	406,521			3,400	532,313
Cost of materials.....\$	39,984	33,383	1,370,123	4,421,809			85,623	5,950,922
Value of products.....\$	183,431	92,810	4,599,059	12,822,590			184,760	17,882,650
<b>IRON AND STEEL PRODUCTS, N.E.S.—</b>								
Number of plants.....			17	42	3	1	2	65
Capital employed.....\$			1,579,150	7,270,014	1,784,713			11,069,342
Salaried employees—								
Male.....			62	298	55			421
Female.....			12	68	12			93
Wage-earners—								
Male.....			341	1,253	177			1,864
Female.....			2	43				45
Total employees.....			417	1,662	244			2,363
Salaries and wages—								
Salaries.....\$			142,265	758,575	145,400			1,064,208
Wages.....\$			444,723	1,485,115	197,363			2,172,740
Total.....\$			586,988	2,243,690	342,763			3,236,948
Cost of fuel and electricity.....\$			22,332	96,499	16,156			136,547
Cost of materials.....\$			992,701	2,669,293	394,219			4,204,108
Value of products.....\$			2,123,190	6,189,045	809,583			9,397,208
<b>ALL INDUSTRIES—</b>								
Number of plants.....	35	21	195	672	34	33	81	1,075
Capital employed.....\$	27,115,650	6,512,685	111,758,425	394,850,993	15,775,743	3,919,876	7,528,176	567,912,477
Salaried employees—								
Male.....	147	129	2,166	6,495	389	93	247	9,676
Female.....	26	21	370	1,962	71	23	37	2,514
Wage-earners—								
Male.....	2,183	1,814	18,890	44,467	5,101	1,151	1,404	75,166
Female.....	7	18	855	1,801	13	1	59	2,769
Total employees.....	2,363	1,992	22,281	54,725	5,664	1,268	1,747	90,125
Salaries and wages—								
Salaries.....\$	346,760	333,975	5,156,891	16,648,119	989,256	225,503	595,039	24,316,566
Wages.....\$	2,176,815	2,114,625	22,478,721	56,839,151	6,469,208	1,428,461	1,758,242	93,325,904
Total.....\$	2,523,575	2,448,503	27,635,615	73,487,270	7,458,524	1,653,964	2,354,181	117,642,470
Cost of fuel and electricity.....\$	1,384,271	195,059	2,433,720	7,159,185	616,953	68,781	103,212	11,970,846
Cost of materials.....\$	6,714,496	1,941,741	32,160,122	153,452,372	5,667,401	1,333,322	4,633,284	206,337,132
Value of products.....\$	11,658,621	4,046,857	77,394,080	290,431,900	15,440,453	3,445,406	8,689,840	411,378,640

\*Where only 1 or 2 firms reported in a given province for any industry, statistics for the province have not been shown separately but have been included in the Canada totals. Data for 2 plants in castings and forgings, 1 in agricultural implements and 1 in sheet metal products in Prince Edward Island are also included in the Canada totals.

**Table 7.—Capital Employed in the Manufacture of Iron and Steel and Their Products in Canada, by Industries and Provinces, 1924 and 1925**

Industry—Province	1924 Capital employed as represented by				1925 Capital employed as represented by			
	Lands, buildings, machinery and tools	Materials on hand and stocks in process	Cash trading and operating accounts	Total	Lands, buildings, machinery and tools	Materials on hand and stocks in process	Cash trading and operating accounts	Total
<b>By INDUSTRIES</b>	\$	\$	\$	\$	\$	\$	\$	\$
Pig iron, steel and rolled products	59,999,241	11,128,002	8,677,958	79,805,201	68,292,447	8,952,793	5,348,700	82,593,940
Castings and forgings	46,622,787	21,121,316	20,930,435	88,674,538	47,426,331	19,461,875	17,924,235	84,812,441
Boilers and engines	5,675,313	1,895,329	1,570,339	9,140,981	5,306,689	1,595,274	1,736,796	8,638,759
Agricultural implements	27,042,898	29,583,040	26,251,449	82,877,387	28,811,790	28,040,159	25,010,012	81,861,961
Machinery	30,304,730	13,652,163	10,101,370	54,058,263	30,461,369	13,517,505	11,452,730	55,431,604
Automobiles	33,452,739	13,265,731	14,048,416	60,766,886	34,515,437	17,222,966	22,940,048	74,678,451
Automobile accessories	9,307,696	2,802,598	2,784,168	14,894,462	4,853,063	2,137,004	2,033,830	9,023,906
Bicycles	418,631	923,742	637,165	1,979,538	600,294	1,004,353	743,676	2,348,323
Railway rolling stock	34,181,396	5,734,285	10,877,412	50,793,093	56,988,530	13,009,931	8,040,709	78,039,179
Wire and wire goods	12,555,615	3,307,065	7,908,149	23,770,829	12,594,206	3,488,644	2,932,805	19,015,655
Sheet metal products	15,080,342	7,862,767	5,476,842	28,419,951	15,766,990	7,999,844	5,857,460	29,624,294
Hardware and tools	15,303,384	8,122,250	8,850,116	32,275,750	15,358,286	7,597,781	7,818,555	30,774,622
Iron and steel products, n.e.s.	5,481,137	2,479,661	2,128,358	10,089,156	6,103,120	2,648,057	2,318,165	11,069,342
<b>Total</b>	<b>295,425,909</b>	<b>121,877,949</b>	<b>120,242,177</b>	<b>537,546,035</b>	<b>327,078,561</b>	<b>126,676,186</b>	<b>114,157,730</b>	<b>567,912,477</b>
<b>By PROVINCES</b>								
Prince Edward Island	184,722	200,458	81,081	466,261	187,066	185,582	78,281	450,929
Nova Scotia	24,086,546	1,134,288	1,506,048	26,726,882	25,208,611	1,160,021	747,018	27,115,650
New Brunswick	1,148,563	469,677	655,474	2,273,714	4,157,319	1,921,872	433,494	6,512,685
Quebec	59,022,461	22,059,089	28,388,875	109,470,425	66,886,259	23,288,025	21,584,141	111,758,425
Ontario	202,839,764	94,115,267	85,883,389	382,838,420	214,468,387	93,231,913	87,150,693	394,850,993
Manitoba	5,030,260	1,759,309	1,324,978	8,114,547	10,464,937	4,076,206	1,234,600	15,775,743
Saskatchewan	127,099	123,948	134,657	385,704	286,460	150,550	240,140	677,150
Alberta	642,049	256,727	156,075	1,054,851	2,386,328	648,915	207,483	3,242,726
British Columbia	2,344,445	1,759,186	2,111,600	6,215,231	3,033,194	2,013,102	2,481,880	7,528,176
<b>Canada</b>	<b>295,425,909</b>	<b>121,877,949</b>	<b>120,242,177</b>	<b>537,546,035</b>	<b>327,078,561</b>	<b>126,676,186</b>	<b>114,157,730</b>	<b>567,912,477</b>

**Table 8.—Number of Wage-Earners Employed in the Manufacture of Iron and Steel and Their Products in Canada by Industries and by Months, 1924**

Month	Pig iron, steel and rolled products	Castings and forgings	Boilers tanks and engines	Agricul- tural imple- ments	Machinery	Auto- mobiles	Auto access- ories
January	5,646	15,343	985	6,147	7,147	7,775	2,426
February	6,180	15,399	1,036	6,365	6,987	8,347	2,568
March	6,512	16,038	1,066	6,208	6,899	8,752	2,853
April	6,467	15,909	1,101	6,243	6,717	8,819	2,879
May	6,316	15,483	1,052	6,035	6,549	8,777	2,632
June	4,823	14,456	1,013	5,830	6,319	8,099	2,279
July	4,415	14,412	1,004	5,585	6,293	7,715	1,994
August	3,940	13,873	981	4,847	6,158	7,518	1,889
September	3,707	13,994	964	4,318	6,153	7,411	1,818
October	3,629	13,971	944	4,204	6,061	7,095	1,936
November	3,558	14,068	865	4,338	6,002	7,064	2,007
December	3,601	14,183	844	4,712	5,956	7,080	2,106
<b>Average</b>	<b>4,926</b>	<b>14,781</b>	<b>991</b>	<b>5,412</b>	<b>6,451</b>	<b>7,888</b>	<b>2,283</b>

Month	Bicycles	Railway rolling stock	Wire and wire goods	Sheet metal products	Hard- ware and tools	Iron and steel products n.e.s.	Total
January	446	10,429	2,676	4,701	4,738	1,819	70,278
February	444	11,205	2,762	5,009	4,719	1,763	72,284
March	437	11,345	2,797	5,277	4,733	1,814	74,731
April	433	11,849	2,689	5,365	4,776	1,879	75,126
May	413	12,240	2,577	5,401	4,643	2,021	74,139
June	382	12,838	2,417	5,440	4,446	2,114	70,456
July	384	11,144	2,329	5,483	4,366	2,100	67,224
August	386	8,655	2,352	5,544	4,299	2,099	62,541
September	387	7,980	2,380	5,423	4,311	2,145	60,991
October	400	7,284	2,399	5,247	4,338	2,079	59,587
November	395	6,572	2,374	5,109	4,278	1,912	58,542
December	398	6,154	2,333	4,846	4,291	1,816	58,320
<b>Average</b>	<b>407</b>	<b>9,809</b>	<b>2,509</b>	<b>5,252</b>	<b>4,508</b>	<b>1,970</b>	<b>67,187</b>

**Table 9.—Number of Wage-Earners Employed in the Manufacture of Iron and Steel and Their Products in Canada, by Industries and by Months, 1925**

Month	Pig iron, steel and rolled products	Castings and forgings	Boilers tanks and engines	Agricultural implements	Machinery	Auto-mobiles	Auto accessories
January.....	4,167	13,326	914	4,883	6,091	7,421	1,598
February.....	4,422	14,218	1,028	5,387	6,160	8,074	1,685
March.....	5,349	14,790	1,114	5,754	6,388	8,590	1,815
April.....	5,080	15,002	1,128	6,193	6,603	9,053	1,924
May.....	5,200	14,821	1,089	6,189	6,788	9,232	1,871
June.....	4,448	15,025	1,069	6,244	6,788	8,611	1,818
July.....	4,225	14,974	1,129	6,383	6,695	8,285	1,627
August.....	4,158	14,632	1,148	6,573	6,659	8,484	1,664
September.....	4,268	15,020	1,192	5,864	6,675	8,995	1,569
October.....	5,260	15,643	1,133	6,672	6,591	9,704	1,642
November.....	4,768	15,647	1,060	6,882	6,551	9,244	1,713
December.....	4,727	15,523	1,031	7,344	6,596	8,783	1,702
<b>Average.....</b>	<b>4,699</b>	<b>14,904</b>	<b>1,085</b>	<b>6,206</b>	<b>6,561</b>	<b>8,705</b>	<b>1,745</b>

Month	Bicycles	Railway rolling stock	Wire and wire goods	Sheet metal products	Hard-ware and tools	Iron and steel products n.e.s.	Total
January.....	445	18,085	2,415	4,739	4,504	1,772	79,360
February.....	438	18,690	2,572	5,176	4,663	1,755	74,268
March.....	448	19,391	2,652	5,421	4,827	1,641	78,180
April.....	447	20,072	2,649	5,565	4,815	1,703	80,234
May.....	448	20,309	2,684	5,765	4,933	1,791	81,123
June.....	443	19,669	2,628	5,867	4,835	1,898	79,343
July.....	433	18,382	2,602	6,080	4,691	1,913	77,419
August.....	445	17,585	2,570	6,007	4,585	1,916	76,426
September.....	437	17,525	2,571	6,265	4,704	1,916	77,021
October.....	466	17,515	2,672	5,899	4,761	1,971	79,929
November.....	476	18,099	2,625	5,730	4,844	1,856	79,495
December.....	488	18,533	2,634	5,453	4,920	1,879	79,613
<b>Average.....</b>	<b>453</b>	<b>18,655</b>	<b>2,610</b>	<b>5,664</b>	<b>4,799</b>	<b>1,849</b>	<b>77,935</b>

**Table 10.—Number of Wage-Earners Employed in the Manufacture of Iron and Steel and Their Products in Canada by Months and by Provinces, 1924**

—	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Canada
January.....	79	3,060	603	19,590	44,612	1,124	33	216	961	79,278
February.....	82	2,962	582	20,432	46,264	1,133	43	204	1,082	74,784
March.....	85	2,680	590	21,200	47,632	1,170	43	203	1,128	74,731
April.....	85	2,749	581	20,833	48,266	1,157	47	214	1,194	75,126
May.....	85	2,850	606	20,468	47,303	1,323	66	238	1,191	74,139
June.....	79	3,093	546	20,277	43,611	1,351	61	230	1,218	70,436
July.....	77	3,056	555	18,071	41,756	1,325	49	247	1,176	67,224
August.....	79	2,580	526	16,649	39,743	1,254	49	244	1,417	62,541
September.....	79	2,635	537	16,018	38,836	1,206	44	223	1,325	60,991
October.....	79	2,372	550	15,528	38,283	1,231	51	246	1,247	59,587
November.....	77	2,265	545	15,103	37,743	1,091	45	223	1,450	58,542
December.....	66	2,158	536	14,669	38,109	1,016	43	176	1,547	58,320
<b>Average.....</b>	<b>79</b>	<b>2,716</b>	<b>564</b>	<b>18,363</b>	<b>42,734</b>	<b>1,210</b>	<b>48</b>	<b>223</b>	<b>1,250</b>	<b>67,187</b>

**Table 11.—Number of Wage-Earners Employed in the Manufacture of Iron and Steel and Their Products in Canada by Months and by Provinces, 1925**

—	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Canada
January.....	75	2,068	1,805	18,424	40,540	5,060	62	1,031	1,295	79,360
February.....	76	2,109	1,825	19,415	43,234	5,066	65	1,057	1,421	74,268
March.....	79	2,193	1,822	20,321	46,126	5,119	75	1,046	1,399	78,180
April.....	86	2,297	1,853	20,709	47,495	5,185	93	1,042	1,474	80,234
May.....	88	2,261	1,851	20,072	47,984	5,289	106	1,066	1,506	81,123
June.....	86	2,346	1,840	20,344	46,762	5,272	86	1,043	1,564	79,343
July.....	85	2,082	1,828	19,295	46,118	5,232	98	1,045	1,636	77,419
August.....	82	2,044	1,848	18,626	45,929	5,198	97	1,031	1,571	76,426
September.....	80	2,043	1,820	18,968	45,954	5,303	86	1,081	1,686	77,021
October.....	80	2,158	1,827	19,195	48,738	5,285	94	1,139	1,413	79,929
November.....	77	2,284	1,842	19,811	47,792	5,190	91	1,097	1,311	78,495
December.....	77	2,358	1,837	20,056	47,594	5,216	80	1,105	1,290	79,613
<b>Average.....</b>	<b>81</b>	<b>2,190</b>	<b>1,832</b>	<b>19,745</b>	<b>46,268</b>	<b>5,204</b>	<b>86</b>	<b>1,066</b>	<b>1,463</b>	<b>77,935</b>



**Table 12.—Fuel and Electricity Used in the Manufacture of Iron and Steel and Their Products in Canada, by Industries, 1924**

Industry	Anthracite coal	Bituminous coal	Coke	Gasoline and fuel oil	Gas	Wood	Other fuel	Electricity	Total value
	Tons	Tons	Tons	Gals.	M cu. ft.	Cords		K.W.H.	\$
<b>PIG IRON, STEEL AND ROLLED PRODUCTS—</b>									
Quantity.....	2,537	622,849	4,828	2,164,056	24,692,201	3,099		44,606,698	
Value..... \$	19,408	3,588,373	42,204	210,031	754,985	12,685	211,218	722,770	<b>5,561,674</b>
<b>CASTINGS AND FORGINGS—</b>									
Quantity.....	6,079	123,272	15,881	2,087,930	25,324	6,545		27,170,460	
Value..... \$	50,361	807,786	169,896	286,980	19,954	39,313	21,565	550,360	<b>1,946,315</b>
<b>BOILERS AND ENGINES—</b>									
Quantity.....	318	8,916	467	148,907	1,595	135		2,631,199	
Value..... \$	5,062	60,567	4,565	18,513	1,853	1,021	1,487	43,910	<b>136,984</b>
<b>AGRICULTURAL IMPLEMENTS—</b>									
Quantity.....	902	37,344	5,581	1,518,550	5,639	3,305		10,696,902	
Value..... \$	12,105	234,055	60,048	138,098	5,083	16,818	1,475	137,932	<b>695,614</b>
<b>MACHINERY—</b>									
Quantity.....	12,619	31,222	2,247	223,299	7,211	525		11,366,239	
Value..... \$	66,088	208,834	27,618	26,543	4,957	3,162	265	186,041	<b>523,508</b>
<b>AUTOMOBILES—</b>									
Quantity.....	442	66,122	50	749,614	6,610			9,481,843	
Value..... \$	3,253	324,889	575	72,509	12,885		2,965	128,834	<b>545,910</b>
<b>AUTO ACCESSORIES—</b>									
Quantity.....	1,908	14,840	232	581,910	7,747	24		4,928,817	
Value..... \$	19,181	86,307	2,137	54,856	6,112	167	2,421	113,035	<b>284,216</b>
<b>BICYCLES—</b>									
Quantity.....	10	3,020		80,510	80			735,931	
Value..... \$	155	15,668		6,664	100			14,519	<b>37,166</b>
<b>RAILWAY ROLLING STOCK—</b>									
Quantity.....	8,784	86,762	3,053	2,661,796	10,535	498		18,424,531	
Value..... \$	48,915	476,863	31,073	240,169	11,617	2,747	336	337,072	<b>1,148,792</b>
<b>WIRE AND WIRE GOODS—</b>									
Quantity.....	366	28,182	3,698	68,308	3,733	560		7,221,465	
Value..... \$	4,570	166,801	34,976	6,908	3,971	2,281	310	159,871	<b>379,688</b>
<b>SHEET METAL PRODUCTS—</b>									
Quantity.....	636	26,169	3,993	971,859	67,128	100		6,818,179	
Value..... \$	6,709	167,747	42,979	103,962	49,612	1,080	19,531	104,362	<b>495,982</b>
<b>HARDWARE AND TOOLS—</b>									
Quantity.....	4,937	17,980	2,728	1,301,835	43,158	450		7,426,448	
Value..... \$	56,218	126,436	29,355	123,118	22,310	2,526	432	165,735	<b>526,130</b>
<b>IRON AND STEEL PRODUCTS, N.E.S.—</b>									
Quantity.....	437	3,674	862	139,892	1,641	94		2,964,897	
Value..... \$	6,483	33,002	6,960	18,843	1,681	473	7,703	58,635	<b>133,790</b>
<b>Total—</b>									
Quantity.....	39,975	1,068,352	43,620	13,598,466	24,872,602	15,425		154,473,609	
Value..... \$	298,508	6,297,328	452,486	1,307,194	895,120	82,273	269,708	2,723,082	<b>12,325,699</b>

**Table 13.—Fuel and Electricity Used in the Manufacture of Iron and Steel and Their Products in Canada, by Provinces, 1924**

Province	Anthracite coal	Bituminous coal	Coke	Gasoline and fuel oil	Gas	Wood	Other fuel	Electricity	Total value
	Tons	Tons	Tons	Gals.	M cu. ft.	Cords		K.W.H.	\$
<b>PRINCE EDWARD ISLAND—</b>									
Quantity.....	50	480	19	2,500				34,214	
Value..... \$	900	4,125	555	464				2,365	<b>8,409</b>
<b>NOVA SCOTIA—</b>									
Quantity.....	130	150,303	2,790	60,260	19,566,010	36		15,757,419	
Value..... \$	2,188	757,807	30,773	9,335	308,692	208	26,426	227,808	<b>1,363,237</b>
<b>NEW BRUNSWICK—</b>									
Quantity.....	185	6,405	250	37,598	1,069	127		276,080	
Value..... \$	3,081	46,517	3,508	4,095	551	454	800	10,900	<b>69,906</b>
<b>QUEBEC—</b>									
Quantity.....	26,342	136,416	6,325	3,498,702	57,177	3,534		38,541,706	
Value..... \$	163,895	875,068	69,046	334,441	38,365	17,768	7,100	738,942	<b>2,244,615</b>
<b>ONTARIO—</b>									
Quantity.....	13,146	770,375	33,196	9,205,166	5,227,776	10,007		93,521,605	
Value..... \$	126,344	4,580,051	331,395	867,358	533,810	55,371	170,680	1,642,824	<b>8,307,833</b>
<b>MANITOBA—</b>									
Quantity.....	39	3,074	531	680,392	1,559	482		4,670,444	
Value..... \$	614	23,352	8,984	81,083	1,701	2,698	59,921	51,480	<b>229,833</b>
<b>SASKATCHEWAN—</b>									
Quantity.....	26	12	98	750		47		28,623	
Value..... \$	220	169	1,759	217		294	40	1,504	<b>4,203</b>
<b>ALBERTA—</b>									
Quantity.....	4	265	165	790	4,127	59		246,045	
Value..... \$	95	1,055	2,765	248	2,085	277	1,935	5,723	<b>14,183</b>
<b>BRITISH COLUMBIA—</b>									
Quantity.....	59	1,022	246	112,308	14,884	1,133		1,397,473	
Value..... \$	1,171	9,184	3,701	9,953	9,916	5,203	2,716	41,636	<b>83,480</b>
<b>Canada—</b>									
Quantity.....	39,975	1,068,352	43,620	13,598,466	24,872,602	15,425		154,473,609	
Value..... \$	298,508	6,297,328	452,486	1,307,194	895,120	82,273	269,708	2,723,082	<b>12,325,699</b>

**Table 14.—Fuel and Electricity Used in the Manufacture of Iron and Steel and Their Products in Canada, by Industries, 1925**

Industry	Anthra- cite coal	Bitum- inous coal	Coke	Gasoline and fuel oil	Gas	Wood	Other fuel	Elec- tricity	Total value
	Tons	Tons	Tons	Gals.	M cu. ft.	Cords		K.W.H.	\$
<b>PIG IRON, STEEL AND ROLLED PRODUCTS—</b>									
Quantity.....	554	317,877	15,780	2,793,328	37,699,075	1,463		105,983,029	
Value..... \$	7,488	1,622,583	111,641	280,967	851,486	8,785	362,913	871,021	4,116,884
<b>CASTINGS AND FORGINGS—</b>									
Quantity.....	2,748	121,531	21,596	3,158,872	31,433	6,601		32,521,599	
Value..... \$	33,800	789,149	158,705	307,760	22,860	34,759	19,381	541,931	1,908,345
<b>BOILERS AND ENGINES—</b>									
Quantity.....	250	8,744	499	78,051	1,008	175		2,604,018	
Value..... \$	3,135	57,143	4,832	9,873	1,473	1,522	6,228	38,736	122,942
<b>AGRICULTURAL IMPLEMENTS—</b>									
Quantity.....	1,104	38,519	4,210	1,778,043	6,552	8,250		12,464,758	
Value..... \$	13,131	216,881	42,774	159,125	6,641	39,899	1,352	162,966	642,769
<b>MACHINERY—</b>									
Quantity.....	11,407	30,811	1,723	217,071	6,355	939		11,414,536	
Value..... \$	60,589	195,512	14,993	25,775	5,664	2,726	580	175,307	481,146
<b>AUTOMOBILES—</b>									
Quantity.....	1,740	68,720		824,183	186,424			31,804,524	
Value..... \$	15,461	332,699		80,013	161,911			433,306	1,023,390
<b>AUTO ACCESSORIES—</b>									
Quantity.....	107	11,402	363	728,272	4,661	32		3,723,659	
Value..... \$	1,526	68,409	3,519	66,317	4,109	259	275	72,489	216,903
<b>BICYCLES—</b>									
Quantity.....	11	2,553		85,394	1,318			746,339	
Value..... \$	173	14,236		8,146	1,175		1,550	14,534	39,814
<b>RAILWAY ROLLING STOCK—</b>									
Quantity.....	458	177,888	1,064	3,500,185	47,406	467		27,986,902	
Value..... \$	5,617	868,406	10,577	301,073	67,187	2,774	133,435	423,942	1,813,011
<b>WIRE AND WIRE GOODS—</b>									
Quantity.....	265	25,004	5,394	71,381	3,194	575		10,215,225	
Value..... \$	3,681	149,882	33,505	7,564	3,340	2,329	12	198,752	399,065
<b>SHEET METAL PRODUCTS—</b>									
Quantity.....	566	27,057	3,740	1,115,048	58,283	200		8,271,252	
Value..... \$	6,742	174,817	43,730	112,670	52,761	1,337	21,850	123,820	537,717
<b>HARDWARE AND TOOLS—</b>									
Quantity.....	4,539	17,600	2,501	1,290,701	38,856	353		8,667,050	
Value..... \$	48,314	125,793	25,967	130,163	24,307	2,581	973	174,215	532,313
<b>IRON AND STEEL PRODUCTS, N.E.S.—</b>									
Quantity.....	507	3,528	931	105,282	2,167	150		3,075,777	
Value..... \$	6,819	30,752	11,006	18,041	2,110	831	6,482	60,506	136,547
<b>Total—</b>									
Quantity.....	24,256	851,234	57,801	15,745,811	38,086,732	19,205		259,478,668	
Value..... \$	206,476	4,646,262	461,249	1,507,487	1,205,014	97,892	555,031	3,291,525	11,970,846

**Table 15.—Fuel and Electricity Used in the Manufacture of Iron and Steel and Their Products in Canada, by Provinces, 1925**

Province	Anthra- cite coal	Bitum- inous coal	Coke	Gasoline and fuel oil	Gas	Wood	Other fuel	Elec- tricity	Total value
	Tons	Tons	Tons	Gals.	M cu. ft.	Cords		K.W.H.	\$
<b>PRINCE EDWARD ISLAND—</b>									
Quantity.....	50	438	65	6,730				101,000	
Value..... \$	850	3,807	1,210	1,277				2,521	9,665
<b>NOVA SCOTIA—</b>									
Quantity.....	383	148,662	865	31,215	21,376,413	25		20,655,645	
Value..... \$	5,945	747,155	12,609	5,290	284,021	155	71,950	257,146	1,384,271
<b>NEW BRUNSWICK—</b>									
Quantity.....	121	23,574	332	234,698	2,292	120		2,304,753	
Value..... \$	1,629	107,242	4,421	22,281	1,210	440	3,770	54,066	195,059
<b>QUEBEC—</b>									
Quantity.....	14,054	160,771	11,502	5,119,221	38,258	4,393		42,727,651	
Value..... \$	103,137	931,208	50,548	489,232	39,041	17,098	48,287	755,169	2,433,720
<b>ONTARIO—</b>									
Quantity.....	9,396	468,989	43,372	8,524,357	16,615,291	12,778		181,366,321	
Value..... \$	92,708	2,597,371	366,695	812,054	812,923	71,662	333,013	2,072,759	7,159,185
<b>MANITOBA—</b>									
Quantity.....	12	41,092	619	1,753,708	35,286	342		8,793,198	
Value..... \$	203	229,757	9,711	164,403	55,610	2,012	62,523	92,734	616,963
<b>SASKATCHEWAN—</b>									
Quantity.....	10	140	140	745		38		79,747	
Value..... \$	108	1,380	2,118	265		280	388	2,084	6,623
<b>ALBERTA—</b>									
Quantity.....	198	5,935	230	4,337	4,155	46		354,671	
Value..... \$	1,030	16,401	3,345	468	1,806	164	31,455	7,489	62,158
<b>BRITISH COLUMBIA—</b>									
Quantity.....	42	1,633	676	70,800	15,037	1,463		3,095,682	
Value..... \$	866	11,941	10,592	12,217	10,403	5,991	3,645	47,557	103,212
<b>Canada—</b>									
Quantity.....	24,256	851,234	57,801	15,745,811	38,086,732	19,205		259,478,668	
Value..... \$	206,476	4,646,262	461,249	1,507,487	1,205,014	97,892	555,031	3,291,525	11,970,846

**Table 16.—Power Equipment Installed for the Manufacture of Iron and Steel and Their Products in Canada, by Industries, 1924**

Industry	Steam engines and turbines	Internal combustion engines, including gas, gasoline and oil	Water wheels or turbines	Total primary power	Electric motors driven by purchased power	Total power equipment employed	Electric motors driven by power generated by the primary power of the establishment	Total electric motors	Boilers installed
Pig Iron, Steel and Rolled Products. No. H.P.	124 64,992	9 18,200	8 843	141 84,035	1,149 56,658	1,090 140,693	390 19,395	1,439 76,053	193 47,144
Castings and Forgings. No. H.P.	96 7,309	35 659	22 747	153 8,715	2,617 37,543	2,770 46,258	110 2,635	2,727 40,178	179 16,138
Boilers and Engines. No. H.P.	16 1,630	5 124	.....	21 1,754	151 3,338	172 5,092	150 2,180	301 5,518	20 3,283
Agricultural Implements. No. H.P.	43 6,313	17 145	8 409	68 6,867	380 8,214	448 15,081	185 4,977	565 13,191	83 8,838
Machinery. No. H.P.	34 8,492	3 21	10 395	47 6,908	1,150 18,616	1,197 25,524	170 4,158	1,320 22,774	106 10,028
Automobiles. No. H.P.	10 20,516	.....	.....	10 20,516	480 4,279	490 24,795	3,746 22,097	4,226 26,376	18 6,667
Auto Accessories. No. H.P.	2 375	3 144	2 600	7 1,119	324 4,676	331 5,795	33 453	357 5,129	14 1,222
Bicycles. No. H.P.	3 85	.....	.....	3 85	28 788	31 873	.....	28 788	2 300
Railway Rolling Stock. No. H.P.	34 9,735	.....	4 200	38 9,935	2,349 35,105	2,387 45,040	519 9,062	2,868 45,067	62 17,265
Wire and Wire Goods. No. H.P.	8 827	4 79	1 2	13 908	403 8,699	416 9,607	43 1,523	446 10,222	33 3,428
Sheet Metal Products. No. H.P.	22 2,652	.....	4 306	26 2,958	875 8,793	901 11,751	18 182	893 8,975	38 5,070
Hardware and Tools. No. H.P.	10 911	3 72	18 1,510	31 2,493	724 11,475	755 13,968	20 350	744 11,825	55 3,493
Iron and Steel Products, N.E.S. No. H.P.	3 70	2 33	.....	5 103	666 6,375	671 6,478	3 11	669 6,386	18 951
<b>Total. No. H.P.</b>	<b>405 121,907</b>	<b>81 19,477</b>	<b>77 5,012</b>	<b>563 146,396</b>	<b>11,196 204,559</b>	<b>11,759 350,955</b>	<b>5,387 67,923</b>	<b>16,583 272,482</b>	<b>821 123,827</b>

**Table 17.—Power Equipment Installed for the Manufacture of Iron and Steel and Their Products in Canada by Provinces, 1924**

Province	Steam engines and turbines	Internal combustion engines, including gas, gasoline and oil	Water wheels and turbines	Total primary power	Electric motors driven by purchased power	Total power equipment employed	Electric motors driven by power generated by the primary power of the establishment	Total electric motors	Boilers installed
PRINCE EDWARD ISLAND.. No.	3	3	1	7	9	16		9	1
H.P.	73	18	46	137	75	212		75	20
NOVA SCOTIA..... No.	94	5	9	108	433	541	574	1,007	113
H.P.	47,924	123	230	48,277	6,193	54,470	18,023	24,216	31,410
NEW BRUNSWICK..... No.	14	3		17	31	48		31	12
H.P.	887	107		994	472	1,466		472	995
QUEBEC..... No.	72	15	24	111	3,287	3,398	154	3,441	168
H.P.	14,388	210	1,818	16,416	53,087	69,503	5,030	58,117	27,238
ONTARIO..... No.	216	49	42	307	6,880	7,196	4,638	11,527	497
H.P.	57,120	18,932	2,908	78,960	136,758	215,718	44,618	181,376	61,758
MANITOBA..... No.	3	2		5	239	244	19	259	20
H.P.	1,275	8		1,283	4,429	5,712	237	4,666	1,873
SASKATCHEWAN..... No.		1		1	9	10		9	
H.P.		25		25	71	96		71	
ALBERTA..... No.					37	37		37	2
H.P.					530	530		530	60
BRITISH COLUMBIA..... No.	3	3	1	7	262	269	2	264	8
H.P.	240	54	10	304	2,944	3,248	15	2,959	473
Canada..... No.	465	81	77	563	11,196	11,759	5,387	16,583	821
H.P.	121,907	19,477	5,012	146,396	204,559	350,955	67,923	272,482	123,827



Table 18.—Power Equipment Installed for the Manufacture of Iron and Steel and Their Products in Canada by Industries, 1925

Industry	Steam engines and turbines	Internal combustion engines, including gas, gasoline and oil	Water wheels or turbines	Total primary power	Electric motors driven by purchased power	Total power equipment employed	Electric motors driven by power generated by the primary power of the establishment	Total electric motors	Boilers installed
IRON, STEEL AND ROLLED PRODUCTS. No. H.P.	159 80,664	17 18,880	.....	176 99,544	1,067 61,766	1,243 161,310	536 29,525	1,603 91,291	214 54,263
CASTINGS AND FORGINGS. No. H.P.	69 7,249	31 657	16 877	116 8,783	2,681 63,192	2,797 71,975	102 2,300	2,783 65,492	180 15,985
BOILERS AND ENGINES. No. H.P.	16 1,630	8 191	1 20	25 1,841	187 3,353	212 5,194	132 2,370	319 5,723	18 2,863
AGRICULTURAL IMPLEMENTS. No. H.P.	46 6,364	13 173	7 427	66 6,964	480 12,431	546 19,395	88 811	568 13,242	84 9,751
MACHINERY. No. H.P.	33 6,302	4 46	10 318	47 6,666	1,156 42,486	1,203 49,152	175 4,246	1,331 46,732	113 9,532
AUTOMOBILES. No. H.P.	14 20,506	1 90	.....	15 20,596	581 5,376	596 25,972	3,905 34,679	4,486 40,055	24 7,347
AUTO ACCESSORIES. No. H.P.	3 500	1 50	2 600	6 1,150	269 3,471	275 4,621	37 628	306 4,099	16 1,042
BICYCLES. No. H.P.	3 85	.....	.....	3 85	37 857	40 942	.....	37 857	3 345
RAILWAY ROLLING STOCK. No. H.P.	51 18,044	4 1,250	4 200	59 19,494	3,176 58,300	3,235 77,884	679 9,876	3,855 68,266	119 30,707
WIRE AND WIRE GOODS. No. H.P.	4 750	7 61	.....	11 811	447 11,417	458 12,228	7 41	454 11,458	29 3,425
SHEET METAL PRODUCTS. No. H.P.	20 2,555	1 10	4 479	25 3,044	747 8,342	772 11,386	26 149	773 8,491	39 4,902
HARDWARE AND TOOLS. No. H.P.	10 911	1 18	18 1,306	20 2,235	846 12,400	875 14,635	35 392	881 12,792	57 4,103
IRON AND STEEL PRODUCTS, N.E.S. No. H.P.	3 70	2 33	.....	5 103	474 7,164	479 7,267	5 33	479 7,197	16 1,073
<b>Total. No. H.P.</b>	<b>431 145,630</b>	<b>90 21,459</b>	<b>62 4,227</b>	<b>583 171,316</b>	<b>12,148 293,645</b>	<b>12,731 461,961</b>	<b>5,727 85,050</b>	<b>17,875 375,695</b>	<b>912 145,338</b>

Table 19.—Power Equipment Installed for the Manufacture of Iron and Steel and Their Products in Canada, by Provinces, 1925

Province	Steam engines and turbines	Internal combustion engines, including gas, gasoline and oil	Water wheels and turbines	Total primary power	Electric motors driven by purchased power	Total power equipment employed	Electric motors driven by power generated by the primary power of the establishment	Total electric motors	Boilers installed
PRINCE EDWARD ISLAND.. No.	2	3	1	6	9	15		9	1
H.P.	75	18	46	139	75	214		75	50
NOVA SCOTIA..... No.	91	7	4	102	377	479	466	843	132
H.P.	61,723	164	235	62,122	6,962	69,084	26,085	33,047	36,470
NEW BRUNSWICK..... No.	13	4		17	323	340		323	17
H.P.	2,238	1,053		3,291	4,183	7,474		4,183	2,730
QUEBEC..... No.	72	25	15	112	3,427	3,539	213	3,640	197
H.P.	16,978	992	1,030	19,000	61,379	80,379	6,420	67,799	33,975
ONTARIO..... No.	240	42	41	323	6,917	7,240	5,017	11,034	513
H.P.	60,140	18,878	2,906	81,924	200,149	282,073	52,160	252,309	63,690
MANITOBA..... No.	8	4		12	693	705	19	712	31
H.P.	4,281	255		4,536	12,838	17,374	237	13,075	6,588
SASKATCHEWAN..... No.		1		1	19	20		19	1
H.P.		25		25	136	161		136	30
ALBERTA..... No.					61	61	6	67	11
H.P.					1,379	1,379	105	1,484	1,180
BRITISH COLUMBIA..... No.	5	4	1	10	322	332	6	328	9
H.P.	195	74	10	279	3,544	3,823	43	3,587	625
Canada..... No.	431	90	62	583	12,148	12,781	5,727	17,875	912
H.P.	145,630	21,459	4,227	171,316	290,645	461,961	85,656	375,695	145,338

Table 20.—Exports of Canadian-Made Iron and Steel Products from Canada during the Fiscal Years ending March 31, 1925 and 1926

(Prepared in the External Trade Branch)

Classification		Total exports of Canadian produce		Exports to United Kingdom		Exports to United States	
		1924-25	1925-26	1924-25	1925-26	1924-25	1925-26
Ore, including chromite.....	Ton	5,836	3,562	2		5,834	3,562
	\$	26,191	16,622	17		26,174	16,622
Pigs, ingots, blooms and billets—							
Pig iron.....	Ton	21,817	4,274			12,536	4,163
	\$	249,768	82,269			243,802	80,352
Billets, ingots and blooms.....	Ton	1,622	960				
	\$	54,208	26,053		585		
Ferro manganese and ferrosilicon and other ferro-alloys, n.o.p.....	Ton	26,449	30,820			26,449	30,603
	\$	1,015,382	2,058,850			1,015,382	2,042,397
Total pigs, ingots, blooms and billets \$		1,318,358	2,167,172		17,010	1,259,184	2,122,749
Scrap iron.....	Ton	65,320	68,313	747	731	63,951	61,018
	\$	763,455	743,653	11,472	12,894	741,578	668,694
Castings.....	\$	191,345	146,668	76		157,175	125,896
Forgings.....	\$	14,831	143,280		135,069	13,694	8,108
Rolling mill products—							
Bars and rods.....	Ton	8,140	16,526	193	1,107	1,547	1,720
	\$	410,350	703,154	8,988	49,456	75,885	81,619
Rails.....	Ton	6,814	4,583			3,724	2,819
	\$	188,637	114,076			91,888	67,516
Other.....	\$	218,822	808,580	2,640		6,241	34,255
Tubes, pipe and fittings.....	\$	1,208,061	1,482,333	195,091	294,674	12,010	141,693
Wire—							
Barbed.....	Cwt.	35,301	25,365			28	
	\$	132,007	94,000			134	
Woven.....	\$	172,619	169,329	81,238	70,531	282	3,860
Other.....	\$	850,060	675,892	173,108	130,448	3,289	2,275
Engines and boilers—							
Locomotives and parts.....	No	1				1	
	\$	21,021	13,633			13,483	4,365
Other.....	\$	81,713	287,938	10,464	22,663	10,853	88,896
Farm implements and machinery—							
Harvesters and binders.....	No.	6,617	12,305	94	1,191	19	41
	\$	1,220,186	2,043,445	16,413	196,697	2,689	6,348
Mowers.....	No	11,864	27,307	171	1,841	204	235
	\$	957,695	1,704,969	10,609	117,071	11,854	12,926
Drills.....	No	4,993	6,413	22	231	7	334
	\$	749,938	968,391	2,613	23,112	766	51,156
Ploughs and parts.....	\$	1,630,908	2,858,266	31,599	45,681	184,532	267,609
Threshing machines, separators and parts.....	\$	2,606,584	1,572,477		876	340,506	654,740
Other.....	\$	4,177,401	4,480,793	285,004	206,518	824,888	1,543,153
Total farm implements and machinery.....	\$	11,342,712	13,628,341	346,328	679,955	1,365,175	2,535,992
Firearms.....	\$	2,376	523	2,318	94	20	17
Hardware and cutlery—							
Nails, wire.....	Cwt.	61,217	71,486	1,987	1,546	1,693	1,278
	\$	246,803	263,498	9,062	6,009	6,002	4,968
Nails, other.....	Cwt.	26,948	35,910	874		413	701
	\$	156,188	210,543	9,380	8,194	2,930	6,226
Other hardware.....	\$	1,747,484	2,286,597	558,864	734,810	97,917	123,006
Total hardware and cutlery.....	\$	2,150,475	2,760,638	577,306	749,013	107,649	134,200
Machinery—							
Sewing machines.....	\$	2,149,436	3,021,741	2,736	220	6,493	9,691
Adding and calculating machines and parts.....	No	1,360	747	70	1	82	5
	\$	278,257	201,914	6,125	240	9,904	1,080
Typewriters and parts.....	No	814	71	757	20	37	39
	\$	100,416	5,258	97,149	2,145	1,978	2,281
Wood-working.....	\$	73,475	70,046	2,100		11,322	6,605
Other machinery.....	\$	2,442,063	2,370,955	1,110,296	1,066,451	388,219	487,406
Total machinery (except agricultural) \$		5,043,587	5,669,914	1,218,406	1,069,056	417,916	507,063
Tools.....	\$	303,588	299,438	30,858	21,103	20,989	21,046
Vehicles—							
Automobiles, freight.....	No.	11,773	19,224	1,341	2,515	0	14
	\$	4,018,419	6,233,080	365,888	437,985	17,565	5,525
Automobiles, passenger.....	No	44,317	61,499	3,751	3,486	132	131
	\$	22,011,970	29,434,358	2,656,704	3,496,265	41,703	45,520
Automobile parts.....	\$	4,911,736	7,121,747	350,738	419,220	119,339	632,848
Railway cars, coaches and parts.....	No.	40	17			31	9
	\$	161,311	109,265		1,725	91,305	11,371
Other.....	\$	298,403	231,575	5,882	5,540	185,938	97,605
Total vehicles.....	\$	31,401,839	43,180,025	3,379,270	4,360,735	455,850	792,899
Other iron and steel.....	\$	1,557,833	1,629,852	651,589	685,740	283,679	225,134
Total iron and its products.....	\$	57,465,940	74,735,077	6,689,169	8,307,441	5,063,148	7,582,833

**Table 21.—Imports of Iron and Steel and Their Products into Canada during the Fiscal Years Ending March 31, 1925 and 1926**

(Prepared in the External Trade Branch)

Classification	Total imports for consumption		Imports from United Kingdom		Imports from United States	
	1924-25	1925-26	1924-25	1925-26	1924-25	1925-26
Iron ore.....Ton	911,586	1,053,563			685,990	692,030
\$	2,333,107	2,020,285			1,798,719	1,607,739
Pigs, ingots, blooms and billets—						
Pig iron.....Ton	27,509	27,779	6,706	4,077	19,685	21,984
\$	539,538	516,238	133,847	77,125	385,070	410,509
Ferrosilicon and ferromanganese.....Cwt.	158,427	83,559	133,904	68,823	19,832	7,236
\$	567,970	413,824	448,107	269,170	98,165	112,699
Other pigs, ingots, blooms and billets. \$	649,818	638,050	27,951	18,614	475,397	366,001
Total pigs, ingots, blooms and billets.. \$	1,757,326	1,568,112	609,905	364,909	958,632	889,209
Scrap iron or steel..... \$	496,862	671,435	4,825	5	466,356	554,135
Castings and forgings—						
Axles, parts and blanks..... \$	2,073,248	3,513,890	15,323	14,520	2,057,925	3,499,370
Locomotive and car wheel tires.....Cwt.	222,034	144,700	118,953	64,626	103,061	79,988
\$	982,391	657,639	542,092	304,175	440,214	352,411
Other castings and forgings..... \$	834,511	920,215	27,670	57,698	806,532	862,082
Total castings and forgings..... \$	3,890,150	5,091,744	585,085	376,393	3,304,671	4,713,863
Rolling mill products—						
Band and hoop.....Cwt.	1,051,059	1,236,710	135,364	202,082	907,873	1,020,968
\$	4,339,135	4,408,537	551,006	658,833	3,639,255	3,656,943
Bars and rails—						
Railway rails.....Ton	13,165	21,197	151	35	10,718	18,782
\$	505,045	674,704	5,366	2,518	433,988	616,402
Other bars and rails..... \$	4,396,413	6,079,273	821,446	668,651	3,359,282	4,989,151
Plates and sheets—						
Boiler plate.....Cwt.	138,353	89,176	1,746		136,540	89,022
\$	350,616	195,309	4,201		354,565	195,095
Canada plates.....Cwt.	161,272	220,090	92,945	90,786	68,327	128,880
\$	718,081	887,225	390,939	338,320	327,142	547,380
Tinned plates.....Cwt.	1,204,993	1,602,038	695,918	861,596	509,075	740,408
\$	6,494,839	8,200,879	3,682,006	4,260,014	2,812,833	3,934,732
Plates not less than 30 in. by ½-in. n.o.p.....Cwt.	565,821	799,273	78,767	11,260	471,578	747,337
\$	1,152,628	1,485,454	146,459	19,260	977,845	1,403,059
Sheets, No. 14 gauge and thinner, n.o.p.....Cwt.	715,502	1,026,687	138,911	99,214	575,700	921,400
\$	2,969,630	3,852,778	489,900	337,816	2,475,866	3,501,906
Galvanized.....Cwt.	580,838	595,841	264,771	197,814	310,067	397,958
\$	2,776,323	2,598,502	1,270,569	876,835	1,505,754	1,721,217
Skelp for pipe.....Cwt.	1,807,792	1,944,013	71,212	56,296	1,736,580	1,887,717
\$	3,709,243	3,880,180	184,057	150,594	3,525,186	3,723,586
Other plates and sheets.....Cwt.	430,441	642,491	61,015	29,904	372,058	588,404
\$	1,126,920	1,540,250	146,221	74,550	974,706	1,427,240
Rods.....Cwt.	450,094	800,518	69,750	36,264	240,163	241,419
\$	846,940	1,243,823	94,148	47,772	548,605	499,296
Structural iron..... \$	5,261,745	5,534,438	650,940	198,849	4,519,137	5,108,410
Total rolling mill products..... \$	34,656,558	40,581,492	8,437,258	7,646,018	25,454,164	31,384,417
Tubes, pipes and fittings—						
Boiler tubes..... \$	684,725	893,093	42,841	21,703	613,502	799,364
Other tubes, pipes, etc..... \$	1,739,650	2,588,113	241,558	291,289	1,320,583	1,964,015
Wire—						
Barbed fencing.....Cwt.	104,916	76,035	14	2	104,322	57,879
\$	369,121	253,617	109	8	367,387	202,286
Galvanized, No. 9, 12, and 13 gauge, not telegraph or telephone.....Cwt.	133,556	220,153	20	808	133,524	188,974
\$	389,831	577,275	96	2,357	389,688	504,034
Wire rope, twisted wire, clothes lines, wire cable, etc., n.o.p..... \$	328,506	257,848	244,191	198,130	81,727	52,982
Other..... \$	1,464,865	1,701,291	669,484	720,096	774,538	865,007
Chains..... \$	633,778	725,593	209,704	201,933	421,660	515,873
Engines and boilers—						
Engines, internal combustion, auto-mobile.....No.	30,732	76,639	7	15	30,725	76,624
\$	4,313,598	9,245,218	5,386	7,764	4,308,212	9,237,454
Engines, internal combustion, other.....No.	5,802	9,515	188	217	5,606	9,278
\$	957,298	1,536,497	234,708	443,751	720,232	1,084,494
Locomotives and parts..... \$	651,166	587,711	227,170	15,050	423,996	572,061
Other boilers, engines, etc..... \$	1,419,279	1,492,166	255,894	262,381	1,156,472	1,214,161
Total engines and boilers..... \$	7,341,341	12,861,592	723,258	728,946	6,608,912	12,108,770



Table 21.—Imports of Iron and Steel and Their Products into Canada, etc.—Concluded

Classification	Total imports for consumption		Imports from United Kingdom		Imports from United States	
	1924-25	1925-26	1924-25	1925-26	1924-25	1925-26
<b>Farm implements and machinery—</b>						
Dairy machinery..... \$	446,393	810,351	5,048	26,323	296,497	610,351
Harvesting implements and machinery \$	339,892	566,160	6,205	7,397	832,624	556,965
Planting and tillage—						
Ploughs and parts..... \$	613,998	1,123,687	153	170	613,756	1,123,324
Other..... \$	229,415	730,575	2,763	2,957	226,476	719,598
Seed separation—						
Threshing machine separators..... No.	1,236	2,281	2	.....	1,234	2,281
..... \$	1,008,837	1,930,539	148	.....	1,008,689	1,930,539
Threshing machine separator parts..... \$	472,380	514,776	.....	15	472,380	514,761
Other..... \$	45,866	51,448	223	109	44,962	51,051
Traction engines for farm purposes..... No.	2,200	6,805	.....	.....	2,200	6,895
..... \$	1,410,554	5,153,120	.....	.....	1,410,554	5,153,120
Traction engine repairs and parts..... \$	828,798	1,118,850	534	158	828,252	1,118,692
Other farm implements..... \$	1,098,853	1,337,144	51,363	59,246	1,035,951	1,273,102
<b>Total farm implements and machinery.. \$</b>	<b>6,494,986</b>	<b>13,336,650</b>	<b>66,437</b>	<b>96,375</b>	<b>6,270,141</b>	<b>13,051,503</b>
<b>Firearms..... \$</b>	<b>492,377</b>	<b>431,148</b>	<b>118,918</b>	<b>84,094</b>	<b>254,980</b>	<b>256,803</b>
<b>Hardware and cutlery—</b>						
Cutlery..... \$	1,351,547	1,428,084	672,083	713,753	319,519	313,719
Hardware—						
Nails, spikes, tacks..... \$	77,633	147,312	6,638	12,313	65,630	99,972
Needles and pins..... \$	325,417	353,901	163,192	180,304	149,305	159,894
Nuts and bolts..... Cwt.	22,493	29,705	4,218	778	18,270	28,459
..... \$	251,329	324,191	18,126	5,821	232,949	315,828
Screws..... \$	118,579	114,041	1,438	2,811	116,853	108,041
Other hardware..... \$	1,000,809	1,114,227	130,812	152,041	843,356	916,352
<b>Total hardware and cutlery..... \$</b>	<b>3,125,314</b>	<b>3,481,756</b>	<b>992,289</b>	<b>1,067,043</b>	<b>1,727,612</b>	<b>1,913,806</b>
<b>Machinery (except agricultural)—</b>						
Sewing machines and parts..... \$	837,370	1,055,394	283,353	330,878	552,588	724,016
Washing machines, domestic..... No.	10,910	13,297	1	.....	10,909	13,295
..... \$	643,050	792,131	315	.....	642,735	792,071
Other household machinery..... \$	163,264	131,310	467	354	162,652	127,035
Mining and metallurgical..... \$	1,564,157	2,253,697	237,450	272,176	1,326,667	1,981,518
Office or business—						
Adding..... No.	3,607	3,790	9	.....	3,568	3,752
..... \$	518,010	520,044	11,367	.....	498,751	510,626
Typewriting..... No.	8,753	11,411	13	5	8,451	11,390
..... \$	487,687	686,030	581	361	486,192	685,273
Other..... \$	439,526	516,288	1,451	4,285	438,175	512,003
Printing and bookbinding—						
Printing presses..... \$	1,462,758	1,307,922	44,056	41,150	1,382,006	1,211,163
Typesetting machines..... \$	660,788	487,998	98	75	660,690	487,923
Other printing and bookbinding..... \$	470,828	608,205	8,263	22,950	458,222	577,088
<b>Cranes and derricks..... No.</b>	<b>131</b>	<b>190</b>	<b>11</b>	<b>20</b>	<b>120</b>	<b>170</b>
..... \$	581,695	605,586	41,991	57,056	539,704	548,530
Metal working, n.o.p..... \$	1,154,075	2,021,897	83,614	50,491	1,002,531	1,946,339
Paper mill and pulp mill..... \$	922,155	2,534,693	252,522	1,312,044	669,733	1,192,726
Pump, power, and parts..... No.	4,348	6,206	124	60	4,222	6,143
..... \$	656,482	987,999	61,756	36,861	594,507	948,579
Rolling mill machines..... \$	152,362	159,534	2,831	326	150,531	159,208
Shovels, steam and electric..... No.	28	65	.....	1	28	54
..... \$	300,833	480,194	.....	10,480	300,833	469,714
Textile..... \$	2,865,276	3,383,649	705,526	870,168	2,117,290	2,434,880
Other machinery..... \$	11,940,899	13,499,008	1,498,977	1,281,418	10,226,634	11,868,374
<b>Total machinery (except agricultural). \$</b>	<b>25,822,215</b>	<b>32,031,660</b>	<b>3,234,618</b>	<b>4,291,073</b>	<b>22,211,345</b>	<b>27,177,066</b>
<b>Spring..... \$</b>	<b>166,787</b>	<b>196,527</b>	<b>2,118</b>	<b>1,733</b>	<b>164,202</b>	<b>194,775</b>
<b>Stamped and coated products—</b>						
Tin cans..... \$	579,786	673,910	23,452	28,095	555,588	643,500
Other..... \$	1,016,158	1,157,614	126,327	146,090	817,351	964,563
<b>Tools and hand implements..... \$</b>	<b>1,645,117</b>	<b>2,053,815</b>	<b>208,706</b>	<b>240,410</b>	<b>1,325,072</b>	<b>1,580,225</b>
<b>Vehicles—</b>						
Automobiles, freight..... No.	934	1,189	37	30	890	1,153
..... \$	1,364,664	1,772,414	80,155	75,760	1,277,662	1,692,920
Automobiles, passenger..... No.	8,835	14,935	30	87	8,797	14,844
..... \$	8,726,714	14,022,814	111,399	166,909	8,602,104	13,850,260
Automobile parts..... \$	14,188,715	23,111,109	53,573	56,313	14,114,959	23,010,491
Railway cars, all kinds..... No.	858	462	68	30	790	393
..... \$	394,811	336,813	4,118	4,709	390,693	330,813
Railway cars, parts of..... \$	664,015	628,508	47,504	106,586	616,511	519,674
Other vehicles..... \$	430,642	460,710	70,825	77,906	357,479	379,006
<b>Total vehicles..... \$</b>	<b>25,709,561</b>	<b>40,330,368</b>	<b>367,574</b>	<b>488,183</b>	<b>25,359,408</b>	<b>39,783,164</b>
<b>Drums, tanks, cylinders..... \$</b>	<b>525,512</b>	<b>684,312</b>	<b>22,402</b>	<b>32,508</b>	<b>410,749</b>	<b>517,598</b>
<b>Furniture..... \$</b>	<b>432,793</b>	<b>507,999</b>	<b>3,781</b>	<b>7,601</b>	<b>427,483</b>	<b>496,532</b>
<b>Pumps, hand..... No.</b>	<b>17,185</b>	<b>27,554</b>	<b>629</b>	<b>315</b>	<b>15,081</b>	<b>24,124</b>
..... \$	240,521	583,703	2,974	1,523	231,459	571,773
Stoves..... \$	328,236	376,652	4,774	1,669	318,837	370,427
Valves..... \$	472,082	637,465	37,658	52,838	433,989	579,919
Other iron and steel products..... \$	11,487,176	14,920,822	814,676	816,182	10,473,169	13,794,596
<b>Total iron and its products..... \$</b>	<b>134,684,441</b>	<b>181,196,800</b>	<b>17,794,428</b>	<b>17,907,204</b>	<b>113,541,924</b>	<b>158,027,944</b>

**Table 22.—Imports of Iron and Steel and their Products into Canada, by Months, for the Fiscal Years ended March 31, 1922-1926**(Prepared in the *External Trade Branch*)

Month	Twelve months ended March 31				
	1922	1923	1924	1925	1926
	\$	\$	\$	\$	\$
April.....	11,490,033	9,121,931	14,189,824	12,505,328	13,060,590
May.....	11,322,669	12,803,074	18,136,659	14,921,567	16,767,921
June.....	9,862,201	11,376,979	17,470,117	12,554,431	14,993,575
July.....	9,542,316	11,439,727	16,177,943	12,036,350	15,096,626
August.....	9,721,923	13,534,267	16,935,517	9,914,745	16,346,483
September.....	8,125,891	10,876,404	15,591,658	9,850,320	15,596,761
October.....	8,795,890	10,399,815	13,671,297	9,927,188	14,942,698
November.....	8,076,320	10,948,574	12,149,969	9,320,739	12,779,135
December.....	7,071,969	9,765,758	10,939,379	8,737,673	12,073,187
January.....	6,358,712	10,686,880	10,408,188	8,224,742	12,372,719
February.....	7,572,246	10,938,664	10,786,007	10,751,114	14,196,004
March.....	12,270,369	16,832,382	17,016,935	15,940,244	22,971,101
<b>Total.....</b>	<b>110,210,539</b>	<b>138,724,455</b>	<b>173,473,593</b>	<b>134,684,441</b>	<b>181,196,800</b>

**Table 23.—Exports of Canadian Made Iron and Steel Products from Canada, by Months, for the Fiscal Years ended March 31, 1922-1926**

Month	Twelve months ended March 31				
	1922	1923	1924	1925	1926
	\$	\$	\$	\$	\$
April.....	2,537,552	2,743,016	5,161,116	3,712,677	4,666,440
May.....	3,030,082	3,114,572	5,466,056	5,016,716	4,838,044
June.....	1,786,291	2,929,556	5,969,868	5,298,684	5,309,128
July.....	1,687,934	3,444,244	4,991,990	4,819,967	4,034,055
August.....	1,631,933	3,293,627	4,510,421	3,708,618	4,982,695
September.....	1,199,105	3,682,903	5,373,794	4,119,218	6,244,901
October.....	1,977,032	4,411,835	6,322,528	4,562,887	7,034,534
November.....	3,901,409	4,405,279	5,661,741	4,503,090	8,387,968
December.....	2,390,506	5,605,352	6,067,766	5,401,899	7,751,510
January.....	1,899,583	5,023,524	5,037,491	4,181,181	5,404,936
February.....	2,704,933	5,378,230	4,400,992	5,029,758	7,180,477
March.....	3,565,912	7,105,765	8,008,808	7,021,245	8,900,380
<b>Total.....</b>	<b>28,312,272</b>	<b>51,137,912</b>	<b>66,975,571</b>	<b>57,405,940</b>	<b>74,735,077</b>

**Table 24.—Imports and Exports of Iron and Steel and their Products into Canada, showing Declared Values in the Fiscal Years 1925 and 1926; Estimated Values for 1926 at the Average Values Prevailing in 1925; the Recorded Increases or Decreases in 1926 as compared with 1925; and the Amounts of such Increases or Decreases due to Changes in Quantities and Changes in Average Values.**

(Values in thousands of dollars)								
Classification	1926 declared values	1926 quantities at 1925 values	1925 declared values	Increases (+) or decreases (—) in declared values of 1926 compared with 1925	Increases (+) or decreases (—) due to change in		Quantity	Average value
IMPORTS								
Iron ore.....	2,020	2,696	2,333	— 313	+	363	—	67
Iron in the pig.....	516	520	539	— 23	—	19	—	4
Ferro-alloys.....	414	298	298	— 153	—	269	+	116
Other ingots, blooms, billets.....	638	760	651	— 13	+	109	—	122
Scrap iron and steel.....	671	602	497	— 174	+	105	+	60
Locomotive tires.....	658	641	982	— 324	—	341	+	17
Other castings and forgings.....	4,434	4,319	2,908	— 1,526	+	1,411	+	115
Rolling mill products								
Band and hoop iron.....	4,408	5,110	4,340	— 68	+	770	—	702
Railway rails.....	675	816	505	— 170	+	311	—	141
Other bars and rails.....	6,080	6,873	4,395	— 1,685	+	2,478	—	793
Boiler plate.....	195	232	360	— 165	—	128	—	37
Crushed plate, terne plate, etc.....	887	981	718	— 169	+	263	—	94
Tinned plates.....	8,201	8,635	6,495	— 1,706	+	2,140	—	434
Plates not less than 30 in. by 1 in.....	1,485	1,628	1,153	— 332	+	475	—	143
Sheets, 14 gauge and thinner.....	3,853	4,260	2,970	— 883	+	1,290	—	407
Galvanized sheets, flat.....	2,595	2,843	2,776	— 181	+	67	—	248
Skip for pipe, etc.....	3,880	3,987	3,709	— 171	+	278	—	107
Other plates and sheets.....	1,543	1,665	1,126	— 417	+	539	—	122
Rods.....	1,243	1,506	847	— 396	+	659	—	263
Structural steel, n.o.p.....	5,458	6,093	5,031	— 427	+	1,062	—	635
Bridges.....	78	87	232	— 154	—	145	—	9
Total rolling mill products.....	40,581	44,716	34,657	— 5,924	+	10,059	—	4,135
Tubes, pipe and fittings—								
Cast iron pipe.....	491	511	306	— 185	+	205	—	20
Seamless steel tubing, not less than 3½c. per lb.....	488	488	279	— 209	+	209	—	.....
Other pipe and tubing.....	2,503	2,554	1,889	— 614	+	665	—	51
Total pipe and tubing.....	3,482	3,553	2,474	— 1,008	+	1,079	—	71
Wire—								
Barbed fence.....	254	267	369	— 115	—	102	—	13
Galvanized, 9, 12 and 13 gauge, not telegraph, etc.....	577	640	390	— 187	+	250	—	63
Steel wire, not less 2½c. per lb., for rope.....	548	536	399	— 149	+	137	+	12
Other wire and wire rope.....	1,411	1,476	1,394	— 17	+	82	—	65
Total wire.....	2,790	2,919	2,552	— 238	+	367	—	129
Engines and boilers—								
Engines, automobile.....	9,245	10,715	4,314	— 4,931	+	6,401	—	1,470
Engines, internal combustion, other (including marine).....	1,582	1,574	957	— 625	+	617	+	8
Other engines and boilers.....	2,035	2,310	2,070	— 35	+	240	—	275
Total engines and boilers.....	12,862	14,599	7,341	— 5,521	+	7,258	—	1,737
Farm implements and machin- ery—								
Cream separators.....	743	669	409	— 334	+	260	+	74
Harvesters.....	390	429	216	— 174	+	213	—	39
Seed drills.....	346	274	94	— 252	+	180	+	72
Threshing machine separators.....	1,931	1,862	1,009	— 922	+	853	+	69
Traction engines not over \$1,400.....	4,992	4,634	1,324	— 3,668	+	3,310	+	358
Other farm implements and machinery.....	4,935	4,621	3,443	— 1,492	+	1,178	+	314
Total farm implements and machinery.....	13,337	12,489	6,495	— 6,842	+	5,994	+	848
Hardware and cutlery—								
Nails, wire.....	99	160	31	— 68	+	129	—	61
Nuts, washers, rivets and bolts.....	324	332	251	— 73	+	81	—	8
Other hardware and cutlery.....	3,060	3,560	2,843	— 217	+	717	—	500
Total hardware and cutlery.....	3,483	4,052	3,125	— 358	+	927	—	569

Table 24.—Imports and Exports of Iron and Steel Products into Canada, showing Declared Values in the Fiscal Years 1925 and 1926, etc.—Concluded

Classification	(Values in thousands of dollars)								
	1926 declared values	1926 quantities at 1925 values	1925 declared values	Increases (+) or decreases (—) in declared values of 1926 compared with 1925		Increases (+) or decreases (—) due to change in			
						Quantity	Average value		
Machinery—									
Sewing machines.....	383	325	253	+	80	+	72	+	8
Washing machines.....	792	760	643	+	149	+	117	+	32
Rock drills for mining.....	442	968	560	—	118	+	408	—	53
Adding and calculating machines.....	520	544	518	+	2	+	26	—	24
Typewriters.....	686	596	488	+	198	+	108	+	60
Cranes and derricks.....	606	844	582	+	24	+	262	—	238
Pumps, power.....	988	984	656	+	332	+	328	+	4
Other machinery.....	27,664	31,806	22,122	+	5,542	+	9,684	—	4,142
Total machinery.....	32,031	36,827	25,822	+	6,209	+	11,005	—	4,796
Vehicles—									
Automobiles, freight.....	1,772	1,737	1,365	+	407	+	372	+	35
Automobiles, passenger.....	14,023	14,752	8,726	+	5,297	+	6,026	—	729
Railway cars.....	336	213	394	—	58	—	181	+	123
Other vehicles.....	24,199	25,055	15,285	+	8,914	+	9,770	—	856
Total vehicles.....	40,330	41,757	25,770	+	14,560	+	15,987	—	1,427
Plates for agricultural imple- ments.....	410	425	117	+	293	+	308	—	15
Pumps, hand.....	584	397	241	+	343	+	156	+	187
Other iron and its products.....	21,956	23,656	17,613	+	4,343	+	6,403	—	1,700
Total iron and its products....	181,197	195,226	134,684	+	46,513	+	60,542	—	14,029
EXPORTS									
Pigs, ingots, blooms and billets.	2,167	1,157	1,318	+	849	—	161	+	1,010
Scrap.....	744	775	763	—	19	+	12	—	31
Bars and rods.....	703	884	416	+	287	+	468	—	181
Rails.....	114	135	189	—	75	—	54	—	21
Structural steel.....	800	1,133	206	+	594	+	927	—	333
Wire, barbed.....	94	94	132	—	38	—	38	—	—
Wire, other.....	845	845	1,023	—	178	—	178	—	—
Farm implements and									
Harvesters machinery—.....	2,043	2,091	1,220	+	823	+	871	—	48
Mowers.....	1,705	1,724	958	+	747	+	766	—	19
Reapers.....	242	123	106	+	136	+	17	+	119
Cultivators.....	450	643	579	—	129	+	64	—	193
Drills.....	998	900	750	+	218	+	150	+	68
Other farm implements and machinery and parts.....	8,220	8,331	7,730	+	490	+	601	—	111
Total farm implements and machinery.....	13,628	13,812	11,343	+	2,285	+	2,469	—	184
Hardware and cutlery—									
Nails, wire.....	263	287	247	+	16	+	40	—	24
Nails, brads, etc., n.o.p.....	211	208	156	+	55	+	52	+	3
Bolts and nuts.....	105	113	80	+	25	+	33	—	8
Other hardware and cutlery....	2,182	2,497	1,667	+	515	+	830	—	315
Total hardware and cutlery.....	2,761	3,105	2,150	+	611	+	955	—	344
Machinery—									
Electric vacuum cleaners.....	1,006	978	1,014	—	8	—	36	+	28
Adding and calculating machines.....	202	152	278	—	76	—	126	+	50
Other machinery.....	4,462	4,174	3,752	+	710	+	422	+	288
Total machinery.....	5,670	5,304	5,044	+	626	+	260	+	366
Vehicles—									
Autos, freight, one ton or less..	6,258	6,305	3,982	+	2,276	+	2,323	—	47
Autos, passenger, \$500 or less..	16,954	16,820	11,213	+	5,741	+	5,607	+	134
Autos, passenger, \$500 to \$1,000	7,146	6,883	6,665	+	481	+	218	+	263
Autos, passenger, over \$1,000	5,334	5,161	4,134	+	1,200	+	1,027	+	173
Railway cars.....	109	68	161	—	52	—	93	+	41
Other vehicles.....	7,379	7,263	5,247	+	2,132	+	2,016	+	116
Total vehicles.....	43,180	42,500	31,402	+	11,778	+	11,098	+	680
Other iron and steel.....	4,029	3,971	3,419	+	610	+	552	+	58
Total iron and its products....	74,735	73,715	57,405	+	17,329	+	16,309	+	1,020



**Table 25.—Comparison of the Value and Volume of Canada's Imports and Exports of Iron and Steel and their Products for the Fiscal Years Ended March 31, 1914 and 1923-1926**

(Values in thousands of dollars)

Classification	1914 declared values	1923		1924		1925		1926	
		Declared values	At 1914 average values	Declared values	At 1914 average values	Declared values	At 1914 average values	Declared values	At 1914 average values
IMPORTS									
Iron, ore.....	4,027	2,589	2,131	5,437	3,689	2,333	1,860	2,020	2,149
Pigs, ingots, blooms and billets.....	4,446	2,277	1,395	2,462	1,155	1,757	1,012	1,568	979
Scrap iron and steel.....	1,103	241	247	729	871	497	644	671	757
Castings and forgings.....	2,501	3,305	1,709	4,939	2,716	3,890	2,227	5,092	2,845
Rolling mill products.....	42,509	36,574	26,190	40,215	30,427	34,657	22,937	40,581	29,232
Tubes, pipes and fittings.....	5,468	2,657	1,541	4,064	2,541	2,424	1,600	3,482	2,390
Wire.....	4,470	3,079	1,845	4,066	2,137	2,552	1,505	2,790	1,730
Engines and boilers.....	4,522	6,989	5,781	8,689	7,205	7,341	6,411	12,862	12,863
Farm implements and machinery.....	7,541	8,424	17,492	11,766	17,956	6,495	9,855	13,337	21,475
Hardware and cutlery.....	3,756	3,406	1,132	3,848	1,275	3,125	1,182	3,484	1,344
Machinery (except agri- cultural).....	26,273	24,069	18,502	28,269	20,713	25,822	19,036	32,032	24,483
Vehicles, chiefly of iron.....	18,829	29,125	31,002	30,693	34,278	25,770	29,221	40,330	47,120
Other iron and steel.....	18,420	15,987	13,984	19,297	15,541	18,021	14,915	22,948	20,891
Total.....	143,865	138,724	122,951	173,474	140,504	134,684	112,405	181,197	168,258
EXPORTS									
Ore.....	398	29	12	84	37	26	8	17	12
Pig (including ferro- alloys).....	347	1,796	2,405	2,044	2,756	1,264	1,465	2,141	1,309
Scrap.....	459	2,143	1,832	1,273	962	763	704	744	715
Farm implements and machinery.....	7,049	6,067	3,042	9,340	4,936	11,343	5,722	13,628	7,674
Vehicles.....	3,882	29,725	30,390	38,033	46,003	31,402	38,326	43,180	55,276
Other iron and steel.....	2,448	11,378	10,784	16,202	17,459	12,608	13,017	15,025	16,336
Total.....	15,483	51,138	48,465	66,976	72,153	57,406	59,242	74,735	81,322

**Table 26.—Index Numbers of Prices of Iron and Steel Products in Canada, 1914, and 1921-1925**  
(1913 prices = 100)

(Prepared in the Internal Trade Branch)

Commodity	1914	1921	1922	1923	1924	1925
<b>IRON AND ITS PRODUCTS—</b>						
Iron ore.....	84.3	161.4	143.4	146.4	134.9	112.0
Mesabi Bessemer.....	84.3	161.4	143.4	146.4	134.9	112.0
Cast iron pipe.....	98.5	228.9	179.9	190.3	194.0	176.6
Cast iron pipe, 4".....	98.5	228.9	179.9	190.3	194.0	176.6
Hardware.....	96.9	220.7	175.2	187.6	183.4	175.1
Chain, 1" coil, fireweld proof.....	100.2	331.0	268.6	263.2	263.2	258.3
Bench screws, 1".....	94.7	303.9	268.7	245.3	242.3	233.9
Spring hinges, No. 20.....	100.9	307.3	243.1	218.2	225.0	200.4
Wire nails, base.....	96.4	202.4	159.5	175.2	170.2	161.4
Rolling mill products.....	98.8	181.5	146.2	162.1	163.1	154.7
Steel merchant bars.....	83.5	169.0	115.2	139.8	151.6	128.6
Round and square steel bars.....	95.4	167.6	129.5	162.1	150.6	135.8
Spring steel.....	100.0	201.4	157.8	181.1	199.2	198.5
Steel rails, open hearth.....	114.2	201.2	163.1	166.1	161.0	157.8
Steel sheets, black, 28 U.S.A.....	89.3	167.4	147.6	172.1	171.1	156.6
Steel sheets, galvd., 28 U.S.A.....	89.4	143.7	127.9	147.6	147.5	137.3
Shingles, galvd.....	100.0	202.4	170.0	175.4	183.2	185.0
Metallic ceiling.....	100.0	170.9	137.5	149.5	168.8	168.8
Tin plate, base.....	93.6	176.5	142.7	159.1	165.2	162.1
Scrap iron.....	108.4	117.9	101.0	135.3	121.4	103.3
Scrap iron, r. rd. No. 1.....	108.4	117.9	101.0	135.3	121.4	103.3
Smelted products.....	92.6	177.6	154.8	171.3	140.3	133.6
Pig iron, No. 1 foundry.....	93.2	175.7	166.5	172.6	143.8	141.1
Pig iron, basic.....	94.6	172.4	160.5	172.4	132.3	128.1
Steel billets, mild.....	88.5	188.9	136.8	168.3	153.0	140.1
Tools and hand implements.....	98.2	245.7	196.7	212.6	213.9	203.0
Axes, single bit.....	100.0	258.5	175.2	202.5	207.4	217.4
Anvils, cast-iron.....	100.0	214.5	214.9	227.9	212.3	173.7
Crowbars.....	93.3	257.1	213.3	213.3	226.7	226.7
<b>Average.....</b>	<b>97.7</b>	<b>185.7</b>	<b>151.8</b>	<b>168.0</b>	<b>161.0</b>	<b>151.6</b>

**Table 27.—Wholesale Prices of Certain Iron and Steel Products in Canada, 1913, and 1921-1925**

(Prepared in the Internal Trade Branch)

Commodity	Unit	1913	1921	1922	1923	1924	1925
		\$	\$	\$	\$	\$	\$
Iron ore, Mesabi-Bessemer.....	Long ton, lower lake ports.....	4.15	6.70	5.95	6.08	5.60	4.65
Cast iron pipe, 4 inches.....	Ton, f.o.b. works, Montreal.....	33.50	76.67	50.58	63.75	65.00	50.16
<b>Hardware—</b>							
1-inch coil chain, proof, fireweld.....	Cwt., f.o.b. Toronto.....	3.88	12.83	10.41	10.20	10.20	10.12
Bench screws, 1 inch.....	Dozen.....	3.42	10.39	9.19	8.39	8.29	8.00
Spring hinges, No. 20.....	Gross.....	7.33	22.53	17.83	16.00	16.50	14.70
Wire nails.....	Per keg.....	2.33	4.71	3.71	4.08	3.96	3.75
<b>Rolling mill products—</b>							
Steel merchant bars.....	Ton, f.o.b. plant.....	37.92	64.08	43.67	53.00	57.50	48.75
Round and square steel bars.....	Cwt.....	1.776	2.976	2.30	2.879	2.675	2.4125
Spring steel.....	Cwt., Montreal.....	2.75	5.54	4.34	4.98	5.48	5.458
O.H. steel rails.....	Long ton, f.o.b. plant.....	30.66	61.70	50.00	50.92	49.38	48.37
Steel sheets, black, No. 28 U.S.A. gauge.....	Cwt., Montreal.....	2.155	3.608	3.18	3.708	3.688	3.375
Steel sheets, galvanized, No. 28 U.S.A. gauge.....	Cwt., Montreal.....	3.268	4.697	4.18	4.825	4.821	4.4875
Galvanized shingles, standard.....	Square, f.o.b. Toronto.....	5.00	10.12	8.50	8.77	9.16	9.25
Metallic ceiling.....	Square, f.o.b. Toronto.....	4.00	6.83	5.50	5.98	6.75	6.75
Tin plate.....	Base box, Montreal.....	3.329	5.876	4.75	5.296	5.50	5.396
<b>Scrap Iron—</b>							
Wrought iron, r. rd., No. 1, old material.....	Ton, Montreal.....	9.92	11.69	10.02	13.42	12.04	10.25
<b>Smelted Products—</b>							
Pig iron—No. 1 foundry.....	Long ton, Montreal.....	20.35	35.76	33.89	35.13	29.26	28.71
Pig iron—basic.....	Long ton.....	17.50	30.17	28.08	30.17	23.16	22.41
Steel billets, mild.....	Ton, f.o.b., Montreal.....	28.50	44.79	41.21	47.98	43.60	39.9166
<b>Tool and hand implements—</b>							
Axes, single bit.....	Dozen, Montreal.....	6.75	17.45	11.83	13.67	14.00	14.00
Prospector's cast iron anvils.....	Cwt.....	4.75	10.19	10.21	10.83	10.08	8.25
Crow bars.....	Cwt.....	3.75	9.64	8.00	8.00	8.50	8.50
<b>Wire—</b>							
Soft wire, No. 9.....	Cwt., Hamilton.....	2.30	5.31	4.08	4.39	4.63	3.94
Wire cloth, painted screen, 12 mesh to 1 inch, No. 33 gauge.....	100 sq. ft. f.o.b., Hamilton.....	1.27	2.75	2.40	2.21	2.33	2.25
<b>Miscellaneous Iron and Steel Products—</b>							
Horseshoes, medium, No. 1.....	Keg, f.o.b. Montreal.....	4.15	8.03	7.26	6.97	6.78	6.55
Car axles.....	Ton, f.o.b., plant.....	40.42	96.50	63.33	74.13	80.00	80.00

**Table 28.—Alphabetical List of Products Made in All the Industries Classified under Iron and Steel and Their Products in Canada, 1924**

Product	Industry No. (See list at end of table)	Unit of measure	Quantity	Value
				\$
Agricultural implements, n.e.s.	2-5			117,078
Agricultural implement parts and accessories	2-4-11			2,275,023
Anvils	4-5	No.	787	3,591
Automobiles—				
Commercial—				
Under 1 ton capacity	6	No.	2,125	975,862
1 ton to under 5 tons capacity	6	No.	15,918	7,150,054
Passenger—				
Open—2 to 3 passenger	6	No.	3,632	2,072,551
Open—4 to 5 passenger	6	No.	62,101	35,503,091
Open—7 passenger	6	No.	1,471	2,031,746
Closed—2 to 3 passenger	6	No.	9,308	5,687,428
Closed—4 to 5 passenger	6	No.	21,251	18,701,512
Closed—7 passenger	6	No.	602	1,511,328
Automobile parts and accessories, n.e.s.	2-4-6-7-12			11,521,589
Axes	2-12	Doz.	44,988	560,312
Axles	7	No.	55,353	1,079,341
Babbitt	2	lb.	28,674	6,128
Ball bearings	7-12			26,300
Barn and stable equipment	4-13			277,087
Barrels and tanks, sheet steel	2-5-11			823,561
Bars, iron or steel, rolled—				
Total quantity made	1 c.	L.T.	163,856	
Quantity sold	1 c.	L.T.	110,182	7,286,118
Bars, n.e.s.	2	lb.	160,058	26,093
Baths, sinks, laundry tubs, etc.	11			2,400,664
Belts, brass and brass trimmed	13	No.	4,373	60,250
Belts, iron	13	No.	80,420	770,529
Bicycles, foot power	8	No.	22,158	578,362
Bins and hoppers	3			5,380
Blooms, billets and slabs, steel—				
Quantity made	1 c.	L.T.	536,603	
Quantity sold	1 c.	L.T.	46,018	1,746,843
Bodies, auto	2-7	No.	201,207	1,263,385
Boilers, feed	2-4	No.	756	39,705
Boilers, heating—				
Cast iron sectional—hot water	2	No.	4,701	989,377
Steam	2			318,131
Steel, firebox, locomotive type	2-3	No.	112	120,926
Horizontal return tubular	2-3	No.	47	39,577
Steel water tube	2-3	No.	46	64,963
Boilers, power—				
Water tube—horizontal type	2-3	No.	41	224,822
Water tube—vertical type	2-3	No.	119	66,805
Horizontal return tubular power	2-3	No.	184	242,068
Marine type—internally fired	2-3	No.	8	21,733
Steel firebox, locomotive type	2-3	No.	37	47,336
Boilers, n.e.s.	2-3-4-5			77,412
Boiler and engine parts and accessories	2-3-7-13			687,419
Bolts, nuts and rivets	1c-2-5-10-11-12-13			3,253,501
Bottle caps	11			144,908
Bowls, water	4	No.	8,040	38,099
Brads and tacks of wire—				
Quantity made	10	lb.	268,830	
Quantity sold	10	lb.	735,452	97,132
Brake beams and parts	9	No.	36,751	488,560
Brakes and brakeshoes	2-9	lb.	18,564,449	582,523
Brass and copper products, n.e.s.	11			5,855
Brass fittings	2			15,599
Broilers	2	No.	1,146	7,310
Building materials, sheet metal, n.e.s.	11			1,072,878
Bumpers, auto	2-7			230,121
Burners, oil	12	No.	100	15,081
Calks, toe and drive	1c-2-10-13			186,827
Cans, tin	5-11			11,269,437
Cans, other	11			41,494
Cars, railway, new	9	No.	4,554	15,943,710
Cars, repairs on, freight	9			3,542,371
Cars, repairs on, passenger	9			3,006,358
Cars, n.e.s.	2			48,972
Carriers, litter	4	No.	1,103	92,865
Carriers, sheaf	4	No.	1,625	8,306
Carriers, tire and luggage	7			5,142
Castings—				
Brass	2-3-5-9-12-13	lb.	1,297,082	374,747
Copper	2	lb.	111,693	29,418
Iron	2-3-4-5-7-9-12-13	lb.	106,376,985	10,668,599
Steel	2-3-5-12-13	lb.	4,926,933	422,977
Steel, direct—				
Quantity made	1 b.	L.T.	18,393	
Quantity sold	1 b.	L.T.	14,879	2,624,609

Table 28.—Alphabetical List of Products Made in All the Industries Classified under Iron and Steel and Their Products in Canada, 1924—Continued

Product	Industry No. See list at end of table	Unit of measure	Quantity	Value
<b>Castings—Con.</b>				\$
Steel direct—				
Electric—Quantity made.....	1 a.	L.T.	4,972	
Quantity sold.....	1 a.	L.T.	4,951	799,738
Castings, n.e.s.....	2-3-4-5-7-9			349,546
Castors, sets of four.....	11-12			74,041
Chains, auto.....	2-12			452,850
Chains, n.e.s.....	2	No.	283,214	659,420
Chassis, automobile.....	2-10			5,101,704
Choppers and pulpers.....	6	No.	16,172	12,951
Churns.....	4	No.	727	44,235
Cider mills.....	4	No.	2,485	2,001
Cloth, wire.....	4	No.	137	510,017
Conveyors.....	10			321,918
Cotter pins—	2-3-5			
Quantity made.....	10	lb.	215,879	
Quantity sold.....	10	lb.	231,615	30,402
Covers, auto seat.....	7			53,104
Crushers (mining).....	5	No.	19	33,441
Cultivators, corn.....	4	No.	1,925	94,590
Cultivators, wheel grain.....	4	No.	11,036	717,628
Cultivators, n.e.s.....	2-4	No.	1,758	231,889
Culverts.....	5-11			84,026
<b>Derricks and winches</b> .....	2-3			18,043
Differentials, transmissions, auto.....	2			411,802
Drills, rock, etc.....	5	No.	724	605,358
Drills, grain, disc.....	4	No.	5,545	766,205
Drills, grain hoe.....	4	No.	263	32,257
Drills, n.e.s.....	4-12			283,340
<b>Elevators, grain</b> .....	5-7			455,673
Elevators, passenger and freight (installed).....	2-5			1,663,391
Elevator parts.....	2-5			50,302
<b>Engines—</b>				
Steam, single cylinder, horizontal.....	3	No.	30	99,194
Gasoline—				
Marine type.....	3	No.	458	179,700
Stationary type.....	3	No.	990	88,107
Engines, n.e.s.....	2-3-4-5-7			3,363,553
Evaporators, syrup.....	4	No.	40	9,500
<b>Fencing, angle steel</b> .....	10	lb.	8,350	10,856
<b>Fencing and netting, woven—</b>				
Quantity made.....	10	lb.	54,509,214	
Quantity sold.....	10	lb.	51,230,239	2,430,933
Fence, iron.....	13			154,746
Fire fighting equipment.....	2-5			413,498
Fire escapes.....	12-13			81,218
Fireplace appliances.....	11			262
Fishing tackle.....	12	Gross	6,850	11,900
Food choppers.....	4	No.	27,787	47,112
Forges and blowers.....	2-5			110,599
Forgings.....	2-12	lb.	29,090,107	2,228,871
Forks.....	12	No.	110,140	525,367
Furnaces, hot air.....	2	No.	27,624	2,017,820
Furnaces, n.e.s.....	4-5-12	No.	3,777	275,679
Furnace parts.....	2			152,350
<b>Gates—</b>				
Quantity made.....	10	No.	120,362	
Quantity sold.....	10	No.	124,480	86,159
Gauges, sheet metal.....	2-11			118,843
Grate bars.....	2-12-13			62,338
Graders, rye.....	4	No.	220	427
Grinders (metal working).....	5	No.	14	27,142
Grinders, grain.....	4-5	No.	961	95,250
Guards, wire.....	10			16,700
<b>Hardware, builders'</b> .....	2-12			2,728,325
Hardware carriage.....	12			342,204
Hardware pole line.....	1c-2			318,788
Hardware, n.e.s.....	2-5-12-13			688,371
Harrow, disc.....	2-4	No.	9,124	414,239
Harrow, spike tooth.....	2-4	No.	2,109	14,768
Harrow, spring tooth.....	2-4	No.	3,316	71,330
Harrow, sections.....	4	No.	56,262	96,866
Harvesters, grain.....	4	No.	21,323	3,790,273
Hay carriers and forks.....	4	No.	6,489	156,483
Hay loaders.....	4	No.	1,761	142,651
Hay presses.....	2-4	No.	72	40,130
Hay rakes.....	4	No.	5,662	214,342
Hay tedders.....	4	No.	248	10,911
Heating and ventilating equipment, n.e.s.....	2-3-5-13			1,094,562
Hoes, hand.....	12	No.	37,379	97,681



Table 28.—Alphabetical List of Products Made in All the Industries Classified under Iron and Steel and Their Products in Canada, 1924—Continued

Product	Industry No. See list at end of table	Unit of measure	Quantity	Value
				\$
Hoists.....	5	No.	94	336,881
Hollowware.....	2-11			1,649,041
Hools, auto.....	7	No.	3,211	64,193
Hooks, eyes, etc.....	11-12			680,224
Hoops, steel and splice, wire.....	10			95,027
Horse shoes (and mule).....	1e-13			534,371
Hotel equipment.....	2-5			8,156
Hydrants.....	2	No.	1,044	82,360
<b>Ingot, steel, basic and Bessemer—</b>				
Quantity made.....	1a	L.T.	636,345	
Quantity sold.....	1a	L.T.	2,621	392,440
<b>Implements and tools, hand, n.e.s.</b>	12			16,366
<b>Iron pig—</b>				
Basic—				
Quantity made.....	1a	L.T.	357,704	
Quantity sold.....	1a	L.T.	18,654	412,216
Foundry—				
Quantity made.....	1a	L.T.	173,663	
Quantity sold.....	1a	L.T.	147,264	3,321,980
Malleable—				
Quantity made.....	1a	L.T.	61,665	
Quantity sold.....	1a	L.T.	33,657	784,685
<b>Iron, corrugated and its products.....</b>	11			1,646,235
<b>Iron and steel, n.e.s.</b>	2			435,700
<b>Ironwork, ornamental and architectural.....</b>	2-13			944,100
<b>Jacks.....</b>	2-4-5			97,275
<b>Kiddie cars.....</b>	4	No.	1,512	1,264
<b>Knives, machine.....</b>	12	No.	107,531	216,670
<b>Lamps and lanterns.....</b>	2-7-11			521,995
Lath, metal.....	11			200,160
Lathes, metal working.....	2-5			180,581
Lathes, woodworking.....	5	No.	20	6,914
Locomotives, railway, new.....	9	No.	84	5,678,620
Locomotive, equipment for.....	2			56,906
Locomotives, repairs on.....	9			3,017,662
Lubricators, etc.....	7-11			192,687
<b>Machines and machinery—</b>				
Adding.....	5	No.	1,930	919,887
Bakery, n.e.s.....	2-5			253,936
Band sawing.....	5	No.	48	39,233
Basket making.....	5			4,848
Boot and shoe.....	5			218,201
Boring.....	5	No.	21	4,616
Cash and account registers.....	5	No.	4,091	1,240,793
Cleaning and pressing.....	5			145,413
Clay working.....	5			17,122
Concrete mixers.....	4-5			145,661
Concrete and cement, n.e.s.....	2-5-11			178,714
Dairy and cheese factory.....	2-4-5			619,451
Fog signalling.....	5			12,880
Flour and grist mill.....	2-5			454,678
Fruit evaporating.....	2			6,112
Hoisting.....	2-5			468,233
Household, n.e.s.....	5			24,270
Laundry.....	5			772,912
Matchers (woodworking).....	5	No.	14	42,945
Mechanical stokers.....	3	No.	14	51,881
Metal working.....	2-5			675,057
Milking.....	4	No.	2,027	280,081
Mining and metallurgical, n.e.s.....	2-3-5			260,826
Mixing, bakery.....	2-5	No.	52	22,298
Moulders (woodworking).....	5	No.	33	47,277
Oilice and business, n.e.s.....	5			12,871
Pulp and paper.....	2-3-5			1,048,745
Road making, n.e.s.....	2-4-5			99,672
Rubber mill.....	2			149,217
Sanders (woodworking).....	2-5	No.	34	37,196
Saw and planing mill.....	2-3-4-5			481,295
Shapers and jointers (woodworking).....	5	No.	71	27,463
Ships' machinery and fittings.....	2-5			118,563
Stone working.....	5			130,000
Surfacers (woodworking).....	5	No.	44	41,731
Tanning.....	5	No.	35	6,832
Tenoners and mortisers (woodworking).....	5	No.	56	32,488
Textile.....	2-5			103,722
Trussing.....	4	No.	12	300
Washing, power.....	4	No.	6,504	694,186
Washing, n.e.s.....	4-6	No.	30,421	1,418,651
Well drilling.....	5			4,000
Woodworking, n.e.s.....	2-5			420,405
Machinery, n.e.s.....	2-3-5-11-13			848,895
Machinery parts, including transmission brackets, hangers, etc.....	4-5-12-13			1,187,716

Table 28.—Alphabetical List of Products Made in All the Industries Classified under Iron and Steel and Their Products in Canada, 1921—Continued

Product	Industry No. See list at end of table	Unit of measure	Quantity	Value
Mantels.....	2	No.	900	\$ 4,540
Metal sash.....	11-13			572,622
Motometers.....	7	No.	28,052	82,918
Mowers, lawn.....	2-4-12			234,237
Mowers, p.e.s.....	4	No.	22,330	1,371,888
Nails, horseshoe.....	1c-10	lb.	1,784,007	246,547
Nails and spikes, wire.....	10-12			3,171,182
Nails and tacks, cut.....	1c-12			260,005
Needles, knitting machine.....	5-12			367,000
Oil burning equipment.....	2-5			478,818
Ovens (bakers').....	2-5	No.	10,094	135,985
Pans.....	11			5,045
Patterns and models.....	2-5-9			151,694
Peavees, canthooks, etc.....	12			235,226
Pipe, conduit.....	11			990,239
Pipe, iron.....	2-9-13	lb.	142,647,568	8,838,233
Pipe, iron and fittings.....	2-5-13			2,636,632
Pipe, stove.....	11			39,091
Piston rings.....	2-4			35,669
Plates, auto licence.....	11			14,510
Planters, corn—horse or power.....	4	No.	2,487	161,722
Plows, disc.....	4	No.	1,216	121,014
Plows, gang—horse.....	2-4	No.	6,070	372,150
Plows, gang—power.....	4	No.	1,483	146,545
Plows, hillside.....	4	No.	873	11,830
Plows, riding—double.....	2-4	No.	3,804	202,147
Plows, riding—single.....	2-4	No.	1,796	89,351
Plows, snow.....	4-4	No.	38	129,054
Plows, n.e.s.....	2-4	No.	16,752	343,911
Plumbers' goods.....	2			667,916
Potato diggers.....	2-4	No.	235	17,156
Pumps, steam.....	2-3-5			298,217
Pumps, other power.....	2-3-4-5	No.	547	223,974
Pumps, n.e.s.....	2-4-5-12-13			529,211
Radiators, auto.....	2-7			232,150
Radiators, n.e.s.....	5-12			60,581
Radiators and parts.....	2			2,053,041
Rails, O.H. steel—				
under 85 lb. per yd.—				
Quantity made.....	1c.	L.T.	2,412	
Quantity sold.....	1c.	L.T.	2,540	122,380
85-100 lb. per yard—				
Quantity made.....	1c.	L.T.	109,560	
Quantity sold.....	1c.	L.T.	94,074	4,443,127
over 100 lb. per yd.—				
Quantity made.....	1c.	L.T.	88,738	
Quantity sold.....	1c.	L.T.	88,555	4,459,362
Railway track equipment.....	1c-2-5-12-13			4,029,342
Rakes, hand.....	4-12	Doz.	5,532	130,225
Razor, blades.....	12	No.	20,690,382	1,262,312
Razors, safety.....	12	No.	371,023	144,454
Reapers.....	4	No.	1,851	171,748
Reels, hose.....	4	No.	1,400	1,540
Registers and grills, hot air.....	2-13			267,282
Rifles, small bore.....	2			17,000
Rims, auto.....	7	No.	775,000	744,322
Road drag, scarifiers and scrapers.....	4-5			233,452
Rods, iron and steel, wire, spike, bolt and nut—				
Quantity made.....	1c-10	L.T.	116,484	
Quantity sold.....	1c-10	L.T.	28,415	1,366,545
Rods, n.e.s.....	2-12			8,078
Rollers, land—horse and power.....	4	No.	682	20,173
Rolls, flour and grist mill.....	5			7,506
Roofing and siding, sheet metal.....	11			8,703
Rope and cable wire—				
Quantity made.....	10	lb.	5,098,540	
Quantity sold.....	10	lb.	4,178,124	1,085,107
Safes, vaults and fittings.....	3-13			979,082
Saws, hand.....	12	No.	130,620	227,833
Saws, circular.....	12	No.	247,854	478,663
Saws, cross cut.....	5-12	No.	99,786	273,311
Saws, hand.....	12	No.	137,993	157,761
Saws and parts, n.e.s.....	4-12			544,687
Scales.....	4-5	No.	14,097	1,090,329
Scrap.....	1c-2-9-10-11-12-13			196,571
Screens, iron or steel.....	2-10			199,287
Screws, machine.....	12			551,146
Screws, other.....	10			525,729
Seuffers.....	4	No.	7,357	64,560
Seeders.....	4	No.	1,066	20,518

**Table 28.—Alphabetical List of Products Made in All the Industries Classified under Iron and Steel and Their Products in Canada, 1921—Continued**

Product	Industry No. See list at end of table	Unit of measure	Quantity	Value
				\$
Separators, cream.....	4	No.	11,155	724,900
Separators, potato.....	4	No.	40	1,400
Shapers, metal working.....	5	No.	27	37,395
Sheet metal products, n.e.s. (including cabinets, lockers, etc.).....	10-13			362,904
Sheets, plain—				
Quantity made.....	1c	L.T.	16,195	
Quantity sold.....	1c	L.T.	15,502	1,371,687
Sheets, galvanized.....	11			1,672,189
Shock absorbers, auto.....	7	No.	34,472	155,793
Skates.....	8-12			405,270
Sleighs.....	4	No.	906	37,020
Smokestacks.....	2-3	No.	154	32,603
Smoke broaching.....	3	No.	56	10,341
Spades and shovels.....	4-12	No.	905,055	654,546
Sprayers, power.....	4	No.	101	26,717
Sprayers, n.e.s.....	4	No.	149	12,066
Spreaders, manure.....	4	No.	1,628	190,796
Springs and axles, auto.....	2-4-7			1,420,646
Springs, bed.....	7-13			177,807
Springs, steel.....	10			360,892
Stairs, iron and steel.....	5-13			322,379
Stampings, auto.....	7-11			872,659
Stampings, metal.....	2-5-11-12			242,070
Staples, wire, iron—				
Quantity made.....	10	lb.	4,127,140	
Quantity sold.....	10	lb.	4,418,778	192,017
Stocks, tops and dies.....	2-5-11-12			236,942
Steel, cold drawn.....	2	lb.	20,956,600	1,047,005
Steel, cold rolled.....	2	lb.	20,000	1,553
Steel and fibre shanks.....	13			31,700
Stoves, coal and wood.....	2	No.	126,701	3,284,271
Stoves, electric.....	2	No.	22,577	1,621,991
Stoves, gas.....	2	No.	41,891	1,077,147
Stoves, oil.....	2	No.	11,130	171,133
Stoves and furnaces, n.e.s.....	5	No.	800	3,200
Stoves and parts, n.e.s.....	2-4			437,431
Straw blowers.....	4	No.	14	1,120
Structural and fabricated steel shapes, n.e.s.....	1c-2-13	S.T.	44,907	3,977,406
Tanks, pressure.....	2-3	No.	2,184	79,254
Tanks—storage.....	2-3-11	No.	40,362	621,500
Tanks, n.e.s.....	4-13			183,952
Thrashers, power.....	4	No.	1,382	1,117,762
Ties, bale, steel—				
Quantity made.....	10	lb.	1,038,046	
Quantity sold.....	10	lb.	1,032,509	61,069
Time recorders.....	5			123,219
Tires, railway.....	9	S.T.	3,593	375,685
Tinware.....	2-11			3,060,917
Tools, machine.....	5-12			194,869
Tools and parts, n.e.s.....	2-4-7-12			789,668
Tops, auto.....	7	No.	31,196	668,276
Tractors, gasoline.....	4-7	No.	51	80,640
Tractors, n.e.s.....	2-4			17,205
Trailers.....	7	No.	160	54,640
Traps, steam.....	2	No.	24,433	132,339
Tricycles, children's.....	8	No.	7,111	46,952
Trucks, transport.....	4	No.	1,028	8,584
Trucks, n.e.s.....	2-5-7-13			88,634
Trussers.....	4	No.	3,078	243,553
Tubing, steel.....	2	lb.	21,931,744	1,302,292
Valves, brass.....	2-5-12	No.	143,181	381,216
Valves, iron.....	2-5	No.	3,009	53,636
Valves, other.....	2-5	No.	9,665	157,185
Ventilating appliances, n.e.s.....	2			8,316
Wagons, complete.....	4-11	No.		57,659
Wagon and carriage parts.....	4-7			185,056
Water heaters.....	2-4-11	No.	14,642	189,312
Water meters.....	2			32,340
Washers—				
Quantity made.....	1c	L.T.	459	
Quantity sold.....	1c	L.T.	437	72,555
Water wheels and turbines.....	2-3-5			2,887,079
Weeders and cultivators.....	4	No.	282	1,631
Wheels, auto.....	7	No.	844,310	2,438,945
Wheels, railway car.....	2-9	Lb.	69,107,391	4,291,857
Wheelbarrows.....	4	No.	14,064	70,720
Windmills.....	4	No.	910	61,372

Table 28.—Alphabetical List of Products Made in All the Industries Classified under Iron and Steel and Their Products in Canada, 1924—Concluded

Product	Industry No. See list at end of table	Unit of measure	Quantity	Value
Wire—				\$
Iron and steel—				
Galvanized—				
Quantity made.....	10	lb.	54,460,017	
Quantity sold.....	10	lb.	34,124,858	1,371,697
Plain.....	2-5-10	lb.	58,477,503	2,071,480
Other coated—				
Quantity made.....	10	lb.	7,224,519	
Quantity sold.....	10	lb.	6,414,137	370,928
Wire, barbed—				
Quantity made.....	10	lb.	19,526,712	
Quantity sold.....	10	lb.	15,924,844	660,202
Wire, bare, copper—				
Quantity made.....	10	lb.	448,377	
Quantity sold.....	10	lb.	384,769	71,965
Wire, brass—				
Quantity made.....	10	lb.	277,867	
Quantity sold.....	10	lb.	67,983	18,595
Wire shapes.....	10			384,993
Wirework, ornamental.....	13			6,000
Wrenches and spanners.....	12	No.	528,704	158,611
Wringers, clothes.....	4-5	No.	36,743	182,380
Products listed by 1 or 2 firms*—all industries.....				11,837,270
Products, n.e.s.—all industries.....				14,203,643
Amount received for custom work repairs—all industries.....				13,715,103
<b>Total.....</b>				<b>371,242,493</b>

\*Includes grinding balls, bolting, steel dump bodies, cash boxes, fare boxes, buoys, birdcages, tellers' cages, can scalers, car movers, chair irons, clover hullers, coal handling plants, air compressors, ammonia compressors, conduits, creosoting cylinders, school desks, enamelled and galvanized ware, excavators, fanning mills, feed cookers, fence rods, fence wire, files and rasps, fire baskets, gasoline and oils storage tanks, gasometers, cut and reverse gears, potato graders, hammers, piano hardware, harvesters and threshers combined, harvesters, n.e.s., hay rakes, horseshoes, gasoline locomotives, logging blocks, hottlers' machinery, canning machinery, leather working machinery, meat slicers, milling machines, packaging machinery, packing house machinery, pipe cutting and threading machinery, sewing machines, stump pullers, mill linings, chocolate moulds, metalline nails, paper fastenings, penstocks and rivetted steel pipe, potato planters, post hole augers and diggers, bronze powders, propellers, razor sets and strops, road rollers, shade rollers, composition rollers, cast iron press rolls, snshweights, scythes and sickles, silos, sprayers, brass and bronze springs, stage coaches, grain stockers, horse threshers, game traps, vacuum cleaners and windshields.

## KEY TO THE NUMBERED INDUSTRIES.

- 1.(a) Pig iron.
- 1.(b) Steel ingots and castings.
- 1.(c) Rolled iron and steel products.
2. Castings and forgings.
3. Boilers, tanks and engines.
4. Agricultural implements.
5. Machinery.
6. Automobiles.
7. Automobile accessories.
8. Bicycles.
9. Railway rolling stock.
10. Wire and wire goods.
11. Sheet metal products.
12. Hardware and tools.
13. Iron and steel products, n.e.s.



Table 29.—Alphabetical List of Materials Used in all the Industries Classified under Iron and Steel and Their Products in Canada in 1925

Material	Industry Number (See list on page 52)	Unit of measure	Quantity	Cost at works \$
Acid, muriatic, 20° Be.....	10-11	lb.	2,255,075	34,906
Acid, sulphuric, 66° Be.....	10-11	lb.	11,854,883	126,399
Aluminium.....	2-3-4-5-6-7-9-11-13	lb.	991,844	348,468
Asbestos and other linings and coverings.....	3			4,511
Babbitt metals and solder.....	2-3-4-5-6-7-9-13	lb.	1,563,526	504,061
Batteries.....	6	No.	164,132	1,430,322
Bluestone.....	10	lb.	4,610	300
Holies, automobile.....	6	No.	41,069	7,695,302
Bolts, nuts, rivets and screws.....	2-3-4-5-6-7-8-9-12-13			2,284,021
Brass, bronze and copper.....	11	lb.	1,772,362	421,090
Brass sheets, bars, etc.....	2-4-5-6-10-12	lb.	2,254,744	570,827
Bronze.....	10	lb.	286,036	46,909
Bronze, powder.....	2	lb.	1,200	1,140
Burr metal.....	10	lb.	69,282	3,526
Cable, steel for hoisting.....	5			51,014
Cable, other.....	5			7,350
Carburettors.....	11	No.	174,597	362,163
Casings, pneumatic fire.....	6-8	No.	731,385	5,432,073
Castings, brass and bronze.....	2-3-4-5-6-7-9-12-13	lb.	9,803,672	2,428,156
Castings, die.....	5	ton	30	18,375
Castings, iron.....	2-3-4-5-6-7-9-12-13	ton	47,866	5,606,505
Castings, steel.....	2-3-4-5-6-7-9-12-13	ton	49,449	6,460,181
Chains.....	8	ft.	115,200	17,326
Chassis, automobile.....	6	No.	28,309	1,574,787
Chemicals, n.e.s.....	11			69,020
Charcoal.....	1a	bush.	35,348	8,317
Coal, anthracite.....	1a	ton	1,813	11,368
Coal, bituminous.....	1a	ton	264	2,011
Coils.....	6	No.	58,910	95,147
Coke, foundry.....	2-3-4-5-9	ton	97,425	1,094,650
Coke, from Canadian coal.....	1A-1B	ton	250,546	1,312,755
Coke, made in Canada from imported coal.....	1A-1B	ton	386,715	2,512,215
Coke, imported.....	1a	ton	625	8,593
Copper.....	2-3-4-5-6-7-9-13	lb.	4,527,764	997,003
Core compound.....	2-3-4-5			25,788
Core oil.....	2-3-4-5	Imp. gal.	118,736	118,252
Core oil and compounds.....	9			21,094
Cotton, duck and other textiles.....	4			363,943
Cupola, blocks.....	2-3-4-5	No.	112,776	17,225
Diamonds, bortz.....	12			19,984
Electrical goods, n.e.s.....	2-3-4-5-13			943,375
Engines, automobile, assembled complete.....	6	No.	67,310	9,557,828
Facings, foundry.....	9-13	lb.	1,663,988	25,904
Facings, sea coal.....	2-3-4-5	ton	3,114	28,976
Facings, other.....	2-3-4-5			50,332
Ferro-alloys—				
Ferrosilicon.....	1a	ton	2,398	146,250
Spiegelstein and ferromanganese.....	1a	ton	5,987	457,805
Other ferro-alloys.....	1a	ton	539	120,035
Fence posts and gates.....	10	No.	2,148	2,093
Firebrick.....	2-3-4-5	M	3,415	170,344
Fire brick, fire clay and cupola blocks.....	9			45,001
Fire clay.....	2-3-4-5	ton	5,184	121,141
Fluor spar.....	1a	ton	7,220	95,970
Fluxing material.....	1a	ton	551	8,848
Furnaces and fittings.....	11	ton		39,431
Generators.....	6	No.	25,413	285,221
Glass.....	6-7-11			718,037
Grease.....	10	lb.	2,540	636
Handles for tools.....	12			404,473
Iron, angle.....	4-13			59,407
Iron, bar.....	12	lb.	10,151,038	235,347
Iron, in duck and scrap bar.....	1c	ton	3,722	51,498
Iron, pig.....	1a-2-3-4-5-7-9-12-13	ton	239,725	5,267,299
Iron, malleable.....	2-3-4-5-6-7-9-12-13	ton	27,931	2,854,883

Table 29.—Alphabetical List of Materials Used in all the Industries Classified under Iron and Steel and Their Products in Canada in 1925—Continued

Material	Industry Number (See list on page 52)	Unit of measure	Quantity	Cost at works
				\$
Iron, wrought	2-3-4-5-7-9-13	ton	160,404	4,574,428
Iron and steel scrap	1A-1B-2-3-4-5-7-9-13	ton	509,958	7,950,517
Iron and steel skelp	1C	ton	78	5,373
Iron and steel, other	2-5-10-11-13			2,104,890
Lamps	0-8	No.	255,538	657,764
Lead	2-3-4-5-6-7-9-10-13			282,788
Leather, artificial	6			404,551
Leather and rubber goods	2-4-5-7-8			749,066
Lime	10	lb.	15,008	1,387
Limestone	1A-1B	ton	383,888	585,021
Lumber	2-3-4-5-6-7-8-9-10-11-12-13			6,677,442
Magnetos	6	No.	3,690	107,489
Manufactured supplies	12			431,815
Metals, n.e.s.	2-3-4-5-7-8-10-11-12-13			643,251
Mill cinder, slag, scale, etc.	1A	ton	42,419	91,430
Motors, starting (self-starters)	6	No.	24,356	271,199
Ores, crude iron from Canadian mines	1B	ton	10	65
Ores, crude iron from foreign mines	1A-1B	gross ton	1,074,234	4,509,504
Ores, chrome, etc., foreign	1B	gross ton	246	7,067
Ores, manganiferous, foreign	1B	gross ton	1,323	21,232
Paints, oils and varnishes	2-3-4-5-6-7-8-9-10-11-12			1,684,233
Paper	11			84,270
Parts for automobile bodies and chassis	6			3,187,362
Parts and accessories, auto, finished for assembling	6-7			8,226,494
Parts, transmission and motor, for assembling and service	6			6,152,284
Parts for tractors and engines	4			58,039
Parts for machines	2-3-4-5-12			3,524,027
Parts, separator	4			546,703
Parts for engines and boilers, purchased	3			54,506
Patterns and models	2-3-4-5-13			140,868
Pipe, iron	10	lb.	1,013,319	45,838
Pipe, iron, and fittings	2-3-4-5-7-9-11-13			1,930,074
Pipe, steel	5	ton	6,832	22,404
Plates, boiler	3	ton	4,646	243,300
Plates, tack	10	lb.	567,644	18,554
Plates,terne	11			87,149
Plates, tin	11			7,440,412
Plates and sheets, steel	2-4-5-6-9-13	lb.	171,586,714	7,211,561
Plumbago	2-3-4-5			24,439
Pyrite cinder	1A	ton	529	1,777
Radiators, auto	6	No.	37,768	542,808
Rails for rerolling	1C	ton	28,747	468,096
Rails, steel	13	ton	649	35,485
Rings, retaining	9			2,268
Rods, steel, acid open hearth	10	lb.	14,661	2,794
Rods, steel, basic open hearth	10	lb.	41,337,901	1,069,516
Rods, steel, Bessemer	10	lb.	29,664,007	1,882,231
Rods, steel, crucible or other	10	lb.	593,358	59,810
Rods, wire, brass	10	lb.	254,003	51,067
Rods, wire, copper	10	lb.	530,685	83,122
Rods, wire, iron	10	lb.	59,948	5,032
Roofing material	11			150,177
Salamoniac	10-11	lb.	216,510	14,935
Sands, moulding and other	2-3-4-5-9-13	ton	109,541	356,555
Soap	10	lb.	65,721	5,531
Solders	11	lb.	833,543	260,849
Speedometer and other instrument board equipment	6			769,325
Spelter	10	lb.	4,278,672	372,632
Springs, auto	6	No.	605,066	1,557,024
Stampings, steel	7	ton	117	31,545
Stampings, other metal	6			424,981
Steel, other	8	ton	500	92,268
Sheets, iron, galvanized	10-11	lb.	58,134,933	3,161,016
Sheets, iron, plain	11	lb.	20,494,084	872,102
Sheets, steel	3-11	lb.	46,021,761	1,210,253
Steel bars and shafting	2-3-4-5-6-9-13	lb.	200,889,351	6,483,246
Steel forging	5			36,579

**Table 29.—Alphabetical List of Materials Used in all the Industries Classified under Iron and Steel and Their Industries in Canada in 1925—Concluded**

Material	Industry Number (See list on page 52)	Unit of measure	Quantity	Cost at works
				\$
Steel ingots, blooms and billets.....	1c-2-3-4-5- 9-13	ton	30,011	1,062,630
Steel not elsewhere specified.....	7-12	lb.	90,198,304	3,671,040
Steel shapes, structural.....	13	ton	8,390	555,083
Steel, tool.....	12	lb.	2,560,974	359,995
Thread and cotton binding and other textiles.....	10			66,235
Tin.....	2-3-4-5-6-7- 9-10-13	lb.	724,760	245,578
Tin, ingots.....	11	lb.	193,051	112,819
Tires.....	9	No.	20,254	712,840
Tires, solid.....	6	No.	3,854	84,218
Tools, jacks, pumps, bracings and other.....	6			425,422
Tops, auto.....	6	No.	19,761	547,673
Tubes, boiler, lap welded.....	3			202,940
Tubes, boiler, seamless.....	3	ton	108	15,524
Tubes, pneumatic tire.....	6-8	No.	522,592	650,056
Tubes and piping.....	6	lb.	7,949,422	864,929
Tubing.....	8	ft.	106,745	39,529
Tubing, aluminium.....	5	lb.	2,500	1,500
Tubing, brass.....	5	lb.	30,000	12,000
Tubing, steel.....	13	ft.	90,000	90,000
Velours, and other cloths.....	6			671,266
Wheels.....	6-8	No.	684,727	2,382,456
Wheels, metal.....	4	No.	19,223	57,763
Wheels, wooden.....	4	No.	410	1,084
Wire, asbestos covered.....	2	ft.	491,575	11,796
Wire, barbed.....	10	lb.	1,720,570	92,403
Wire, copper.....	12	lb.	26,680	5,037
Wire, chromiul.....	2	lb.	10,628	32,102
Wire, iron and steel.....	12	lb.	14,378,678	399,148
Wire, plain and coated.....	10	lb.	39,178,718	1,730,690
Wire and wire rods.....	11	lb.	2,533,164	139,674
Wire and steel rods.....	1c-2-3-4-5-6- 9-10-13	ton	20,297	1,307,823
Wire cloth, screen.....				36,029
Zinc.....	2-3-4-5-7-9- 11-13	lb.		1,209,518
Containers.....	2-3-4-5-9- 10-11-12-13			1,414,898
All other materials.....	All industries			32,380,414
<b>Total.....</b>				<b>206,337,132</b>

Table 30.—Alphabetical List of Products Made in All the Industries Classified under Iron and Steel and Their Products in Canada, 1925

Product	Industry number (See list on page 62)	Unit of measure	Quantity	Selling value
Agricultural implements and machinery, n.e.s.	4-6-7			\$ 482,866
Agricultural implements, parts and accessories.	4-6			2,099,220
Anvils and vises.	6-14	No.	4,887	18,810
Augers, post hole.	6	No.	1,437	2,315
Automobiles—				
Passenger—				
Open, 2 to 3 passenger.	8	No.	4,172	2,431,271
Open, 4 to 5 passenger.	8	No.	68,486	36,008,633
Open, 7 passenger.	8	No.	1,675	1,905,554
Closed, 2 to 3 passenger.	8	No.	11,411	6,499,955
Closed, 4 to 5 passenger.	8	No.	37,570	33,277,974
Closed, 7 passenger.	8	No.	1,050	1,860,388
Trucks—				
Under 1 ton capacity.	8	No.	3,296	1,455,349
1 ton to under 5 tons.	8	No.	18,842	9,801,556
5 tons and over.	8	No.	6	24,000
Chassis.	8	No.	15,368	4,910,896
Special automobiles.	8	No.	85	217,683
Automobile parts and accessories, n.e.s.	4-6-9-14			1,137,757
Axles.	14	No.	396,406	543,527
Axles, auto and other.	9-14			783,098
Babbitt.	4	lb.	29,326	5,935
Buggers.	6			465
Bakery machinery, n.e.s.	4-7			220,765
Bale ties, wire.	12	lb.	959,069	50,035
Band iron.	15	ton	84	4,445
Band sawing machines.	7		34	48,962
Barn and stable equipment.	6-15			284,358
Barrels and tanks, sheet steel.	4-7-13	No.		780,508
Bars, iron or steel, rolled—				
Total quantity made.	3	long ton	76,167	
Quantity sold.	3	long ton	72,550	4,148,852
Bars, muck and scrap—				
Total quantity made.	3	long ton	18,050	
Quantity sold.	3	long ton	587	19,960
Bars, sheet and tinplate—				
Total quantity made.	3	long ton	20,117	
Quantity sold.	3	long ton	1	40
Bars, n.e.s.	4	lb.	16,028,238	394,048
Bars, re-inforced concrete—				
Total quantity made.	3	long ton	96,387	
Quantity sold.	3	long ton	78,949	4,039,594
Baths, sinks, laundry tubs, etc.	13			2,742,373
Bearings, auto.	9			24,208
Beds, brass and brass trimmed.	15	No.	2,800	40,963
Beds, iron.	15	No.	89,899	869,643
Bicycles, children's.	10	No.	2,167	45,864
Bicycles, men's.	10	No.	23,794	584,740
Bicycles, women's.	10	No.	1,521	38,634
Bicycle parts.	10			193,795
Binder metal.	14			12,000
Bins and hoppers.	5			14,678
Bits and holders.	14			2,000
Blooms, billets and slabs, steel—				
Quantity made.	3	long ton	856,388	
Quantity sold.	3	long ton	44,841	1,492,212
Boat fittings.	5			10,000
Bodies, auto and truck.	4-9			596,171
Bodies, steel dump.	7			18,804
Body and chassis parts.	9			228,742
Boilers and cookers, feed.	4-6	No.	655	13,776
Boilers, heating—				
Cast iron sectional, hot water.	4	No.	7,080	1,102,960
Steam.	4	No.	614	212,614
Steel, firebox, locomotive type.	4-5	No.	118	129,138
Horizontal return tubular.	4-5	No.	34	40,289
Steel water tube.	4-5	No.	75	95,306
Boilers, power—				
Water tube—horizontal type.	4-5	No.	49	447,057
Water tube—vertical type.	4-5	No.	98	118,765
Horizontal return tubular power.	4-5	No.	163	219,960
Marine type—internally fired.	4-5	No.	10	38,090
Marine type—water tube.	5	No.	2	8,800
Marine type—vertical.	5-6	No.	10	7,462
Steel firebox—locomotive type.	4-5	No.	58	64,460
Steel firebox—vertical fire tube.	5	No.	103	36,102
Boilers, n.e.s.	7			52,871
Boiler and engine parts and accessories.	4-5			351,591
Boilers, range.	4-5-13	No.	41,008	366,829
Bolsters.	11	No.	1,252	74,716
Bolts, nuts, rivets and washers.	3-4-7-12-14-15	100 lb. keg	555,106	3,779,403
Boring machinery.	7			4,046
Bottle caps.	13			293,633



Table 30.—Alphabetical List of Products Made in All the Industries Classified Under Iron and Steel and Their Products in Canada, 1925—Continued

Product	Industry number (See list on page 62)	Unit of measure	Quantity	Selling value
				\$
Bottle wrappers	7			90,032
Bottler's machinery	7			8,820
Box making machinery	7			5,502
Boxes, cash		No.	730	8,030
Boxes, fare	7-13	No.	371	20,776
Bowls, water	6	No.	8,270	41,443
Brads and tacks of wire—				
Total quantity made	12	lb.	944,499	
Quantity sold	12	lb.	904,110	121,277
Brakebeams and parts	11	No.	29,932	258,062
Brakes and brakeshoes	4-7-11	lb.	22,876,033	649,510
Brass and copper products, n.e.s.	12			107,893
Brooms	12	doz.	1,250	10,005
Brooders	6	No.	500	3,654
Bumpers, auto	4-9			311,171
Building materials, sheet metal, n.e.s.	13			5,568,617
Buildings of steel	13-15			318,072
Buoys	4-7			23,808
Butter workers	6	No.	263	1,000
Cages, bank	12			34,293
Cages, bird	13			29,061
Calks, toe and drive	4-12	lb.	34,519,498	380,592
Candy making machinery	7			1,891
Cans, tin	7-13			12,290,782
Cans, n.e.s.	13			15,058
Car movers	5-14	No.	2,124	21,822
Carriers, litter	6	No.	1,405	101,357
Carriers and forks, hay	6	No.	8,191	192,452
Carriers, lumber	15			27,000
Carriers, sheaf	6	No.	307	3,920
Carriers, tire and luggage, auto	9			39,631
Cars, freight repairs on	11			9,278,372
Cars, mining and dump	4-11	No.	253	36,875
Cars, passenger, repairs on	11			7,985,606
Cars, railway, new	11	No.	1,435	3,415,475
Cars, n.e.s., new	4			18,090
Cases	13			225,878
Casing, well	13			5,550
Casting—				
Aluminium	4	lb.	156,589	41,113
Brass and bronze	4-5-7-11-14-15	lb.	2,431,351	509,629
Copper	4	lb.	84,383	25,990
Iron, grey	4-7	lb.	110,624,056	5,855,617
Iron, malleable	4	lb.	33,214,219	2,695,514
Iron, n.e.s.	5-6-9-11-14-15	lb.	52,350,317	2,220,479
Steel	4-5-7-15	lb.	3,861,211	274,550
Steel, direct—				
O.H.—Total quantity made	2	long ton	9,059	
Quantity sold	2	long ton	5,712	1,134,826
Electric—Total quantity made	2	long ton	7,435	
Quantity sold	2	long ton	7,849	1,638,285
Bessemer—Total quantity made	2	long ton	1,732	
Quantity sold	2	long ton	1,732	382,815
Castings, n.e.s.	4-6-11-13			264,065
Castors	4-14	Sets of 4	797,401	94,005
Chains, auto	4-7	No.	962,561	641,691
Chains, n.e.s.	4-12-14	lb.	7,335,280	798,811
Chain, irons	6-7	No.	6,500	13,100
Chaplets, foundry	6			9,603
Choppers and pulpers	6	No.	30,781	44,802
Churns	6	No.	2,645	66,182
Cleaning and pressing machinery	7			151,186
Cloth, wire	15			5,031
Clips, for paper	12	lb.	72,016	13,356
Coal handling plants, conveyors, chutes, etc.	4-7-15			278,941
Cobbler sets	6	No.	3,171	4,439
Concrete mixers	6-7			118,041
Concrete and cement machinery, n.e.s.	4-7			140,924
Conveyors	7			130,505
Corrugated iron and products made therefrom	13			1,684,604
Covers, auto	9			211,870
Crashers, mining	7			14,862
Culverts	7-13			467,338
Cultivators, corn	6	No.	5,203	283,969
Cultivators, wheel, grain	6	No.	2,742	198,470
Cultivator, n.e.s.	6	No.	1,942	346,279
Cutlery, table steel	14			11,242
Cutlery, n.e.s.	14			6,476
Dairy and cheese factory equipment	4-6-7			288,382
Desks, school	4-14	No.	9,029	60,185

**Table 30.—Alphabetical List of Products Made in All the Industries Classified Under Iron and Steel and Their Products in Canada, 1925—Continued**

Product	Industry number (See list page 62)	Unit of measure	Quantity	Selling value
				\$
Dies, taps and stocks.....	4-7-14-15			417,860
Differentials, transmissions, auto.....	4			437,589
Dippers and grab buckets.....	7	No.	29	31,017
Doors, metal covered.....	4-15	lb.	2,433,593	106,916
Drills, grain, disc.....	6	No.	3,484	495,410
Drills, grain, hoe.....	6	No.	258	46,995
Drills, metal working.....	7	No.	10	6,691
Drills, n.e.s.....	14			343,721
Electric apparatus and fixtures.....	7-15			17,200
Elevators, grain.....	7			227,593
Elevators, passenger and freight (installed).....	4-7			1,446,755
Elevator parts and equipment.....	4-5-7-15			232,042
Engines—				
Steam, single cylinder, horizontal.....	5	No.	39	89,783
Steam, single cylinder, vertical.....	5	No.	7	8,279
Steam, n.e.s.....	5-6	No.	30	82,018
Gas and oil.....	6	No.	309	49,695
Gasoline—				
Marine.....	5	No.	656	246,579
Stationary.....	5	No.	10	1,640
Gasoline, n.e.s.....	5-6	No.	1,680	174,502
Engines, n.e.s.....	4-5-7			210,997
Ensilage cutters.....	6	No.	375	67,496
Evaporators, syrup.....	6-13	No.	236	60,145
Excavators.....	5			6,350
Fence, iron.....	12-15			140,098
Fence rods and hooks.....	12			4,927
Fencing and netting, woven—				
Total quantity made.....	12	lb.	60,084,333	
Quantity sold.....	12	lb.	58,588,019	2,882,843
Files and rasps.....	14	No.	299,675	418,136
Fire escapes.....	12-14-15			92,868
Firefighting equipment including extinguishers.....	7			461,503
Fireplaces and appliances.....	4-15			91,248
Fittings, brass.....	4			12,966
Fixtures, bathroom.....	14			26,001
Flour and grist mill machinery.....	4-7			375,253
Fog signalling machinery and lighthouse apparatus.....	7			72,000
Forges and blowers.....	7	No.	167	38,705
Forgings.....	4-6-9-14	lb.	31,527,200	2,802,007
Forks.....	14	No.	687,326	563,503
Furnaces, hot air.....	4-6-14	No.	29,056	2,301,037
Furnace parts.....	4			37,884
Galvanized and enamelled ware.....	4-13			700,838
Gates, iron—				
Total quantity made.....	12	No.	162,155	
Quantity sold.....	12	No.	160,311	164,430
Gates, wire, and iron fence.....	15			182,619
Grate bars.....	4-15	lb.	871,322	50,081
Grinders, grain.....	6-7	No.	1,734	132,016
Grinders, knife.....	7	No.	2	792
Grinding media.....	4	ton	1,700	85,000
Grinders, metal working.....	7	No.	30	31,051
Gun sights.....	15			558
Hardware, builders'.....	4-14			2,450,237
Hardware, carriage.....	14			347,963
Hardware, pole line.....	3			29,942
Hardware, n.e.s.....	7-14-15			877,140
Harrow, disc.....	6	No.	6,961	387,585
Harrow, spike tooth.....	6	No.	7,330	38,658
Harrow, spring tooth.....	6	No.	2,295	45,633
Harrow, section.....	6	No.	75,896	90,112
Harvesters, corn.....	6	No.	115	16,665
Harvesters, grain.....	6	No.	14,670	2,323,130
Headers and binders.....	6	No.	90	27,734
Heaters of all kinds, for water.....	4-5-6-13	No.	16,000	238,018
Heating and ventilating equipment.....	4-5-7			1,566,514
Hoes, hand.....	14	No.	177,096	123,109
Hoes, horse.....	6	No.	233	2,291
Hoisting machinery.....	4-5-7			427,148
Hoists.....	7	No.	45	102,076
Hollowware, enamelled, iron or steel.....	13			481,059
Hollowware, not enamelled, iron or steel.....	13			82,137
Hooks, eyes, etc.....	13-15			495,417
Hoops, wire, steel and splice.....	12			80,177
Hotel equipment.....	4			7,734
Household machinery, n.e.s.....	7			26,242
Hydrants.....	4	No.	1,262	94,917

Table 30.—Alphabetical List of Products Made in All the Industries Classified Under Iron and Steel and Their Products in Canada, 1925—Continued

Product	Industry number (See list page 62)	Unit of measure	Quantity	Selling value
				\$
Ice machines	7			2,735
Implement and tools, hand, n.e.s.	14			44,464
Ingot, steel, basic and Bessemer—				
Total quantity made	2	long ton	734,277	
Quantity sold		long ton	681	17,850
Iron, pig—				
Basic—Total quantity made	1	long ton	409,590	
Quantity sold	1	long ton	6,088	128,747
Foundry—Total quantity made	1	long ton	101,968	
Quantity sold	1	long ton	151,064	3,299,798
Malleable—Total quantity made	1	long ton	59,208	
Quantity sold	1	long ton	44,050	965,396
Ironwork, ornamental and architectural	4-7-15			796,038
Jacks, hand	4-6-7			68,250
Knives, machine	14	No.	85,274	188,167
Knives, pocket	14	No.	41,581	11,005
Ladders	6	No.	16,529	49,601
Lamps and lanterns	9-13-15	No.	444,628	545,041
Lath, metal	13			229,057
Lathes, metal working	7			202,926
Laundry machinery	7			666,927
Loaders, bay	6	No.	1,443	119,501
Locomotives, gasoline	9-15	No.	5	10,475
Locomotives, railway, new	11	No.	8	342,000
Locomotives, equipment for	4			25,826
Locomotives, repairs on	11			12,104,105
Lubricators	9-13			184,119
Machinery, n.e.s.	4-7			402,085
Machinery parts, including transmission, etc.	5-7-15			542,839
Matchers, woodworking	7	No.	42	227,230
Metal working machinery, n.e.s.	4-7			392,739
Meters, water	4	No.	3,525	55,006
Mining and metallurgical machinery, n.e.s.	4-7			198,406
Milling machines, (metal)	6-7			447,905
Mixing machines, bakery	4-7			165,423
Motor parts, auto	9			26,568
Moulders, woodworking	7	No.	40	73,009
Mowers, lawn	4-6-14	No.	34,075	255,241
Mowers	6	No.	26,202	1,377,177
Nails, horseshoe—				
Total quantity made	12	lb.	2,669,034	
Quantity sold	12	lb.	2,506,501	335,444
Nails and spikes, wire—				
Total quantity made	12	lb.	76,701,647	
Quantity sold	12	lb.	76,508,479	3,556,189
Nails and tacks, cut	3-14	lb.	2,365,054	233,630
Nails, wire	4-14	lb.	2,600,000	93,465
Needles, knitting machine	7-14			480,902
Office and business machinery, n.e.s.	7			7,673
Oil burning equipment	4-7			282,606
Ovens, bakers	4-7			132,277
Ovens, small dental	4	No.	12	423
Patterns and models	4-7-11			332,474
Peeves, canthooks, etc.	14			169,039
Pins	14			142,885
Pipe, conduit	13			622,746
Pipe, culvert	4			50,512
Pipe cutting and threading machines	7	No.	6	9,103
Pipe fittings, iron	4-7-15			2,668,766
Pipe, iron	4-11	lb.	266,753,762	8,974,683
Pipe, penstocks and riveted steel	5			40,715
Pipe, stove	13			31,580
Pipe, suction dredge	7			10,515
Piston rings	4-11	lb.	548,345	60,349
Planters, corn, horse and power	6	No.	4,214	258,139
Plate, nail and washer—				
Total quantity made	3	long ton	16,196	
Plates, railway fish—				
Total quantity made	3	long ton	9,189	
Quantity sold	3	long ton	9,183	629,184
Plates, railway tie—				
Total quantity made	3	long ton	30,045	
Quantity sold	3	long ton	27,475	1,595,188
Plates and sheets, n.e.s.	15	ton	1,866	139,199
Ploughs, disc	6	No.	5,415	452,193

Table 30.—Alphabetical List of Products Made in All the Industries Classified Under Iron and Steel and Their Products in Canada, 1925—Continued

Product	Industry number (See list page 62)	Unit of measure	Quantity	Selling value
				\$
Ploughs, gang, horse.....	6	No.	12,714	783,588
Ploughs, gang, power.....	6	No.	3,292	380,918
Ploughs, hillside.....	6	No.	870	12,429
Ploughs, riding double.....	6	No.	2,453	192,946
Ploughs, riding single.....	6	No.	1,736	73,287
Ploughs, n.e.s.....	6	No.	22,494	425,276
Plumbers' goods.....	4			535,952
Potato diggers.....	6	No.	314	19,482
Presses, hay.....	6	No.	1,081	73,385
Pulp and paper machinery.....	4-5-7			3,417,964
Pumps, electric vacuum, boiler, feed.....	6	No.	32	19,831
Pumping outfits, electric.....	6			7,066
Pumps, gasoline.....	7	No.	1,965	664,863
Pumps, gasoline, dispensary.....	9	No.	958	153,300
Pumping machinery.....	7			116,090
Pumps, steam.....	4-5-7			147,423
Pumps, other power.....	4-5-7			345,933
Pumps, n.e.s.....	4-5-6-7-14-15			604,626
Radiators, auto.....	4-9	No.	58,177	365,225
Radiators and parts.....	4			1,521,784
Rakes, hand.....	6-14	No.	255,000	144,584
Rakes, hay.....	6	No.	5,348	233,013
Rails, O.H. steel—				
Total quantity made.....	3	long ton	103,478	
Quantity sold.....	3	long ton	206,968	8,886,179
Railway truck equipment.....	4-5-7-15			583,203
Razor blades.....	14	No.	21,455,556	1,265,372
Razors, safety.....	14	No.	1,070,083	378,347
Razors, straight.....	14	No.	84,212	28,342
Reapers.....	6	No.	1,913	165,339
Registers and grills, hot air.....	4			234,508
Rims, auto.....	9	No.	966,067	858,405
Road drags, scarifiers and scrapers.....	6-7	No.	6,055	260,252
Road making machinery.....	4-6-7-13			334,715
Rods, iron and steel, wire, spike, bolt and nut—				
Total quantity made.....	3-12	lb.	304,011,610	
Quantity sold.....	3-12	lb.	58,834,650	1,002,074
Rods, n.e.s.....	14			4,732
Rolls, flour and grist mill.....	7			6,244
Rollers, hand, horse and power.....	6	No.	897	29,133
Roofing, metal, gravel and asphalt.....	13			306,442
Rope and cable, wire—				
Total quantity made.....	12	lb.	7,158,714	
Quantity sold.....	12	lb.	4,342,986	1,229,230
Rubber mill machinery.....	4-7			331,196
Safes, vaults and fittings.....	5-15			785,417
Sanders, wood.....	7	No.	44	49,428
Sash, metal.....	15			425,188
Saw and planing mill machinery.....	4-7			301,797
Saw mills.....	5-6			7,220
Saws, including hand, circular, crosscut, drag, hand, etc.....	6-7-14			1,447,460
Saw tables.....	6	No.	413	18,436
Saws and parts, n.e.s.....	14			251,322
Scales, household.....	6			684
Scales, truck.....	6	No.	3,223	101,202
Scales, n.e.s.....	7	No.	16,850	1,321,562
Scrap.....	3-4-11-13	lb.	108,878,324	688,048
Screens, iron or steel.....	7-12-13			75,323
Screws, machine.....	14			531,821
Screw machine products.....	14			445,692
Screws, other.....	4-12			514,308
Scufflers.....	6	No.	9,252	82,654
Seed cleaning machinery.....	4			2,900
Seeders, hand.....	6	No.	966	8,192
Seeders, horse and power.....	6	No.	558	11,252
Separators, cream.....	6	No.	11,897	816,468
Separators, grain.....	5	No.	12	15,855
Separators, potato.....	6	No.	35	1,225
Shapers (metal working).....	7	No.	17	33,434
Shapers (wood working).....	7	No.	60	28,120
Shellers corn (hand).....	6	No.	502	161
Sheet ironware.....	13			42,000
Sheet metal products, n.e.s. (including cabinets, lockers, etc.).....	4-12-15			435,379
Sheets, galvanized.....	13			1,644,840
Sheets, No. 14 and thinner—				
Total quantity made.....	3	long ton	17,679	
Quantity sold.....	3	long ton	16,531	1,320,385
Shipping containers.....	14			13,760
Ships machinery and fittings.....	4-7			156,192
Shock absorbers, auto.....	9			18,650
Shoes, horse and mule.....	3-15			534,702
Silos.....	6	No.	29	10,186
Skates.....	10-14	pr.	223,527	339,087



Table 30.—Alphabetical List of Products Made in All the Industries Classified Under Iron and Steel and Their Products in Canada, 1925—Continued

Product	Industry number (See list page 62)	Unit of measure	Quantity	Selling value
				\$
Sleighs.....	6	No.	1,212	55,320
Slings, hay.....	6			2,175
Smoke breeching.....	5	No.	54	13,962
Smokestacks.....	4-5	No.	152	39,570
Snow ploughs.....	6	No.	22	9,502
Spades and shovels.....	6-14			609,856
Spikes, including railway.....	3	kegs	170,597	642,875
Sprayers, barrel or tank.....	6	No.	481	34,633
Sprayers, hand.....	6	No.	7,877	23,809
Spreader boxes.....	6	No.	25	2,150
Spreaders, manure.....	6	No.	1,307	200,882
Spouts and buckets, sap.....	13			21,333
Springs, bed.....	15	No.	36,014	126,101
Springs and axles, auto.....	4-6-9			1,652,957
Springs.....	4			130,908
Springs, steel.....	12			402,165
Stairs, iron and steel.....	15			420,475
Stampings, auto.....	9-13			885,197
Stampings, metal.....	4-13-14-15			806,224
Staples, wire—				
Total quantity made.....	12	lb.	6,455,230	
Quantity sold.....	12	lb.	5,689,016	206,372
Steel, box (sheet).....	4	lb.	235,394	29,506
Steel, cold drawn, and cold rolled.....	4	lb.	19,682,366	938,498
Steel work, general.....	5			86,508
Stone boats, steel.....	6	No.	50	500
Stone working machinery.....	7			162,000
Stoves, coal and wood.....	4-6	No.	127,906	3,697,434
Stoves, electric.....	4-13	No.	24,305	1,492,970
Stoves, gas.....	4	No.	36,001	1,088,848
Stoves, oil.....	4	No.	8,246	133,243
Stoves and parts, n.e.s.....	4			497,007
Stoves and furnaces, n.e.s.....	7			9,900
Structural and fabricated shapes, n.e.s.....	3-5-15	long ton	52,812	3,328,263
Surficers (woodworking).....	7	No.	30	26,305
Tacks.....	3-12	lb.	1,083,912	152,614
Tanks, pressure.....	4-5-15	No.	843	95,058
Tanks, storage.....	4-5-15			542,100
Tanks, n.e.s. including gas and oil storage equipment, water tanks and towers, chemical toilets, septic tanks, etc.....	6-13-15			1,581,147
Tanning machinery.....	7	No.	3	1,060
Tedders, hay.....	6	No.	101	4,081
Tenoners and mortisers (woodworking).....	7	No.	42	10,114
Textile machinery.....	4-7			148,026
Threshers, power.....	6	No.	3,308	2,129,735
Time recorders.....	7	No.	334	144,466
Timware.....	4-13			2,234,532
Tires, railway.....	11	ton	2,613	251,741
Tools, diamond pointed.....	14	No.	542	6,719
Tools, hand, n.e.s.....	6			4,030
Tools, logging.....	14			12,221
Tools, machine.....	14			72,653
Tools, metal cutting, high speed.....	7			56,000
Tools and parts, n.e.s.....	4-9-13-14			771,938
Tops, auto.....	9	No.	18,968	480,172
Tractors, gasoline.....	6	No.	60	82,650
Tractors, n.e.s.....	6-9	No.	8	16,035
Trailers, auto.....	9	No.	102	58,311
Transmission machinery.....	4-7			776,064
Traps, steam.....	4-15			545,177
Tricycles, children's.....	10	No.	20,030	120,180
Troughs.....	6-13			33,798
Trucks, lift, factory and pole.....	4-6-14-15			53,937
Trucks, n.e.s.....	4-6-7	No.	20,333	80,708
Tubing, steel.....	4-9	lb.	28,040,305	1,873,606
Tubing, n.e.s.....	13			37,335
Valves, brass.....	4-7-14	No.	88,578	153,287
Valves, iron.....	4-7	No.	2,051	133,611
Vehicles, children's.....	4-5-6-7-9-10			304,239
Wagon, carriage and sleigh parts.....	6-9			463,668
Wagons, complete.....	6	No.	1,626	98,500
Washing machines, hand.....	6	No.	9,209	186,937
Washing machines, power.....	6	No.	13,891	1,559,377
Washing machines, n.e.s.....	7-12-15	No.	24,960	1,309,626
Water coolers.....	7	No.	735	12,300
Water wheels and turbines.....	4-5-7			1,090,450
Weeders and cultivators.....	6	No.	376	2,346
Well drilling machinery.....	7			4,000
Wheelbarrows and parts.....	4-6-7	No.	25,366	130,804

**Table 30.—Alphabetical List of Products Made in All the Industries Classified under Iron and Steel and Their Products in Canada, 1925—Concluded**

Product	Industry number (See list page 62)	Unit of measure	Quantity	Selling value
				\$
Wheels, auto.....	9	No.	1,146,694	3,265,662
Wheels, disc for children's vehicles.....	13			25,412
Wheels, railway car.....	4-11			3,547,542
Windmills.....	6	No.	1,192	68,282
Wire, bare, copper—				
Total quantity made.....	12	lb.	592,023	
Quantity sold.....	12	lb.	434,882	84,482
Wire, barbed—				
Total quantity made.....	12	lb.	13,519,998	
Quantity sold.....	12	lb.	10,500,522	400,323
Wire, brass—				
Total quantity made.....	12	lb.	355,461	
Quantity sold.....	12	lb.	80,601	23,407
Wire cloth.....	12			434,552
Wire cloth, copper—				
Quantity sold.....	12			2,800
Wire, flat, cold rolled—				
Total quantity made.....	12	lb.	855,216	
Quantity sold.....	12	lb.	201,635	14,872
Wire, plain—				
Total quantity made.....	4-12	lb.	86,318,126	
Quantity sold.....	4-12-14	lb.	64,641,377	2,180,560
Wire, iron and steel—				
Galvanized—				
Total quantity made.....	12	lb.	47,605,324	
Quantity sold.....	12	lb.	26,338,757	965,914
Other coated—				
Total quantity made.....	12	lb.	23,027,603	
Quantity sold.....	12	lb.	21,681,918	881,693
Wire shapes.....	12			533,347
Woodworking machinery, n.e.s.....	4-7			502,549
Wrenches and spanners.....	14			75,877
Wringers, clothes.....	6-7	No.	42,224	197,123
Products, n.e.s., all industries.....	3-4-5-6-7-8-9-11-12-13-14-15			32,589,694
Amount received for custom work and repairs, all industries.....	4-5-6-7-8-9-10-11-12-13-14-15			14,632,159
*Products listed by 1 or 2 firms—all industries.....				13,586,501
<b>Total.....</b>				<b>411,378,640</b>

\*Includes adding machines, addressing machines, anchors, aeroplanes, air towers, and irons, bearings, rollers and cones, boot and shoe machinery, brewery machinery, highway and railway bridges, automatic fuel oil burners, canning machinery, slip label cases, centrifugal machines, check books, cedar chests, chairs, cider mills, swing clocks, pipe columns, air compressors, cooling coils, condensers, cotter pins, cutter heads and cutters, root cutters, cutting and creasing rules, dock dollies, dishwashers, dredging machinery, rock drills, clips and drives, excavating, fruit evaporating machinery, farming mills, automatic filling machinery, fishing tackle, flyswatters, fox ranch equipment, fuel equipment, fuel saving jackets, industrial furnaces, steel hospital furniture, furriers machinery, gauges, reverse gears, gear cutting machinery, potato graders, pneumatic hammers and drills, hammers, electric steam heaters, ferro-silicon, hand knitting machines, dry kiln equipment, leather working machinery, sheaf loaders, mill linings, logging blocks and jacks, wire mats, metering equipment for power plants, photograph motors, tar mixers, etched name plates, hand packets, rolls for paper machinery, planes, potato planters, steel posts, bronze powder, propellers, log and stump pullers, railway supplies, cash registers, mechanical stokers, temperature indicators for automobiles, ash sifters, auto saubbers, sprinkler heads, scythe and sickles, scythe snaths, sewing machines, shipbuilding, steel and fibre shoeshanks, small bore rifles, curtain rods, shade rollers, road rollers, mining tipples, tire patch kits, pneumatic tools, transports, game traps, windshields, mop wringers and various other products of a similar nature.

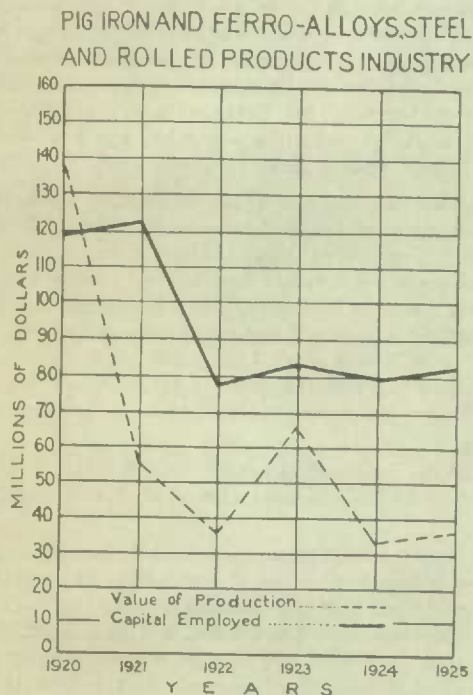
#### KEY TO THE NUMBERED INDUSTRIES

1. Pig iron.
2. Steel ingots and castings.
3. Rolled iron and steel products.
4. Castings and forgings.
5. Boilers, tanks and engines.
6. Agricultural implements.
7. Machinery.
8. Automobiles.
9. Automobile accessories.
10. Bicycles.
11. Railway rolling stock.
12. Wire and wire goods.
13. Sheet metal products.
14. Hardware and tools.
15. Iron and steel products, n.e.s.

## CHAPTER TWO

## PIG IRON AND FERRO-ALLOYS, STEEL INGOTS AND CASTINGS, AND ROLLED IRON AND STEEL PRODUCTS

**General.**—This industrial group includes all plants in Canada engaged in (a) the production of pig iron and ferro-alloys; (b) the production of steel ingots and castings; (c) the hot and cold rolling of steel into blooms, billets, rails, bars, rods, etc.



Prior to 1924, data on the steel and rolled products industry have been published separately from that of the pig iron group but since the makers of pig iron in Canada are also the principal producers of steel and rolled products, the steel plant and rolling mill activities are so closely affiliated with blast furnace operations that it is impossible to apportion some of the data between the different departments; the larger part of the output of pig iron is transferred to the companies' own plants for conversion into steel and rolled products, and if the production of each department were taken separately there would be considerable duplication of values. For this reason the three industries have been grouped for general purposes, but sufficient data are published to give a perspective of each industry separately if so desired. In each case production figures show the total tonnage produced, the tonnage transferred to the companies' own plants, and the tonnage sold with the total income from all sales. The sum of the sales values has been taken as the total value of production for the industry as a whole; in previous years the total value of output was taken as the value

of sales plus the value assigned to interplant transfers. Similarly the cost of materials is taken as the sum of all purchased materials instead of the sum of the cost of purchased materials and the value of interplant transfers as in previous years.

Production of pig iron, steel ingots, direct steel castings and rolled iron and steel products in Canada in 1925 was valued at \$35,337,685, marking an increase of 2 million dollars over the output value of \$33,553,443 in the previous year. This industry represented a capital investment in Canada of \$82,593,940, afforded employment to an average over the year of 5,101 people to whom there were paid \$7,291,172 in salaries and wages, and by manufacturing processes added \$18,903,774 to the value of purchased materials which cost \$16,433,911. Analysis of the output values by provinces showed the distribution to be as follows: Ontario, \$22,348,471; Nova Scotia, \$6,967,662; Quebec, \$4,597,849; Manitoba and British Columbia, \$1,423,703.

Production of pig iron in Canada in 1925 totalled 570,766 long tons, as compared with 593,049 long tons in 1924, and the blast furnaces in operation afforded employment to an average of 656 persons during the year as compared with 610 in the previous year.

In 1925 pig iron was produced in Canada by the Algoma Steel Corporation at Sault Ste. Marie, Ont.; the Steel Company of Canada at Hamilton, Ont.; and the Dominion Iron and Steel Company at Sydney, N.S. These 3 firms also operated basic open-hearth furnaces for the conversion of the iron into steel, and rolling mills for the hot rolling of steel ingots into blooms,



billets, bars, rails, etc. The Dominion Iron and Steel Company has a battery of 8 furnaces with a total daily capacity of 2,475 tons; the Steel Company of Canada has 2 stacks with a capacity of 725 tons per day, and the Algoma Steel Company has 4 furnaces with a daily capacity of 1,500 tons. The Canadian Furnace Company, Limited, at Port Colborne, Ontario, also have 1 furnace of modern construction with a capacity of 325 tons per day but it has not been in operation since 1923. These furnaces if operated at full capacity are capable of an annual production approximating 1.8 million tons; the output of 570,766 tons in 1925 then, would indicate that on the average the blast furnaces in Canada in that year operated at 32 per cent of capacity. During October, when the year's record monthly output of 74,013 tons was made, there were 7 furnaces in blast having in the aggregate a capacity of 2,675 tons or 53 per cent of the total capacity of all such furnaces in Canada. The low point for the year was reported in July as the Nova Scotia furnaces were banked in June and were not blown in again until August. During January, 21 per cent of Canada's furnace capacity was in blast, 41 per cent from February to May, 15 per cent in June and July, 25 per cent in August, 42 per cent in September, 53 per cent in October, and 36 per cent in November and December. Statistics of the capacity of furnaces in blast are not available for the previous year, 1924, but in that year there were 5 furnaces in blast in January, 7 in February, March and April, 6 in May, 4 in June and July, 2 in August, 3 in September and October, 2 in November and 3 in December.

Steel ingots and castings were made at 18 plants in Canada in 1925. In addition to the 3 primary plants mentioned above which produced ingots and small tonnages of castings, there were 10 establishments in Canada operating electric furnaces for the production of steel castings chiefly from scrap iron and steel with small tonnages of pig iron and ferro-alloys; 2 other companies made open-hearth steel ingots and castings from pig iron, scrap and ferro-alloys, and 3 other plants produced converter steel ingots from pig iron, scrap and small tonnages of ferro-alloys. Steel plants were distributed as follows: 1 in Nova Scotia; 7 in Quebec; 6 in Ontario; 3 in Manitoba, and 1 in British Columbia. During the year the plant of the National Steel Castings at Belleville, Ontario, was destroyed by fire; the management will rebuild as soon as possible.

Production of steel ingots in 1925 totalled 734,277 long tons as against 634,954 long tons in 1924 while the output of steel castings amounted to 18,226 long tons as compared with 23,422 long tons in the previous year.

Steel making equipment in use in the various plants during the year included the following units: 40 basic open-hearth furnaces, 2 acid open-hearth furnaces, 5 converters, 14 electric furnaces and 4 metal mixers. Open-hearth installations included 3 basic open-hearth units each with a capacity of 14 tons per heat, 1 of 15 tons capacity, 2 of 25 tons, 2 of 35 tons, 22 of 50 tons each, 4 of 75 tons each, 4 of 82.5 tons each, and 2 each with a capacity of 100 tons per melt; and 2 acid open-hearth furnaces each with a capacity of 20 tons. Converters in operation included 2 Tropenas each of 2 tons capacity, 2 Baillets converters capable of holding 2 tons each per melt, and 1 of the same type with a capacity of only 1 ton per heat. Electric furnaces included 8 Heroult furnaces, 4 of 2 tons, 1 of 3 tons, and 3 of 6 tons capacity per heat; 1 Snyder electric furnace holding a charge of 2½ tons; 1 Moire with a capacity of 3 tons, 1 Greaves-Etchell to take 1 ton per melt, 1 electric furnace of 1.5 tons capacity made by the company operating it, and 2 other electric furnaces on which the Bureau has no definite information as to size and type.

Rolled iron and steel products were produced in 13 plants in 1924, located as follows: 2 in Nova Scotia; 4 in Quebec; 6 in Ontario, and 1 in Manitoba. Of the firms making steel ingots and castings 4 also operated rolling mills for the production of blooms, billets, rails, rods, etc. In addition to these, 3 firms rolled crude steel and scrap iron to produce bar iron, muck bars, nail and washer plate, railway spikes, etc.; 2 plants rolled iron muck bar to make bar iron and muck and scrap bar; 1 plant rolled scrap only to make bar iron; 2 establishments rolled semi-finished steel to make bars and rods, and re-inforced concrete bars; and 1 firm re-rolled rails to make re-inforced concrete bars, angles, etc.

The total income from sales of rolled products in 1925 amounted to \$25,341,746 as compared with a corresponding figure of \$25,217,769 in the preceding year.

Ferro-alloys, including ferromanganese and ferrosilicon, were made in 3 different plants in Canada in 1925; the total production for the year was 25,709 tons as against 26,400 tons in 1924 and 28,961 tons in 1923.



Alloy steels such as chrome, chrome vanadium, chrome nickel, vanadium nickel, high manganese and high silicon steels were made in considerable quantities by the Algoma Steel Corporation at Sault Ste. Marie, Ontario. This plant is equipped to produce any combination of alloy steels that can be manufactured in an open-hearth furnace and its equipment for this work is on a parity with the best plants in the United States and Europe.

A review of the price trend during 1925 shows that iron and its products fluctuated within narrower limits, but at considerably lower levels, than in 1924. Based on 1913 prices as 100, the Bureau index was 158.4 in January and 147.3 in December, a decline of about 11 points over the twelve-month period. February at 158.8 marked the high point for the year and November at 147.1 the low point. In 1924, the prices ranged from 168.5 in January to 154.8 in November.

In the *Iron Age* review of the world market, as represented by the 6 leading producing nations, it is shown that the steel industry made a new production record of 75.3 million tons in 1925, but pig iron at 66.1 million tons was still short of 1913 levels. United States again led by producing 60 per cent of the world's steel and 55.5 per cent of the pig iron; Germany, France, Great Britain, Belgium and Luxembourg followed in the order named. Exports from all 6 countries were about 2 million tons lower than in 1924, France and Germany being the only 2 countries to show increases. Great Britain led the exporting nations with France a close second; Germany doubled her previous year's exports to rank third; Belgium (including Luxembourg) came next and the United States although the greatest producer ranked last among the exporters.

**Table 31.—Summary Statistics of the Pig Iron and Ferro-Alloys, Steel and Rolled Products Industry in Canada, 1921-1925**

Year	Number of plants	Capital employed	Number of employees	Salaries and wages	Cost of fuel and electricity	Cost of materials	Selling value of products	Value added by manufacturing
		\$		\$	\$	\$	\$	\$
1921.....	36	121,859,860	5,814	9,970,360	8,414,100	34,799,003	56,201,800	21,402,807
1922.....	25	78,687,321	5,331	7,825,286	8,537,659	22,355,289	35,427,053	13,071,765
1923.....	26	82,880,333	5,235	10,816,201	5,711,046	42,929,121	66,070,771	23,141,650
1924.....	29	79,805,201	5,325	7,201,588	2,214,170	*19,410,742	*33,553,443	*14,142,701
1925.....	32	82,593,940	5,101	7,291,172	4,116,884	*16,433,911	*35,337,685	*18,903,774

\*Figures of materials used for 1924 and 1925 are of purchased materials only, and for the same two years production figures cover sales only. Data for previous years include estimated values for interplant transfers.

**Table 32.—Principal Statistics of the Pig Iron and Ferro-Alloys, Steel and Rolled Products Industry in Canada, by Provinces, 1924 and 1925**

Province	Year	Number of plants	Capital employed	Number of employees	Salaries and wages	Selling value of products
			\$		\$	\$
Nova Scotia.....	1924	4	16,577,765	1,303	937,383	6,949,982
	1925	4	17,184,711	1,190	1,136,133	6,967,662
Quebec.....	1924	9	13,907,174	1,476	1,705,150	5,260,236
	1925	9	12,550,280	1,189	1,442,960	4,597,849
Ontario.....	1924	12	47,819,607	2,246	4,208,126	20,276,153
	1925	14	50,392,949	2,457	4,321,064	22,348,471
*Canada.....	1924	29	79,805,201	5,325	7,201,588	33,553,443
	1925	32	82,593,940	5,101	7,291,172	35,337,685

\*Includes also data for 4 plants in Manitoba and for value of products only, for 1 in British Columbia.

**Capital Employed.**—Capital employed in the primary steel industry in 1925 amounted to \$82,593,940 as compared with \$79,805,201 in 1924. The value of lands, buildings, fixtures, machinery and tools was reported at 68.3 million dollars, an increase of 8.3 million dollars over 1924; materials on hand and stocks in process were valued at 8.9 million dollars as against 11.1

millions in 1924, and the value of cash, trading and operating accounts was placed at 5.3 million dollars or 3.4 million dollars below the figure reported for 1924. Ontario's plants accounted for 51.4 millions of the total investment and showed a gain of 3.6 million dollars over 1924; Nova Scotia accounted for 17.2 million dollars or more than half a million dollars above 1924; Quebec accounted for 12.5 million dollars, a decline of 1.4 millions from 1924, while the investment in Manitoba plants was slightly less than in 1924 at \$1,466,000.

**Table 33.—Capital Employed in the Pig Iron and Ferro-Alloys, Steel and Rolled Products Industry Canada, by Classes and by Provinces, 1924 and 1925**

Province	1924				1925			
	Capital employed as represented by				Capital employed as represented by			
	Lands, buildings, fixtures, machinery and tools	Materials on hand and stocks in process	Cash trading and operating accounts	Total	Lands, buildings, fixtures, machinery and tools	Materials on hand and stocks in process	Cash trading and operating accounts	Total
	\$	\$	\$	\$	\$	\$	\$	\$
Nova Scotia.....	16,503,943	73,822	.....	16,577,765	17,108,808	75,903	.....	17,184,711
Quebec.....	9,072,750	2,037,594	2,796,830	13,907,174	9,352,683	2,167,526	1,030,071	12,550,280
Ontario.....	33,358,325	8,812,541	5,648,741	47,819,607	40,830,956	6,518,364	4,043,629	51,392,949
Manitoba.....	1,064,223	204,045	232,387	1,500,655	1,000,000	191,000	275,000	1,466,000
<b>Canada.....</b>	<b>59,999,241</b>	<b>11,128,002</b>	<b>8,677,958</b>	<b>79,805,201</b>	<b>68,292,447</b>	<b>8,952,793</b>	<b>5,348,700</b>	<b>82,593,940</b>

**Employment.**—In 1925, there were 5,101 persons employed in the primary iron and steel group of whom 656 were employed in the pig iron department, 1,823 in the steel plants and 2,622 in the rolling mills. In 1924, there were 610 persons employed in blast furnace plants, 2,117 in the manufacture of steel and 2,598 in the rolling mills. Nova Scotia gave work to 1,190 people in this industry in 1925, Quebec 1,189, Ontario 2,457, and Manitoba 265 persons. No annual returns were received from the plant in British Columbia which made small quantities of steel ingots and castings.

In the pig iron industry there were 626 wage-earners and 30 salaried employees, as compared with 590 and 20 respectively in 1924. Monthly records show that there were 622 wage-earners employed in January, and 690 in March, after which the number declined steadily to 537 in September. New orders then led to greater blast furnace activity and 691 persons were employed in October, a maximum for the year of 707 in November and 633 in December. Payments in salaries during the year amounted to \$72,534 and wages totalled \$867,189.

In the steel mills 104 salaried employees and an average of 1,719 wage-earners were employed throughout the year compared with 127 and 1,990 in 1924. Payments in salaries and wages totalled \$2,526,793 as against \$2,848,960 in 1924. Monthly activity followed the same trend as in the blast furnace department. The year opened with 1,493 wage-earners employed and by March the number had risen to 1,999. Thereafter the decline was steady to 1,524 in September, after which conditions improved and 1,871 persons were employed in October and 1,832 in December.

Rolling mills employed an average of 268 salaried employees and 2,354 wage-earners throughout 1925. October was the month of greatest activity when 2,698 persons were employed and the minimum was reached in August when only 2,052 names were carried on the wage rolls. Payments in salaries amounted to \$712,366 and wages amounted to \$3,102,290.

**Table 34.—Number of Employees, Salaries and Wages Paid in the Pig Iron and Ferro-Alloys, Steel and Rolled Products Industry in Canada, by Provinces, 1924 and 1925**

	Average number of employees					Salaries and wages		
	Salaried employees		Wage-earners		Total	Salaries	Wages	Total
	Male	Female	Male	Female				
						\$	\$	\$
<b>1924</b>								
Nova Scotia.....	29		1,274		1,303	81,640	855,743	937,383
Quebec.....	79	20	1,374	3	1,476	180,806	1,524,341	1,705,150
Ontario.....	221	22	2,003		2,245	643,257	3,564,869	4,208,126
Manitoba.....	26	2	272		300	80,261	270,668	350,929
<b>Canada</b> .....	<b>355</b>	<b>44</b>	<b>4,923</b>	<b>3</b>	<b>5,325</b>	<b>985,964</b>	<b>6,215,624</b>	<b>7,201,588</b>
<b>1925</b>								
Nova Scotia.....	22		1,168		1,190	61,788	1,074,345	1,136,133
Quebec.....	64	15	1,104	4	1,189	222,771	1,220,189	1,442,960
Ontario.....	240	33	2,181		2,457	707,288	3,613,776	4,321,064
Manitoba.....	26	2	237		265	72,582	318,432	391,015
<b>Canada</b> .....	<b>352</b>	<b>53</b>	<b>4,695</b>	<b>4</b>	<b>5,101</b>	<b>1,064,430</b>	<b>6,226,742</b>	<b>7,291,172</b>

**Table 35.—Average Number of Employees in the Pig Iron and Ferro-Alloys, Steel Ingots and Castings and Rolled Iron and Steel Products Industry in Canada, by Months, 1924 and 1925**

Month	1924				1925			
	Number of wage-earners				Number of wage-earners			
	Pig iron	Steel ingots and castings	Rolled iron and steel products	Total	Pig iron and ferro-alloys	Steel ingots and castings	Rolled iron and steel products	Total
Salaried employees.....	20	127	252	399	30	104	268	402
Wage-earners, by months—								
January.....	768	2,394	2,484	5,646	622	1,493	2,052	4,167
February.....	784	2,506	2,890	6,180	631	1,604	2,187	4,422
March.....	751	2,775	2,086	6,512	690	1,990	2,660	5,349
April.....	755	2,921	2,791	6,467	668	1,901	2,511	5,080
May.....	721	2,675	2,020	6,316	662	1,875	2,663	5,200
June.....	521	2,086	2,216	4,823	566	1,633	2,249	4,448
July.....	507	1,716	2,192	4,415	551	1,577	2,097	4,225
August.....	460	1,511	1,969	3,940	544	1,562	2,052	4,158
September.....	452	1,391	1,864	3,707	537	1,524	2,207	4,268
October.....	456	1,271	1,902	3,629	601	1,871	2,698	5,260
November.....	452	1,316	1,790	3,558	707	1,738	2,323	4,768
December.....	464	1,313	1,824	3,601	633	1,832	2,262	4,727
<b>Average</b> .....	<b>590</b>	<b>1,990</b>	<b>2,346</b>	<b>4,926</b>	<b>626</b>	<b>1,719</b>	<b>2,334</b>	<b>4,699</b>
<b>Total employees</b> .....	<b>610</b>	<b>2,117</b>	<b>2,598</b>	<b>5,325</b>	<b>656</b>	<b>1,823</b>	<b>2,622</b>	<b>5,101</b>

**Table 36.—Hours of Labour (in the Month of Greatest Employment) in the Pig Iron and Ferro-Alloys, Steel and Rolled Products Industry in Canada, by Provinces, 1925**

Province	Number of wage-earners working				Hours worked per man per week when working			
	8 hours or less per day	9 hours	10 hours	Over 10 hours	8 hours or less per day	9 hours	10 hours	Over 10 hours
Nova Scotia.....		1,204	97			54	60	
Quebec.....	187	246	311	512	40	49	54	64
Ontario.....	54	150	863	1,379	52	53	60	74
Manitoba.....		112	20	87		48	55	67

**Table 37.—Power Equipment Employed in the Pig Iron and Ferro-Alloys, Steel and Rolled Products Industry in Canada, 1924 and 1925**

	1924		1925	
	Number of units	Total h.p. according to the manufacturers' rating	Number of units	Total h.p. according to the manufacturers' rating
Steam engines and turbines.....	124	64,992	159	80,664
Gas engines.....	9	18,200	9	18,200
Oil and gasoline engines.....			8	680
<b>Total primary power.....</b>	<b>133</b>	<b>83,192</b>	<b>176</b>	<b>99,544</b>
Electric motors operated by purchased power.....	1,049	59,658	1,067	61,766
<b>Total power equipment employed.....</b>	<b>1,182</b>	<b>139,850</b>	<b>1,243</b>	<b>161,310</b>
Electric motors operated by power generated by the industry.....	390	19,395	536	29,525
<b>Total electric motors.....</b>	<b>1,439</b>	<b>76,053</b>	<b>1,603</b>	<b>91,291</b>
Boilers installed.....	193	47,144	214	54,263

**Fuel.**—The cost of fuel and electricity used in the primary iron and steel group in 1925 totalled \$4,116,884, of which \$825,679 was the value of fuel used in the blast furnace plants, \$1,823,117 in steel plants and \$1,468,088 in rolling mills. In blast furnace plants, electricity and gas were the chief fuels used, the former costing \$231,508 and the latter \$454,899. In the manufacture of steel ingots and castings, bituminous coal cost \$768,975, fuel oil \$275,067, gas \$261,500 and electricity \$180,644; wood, tar, coke, etc., made up the remainder. In rolling mills bituminous coal cost \$799,164, gas \$135,087 and electricity \$458,869, while hard coal, coke, gasoline, fuel oil and wood were used in smaller quantities.

**Table 38.—Fuel and Electricity Used in the Pig Iron and Ferro-Alloys, Steel and Rolled Products Industry in Canada, 1924 and 1925**

Kind	Unit of measure	1924		1925	
		Quantity	Value	Quantity	Value
		No.	\$	No.	\$
Anthracite coal.....	short ton	2,537	19,408	554	7,488
Bituminous coal.....	short ton	622,849	3,588,373	317,877	1,622,583
Lignite coal.....	short ton	5,240	52,180		
Coke.....	short ton	4,828	42,204	15,780	111,641
Fuel oil.....	imp. gal.	2,158,817	208,532	2,788,380	279,526
Gasoline.....	imp. gal.	5,239	1,499	4,948	1,441
Gas.....	M. cu. ft.	24,692,201	754,985	37,699,075	851,486
Wood.....	cord	3,099	12,686	1,403	8,785
Tar.....	imp. gal.	2,431,870	134,478	2,574,981	124,988
Other fuel.....			24,560		237,925
Electric power.....	k.w.h.	44,495,198	722,770	105,983,029	871,021
<b>Total.....</b>			<b>5,561,674</b>		<b>4,116,884</b>

**Materials Used.**—(a) **PIG IRON.**—Iron ore charged to blast furnaces in Canada in 1925 totalled 1,036,038 long tons valued at \$4,222,448 as compared with a total of 1,057,656 long tons worth \$4,774,136 in 1924. In each of these years all of the iron ore consumed in Canada was imported from foreign mines in Newfoundland and United States.

Iron ores are widely distributed in Canada but the deposits are too low grade for use in present commercial practice, and the iron and steel industry in Canada has always been dependent on imported ore. It is possible that, in the future, a means of utilizing Canadian ores may be worked out by subjecting to preliminary treatment or concentration. At present the blast furnaces in Ontario are smelting United States ore and the Nova Scotia furnaces use ore from the Wabana mines, Newfoundland.

Coke charged to iron blast furnaces in 1925 totalled 636,390 short tons worth \$3,811,667. Of this amount 249,972 tons were made from Canadian coal and 386,418 tons from imported coal. All of the coke was made in Canada in coking plants affiliated with the metallurgical works.



Flux used consisted of 327,479 short tons of limestone worth \$461,800.

Furnace charges consisted on the average of about 1.8 long tons of ore, 1.1 short tons of coke and 0.53 short tons of limestone for every long ton of pig iron produced.

The total cost of materials going to the blast furnaces in 1925 amounted to \$9,906,421 as compared with \$10,153,756 in the preceding year.

(b) STEEL INGOTS AND CASTINGS.—Pig iron consumed in the manufacture of steel in 1925 totalled 431,934 long tons of which 429,872 tons were transferred from the companies' own plants and 2,062 tons were purchased. Other metals used included 9,101 tons of ferro-alloys and 404,770 tons of scrap iron and steel.

Purchased materials used in this industry totalled \$5,308,065 in value, of which \$4,519,610 represented the value of purchased metals, \$315,420 the value of 39,775 tons of ores used, and \$473,035 the cost of general materials such as coal, coke, flux, etc.

(c) ROLLED IRON AND STEEL.—The chief material entering the rolling mills was steel in the form of ingots, blooms, billets, etc. During the year, 799,659 long tons of crude and unfinished steel were converted into rolled products. Of this amount 784,828 tons were delivered from the associated steel plants and only 14,831 tons worth \$468,577 were purchased. Rails for re-rolling totalled 28,747 tons; iron muck and scrap bar 17,565 tons, and skelp, wire rods, etc., amounted to 14,085 tons.

Table 39.—Materials Used in the Manufacture of Pig Iron in Canada, 1924 and 1925

Material	1924		1925	
	Quantity	Total cost at furnace	Quantity	Total cost at furnace
	Long ton	\$	Long ton	\$
(a) ORES, ETC., FOR MAKING PIG IRON—				
Crude iron ore—				
From Canadian mines.....	1,057,650	4,774,126	1,036,038	4,222,448
From foreign mines.....	1,172	3,263	529	1,777
Pyrite cinder.....	45,694	121,408	42,419	91,430
Mill cinder, scale, slag, etc.....	29,225	376,680	31,948	390,675
Scrap.....				
Total.....	1,133,737	5,275,487	1,110,934	4,706,330
(b) GENERAL MATERIALS FOR FURNACE CHARGES—				
	Short ton	\$	Short ton	\$
Limestone.....	315,534	446,950	327,479	461,890
Other fluxing material.....	2,220	2,404		
Coke, from Canadian coal.....	219,870	1,248,925	249,972	1,302,848
Coke made in Canada from imported coal.....	438,323	3,179,930	386,418	2,508,819
Total.....		4,878,269		4,273,557
Total materials used.....		10,153,756		8,979,887

Table 40.—Materials Used in the Steel Ingots and Castings Industry in Canada, 1924

Item	Companies' own production	Purchased materials	
		Quantity	Cost at furnace
	Long ton	Long ton	\$
(a) METALS—			
Pig iron.....	368,272	7,553	2,562,684
Spiegeleisen and ferromanganese.....		5,395	464,535
Ferrosilicon.....		2,042	127,934
Other ferro-alloys.....		348	78,883
Scrap iron or steel, including old rails not intended for re-rolling.....	60	91,549	1,544,322
Scrap made and consumed in works reporting.....	150,709	113,669	2,336,834
Total.....	519,041	220,556	7,115,192
(b) ORES—			
Crude iron ore—			
Foreign.....		31,093	237,439
Chromite—			
Canadian.....		5	288
Foreign.....		9	419
Total.....		31,107	238,146
(c) GENERAL MATERIALS—			
Limestone..... short ton.....		98,762	147,683
Fluorspar..... short ton.....		7,180	93,971
Other fluxing material..... short ton.....		5,686	70,362
Coke from Canadian coal..... short ton.....		833	11,038
Coke made in Canada from imported coal..... short ton.....		126	1,377
Imported coke..... short ton.....		891	13,437
Anthracite coal..... short ton.....		686	6,293
Bituminous coal..... short ton.....		266	2,313
Charcoal..... bushel.....		36,880	12,270
Other materials.....			110,463
Total.....			469,207
Total value of metals, ores and general materials used.....			7,822,545

Table 41.—Materials Used in the Steel Ingots and Castings Industry in Canada, 1925

Item	Companies' own production	Purchased materials	
		Quantity	Cost at furnace
	Long ton	Long ton	\$
(a) METALS—			
Pig iron.....	429,872	2,062	68,469
Spiegeleisen and ferromanganese.....	177	5,987	457,805
Ferrosilicon.....		2,398	146,259
Other ferro-alloys.....		539	120,035
Scrap iron or steel (including old rails, not intended for re-rolling).....	167,107	237,663	3,727,042
Total.....	597,156	248,649	4,519,610
(b) ORES—			
Crude iron ore—			
Foreign.....		38,206	287,121
Manganiferous ore—			
Foreign.....		1,323	21,232
Chromite—			
Foreign.....		246	7,067
Total.....		39,775	315,420
(c) GENERAL MATERIALS—			
Limestone..... short ton.....	58,496	56,409	123,131
Fluorspar..... short ton.....		7,220	95,970
Other fluxing material..... short ton.....		551	8,848
Coke from Canadian coal..... short ton.....		574	9,907
Coke made in Canada from imported coal..... short ton.....		297	3,366
Imported coke..... short ton.....	3,898	625	8,593
Anthracite coal..... short ton.....		11,813	11,368
Bituminous coal..... short ton.....		264	2,611
Charcoal..... bushel.....		35,348	8,317
Other materials.....			201,494
Total.....			473,035
Total value of all metals, ores and general materials purchased.....			5,308,065

Table 42.—Materials Used in the Rolled Iron and Steel Products Industry in Canada, 1924

Item	Companies' own make	Purchased materials	
		Quantity	Cost at furnace
	Long ton	Long ton	\$
Steel, crude and semi-finished (ingots, blooms, billets, slabs).....	699,178	12,931	503,932
Rails for re-rolling.....	13,530	10,360	412,907
Iron muck and scrap bar.....	14,592	11,870	162,940
Iron and steel skelp.....		210	4,956
Iron and steel wire rods.....		1,900	90,793
All other materials.....	1,019	10,851	228,913
<b>Total.....</b>	<b>728,319</b>	<b>48,137</b>	<b>1,431,441</b>

Table 43.—Materials Used in the Rolled Iron and Steel Products Industry in Canada, 1925

Item	Companies' own make	Purchased materials	
		Quantity	Cost at furnace
	Long ton	Long ton	\$
Steel, crude and semi-finished (ingots, blooms, billets, slabs).....	784,828	14,831	468,577
Rails for re-rolling.....		28,747	168,096
Iron muck and scrap bar.....	13,843	3,722	51,468
Iron and steel wire rods.....		1,694	63,972
Bars, plates and sheets.....	2,286		
Axles.....		295	4,500
All other iron and steel.....	915	8,395	133,734
All other materials.....			26,078
<b>Total.....</b>	<b>801,872</b>	<b>58,184</b>	<b>1,219,425</b>

**Production.**—Total sales of pig iron, ferro-alloys, steel and rolled products in Canada in 1925 were valued at \$35,337,685. This figure does not include the value of pig iron made and transferred to the companies' own steel plants nor the value of steel ingots, blooms, etc., shipped to the companies' own rolling mills. In the previous year, 1924, the total sales amounted to \$33,553,443.

(a) **PIG IRON.**—Blast furnace production totalled 570,766 long tons of pig iron, a decline of 3.7 per cent from the 593,049 tons of 1924. The year's output included 409,590 tons of basic iron, 101,968 tons of foundry iron and 59,208 tons of malleable iron. Disposition of the output, including also about 60,000 tons drawn from stock was as follows: 430,856 tons went to the producing companies' own steel furnaces, and the balance, or 201,202 tons, was sold at an average mill price of \$21.83. Taking the population of Canada at 9,364,200 persons in 1925, the per capita production of pig iron was 136 pounds, as against 144 pounds in the preceding year, 216 pounds in 1923, an average of 96 pounds in 1922 and 151 pounds in 1921. Of the 3 companies producing pig iron in 1925, there were 2 located in Ontario and 1 in Nova Scotia.

In 1925, Ontario produced 369,000 tons of pig iron or 65 per cent of the Canadian output as against 70 per cent of the total in 1924. Nova Scotia accounted for the balance in each year. In January, Ontario furnaces produced 20,000 tons of pig iron and maintained this rate of output in February. In March large rail orders caused an increase in output to 41,000 tons which was also fairly well maintained during the next two succeeding months. In June, production fell to 26,000 tons and in July to 21,000 tons. In October, further rail orders caused an increase to 48,000 tons, the maximum monthly output for the year, after which production declined to 40,000 tons in November and to 31,000 tons in December.

Production in Nova Scotia showed a somewhat similar trend. In January, the output stood at 8,000 tons but rose to 23,000 tons in March and continued at this level until the furnaces were banked about the end of June. In July, there was no production from these furnaces but in August, they were started up again to produce 4,000 tons of iron; the maximum output of 29,000 tons was reached in November; in the closing month of the year production was shaded to 24,000 tons.

The number of furnaces in blast during 1925, by months, was as follows: 3 in January; 5 in February, March and April; 6 in May; 2 in June and July; 3 in August; 5 in September, and 7 in October; 5 in November, and 5 in December.

(b) FERRO-ALLOYS.—Production of ferro-alloys in Canada during 1925 totalled 25,709 tons as against 26,400 tons in 1924 and 28,961 tons in 1923. High grade ferromanganese was produced by 1 plant in Ontario; ferrosilicon was made in this plant and also in 2 other plants which manufacture abrasives as the main product.

(c) STEEL INGOTS AND DIRECT STEEL CASTINGS.—In 1925, the total steel furnace and converter production in Canada amounted to 752,503 long tons, an increase of 14 per cent over the 659,767 tons reported for 1924. Of this output 731,248 tons were transferred to the rolling mills of the producing firms and 15,974 tons were sold at an average price of \$26.21 per ton for ingots and \$206 per ton for direct castings. The year's output included 734,277 long tons of basic open-hearth steel ingots, 9,059 tons of basic open-hearth direct castings, 1,732 tons of converter castings and 7,435 tons electric steel castings. Per capita production of steel in Canada was 180 pounds in 1925, as against 158 pounds in the preceding year, 217 pounds in 1923, an average of 121 pounds in 1922, and 170 pounds in 1921.

By months, the output of steel followed much the same trend as the pig iron production. In January, 27,000 tons of steel were produced; in March, 108,000 tons; and in May, 100,000 tons. Production then declined to 63,000 tons in June, and reached a minimum of 22,000 tons in July. In October, new rail orders caused a jump to a maximum of 109,000 and output then declined to 73,000 in November and 62,000 in December.

(d) IRON AND STEEL ROLLED PRODUCTS.—Rolling mill sales were valued at \$25,341,746 in 1925, as compared with \$25,217,769 in 1924. During the year 860,290 long tons of iron and steel passed through the mills and of this total 801,872 tons came from the producing companies' own steel furnaces, and only 58,418 tons were purchased.

There were 13 iron and steel rolling mills operated in Canada during 1925, of which Manitoba had 1; Nova Scotia, 2; Quebec, 4; and Ontario, 6.

Rolling mill products sold during 1925 included the under-mentioned articles at approximate values as given: steel rails, 9 million dollars; iron or steel bars, over 8 million dollars; railway tie and fish plates, 2.2 million dollars; blooms, billets and slabs, 1.5 million dollars; sheets (No. 14 and thinner), 1.3 million dollars; wire rods, 1 million dollars; spikes, \$600,000; horse and mule shoes, 0.5 million dollars and many other articles including structural shapes, nails, and tacks, washers, pole line hardware, etc.

In the accompanying tables the tonnage shown as shipped to companies' own plants is material that progresses through stages between the raw steel and the final product in the same plants. No value has been assigned to it in these intermediate stages and the tonnages are shown merely to indicate the activity of the plants, since there is a possibility of an accumulation of material in the intermediate stage, which if not recorded would present a false view of conditions in the industry.

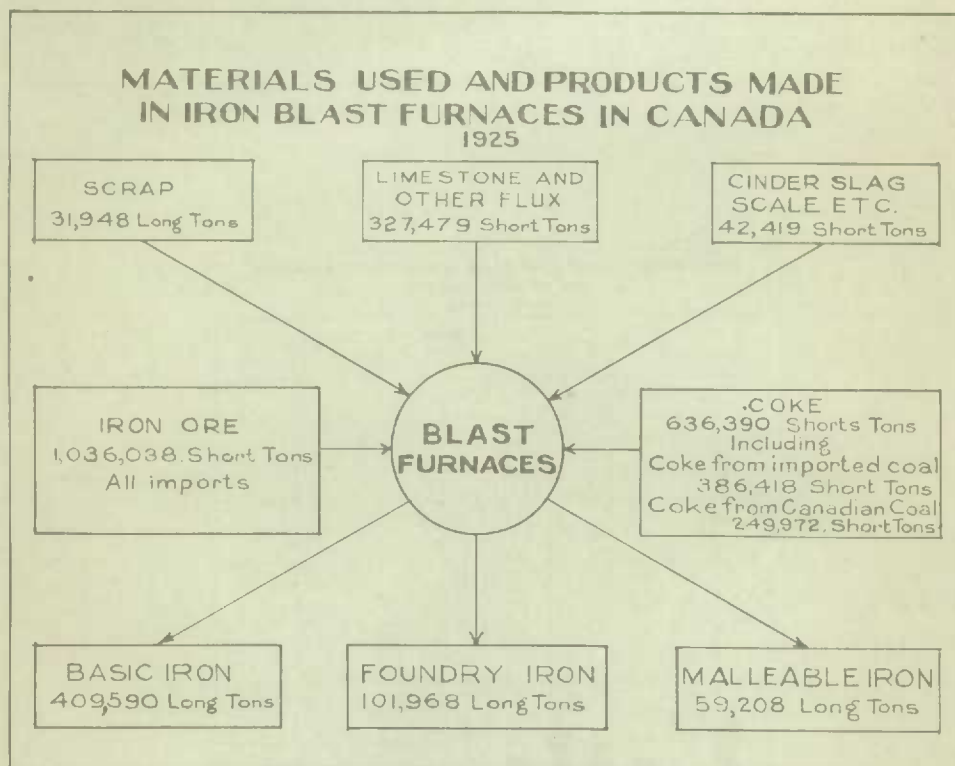
Table 41.—Production of Pig Iron in Canada, by Grades, 1924

Item	Total tonnage made	Tonnage shipped to companies' own plants	Sales	
			Quantity	Selling value
	Long ton	Long ton	Long ton	\$
Pig IRON (by grades)—				
Basic.....	357,704	386,884	18,654	412,216
Foundry.....	173,663	1,542	147,264	3,321,986
Malleable.....	61,665	6,622	33,657	784,685
Castings made direct from blast furnace.....	17	17		
<b>Total.....</b>	<b>593,049</b>	<b>395,065</b>	<b>199,575</b>	<b>4,518,887</b>



Table 45.—Production of Pig Iron in Canada, by Grades, 1925

Item	Total tonnage made	Tonnage shipped to companies' own plants	Sales	
			Quantity	Selling value
	Long ton	Long ton	Long ton	\$
Pig Iron (by grades)—				
Basic.....	409,590	413,632	6,088	128,747
Foundry.....	101,968	967	151,064	3,290,798
Malleable.....	59,208	16,257	44,050	965,396
<b>Total.....</b>	<b>570,766</b>	<b>430,856</b>	<b>201,202</b>	<b>4,393,941</b>

Table 46.—Annual Production of Pig Iron in Canada, by Grades and by Fuels, 1913-1925  
(Long tons)

Year	By grades			Total	By fuels			Total
	Basic	Bessemer	Foundry and all other		Charcoal	Coke	Electric	
1913.....	548,969	237,219	221,818	1,008,006	21,157	986,849		1,008,006
1914.....	309,422	206,087	183,745	699,254	8,375	690,879		699,254
1915.....	660,369	25,939	129,563	815,871	12,225	803,646		815,871
1916.....	851,452	28,025	164,502	1,043,979	15,450	1,028,529		1,043,979
1917.....	858,621	*24,806	161,644	1,045,071	12,582	1,020,265	12,224	1,045,071
1918.....	862,865	*42,362	162,229	1,067,456		1,038,857	28,599	1,067,456
1919.....	518,237	*13,695	287,515	819,447		812,571	6,876	819,447
1920.....	661,249	*7,888	304,431	973,568		965,680	7,888	973,568
1921.....	461,644	*610	131,575	593,829		593,219	610	593,829
1922.....	253,301		120,666	382,967		382,967		382,967
1923.....	549,984		320,838	879,822		879,822		879,822
1924.....	357,704		235,345	593,049		593,049		593,049
1925.....	409,590		161,176	570,766		570,766		570,766

\*Includes electric furnace pig iron.

Table 47.—Annual Production of Pig Iron in Canada, by Provinces, 1913-1925

Year	Nova Scotia		Ontario		Quebec		Canada	
	Long ton	Value	Long ton	Value	Long ton	Value	Long ton	Value
		\$		\$		\$		\$
1913.....	428,632	7,301,020	579,374	9,338,992			1,008,006	16,540,012
1914.....	202,725	2,951,676	496,529	7,051,180			699,254	10,002,856
1915.....	375,246	5,463,575	440,625	5,910,624			815,871	11,374,199
1916.....	419,692	7,059,825	624,287	9,700,073			1,043,979	16,759,898
1917.....	421,530	10,387,234	611,287	13,902,867	(a) 12,224	735,859	1,045,071	25,025,960
1918.....	371,313	10,451,400	667,545	21,324,857	(a) 28,598	1,718,914	1,067,456	33,493,171
1919.....	254,542	7,141,841	558,029	17,104,151	(a) 6,876	331,797	819,447	21,577,589
1920.....	296,896	7,687,614	668,812	22,252,062	(a) 7,887	379,348	973,568	30,319,024
1921.....	151,343	3,633,516	441,876	11,856,352	610	21,960	593,829	15,511,828
1922.....	120,769	2,325,729	262,198	6,493,513			382,967	8,819,242
1923.....	277,654	5,360,099	602,168	15,995,496			879,822	21,355,595
1924.....	177,078		415,971				593,049	
1925.....	201,795		368,971				570,766	

(a) Total production in Canada of pig iron made in electric furnaces from scrap metal.

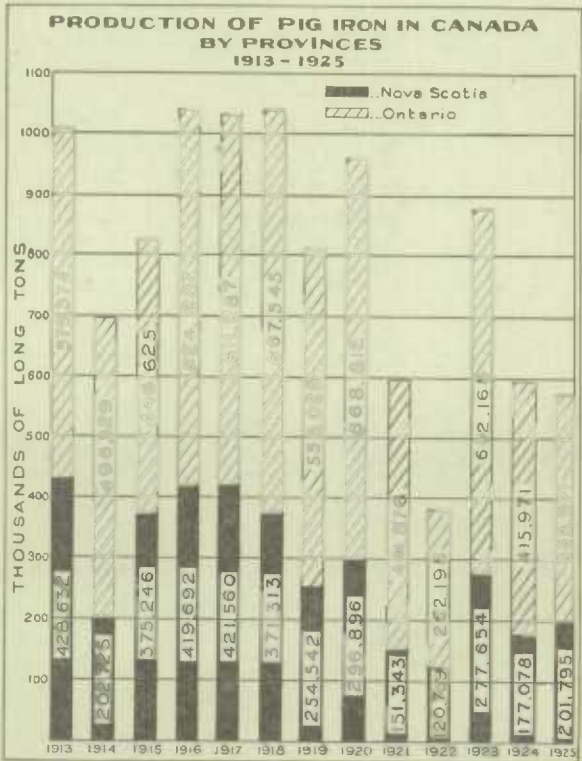


Table 48.—Iron Ore, Fuel and Flux, Charged to Iron Blast Furnaces in Canada, 1913-1925

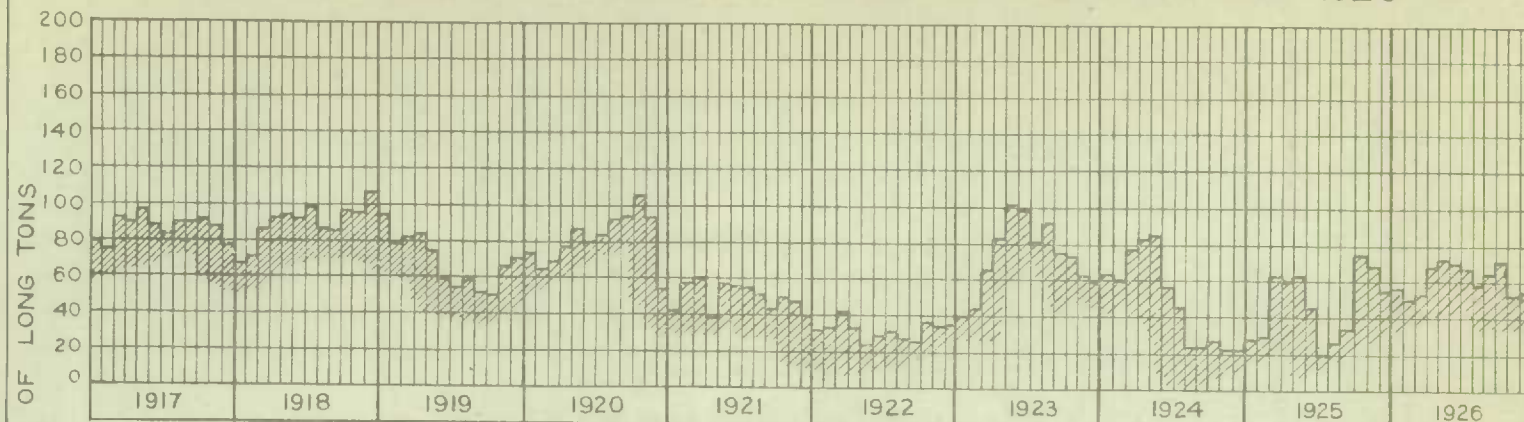
Year	Iron ore charged		Fuel and flux charged			
	Canadian	Imported	Charcoal	Coke from Canadian coal	Coke imported or made from imported coal	Flux (mostly limestone)
	Long ton	Long ton	Bushel	Short ton	Short ton	Short ton
1913.....	124,496	1,884,668	2,206,191	710,260	703,884	630,119
1914.....	163,361	1,182,434	920,045	330,269	590,902	447,641
1915.....	261,879	1,309,686	1,314,957	578,743	486,022	573,743
1916.....	198,012	1,751,103	1,843,209	712,715	615,488	701,690
1917.....	82,201	1,860,921	1,288,390	634,962	723,657	760,826
1918.....	86,379	1,916,960	.....	561,135	801,522	755,660
1919.....	69,992	1,191,816	117,795	372,293	689,548	547,695
1920.....	133,496	1,747,980	.....	415,742	788,795	258,912
1921.....	113,083	1,018,750	.....	244,830	500,199	374,771
1922.....	20,891	694,709	.....	172,350	309,209	123,082
1923.....	32,698	1,570,953	.....	336,369	652,995	483,948
1924.....	7,349	1,057,659	.....	219,870	438,423	317,754
1925.....	.....	1,036,038	.....	249,972	386,418	327,479

Table 49.—Total Production of Pig Iron, Steel Ingots and Castings in Canada by Months, 1921-1925

(In 1000's of long tons)

Month	1921		1922		1923		1924		1925	
	Iron	Steel	Iron	Steel	Iron	Steel	Iron	Steel	Iron	Steel
January.....	41	40	32	33	41	48	64	41	28	27
February.....	58	59	34	42	44	46	60	71	30	37
March.....	60	53	42	30	65	89	77	95	64	108
April.....	39	27	33	22	84	93	84	104	60	88
May.....	56	52	23	17	102	104	85	108	63	100
June.....	55	64	29	33	90	96	57	69	46	63
July.....	54	54	32	63	82	74	45	52	21	22
August.....	50	72	27	59	93	105	23	23	27	25
September.....	44	56	25	36	75	66	23	18	35	37
October.....	50	72	37	53	74	67	29	20	74	100
November.....	48	75	34	51	62	55	23	23	63	73
December.....	40	43	36	47	60	41	23	26	55	62
<b>Total.....</b>	<b>595</b>	<b>667</b>	<b>384</b>	<b>486</b>	<b>872</b>	<b>884</b>	<b>593</b>	<b>650</b>	<b>572</b>	<b>751</b>
<b>Average.....</b>	<b>50</b>	<b>56</b>	<b>32</b>	<b>40</b>	<b>73</b>	<b>74</b>	<b>49</b>	<b>54</b>	<b>48</b>	<b>63</b>

## PRODUCTION OF PIG IRON IN CANADA BY MONTHS 1917-1926



## PRODUCTION OF STEEL INGOTS &amp; CASTINGS IN CANADA BY MONTHS 1917-26

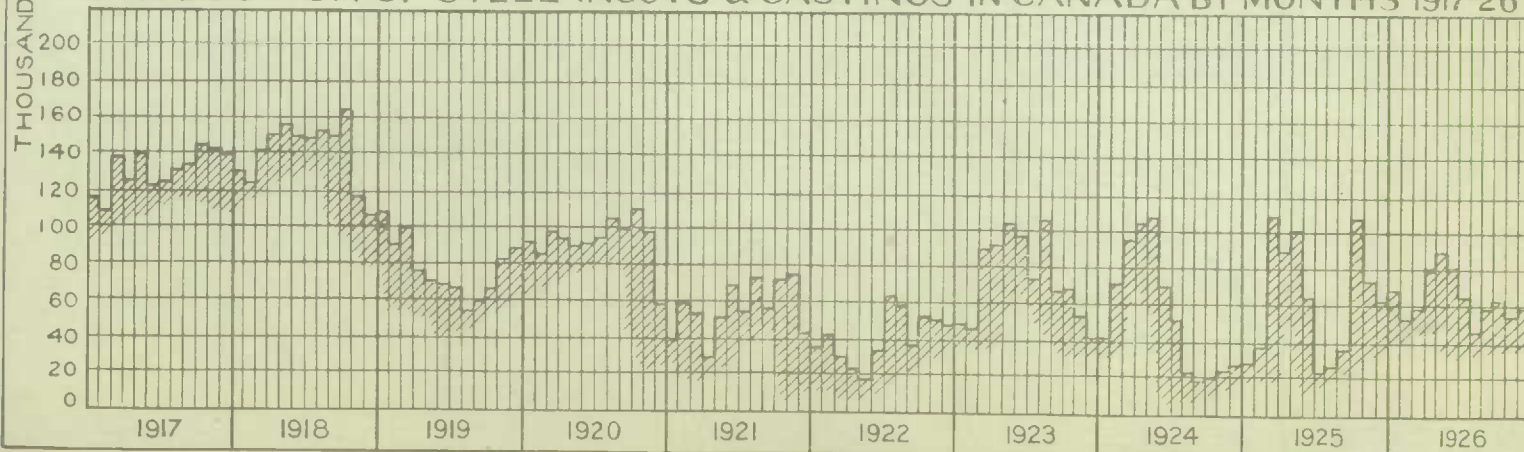




Table 50.—Wholesale Prices of Pig Iron in Canada by Months, 1924 and 1925

(Compiled in The Internal Trade Branch)

(Per long ton)

Month	Pig iron No. 1 foundry		Pig iron basic	
	1924	1925	1924	1925
	\$	\$	\$	\$
January.....	30.95	31.20	26.00	24.00
February.....	30.95	31.20	26.00	25.00
March.....	30.95	31.20	26.00	24.00
April.....	30.95	29.20	26.00	23.00
May.....	28.95	28.00	24.00	22.00
June.....	29.20	27.25	22.00	21.00
July.....	27.95	27.25	21.00	21.00
August.....	27.95	27.25	21.00	21.00
September.....	27.70	27.25	21.00	21.00
October.....	27.70	27.25	21.00	21.00
November.....	27.70	28.75	21.00	23.00
December.....	30.20	28.75	23.00	23.00
Average.....	29.26	28.71	23.16	22.41
Average, 1913.....	\$20.35		\$17.50	

Table 51.—Annual Production of Steel Ingots and Castings in Canada, by Kinds, 1913 to 1925

Year	Total Ingots and castings	Steel ingots				Steel castings			
		Open hearth	Bessemer and other	Electric	Total Ingots	Open hearth	Con- verter	Elec- tric	Total castings
		Long ton	Long ton	Long ton	Long ton	Long ton	Long ton	Long ton	Long ton
1913.....	1,043,744	736,445	269,582	.....	1,006,027	35,015	2,702	.....	37,717
1914.....	739,858	543,199	181,414	.....	724,613	13,675	1,516	54	15,245
1915.....	911,514	859,295	19,637	4,844	883,776	25,343	2,216	179	27,738
1916.....	1,275,222	1,229,810	2,122	16,017	1,247,949	20,979	4,777	1,517	27,273
1917.....	1,558,691	1,466,147	338	43,596	1,510,081	38,956	8,191	1,463	48,610
1918.....	1,672,944	1,503,855	213	103,228	1,607,296	55,372	7,148	3,138	65,658
1919.....	919,948	877,890	948	7,804	886,642	21,660	5,610	6,036	33,306
1920.....	1,100,632	1,029,800	361	12,047	1,042,208	34,615	10,578	13,221	58,414
1921.....	667,484	642,275	465	2,335	645,075	8,319	413	13,677	22,409
1922.....	480,127	459,441	.....	.....	459,441	8,510	1,178	10,980	20,686
1923.....	881,523	840,484	.....	.....	840,484	30,657	3,611	6,771	41,039
1924.....	659,767	634,954	.....	.....	634,954	18,393	1,448	4,972	24,813
1925.....	752,503	734,277	.....	.....	734,277	9,059	1,732	7,435	18,226

Previous to 1921 data were compiled from *Mines Branch Annual Reports*.

Table 52.—Products of the Steel Ingots and Castings Industry in Canada, 1924

Kind	Total tonnage made	Tonnage shipped to companies' own plants <sup>1</sup>	Sales	
			Quantity	Value
	Long ton	Long ton	Long ton	\$
Steel Ingots—				
Open hearth—				
Basic.....	634,954	650,130	1,230	41,815
Direct Steel Castings—				
Open hearth—				
Basic.....	17,611	3,514	14,097	2,477,593
Acid.....	782	.....	782	147,016
Bessemer, including all converters.....	1,448	.....	1,391	350,825
Electric or electrically refined.....	4,972	144	4,951	799,738
Total.....	659,767	653,788	22,451	3,816,787

<sup>1</sup>Include transfers to rolling mill department and shipments to companies' own plants in other cities.

Table 53.—Products of the Steel Ingots and Castings Industry in Canada, 1925

Kind	Total tonnage made	Tonnage shipped to companies' own plants	Sales	
			Quantity	Value
	Long ton	Long ton	Long ton	\$
Steel Ingots—				
Basic open-hearth.....	734,277	727,872	681	17,850
Direct Steel Castings—				
Basic open-hearth.....	9,059	3,347	5,712	1,134,826
Bessemer (including all converters).....	1,732		1,732	382,815
Electric or electrically refined.....	7,435	29	7,840	1,638,285
<b>Total.....</b>	<b>752,503</b>	<b>731,248</b>	<b>15,974</b>	<b>3,173,776</b>

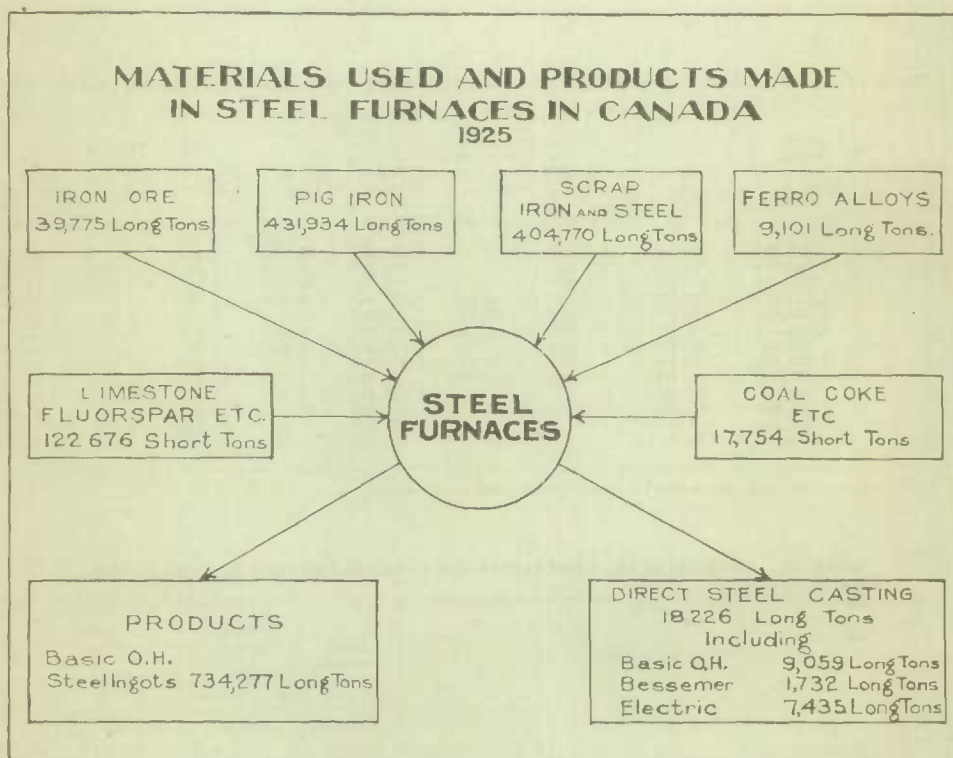


Table 54.—Products of the Rolled Iron and Steel Products Industry in Canada, 1924

Item	Total tonnage made	Tonnage shipped to companies' own plants	Sales	
			Quantity	Value
				\$
Blooms, billets and slabs.....long ton	536,603	488,610	46,018	1,746,843
Bars—				
Sheet and tinplate bars.....long ton	20,629	1,132		
Muck and scrap bar.....long ton	9,603	8,480		
Bar iron or steel, rolled, whether in coils, bundles, rods or bars, comprising rounds, ovals, squares and flats.....long ton	109,600	31,078	86,542	5,746,161
Re-inforced concrete bars (including twisted).....long ton	23,934		23,640	1,539,957
Rails—				
O.-H. Steel—Under 85 lb. per yard.....long ton	2,412		2,540	122,380
85 lb. to 100 lb. per yard.....long ton	109,560	1,042	94,071	4,443,127
Over 100 lb. per yard.....long ton	88,738		88,555	4,459,362
Iron and steel rods—				
Wire rods.....long ton	108,536	79,001	28,393	1,364,932
Spike and chain rods.....long ton	7,280	7,280		
Bolt and nut rods, etc.....long ton	646	663		
Structural steel, including angles, beams, channels, girders, etc., not assembled or fabricated—				
Over 35 lb. per yard.....long ton	570		2,045	92,065
All other.....long ton	3,833		2,830	163,330
Plates and sheets—				
Plain sheets.....long ton	16,195	579	15,502	1,371,687
Railway tie plates.....long ton	26,455		26,411	1,577,846
Railway fish plates.....long ton	5,598		5,581	407,233
Railway spikes.....keg			159,787	582,123
Bolts, nuts and rivets.....keg			3,105	15,522
Nails and tacks (not wire)—				
Cut.....keg			17,311	91,915
Horseshoe.....keg			6,016	72,140
Tacks.....gross box			784,548	103,185
Horse and mule shoes.....keg			98,915	527,871
Scrap iron or steel.....ton	39,053	39,053	597	7,397
Other rolled iron and steel products, angles, etc.....ton	6,034		6,034	323,084
Other forged iron and steel products.....ton	23	23		
All other iron and steel products.....ton			593	1,933
Drive cauls.....ton				20,895
Railway joints and splice bars.....ton	5,240		5,240	363,626
Washers.....ton	459		437	72,555
<b>Total.....</b>				<b>25,217,769</b>

Table 55.—Products of the Rolled Iron and Steel Products Industry in Canada, 1925

Item	Total tonnage made	Tonnage shipped to companies' own plants	Sales	
			Quantity	Value
				\$
Blooms, billets and slabs.....long ton	856,388	805,523	44,841	1,492,212
Bars—				
Sheet and tinplate bars.....long ton	20,117	20,116	1	40
Muck and scrap bar.....long ton	18,050	15,860	587	19,960
Bar iron or steel, rolled, whether in coils, bundles, rods or bars, comprising rounds, ovals, squares and flats.....long ton	76,167	10,312	72,550	4,148,852
Re-inforced concrete bars (including twisted).....long ton	96,387	15,561	78,940	4,030,504
Rails—				
Open hearth steel—Under 85 lb. per yard.....long ton	11,744		1,032	86,808
85 lb. to 100 lb. per yard.....long ton	110,354		123,835	5,003,716
Over 100 lb. per yard.....long ton	81,380		81,201	3,795,655
Iron and steel rods—				
Wire rods.....long ton	125,720	99,824	26,222	1,088,772
Structural steel, including angles, beams, channels, girders, etc., not assembled or fabricated—				
Under 35 lb. per yard.....long ton	6,311		5,750	273,240
Plates and sheets—				
Nail and washer plate.....long ton	16,196	116,196		
Sheets No. 14 and thinner.....long ton	17,679	799	16,531	1,320,385
Railway tie plates and fish plates.....long ton	39,234		36,658	2,224,372
Spikes, including railway spikes.....keg			170,597	642,875
Bolts, nuts, rivets and washers.....keg			469	58,172
Nails and tacks (not wire).....keg				249,679
Horse and mule shoes.....keg			91,317	470,840
Scrap iron or steel.....ton	48,355	43,873	4,482	55,427
All other products.....ton				35,273
Other rolled iron or steel products.....long ton			7,179	335,874
<b>Total.....</b>				<b>25,341,746</b>

Table 56.—Imports into Canada and Exports of Iron Ore, 1924 and 1925

Item	1924		1925	
	Quantity	Value	Quantity	Value
		\$		\$
Imports—				
Iron ore.....ton	912,740	2,345,038	1,037,225	2,015,580
Exports—				
Iron ore.....ton	4,932	22,354	4,401	19,564

Table 57.—Imports into Canada and Exports of Pigs, Ingots, Blooms and Billets, 1924 and 1925

Item	1924		1925	
	Quantity	Value	Quantity	Value
		\$		\$
Imports—				
Iron in pig for the manufacture of agricultural implements.....ton	1,861	33,280	3,937	70,490
Iron in pig, n.o.p., and iron kentledge (From April 11, 1924).....ton	19,882	389,224	24,094	454,165
Iron in pig and iron kentledge.....ton	13,067	280,634	961	3,250
Ferrosilicon containing more than 15 per cent silicon.....cwt.	1,145	6,692	1,977	5,712
Ferromanganese and spiegeleisen containing more than 15 per cent manganese.....cwt.	168,093	584,918	79,239	301,416
Ferrosilicon containing not more than 15 per cent Silicon.....cwt.	52	371	53	512
Ferromanganese and spiegeleisen containing not more than 15 per cent manganese and other ferro-alloys, n.o.p.....cwt.	5,972	63,514	10,851	86,430
Steel, chrome steel.....cwt.	52,054	184,998	52,649	177,227
Iron or steel ingots, cogged ingots, blooms, slabs, puddled bars and loops or other forms, n.o.p., less finished than iron or steel bars but more advanced than pig iron except castings cwt.	16,418	68,123	23,634	92,044
Iron or steel billets weighing not less than 60 pounds per lineal yard.....cwt.	194,835	353,757	265,589	369,679
Steel billets, n.o.p.....cwt.	1,950	5,623	524	1,484
<b>Total.....</b>		<b>1,969,661</b>		<b>1,559,129</b>
Exports—				
Pig iron.....ton	16,740	325,727	7,093	140,634
Ferrosilicon.....ton	29,705	1,001,601	16,801	547,818
Ferromanganese and other ferro-alloys, n.o.p.....ton	325	30,306	10,967	1,146,212
Billets, ingots and blooms of iron and steel.....ton	719	25,275	1,975	58,992
<b>Total.....</b>		<b>1,382,909</b>		<b>1,893,656</b>



Table 58.—Imports into Canada and Exports of Rolling Mill Products, n.o.p., 1924 and 1925

Item	1924		1925	
	Quantity	Value	Quantity	Value
		\$		\$
BAND AND HOOP IRON OR STEEL				
IMPORTS—				
Iron or steel bands, strips or sheets No. 14 gauge or thinner, coated, polished or not, and rolled iron or steel sections, not being ordinary square, flat or round bars when imported by manufacturers of saddlery, hardware and harness for use exclusively in the manufacture of such articles in their own factories..... cwt.	2,474	9,663	7,094	24,061
Rolled hoop iron or hoop steel, galvanized, Nos. 12 and 13 gauge..... cwt.	285	733	2,507	1,867
Rolled iron or steel and cast steel in bars, bands, hoops, scroll, strip, sheet or plate of any size, thickness or width and steel blanks for the manufacture of milling cutters when of greater value than 3½ cents per lb..... cwt.	441,234	2,471,909	250,381	1,349,509
Rolled iron or steel hoop, band, scroll or strip No. 14 gauge and thinner, and rolled iron or steel sheets imported by manufacturers for use in their own factories in the manufacture of galvanized iron or steel hoop, band, scroll, strip or sheet..... cwt.	206,664	751,187	322,472	973,949
Rolled iron or steel hoop, band, scroll or strip in the coil No. 12 gauge and thinner when imported by manufacturers for use in their own factories in the manufacture of cold rolled iron or steel..... cwt.	30,380	96,123	30,017	75,982
Drawn iron or steel hoop, band, scroll, or strip in the coil No. 14 gauge and thinner, galvanized or coated with other metal or not imported by manufacturers of mats for use in such manufacture in their own factories..... cwt.	337	2,595	368	2,096
Rolled iron or steel hoop, band, scroll or strip No. 14 gauge and thinner, galvanized or coated with other metal or not, n.o.p..... cwt.	180,525	733,572	241,045	903,301
Rolled iron or steel hoop, band, scroll or strips, 12 inches or less in width, No. 13 gauge and thicker, n.o.p..... cwt.	308,830	896,682	359,883	806,094
Steel of No. 12 gauge and thinner, but not thinner than No. 30 gauge for the manufacture of bed fasts, buckle clasps, furniture casters and ice creepers imported by the manufacturers of such articles for use exclusively in the manufacture of such articles in their own factories..... cwt.	2,570	14,200	5,201	22,065
Steel No. 20 gauge and thinner, but not thinner than No. 30 gauge, for the manufacture of corset steels, clock springs and shoe shanks, when imported by manufacturers of such articles for use exclusively in the manufacture of such articles in their own factories..... cwt.	2,165	24,809	2,520	25,245
Steel No. 20 gauge and thinner, but not thinner than No. 30 gauge when imported by manufacturers of phonograph motor springs for use exclusively in the manufacture of such articles in their own factories (From April 11, 1924)..... cwt.	881	12,891	1,488	21,437
Rolled iron or steel sheets and strips, hardened and tempered or ground, not further manufactured than cut to shape without indented edges when imported by manufacturers of band saws for use exclusively in the manufacture of such saws in their own factories..... cwt.	926	23,429	1,435	34,547
Steel rolled for saws and straw cutters not tempered or ground nor further manufactured than cut to shape without indented edges..... cwt.	17,002	219,746	14,605	198,652
BARS INCLUDING STEEL RAILS				
Bar iron or steel rolled whether in coils, bundles, rods or bars comprising rounds, ovals, squares and flats, n.o.p..... cwt.	788,263	1,943,210	844,183	1,719,857
Flat steel, cold rolled, not over ¼-inch thick, for the manufacture of cups and cones for ball bearings..... cwt.	85	534	90	437
Hammered, drawn or cold rolled iron or steel bars or shapes, n.o.p..... lb.	5,823,543	289,633	5,689,281	237,220
Iron and steel railway bars, or rails of any form punched or not, n.o.p., for railways, street railways, and tramways..... ton	18,340	734,247	18,672	604,354
Rolled iron or steel in bars, coils or rods, when imported by manufacturers in their own factories, for use exclusively in their own factories in the manufacture of goods enumerated in tariff items 445 and 446 (April 11, 1924)..... cwt.	183,366	504,304	674,724	1,622,037
Rolled iron or steel and cast steel in bars, when of greater value than 3½ cents per pound..... cwt.	142,949	975,342	226,146	1,031,145
Shafting round, steel in bars not exceeding 2½ inches in diameter..... cwt.	50,740	176,386	17,708	54,252
Shafting steel, turned, compressed or polished..... cwt.	11,195	43,472	8,980	34,503
Steel in bars or sheets to be used exclusively in the manufacture of shovels when imported by manufacturers of shovels..... cwt.	37,556	100,965	38,177	87,175
PLATES AND SHEETS				
Boiler plate of iron or steel, not less than 30 inches in width and not less than ¼-inch in thickness, for use exclusively in the manufacture of boilers..... cwt.	149,164	414,122	91,896	200,823
Canada plates; Russia iron: terne plate and rolled sheets of iron or steel coated with zinc, spelter or other metal of all widths or thicknesses, n.o.p..... cwt.	189,273	857,626	183,483	742,849
Iron sheets or plates, coated with tin, commonly known as tin plate..... cwt.	1,183,136	6,406,639	1,489,029	7,725,475

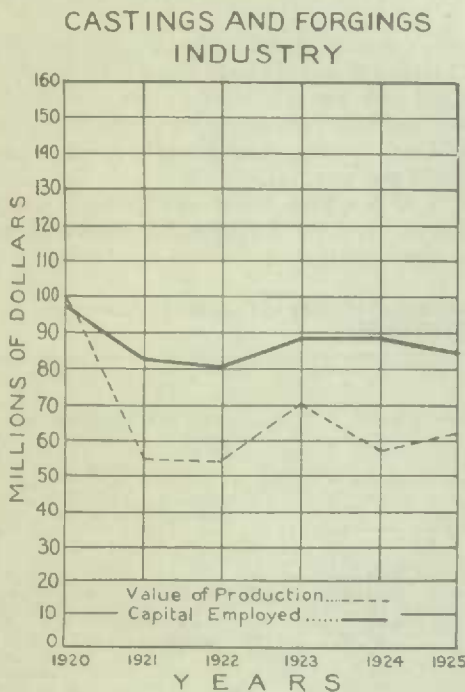
Table 58.—Imports into Canada and Exports of Rolling Mill Products, n.o.p., 1924 and 1925—  
Concluded

Item	1924		1925	
	Quantity	Value	Quantity	Value
		\$		\$
Rolled iron or steel plates, not less than 30 inches in width, and not less than $\frac{1}{2}$ -inch in thickness, n.o.p. .... cwt.	529,264	1,153,479	725,662	1,362,768
Rolled iron or steel plates or sheets, sheared or unsheared, and skelp iron or steel, sheared or rolled in grooves, n.o.p. .... cwt.	385,904	1,025,564	548,090	1,319,273
Rolled iron or steel sheets, polished or not, No. 14 gauge and thinner, n.o.p. .... cwt.	720,771	3,122,891	903,857	3,427,066
Sheets, iron or steel, corrugated, not galvanized. .... cwt.	936	2,964	1,782	5,719
Sheets, iron or steel, corrugated, galvanized. .... cwt.	340	1,526	343	2,406
Sheets, flat, of galvanized iron or steel. .... cwt.	547,636	2,637,211	582,239	2,564,938
Sheets or plates of steel, cold rolled, sheared edges, over 14 gauge, not less than $\frac{1}{2}$ inches wide, for the manufacture of mowers, bars, hinges, typewriters, and sewing machines. .... cwt.	3,484	13,044	2,451	10,718
Skelp iron or steel, sheared or rolled in grooves, not over $\frac{1}{2}$ inches wide, for the manufacture of rolled iron tubes, not over $\frac{1}{2}$ inches in diameter. .... cwt.	2,993	8,607	3,364	9,658
Skelp iron or steel, sheared or rolled in grooves, imported by manufacturers of wrought iron or steel pipe, for use exclusively in the manufacture of such articles in their own factories. .... cwt.	1,874,278	3,983,950	1,985,332	3,964,691
Steel, crucible sheet, 11 to 16 gauge, $\frac{3}{4}$ to 18 inches wide, for the manufacture of mowers and reaper knives when imported by manufacturers thereof for use exclusively in the manufacture of such articles in their own factories. .... cwt.	6,415	31,390	2,680	10,677
Rods				
Rolled iron and rolled steel nail rods, under $\frac{1}{2}$ inch in diameter, for the manufacture of horseshoe nails. .... cwt.	13,103	36,178	9,559	30,306
Rolled round rods in the coil, of iron or steel, for the manufacture of chains. .... cwt.	5,791	10,625	5,090	9,765
Rolled round wire rods in the coil, of iron or steel, not over $\frac{1}{2}$ inch in diameter, when imported by wire manufacturers, for use in making wire in the coil in their own factories. .... cwt.	418,698	803,084	782,900	1,231,947
STRUCTURAL IRON AND STEEL				
Flat eyebar blanks, not punched or drilled, for use exclusively in the manufacture of bridges, or of steel structural work, or in car construction. .... ton	2,198	80,919	602	21,465
Steel plate, universal mill or rolled edge plates of steel, over 12 inches wide, for use exclusively in the manufacture of bridges or of structural work or in car construction. .... cwt.	310,945	679,063	281,988	538,238
Iron or steel beams, sheets, plates, angles, knees and masts or parts thereof, for wooden, iron, steel or composite ships or vessels. .... cwt.	181,752	420,833	156,438	310,765
Rolled iron or steel angles, beams, channels and other rolled shapes of iron or steel, not punched, drilled or further manufactured than rolled, weighing not less than 35 pounds per lineal yard, not being square, flat, oval or round shapes, and not being railway bars or rails. .... cwt.	1,351,932	2,961,434	1,409,779	2,786,998
Rolled iron or steel angles, tees, beams, channels, girders, and other rolled shapes or sections, not punched, drilled or further manufactured than rolled, n.o.p. .... cwt.	615,823	1,513,647	570,003	1,182,141
Iron or steel bridges or parts thereof, iron or steel structural work, columns, shapes or sections, drilled, punched or in any further state of manufacture than as rolled or cast, n.o.p. ....		199,901		127,739
<b>Total</b> .....		<b>36,391,019</b>		<b>38,906,810</b>
EXPORTS—				
Bars and rods of iron and steel. .... ton	13,487	629,094	14,477	655,446
Plates and sheets of iron and steel. .... ton	116	11,618	111	10,987
Rails of iron and steel. .... ton	10,772	271,532	5,777	149,516
Structural steel. .... ton	3,443	367,011	4,348	326,752
<b>Total</b> .....		<b>1,279,255</b>		<b>1,141,801</b>

## CHAPTER THREE

## Castings and Forgings

**General.**—The castings and forgings industry includes those foundries in Canada engaged chiefly in the manufacture of stoves, furnaces, and other heating equipment, iron pipe and fittings, steel tubing, etc., and miscellaneous castings and forgings made to order for various purposes. Castings and forgings are made in many other plants but the major products of these concerns are of such a nature that they are naturally classified in other industrial groups such as machinery, boilers, tanks and engines, agricultural implements, etc. Repair shops have not been investigated and are not included in this review.



In 1925, the castings and forgings group included 324 plants distributed by provinces as follows: 188 in Ontario, 67 in Quebec, 24 in British Columbia, 17 in Nova Scotia, 10 in New Brunswick, 9 in Alberta, 5 in Manitoba, and 2 in each of the provinces of Prince Edward Island and Saskatchewan. These concerns represented a capital investment of 84.8 million dollars, gave employment to an average of 17,120 people throughout the year and paid out over 21 million dollars in salaries and wages and nearly 2 million dollars for fuel and electricity. Materials used in manufacturing cost \$22,522,361 and the selling value of all products amounted to \$61,754,339 giving thus a figure of \$39,231,978 as the value added by manufacturing processes.

Plants in Ontario accounted for a production valued at \$40,613,286 or 65.8 per cent of the total for the industry; Quebec accounted for \$15,569,672; British Columbia's output was worth \$1,678,974; Manitoba, New Brunswick and Nova Scotia each produced about a million dollars' worth of castings and forgings of various kinds; Alberta showed an output worth \$697,207, and Saskatchewan and Prince Edward Island also reported small productions in this class.

As compared with the previous year, there were 7 more plants in operation in 1925 and production was higher by 4 million dollars although the total capital employed was down 4.4 per cent and the number of employees was slightly below the number employed in 1924. Production in Ontario was half a million dollars above the figure for 1924 while Quebec's output showed a gain of 3 million dollars over that of the previous year.

**Table 59.—Summary Statistics of the Castings and Forgings Industry in Canada, 1921-1925**

Year	Number of plants	Capital employed	Number of employees	Salaries and wages	Cost of fuel and electricity	Cost of materials	Selling value of products	Value added by manufacturing
		\$		\$	\$	\$	\$	\$
1921.....	366	82,266,395	16,758	20,613,263	1,940,848	20,626,750	55,220,144	34,593,394
1922.....	320	80,872,431	16,484	19,383,896	2,074,480	19,817,117	54,418,262	34,601,145
1923.....	321	88,325,248	19,146	23,634,438	3,116,856	26,741,217	70,283,006	41,541,789
1924.....	317	88,674,538	17,217	20,878,462	1,946,315	22,182,216	57,494,594	35,312,378
1925.....	324	84,812,441	17,120	21,039,510	1,908,345	22,522,361	61,754,339	39,231,978

**Table 60.—Principal Statistics of the Castings and Forgings Industry in Canada, by Provinces 1924 and 1925**

Province	1924				1925			
	Number of plants	Number of employees	Salaries and wages	Value of products	Number of plants	Number of employees	Salaries and wages	Value of products
			\$	\$			\$	\$
Nova Scotia.....	18	462	515,912	1,014,672	17	425	494,335	1,005,837
New Brunswick.....	11	440	512,101	1,049,019	10	400	464,062	968,914
Quebec.....	64	3,666	4,270,213	12,133,683	67	3,749	4,204,250	15,569,072
Ontario.....	187	11,646	14,267,698	40,048,339	188	11,450	14,250,584	40,613,286
Manitoba.....	6	244	313,886	1,014,649	5	235	314,357	1,018,756
Alberta.....	5	139	207,136	453,232	9	214	327,174	697,207
British Columbia.....	21	541	699,763	1,568,169	24	574	821,321	1,678,974
<b>Canada*</b> .....	<b>317</b>	<b>17,217</b>	<b>20,878,462</b>	<b>57,494,594</b>	<b>324</b>	<b>17,120</b>	<b>21,039,510</b>	<b>61,754,339</b>

\*Includes data for 3 plants in Prince Edward Island and 2 plants in Saskatchewan in 1924, and for 2 plants in Prince Edward Island and 2 in Saskatchewan in 1925.

**Capital Employed.**—Capital employed in the castings and forgings industry in 1925 was reported at \$84,812,441, a decline of nearly 4 million dollars from the figure given in 1924. The value placed on lands, buildings, machinery and tools was \$47,426,331, which was slightly higher than in 1924; inventories of stocks on hand and in process amounted to \$19,461,875, a decline of nearly 2 million dollars; and the value of cash, trading, operating and other accounts was \$17,924,235 or 3 million dollars lower than in the previous year.

Investment in plants in Ontario amounted to 55.5 million dollars and Quebec's plants represented an investment of nearly 21 million dollars; these two provinces thus accounted for 90 per cent of the total investment for Canada in this industry.

**Table 61.—Capital Employed in the Castings and Forgings Industry in Canada, by Classes and by Provinces, 1924 and 1925**

Province	1924				1925			
	Capital employed as represented by				Capital employed as represented by			
	Lands, buildings, machinery and tools	Materials on hand, and stocks in process	Cash, trading and operating account	Total	Lands, buildings, machinery and tools	Materials on hand, and stocks in process	Cash, trading and operating account	Total
	\$	\$	\$	\$	\$	\$	\$	\$
Nova Scotia.....	1,306,886	268,948	253,986	1,829,820	1,288,347	284,925	308,495	1,881,767
New Brunswick.....	771,768	281,081	278,600	1,331,449	718,705	256,670	312,697	1,288,072
Quebec.....	12,435,163	4,721,354	5,192,810	22,349,327	12,974,739	4,329,678	3,663,183	20,967,600
Ontario.....	29,789,440	14,539,975	14,313,098	58,642,514	29,652,512	13,210,507	12,612,585	55,475,604
Manitoba.....	880,749	515,977	239,102	1,635,828	879,725	495,060	118,299	1,493,084
Alberta.....	242,072	165,617	83,748	491,467	439,859	227,819	130,306	798,014
British Columbia.....	979,300	425,305	517,177	1,921,782	1,255,844	487,911	740,797	2,484,552
<b>Canada*</b> .....	<b>46,622,787</b>	<b>21,121,316</b>	<b>20,930,435</b>	<b>88,674,538</b>	<b>47,426,331</b>	<b>19,461,875</b>	<b>17,924,235</b>	<b>84,812,441</b>

\*Includes data for 3 plants in Prince Edward Island and 2 plants in Saskatchewan in 1924, and 2 plants in Prince Edward Island and 2 in Saskatchewan in 1925.

**Employment.**—Plants in operation in the castings and forgings industry in 1925 gave employment to an average of 17,120 persons of whom 2,216 were on a salary basis and 14,904 were earning wages. Establishments in Ontario employed 11,450 persons; in Quebec, 3,749; in British Columbia, 574; in New Brunswick, 400; in Nova Scotia, 425; Manitoba, 235; and Alberta, 214; with Prince Edward Island and Saskatchewan also represented. Payments in salaries during the year amounted to \$4,465,459, and wages totalled \$16,574,051.

Judging from the monthly record of the number of wage-earners employed in these plants, activity was greatest in the closing months of the year. In January only 13,326 wage-earners were employed but this number increased to 15,002 in April and then remained fairly steady until October when a further advance to 15,643 was recorded. In November 15,647 wage-earners were employed and in December the number stood at 15,523. The average for the year was 14,904.



In the previous year, 1924, the operating plants in this industry afforded employment to 2,436 salaried workers and 14,781 wage-earners and paid out \$4,795,910 in salaries and \$16,082,552 for wages. Employment was highest in March with 16,038 wage-earners on the various pay rolls and lowest in August, when there were 13,873 wage-earners employed.

**Table 62.—Average Number of Employees, Salaries and Wages Paid in the Castings and Forgings Industry in Canada, by Provinces, 1924 and 1925**

Province	Average number of employees					Salaries and wages		
	Salaried employees		Wage-earners		Total	Salaries	Wages	Total
	Male	Female	Male	Female				
1924						\$	\$	\$
Nova Scotia.....	55	17	389	1	462	123,154	392,758	515,912
New Brunswick.....	29	15	392	4	440	89,961	422,227	512,191
Quebec.....	475	92	3,021	78	3,666	1,129,351	3,140,862	4,270,213
Ontario.....	1,224	383	9,821	218	11,646	3,154,297	11,113,401	14,267,698
Manitoba.....	36	5	203		244	70,980	242,906	313,886
Alberta.....	19	2	118		139	52,003	155,133	207,136
British Columbia.....	56	8	475	2	541	113,381	556,382	669,763
<b>Canada*</b> .....	<b>1,911</b>	<b>525</b>	<b>14,474</b>	<b>307</b>	<b>17,217</b>	<b>4,795,910</b>	<b>16,082,552</b>	<b>20,878,462</b>
1925								
Nova Scotia.....	53	13	358	1	425	120,308	374,027	494,335
New Brunswick.....	30	13	355	2	400	100,628	363,434	464,062
Quebec.....	458	90	3,132	69	3,749	1,078,208	3,216,048	4,294,256
Ontario.....	1,042	345	9,776	287	11,450	2,799,911	11,450,673	14,250,584
Manitoba.....	36	5	194		235	80,042	234,315	314,357
Alberta.....	28	3	182	1	214	75,617	251,557	327,174
British Columbia.....	70	11	485	2	574	190,445	630,870	821,321
<b>Canada*</b> .....	<b>1,733</b>	<b>483</b>	<b>14,539</b>	<b>365</b>	<b>17,120</b>	<b>4,465,459</b>	<b>16,574,051</b>	<b>21,039,510</b>

\*Includes also data for 3 plants in Prince Edward Island and 2 in Saskatchewan in 1924, and for 2 plants in Prince Edward Island and 2 in Saskatchewan in 1925.

**Table 63.—Number of Wage-Earners Employed in the Castings and Forgings Industry in Canada by Months, 1924 and 1925**

Month	1924			1925		
	Male	Female	Total	Male	Female	Total
January.....	14,999	344	15,343	12,988	338	13,326
February.....	15,039	360	15,399	13,855	363	14,218
March.....	15,676	362	16,038	14,397	393	14,790
April.....	15,553	356	15,909	14,630	372	15,002
May.....	15,162	321	15,483	14,465	359	14,824
June.....	14,151	305	14,456	14,678	347	15,025
July.....	14,123	289	14,412	14,638	336	14,974
August.....	13,625	248	13,873	14,310	322	14,632
September.....	13,738	256	13,991	14,685	335	15,020
October.....	13,701	267	13,971	15,261	382	15,643
November.....	13,805	263	14,068	15,243	404	15,647
December.....	13,892	291	14,183	15,108	415	15,523
<b>Average.....</b>	<b>14,474</b>	<b>307</b>	<b>14,781</b>	<b>14,539</b>	<b>365</b>	<b>14,904</b>

**Table 64.—Hours of Labour (in Month of Greatest Employment) in the Castings and Forgings Industry in Canada by Provinces, 1925**

Province	Number of wage-earners working				Hours worked per man per week when working			
	8 hours or less per day	9 hours	10 hours	Over 10 hours	8 hours or less per day	9 hours	10 hours	Over 10 hours
Prince Edward Island.....	50	60			44	104		
Nova Scotia.....	233	71	155	2	44	44	58	77
New Brunswick.....	279	104	31	1	36	50	59	98
Quebec.....	1,054	1,095	1,807	83	43	53	57	74
Ontario.....	2,243	7,671	1,501	277	45	50	58	72
Manitoba.....		210	7			50	67	
Saskatchewan.....	10		3		40		60	
Alberta.....	164	62	14	1	44	52	57	80
British Columbia.....	626	7			43	52		

**Table 65.—Fuel and Electricity Used in the Castings and Forgings Industry in Canada, 1924 and 1925**

Kind	Unit of measure	1924		1925	
		Quantity	Value	Quantity	Value
		No.	\$	No.	\$
Anthracite coal.....	Short ton	6,079	50,361	2,748	33,800
Bituminous coal.....	Short ton	123,272	807,786	121,531	789,149
Lignite.....	Short ton	326	3,804	475	4,376
Coke.....	Short ton	15,881	169,996	21,596	158,705
Fuel oil.....	Gallon	2,671,336	243,772	3,045,613	277,726
Gasoline.....	Gallon	316,594	43,208	113,259	30,034
Gas.....	M. cu. ft.	25,324	19,954	31,433	22,890
Wood.....	Cord	6,545	39,313	6,601	31,759
Other fuel.....			17,761		15,005
Electric power.....	K.W.H.	27,170,460	550,360	32,521,599	541,931
<b>Total</b> .....			<b>1,946,315</b>		<b>1,908,345</b>

**Table 66.—Power Equipment Employed in the Castings and Forgings Industry in Canada, 1924 and 1925**

Kind	1924		1925	
	Number of units	Total h.p. according to manufacturers' rating	Number of units	Total h.p. according to manufacturers' rating
Steam engines and turbines.....	96	7,309	69	7,249
Gas engines.....	15	371	14	341
Oil and gasoline engines.....	20	288	17	316
Hydraulic turbines or water wheels.....	22	747	16	877
<b>Total primary power</b> .....	<b>153</b>	<b>8,715</b>	<b>116</b>	<b>8,783</b>
Electric motors operated by purchased power.....	2,617	37,543	2,681	63,192
<b>Total power equipment employed</b> .....	<b>2,770</b>	<b>49,258</b>	<b>2,797</b>	<b>71,975</b>
Electric motors operated by power generated by the industry.....	110	2,625	102	2,300
<b>Total electric motors</b> .....	<b>2,721</b>	<b>49,178</b>	<b>2,783</b>	<b>65,492</b>
Boilers installed.....	179	16,138	180	15,985

**Materials Used.**—Materials used in the castings and forgings industry in 1925 cost \$22,522,361 delivered at the works as compared with a total cost of \$22,182,216 in 1924. More pig iron was used during the year but the cost per ton was considerably lower than in 1924; in 1925—165,630 tons cost \$3,336,757 and, in 1924, the 134,071 tons cost \$3,736,644. Consumption of wrought iron and skelp showed a big increase as 153,226 tons were used in 1925 as against 35,393 tons in the previous year. Other iron and steel included 5,943 tons malleable iron, 4,529 tons iron castings, 460 tons steel castings, 9,397 tons steel ingots, blooms and billets, 20,000 tons of steel bars and shafting, 18,082 tons steel plates and sheets, 10,192 tons steel rods and wire and 103,230 tons of iron and steel scrap. Non-ferrous metals used in this industry included 8 million pounds of zinc, 1.7 million pounds of copper, 1.2 million pounds of brass and bronze, 301,408 pounds of tin, 190,278 pounds of lead, 72,950 pounds of aluminium and 163,591 pounds of other non-ferrous metals. Manufactured articles of various kinds cost \$1,677,275; coke, \$587,924, and miscellaneous foundry supplies cost \$1,029,614.

Table 67.—Materials Used in the Castings and Forgings Industry in Canada, 1924 and 1925

Material	Unit of measure	1924		1925	
		Quantity	Cost at plant	Quantity	Cost at plant
			\$		\$
Iron and steel—					
Pig iron.....	long ton	134,071	3,736,644	165,630	3,336,757
Wrought iron and skelp.....	short ton	35,393	1,750,711	153,226	4,015,599
Malleable iron.....	short ton	2,721	310,728	5,943	391,300
Iron castings.....	lb.	8,082,084	406,946	9,058,229	481,434
Steel castings.....	lb.	850,084	85,154	920,134	86,116
Steel ingots, blooms, and billets.....	short ton	6,882	296,738	9,397	265,793
Steel bars and shafting.....	lb.	42,398,849	1,380,565	40,051,385	1,462,910
Steel plates and sheets.....	lb.	34,509,423	1,552,643	36,102,037	1,763,724
Steel rods and wire.....	lb.	15,951,412	704,259	20,384,914	574,791
Scrap.....	short ton	101,676	1,627,482	103,230	1,618,630
Other iron or steel.....			3,242,217		987,806
Other metals—					
Aluminium.....	lb.	63,659	16,139	72,950	17,793
Brass and bronze castings.....	lb.	743,023	150,000	762,475	158,081
Brass sheets, bars, etc.....	lb.	466,015	105,488	457,207	98,288
Copper.....	lb.	1,173,747	215,067	1,734,484	332,560
Lead.....	lb.	208,957	31,418	190,273	18,263
Tin.....	lb.	243,966	57,985	301,408	88,421
Zinc.....	lb.	5,611,499	432,237	8,004,577	717,934
Babbitt metals and solders.....	lb.	130,696	31,140	103,591	39,871
Other metals.....			186,943		119,264
Articles used for further manufacture—					
Parts for machines or vehicles.....			132,696		125,237
Iron pipe, tubes and fittings.....			610,580		519,538
Bolts, nuts, rivets and screws.....			287,570		324,047
Electrical goods.....			402,867		274,249
Paints, oils and varnishes.....			83,458		94,406
Rubber and leather goods.....			81,800		75,092
Other articles of this class.....			157,526		264,706
Other materials—					
Foundry coke.....	short ton	49,452	588,994	52,091	587,924
Moulding and other sands.....	short ton	64,441	222,633	67,570	229,850
Sea coal facing.....	short ton	3,526	20,861	2,690	21,432
Phunibago.....	lb.	199,113	14,718	102,442	16,498
Other foundry facings.....	lb.	1,426,908	30,089	1,967,342	39,790
Patterns and models.....			44,178		61,386
Lumber.....	M ft. b.m.	7,922	280,632	8,228	284,523
Firebrick.....	M	2,830	121,100	2,688	132,413
Fireclay.....	short ton	3,956	32,662	4,243	112,858
Cupola blocks.....			10,689		13,796
Core oil.....	imp. gal.		74,259	97,539	99,787
Core compound.....			16,219		17,281
Shipping containers.....			221,737		250,062
All other materials.....			2,425,710		2,402,175
<b>Total.....</b>			<b>22,182,216</b>		<b>22,522,361</b>

**Products Made.**—Production in the castings and forgings industry in 1925 was valued at \$61,754,339, an increase of 7 per cent over the corresponding value of \$57,494,594 in 1924, but 12 per cent below the output value for 1923.

Among the more important commodities made in this industry were the following items: iron pipe worth 8.8 million dollars; iron pipe fittings at 2.2 million dollars; grey iron and malleable castings, 8.4 million dollars; forgings of all kinds, 2.4 millions; coal and wood stoves, 3.6 millions; electric stoves, 1.5 millions; gas stoves, 1 million dollars; radiators and parts, 1.5 million; hot air furnaces, 2 millions; other heating and ventilating equipment, 3.5 millions; auto accessories, 2.4 millions; steel tubing, 1.6 millions; tinware, 1.4 millions; boilers, tanks and parts, 1.5 millions; builders' hardware, 1 million; chains of all kinds, 744 thousand dollars; enamelled ware, 611 thousand dollars; machinery of all kinds worth 1.5 million dollars, and various other products of similar nature.

Production data as shown below do not necessarily represent the total output for Canada as similar commodities may be made in other industries; for the total production of any commodity, reference should be made to Table 30 of this report, which is a consolidation of all the industry tables in the iron and steel group.

Table 68.—Products of the Castings and Forgings Industry in Canada, 1924 and 1925

Product	Unit of measure	1924		1925	
		Quantity	Selling value at works	Quantity	Selling value at works
			\$		\$
Agricultural implements and parts.....			130,960		219,099
Automobile supplies—					
Differentials, transmissions and gears.....					437,589
Piston rings.....					14,357
Springs and axles.....			2,339,122		652,891
Other automobile equipment including bumpers, chains, jacks, radiators and truck bodies.....					1,373,206
Bars, rods and structural steel shapes.....			626,853		394,048
Boilers—					
Heating—					
Cast-iron sectional boilers—Hot water.....	No.	4,701	989,377	7,080	1,102,969
Steam.....	No.		318,131	614	212,614
Steel firebox boilers, locomotive type.....	No.	37	28,850	23	37,886
Horizontal return tubular heating boilers.....	No.	12	9,001	11	11,875
Steel water-tube heating boilers.....	No.	13	3,755		19,650
Power—					
Water-tube boilers—Horizontal type.....	No.	6	16,890	8	8,600
Vertical type.....	No.	64	20,085	69	25,542
Bent tube type.....	No.	2	185		
Horizontal return tubular power boilers.....	No.	40	47,789	25	25,082
Marine type boilers—Internally fired.....	No.	4	2,500	4	2,125
Steel firebox boilers, locomotive type.....	No.	5	4,479	7	6,170
Boiler and engine parts.....			318,994		41,496
Bolts, nuts and rivets.....	100 lb. keg	65,436	423,753	56,433	415,695
Babbitt metal.....	lb.	28,674	6,128	29,326	5,935
Brass valves.....	No.	108,206	323,700	66,562	124,190
Brass fittings.....			15,599		12,966
Car wheels.....			25,171		23,850
Cars, dump.....	No.	166	24,047	213	33,675
Cars, other.....			24,925		18,090
Chains, other than auto.....	lb.	6,868,143	652,001	6,885,280	744,731
Castings—					
Aluminium.....	lb.	12,951	8,875	156,589	41,113
Grey iron.....	lb.	92,826,494	5,557,858	106,461,894	5,674,384
Malleable iron.....	lb.	29,983,208	3,019,146	33,214,219	2,695,514
Steel.....	lb.	4,071,133	296,050	3,712,211	263,774
Brass and bronze.....	lb.	1,321,831	378,580	1,122,656	295,584
Copper.....	lb.	111,693	29,418	84,383	25,990
All other.....			158,831		55,465
Elevators.....	No.		214,765	138	232,682
Enamelled ware.....			479,286		610,939
Engines.....	No.	165	70,332	180	76,602
Feed boilers.....	No.	691	10,138	603	11,301
Forgings.....	lb.	29,061,467	2,226,354	29,427,200	2,430,057
Hardware builders', etc.....			1,122,560		977,923
Heating and ventilating equipment—					
Furnaces, hot air.....	No.	27,624	2,017,820	26,057	2,001,904
Stoves, coal and wood.....	No.	126,701	3,264,271	126,907	3,616,811
Stoves, electric.....	No.	22,577	1,621,991	24,244	1,489,570
Stoves, gas.....	No.	41,891	1,077,147	36,001	1,088,848
Stoves oil.....	No.	11,130	171,133	8,246	133,243
Water heaters.....	No.	14,068	194,161	13,401	167,456
Grate bars.....	lb.	1,036,813	60,921	871,203	48,604
Registers and grills, hot air.....			131,630		234,508
Oil burning equipment.....			368,829		166,762
Radiators and parts.....			2,053,041		1,521,784
Steam traps.....	No.	24,433	132,339		541,008
Ventilating appliances.....			8,316		23,059
Other stove parts.....			503,974		497,007
Other furnace parts.....			152,350		37,884
Other heating and ventilating equipment including range boilers.....			1,036,740		1,663,520
Hydrants.....	No.	1,044	82,360	1,262	94,917
Iron work (ornamental).....			36,048		121,675
Machinery—					
Bakers' equipment—					
Mixing machines.....	No.	28	11,947	100	1,250
Ovens.....	No.	10,081	121,169		108,252
Other bakers' machinery.....			96,762		29,609
Concrete and cement machinery.....			3,522		12,235
Dairy and cheese factory equipment.....			6,260		5,496
Flour and grist mill equipment.....			12,162		11,057
Hoisting machinery.....			111,730		68,097
Metal working machinery.....			116,498		26,356
Mining machinery.....			123,151		128,108
Printing machinery.....			500		976
Pulp and paper machinery.....			56,081		68,679
Road making machinery.....			12,858		8,452



Table 68.—Products of the Castings and Forgings Industry in Canada, 1924 and 1925—Concluded

Product	Unit of measure	1924		1925	
		Quantity	Selling value at works	Quantity	Selling value at works
			\$		\$
Ships' machinery and fittings.....			115,748		112,973
Textile machinery.....			5,590		1,100
Wood working machinery.....			289,353		477,934
Water wheels and turbines.....			52,156		7,950
All other machinery and parts.....			696,377		430,259
Plumbers' goods (iron).....			667,916		535,952
Patterns and models.....			100,102		209,788
Pipe, iron.....	lb.	135,731,210	8,637,748	262,122,407	8,854,289
Pipe fittings, iron.....			2,162,382		2,245,646
Pumps—Steam.....			83,340		82,137
Other power.....			151,031		143,724
Hand.....	No.	4,933	32,503		36,972
Railway track equipment.....			281,936		88,779
Screws.....			110,020		110,676
Scrap.....	lb.	14,372,312	127,484	14,578,644	93,893
Sheet metal products.....			103,998		150,486
Stocks, taps and dies.....			13,347		22,431
Steel tubing.....	lb.	21,931,744	1,302,292	26,081,094	1,647,152
Steel, cold rolled and cold drawn.....	lb.	20,976,600	1,048,558	19,682,306	938,498
Tanks—Storage.....	No.	21,800	253,829		217,781
Pressure.....	No.	124	13,305	79	14,102
Tinware.....			1,284,968		1,355,512
Tools.....			53,502		201,578
Trucks.....			17,214		4,404
Valves, not brass.....	No.	12,054	76,946	1,887	43,168
Wire and wire fence.....			223,880		341,426
Products reported by only 1 or 2 firms*.....			1,049,753		2,432,051
All other products.....			2,033,705		2,317,443
Amount received for custom work and repairs.....			3,005,322		5,325,449
<b>Total.....</b>			<b>57,494,594</b>		<b>61,754,339</b>

\*Includes bronze powders, toe caulks, steel barrels, fire extinguishers and parts, gauges, lawn mowers, water meters, leather working machinery, eclipse bendix drives, rifles, truck castors, box steel, oxyweld tubing, springs, nails, brake shoes, culvert pipe and various other products.

**Stoves.**—Comparative statistics on the production of stoves and parts in Canada are presented in the following table. Output of electric stoves has increased in number each year but the price per unit has declined considerably in the last two years; gas stoves, also, have been produced in greater numbers; but the output of coal and wood stoves has fallen off slightly and the number of oil stoves produced has declined to only about a quarter of the output of two years ago.

Table 69.—Production of Stoves and Parts in Canada, 1922-1925

Item		1922	1923	1924	1925
Stoves, coal and wood.....	No.	233,236	151,193	126,701	127,906
	\$	3,944,657	4,075,069	3,264,271	3,697,434
Stoves and ranges, electric.....	No.	23,952	29,360	31,352	35,309
	\$	1,697,717	2,209,017	2,235,179	1,967,397
Stoves, gas.....	No.	31,493	27,030	41,891	36,001
	\$	749,285	695,647	1,077,147	1,088,848
Stoves, oil.....	No.	26,118	30,827	11,130	8,246
	\$	388,617	442,787	171,133	133,243
Stoves and parts, n.e.s.....	\$	568,703	465,836	437,431	497,007
Stoves and furnaces, n. e. s.....	\$	227,108	215,637	3,200	9,900

Table 70.—Imports into Canada and Exports of Castings and Forgings, 1924 and 1925

Item	1924		1925	
	Quantity	Value	Quantity	Value
		\$		\$
<b>IMPORTS—</b>				
Axles and axles parts, n.o.p., and axle blanks and parts thereof of iron and steel for railways or tramway vehicles.....		44,587		32,204
Axles and axle parts, n.o.p., and axle blanks and parts thereof of iron or steel for other vehicles, n.o.p.....		1,647,679		3,424,802
Castings, malleable iron, when imported by manufacturers of mowers, binders, harvesters and reapers.....		31,525		162,986
Castings, malleable iron, n.o.p.....		189,678		436,251
Castings, iron, n.o.p., not malleable.....		376,110		117,911
Castings, steel.....		153,412		143,922
Forgings of iron or steel of whatever shape or size or in whatever stage of manufacture, n.o.p..... lb.	1,068,191	134,542	1,156,660	13,263
Rolling mill rolls of chilled iron or alloy steel not further manufactured than the parts that are turned for testing purposes only, with or without machined wabblers attached, when imported by proprietors of rolling mills for use only in producing finished rolls for rolling iron or steel.....		8,792		13,263
Locomotive and car wheel tires of steel in the rough..... cwt.	223,758	999,002	175,903	788,964
<b>Total.....</b>		<b>3,590,327</b>		<b>5,120,303</b>
<b>EXPORTS—</b>				
Castings of iron and steel, n.o.p.....		170,660		150,386
Forgings of iron and steel.....		80,442		83,075
<b>Total.....</b>		<b>251,102</b>		<b>233,461</b>

Table 71.—Imports into Canada and Exports of Tubes, Pipes and Fittings, 1924 and 1925

Item	1924		1925	
	Quantity	Value	Quantity	Value
		\$		\$
<b>IMPORTS—</b>				
Cast iron pipe of every description..... cwt.	139,275	289,690	216,570	443,625
Boiler tubes of seamless steel or wrought iron, including flues and corrugated tubes for marine boilers.....		802,487		768,532
Iron tubing, brass covered, not over 4 inches in diameter, and brass trimmings, not polished, lacquered or otherwise manufactured, when imported by manufacturers of iron or brass bedsteads, for use exclusively in the manufacture of such articles in their own factories.....		52,083		20,377
Iron tubing, brass covered, not over 2 inches in diameter, in the rough, when imported by manufacturers, for use only in their own factories in the manufacture of towel bars, bath-tub rails and clothes carriers.....		147		151
Iron tubing, lacquered or brass covered, not over 2 inches in diameter, for the manufacture of extension rods for windows.....				151
Iron or steel tubes, rolled, not joined or welded, not more than 1½ inches in diameter, n.o.p.....		43,514		51,196
Rolled or drawn square tubing of iron or steel, adapted for use in the manufacture of agricultural implements.....		350		1,874
Seamless steel tubing, valued at not less than 3½ cents per pound, cwt.	37,440	268,841	68,998	450,807
Iron or steel pipe or tubing, plain or galvanized, riveted, corrugated or otherwise specially manufactured, including lock-joint pipe, n.o.p.....		291,455		216,105
Iron or steel pipe, not butt or lap welded, and wirebound wooden pipe, not less than thirty inches internal diameter, when for use exclusively in alluvial gold mining.....				296
Wrought or seamless iron or steel tubing, plain or galvanized, threaded and coupled or not, over 10 inches in diameter, n.o.p.		112,436		213,966
Wrought or seamless tubing, iron or steel, plain or galvanized, threaded and coupled or not, 10 inches or less in diameter, n.o.p.		291,449		376,016
Fittings, iron or steel, for iron or steel pipe of every description....		470,656		590,756
<b>Total.....</b>		<b>2,624,013</b>		<b>3,142,701</b>
<b>EXPORTS—</b>				
Pipe and tubing of iron and steel.....		1,179,205		1,429,210

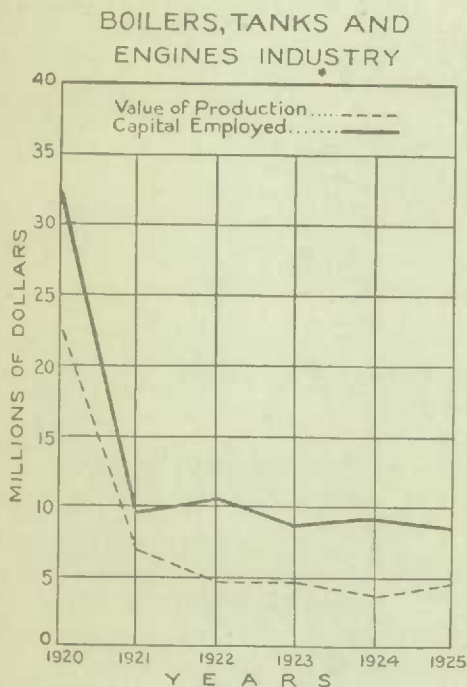
Table 72.—Imports into Canada and Exports of Chains, 1924 and 1925

	1924		1925	
	Quantity	Value	Quantity	Value
IMPORTS—		\$		\$
Cable chains, iron or steel, for wooden, iron, steel or composite ships or vessels..... cwt.	2,925	16,768	4,771	29,290
Chains, malleable sprocket or link belting, when imported by manufacturers of agricultural implements, for use in the manufacture of such implements in their own factories.....		227,016		163,687
Chains, coil chains, coil chain links, including repair links and chain shackles of iron or steel, 1½ inch in diameter and over..... cwt.	5,732	44,387	3,762	30,404
Chains, coil chain, coil chain links, including repair links and chain shackles of iron or steel, n.o.p..... cwt.	20,215	170,192	13,523	119,444
Chains, n.o.p.....		222,298		286,679
<b>Total.....</b>		<b>680,661</b>		<b>629,504</b>

## CHAPTER FOUR

## Boilers, Tanks and Engines

**General.**—Production in the boilers, tanks and engines industry in Canada during 1925 amounted in value to \$4,540,706, an increase of 24 per cent over the output value of \$3,667,610 in 1924 but 8 per cent less than the corresponding figure of \$4,929,920 reported for 1923. Of the 32 plants engaged primarily in producing boilers, tanks or engines, 18 were located in Ontario, 7 in British Columbia, 4 in Nova Scotia and 3 in Quebec. During the year 2 establishments in Ontario ceased to operate, but as 2 new plants were opened in that province the same number of concerns were in operation as in the preceding year. These enterprises represented a capital investment in Canada of \$8,638,759, afforded employment to an average of 1,367 people, paid \$1,832,540 in salaries and wages and by the manufacturing processes added \$2,217,908 to the value of purchased materials which cost \$2,322,798.



The industry is centred in Ontario as, in 1924; that province with an output valued at \$3,370,017 accounted for 74 per cent of the total for Canada. British Columbia was next with \$711,787; Nova Scotia, \$242,875; and Quebec, \$216,027.

Only 2 firms in this group had productions valued at more than half a million dollars; the outputs of 4 others each exceeded \$200,000; 3 more were each above \$100,000; 7 others were each above \$50,000 each; 7 more above \$25,000 each; 5 more over \$10,000, and 4 were under this latter figure.

Nine plants employed fewer than 10 persons the year round; 12 others engaged between 10 and 25 workers; 5 between 25 and 50 workers; 4 between 50 and 100, while the remaining 2 concerns each employed more than 200 workers.

Principal products of this industry during 1925 included 551 boilers of all kinds, valued at \$1,065,389, engines worth \$403,466, tanks valued at \$382,275, and many other lines such as steel smokestacks, bins and hoppers, penstocks and rivetted steel pipe pumps, castings and miscellaneous parts for boilers and engines.

To interpret properly the statistics published in the various reports of the Bureau it is necessary to understand the Bureau's method of classification and to note that firms are classified in industrial groups according to the nature of their main product. The boilers, tanks and engines industry includes only those concerns making boilers, tanks or engines as the principal product; similar commodities are made also in plants which are necessarily classed in other industries such as agricultural implements, machinery, etc. Table 30 of this report shows the total output from all industries of the iron and steel group.



**Table 73.—Summary Statistics of the Boilers, Tanks and Engines Industry in Canada, 1921-1925**

Year	Number of plants	Capital employed	Number of employees	Salaries and wages	Cost of fuel and electricity*	Cost of materials	Selling value of products	Value added by manufacturing
		\$		\$	\$	\$	\$	\$
1921.....	39	9,783,166	3,105	2,455,769	157,500	2,479,032	6,960,170	4,481,138
1922.....	43	10,370,771	1,616	2,045,712	116,241	2,036,213	4,901,613	2,868,400
1923.....	34	8,907,457	1,422	1,856,119	162,920	2,144,355	4,929,920	2,785,565
1924.....	32	9,140,981	1,242	1,619,323	136,984	1,588,530	3,667,610	2,079,080
1925.....	32	8,638,759	1,367	1,832,540	122,942	2,322,798	4,540,706	2,217,908

\*Electricity not included prior to 1923.

**Table 74.—Principal Statistics of the Boilers, Tanks and Engines Industry in Canada, by Provinces, 1924 and 1925**

Province	1924				1925			
	Number of plants	Number of employees	Salaries and wages	Selling value of products	Number of plants	Number of employees	Salaries and wages	Selling value of products
			\$	\$			\$	\$
Nova Scotia.....	4	98	119,262	221,927	4	122	133,573	242,875
Quebec.....	3	70	88,164	189,834	3	68	78,701	216,027
Ontario.....	19	1,009	1,283,582	2,973,113	18	998	1,343,523	3,370,017
British Columbia.....	6	74	128,315	282,736	7	179	276,683	711,787
<b>Canada.....</b>	<b>32</b>	<b>1,242</b>	<b>1,619,323</b>	<b>3,667,610</b>	<b>32</b>	<b>1,367</b>	<b>1,832,540</b>	<b>4,540,706</b>

**Capital Employed.**—Capital employed in the boilers, tanks and engines group in 1925 amounted to \$8,638,759 or half a million dollars below the figure reported in 1924 although the same number of plants were in operation in each year. The value placed on fixed assets was lower by \$370,000; inventories showed a decline of \$300,000, while the value of cash and trading accounts was higher by \$166,000.

Plants in Ontario represented an investment of \$6,704,517 or 78 per cent of the total for the industry, but nearly a million dollars lower than the corresponding figure for 1924; capital employed in Nova Scotia showed a slight increase at \$942,078; in Quebec, it remained about the same at \$202,589, while in British Columbia the total investment at \$789,575 was more than double the figure for 1924.

**Table 75.—Capital Employed in the Boilers, Tanks and Engines Industry in Canada, by Classes and by Industries, 1924 and 1925**

Province	1924					1925				
	Capital employed as represented by					Capital employed as represented by				
	Lands, buildings, fixtures, machinery and tools	Materials on hand and stocks in process	Cash, trading and operating account	Total		Lands, buildings, fixtures, machinery and tools	Materials on hand and stocks in process	Cash, trading and operating account	Total	
	\$	\$	\$	\$		\$	\$	\$	\$	
Nova Scotia.....	555,712	257,998	86,428	900,138		639,724	218,254	84,100	942,078	
Quebec.....	159,845	18,283	23,609	201,737		143,642	15,437	43,510	202,589	
Ontario.....	4,792,122	1,551,786	1,356,984	7,680,892		4,086,478	1,205,407	1,412,632	6,704,517	
British Columbia.....	167,634	67,263	123,318	358,215		436,845	156,176	196,554	789,575	
<b>Canada.....</b>	<b>5,675,313</b>	<b>1,895,329</b>	<b>1,570,339</b>	<b>9,149,981</b>		<b>5,306,689</b>	<b>1,595,274</b>	<b>1,736,796</b>	<b>8,638,759</b>	

**Employment.**—The average number of persons employed in the boilers, tanks and engines industry in 1925 was 1,367 consisting of 282 salaried employees and 1,085 wage-earners. The 18 plants in Ontario gave employment to 998 people; 7 establishments in British Columbia gave work to 179 persons; 4 in Nova Scotia employed 122 workers, while 3 in Quebec employed 68 people the year round.

Employment conditions in the industry were fairly steady with a minimum number of 914 wage-earners (exclusive of salaried workers) on the rolls in January and a maximum of 1,192 in September. The average for the year was 1,085 to whom \$1,295,175 was paid in wages, giving thus an average income of \$1,194 to each wage-earner. Payments to salaried employees totalled \$537,365 during the year, making a total expenditure of \$1,832,540 for salaries and wages as compared with \$1,619,323 in 1924 when 251 salaried workers and 991 wage-earners were employed in the various plants.

**Table 76.—Average Number of Employees, Salaries and Wages Paid in the Boilers, Tanks and Engines Industry in Canada, by Provinces, 1924 and 1925**

Province	Average number of employees					Salaries and wages		
	Salaried employees		Wage-earners		Total	Salaries	Wages	Total
	Male	Female	Male	Female				
1924						\$	\$	\$
Nova Scotia.....	13	5	79	1	98	31,849	87,413	119,262
Quebec.....	6		64		70	16,439	71,725	88,164
Ontario.....	168	50	780	2	1,000	427,021	856,561	1,283,582
British Columbia.....	9		65		74	35,283	93,032	128,315
<b>Canada.....</b>	<b>196</b>	<b>55</b>	<b>988</b>	<b>3</b>	<b>1,242</b>	<b>510,592</b>	<b>1,108,731</b>	<b>1,619,323</b>
1925								
Nova Scotia.....	21	6	95		122	39,479	94,064	133,543
Quebec.....	6		62		68	17,026	61,735	78,761
Ontario.....	180	50	766	2	998	425,049	917,874	1,343,523
British Columbia.....	18	1	160		179	55,211	221,472	276,683
<b>Canada.....</b>	<b>225</b>	<b>57</b>	<b>1,083</b>	<b>2</b>	<b>1,367</b>	<b>537,365</b>	<b>1,295,175</b>	<b>1,832,540</b>

**Table 77.—Number of Wage-Earners Employed in the Boilers, Tanks and Engines Industry in Canada, by Months, 1924 and 1925**

Month	1924			1925		
	Male	Female	Total	Male	Female	Total
January.....	982	3	985	912	2	914
February.....	1,033	3	1,036	1,026	2	1,028
March.....	1,066	3	1,069	1,112	2	1,114
April.....	1,098	3	1,101	1,126	2	1,128
May.....	1,049	3	1,052	1,057	2	1,059
June.....	1,010	3	1,013	1,067	2	1,069
July.....	1,001	3	1,004	1,127	2	1,129
August.....	978	3	981	1,146	2	1,148
September.....	961	3	964	1,190	2	1,192
October.....	941	3	944	1,131	2	1,133
November.....	862	3	865	1,058	2	1,060
December.....	841	3	844	1,029	2	1,031
<b>Average.....</b>	<b>988</b>	<b>3</b>	<b>991</b>	<b>1,083</b>	<b>2</b>	<b>1,085</b>

**Table 78.—Hours of Labour (in Month of Greatest Employment) in the Boilers, Tanks and Engines Industry in Canada, by Provinces, 1925**

Province	Average number of wage-earners working				Hours worked per man per week when working			
	8 hours or less per day	9 hours	10 hours	Over 10 hours	8 hours or less per day	9 hours	10 hours	Over 10 hours
Nova Scotia.....	72	6	25	1	48	53	57	91
Quebec.....		94	15			50	55	
Ontario.....	56	672	237	17	44	50	53	72
British Columbia.....	200				45			

**Table 79.—Fuel and Electricity Used in the Boilers, Tanks and Engines Industry in Canada, 1924 and 1925**

Kind	Unit of measure	1924		1925	
		Quantity	Value	Quantity	Value
		No.	\$	No.	\$
Anthracite coal.....	short ton	318	5,062	250	3,135
Bituminous coal.....	short ton	8,016	60,567	8,744	57,143
Lignite coal.....	short ton	52	637	25	375
Coke.....	short ton	467	4,565	499	4,832
Fuel oil.....	gallon	128,137	12,839	64,011	6,010
Gasoline.....	gallon	20,770	5,674	14,040	3,854
Gas.....	M. cu. ft.	1,505	1,853	1,008	1,473
Wood.....	cord	135	1,021	175	1,522
Other fuel.....			850		5,853
Electric power.....	k.w.h.	2,631,109	43,916	2,604,018	38,736
<b>Total.....</b>			<b>136,984</b>		<b>122,942</b>

**Table 80.—Power Equipment Employed in the Boilers, Tanks and Engines Industry in Canada, 1924 and 1925**

Kind	1924		1925	
	Number of units	Total h.p. according to manufacturers' rating	Number of units	Total h.p. according to manufacturers' rating
Steam engines and turbines.....	16	1,630	16	1,630
Gas engines.....			2	50
Oil and gasoline engines.....	5	124	6	141
Hydraulic turbines or water wheels.....			1	20
<b>Total primary power.....</b>	<b>21</b>	<b>1,754</b>	<b>25</b>	<b>1,841</b>
Electric motors operated by purchased power.....	151	3,338	187	3,353
<b>Total power equipment employed.....</b>	<b>172</b>	<b>5,092</b>	<b>212</b>	<b>5,194</b>
Electric motors operated by power generated by the industry.....	150	2,180	132	2,370
<b>Total electric motors.....</b>	<b>301</b>	<b>5,518</b>	<b>319</b>	<b>5,723</b>
Boilers installed.....	20	3,283	18	2,803

**Materials Used.**—The total cost at the works of all materials used in this industry was \$2,322,798 in 1925 as against \$1,588,530 in the previous year. Semi-finished iron and steel in its various forms made up the bulk of the materials used; the major items of this class included boiler plates at \$243,300; boiler tubes, \$218,464; steel sheets, \$201,206; iron castings, \$144,590; steel bars and shafting, \$93,531; pig iron, \$28,386; and other iron and steel, \$128,045. Parts for machines cost \$338,499; iron pipe and fittings, \$69,650; bolts, nuts, and rivets, \$56,073; other manufactured articles, \$280,385; non-ferrous metals, \$83,201; and miscellaneous materials, \$437,468. A detailed list of materials is shown in the accompanying table together with comparative data for 1924.

**Table 81.—Materials Used in the Boilers, Tanks and Engines Industry in Canada, 1924-1925—**

Material	Unit of measure	1924		1925	
		Quantity	Cost	Quantity	Cost
			\$		\$
<b>Iron and steel—</b>					
Pig iron.....	long ton	1,041	29,260	1,086	28,386
Wrought iron and skelp.....	short ton	212	12,999	234	13,925
Malleable iron.....	short ton	59	9,217	69	12,122
Iron castings.....	short ton	1,345	122,009	3,625	144,590
Steel castings.....	short ton	207	49,200	423	59,982
Steel ingots, blooms and billets.....	short ton	51	9,195	66	11,853
Steel bars and shafting.....	short ton	1,310	99,146	1,266	93,531
Steel sheets.....	short ton	1,082	149,458	2,994	201,206
Steel rods and wire.....	short ton	4	573	128	9,298
Boiler plates.....	short ton	3,188	177,155	4,646	243,300
Boiler tubes—lapwelded.....	short ton	1,407	149,445	.....	202,940
Boiler tubes—seamless.....	short ton	97	22,082	108	15,324
Scrap.....	short ton	1,298	26,554	1,198	20,865
<b>Other metals—</b>					
Aluminium.....	lb.	1,150	223	1,291	235
Brass and copper castings.....	lb.	38,734	18,951	53,726	30,502
Copper.....	lb.	38,720	8,072	11,211	1,420
Lead.....	lb.	200	18	110	11
Tin.....	lb.	650	393	15,910	976
Zinc.....	lb.	151,175	12,116	321,361	29,271
Babbitt metal and solders.....	lb.	40,223	9,645	47,308	11,322
Other metals.....			12,404	.....	9,464
<b>Articles used for further manufacture—</b>					
Parts for machines.....			163,573	.....	338,499
Iron pipe and fittings.....			38,613	.....	69,650
Bolts, nuts, rivets and screws.....			40,091	.....	56,073
Electrical goods.....			51,925	.....	58,425
Paints, oils and varnishes.....			13,161	.....	16,036
Engine and boiler parts.....			33,482	.....	54,506
Other articles of this class.....			158,088	.....	150,518
<b>Other materials—</b>					
Asbestos and other linings.....			608	.....	4,511
Foundry coke.....	short ton	1,052	12,532	4,033	42,211
Moulding and other sands.....	short ton	517	1,735	430	1,432
Sea coal facing.....	short ton	80	954	15	842
Plumbago.....	lb.	1,520	167	1,970	175
Other foundry facings.....	lb.	76,400	3,041	66,850	2,674
Patterns and models.....			4,414	.....	4,039
Lumber.....	M.ft. b.m.	446	27,249	438	26,257
Fire brick—Standard.....	M.	71	4,791	306	12,580
Fire brick—Special shapes.....	M.	7	721	36	877
Fire clay.....	short ton	26	478	54	714
Cupola blocks.....	No.	.....	30	375	45
Core oil.....	imp. gal.	105	204	94	127
Core compounds.....	lb.	11,000	322	9,650	387
Shipping containers.....			194	.....	614
All other materials.....			114,042	.....	339,977
<b>Total.....</b>			<b>1,588,530</b>		<b>2,322,798</b>



**Products.**—Products made in the boilers, tanks and engines group included 551 boilers of which 178 were classed as heating boilers, and 373 as power boilers, 2,988 storage tanks and 624 pressure tanks, 46 steam engines, 856 gasoline engines and 22 engines of other kinds. Pumps, smokestacks, mechanical stokers, safes and vaults, boiler and engine parts, and repairs made up the rest of the output. Details are given in Table 83. Altogether the production was valued at \$4,540,706 as against \$3,667,610 in 1924.

Boilers, tanks and engines were made also in other industrial groups. The castings and forgings industry showed 7,841 boilers worth \$1,452,513; 180 engines valued at \$76,602; and tanks worth \$291,808; the machinery industry reported an output of boilers worth \$52,871, engines \$116,236, and tanks at \$862,832; automobile manufacturers made 96,059 engines; sheet metal works produced tanks worth \$265,846, the miscellaneous iron and steel group showed an output of tanks valued at \$252,849, and the agricultural implements industry showed 1,824 engines worth \$193,089 and tanks to a value of \$162,695. For the complete production of any one commodity, reference should be made to Table 30, which is an alphabetical list of all products made in the iron and steel industries.

**Table 82.—Products of the Boilers, Tanks and Engines Industry in Canada, 1924**

	Number	Total sq. ft. of heating surface	Total h.p.	Selling value
				\$
Heating boilers—				
Steel firebox boilers, locomotive type.....	75	34,153	3,262	92,076
Horizontal return tubular heating boilers.....	35	20,356	1,787	30,576
Steel water tube heating boilers.....	33	29,056	2,900	61,208
Power boilers—				
Water tube—horizontal type.....	35	105,729	10,530	207,932
Water tube—vertical type.....	55	24,421	2,450	49,720
Horizontal return tubular power boilers.....	144	113,149	10,515	194,279
Marine type—internally fired.....	4	6,518	924	19,233
Steel firebox, locomotive type.....	32	12,960	1,211	42,857
Other power.....	55	5,579	505	15,047
Tanks—				
Storage.....	18,562			335,171
Pressure.....	2,060			65,949
Steel smokestacks.....	150			32,427
Smoke breeching.....	56			10,341
Bins and hoppers.....				5,380
Penstocks and riveted steel pipe.....				24,631
		Number or quantity	Total h.p.	
Engines—				
Steam, single cylinder—horizontal.....	No.	30	1,564	99,194
.....vertical.....	No.	14	255	6,804
Steam, compound and triple expansion, vertical.....	No.	2	852	8,419
Steam, turbine.....	No.	2	1,076	16,757
Gasoline—				
(a) Marine type.....	No.	458	3,916	179,700
(b) Stationary.....	No.	990	2,561	88,107
All other engines.....	No.	90	416	12,883
Castings, sold direct—				
Iron.....	short ton	213		22,679
Other.....				5,553
Heating and ventilating equipment.....				60,191
Mining and metallurgy machinery.....				21,345
Pumps, power.....	No.	113		57,214
Road machinery (excavators).....	No.	4		26,535
Conveying machines for grain elevators.....				153,347
Parts for boilers.....				91,878
Parts for engines.....				127,221
Accessories for boilers and engines.....				105,428
All other products.....				565,783
Products of 1 or 2 firms*.....				372,030
Amount received for custom work and repairs.....				462,715
<b>Total.....</b>				<b>3,667,610</b>

\*Includes safes, vaults, etc., creosoting cylinders, stump pullers, separators, pulp and paper machinery, and ammonia compressors.

Table 83.—Products Made in the Boilers, Tanks and Engines Industry in Canada, 1925

Product	Number	Total sq. ft. of heating surface	Total b.h.p.	Total selling value at plant  \$
Heating boilers—				
Steel firebox, locomotive type.....	95	39,916	3,699	91,252
Horizontal return tubular.....	23	19,809	1,872	28,414
Steel water tube.....	60	30,178	2,960	75,656
Power boilers—				
Water tube—horizontal type.....	41	207,700	20,704	438,457
Water tube—vertical type.....	29	39,118	3,629	93,223
Horizontal return tubular.....	138	130,427	11,708	194,878
Marine type.....	11	11,733	1,315	49,117
Steel firebox, locomotive type.....	51	19,770	1,930	58,290
Vertical fire tube.....	103	13,702	1,309	36,102
Tanks—				
Storage.....	2,988			316,319
Pressure.....	624			65,956
Steel smokestacks.....	142			37,579
Smoke breeching.....	54			13,962
Bins and hoppers.....				14,678
Penstocks and riveted steel pipe.....				40,715
	Unit of measure	Quantity	Total h.p.	
Engines—				
Steam, single cylinder, horizontal.....	No.	39	1,479	89,783
Steam, single cylinder, vertical.....	No.	7	246	8,279
Gasoline, marine type.....	No.	656	5,596	246,579
Gasoline, other types.....	No.	200	904	32,748
Other engines including steam turbines.....	No.	22	934	26,077
Castings—				
Iron.....	short ton	345		33,328
Other.....	lb.	2,200		376
Heating and ventilating equipment.....				12,280
Pumps—				
Steam.....	No.	9		4,040
Other power.....	No.	112		121,460
Other.....	No.	226		21,745
Parts for boilers.....				108,203
Parts for engines.....				122,635
Accessories for boilers and engines.....				60,179
Machinery parts.....				49,251
Amount received for custom or repair work.....				537,272
All other products.....				658,079
*Products of 1 or 2 firms.....				852,894
<b>Total.....</b>				<b>4,549,706</b>

\*Products of 1 or 2 firms includes galvanized range boilers, mechanical stokers, turbines and water wheels, safes and vaults, powdered fuel equipment, elevator machinery, gas water heaters, superheaters and other products of a similar nature.

Table 84.—Classification of Engines Made in the Boilers, Tanks and Engines Industry in Canada to Show the Number and Total H.P. of the Different Engines Manufactured in 1924

Kind	Under 10 h.p.		10 to 25 h.p.		26 to 50 h.p.		51 to 100 h.p.		101 h.p. and over	
	No.	Total h.p.	No.	Total h.p.	No.	Total h.p.	No.	Total h.p.	No.	Total h.p.
Steam.....			22	408	4	190	10	526	12	2,623
Gasoline.....	1,338	4,379	95	1,588	15	510				
Other.....	90	416								
<b>Total.....</b>	<b>1,428</b>	<b>4,795</b>	<b>117</b>	<b>1,996</b>	<b>19</b>	<b>700</b>	<b>10</b>	<b>526</b>	<b>12</b>	<b>2,623</b>

**Table 85.—Classification of Engines Made in the Boilers, Tanks and Engines Industry in Canada to Show the Number and Total H.P. of the Different Engines Manufactured, 1925**

Kind	Under 10 h.p.		10 to 25 h.p.		26 to 50 h.p.		51 to 100 h.p.		101 h.p. and over	
	No.	Total h.p.	No.	Total h.p.	No.	Total h.p.	No.	Total h.p.	No.	Total h.p.
Steam.....			22	471	14	464	12	786	3	460
Gasoline.....	683	3,415	151	2,175	17	610	5	300		
Other.....			3	66	14	412				
<b>Total.....</b>	<b>683</b>	<b>3,415</b>	<b>176</b>	<b>2,712</b>	<b>45</b>	<b>1,486</b>	<b>17</b>	<b>1,086</b>	<b>3</b>	<b>460</b>

**Table 86.—Classification of Gasoline Engines Made in the Boilers, Tanks and Engines Industry in Canada to Show the Number of Cylinders and Total Capacity of the Gasoline Engines Manufactured, 1924**

Type	1 cylinder		2 cylinder		4 cylinder		6 cylinder		Over 6 cylinder	
	No.	Total h.p.	No.	Total h.p.	No.	Total h.p.	No.	Total h.p.	No.	Total h.p.
Marine.....	227	1,348	177	1,458	54	1,110				
Stationary.....	990	2,561								
<b>Total.....</b>	<b>1,217</b>	<b>3,909</b>	<b>177</b>	<b>1,458</b>	<b>54</b>	<b>1,110</b>				

**Table 87.—Classification of Gasoline Engines Made in the Boilers, Tanks and Engines Industry in Canada to Show the Number of Cylinders and Total Capacity of all Gasoline Engines Manufactured, 1925**

Type	1 cylinder		2 cylinder		3 cylinder		4 cylinder		6 cylinder	
	No.	Total h.p.	No.	Total h.p.	No.	Total h.p.	No.	Total h.p.	No.	Total h.p.
Marine.....	483	2,597	110	1,305	10	314	51	1,260	2	120
Stationary.....	10	37								
Other.....	190	867								
<b>Total.....</b>	<b>683</b>	<b>3,501</b>	<b>110</b>	<b>1,305</b>	<b>10</b>	<b>314</b>	<b>51</b>	<b>1,260</b>	<b>2</b>	<b>120</b>

**Table 88.—Commodity Statement to Show Total Production of Boilers, Tanks and Engines, in Canada, by Industries, 1924 and 1925**

Industry	1924		1925	
	Number	Selling value	Number	Selling value
<b>Boilers—</b>		\$		\$
Boilers, tanks and engines industry.....	468	709,928	551	1,065,389
Castings and forgings industry.....	4,884	1,441,042	7,841	1,452,513
Machinery industry.....		51,955		52,871
<b>Engines—</b>				
Agricultural implements industry.....	1,265	168,210	1,824	193,089
Automobile accessories industry.....		2,753,999		
Boilers, tanks and engines industry.....	1,586	411,864	924	403,466
Castings and forgings industry.....	165	70,322	180	76,602
Machinery industry.....		88,358		116,236
Automobile industry.....	80,584		96,050	
<b>Tanks—</b>				
Agricultural implements industry.....		92,000		162,695
Boilers, tanks and engines industry.....	20,622	401,120	3,612	382,275
Castings and forgings industry.....		86,950		291,808
Miscellaneous iron and steel products industry.....		76,097		252,849
Machinery industry.....		673,553		862,832
Sheet metal products industry.....		225,940		265,846

Table 89.—Imports into Canada and Exports of Engines and Boilers, n.o.p., 1924 and 1925

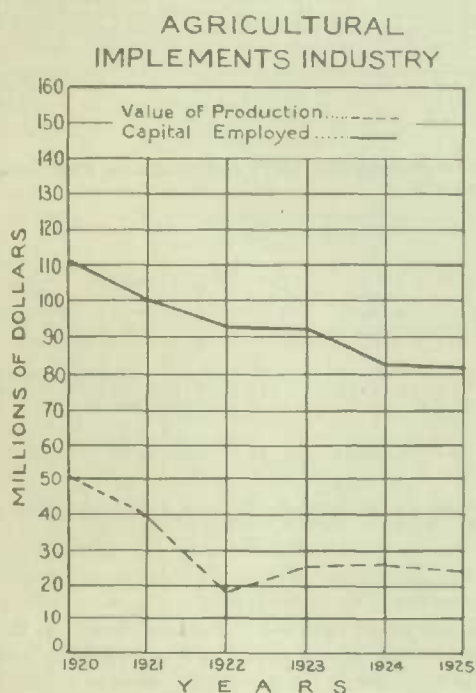
	1924		1925	
	Quantity	Value	Quantity	Value
		\$		\$
IMPORTS—				
Boilers, steam, and parts of.....		185,928		222,633
Boilers, n.o.p., and parts of.....		157,611		132,543
Engines, automobile.....No.	27,371	4,140,283	67,305	8,287,105
Engines, fire.....No.	11	24,198	3	20,773
Engines to be used exclusively in the propulsion of boats, <i>bona fide</i> owned by individual fishermen for their own use in the fisheries.....No.			87	25,831
Engines, internal combustion, marine, n.o.p.....No.	1,132	256,558	1,675	278,791
Engines, internal combustion, n.o.p.....No.	4,429	703,700	6,612	1,123,066
Engines, steam.....No.	94	361,500	116	211,581
Engine parts and accessories, n.o.p.....No.		983,183		873,526
Locomotives for railways, electric.....No.	13	59,257	8	22,379
Locomotives for railways, n.o.p.....No.	54	359,213	27	159,785
Locomotive parts, n.o.p.....		209,558		245,161
<b>Total.....</b>		<b>7,440,989</b>		<b>11,603,174</b>
EXPORTS—				
Internal combustion engines and parts.....No.	417	73,582	1,243	240,576
Steam engines and parts.....		385		5,230
Locomotives and parts.....		98,091		14,506
<b>Total.....</b>		<b>172,059</b>		<b>260,312</b>



## CHAPTER FIVE

## Agricultural Implements

**General.**—The manufacture of agricultural implements constitutes one of the most important industries in the iron and steel group in Canada; in 1925 a total of 82 million dollars was invested in plant equipment and working capital, and an average of 7,500 persons were given employment the year round. The industry as reviewed in the present chapter includes only those plants in Canada making agricultural implements and machinery as the main products of their plant; similar commodities are made also in plants which are classed in other industrial groups. For the complete output of any commodity in the iron and steel industry, reference should be made to Table 30 of this report.



Production from the agricultural implements industry in Canada during 1925 amounted in value to \$24,770,216, a decline of 6 per cent from the output value of \$26,447,171 reported in 1924, and comparable to values of \$50,301,302 in 1920; \$38,947,968 in 1921,—\$18,240,381 in 1922 and \$26,026,419 in 1923. Capital employed was a million dollars below the figure for 1924, the cost of raw materials was 5 per cent lower than in the previous year but employment was given to an average of 7,559 people as compared with 6,700 in 1924. The industry showed improvement toward the end of the year.

Of the 61 firms in Canada engaged primarily in this line of work, 43 were located in Ontario, 11 in Quebec, 3 in Manitoba, 2 in Alberta, and 1 in each of the provinces of Prince Edward Island and British Columbia. They represented a capital investment of \$81,861,961, employed an average of 7,559 people to whom \$9,089,221 were paid in salaries and wages, and by the manufacturing processes added \$13,681,030 to the value of materials used which cost \$11,089,186.

As compared with 1924, there was a net loss of 2 plants; 3 establishments in Ontario,

1 in Manitoba, and 1 in Alberta did not operate during 1925, but 2 new plants in Ontario and 1 in Quebec commenced operations during the year.

The industry is centred in Ontario with 43 of the 61 operating plants located in that province. Other data reveal even a greater concentration than is indicated by the number of plants. Of the 7,559 people employed in the industry 7,143 or nearly 95 per cent of the total were employed in Ontario factories. Of the capital employed, Ontario accounted for \$79,115,119 or 88 per cent of the total, and, of the production, Ontario's plants accounted for \$23,361,259 or 95 per cent of the total output for the industry.

The scope of the industry in Canada may be indicated by the following data. Only 4 plants each produced commodities valued at more than 2 million dollars; 4 others each had outputs worth between 1 and 2 million dollars; 3 others each exceeded the half-million dollar mark; 10 more were each above \$200,000, 8 above \$100,000, 6 above \$50,000, 8 above \$25,000, 9 above \$10,000, and only 9 below the latter figure. Grouped according to the numbers of employees the plants ranged as follows: under 10 employees, 18 plants; over 10 but less than 25 employees,

13 plants; over 25 but less than 50, 6 establishments; over 50 but less than 100 employees, 5 plants; over 100 but less than 200 employees, 10 establishments; between 200 and 500 employees, 6 plants; while only 3 establishments gave work to more than 500 persons in each.

Main products of this industry included grain harvesters valued at 2.4 million dollars; ploughs worth 2.3 million dollars; power threshers, 2.1 millions; mowers, 1.4 millions; washing machines, 1.7 millions; miscellaneous parts and accessories worth 2 millions; cultivators and cream separators, 0.8 millions each; and a half million dollars' worth of each of the following lines: grain drills, harrows, pumps, hand tools and implements, and castings of all kinds.

**Table 90.—Summary Statistics of the Agricultural Implements Industry in Canada, 1921-1925**

Year	Number of plants	Capital employed	Number of employees	Salaries and wages	Cost of fuel and electricity*	Cost of materials	Selling value of products	Value added by manufacturing
		\$		\$	\$	\$	\$	\$
1921.....	90	100,285,688	9,198	11,808,700	1,045,918	18,854,537	38,947,968	20,093,431
1922.....	73	92,566,964	6,221	7,084,947	410,535	7,967,767	18,240,381	10,272,614
1923.....	67	92,277,040	7,792	9,112,214	840,413	11,582,401	26,026,419	14,434,018
1924.....	63	82,877,387	6,700	8,192,861	605,614	11,700,644	26,447,171	14,746,527
1925.....	61	81,861,961	7,559	9,089,221	642,769	11,089,186	24,770,216	13,681,030

\*Electricity not included prior to 1923.

**Table 91.—Principal Statistics of the Agricultural Implements Industry in Canada, by Provinces, 1924 and 1925**

Province	1924				1925			
	Number of plants	Number of employees	Salaries and wages	Selling value of products	Number of plants	Number of employees	Salaries and wages	Selling value of products
			\$	\$			\$	\$
Quebec.....	10	227	241,363	592,989	11	277	274,212	692,662
Ontario.....	44	6,322	7,774,221	25,269,205	43	7,143	8,629,977	23,361,259
Manitoba.....	3	81	94,774	379,371	3	100	138,305	627,815
Alberta.....	3	52	63,954	106,929				
<b>Canada*</b> .....	<b>63</b>	<b>6,700</b>	<b>8,192,861</b>	<b>26,147,171</b>	<b>61</b>	<b>7,559</b>	<b>9,089,221</b>	<b>24,770,216</b>

\*Includes also data for 1 plant in each of the provinces of Prince Edward Island, Saskatchewan, and British Columbia in 1924, and 1 plant in Prince Edward Island, 2 in Alberta and 1 in British Columbia in 1925.

**Capital Employed.**—Capital employed in the agricultural implements industry in Canada in 1925 amounted to \$81,861,961, the lowest figure on record for this industrial group and a million dollars below the capital reported in 1924—10 millions below 1923 and 18 millions lower than the banner year of 1920. Lands, buildings, machinery and tools were valued at 28.8 million dollars in 1925, a gain of nearly 2 million dollars over the figure for the previous year, but the value of materials on hand and in process showed a loss of 1.5 million dollars and the cash, trading and operating accounts showed a decline in value of 1.2 million dollars.

Plants in Ontario employed a capital of \$79,115,119 or 97 per cent of the total for Canada; Quebec reported an investment of about 2 million dollars; Alberta, half a million dollars and Prince Edward Island, Manitoba and British Columbia accounted for the remainder. Ontario reported a decline of more than a million dollars in capital employed in 1925 as compared with 1924; Quebec and Manitoba showed small gains while the other provinces represented, reported but little change from the figures given in 1924.

**Table 92.—Capital Employed in the Agricultural Implements Industry in Canada, by Classes and by Provinces, 1924 and 1925**

Province	1924				1925			
	Capital employed as represented by				Capital employed as represented by			
	Lands, build-ings, fixtures, machinery and tools	Materials on hand, and stocks in process	Cash, trading and operating accounts	Total	Lands, build-ings, fixtures, machinery and tools	Materials on hand, and stocks in process	Cash, trading and operating accounts	Total
	\$	\$	\$	\$	\$	\$	\$	\$
Quebec.....	426,950	542,438	699,201	1,668,589	462,333	499,815	1,053,375	2,015,523
Ontario.....	26,097,239	28,718,170	25,429,376	80,244,785	28,020,696	27,279,701	23,814,722	79,115,119
Manitoba.....	212,922	241,308	73,037	527,267	253,726	228,945	114,816	597,487
Alberta.....	256,491	50,919	32,958	340,368				
<b>Canada*</b> .....	<b>27,042,898</b>	<b>29,583,040</b>	<b>26,251,449</b>	<b>82,877,387</b>	<b>28,811,790</b>	<b>28,040,159</b>	<b>25,010,012</b>	<b>81,861,961</b>

\*Includes also data for 1 plant in each of the provinces of Prince Edward Island, Saskatchewan and British Columbia in 1924, and 1 plant in Prince Edward Island, 2 in Alberta, and 1 in British Columbia in 1925.

**Employment.**—Plants engaged in the manufacture of agricultural implements in Canada in 1925 gave employment to an average of 7,559 people of whom 7,143 or 94.5 per cent were employed in Ontario plants, 277 in Quebec plants, 100 in Manitoba and the remainder in Prince Edward Island, Alberta and British Columbia. Salaries paid to the 1,353 salaried employees amounted to \$2,254,068 while 6,206 wage-earners were paid \$6,835,153 for an average wage of \$1,100.

Judging from monthly employment records the industry showed increasing prosperity during the year. The year opened with 4,883 wage-earners employed; by April the number had risen to 6,193, then showed small increases each month to 6,573 in August and in December reached a maximum of 7,344 to make an average of 6,206 for the year. In 1924, when the average was 5,412, the peak of 6,365 was reached in February and the minimum of 4,204 in October.

**Table 93.—Average Number of Employees, Salaries and Wages, Paid in the Agricultural Implement Industry in Canada, 1924 and 1925**

Province	Average number of employees					Salaries and wages		
	Salaried employees		Wage-earners		Total	Salaries	Wages	Total
	Male	Female	Male	Female				
<b>1924</b>						\$	\$	\$
Quebec.....	42	7	177	1	227	77,485	163,878	241,363
Ontario.....	929	276	5,010	107	6,322	2,183,308	5,590,913	7,774,221
Manitoba.....	18	4	59		81	38,512	50,202	91,774
Alberta.....	5	1	46		52	10,380	53,574	63,954
<b>Canada*</b> .....	<b>999</b>	<b>289</b>	<b>5,394</b>	<b>108</b>	<b>6,700</b>	<b>2,317,521</b>	<b>5,875,340</b>	<b>8,192,861</b>
<b>1925</b>								
Quebec.....	48	7	221	1	277	98,179	176,033	274,212
Ontario.....	993	278	5,748	124	7,143	2,103,937	6,526,040	8,629,977
Manitoba.....	17	3	80		100	40,505	97,800	138,305
<b>Canada*</b> .....	<b>1,063</b>	<b>290</b>	<b>6,061</b>	<b>125</b>	<b>7,559</b>	<b>2,254,068</b>	<b>6,835,153</b>	<b>9,089,221</b>

\*Includes also data for 1 plant in each of the provinces of Prince Edward Island, Saskatchewan and British Columbia in 1924, and 1 plant in Prince Edward Island, 2 in Alberta, and 1 in British Columbia in 1925.

**Table 94.—Number of Wage-Earners Employed in the Agricultural Implements Industry in Canada, by Months, 1924 and 1925**

Month	1924			1925		
	Number of wage-earners			Number of wage-earners		
	Male	Female	Total	Male	Female	Total
January.....	6,042	105	6,147	4,794	80	4,883
February.....	6,257	109	6,366	5,245	142	5,387
March.....	6,096	112	6,208	5,057	97	5,154
April.....	6,131	112	6,243	6,074	119	6,193
May.....	5,916	119	6,035	6,050	139	6,189
June.....	5,710	120	5,830	6,106	138	6,244
July.....	5,468	117	5,585	6,259	124	6,383
August.....	4,742	105	4,847	6,448	125	6,573
September.....	4,220	98	4,318	5,742	122	5,864
October.....	4,105	99	4,204	6,540	132	6,672
November.....	4,244	91	4,335	6,746	136	6,882
December.....	4,614	93	4,712	7,218	126	7,344
<b>Average.....</b>	<b>5,304</b>	<b>103</b>	<b>5,412</b>	<b>6,081</b>	<b>125</b>	<b>6,206</b>

**Table 95.—Hours of Labour (in Month of Greatest Employment) in the Agricultural Implements Industry, in Canada, by Provinces, 1925**

Province	Number of wage-earners working				Hours worked per man per week when working			
	8 hours or less per day	9 hours	10 hours	Over 10 hours	8 hours or less per day	9 hours	10 hours	Over 10 hours
Prince Edward Island.....		12				54		
Quebec.....	23		216	15	44		59	70
Ontario.....	4,620	3,529	526	8		53	57	79
Manitoba.....	24		75		44		55	
Alberta.....	4	25			44	52		
British Columbia.....	2				44			

**Table 96.—Power Equipment Employed in the Agricultural Implements Industry in Canada, 1924 and 1925**

Item	1924		1925	
	Number of units	Total h.p. according to manufacturers' rating	Number of units	Total h.p. according to manufacturers' rating
Steam engines and turbines.....	43	6,313	46	6,364
Gas engines.....	7	66	3	32
Oil and gasoline engines.....	10	79	10	141
Hydraulic turbines and water wheels.....	8	409	7	427
<b>Total primary power.....</b>	<b>68</b>	<b>6,867</b>	<b>66</b>	<b>6,964</b>
Electric motors operated by purchased power.....	380	8,214	480	12,431
<b>Total power equipment employed.....</b>	<b>448</b>	<b>15,081</b>	<b>546</b>	<b>19,395</b>
Electric motors operated by the primary power of the industry.....	185	4,977	88	811
<b>Total electric motors.....</b>	<b>565</b>	<b>13,191</b>	<b>568</b>	<b>13,242</b>
Boilers installed.....	83	8,838	84	9,751

**Table 97.—Fuel and Electricity Used in the Agricultural Implements Industry in Canada, 1924 and 1925**

Kind	Unit of measure	1924		1925	
		Quantity	Value	Quantity	Value
		No.	\$	No.	\$
Anthracite coal.....	short ton	902	12,105	1,104	13,131
Bituminous coal.....	short ton	37,344	234,055	38,519	216,881
Lignite coal.....	short ton	65	675	42	525
Coke.....	short ton	5,581	60,048	4,210	42,774
Fuel oil.....	gallon	1,466,742	126,707	1,726,942	147,276
Gasoline.....	gallon	51,808	11,391	51,101	11,849
Gas.....	M. cu. ft.	5,639	5,083	6,552	6,641
Wood.....	cord	3,305	16,818	8,250	39,899
Other fuel.....			800		827
Electric power.....	k.w.h.	10,696,902	137,932	12,464,758	162,966
<b>Total.....</b>			<b>605,614</b>		<b>642,769</b>



**Materials Used.**—The cost at the works of materials used in the agricultural implements industry in 1925 was \$11,089,186 as compared with \$11,700,644 in 1924. The predominance of iron and steel is shown by such items as pig iron worth \$587,393, malleable iron valued at \$693,223, steel bars and shafting at \$2,154,174, steel plates and sheets at \$681,419, and iron castings at \$145,693. Other metals reached a total cost of \$265,547, of which brass and bronze castings worth \$69,129, copper worth \$56,035, and 103,775 pounds of tin worth \$47,590 were the main items. Other major items on the list included lumber, \$1,458,395; machine parts, \$770,813; cotton, duck, etc., \$363,943; electric motors, etc., \$263,576; bolts, nuts and rivets, \$257,048; iron pipe, tubes and fittings, \$248,889; paints, oils and varnishes worth \$211,826 and 9,626 tons of foundry coke at a cost of \$95,683.

For the entire consumption of a single commodity listed in the iron and steel industry reference should be made to Table 29 of this report.

**Table 98.—Materials Used in the Agricultural Implements Industry in Canada, 1924 and 1925**

Material	Unit of measure	1924		1925	
		Quantity	Cost at works	Quantity	Cost at works
			\$		\$
<b>Iron and steel—</b>					
Pig iron.....	long ton	24,028	631,670	25,304	587,393
Wrought iron and skelp.....	short ton	356	19,241	258	13,591
Malleable iron.....	short ton	9,662	835,830	8,915	693,223
Iron castings.....	lb.	3,711,273	143,094	2,586,646	115,693
Steel castings.....	lb.	5,971,493	189,663	157,134	19,647
Steel ingots, blooms and billets.....	short ton	87	9,126	14	1,329
Steel bars and shafting.....	lb.	63,126,490	2,264,793	70,955,312	2,154,174
Steel plates and sheets.....	lb.	14,053,835	709,601	14,359,734	681,419
Steel rods and wire.....	lb.	1,256,935	54,559	1,326,472	49,605
Serap.....	short ton	6,674	149,257	7,731	147,688
<b>Other metals—</b>					
Aluminum.....	lb.	45,061	20,745	71,780	29,179
Brass and bronze castings.....	lb.	110,430	34,701	268,204	69,129
Brass sheets, bars, etc.....	lb.	58,114	13,501	65,161	16,473
Copper.....	lb.	111,149	17,724	271,712	56,035
Lead.....	lb.	30,581	2,550	48,606	4,202
Tin.....	lb.	56,550	28,322	103,775	47,590
Zinc.....	lb.	43,613	6,889	109,055	13,876
Babbitt metals and solders.....	lb.	79,714	15,705	78,580	15,762
Other metals.....			14,694		13,501
<b>Articles used for further manufacture—</b>					
Parts for machines or vehicles.....			809,754		770,813
Iron pipe, tubes and fittings.....			241,032		248,889
Bolts, nuts, rivets and screws.....			221,379		257,048
Electrician's goods.....			21,089		263,576
Paints, oils and varnishes.....			221,579		211,826
Rubber and leather goods.....			196,653		182,010
Wheels—wooden.....	No.		4,620	410	1,684
Wheels—metal.....	No.	23,946	78,857	19,223	57,763
Separator part.....			330,679		540,703
Cotton, duck and other textiles.....			546,067		363,943
Accessories and equipment for tractors and engines.....			45,484		58,039
Other articles of this class.....			96,467		322,692
<b>Other materials—</b>					
Foundry coke.....	short ton	8,100	92,757	9,626	95,683
Moulding and other sands.....	short ton	8,595	27,566	8,933	31,227
Sea coal facing.....	short ton	44	1,663	50	950
Plumbago.....	lb.	10,677	758		3,136
Other foundry facings.....	lb.	108,512	47,677		3,888
Patterns and models.....			14,595		38,934
Lumber.....	M. ft. b.m.	24,920	1,676,070	24,813	1,458,395
Fire brick.....	M	329	13,013	187	12,513
Fire clay.....	short ton	692	5,416	456	3,272
Cupola blocks.....	No	8,378	1,621	7,404	1,680
Core oil.....	imp. gal.	11,019	3,971	9,101	6,843
Core compounds.....	lb.	61,008	2,330	33,991	1,305
Shipping containers.....			24,806		261,205
All other materials.....			1,812,279		1,125,980
<b>Total.....</b>			<b>11,700,644</b>		<b>11,089,186</b>

**Products.**—Production amounted in value to \$24,770,216 as compared with \$26,447,171 in 1924. As materials cost only \$11,089,186, the net wealth added by the manufacturing process amounted to \$13,681,030.

Among the principal products of this industry in 1925 were: 14,670 grain harvesters, valued at \$2,323,130; 48,974 ploughs, worth \$2,320,637; power threshers, valued at \$2,129,735; 26,202 mowers worth \$1,377,177; 9,209 hand and 13,891 power washing machines, at a total value of

\$1,746,314; 9,887, cultivators valued at \$828,718; 11,897 cream separators at \$816,468; and half a million dollars' worth of each of the following: grain drills, harrows, pumps, hand tools and implements and iron castings. As compared with last year it is noted that only 14,670 grain harvesters were made in 1925 as compared with 21,323 in 1924; 558 seeders numbered only half of the previous year; 9,887 cultivators as against 14,616; harrows, 16,586 as against 14,094; while the output of ploughs showed an increase to 48,974 from 30,939; power threshers to 3,308 from 1,382, corn planters to 4,214 from 2,487, and the number of power washing machines at 13,891 was double the number of 6,504 made in 1924.

Agricultural implements are also made in other industries. For the total production of any commodity in the iron and steel industries, reference should be made to Table 30. Imports and exports are shown in Table 100.

**Table 99.—Products of the Agricultural Implements Industry in Canada, 1924 and 1925**

Item	Unit of measure	1924		1925	
		Quantity	Value	Quantity	Value
			\$		\$
<b>Agricultural implements and machinery, horse and power—</b>					
Cultivators, corn.....	No.	1,925	94,590	5,203	283,969
Cultivators, other.....	No.	12,691	948,267	4,684	544,749
Diggers, potato.....	No.	165	15,966	314	19,482
Drills, grain.....	No.	5,808	798,462	3,742	542,405
Harrows, disc.....	No.	8,969	406,639	6,961	387,585
Harrows, spike tooth.....	No.	2,009	13,768	7,330	38,658
Harrows, spring tooth.....	No.	3,116	68,530	2,295	45,633
Harrow sections.....	No.	56,262	96,866	15,832	84,729
Harvesters, grain.....	No.	21,322	3,790,273	14,670	2,323,130
Hay carriers.....	No.	6,489	156,483	4,400	175,977
Hay loaders.....	No.	1,761	142,651	1,443	119,501
Hay rakes.....	No.	5,910	225,253	5,148	216,666
Land rollers.....	No.	682	20,173	897	29,133
Manure spreaders.....	No.	1,628	190,796	1,307	200,882
Mowers.....	No.	22,330	1,371,888	26,202	1,377,177
Planters, corn.....	No.	2,487	164,722	4,214	258,139
Ploughs, disc.....	No.	1,216	121,014	5,415	452,193
Ploughs, gang horse.....	No.	6,045	371,150	12,714	783,588
Ploughs, gang, power.....	No.	1,483	146,545	3,292	380,918
Ploughs, hillside.....	No.	873	11,830	870	12,429
Ploughs, riding, double.....	No.	3,780	261,047	2,453	192,946
Ploughs, riding, single.....	No.	1,681	83,251	1,736	73,287
Ploughs, all other.....	No.	15,852	326,811	22,494	425,276
Reapers.....	No.	1,851	171,748	1,913	165,339
Scufflers.....	No.	7,357	64,560	9,252	82,654
Seeders.....	No.	1,066	20,518	558	11,252
Threshers, power.....	No.	1,382	1,117,762	3,308	2,129,735
All other implements and machinery, horse and power.....			296,388		608,324
<b>Agricultural implements and tools, hand—</b>					
Food choppers.....	No.	27,787	47,112	30,733	43,877
Saws and blades.....	No.	507	11,694	788	14,114
Shovels.....	No.	48,939	9,497	58,577	9,336
Sprayers, barrel or tank.....	No.	671	53,932	481	34,633
Sprayers, hand.....	No.	6,490	21,002	7,877	23,809
Washing machines, hand.....	No.	8,618	125,028	9,209	186,937
Wheelbarrows.....	No.	14,064	70,720	17,366	89,717
All other hand tools.....			15,130		398,663
<b>Dairy equipment—</b>					
Churns.....	No.	2,485	44,235	2,645	66,182
Cream separators.....	No.	11,155	724,909	11,897	816,468
Other dairy equipment.....	No.		392,524		626,028
<b>Miscellaneous—</b>					
Barn and stable equipment, n.e.s.....			242,562		254,706
Castings, iron.....	lb.	7,770,492	527,161	10,886,436	588,534
Engines, gasoline.....	No.	1,229	164,653	1,490	143,394
Engines, other.....	No.	36	95,388	334	424,605
Ensilage cutters.....	No.	513	57,909	375	67,496
Grain grinders.....	No.	898	58,983	1,666	89,208
Hay presses.....	No.	67	38,110	1,081	73,385
Litter carriers.....	No.	1,103	92,895	1,405	101,357
Parts and accessories.....			2,041,443		1,988,195
Pumps.....	No.		394,960	18,194	445,047
Road scrapers.....	No.	2,247	109,004	3,886	102,489
Road machinery, other.....			105,378		62,526
Sleighs.....	No.	906	37,020	1,242	55,329
Stoves and furnaces.....	No.	3,612	268,926	3,499	321,523
Tractors, steam and gasoline.....	No.	55	94,115	64	94,150
Wagon and sleigh parts.....			130,886		49,083
Wagons complete.....	No.	1,135	56,475	1,626	98,500
Washing machines, power.....	No.	6,504	694,186	13,891	1,559,377
All other products.....			2,287,021		1,376,270
Amount received for repairs.....			2,762,829		2,046,741
Products of 1 or 2 firms.....			3,174,367		792,091
<b>Total.....</b>			<b>26,447,171</b>		<b>24,770,216</b>

Table 100.—Imports into Canada and Exports of Farm Implements and Machinery, 1924 and 1925

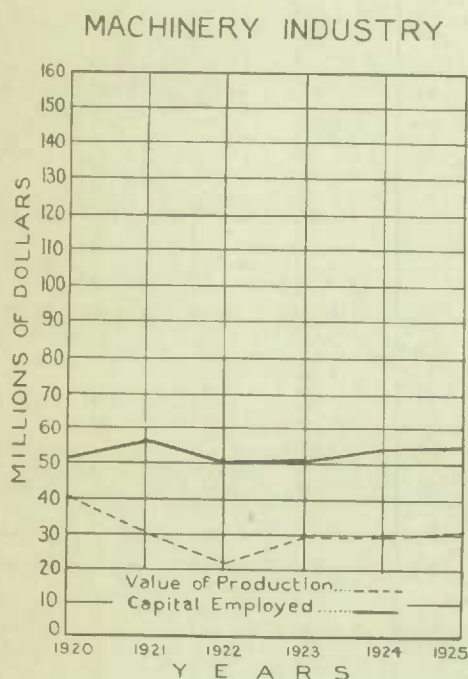
		1924		1925	
		Quantity	Value	Quantity	Value
IMPORTS—			\$		\$
DAIRY MACHINERY					
Cream separators, steel bowls for.....			14,281		45,511
Cream separators.....	No.	10,238	383,963	16,393	652,639
Milking machines, milking machine attachments, centrifugal machines for testing butter fat, milk or cream, and complete parts of articles specified in this item.....			37,496		13,995
HARVESTING IMPLEMENTS AND MACHINERY					
Binding attachments.....			49,614		37,020
Forks, pronged.....	doz.	2,266	5,737	5,344	8,068
Harvesters, self binding.....	No.	1,105	220,555	1,957	353,618
Hay loaders.....	No.	55	6,670	222	12,959
Hay tedders.....	No.	1	171	84	5,611
Mowing machines.....	No.	446	29,089	318	18,813
Potato diggers.....	No.	399	30,127	599	47,739
Rakes, horse.....	No.	165	6,202	186	7,234
Rakes, n.o.p.....	doz.	1,027	1,839	1,764	3,389
Reapers.....	No.	1	198	81	6,394
Scythes.....	doz.	601	6,175	703	7,382
Sickles or reaping hooks.....	doz.	829	2,090	816	2,660
PLANTING AND TILLAGE IMPLEMENTS					
Cultivators and weeders, and parts of.....			61,861		149,556
Drills, seed.....	No.	1,249	54,544	2,008	102,056
Harrows and parts of.....			83,568		126,283
Hoes.....	doz.	3,826	3,189	4,529	4,153
Ploughs and parts of.....			547,113		852,285
Rollers, farm or field.....	No.	34	1,273	184	3,204
SEED SEPARATION MACHINERY					
Fanning mills.....	No.	1,024	47,564	1,810	58,730
Threshing machine separators.....	No.	1,348	1,122,573	2,228	1,881,084
Threshing machine separators, parts, of, including wind stackers, baggers, weighers and self feeders therefor, and complete parts thereof.....			507,798		515,471
OTHER FARM IMPLEMENTS AND MACHINERY					
Fodder or feed cutters.....	No.	1,771	68,826	722	65,167
Grain crushers.....	No.	86	23,849	373	30,500
Grading machines, fruit or vegetable.....	No.	26	7,931	18	5,575
Hay presses.....	No.	90	34,027	99	41,064
Knives, edging.....	doz.	154	275	334	365
Knives, hay or straw.....	doz.	30	198	49	379
Manure spreaders.....	No.	80	8,360	838	89,077
Portable engines, with boilers in combination, for farm purposes	No.	2	154	1	165
Post hole diggers.....	No.	1,591	2,188	3,172	4,110
Spades and shovels of iron or steel, n.o.p.....	doz.	7,454	38,612	11,428	48,665
Spraying machines—(from April 11, 1924).....			64,571		134,322
Stamping machines and complete parts thereof.....	No.	49	3,970	68	8,851
Traction ditching machines (not being ploughs) adapted for tile drainage on farms, valued by retail at not more than \$3,500 each, and complete parts thereof for repairs.....	No.	1	11,719	3	23,909
Traction engines, gas or gasoline, for farm purposes, valued at not more than \$1,400 each.....	No.	1,966	1,275,059	5,407	2,982,342
Complete parts of traction engines, gas or gasoline, for farm purposes, valued at not more than \$1,400 each, and automobile traction attachments and parts thereof for repairs.....			711,528		939,117
Traction engines for farm purposes, n.o.p.....	No.	97	101,871	151	132,815
Repairs for traction engines, n.o.p., for farm purposes.....			122,247		125,320
Windmills and complete parts thereof.....			66,504		88,230
All other farm implements and parts, n.o.p., including pruning hooks and shears.....			173,456		147,908
PARTS OF FARM IMPLEMENTS AND MACHINERY					
Parts of farm implements under Tariff item No. 445.....			583,403		392,222
Parts of farm implements under Tariff item No. 446.....			63,312		57,763
Total.....			6,585,758		11,234,839
EXPORTS—					
Cream separators and parts.....			95,131		117,690
Harvesters and binders.....	No.	9,757	1,820,167	10,493	1,738,070
Hay rakes.....	No.	2,249	79,808	4,114	175,768
Mowing machines.....	No.	15,780	1,075,561	23,910	1,509,088
Reapers.....	No.	1,349	113,197	2,000	185,527
Cultivators.....	No.	6,562	402,710	11,196	519,942
Drills.....	No.	4,621	703,886	5,899	881,019
Harrows and parts.....			270,500		340,045
Ploughs and parts.....			1,540,225		2,478,480
Seeders.....	No.	402	26,341	334	21,714
Threshing machine separators and parts.....			2,590,723		1,362,316
Garden and farm tools.....			193,282		210,247
Spades and shovels.....			221,161		213,255
Other farm implements and machinery.....			641,702		541,933
Parts of farm implements and machines n.o.p.....			1,562,864		2,079,073
Total.....			11,346,258		12,374,176

## CHAPTER SIX

## MACHINERY

**General.**—Production in Canada of machinery, other than agricultural implements, amounted in value to \$30,462,650 in 1925, an increase of about 5 per cent or 1.4 million dollars over the figure of \$29,100,997 reported for 1924. Imports into Canada during the year were higher in value at \$30,158,936 as compared with \$25,470,872 in 1924 and exports also showed an increase to \$5,863,473 from \$4,423,134 in the preceding year.

Compared with the previous year, the machinery industry in 1925 showed considerable improvement. Production was higher by 1.4 million dollars, and on the average 8,313 persons were given employment as against 8,260 in 1924. There were 3 more plants in operation and the capital employed at \$55,431,604 was 1.4 million dollars above the figure for the previous year.



In 1925 there were 14 establishments engaged in making household machinery such as sewing machines, washing machines, etc., 12 plants were employed chiefly in the manufacture of office machinery such as scales, adding machines, cash registers, etc., and 135 plants produced industrial machinery of all kinds. Altogether there were 151 plants in operation in this group or 3 more than the number included for 1924; while a number of plants went out of business or closed down temporarily, a number of new concerns were opened so there was a net gain of 2 plants in Ontario and 1 in British Columbia. By provinces, the distribution was as follows: 111 in Ontario, 25 in Quebec, 10 in British Columbia, 2 in each of the provinces of Manitoba and Saskatchewan, and 1 in New Brunswick. Only those firms which made industrial, office and household machinery as their principal product are included in this group; considerable machinery is also made to order by foundries and by the manufacturers of agricultural implements and this fact should be borne in mind when examining the production tables. For complete data, reference should be made to Table 30.

Leading products in the output list for 1925 were: household machinery valued at more than 4 million dollars; office and business machinery, 3.6 million dollars; pulp and paper machinery, 3.3 million dollars; woodworking machinery, 1.3 million dollars. Other items showing an output value in excess of a million dollars each were: elevators, water wheels and turbines, and mining and metallurgical machinery. In addition to these, but of less importance, many other types of machinery were produced.

Production from plants in Ontario amounted to \$18,962,328 or 62 per cent of the total for Canada. Quebec with an output worth \$10,469,144 accounted for most of the remainder.

Of the 151 plants in this group in 1925 only 6 reported outputs valued at a million dollars or more; 6 other concerns each made commodities worth more than half a million dollars; 20 more each produced over a quarter of a million dollars' worth of goods; the outputs of 34 were each rated between \$100,000 and \$250,000, 28 between \$50,000 and \$100,000, 19 between \$25,000 and \$50,000, 25 between \$10,000 and \$25,000, while 13 concerns reported outputs valued at less than \$10,000.



According to the number of employees the concerns were grouped as follows: less than 10 employees, 43 concerns; 10 to 25 workers, 38 establishments; 25 to 50 workers, 29 plants; 50 to 100 employees, 20 concerns; 100 to 250 employees, 15 concerns; and only 6 firms employed more than 250 workers in each.

Manufacturers of machinery of all kinds enjoyed their best year in 1920 when 11,231 persons were employed and production was valued at \$40,535,474. In 1921 the industry suffered a severe depression and declined still further in 1922 in which year an average of 7,368 persons was given employment and production amounted to \$22,428,430. In 1923 there was a considerable recovery and output reached a value of \$28,901,052 which was maintained in 1924, and in 1925 showed an appreciable gain to \$30,462,650.

**Table 101.—Summary Statistics of the Machinery Industry in Canada, 1921-1925**

Year	Number of plants	Capital employed	Number of employees	Salaries and wages	Cost of fuel and electricity*	Cost of materials	Selling value of products	Value added by manufacturing
		\$		\$	\$	\$	\$	\$
1921.....	148	56,096,203	7,878	10,565,690	506,604	9,027,261	30,965,619	21,938,358
1922.....	135	50,431,723	7,368	8,938,933	470,994	6,151,109	22,428,430	16,277,021
1923.....	141	50,908,442	8,422	10,613,860	701,260	9,044,475	28,901,052	19,856,577
1924.....	148	51,058,263	8,260	10,563,171	523,508	9,884,892	29,100,997	19,216,105
1925.....	151	55,431,604	8,313	10,767,051	481,186	10,985,865	30,462,650	19,476,785

\* Electricity not included prior to 1923.

**Table 102.—Principal Statistics of the Machinery Industry in Canada, by Provinces, 1924 and 1925**

Province	1924				1925			
	Number of plants	Number of employees	Salaries and wages	Selling value of products	Number of plants	Number of employees	Salaries and wages	Selling value of products
			\$	\$			\$	\$
Quebec.....	25	3,316	4,054,441	10,617,938	25	3,267	4,213,980	10,469,144
Ontario.....	109	4,735	6,203,708	17,502,199	111	4,827	6,239,639	18,962,328
British Columbia.....	9	81	121,694	379,220	10	95	131,330	321,502
<b>Canada*</b> .....	<b>148</b>	<b>8,260</b>	<b>10,563,171</b>	<b>28,500,997</b>	<b>151</b>	<b>8,313</b>	<b>10,767,051</b>	<b>30,462,650</b>

\* Includes also data for 1 plant in New Brunswick, 2 in Manitoba and 2 in Saskatchewan.

**Capital Employed.**—As reported by firms in this industry, capital employed amounted to \$55,431,604 in 1925 as compared with \$54,058,263 in 1924. Lands, buildings and plant equipments were valued at \$30,461,369 or slightly more than in 1924; inventories were worth \$13,517,505, a small decrease from the previous year; and the value of cash, trading and operating accounts, etc., was placed at \$11,452,730 or 1.3 million dollars above the figure for 1924. Capital employed in the machinery industry in 1925 exceeded that of any other year on record except 1921 when the 148 operating plants employed a capital of \$56,096,203.

Ontario and Quebec together accounted for 98 per cent of the total investment in the industry. In 1925, plants in Quebec showed an increase in working capital of nearly a million dollars to \$17,516,138, while Ontario reported a gain of almost half a million dollars at \$36,908,205.

**Table 103.—Capital Employed in the Machinery Industry in Canada, by Classes and by Provinces, 1924 and 1925**

Province	1924				1925			
	Capital employed as represented by				Capital employed as represented by			
	Lands, buildings, fixtures, machinery and tools	Materials on hand, and stocks in process	Cash, trading and operating accounts	Total	Lands, buildings, fixtures, machinery and tools	Materials on hand, and stocks in process	Cash, trading and operating account	Total
	\$	\$	\$	\$	\$	\$	\$	\$
Quebec.....	9,544,381	5,175,971	1,901,732	16,622,084	9,450,459	5,026,094	3,039,585	17,516,138
Ontario.....	20,447,622	8,143,228	7,856,128	36,446,978	20,681,808	8,144,545	8,081,852	36,908,205
British Columbia.....	155,212	133,670	94,841	383,723	171,805	140,301	67,177	379,283
<b>Canada*</b> .....	<b>30,304,730</b>	<b>13,652,163</b>	<b>10,101,370</b>	<b>54,058,263</b>	<b>30,461,369</b>	<b>13,517,505</b>	<b>11,452,730</b>	<b>55,431,604</b>

\*Includes also data for 1 plant in New Brunswick, 2 in Manitoba and 2 in Saskatchewan.

**Employment.**—The average number of persons employed in the machinery industry during 1925 was 8,313 consisting of 1,752 salaried employees and 6,561 wage-earners. At the beginning of the year 6,091 wage-earners were carried on the rolls of the reporting companies, and this number increased steadily to a maximum of 6,788 in May and June and then fell off slightly each month to 6,596 in December. Employment conditions were much steadier than in the previous year.

Firms in Ontario reported an average payroll of 4,827 persons; Quebec showed 3,267 persons working the year round; British Columbia only 95 people, and the remaining 124 were divided between Manitoba, Saskatchewan and New Brunswick.

Payments for salaries during the year amounted to \$3,301,514 and wages totalled \$7,465,537, making a total disbursement for these purposes amounting to \$10,767,051 as compared with \$10,563,171 in 1924.

**Table 104.—Average Number of Employees, Salaries and Wages Paid in the Machinery Industry in Canada, by Provinces, 1924 and 1925**

—	Number of employees					Salaries and wages		
	Salaried employees		Wage-earners		Total	Salaries	Wages	Total
	Male	Female	Male	Female				
1924						\$	\$	\$
Quebec.....	421	128	2,613	154	3,316	1,040,589	3,013,852	4,054,441
Ontario.....	898	308	3,467	63	4,736	2,219,719	3,983,989	6,203,708
British Columbia.....	24	2	55	.....	81	46,754	74,940	121,694
<b>Canada.....</b>	<b>1,346</b>	<b>443</b>	<b>6,231</b>	<b>220</b>	<b>8,260</b>	<b>3,365,073</b>	<b>7,198,098</b>	<b>10,563,171</b>
1925								
Quebec.....	416	114	2,580	157	3,267	1,052,824	3,161,156	4,213,980
Ontario.....	881	288	3,584	74	4,827	2,142,874	4,096,765	6,239,639
British Columbia.....	20	3	72	.....	95	43,643	87,687	131,330
<b>*Canada.....</b>	<b>1,339</b>	<b>413</b>	<b>6,330</b>	<b>231</b>	<b>8,313</b>	<b>3,301,514</b>	<b>7,465,537</b>	<b>10,767,051</b>

\*Includes also data for 1 plant in New Brunswick, 2 in Manitoba and 2 in Saskatchewan.

**Table 105.—Number of Wage-Earners Employed in the Machinery Industry in Canada, by Months, 1924 and 1925**

Month	1924			1925		
	Number of wage-earners			Number of wage-earners		
	Male	Female	Total	Male	Female	Total
January	6,910	237	7,147	5,875	216	6,091
February	6,753	234	6,987	5,946	214	6,160
March	6,666	233	6,899	6,178	210	6,388
April	6,490	227	6,717	6,388	215	6,603
May	6,313	236	6,549	6,568	220	6,788
June	6,088	231	6,319	6,562	226	6,788
July	6,073	220	6,293	6,457	238	6,695
August	5,950	208	6,158	6,421	238	6,659
September	5,951	202	6,153	6,431	244	6,675
October	5,862	199	6,061	6,350	241	6,591
November	5,801	201	6,002	6,307	244	6,551
December	5,756	200	5,956	6,354	242	6,596
<b>Average</b>	<b>6,231</b>	<b>220</b>	<b>6,451</b>	<b>6,330</b>	<b>231</b>	<b>6,561</b>

**Table 106.—Hours of Labour (in Month of Greatest Employment) in the Machinery Industry in Canada, by Provinces, 1925**

Province	Number of wage-earners working				Average hours worked per man per week when working			
	8 hours or less per day	9 hours	10 hours	Over 10 hours	8 hours or less per day	9 hours	10 hours	Over 10 hours
New Brunswick	5	19			44	50		
Quebec	142	2,415	240	245	46	46	57	68
Ontario	771	3,098	501	31	44	50	55	70
Manitoba	3	44	4	2	44	50	59	78
Saskatchewan	5	45			44	53		
British Columbia	102				44			

**Table 107.—Fuel and Electricity Used in the Machinery Industry in Canada, 1924 and 1925**

Material	Unit of measure	1924		1925	
		Quantity	Value	Quantity	Value
		No.	\$	No.	\$
Anthracite coal	short ton	12,619	66,088	11,407	60,589
Bituminous coal	short ton	31,222	208,834	30,811	195,512
Lignite	short ton	6	75	50	538
Coke	short ton	2,247	27,618	1,723	14,993
Fuel oil	gallon	170,110	16,717	192,102	19,014
Gasoline	gallon	53,189	9,826	24,969	6,761
Gas	M cu. ft.	7,211	4,957	6,355	5,664
Wood	cord	525	3,162	939	2,726
Other fuel			190		42
Electric power	k.w.h.	11,366,239	186,041	11,414,536	175,307
<b>Total</b>			<b>523,508</b>		<b>481,146</b>

**Table 108.—Power Equipment Employed in the Machinery Industry in Canada, 1924 and 1925**

	1924		1925	
	Number of units	Total h.p. according to manufacturers' rating	Number of units	Total h.p. according to manufacturers' rating
Steam engines and turbines	34	6,492	33	6,302
Gas engines	2	18	2	40
Oil and gasoline engines	1	3	2	6
Hydraulic turbines and water wheels	10	295	10	318
<b>Total primary power</b>	<b>47</b>	<b>6,808</b>	<b>47</b>	<b>6,666</b>
Electric motors operated by purchased power	1,150	18,616	1,156	42,486
<b>Total power equipment employed</b>	<b>1,197</b>	<b>25,424</b>	<b>1,203</b>	<b>49,152</b>
Electric motors operated by power generated by the primary power of the industry	170	4,158	175	4,246
<b>Total electric motors</b>	<b>1,320</b>	<b>22,774</b>	<b>1,331</b>	<b>46,732</b>
Boilers installed	106	10,028	113	9,532

**Materials Used.**—Materials for use in the manufacture of industrial, office and household machinery cost \$10,985,865 in 1925 as compared with a figure of \$9,884,892 in 1924. The principal items on the list included parts for machines or vehicles, \$2,215,116; iron and steel castings, \$1,070,008; steel bars and shafting, \$501,610; pig iron, \$493,480; wrought iron and skelp, \$429,706; other iron and steel, \$901,966; and lumber, \$508,418. Details are given in the following table.

**Table 109.—Materials Used in the Machinery Industry in Canada, 1924 and 1925**

Material	Unit of measure	1924		1925	
		Quantity	Cost at works	Quantity	Cost at works
			\$		\$
Iron and steel—					
Pig iron.....	long ton	15,330	441,838	18,308	493,480
Wrought iron and skelp.....	short ton	337	23,445	5,181	429,706
Malleable iron.....	short ton	945	121,251	873	114,121
Iron castings.....	short ton	6,647	818,668	5,970	715,322
Steel castings.....	short ton	2,566	531,914	1,639	354,686
Steel ingots, blooms and billets.....	short ton	244	29,357	69	9,037
Steel bars and shafting.....	short ton	4,792	431,882	5,231	501,610
Steel plates and sheets.....	short ton	3,314	281,104	3,692	373,424
Steel rods and wire.....	short ton	721	85,012	737	92,083
Cable—					
Steel for hoisting.....			51,893		51,014
Other cable.....			1,105		7,350
Scrap.....	short ton	6,435	152,617	8,849	199,498
Other iron and steel.....					55,439
Other metals—					
Aluminium.....	lb.	100,259	47,857	112,294	74,155
Brass and bronze castings.....	lb.	795,943	226,456	996,253	314,614
Brass sheets, bars, etc.....	lb.	120,506	28,496	227,583	59,597
Copper.....	lb.	268,436	66,713	490,708	113,659
Lead.....	lb.	113,037	8,490	391,101	35,984
Tin.....	lb.	17,957	7,975	52,874	18,576
Zinc.....	lb.	29,473	3,337	94,511	24,413
Babbitt metals and solders.....	lb.	224,566	40,573	240,215	57,032
Other metals.....			51,163		57,114
Articles used for further manufacture—					
Parts for machines or vehicles.....			1,850,999		2,215,116
Pipe, tubes and fittings.....			142,528		218,091
Bolts, nuts, rivets and screws.....			134,411		156,684
Electrical goods.....			333,961		337,553
Paints, oils and varnishes.....			126,140		125,438
Rubber and leather goods.....			82,620		119,891
Other articles of this class.....			404,887		189,287
Other materials—					
Foundry coke.....	short ton	8,118	96,867	9,972	114,302
Moulding and other sands.....	short ton	9,444	40,695	11,286	52,753
Sea coal facings.....	short ton	208	5,051	359	5,752
Plumbago.....	lb.	158,792	3,786		4,630
Other foundry facings.....	lb.	101,410	3,025	138,220	3,980
Patterns and models.....			29,130		32,186
Lumber.....	M ft. b.m.	12,421	464,135	13,367	508,418
Fire brick.....	M		5,039		198
Fire clay.....	short ton	254	3,614	431	4,297
Cupola blocks.....	No.	6,613	1,354	8,425	1,704
Core oil.....	imp. gal.	8,669	8,038	12,002	11,495
Core compounds.....	lb.	172,835	4,387		6,815
Shipping materials.....			54,282		56,602
All other materials.....			2,638,797		2,627,002
Total.....			9,884,892		10,985,865

**Products.**—Products made in this group include office, household and industrial machinery of all kinds. In 1925 the total output was valued at \$30,462,650, an increase of 1.4 million dollars over the production value for 1924. The principal products are shown in the accompanying table classified according to the purpose for which they are used. Similar commodities may be made in other industries; for the complete production of any product made in the iron and steel industry, reference should be made to Table 30 of this report.

In accordance with the Statistics Act, unless special permission has been obtained, products which were reported by fewer than 3 firms have not been itemized separately but have been grouped under the general item, "Products reported by only 1 or 2 firms."



Table 110.—Products of the Machinery Industry in Canada, 1924 and 1925

Product	Unit of measure	1924		1925	
		Quantity	Selling Value	Quantity	Selling Value
<b>MACHINERY—</b>			\$		\$
Bakery machinery—					
Mixing machines.....	No. 24	10,351	164,173		
Ovens.....	No. 13	14,816	24,025	40	
Other bakery machinery.....		162,174	191,156		
Concrete and cement making machinery—					
Concrete mixers.....		132,575	109,108		
Other concrete and cement making machinery.....		175,192	128,689		
Conveyors.....		100,723	130,505		
Dairy machinery.....		484,534	84,820		
Elevators, passenger and freight.....		1,477,964	1,214,073		
Elevator parts.....		50,132	68,460		
Fire fighting equipment.....		396,497	461,503		
Flour and grist mill machinery—					
Grain grinders.....	No. 63	36,267	42,808	68	
Rolls.....		7,506	6,244		
Other flour and grist mill machinery.....		442,516	364,196		
Grain elevator machinery.....		454,558	227,503		
Hoisting machinery.....		397,612	327,033		
Household machinery—					
Washing machines.....	No. 21,803	1,293,623	1,304,767	24,867	
Wringers.....	No. 27,046	124,198	132,206	27,345	
Other household.....		2,517,367	2,844,141		
Laundry machinery.....		772,912	666,927		
Leather working machinery, including boot and shoe machines, tanning machines, etc.....		228,325	208,314		
Machinery, parts.....		491,329	1,008,015		
Metal working machinery—					
Drills.....	No. 10		6,691	10	
Grinders.....	No. 14	27,142	31,051	31	
Lathes.....	No. 36	168,007	202,926		
Shapers.....	No. 17	24,895	33,434	17	
Other metal working machinery, including forges and blowers, miling machines, pipe threading and cutting machines, etc.....		721,265	421,240		
Mining and metallurgical machinery—					
Crushers.....	No. 19	33,441	14,862		
Other mining and metallurgical machinery, including air compressors, hoists, rock drills, etc.....		1,652,627	1,152,477		
Office and business machinery, including adding machines, addressing machines, scales, account registers, meat slicers, time recorders, etc.....		3,398,868	3,665,337		
Pulp and paper machinery.....		966,957	3,330,751		
Pumps—					
Power pumps.....		346,675	806,858		
Other pumps.....		12,645	35,344		
Road making and excavating machinery including road rollers, scrapers, etc.....		210,980	355,867		
Rubber mill machinery and equipment.....		175,335	202,090		
Saw and planing mill machinery.....		428,880	289,507		
Ships machinery and fittings.....		5,815	43,219		
Stone working machinery.....		130,000	162,000		
Textile machinery.....		98,132	146,926		
Transmission machinery, including brackets, hangers, shafting and other parts.....		470,871	740,282		
Water wheels and turbines.....		2,818,166	1,002,417		
Woodworking machinery—					
Band sawing machines.....	No. 48	39,223	48,962	34	
Boring machines.....	No. 21	4,616	4,046	22	
Matchers.....	No. 14	42,915	227,230	42	
Moulders.....	No. 33	47,277	77,009	40	
Tip and cross cut saws.....	No. 90	30,317	34,212	100	
Sanders.....	No. 34	37,196	49,428	44	
Shapes and jointers.....	No. 71	27,463	28,120	60	
Surfacers.....	No. 44	41,751	26,305	30	
Tenoners and mortizers.....	No. 56	32,488	19,114	42	
Other woodworking machinery.....		152,466	152,189		
All other machinery, including logging jacks, hand knitting machines, rubber machinery, pumping machinery, ice machines, fog signalling machinery, lifting jacks, brewery machinery, canning machinery, etc.....		858,498	946,448		

Table 110.—Products of the Machinery Industry in Canada, 1924 and 1925—Concluded

	Unit of measure	1924		1925	
		Quantity	Selling Value	Quantity	Selling Value
			\$		\$
<b>OTHER PRODUCTS—</b>					
Castings—					
Brass.....	lb.	9,376	2,861	9,814	2,985
Grey iron.....	lb.	4,633,747	301,797	4,163,062	181,233
Other.....	lb.		1,500	7,000	500
Engines.....			193,076		116,236
Furnaces, industrial.....			12,699		6,097
Hardware and tools including pneumatic tools.....			373,601		271,939
Heating and ventilating equipment.....			149,325		190,155
Patterns.....			22,451		21,142
Pipe and fittings.....			471,950		430,715
Stocks, taps and dies.....			2,849		108,765
Railway, track equipment and supplies.....			237,721		8,319
Valves, iron.....	No.	600	1,500	160	3,700
Valves, other.....			188,726		91,663
Amount received for custom work and repairs.....			1,402,857		1,141,446
All other products.....			986,824		1,467,516
*Products reported by only 1 or 2 firms.....			1,915,166		2,462,051
<b>Total.....</b>			<b>29,100,997</b>		<b>30,462,650</b>

\*Includes culverts, electric steam heaters, hydraulic valves, automobile chains, wooden ware, tin cans, trucks, fare boxes, cash boxes, ornamental iron, coal handling plants, box strapping wire, wheel barrows and parts, automatic fuel oil burners, buoys, steel lump bodies, steel barrels and other products.

Table 111.—Imports into Canada and Exports of Machinery (except Agricultural), 1924 and 1925

Item	1924		1925	
	Quantity	Value	Quantity	Value
		\$		\$
<b>IMPORTS</b>				
<b>HOUSEHOLD MACHINERY—</b>				
Carpet sweepers and hand vacuum cleaners.....No.	5,725	13,818	5,886	19,165
Cleaners, electric, vacuum.....No.	4,235	110,420	2,527	73,328
Clothes wringers and parts thereof for domestic use.....		28,356		43,444
Sewing machines.....No.	6,686	253,224	7,541	287,882
Sewing machine attachments.....		54,599		62,800
Sewing machines, parts of.....		564,966		703,048
Washing machines, domestic.....No.	9,961	611,750	12,633	711,615
<b>MINING AND METALLURGICAL MACHINERY—</b>				
Articles of metal when for use exclusively in smelting iron ore or in metallurgical operations, viz: machinery and apparatus for sintering or nodulizing iron ore or dust containing iron; machinery and apparatus for use exclusively in the construction, equipment or repairs of a blast furnace for smelting iron ore, such machinery or apparatus to be used exclusively between the blowing engines up to and including the hoisting apparatus and the skip hoist, and up to and including the point where the metal and slag are discharged from the furnace, including foundations, and the integral parts of all machinery and apparatus enumerated in this item, not to include valves, wrought iron pipe eight inches and under in diameter, nor structural iron work—(From April 11, 1924).....		1,643		2,808
Appliances of iron or steel, of a class or kind not made in Canada, and elevators and machinery of floating dredges, when for use exclusively in alluvial gold mining.....		85,973		117,692
Articles of metal as follows, when for use exclusively in mining or metallurgical operations, viz.: coal cutting machines (except percussion coal cutters, coal augers and rotary coal drills); coal heading machines, core drills; miners' safety lamps and parts thereof, also accessories for cleaning, filling and testing such lamps; electric or magnetic machines for separating or concentrating iron ores; furnaces for the smelting of copper, zinc and nickel ores; converting apparatus for metallurgical processes in metals; copper plates, plated or not; machinery for extraction of precious metals by the chlorination or cyanide processes; amalgam safes; automatic ore samplers; automatic feeders; retorts; mercury pumps; pyrometers; bullion furnaces; amalgam cleaners; blast furnace blowing engines; and integral parts of all machinery mentioned in this item; plungers or valves made of porcelain for pumps.....		360,490		438,265
Blowers of iron or steel, of a class or kind not made in Canada, for use in the smelting of ores, or in reduction, separation or refining of metals; rotary kilns, revolving roasters, and furnaces of metal designed for roasting ore, mineral rock or clay; furnace slag trucks and slag pots of a class or kind not made in Canada.....		80,302		95,354
Buddles, vanners and slime tables adapted for use in gold mining.....		3,068		23,592
Diamond drills and parts of, exclusively for mining operations, not to include motive power.....		98,211		119,056
Ore crushers and rock crushers, stamp mills, Cornish and belted rolls and complete parts of, exclusively for mining operations.....		233,051		365,788
Percussion coal cutters, coal augers and rotary coal drills and complete parts of, exclusively for mining operations.....No.	90	2,214	111	7,605
Rock drills and complete parts of, exclusively for mining operations.....No.	435	401,909	1,343	489,585
Ore crushers and rock crushers, stamp mills, Cornish and belted rolls, rock drills and percussion coal cutters.....		237,506		
Well drilling machinery and apparatus, and parts thereof, of a class or kind not made in Canada, drawn or seamless iron or steel tubing over four inches in diameter, for drilling for water, natural gas or oil, and for prospecting for minerals, not to include motive power.....		79,474		285,629
Well drilling machinery and apparatus and parts thereof, and rope twenty-one hundred feet and over in length, capable of drilling wells of two thousand feet and over in depth, of four inches and over in diameter, and of raising and lowering casing over four inches in diameter for such wells, for drilling for water, natural gas and oil, and for prospecting for minerals, not to include motive power.....				73,801
<b>OFFICE OR BUSINESS MACHINERY—</b>				
Adding and calculating machines.....No.	3,508	523,037	3,833	498,562
Cash registers and parts of.....		269,606		285,904
Typewriting machines.....No.	8,965	503,918	10,002	596,242
Typewriter parts.....		177,751		180,642
<b>PRINTING AND BOOKBINDING MACHINERY—</b>				
Machines specially designed for ruling, folding, binding, embossing, creasing or cutting paper or cardboard, sheet feeding machines, when for use exclusively by printers, bookbinders and by manufacturers of articles made from paper or cardboard, including parts thereof, composed wholly or in part of iron, steel, brass or wood; machinery and complete parts thereof for printing by photographic methods on plates for use on lithographic and offset presses.....		445,943		459,669
Newspaper printing presses, of not less value by retail than \$1,500 each, of a class or kind not made in Canada.....No.	48	516,213	59	477,921
Printing presses and lithographic presses, n.o.p.....		882,687		785,005
Typesetting and typesetting machines and parts thereof, adapted for use in printing offices.....		782,035		428,829
Type making accessories for printing presses.....		24,040		25,352

Table 111.—Imports into Canada and Exports of Machinery (except Agricultural), 1924 and 1925—  
Concluded

Item	1924		1925	
	Quantity	Value \$	Quantity	Value \$
<b>OTHER MACHINERY, N.O.P.—</b>				
Air compressing machinery.....		321,525		417,506
Briquette making machines.....		447		31,687
Cement making machines.....		95,734		85,159
Coal handling machines.....		75,414		51,275
Concrete mixing machines.....	No 82	58,943	134	120,136
Cranes and derricks.....	No 141	654,790	159	542,631
Cyclometers, pedometers and speedometers.....		317,083		358,041
Dental engines, electric.....	No 295	39,835	116	17,353
Fire extinguishing machines, including sprinklers for fire protection.....		95,582		92,503
Ice making and refrigerating machinery.....		79,849		99,964
Lathes, power.....		138,764		144,490
Lawn mowers.....	No 3,067	66,713	2,505	65,868
Machine drills.....		221,822		164,233
Machinery and apparatus, for use, exclusively in washing coal, and parts of (not including motive power)—(From April 11, 1924).....		29,840		26,657
Machinery and apparatus, for use exclusively in producing coke and gas; machinery and apparatus, for use exclusively in the distillation or recovery of products from coal tar or gas; and integral parts of all machinery and apparatus enumerated in this item, not including motive power nor tanks for gas—(From April 11, 1924).....		396,359		327,475
Machinery of every kind, and structural iron and steel, for use in the construction and equipment of factories for the manufacture of sugar from beet root.....		10,869		222,318
Metal working machinery, n.o.p.....		1,333,927		1,730,013
Moving picture machines.....		22,806		34,124
Paper mill machines.....		899,350		2,028,232
Pulp mill machines.....		49,853		61,172
Pumps, power, and parts of.....	No 4,499	670,098	5,619	915,602
Rollers, street or road and complete parts thereof.....	No 2	25,661	1	19,659
Rolling mill machines.....		163,635		180,867
Machinery, logging, cars, blocks and tackle, and complete parts thereof, for logging purposes exclusively—(From April 11, 1924).....		510,217		1,052,897
Machinery for sawing lumber, up to but not including the point of planing, and complete parts thereof, not to include motive power.....		326,269		184,884
Serapers, railway or road.....		57,167		46,188
Shoe machinery, n.o.p.....		77,218		65,836
Steam shovels and electric shovels.....	No 23	224,465	49	458,751
Machinery, of a class or kind not made in Canada, and parts thereof, for the manufacture of fish meal, stock and poultry food and fertilizers, from fish and the waste thereof.....		18,234		114,906
Textile machinery of a class or kind not made in Canada, and parts thereof, for the manufacture of twine, cordage or linen, or for the preparation of flax fibre.....		34,131		34,023
Textile machinery of a class or kind not made in Canada, and parts thereof, adapted for carding, spinning, weaving, braiding or knitting fibrous material, when imported by manufacturers for such purposes.....		2,420,752		3,641,642
Water turbines, water wheels and parts.....		396,600		134,374
All machinery composed wholly or in part of iron or steel, n.o.p., and iron or steel integral parts of.....		8,290,125		9,020,797
<b>Total.....</b>		<b>25,476,872</b>		<b>30,158,936</b>
<b>EXPORTS</b>				
Electric vacuum cleaners and parts.....	No 20,086	724,417	29,697	1,113,894
Sewing machines and parts.....		1,888,822		2,943,156
Washing machines, domestic, and wringers.....		39,171		40,323
Adding and calculating machines and parts.....	No 1,288	261,506	1,030	255,446
Cash registers and parts.....	No 2	200	3	140
Typewriting machines and parts.....	No 91	40,544	819	65,898
Linotype machines and parts.....		7,020		1,222
Lawn mowers.....	No 5,355	40,805	4,774	36,888
Metal working machinery.....		129,718		324,076
Wood working machinery.....		87,901		62,621
Machinery and parts, n.o.p.....		1,202,940		1,019,809
<b>Total.....</b>		<b>4,423,134</b>		<b>5,863,473</b>

Table 112.—Imports into Canada of Springs, 1924 and 1925

Item	1924		1925	
	Quantity	Value \$	Quantity	Value \$
<b>Imports—</b>				
Springs, steel, for the manufacture of surgical trusses, when imported by manufacturers of such articles, for use exclusively in the manufacture thereof in their own factories..... lb.	1,401	1,411	1,509	1,492
Springs, n.o.p., of iron or steel, for railway or tramway vehicles.....		21,866		19,667
Springs, n.o.p., of iron or steel, for other vehicles, n.o.p.....		126,651		103,897
Springs, furniture.....		23,225		38,110
Springs, lamp and clock.....		16,435		16,139
<b>Total.....</b>		<b>189,588</b>		<b>179,305</b>



## CHAPTER SEVEN

## AUTOMOBILES

**General.**—New records were made in the automobile industry in Canada in 1925. In that year the production of motor cars numbered 161,970 as compared with 132,580 in 1924 and 147,202 in 1923, the best previous year in the industry; the value of output at the factories rose to \$110,835,380 and exceeded that of any other year; capital employed amounted to \$74,678,451, an increase of 23 per cent over 1924; employees numbered 10,301 as against 9,277 in 1924; payments in salaries and wages totalled \$17,249,270 as compared with a corresponding figure of

\$14,219,137 in the previous year; export shipments valued at \$39,417,614 were the highest on record; imports at \$35,240,298 were greater than in any previous year, and registrations of motor vehicles totalled 728,005 as against 652,121 in 1924, when the previous high record was established.

Eleven plants in Canada produced cars or trucks during 1925. Two plants were closed down early in the year, but one other concern commenced regular production. With the exception of one plant making trucks only, the output of each operating plant exceeded that of 1924.

While automobile manufacturing in Canada dates from about 1904, production up to the end of 1916 had reached a total value of only about \$100,000,000, or somewhat less than the value of the output in the calendar year 1925. Phenomenal growth has marked the progress of the industry during the past ten years, and related enterprises have sprung up to produce many of the needed parts and supplies. In 1924, the manufacture of automobiles alone, occupied seventh place among Canadian manufacturers, and production in 1925, valued at \$110,835,380 was in excess of the total for any previous year.

In the present report, there are detailed statistics on manufactures, imports and exports, and registrations. Parts and accessories made by the manufacturers of motor cars have been mentioned, but in addition to these parts, there are many made in other industries; it is estimated that 68 other concerns produced auto parts and accessories in 1925 to a value of \$11,234,828. Detailed statistics on this phase of the industry are given in the next chapter of this report.

**Table 113.—Summary of Production in the Automobile Industry in Canada, 1904-1925**

Year	Number of automobiles	Total selling value at plant
		\$
1904-1916.....	135,000	100,000,000
1917.....	93,810	54,466,273
1918.....	82,408	66,814,206
1919.....	87,835	80,619,846
1920.....	94,144	101,465,846
1921.....	66,246	67,050,209
1922.....	101,007	81,956,429
1923.....	147,202	106,614,176
1924.....	132,580	88,480,418
1925.....	161,970	110,835,380
<b>Total.....</b>	<b>1,102,202</b>	<b>848,302,843</b>

## AUTOMOBILE INDUSTRY

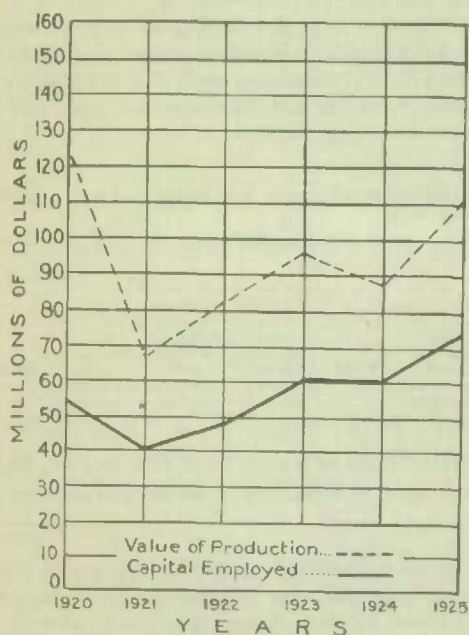


Table 114.—Historical Summary of the Automobile Manufacturing Industry in Canada, 1917-1925

Year	Number of plants	Capital	Total employees	Salaries and wages paid	Cost of materials	Value of products
		\$		\$	\$	\$
1917.....	11	28,192,858	5,910	6,229,471	25,585,820	54,466,273
1918.....	10	31,550,353	5,262	6,855,380	37,058,645	66,814,265
1919.....	11	34,949,739	6,771	9,712,788	51,690,715	80,019,846
1920.....	17	53,906,500	8,281	13,331,084	67,137,045	101,035,846
1921.....	14	40,080,269	5,475	7,837,173	45,119,345	67,050,209
1922.....	15	47,761,964	7,341	11,273,643	51,408,719	81,956,429
1923.....	10	60,146,495	9,305	14,998,267	71,851,622	96,611,176
1924.....	12	60,766,886	9,277	14,219,137	64,148,581	88,480,418
1925.....	11	74,678,451	10,301	17,249,270	74,166,378	110,835,380

**Capital Employed.**—Capital employed in the automobile industry in Canada in 1925 totalled \$74,678,451, an increase of 14 million dollars over 1924 and the highest value on record for the industry. Fixed assets were valued at \$34,515,457, or a million dollars more than in 1924; inventories of stocks on hand were worth \$17,222,966 as compared with \$13,265,731 in the previous year; and the value of cash, trading, operating and other accounts was given at \$22,940,048 or 9 million dollars above the corresponding figure for 1924.

Table 115.—Capital Employed in the Automobile Industry in Canada, by Classes and by Provinces, 1924 and 1925

Province	1924				1925			
	Capital employed as represented by				Capital employed as represented by			
	Lands, buildings, fixtures, machinery and tools	Materials on hand, and stocks in process	Cash, trading and operating accounts	Total	Lands, buildings, fixtures, machinery and tools	Materials on hand, and stocks in process	Cash, trading and operating accounts	Total
	\$	\$	\$	\$	\$	\$	\$	\$
Ontario.....	33,452,739	13,265,731	14,048,416	60,766,886	34,515,437	17,222,966	22,940,048	74,678,451
<b>Canada.....</b>	<b>33,452,739</b>	<b>13,265,731</b>	<b>14,048,416</b>	<b>60,766,886</b>	<b>34,515,437</b>	<b>17,222,966</b>	<b>22,940,048</b>	<b>74,678,451</b>

**Employment.**—In 1925, the automobile industry in Canada gave employment to 1,596 salaried employees and an average of 8,705 wage-earners, a total of 10,301 persons, as compared with 9,277 in 1924 and 9,305 in 1923, the former record for the industry. In January there were 7,421 wage-earners employed; in May, the number stood at 9,232; declined to 8,285 in July; reached a maximum of 9,704 in October, and then fell off again to 8,783 at the end of the year. Salaries amounted to \$3,517,421 and wages to \$13,731,849, making a total of \$17,249,270 for salaries and wages.

Table 116.—Number of Employees, Salaries and Wages Paid in the Automobile Industry in Canada, by Provinces, 1924 and 1925

	Average number of employees					Salaries and wages		
	Salaried employees		Wage earners		Total	Salaries	Wages	Total
	Male	Female	Male	Female				
						\$	\$	\$
1924								
Ontario.....	1,050	355	7,675	197	9,277	3,280,935	10,938,202	14,219,137
<b>Canada.....</b>	<b>1,050</b>	<b>355</b>	<b>7,675</b>	<b>197</b>	<b>9,277</b>	<b>3,280,935</b>	<b>10,938,202</b>	<b>14,219,137</b>
1925								
Ontario.....	1,227	369	8,497	208	10,301	3,517,421	13,731,849	17,249,270
<b>Canada.....</b>	<b>1,227</b>	<b>369</b>	<b>8,497</b>	<b>208</b>	<b>10,301</b>	<b>3,517,421</b>	<b>13,731,849</b>	<b>17,249,270</b>

**Table 117.—Average Number of Wage-Earners Engaged in the Automobile Industry in Canada by Months, 1924 and 1925**

Month	1924			1925		
	Number of wage-earners			Number of wage-earners		
	Male	Female	Total	Male	Female	Total
January.....	7,557	218	7,775	7,240	181	7,421
February.....	8,124	223	8,347	7,870	195	8,065
March.....	8,533	249	8,782	8,375	215	8,590
April.....	8,580	230	8,810	8,839	214	9,053
May.....	8,541	236	8,777	9,014	218	9,232
June.....	7,892	207	8,099	8,402	209	8,611
July.....	7,525	190	7,715	8,085	199	8,285
August.....	7,331	187	7,518	8,265	218	8,483
September.....	7,226	185	7,411	8,754	211	8,965
October.....	6,929	166	7,095	9,487	217	9,704
November.....	6,910	154	7,064	9,045	199	9,244
December.....	6,934	146	7,080	8,590	193	8,783
<b>Average.....</b>	<b>7,675</b>	<b>197</b>	<b>7,872</b>	<b>8,497</b>	<b>208</b>	<b>8,705</b>

**Table 118.—Fuel and Electricity Used in the Automobile Industry in Canada, 1924 and 1925**

Kind		1924		1925	
		Quantity	Cost	Quantity	Cost
Bituminous coal.....	short ton	66,122	\$ 324,880	69,720	\$ 332,609
Anthracite coal.....	short ton	442	3,253	1,740	15,461
Lignite coal.....	short ton	776	2,965		
Coke.....	short ton	60	575		
Gasoline.....	gallon	83,348	16,243	76,835	15,824
Oil (fuel).....	gallon	666,266	55,256	747,547	64,189
Gas.....	M cu. ft.	6,610	12,885	186,424	161,911
Electric power.....	k.w.h.	9,481,843	128,834	31,804,524	433,306
<b>Total.....</b>			<b>545,910</b>		<b>1,023,390</b>

**Table 119.—Power Employed in the Automobile Industry in Canada, 1924 and 1925**

Kind	1924		1925	
	Number of units	Total h.p. according to manufacturers' rating	Number of units	Total h.p. according to manufacturers' rating
Steam engines and turbines.....	10	20,516	14	20,506
Oil and gasoline engines.....			1	90
<b>Total primary power.....</b>	<b>10</b>	<b>20,516</b>	<b>15</b>	<b>20,596</b>
Electric motors driven by purchased power.....	490	4,279	581	5,376
<b>Total power equipment employed.....</b>	<b>490</b>	<b>24,795</b>	<b>595</b>	<b>25,882</b>
Electric motors driven by power generated by primary power of industry.....	3,746	22,097	3,905	34,679
<b>Total electric motors.....</b>	<b>4,236</b>	<b>26,376</b>	<b>4,486</b>	<b>40,055</b>
Boilers installed.....	18	6,607 B.H.P.	24	7,347 B.H.P.

**Materials Used.**—The total cost of materials used in the manufacture of automobiles in 1925 was \$74,166,378 as against \$64,148,581 in 1924. As indicated in the following table, a very large part of the materials used, was in the form of finished parts which were already the products of other plants.

Table 120.—Materials Used in the Automobile Industry in Canada, 1924 and 1925

Kind	Unit of measure	1924		1925	
		Quantity	Cost at works	Quantity	Cost at works
			\$		\$
<b>RAW MATERIALS—</b>					
<b>Iron and steel—</b>					
Malleable iron.....	short ton	3,992	589,063	6,574	968,410
Iron castings.....	lb.	31,679,338	2,263,301	40,338,781	2,923,954
Steel castings.....	lb.	27,267,750	3,274,366	35,921,685	4,152,941
Steel bars and shafting.....	lb.	6,951,097	213,193	9,487,388	314,620
Steel plates and sheets.....	lb.	27,525,732	1,351,596	49,728,923	2,484,786
Steel rods and wire.....	lb.	2,360,923	71,121	5,162,215	155,333
<b>Other metals—</b>					
Aluminum.....	lb.	108,920	32,065	254,271	63,967
Brass and bronze castings.....	lb.	1,746,342	423,025	2,416,109	583,618
Brass sheets, bars, etc.....	lb.	461,000	108,334	622,417	144,410
Copper.....	lb.	380,400	96,769	1,377,104	344,256
Lead.....	lb.	1,907,916	136,415	2,477,137	173,429
Tin.....	lb.	5,280	2,745	6,660	3,547
Babbitt metals and solders.....	lb.	607,736	262,040	735,193	306,287
Other metals.....			315,435		424,981
<b>Other materials—</b>					
Tubes and piping.....	lb.	6,867,182	726,809	7,949,422	864,929
Bolts, nuts, rivets and screws.....			544,080		729,926
Glass.....	sq. ft.	713,316	396,666	858,025	483,706
Lumber, all kinds.....	M ft. b.m.	26,188	1,109,930	41,394	1,587,554
Artificial leather.....			343,719		494,551
Velours and other cloths.....			445,530		671,266
Other materials for upholstering, tops and curtains.....			1,427,344		2,181,506
Paints, oils and varnishes.....			366,906		574,840
Other raw materials.....			1,640,085		2,787,175
<b>FINISHED PARTS AND ACCESSORIES—</b>					
Chassis.....	No.	18,150	1,290,816	28,309	1,574,787
Bodies.....	No.	104,240	11,967,728	41,069	7,695,302
Tops.....	No.	68,859	1,658,085	19,761	547,673
Engines (assembled complete).....	No.	60,096	8,524,242	67,310	9,557,828
Springs.....	No.	431,806	1,327,963	605,066	1,557,024
Wheels.....	No.	473,375	2,357,107	684,202	2,379,356
Transmission and motor parts (for assembling and service).....			4,461,855		6,152,284
Speedometer and other instrument board equipment.....			508,516		769,325
Body and chassis parts.....			1,999,879		3,187,362
Batteries.....	No.	129,988	1,110,236	164,132	1,430,322
Generators.....	No.	20,139	228,329	25,413	285,221
Magneto.....	No.	1,982	69,491	3,690	107,489
Starting motors (self-starters).....	No.	18,027	188,656	24,356	271,199
Carburetors.....	No.	168,613	403,711	174,597	362,163
Radiators.....	No.	28,992	390,548	37,768	542,808
Coils.....	No.	409,097	543,646	56,910	95,147
Lamps.....	No.	362,025	617,294	255,338	657,464
Tires, pneumatic, casing.....	No.	423,345	4,019,811	661,885	5,353,773
Tires, pneumatic tubes.....	No.	428,467	779,860	447,092	606,256
Tires, solid.....	No.	7,768	67,723	3,854	84,218
Jacks, pumps, wrenches, and other tools.....			467,815		425,422
Other finished parts and accessories.....			5,025,194		7,103,963
<b>Total.....</b>			<b>64,148,581</b>		<b>74,166,378</b>

**Production.**—The 11 automobile factories in Canada in 1925 produced 124,458 passenger cars, 22,144 trucks and 15,368 chassis, a total of 161,970; including certain parts and custom work the output of the industry was valued in the aggregate at \$110,835,380 at factory prices. Parts and other products were worth \$12,157,238; custom and repairs were valued at \$284,883; and cars, trucks and chassis at \$98,393,259. In the previous year 132,580 cars were manufactured in Canada and the total value of production was \$88,480,418.

**PASSENGER CARS.**—Passenger cars manufactured in Canada in 1925 numbered 124,458 valued at \$82,201,458 factory prices as compared with 98,365 worth \$65,508,256 in 1924. Production of open cars numbered 74,333 as against 67,204 in 1924 and the output of closed cars increased to 50,125 from 31,161 in the previous year; in addition 15,368 complete chassis were produced by the firms engaged in the manufacture of motor cars. Touring cars made up 56.4 per cent of the total output; sedans 31.0 per cent; coupes, 9.2 per cent; runabouts, 3.3 per cent, and special cars, nearly 1 per cent. Of all the passenger cars made in 1925 there were 142,233 four-cylinder cars, 19,521 six-cylinder and 216 eight-cylinder.

The upward trend in closed car production continued. In 1925 the closed models made up 40 per cent of the total passenger car output as compared with 32 per cent in the previous year, 20 per cent in 1922, and 10 per cent in 1920.



**TRUCKS.**—The number of trucks made in Canada in 1925 was 22,144, a gain of 23 per cent over 1924. Of this number 3,296 were under 1 ton capacity, 18,842 were rated from 1 to under 5 tons, and only 6 had a capacity of 5 tons or over. Of the total 36,972 were four-cylinder and 540 were six-cylinder. The aggregate value at the factory of all trucks manufactured in 1925 was \$11,280,905 giving thus an average value of \$509, or 13 per cent above the corresponding figure for 1924.

**AUTOMOBILE ENGINES.**—Manufacturers of motor cars made 96,059 automobile engines during 1925 as compared with a production of 80,584 in 1924. Of this number 95,577 were four-cylinder engines having a capacity of not more than 25 h.p. each; two and six-cylinder engines made up the rest of the output. Only 3 automobile factories in Canada made their own engines. Purchased engines numbered 67,525 of which 67,305 were imported.

Table 121.—Number of Automobiles Produced in Canada, 1923-1925

Kind	Number of automobiles made in			Per cent 1923 of 1922	Per cent 1924 of 1923	Per cent 1925 of 1924
	1923	1924	1925			
<b>Automobiles, passenger—</b>						
Open—						
2 to 3 passenger.....	5,296	3,632	4,172	113	69	115
4 to 5 passenger.....	71,861	62,101	68,486	126	86	110
7 passenger.....	1,860	1,471	1,675	129	79	114
Closed—						
2 to 3 passenger.....	10,051	9,308	11,411	187	93	123
4 to 5 passenger.....	16,677	21,251	37,670	165	127	177
7 passenger.....	481	602	1,050	138	125	176
Special.....			85			
<b>Total.....</b>	<b>106,226</b>	<b>98,365</b>	<b>124,458</b>	<b>134</b>	<b>93</b>	<b>127</b>
<b>Automobiles, commercial—</b>						
Under 1 ton capacity.....	1,751	2,125	3,296	191	121	155
1 ton but under 5 tons.....	17,467	15,918	18,842	241	91	118
5 tons and over.....	8		6	73		
<b>Total.....</b>	<b>19,226</b>	<b>18,043</b>	<b>22,144</b>	<b>235</b>	<b>94</b>	<b>123</b>
<b>Automobile chassis.....</b>	<b>21,750</b>	<b>16,172</b>	<b>15,368</b>	<b>158</b>	<b>74</b>	<b>95</b>
<b>Total.....</b>	<b>147,202</b>	<b>132,580</b>	<b>161,970</b>	<b>146</b>	<b>90</b>	<b>122</b>

Table 122.—Value of Automobiles Produced in Canada, 1923-1925

Type	Value of automobiles made in			Per cent 1923 of 1922	Per cent 1924 of 1923	Per cent 1925 of 1924
	1923	1924	1925			
<b>Automobiles, passenger—</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>			
Open—						
2 to 3 passenger.....	2,820,245	2,072,551	2,431,271	92	73	118
4 to 5 passenger.....	42,118,755	35,503,601	36,008,633	107	84	101
7 passenger.....	2,486,731	2,031,746	1,905,554	111	82	94
Closed—						
2 to 3 passenger.....	6,072,685	5,687,428	6,499,955	100	94	114
4 to 5 passenger.....	15,171,730	18,701,512	33,277,974	133	123	177
7 passenger.....	1,233,927	1,511,328	1,860,388	207	122	123
Special.....			247,683			
<b>Total.....</b>	<b>69,904,073</b>	<b>65,508,256</b>	<b>82,201,458</b>	<b>116</b>	<b>94</b>	<b>126</b>
<b>Automobiles, commercial—</b>						
Under 1 ton capacity.....	742,319	975,862	1,455,349	120	131	149
1 ton but under 5 tons.....	8,147,091	7,150,054	9,801,556	180	88	137
5 tons and over.....	51,601		24,000	63		
<b>Total.....</b>	<b>8,941,011</b>	<b>8,125,916</b>	<b>11,280,905</b>	<b>171</b>	<b>191</b>	<b>139</b>
<b>Automobile chassis.....</b>	<b>8,378,209</b>	<b>5,101,704</b>	<b>4,910,896</b>	<b>124</b>	<b>61</b>	<b>96</b>
<b>Amount received for custom and repair work.....</b>	<b>795,613</b>	<b>37,653</b>	<b>284,883</b>	<b>1,157</b>	<b>5</b>	
<b>All other products.....</b>	<b>8,505,180</b>	<b>9,709,880</b>	<b>12,157,238</b>	<b>91</b>	<b>113</b>	
<b>Total.....</b>	<b>96,614,176</b>	<b>88,480,418</b>	<b>110,835,390</b>	<b>118</b>	<b>92</b>	<b>125</b>

**Table 123.—Production of Automobiles in Canada, Classified by Types of Cars and Engines, 1924 and 1925**

Type	1924				1925			
	No. of 4-cyl.	No. of 6-cyl.	No. of 8-cyl.	Total	No. of 4-cyl.	No. of 6-cyl.	No. of 8-cyl.	Total
Automobiles, passenger—								
Open—								
2 to 3 passenger.....	3,044	586	2	3,632	3,373	795	4	4,172
4 to 5 passenger.....	54,931	7,158	12	62,101	63,049	5,437		68,486
7 passenger.....		1,457	14	1,471		1,673	2	1,675
Closed—								
2 to 3 passenger.....	9,114	194		9,308	11,076	333	2	11,411
4 to 5 passenger.....	18,398	2,787	66	21,251	27,078	9,783	109	37,570
7 passenger.....		532	70	602		960	99	1,059
Special.....					*85			85
Automobiles, commercial—								
Under 1 ton capacity.....	2,125			2,125	3,296			3,296
1 ton but under 5 tons.....	15,918			15,918	18,830	12		18,842
5 tons and over.....					6			6
Automobile chassis.....	15,575	596	1	16,172	14,840	528		15,368
<b>Total.....</b>	<b>119,105</b>	<b>13,310</b>	<b>165</b>	<b>132,580</b>	<b>142,233</b>	<b>19,521</b>	<b>216</b>	<b>161,970</b>

\*Includes 2-cylinder steam engines.

**Table 124.—Average Factory Sales Values for Cars Manufactured in the Automobile Industry in Canada, 1924 and 1925**

Type	Average selling value		Per cent 1924 of 1923	Per cent 1925 of 1924
	1924	1925		
Automobile, passenger—	\$	\$		
Open—				
2 to 3 passenger.....	571	583	107	102
4 to 5 passenger.....	572	526	98	92
7 passenger.....	1,381	1,138	103	82
Closed—				
2 to 3 passenger.....	611	570	101	93
4 to 5 passenger.....	880	886	97	101
7 passenger.....	2,511	1,757	98	70
Special.....		2,561		
Average.....	666	661	101	99
Automobile chassis.....	315	320	82	102
Trucks—				
Under 1 ton capacity.....	459	442	108	96
1 ton, but under 5 tons.....	449	520	96	116
5 tons and over.....				
Average.....	450	509	97	113

**Table 125.—Type and Horsepower of All Engines Manufactured in Automobile Manufacturing Plants in Canada, 1924 and 1925**

Type	1924			1925		
	Number	Total h.p.	Average h.p.	Number	Total h.p.	Average h.p.
Type of engine—						
*4-cylinder.....	80,584	1,789,503	22.2	96,625	2,108,957	21.8
6-cylinder.....				434	9,374	21.6
<b>Total.....</b>	<b>80,584</b>	<b>1,789,503</b>	<b>22.2</b>	<b>96,659</b>	<b>2,118,331</b>	<b>21.8</b>
Engine power—						
25 h.p. and under.....	80,584	1,789,503	22.2	96,059	2,118,331	21.8
<b>Total.....</b>	<b>80,584</b>	<b>1,789,503</b>	<b>22.2</b>	<b>96,059</b>	<b>2,118,331</b>	<b>21.8</b>

\*Includes some 2-cylinder steam engines.

**Table 126.—Type and Horsepower of All Purchased Engines Used in Automobile Manufacturing Plants in Canada, 1924 and 1925**

Type	1924			1925		
	Number	Total h.p.	Average h.p.	Number	Total h.p.	Average h.p.
Type of engine—						
4-cylinder.....	40,715	811,569	19.9	48,114	1,028,968	21.4
6-cylinder.....	12,250	302,015	24.7	19,195	483,759	25.2
8-cylinder.....	165	5,115	31.0	216	6,739	31.2
<b>Total.....</b>	<b>53,130</b>	<b>1,118,699</b>		<b>67,525</b>	<b>1,519,466</b>	
Engine power—						
25 h.p. and under.....	46,365	927,176	20.0	59,300	1,279,323	21.6
25 h.p. to 50 h.p.....	6,765	191,523	28.3	8,225	240,143	29.2
<b>Total.....</b>	<b>53,130</b>	<b>1,118,699</b>		<b>67,525</b>	<b>1,519,466</b>	

**Table 127.—Trend in Closed Car Output in the Automobile Industry in Canada, 1920-1925**

Year	Open	Closed	Per cent closed
	No.	No.	
1920.....	71,078	7,957	10
1921.....	48,472	8,929	16
1922.....	63,296	15,798	20
1923.....	79,017	27,200	26
1924.....	67,204	31,161	32
1925.....	74,333	50,040	40

**Table 128.—Comparative Statement of the Production, Imports of Automobile Engines, and the Number of Automobiles Made in Canada, 1921-1925**

Year	Engines imported into Canada	As reported by automobile manufacturers		
		Engines made	Engines purchased	Automobiles produced
1921.....	9,939	44,621	21,074	66,246
1922.....	22,260	52,311	48,961	101,007
1923.....	31,547	88,437	71,363	147,202
1924.....	27,371	80,584	53,130	132,580
1925.....	67,305	96,059	67,525	161,970

**Table 129.—Area, Floor Space, and Estimated Yearly Capacity of Automobile Manufacturing Plants in Canada, 1921-1925**

Year	Number of plants	Total area covered by plants	Total floor space of buildings	Estimated yearly capacity of plants		
				Automobiles	Trucks	Total
		Acres	Sq. ft.	No.	No.	No.
1921.....	14	100	2,748,911	130,600	26,561	157,161
1922.....	15	127	3,156,840	155,100	30,812	185,912
1923.....	10	116	4,196,295	258,500	30,100	288,600
1924.....	11	175	4,442,768	263,500	35,200	298,700
1925.....	11	188	4,588,332	242,500	27,490	269,990

**Imports.**—Imports into Canada of motor cars and parts other than engines amounted in value to \$35,240,298 during 1925, a record for the imports of these commodities. Passenger cars imported during the year numbered 13,486 valued at \$12,855,940; this was the highest value on record but the number was exceeded in 1917 when 15,825 passenger cars were brought into Canada. Imports of trucks reached a total of 1,146 worth \$1,693,369, a considerable increase over 1924 but exceeded in both number and value in 1918, 1919, 1920 and 1923. Imported automobile parts were worth \$20,690,989, an increase of 36 per cent over 1924 and the highest on record.

In addition to the above, 67,305 automobile engines valued at \$8,287,105 were imported during the year as compared with 27,371 worth \$4,140,283 in 1924. Nearly all the imports came from the United States.

**Table 130.—Imports of Automobiles and Parts into Canada During the Calendar Years 1917-1925**

Year	Passenger cars		Trucks		†Parts Value	Total
	Number	Value	Number	Value		
		\$		\$	\$	\$
1917.....	15,825	10,738,425	831	1,132,532	(a) 7,555,535	19,426,492
1918.....	9,190	7,148,647	1,622	2,019,618	(a) 6,631,260	15,799,525
1919.....	9,637	9,304,235	2,113	3,437,464	9,979,041	22,720,740
1920.....	7,191	9,890,487	1,954	3,971,113	14,051,818	27,913,418
1921.....	6,319	8,688,976	951	1,815,723	8,393,507	18,898,206
1922.....	10,705	11,516,715	886	1,643,738	13,744,496	26,904,949
1923.....	10,467	10,447,945	1,355	1,879,574	15,047,633	27,374,552
1924.....	8,344	8,202,943	957	1,438,666	15,173,108	24,811,417
1925.....	13,486	12,855,940	1,146	1,693,369	20,690,989	35,240,298

(a) Item for 1917 and 1918 reads "automobiles and motor vehicles, parts of, n.o.p."

†Does not include automobile engines.

**Table 131.—Imports into Canada of Automobiles and Parts by Principal Countries for the Calendar Year 1925**

Country	Automobiles		Automobile parts	Total
	Freight	Passenger		
United Kingdom.....	No. 35	75		
	\$ 86,182	173,376	48,313	307,871
United States.....	No. 1,104	13,407		
	\$ 1,601,638	12,678,389	20,604,469	34,884,496
Other countries.....	No. 7	4		
	\$ 5,549	4,175	38,207	47,931
<b>Total.....</b>	No. <b>1,146</b>	<b>13,486</b>		
	\$ <b>1,693,369</b>	<b>12,855,940</b>	<b>20,690,989</b>	<b>35,240,298</b>

**Exports.**—Export shipments from Canada in 1925 were the highest on record. The total value of Canadian-made automobiles and parts exported during the year was \$39,417,614, an increase of 8 million dollars over the value for 1924 and 2 millions over 1923, the previous best year. Exports of passenger cars numbered 58,005 which was about 46 per cent of the total Canadian production; trucks numbered 16,146 or about 73 per cent of the total production in Canada, and parts exported were valued at \$6,372,728. Inactive domestic demand in certain months and the extension of the British preference have been important factors in the development of the export trade. It is worth while to note that in 1917 only 9,492 Canadian-made automobiles were exported; in 1920 the number stood at 23,012; in 1923 some 69,920 went to foreign countries, and in 1925 the number increased to 74,151. In 1917, only 10 per cent of the production was exported as compared with about 46 per cent in 1925.

A short analysis of the export trade follows: Australia was Canada's best market for both passenger cars and trucks and took about 18.2 per cent of the total; New Zealand was next at 13.7 per cent; British India took 11.9 per cent; Dutch East Indies, 8.9 per cent; Straits Settlement, 7.8 per cent; British South Africa, 7.8 per cent; United Kingdom, 6.9 per cent; Argentine, 4.7 per cent; Brazil, 2.8 per cent; Uruguay, 1.8 per cent, and other countries, 15.5 per cent.

**Table 132.—Exports of Automobiles and Parts from Canada During the Calendar Years 1917-1925**

Year	Passenger cars		Trucks		Parts Value	Total value
	Number	Value	Number	Value		
		\$		\$	\$	\$
1917.....	(b) 9,492	4,561,875	(a)	(a)	2,035,709	6,597,644
1918.....	10,261	5,076,076	(a)	(a)	919,738	5,995,814
1919.....	19,597	11,579,720	3,352	1,673,256	3,490,575	16,743,551
1920.....	18,070	13,576,179	4,942	3,059,056	4,276,027	20,911,262
1921.....	9,305	4,586,664	1,421	718,780	1,128,181	6,433,625
1922.....	35,394	21,059,574	2,564	1,094,519	1,926,098	24,080,191
1923.....	57,481	29,325,031	12,439	4,503,659	3,530,377	37,359,067
1924.....	43,883	22,080,232	12,773	4,429,161	4,992,049	31,501,442
1925.....	58,005	27,794,884	16,146	5,250,002	6,372,728	39,417,614

(a) Included under passenger cars.

(b) Includes trucks.



Table 133.—Exports from Canada of Automobiles and Parts by Principal Countries of Destination for the Calendar Year, 1925

Country		Automobiles		Automobile parts	Total value
		Freight	Passenger		
Argentina.....	No. 1		3,499		
	\$ 346		1,975,970	1,195,247	3,171,563
Australia.....	No. 4,875		8,644		
	\$ 1,665,282		2,609,499	729,705	5,004,486
Brazil.....	No. 2,069		2,069		
	\$ 1,304,359		1,304,359	847,531	2,151,890
British India.....	No. 2,032		6,807		
	\$ 705,336		2,763,691	412,660	3,881,687
British S. Africa.....	No. 581		5,168		
	\$ 195,796		2,076,569	402,181	2,674,346
Dutch East Indies.....	No. 1,226		5,335		
	\$ 416,754		1,959,483	213,306	2,589,603
New Zealand.....	No. 1,749		8,392		
	\$ 615,422		4,282,699	480,266	5,378,387
Straits Settlement.....	No. 1,004		4,761		
	\$ 333,530		1,810,045	249,452	2,393,027
Uruguay.....	No. 34		1,340		
	\$ 14,620		665,559	48	680,227
United Kingdom.....	No. 2,008		5,060		
	\$ 353,025		2,981,408	337,344	3,671,777
United States.....	No. 14		124		
	\$ 5,525		38,103	485,002	528,630
Other countries.....	No. 2,622		8,806		
	\$ 944,366		5,336,699	1,019,926	7,300,991
<b>Total.....</b>	<b>No. 16,146</b>		<b>58,005</b>		
	<b>\$ 5,250,002</b>		<b>27,794,884</b>	<b>6,372,728</b>	<b>39,417,614</b>

**Re-Exports.**—In 1925 Canada re-exported over a million dollars' worth of foreign-made motor cars and parts, including 328 passenger cars worth \$421,005, only 13 trucks valued at \$13,852 and \$605,341 worth of parts. About 91 per cent of the total went to the United States.

Table 134.—Re-Exports of Automobiles and Parts from Canada During the Calendar Years 1917-1925

Year	Passenger cars		Trucks		Parts Value	Total value
	Number	Value	Number	Value		
		\$		\$	\$	\$
1917.....	(b) 567	(b) 1,141,629	(a)	(a)	559,917	1,701,546
1918.....	(b) 322	(b) 459,407	(a)	(a)	391,274	850,681
1919.....	278	502,536	27	93,368	591,171	1,187,075
1920.....	488	910,391	54	138,007	969,081	2,017,569
1921.....	230	387,033	24	70,624	556,554	1,014,211
1922.....	263	433,978	5	14,143	478,440	926,561
1923.....	422	335,746	16	30,916	488,645	853,307
1924.....	301	354,275	25	59,867	473,020	887,162
1925.....	328	421,005	13	13,852	605,341	1,040,198

(a) Included under passenger cars.

(b) Includes trucks.

Table 135.—Re-Exports from Canada of Automobiles and Parts by Principal Countries of Destination, 1925

Country		Automobiles		Automobile parts	Total value
		Freight	Passenger		
United Kingdom.....	No. 18		18		
	\$ 71,935		71,935	989	72,924
United States.....	No. 13		303		
	\$ 13,852		328,925	603,243	946,020
Other countries.....	No. 7		7		
	\$ 20,145		20,145	1,109	21,254
<b>Total.....</b>	<b>No. 31</b>		<b>328</b>		
	<b>\$ 13,852</b>		<b>421,005</b>	<b>605,341</b>	<b>1,040,198</b>

**Table 136.—Summary of Exports of Canadian Automobiles and Automobile Parts from Canada, Fiscal Years 1904 to 1926 (d)**

Fiscal Year	Automobiles, freight		Automobiles, passenger		Auto- mobile parts
	Quantity	Value	Quantity	Value	
	No.	\$	No.	\$	
1904.....	(a)	(a)	(b)	(b)	(c)
1905.....	(a)	(a)	(b)	(b)	(c)
1906.....	(a)	(a)	67	63,329	(c)
1907 (9 mos.).....	(a)	(a)	85	76,267	(c)
1908.....	(a)	(a)	135	169,133	(c)
1909.....	(a)	(a)	171	189,394	(c)
1910.....	(a)	(a)	346	408,611	(c)
1911.....	(a)	(a)	627	595,745	(c)
1912.....	(a)	(a)	1,891	1,443,911	82,092
1913.....	(a)	(a)	3,766	2,284,820	99,709
1914.....	(a)	(a)	6,306	3,573,862	235,857
1915.....	(a)	(a)	5,238	2,645,824	408,629
1916.....	(a)	(a)	17,283	8,897,801	533,361
1917.....	(a)	(a)	9,766	4,604,899	1,007,207
1918.....	(a)	(a)	8,447	3,807,278	1,557,712
1919.....	2,567	1,313,770	11,613	5,989,908	1,552,296
1920.....	4,133	2,211,342	20,373	12,672,265	3,097,466
1921.....	4,290	2,602,853	15,620	11,376,268	4,262,325
1922.....	1,296	611,185	13,428	7,421,619	1,151,453
1923.....	2,720	1,444,549	45,108	25,006,350	2,355,066
1924.....	15,395	5,496,272	54,522	27,246,025	4,162,787
1925.....	11,773	4,018,419	44,817	22,011,970	4,911,736
1926.....	19,224	6,283,080	61,499	29,434,358	7,121,747

(a) Included with "automobiles, passenger" prior to 1919.

(b) Not separately enumerated prior to 1906.

(c) Not separately enumerated prior to 1912.

(d) Canada's fiscal year ends March 31.

**Table 137.—Summary of Imports of Automobiles and Automobile Parts Into Canada (Fiscal Years 1904 to 1926)**

Fiscal year	Automobiles freight		Automobiles, passenger		Auto- mobile parts
	Quantity	Value	Quantity	Value	
	No.	\$	No.	\$	
1904.....	(a)	(a)	(b)	356 (b)	315,475 (c)
1905.....	(a)	(a)	(b)	390 (b)	453,904 (c)
1906.....	(a)	(a)	(b)	448 (b)	645,871 (c)
1907 (9 mos.).....	(a)	(a)	(b)	350 (b)	531,028 (c)
1908.....	(a)	(a)	(b)	674 (b)	912,371 (d)
1909.....	(a)	(a)	(b)	533 (b)	585,097 (d)
1910.....	(a)	(a)	(b)	424 (b)	1,732,215 (d)
1911.....	(a)	(a)	(b)	3,488 (b)	4,235,196 (d)
1912.....	(a)	(a)	(b)	6,022 (b)	6,511,115 (d)
1913.....	(a)	(a)	(b)	8,377 (b)	9,738,839 (d)
1914.....	(a)	(a)	(b)	6,288 (b)	7,213,375 (d)
1915.....	(a)	(a)	(b)	5,476 (b)	4,888,704 (d)
1916.....	(a)	(a)	(b)	8,055 (b)	5,089,329 (d)
1917.....	327	423,824	12,037	7,981,177	7,200,017 (d)
1918.....	964	1,275,179	16,118	11,317,245	6,671,419 (d)
1919.....	1,744	2,274,748	6,473	5,326,510	6,660,770 (d)
1920.....	2,274	3,831,084	10,805	11,204,461	12,674,823 (d)
1921.....	1,705	3,578,938	5,907	8,399,537	11,760,367
1922.....	806	1,537,765	7,181	9,501,362	10,211,791
1923.....	1,082	1,889,105	11,402	11,857,165	14,134,874
1924.....	1,340	1,910,808	9,549	9,532,350	16,808,323
1925.....	934	1,364,664	8,835	8,726,714	14,188,715
1926.....	1,189	1,772,414	14,935	14,022,814	23,111,109

(a) Included with "automobiles, passenger" prior to 1917.

(b) Includes other motor vehicles prior to 1917.

(c) Not separately enumerated prior to 1908.

(d) Includes other motor vehicle parts prior to 1920.

**Apparent Consumption.**—By deducting the exports and the re-exports for the year from the sum of the production and the imports, an estimate of the apparent consumption may be obtained. In 1925, the number stood at 102,110 as compared with 84,900 in 1924 and 88,666 in 1923.

Table 138.—Apparent Consumption of Automobiles in Canada, 1917-1925

Year	Production	Imports	Exports	Re-Exports	Apparent consumption
	No.	No.	No.	No.	No.
1917.....	93,810	16,656	9,492	567	100,407
1918.....	82,408	10,812	10,361	322	82,537
1919.....	87,835	11,750	22,949	305	76,331
1920.....	94,144	9,145	23,012	542	79,735
1921.....	66,246	7,270	10,726	254	62,536
1922.....	101,007	11,591	37,958	268	74,372
1923.....	147,202	11,822	69,920	438	88,666
1924.....	132,580	9,301	56,655	326	84,900
1925.....	161,970	14,565	74,151	341	102,110

**Cars Withdrawn from Use.**—An estimate of the number of cars withdrawn from use during 1925 has been made by deducting the sum of the registrations and the exports in 1925 from the sum of the registrations in 1924 and the production and the imports during 1925. Cars thus to be accounted for were 820,636 in number, while the registrations and exports during 1925 totalled 794,577 leaving a balance of 26,059 as the number of cars withdrawn from use during the year. There is a small error in this computation as it does not take into account the increase over the previous year of unlicensed cars in the hands of the dealers.

Table 139.—Number of Automobiles Withdrawn from Use in Canada, 1924 and 1925

	1924		1925	
	Year	Number	Year	Number
Cars to be accounted for—				
Automobile licences.....	1923	576,634	1924	644,034
Manufactured.....	1924	132,580	1925	161,970
Imported.....	1924	9,301	1925	14,632
<b>Total.....</b>		<b>718,565</b>		<b>820,636</b>
Cars accounted for—				
Automobile licences.....	1924	644,034	1925	720,085
Exported.....	1924	56,655	1925	74,151
Re-exported.....	1924	326	1925	341
<b>Total.....</b>		<b>701,025</b>		<b>794,577</b>
<b>Cars withdrawn from use.....</b>	<b>1924</b>	<b>17,540</b>	<b>1925</b>	<b>26,059</b>

**Registrations.**—The following tables of registrations of motor vehicles, dealers, etc., and the resultant revenues have been compiled from data supplied by the provincial registrars and are necessarily restricted to such data as are common to the compilations of all the provinces.

The total registrations of motor vehicles for 1925, including dealers' cars at the rate of one car per dealer, was 728,005. This was an increase of 75,884, or 11.6 per cent over 1924 and an increase of 142,955 or 24.4 per cent over 1923. Farm tractors and trailers have not been included in these totals except in Quebec where they were not segregated from motor trucks.

While only 1 car per dealer has been included in the total registrations, the sets of licence plates supplied to dealers were more than double this. In British Columbia 5 sets of plates are supplied with each dealer's licence and in other provinces one set is included, but additional sets may be secured for a nominal charge. As far as possible the 1924 and 1923 totals have been made comparable with the 1925 data.

A gasoline tax is now levied in all the provinces except New Brunswick and Saskatchewan, Nova Scotia inaugurating the tax in 1926. The rates for 1925 were 2 cents per gallon in Prince Edward Island and Alberta and 3 cents per gallon in the other provinces.

At present, Prince Edward Island, Quebec and Manitoba are the only provinces that require all drivers of motor vehicles to hold a licence and Ontario is adopting similar regulations. In the other provinces except to chauffeurs, the car licence is the only licence issued for the operation of motor vehicles on the highways. The bases of fixing the amount payable for automobile licences are varied. In Prince Edward Island, New Brunswick and Quebec, it is on a weight basis, in British Columbia a combination of weight and value is used, in Nova Scotia and Ontario the horse power is the basis and in Manitoba, Saskatchewan and Alberta the length of the wheel base is the basis.

Buses in Saskatchewan are operated under licence issued to liverymen including all motor vehicles for hire. In Nova Scotia, Quebec and Ontario besides taking out licences for buses, operators are required to pay an additional special tax. In Ontario the basis of the tax is the seating capacity of the bus and the miles run at a tenth of a cent per passenger mile, paid in advance each month. In Nova Scotia and Quebec the basis is the gross weight of the bus when loaded, computed by adding the weight of the vehicle to the product of the number of seats and 150 pounds, multiplied by the number of miles run. The rate in Quebec is 1 cent per ton mile for all vehicles over 5,000 pounds gross and half a cent per ton mile for vehicles under 5,000 pounds gross. In Nova Scotia the rate is half a cent per ton mile for vehicles with pneumatic tires and 1 cent per ton mile for vehicles with hard tires. The routes, schedules and rates of fares are under the jurisdiction of the respective provincial authorities.

The table below shows the density in each province of passenger cars and of all motor vehicles. Ontario has the greatest density with 9.8 passenger cars per 100 population. The western provinces show a much greater density than Quebec and the Maritime Provinces, which is undoubtedly due to the large number of farmers in the west with automobiles. The development of surfaced highways also has a big influence on the relative density of motor vehicles.

**Table 140.—Registrations of Motor Vehicles in Canada, by Provinces, and Density of Distribution, 1925**

Province	Estimated population 1925	Passenger cars		Total motor vehicles	
		Total number	Per 100 population	Total number	Per 100 population
Prince Edward Island.....	87,300	2,824	3.2	2,955	4.3
Nova Scotia.....	536,900	20,012	3.7	22,853	4.3
New Brunswick.....	403,300	17,420	4.3	19,022	4.7
Quebec.....	2,520,000	80,854	3.2	97,657	3.9
Ontario.....	3,103,000	363,736	9.8	344,112	11.1
Manitoba.....	656,400	46,736	7.1	51,241	7.8
Saskatchewan.....	833,000 *	71,205	8.5	79,078	9.5
Alberta.....	651,700	50,496	7.7	54,357	8.3
British Columbia.....	560,500	46,336	8.3	56,618	*10.1
Yukon.....	3,500	76	2.1	112	3.2
North West Territories.....	8,600				
<b>Canada.....</b>	<b>9,364,200</b>	<b>639,695</b>	<b>6.8</b>	<b>728,005</b>	<b>7.8</b>

\* Exclusive of taxi cabs.

**Table 141.—Motor Vehicle Registrations in Canada, 1907-1925**

Year	Number	Year	Number
1907.....	2,130	1917.....	197,799
1908.....	3,033	1918.....	275,746
1909.....	4,763	1919.....	341,316
1910.....	8,907	1920.....	407,004
1911.....	21,519	1921.....	465,378
1912.....	34,136	1922.....	513,821
1913.....	50,558	1923.....	585,050
1914.....	69,598	1924.....	652,121
1915.....	81,944	1925.....	728,005
1916.....	123,464		

The data for the table below were supplied by the Department of National Revenue. The 1925 data include tallies of cars at some ports not included in the 1924 and 1923 tables so these data are not directly comparable and the apparent increase in tourist traffic is greater than the actual. The returns from ports reporting in both 1924 and 1925 show increases of 16 per cent in cars entering for one day, 24 per cent in cars entering for one month and 24 per cent in cars entering for a period one to six months and 18 per cent in Canadian cars exported for touring purposes. Cars in the first column entering Canada for only one day include commercial cars of all kinds transacting business in the border municipalities, those of persons making social calls, attending entertainments, motoring to golf clubs, race tracks and taking short trips, but those entering for more than a day up to six months listed in the second and third columns are practically all tourists and it was these that showed the largest rate of increase.



Table 142.—Motor Vehicles Admitted to Canada and Exported for Touring Purposes, 1925

Location of port of entry	Motor vehicles entering Canada for touring purposes			Canadian cars exported for touring purposes
	Admitted for period not exceeding one day	For one month	Exceeding one month and not more than six months	
Nova Scotia.....		532	162	42
Prince Edward Island.....		8	12	
New Brunswick.....	476,555	11,682	193	4,653
Quebec.....	111,983	143,628	303	49,330
Ontario.....	1,270,090	229,310	1,877	95,793
Manitoba.....	18,529	5,983	51	4,390
Saskatchewan.....	2,598	3,120	123	2,823
Alberta.....	6,294	2,283	40	779
British Columbia.....	38,086	84,615	187	65,267
<b>Total.....</b>	<b>1,945,035</b>	<b>481,161</b>	<b>2,948</b>	<b>223,077</b>
<b>Totals—1924.....</b>	<b>1,534,885</b>	<b>361,830</b>	<b>2,344</b>	<b>162,475</b>
<b>1923.....</b>	<b>966,499</b>	<b>273,444</b>	<b>1,954</b>	<b>126,628</b>

Table 143.—Registrations of Motor Vehicles in Canada, by Classes and by Provinces, 1925

PASSENGER AUTOMOBILES, NEW										
Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon	Canada
355	3,383	2,655	11,908	40,377	Not segregated	Not segregated	4,083	8,110	1	.....
PASSENGER AUTOMOBILES, RENEWALS										
2,469	16,620	14,765	68,946	263,350	Not segregated	Not segregated	46,413	38,226	75	.....
Total Passenger Automobiles										
<b>2,824</b>	<b>20,012</b>	<b>17,420</b>	<b>180,854</b>	<b>303,736</b>	<b>46,736</b>	<b>71,205</b>	<b>50,496</b>	<b>46,336</b>	<b>76</b>	<b>619,695</b>
MOTOR TRUCKS, NEW										
15	476	217	1,917	9,100	.....	.....	1,102	1,291	2	.....
MOTOR TRUCKS, RENEWALS										
99	2,087	1,125	12,257	25,590	.....	.....	2,036	7,978	31	.....
Total Motor Trucks										
<b>114</b>	<b>2,563</b>	<b>1,342</b>	<b>14,174</b>	<b>34,690</b>	<b>3,606</b>	<b>5,560</b>	<b>3,138</b>	<b>9,269</b>	<b>33</b>	<b>74,489</b>
MOTOR BUSES, NEW										
1	4	9	69	.....	.....	.....	.....	Included with passenger cars	.....	.....
MOTOR BUSES, RENEWALS										
.....	31	7	238	.....	.....	.....	.....	Included with passenger cars	.....	.....
Total Motor Busses										
<b>1</b>	<b>35</b>	<b>16</b>	<b>307</b>	<b>216</b>	<b>32</b>	<b>11,171</b>	.....	Included with passenger cars	.....	<b>11,778</b>

Table 143.—Registrations of Motor Vehicles in Canada, by Classes and by Provinces, 1925—Concluded

Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon	Canada
MOTOR CYCLES, NEW										
	26	12	224	Not segregated			31	95		
MOTOR CYCLES, RENEWALS										
8	109	73	1,859	Not segregated			331	675	3	
Total Motor Cycles										
8	135	85	2,083	3,748	542	184	362	770	3	7,920
Totals, 1925										
2,947	22,745	18,863	97,418	342,390	50,816	78,120	53,996	56,375	112	723,882
Totals, 1924										
2,522	20,645	19,840	84,935	306,770	43,982	60,901	50,238	48,407	111	647,401
Totals, 1923										
2,438	18,232	16,692	71,299	279,208	42,083	60,551	42,323	40,854	78	579,758
DEALERS' LICENCES, 1925										
8	108	159	239	1,722	325	958	361	243		4,123
Total including dealers' vehicles, 1925										
2,955	22,853	19,022	97,657	344,112	51,211	79,078	54,357	56,618	112	728,005
Total including dealers' vehicles, 1924										
2,583	20,764	19,975	85,145	308,693	44,322	70,754	51,148	48,626	111	652,121
Total including dealers' vehicles, 1923										
2,483	18,354	16,829	72,448	290,996	42,428	67,337	43,044	41,053	78	585,050
FARM TRACTORS										
	29		Included with motor trucks				1,665	53		1,753
TRAILERS										
	32		Included with motor trucks	1,058				335		1,425
OPERATOR LICENCES										
4,030			80,572		††9,309			72,175		166,086
CHAUFFEUR LICENCES										
30	1,294	1,258	22,007	33,740	3,840	675	1,882	5,342		70,077
GARAGE LICENCES										
			1,033	2,530		300	293			4,156

† Includes 5,726 taxi cabs.

† Includes farm tractors and trailers.

\* Includes 8 caterpillar tractors.

†† Includes taxi cabs in Saskatchewan.

†† Other than owners of cars.

**Table 144.—Revenues from Registrations of Motor Vehicles in Canada, by Classes and by Provinces, 1925**

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
	\$	\$	\$	\$	\$
Passenger automobiles.....	10,718,970	58,601	494,059	492,169	1,390,646
Motor trucks.....	1,571,480	2,220	64,402	†	433,432
Motor buses.....	107,937		2,618	†	22,513
Motorcycles.....	30,388	63	1,233		8,582
Farm tractors.....	12,361		†		†
Trailers.....	6,189		†		†
Transfers of reg. cars.....	101,628	154			
Operators licences.....	410,472				401,163
Dealer licences.....	110,321	288	6,895	4,080	16,526
Additional plates.....	18,657				
Garage licences.....	33,437				10,910
Chauffeur licences.....	187,444	240	6,189	2,913	110,035
Fines.....	92,123		930	96	39,940
Miscellaneous revenue.....	39,395	200		2,890	10,854
<b>Total</b> .....	13,440,202	61,766	576,326	502,148	2,444,601
Gasoline tax.....	4,068,157	21,900	No tax	No tax	775,318
<b>Total</b> .....	1925 17,508,359	83,666	576,326	502,148	3,219,919
	1924 12,681,721	68,812	535,193	452,490	2,091,825
	1923 11,427,510	52,503	486,279	376,966	2,231,494
Average revenue per motor vehicle.....	24.00	28.40	25.20	26.40	33.00

	Ontario	Manitoba	Sas- katche- wan	Alberta	British Colum- bia	Yukon
	\$	\$	\$	\$	\$	\$
Passenger automobiles.....	4,378,915	574,440	1,191,763	928,030	1,209,555	792
Motor trucks.....	947,924	39,063	84,098	†		341
Motor buses.....	50,919		††31,887			
Motorcycles.....	14,615	2,909	1,437	1,537	Not segre- gated	12
Farm tractors.....				12,361	"	
Trailers.....	6,189				"	
Transfers of reg. cars.....	75,731	4,200	10,644	10,897	"	2
Operators licences.....		9,309			"	
Dealer licences.....	44,712	5,120	21,680	11,020	"	
Additional plates.....	7,557	4,660	5,840		"	
Garage licences.....	20,762		300	1,465	"	
Chauffeur licences.....	41,057	18,061	3,375	5,574	"	
Fines.....	45,352			5,805	"	
Miscellaneous revenue.....	12,818	3,082	9,551		"	
<b>Total</b> .....	5,646,551	660,844	††1,380,575	976,689	1,209,555	1,147
Gasoline tax.....	1,976,000	397,244	No tax	311,404	586,291	No tax
<b>Total</b> .....	1925 7,622,551	1,058,088	1,380,575	1,288,093	1,795,846	1,147
	1924 4,784,697	935,412	1,221,394	1,152,173	1,438,604	1,131
	1923 4,292,504	797,355	1,125,226	997,947	1,066,359	877
Average revenue per motor vehicle.....	22.30	20.80	17.90	23.90	31.70	10.20

† Included with passenger automobiles.

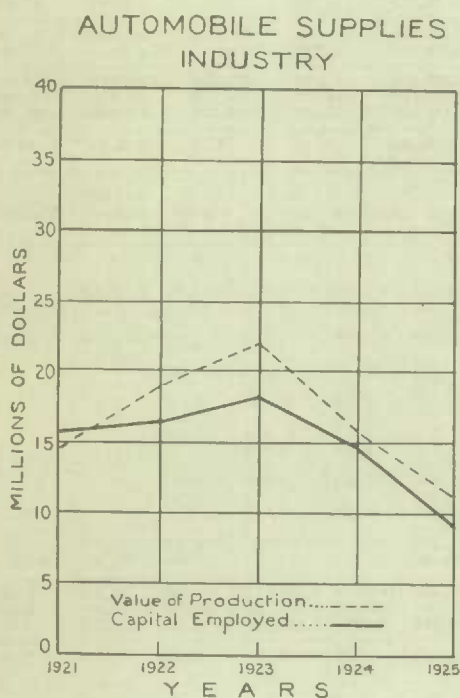
†† Includes taxi cabs in Saskatchewan.

† Included with motor trucks.

## CHAPTER EIGHT

## Automobile Parts and Accessories

**General.**—The industrial group reviewed in this chapter includes only those firms in the iron and steel industry in Canada engaged in the manufacture of automobile parts and accessories as their principal product. In the main, the plants classed in this industry make bodies, wheels, springs, rims, etc., for the automobile manufacturers; many other establishments produce commodities for use in the automobile trade but their main business is of such a nature as to



necessitate their classification in other industrial groups. In order to properly interpret the statistics presented in the various reports of the Bureau, it is necessary to understand the scheme of classification as outlined on page 5, and to note that the production data for certain commodities as presented in the review of a single industry, do not necessarily represent the entire Canadian output of these commodities as similar articles may be made in other industrial groups. For the complete production of any commodity listed in the iron and steel industry, reference should be made to Table 30 of this report.

During 1925, the output of plants engaged primarily in the manufacture of automobile parts and supplies was valued at \$11,234,828, a decline of 29 per cent or 4.5 million dollars from the value of \$15,744,388 reported in 1924 which in turn was over 6 million dollars below the figures for 1923. The sharp declines in production values for these 2 years may be attributed to the closing of 2 of the larger concerns in this line of business; in 1924, one of the largest body manufacturing plants in Canada went out of business and in 1925 a large plant formerly engaged in making automobile engines and axles, ceased to operate.

High cost of Canadian made component parts, excessive tooling expense on small volume production and high duty on component parts not obtainable in Canada and certain labour conditions peculiar to the locality accounted for the closing of the latter plant.

Firms in Canada engaged chiefly in the manufacture of automobile parts and accessories numbered 68 of which 43 were in Ontario, 6 in Quebec, 4 in Manitoba, 4 in Alberta and 11 in British Columbia. This number includes all firms manufacturing special parts such as bodies, wheels, springs, etc., but does not include the numerous garages and other establishments doing only repair and service work. As compared with 1924 there were 8 more plants in operation; reports were received from 4 new plants in Quebec, 9 in Ontario, 1 in Alberta, and 2 in British Columbia, but 6 plants in Ontario and 2 in Alberta which were included in 1924 did not operate during 1925.

Most of the plants in this industry make bodies, wheels, radiators, etc., for sale to the automobile manufacturers and, since all of the latter are located in Ontario, the automobile parts and accessories industry is also centred in Ontario. Ontario's 43 plants produced parts valued at 10.4 million dollars or 93 per cent of the Dominion total.



Of the plants in this industry only 2 produced more than a million dollars' worth of commodities for sale during the year; the output values of 5 others each exceeded the half million dollar mark; 12 others each were above \$100,000; 9 more were above \$50,000 each; 29 more were each above \$25,000, while the remaining 11 were below this figure. Only 6 establishments employed more than 100 employees in each; 12 others each gave work to more than 25 persons; 13 employed more than 10 people; while 37 establishments gave work to an average of 10 or less the year round.

A considerable variety of products were made by firms in this industry. According to reports received by the Bureau, automobile wheels were made in 4 different plants, rims in 2 plants, axles in 1 plant, trailers in 2 establishments, springs in 6 plants, bodies, covers, tops, etc., in a number of plants, tire and luggage carriers in 3 plants, while each of the following items were made in just 1 plant: piston rings, kumps, shock absorbers, bumpers, snubbers, motorimeters, lubricating systems, dispen ing pumps, and wiring assemblies.

**Table 145.—Summary Statistics of the Automobile Parts and Accessories Industry in Canada, 1921-1925**

Year	Number of plants	Capital employed	Number of employees	Salaries and wages	Cost of fuel and electricity*	Cost of materials	Selling value of products	Value added by manufacturing
		\$		\$	\$	\$	\$	\$
1921.....	64	15,700,288	2,232	3,235,185	195,394	8,229,855	14,783,017	6,553,102
1922.....	62	16,545,641	3,173	4,296,584	245,056	10,674,176	19,007,824	8,333,648
1923.....	60	18,241,996	3,705	5,485,028	350,372	13,301,152	22,000,640	8,999,488
1924.....	60	14,894,462	2,623	3,786,464	284,216	9,336,308	15,744,388	6,408,080
1925.....	68	9,023,906	2,029	2,684,766	216,903	6,215,283	11,234,828	5,019,515

\*Electricity not included prior to 1923.

**Table 146.—Principal Statistics of the Automobile Parts and Accessories Industry in Canada, 1924 and 1925**

Province	1924				1925			
	Number of plants	Number of employees	Salaries and wages	Selling value of products	Number of plants	Number of employees	Salaries and wages	Selling value of products
			\$	\$			\$	\$
Quebec.....					6	47	52,191	179,170
Ontario.....	40	2,447	3,534,046	15,119,940	43	1,801	2,372,521	10,385,695
Manitoba.....	4	32	38,173	143,154	4	39	49,953	184,972
Alberta.....	4	25	33,414	53,407	4	25	30,876	57,336
British Columbia.....	9	100	155,011	356,947	11	118	179,225	427,655
*Canada.....	60	2,623	3,786,464	15,744,388	68	2,029	2,684,766	11,234,828

\*Include also data for 2 plants in Quebec and 1 in Saskatchewan in 1924.

**Capital Employed.**—Although the total number of plants reporting to the Bureau in 1925 was 8 in excess of the number in operation in 1924, the capital employed in the automobile parts and accessories industry in Canada in 1925 showed a decline of 39.6 per cent and amounted to \$9,023,906 as compared with \$14,894,462 in 1924; this decline was due to the closing of 1 of the largest plants in this industry. In 1925, fixed assets such as lands, buildings, and plant equipment were valued at \$4,853,063, about 4.5 million dollars below the value given in 1924; the value of stocks on hand, and in process at \$2,137,004 was only about three-quarters of a million dollars lower than in 1924, while cash, trading and operating accounts and bills receivable were about the same amount below the figure of the previous year.

Ontario's plants employing a capital of \$8,488,468 represented 94 per cent of the total for Canada. British Columbia was next with slightly more than a quarter million dollars' investment; Quebec, Manitoba and Alberta followed in order. Ontario's plants showed a loss of nearly 6 million dollars while each of the other provinces represented reported slight increases.

**Table 147.—Capital Employed in the Automobile Parts and Accessories Industry in Canada, 1924 and 1925**

Province	1924				1925			
	Capital employed as represented by				Capital employed as represented by			
	Lands, buildings, fixtures, machinery and tools	Materials on hand and stocks in process	Cash, trading, and operating accounts and bills receivable	Total	Lands, buildings, fixtures, machinery and tools	Materials on hand and stocks in process	Cash, trading and operating accounts and bills receivable	Total
	\$	\$	\$	\$	\$	\$	\$	\$
Quebec.....					32,044	20,488	55,788	117,320
Ontario.....	9,092,325	2,708,660	2,690,557	14,491,542	4,610,015	2,023,802	1,864,651	8,498,468
Manitoba.....	27,570	28,222	23,181	78,973	19,151	31,218	49,758	100,127
Alberta.....	17,214	8,213	4,468	29,895	29,526	8,489	8,554	46,569
British Columbia.....	157,918	44,482	51,412	253,812	102,327	44,007	65,088	211,422
<b>Canada*</b> .....	<b>9,307,696</b>	<b>2,802,598</b>	<b>2,784,168</b>	<b>14,894,162</b>	<b>4,854,063</b>	<b>2,137,004</b>	<b>2,033,839</b>	<b>9,024,906</b>

\*Totals for 1924 also include data for 2 plants in Quebec and 1 in Saskatchewan.

**Employment.**—In 1925, the automobile parts and accessories industry afforded employment to 284 salaried employees and an average of 1,745 wage-earners, a total of 2,029 persons as compared with 340 salaried employees and 2,283 wage-earners or a total of 2,623 employees in 1924. Of the total number of workers, 1,801 or 89 per cent were employed in factories in Ontario, 118 in British Columbia, 47 in Quebec, 38 in Manitoba and 25 in Alberta. Female workers numbered 204, or only 10 per cent of the total.

The average number of wage-earners employed during the year was 1,745. Monthly data shows that, in January, only 1,598 wage-earners were working, in February 1,685, in March 1,815, and in April a maximum for the year of 1,924. Thereafter the number declined steadily to a minimum of 1,569 in September and then gained to 1,702 by the end of the year. In the previous year, 1924, the maximum of 2,879 was attained in April, the minimum of 1,818 in September and the average for the year was 2,283.

Disbursements for salaries and wages during the year totalled \$2,684,766 as compared with \$3,786,464 in 1924.

**Table 148.—Average Number of Employees, Salaries and Wages Paid in the Automobile Parts and Accessories Industry in Canada, 1924 and 1925**

Province	Average number of employees					Salaries and wages		
	Salaried employees		Wage-earners		Total	Salaries	Wages	Total
	Male	Female	Male	Female				
						\$	\$	\$
<b>1924</b>								
Ontario.....	214	88	2,000	145	2,447	605,797	2,928,249	3,534,046
Manitoba.....	6	1	16	9	32	10,544	27,629	38,173
Alberta.....	4	1	20		25	4,409	29,005	33,414
British Columbia.....	17	2	80	1	100	44,669	110,342	155,011
<b>Canada*</b> .....	<b>242</b>	<b>93</b>	<b>2,126</b>	<b>157</b>	<b>2,623</b>	<b>677,799</b>	<b>3,108,665</b>	<b>3,786,464</b>
<b>1925</b>								
Quebec.....	17	2	21	7	47	27,641	24,550	52,191
Ontario.....	170	60	1,454	117	1,801	487,939	1,884,582	2,372,521
Manitoba.....	5	2	18	13	38	15,917	34,036	49,953
Alberta.....	3	1	21		25	4,708	26,173	30,876
British Columbia.....	23	1	93	1	118	51,075	128,150	179,225
<b>Canada</b> .....	<b>218</b>	<b>66</b>	<b>1,607</b>	<b>138</b>	<b>2,029</b>	<b>587,275</b>	<b>2,097,491</b>	<b>2,684,766</b>

\*Totals for 1924 include also data for 2 plants in Quebec and 1 in Saskatchewan.

**Table 149.—Number of Wage-Earners Employed in the Automobile Parts and Accessories Industry Canada, by Months, 1924 and 1925**

Month	1924			1925		
	Number of wage-earners			Number of wage-earners		
	Male	Female	Total	Male	Female	Total
January.....	2,251	175	2,426	1,477	121	1,598
February.....	2,395	173	2,568	1,558	127	1,685
March.....	2,668	185	2,853	1,679	136	1,815
April.....	2,692	187	2,879	1,781	143	1,924
May.....	2,457	175	2,632	1,732	139	1,871
June.....	2,132	147	2,279	1,682	136	1,818
July.....	1,850	144	1,994	1,502	125	1,627
August.....	1,751	138	1,889	1,528	136	1,664
September.....	1,692	126	1,818	1,433	136	1,569
October.....	1,799	137	1,936	1,492	150	1,642
November.....	1,851	156	2,007	1,564	149	1,713
December.....	1,948	158	2,106	1,559	143	1,702
Average.....	2,126	157	2,283	1,607	138	1,745

**Table 150.—Hours of Labour (in Month of Greatest Employment) in the Automobile Parts and Accessories Industry in Canada, 1925**

Province	Number of employees working				Hours worked per man per week when working			
	8 hours or less per day	9 hours	10 hours	Over 10 hours	8 hours or less per day	9 hours	10 hours	Over 10 hours
Quebec.....	18	14	6	3	44	51	55	64
Ontario.....	214	1,086	599	4	44	50	57	171
Manitoba.....	28	11	10	.....	44	52	60	.....
Alberta.....	.....	26	.....	.....	.....	53	.....	.....
British Columbia.....	112	4	4	.....	44	48	53	.....

**Table 151.—Fuel and Electricity Used in the Automobile Parts and Accessories Industry in Canada, 1924 and 1925**

Kind	Unit of measure	1924		1925	
		Quantity	Cost	Quantity	Cost
			\$		\$
Bituminous coal.....	short ton	14,840	86,307	11,402	68,409
Anthracite coal.....	short ton	1,008	19,181	107	1,526
Lignite coal.....	short ton	6	150	11	275
Coke.....	short ton	232	2,137	363	3,519
Gasoline.....	imp. gal.	1,096	523	2,793	1,133
Oil (fuel).....	imp. gal.	590,814	54,333	725,479	65,184
Wood.....	cord	24	167	32	259
Gas.....	M. cu. ft.	7,747	6,112	4,661	4,109
Other fuel.....	.....	.....	2,271	.....	.....
Electric power.....	k.w.h.	4,928,817	113,015	3,723,659	72,489
<b>Total</b> .....			<b>284,216</b>		<b>216,903</b>

**Table 152.—Power Equipment Employed in the Automobile Parts and Accessories Industry in Canada, 1924 and 1925**

Kind	1924		1925	
	Number of units	Total h.p. according to manufacturers' rating	Number of units	Total h.p. according to manufacturers' rating
Steam engines and turbines.....	2	375	3	500
Gas engines.....	1	50	1	50
Oil and gasoline engines.....	2	94	.....	.....
Hydraulic turbines or water wheels.....	2	600	2	600
<b>Total primary power.....</b>	<b>7</b>	<b>1,119</b>	<b>6</b>	<b>1,150</b>
Electric motors operated by purchased power.....	324	4,676	269	3,471
<b>Total power equipment employed.....</b>	<b>331</b>	<b>5,795</b>	<b>275</b>	<b>4,621</b>
Electric motors operated by power generated by the primary power of the industry.....	33	453	37	628
<b>Total electric power.....</b>	<b>357</b>	<b>5,129</b>	<b>306</b>	<b>4,099</b>
Boilers installed.....	14	1,222	16	1,042

**Materials Used.**—The cost at the works of all materials used in the automobile parts and accessories industry in 1925 was \$6,215,283 as compared with a figure of \$9,336,308 in 1924. Iron and steel in their various forms are the most important of the materials used in manufacturing, but other metals such as copper, brass, nickel and aluminium were used in considerable quantities. Glass, rubber, leather and lumber were also used extensively.

**Table 153.—Materials Used in the Automobile Parts and Accessories Industry in Canada, 1924 and 1925**

Item	Unit of measure	1924		1925	
		Quantity	Cost at works	Quantity	Cost at works
			\$		\$
<b>Iron and steel—</b>					
Pig iron.....	long ton	3,762	94,395	3,712	106,293
Wrought iron.....	short ton	42	4,209	70	7,033
Malleable iron.....	short ton	3,633	583,223	1,503	183,938
Iron castings.....	short ton	7,905	1,286,209	4,890	596,942
Steel castings.....	short ton	1,241	286,442	50	26,513
Steel stampings.....	short ton	46	15,613	117	31,545
Steel, other.....	short ton	24,932	2,674,053	17,162	1,736,820
Scrap.....	short ton	521	27,436	173	2,788
<b>Other metals—</b>					
Aluminium.....	lb.	278,640	95,050	37,033	14,713
Babbitt metals and solders.....	lb.	26,998	8,636	71,761	23,115
Brass and bronze castings.....	lb.	338,111	82,105	153,585	46,077
Copper.....	lb.	232,765	72,397	402,131	102,478
Lead, tin and zinc.....			223		5,151
Other metals.....			93,689		119,721
<b>Articles used for further manufacture—</b>					
Bolts, nuts, rivets and screws.....			181,968		122,131
Glass.....			162,002		192,200
Iron pipe, tubes and fittings.....			100,925		12,014
Lumber.....	M. ft. b.m.	5,702	284,164	5,504	277,789
Rubber and leather goods.....			726,391		371,158
Paints, oils and varnishes.....			130,081		72,064
Finished parts and accessories for assembling.....			2,212,906		1,122,531
All other materials.....			214,191		1,043,269
<b>Total.....</b>			<b>9,336,308</b>		<b>6,215,283</b>

**Products.**—Production of automobile parts and accessories in 1925 amounted in value to \$11,234,828 as compared with \$15,744,388 in 1924 and \$22,000,640 in 1923. Production in Canada of axles and automobile engines showed the greatest decline; on the other hand imports of these commodities during the year under review reached more than double the values for the corresponding items in 1924. Automobile engine imports rose to \$8,287,105 from \$4,140,283 and the imports of axles (other than railway axles) were valued at \$3,424,802 as compared with \$1,647,679 in 1924. Increases were recorded in the output of wheels, rims, springs, radiators, seat and tire covers, and automobile tops.



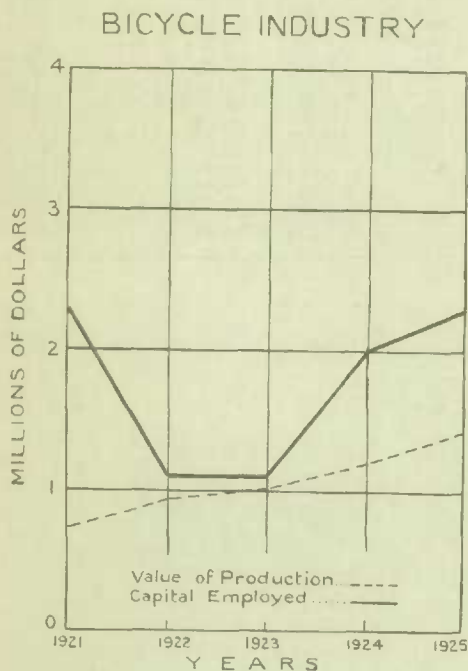
Table 154.—Products Made in the Automobile Parts and Accessories Industry in Canada, 1924 and 1925

Item	Unit of measure	1924		1925	
		Quantity	Selling Value	Quantity	Selling Value
			\$		\$
Bearings.....			14,300		24,208
Bodies.....	No.	20,137	1,280,487		585,219
Body and chassis parts.....					228,742
Carriage parts.....			35,586		403,193
Castings, iron.....	lb.	6,198,000	436,950	7,190,990	444,467
Covers (seat radiator and tire).....			53,104		211,870
Motor parts.....			28,584		26,568
Radiators.....	No.	5,236	104,516	18,177	260,485
Rims.....	No.	775,000	744,322	966,667	858,405
Shock absorbers.....	No.	34,472	155,793		128,463
Springs.....	lb.	11,783,614	911,859		982,066
Tire and luggage carriers.....			5,142		39,631
Tops.....	No.	31,166	668,276	18,968	480,172
Trailers.....	No.	169	54,610	102	58,311
Wheels.....	No.	844,310	2,438,915	1,146,694	3,265,662
Amount received for custom and repair work.....			486,227		579,411
Miscellaneous parts and accessories.....			1,106,095		313,742
Other products.....			1,408,140		438,270
Products of 1 or 2 firms.....			5,811,452		1,905,943
<b>Total.....</b>			<b>15,744,388</b>		<b>11,234,828</b>

## CHAPTER NINE

## BICYCLES

**General.**—Production value of the bicycle industry in Canada increased to \$1,445,901 in 1925 from \$1,211,010 in 1924. The increase can be largely attributed to the fact that one plant



engaged in the manufacture of children's vehicles of all kinds has been included in this industrial group. Figures for the preceding years show the steady growth of the industry. In 1923 the value of the output was \$1,079,298, an advance over the total of \$959,295 in 1922 which in turn was greater than the \$708,805 in 1921.

All 5 firms engaged in this line of production were located in Ontario. They represented an investment of \$2,348,323, employed a monthly average of 516 people, paid \$505,141 in salaries and wages, and by the manufacturing processes added \$679,444 to the value of purchased materials which cost \$766,457. Among the commodities produced by these firms were bicycles for men, women and children; tricycles and other children's vehicles; skates; and miscellaneous bicycle parts. Bicycles were made in 3 plants and assembled in 1 other establishment; 1 firm reported an output of tricycles, 1 plant made children's vehicles of all kinds, and 1 plant reported a production of skates. The many bicycle repair shops do not come within the scope of this report which includes data re-

lating only to those firms actually engaged in manufacturing.

**Table 155.—Summary Statistics of the Bicycle Industry in Canada, 1921-1925**

Year	No. of plants	Capital invested	No. of employees	Salaries and wages	Cost of fuel and electricity*	Cost of materials	Selling value of products	Value added by manufacturing
		\$	\$	\$	\$	\$	\$	\$
1921.....	5	2,273,307	252	310,130	25,259	329,692	708,805	379,113
1922.....	5	1,076,701	392	390,305	27,097	475,575	959,295	483,720
1923.....	4	1,091,457	406	460,773	40,803	492,889	1,079,298	586,409
1924.....	4	1,979,538	458	436,883	37,106	548,033	1,211,010	662,977
1925.....	5	2,348,323	516	505,141	39,814	766,457	1,445,901	679,444

\*Electricity not included prior to 1923.

**Capital Employed.**—In 1925 the total capital employed in the bicycle industry amounted to \$2,348,323 as compared with \$1,979,538 in 1924, the value placed on lands, plants and equipments was \$600,294, inventories of stocks on hand and in process were valued at \$1,004,353 and cash, trading and operating accounts and bills receivable amounted in value to \$743,676.

**Table 156.—Capital Employed in the Bicycle Industry in Canada, by Classes and by Provinces, 1924 and 1925**

Province	1924				1925			
	Capital employed as represented by				Capital employed as represented by			
	Lands, buildings, fixtures, machinery and tools	Materials on hand and stocks in process	Cash, trading operating accounts and bills receivable	Total	Lands, buildings, fixtures, machinery and tools	Materials on hand and stocks in process	Cash, trading, operating accounts and bills receivable	Total
	\$	\$	\$	\$	\$	\$	\$	\$
Ontario.....	418,631	923,742	637,165	<b>1,979,538</b>	600,294	1,004,353	743,676	<b>2,348,323</b>
<b>Canada.....</b>	<b>418,631</b>	<b>923,742</b>	<b>637,165</b>	<b>1,979,538</b>	<b>600,294</b>	<b>1,004,353</b>	<b>743,676</b>	<b>2,348,323</b>

**Employment.**—The average number of employees during 1925 was 516 of whom 63 were on salaries and 453 were paid by the day or hour. Of the former 51 were males and 12 females and of the latter 414 were men and 39 women. Payments for salaries amounted to \$101,667 and wages totalled \$403,474. All plants operated continuously throughout the year.

**Table 157.—Average Number of Employees, Salaries and Wages Paid in the Bicycle Industry in Canada, by Provinces, 1924 and 1925**

Province	Average number of employees					Salaries and wages		
	Salaried employees		Wage-earners		Total	Salaries	Wages	Total
	Male	Female	Male	Female				
						\$	\$	\$
1924								
Ontario.....	41	10	377	30	<b>458</b>	82,549	354,334	<b>436,883</b>
<b>Canada.....</b>	<b>41</b>	<b>10</b>	<b>377</b>	<b>30</b>	<b>458</b>	<b>82,549</b>	<b>354,334</b>	<b>436,883</b>
1925								
Ontario.....	51	12	414	39	<b>516</b>	101,667	403,474	<b>505,141</b>
<b>Canada.....</b>	<b>51</b>	<b>12</b>	<b>414</b>	<b>39</b>	<b>516</b>	<b>101,667</b>	<b>403,474</b>	<b>505,141</b>

**Table 158.—Number of Wage-Earners Employed in the Bicycle Industry in Canada, by Months, 1924 and 1925**

Month	1924			1925		
	Number of wage-earners			Number of wage-earners		
	Male	Female	Total	Male	Female	Total
January.....	413	33	<b>446</b>	408	37	<b>445</b>
February.....	412	32	<b>444</b>	403	35	<b>438</b>
March.....	405	32	<b>437</b>	413	35	<b>448</b>
April.....	401	32	<b>433</b>	410	37	<b>447</b>
May.....	382	31	<b>413</b>	409	39	<b>448</b>
June.....	353	29	<b>382</b>	405	38	<b>443</b>
July.....	356	28	<b>384</b>	395	38	<b>433</b>
August.....	358	28	<b>386</b>	406	39	<b>445</b>
September.....	359	28	<b>387</b>	415	42	<b>457</b>
October.....	370	30	<b>400</b>	426	40	<b>466</b>
November.....	363	32	<b>395</b>	436	40	<b>476</b>
December.....	367	31	<b>398</b>	446	42	<b>488</b>
<b>Average.....</b>	<b>377</b>	<b>30</b>	<b>407</b>	<b>414</b>	<b>39</b>	<b>453</b>

Table 159.—Fuel and Electricity Used in the Bicycle Industry in Canada, 1924 and 1925

Kind	Unit of measure	1924		1925	
		Quantity	Cost	Quantity	Cost
Bituminous coal.....	short ton	3,020	15,668	2,553	14,236
Anthracite coal.....	short ton	10	155	11	173
Gasoline.....	imp. gal.	506	104	1,570	392
Oil (fuel).....	imp. gal.	80,004	6,560	83,824	7,754
Gas.....	M. cu. ft.	80	100	1,318	1,175
Other fuel.....					1,550
Electric power.....	k.w.h.	735,931	14,519	746,339	14,534
<b>Total</b> .....			<b>37,106</b>		<b>39,814</b>

Table 160.—Power Equipment Employed in the Bicycle Industry in Canada, 1924 and 1925

Kind	1924		1925	
	Number units	Total h.p. according to manufacturers' rating	Number of units	Total h.p. according to manufacturers' rating
Steam engines and turbines.....	3	85	3	85
<b>Total primary power</b> .....	<b>3</b>	<b>85</b>	<b>3</b>	<b>85</b>
Electric motors operated by purchased power.....	28	788	37	857
<b>Total power equipment employed</b> .....	<b>31</b>	<b>873</b>	<b>40</b>	<b>942</b>
<b>Total electric motors</b> .....	<b>28</b>	<b>788</b>	<b>37</b>	<b>857</b>
Boilers installed.....	2	300	3	345

**Materials Used.**—The total cost of materials used in the bicycle industry in 1925 was \$766,457 as compared with \$548,033 in 1924 and \$492,889 in 1923.

Table 161.—Materials Used in Bicycle Industry in Canada, 1924 and 1925

Item	Unit of measure	1924		1925	
		Quantity	Cost	Quantity	Cost
			\$		\$
Steel.....	ton	890	100,680	500	92,268
Tubing.....	feet	503,000	30,017	196,745	39,529
Other metals and parts.....			89,919		117,756
Lamps.....	No.	200	300	200	300
Bolts, nuts, screws, etc.....			55		65
Chains.....	feet	86,213	13,775	115,200	17,326
Wheels.....	No.	420	2,500	525	3,100
Leather, including, belting.....			802		915
Lumber.....	M. ft. b.m.		31,247		4,277
Tires, casings.....	No.	42,614	42,364	66,500	78,300
Tires, tubes.....	No.	40,664	15,339	75,500	43,800
Paints, varnishes and enamels, etc.....			8,114		11,105
All other materials.....			212,921		357,716
<b>Total</b> .....			<b>548,033</b>		<b>766,457</b>

**Products.**—Production of bicycles in 1925 numbered 27,482 worth \$669,238 which with the value of repairs, parts, tricycles, skates and children's vehicles brought the total output value for the industry to \$1,445,901 as compared with \$1,211,010 in 1924. There were no motorcycles produced in Canada during 1925.



Table 162.—Products of the Bicycle Industry in Canada, 1924 and 1925

Item	1924		1925	
	Quantity	Selling value	Quantity	Selling value
	No.	\$	No.	\$
Foot power:—				
Bicycles, men's.....	19,733	514,836	23,794	584,740
Bicycles, women's.....	2,080	58,554	1,521	38,634
Bicycles, children's.....	345	6,972	2,167	45,864
Amount received for repairs.....		11,000		12,560
‡Products of 1 or 2 firms.....		621,648		764,103
<b>Total</b> .....		<b>1,211,010</b>		<b>1,445,931</b>

‡Includes bicycle parts, tricycles, skates and children's vehicles.

**Imports and Exports.**—Imports of bicycles into Canada during the calendar year 1925 numbered 1,229 valued at \$25,105, and imports of parts were worth \$76,772. Exports of bicycles in the same time numbered 154 valued at \$4,484, and parts exported to foreign countries were valued at \$49,506. Imports of motor cycles totalled 661 in number and \$145,623 in value in 1925.

Table 163.—Imports into Canada and Exports of Bicycles, etc., 1924 and 1925

Item	1924		1925	
	Quantity	Value	Quantity	Value
	No.	\$	No.	\$
<b>IMPORTS—</b>				
Bicycles, n.o.p.....	1,236	25,510	1,229	25,105
Bicycles and tricycles, parts of, including nickel or electroplated parts for the manufacture of bicycles.....		101,477		76,772
Motor cycles.....	599	135,840	661	145,623
<b>Total</b> .....		<b>262,833</b>		<b>247,500</b>
<b>EXPORTS—</b>				
Bicycles.....	134	3,754	154	4,484
Bicycles, parts, n.o.p.....		57,284		49,506
<b>Total</b> .....		<b>61,038</b>		<b>53,990</b>

## CHAPTER TEN

## RAILWAY ROLLING STOCK

**General.**—The railway rolling stock industry in Canada includes those firms engaged in making steam and electric cars, locomotives, and parts such as car wheels, brakes, tires, etc., and also, in 1925, there has been included the larger shops of the Canadian Pacific and Canadian National Railways, which, though, essentially engaged in repairs, also produce necessary parts for cars and locomotives. In previous years, repair shops have been omitted from this report but it is now felt that, to present a true picture of the industry, it is essential that these shops be included. The data for 1925, presented in this chapter, are not comparable with the corresponding figures for previous years.

Production from the railway rolling stock industry as computed in 1925 amounted in value

to \$53,050,665, which, if compared with the figures shown for 1924, represents an increase in value of about 8 million dollars. Actually, however, the producers of rolling stock experienced a very poor year; by omitting the output from the 13 additional shops included in 1925, a production value of \$26,239,767 is obtained which is directly comparable to the \$45,129,671 for 1924. The output then, from this industry experienced a decline of almost 50 per cent from the previous year. Similarly, the number of persons employed in 1925, exclusive of repair shops, was only 8,252 as compared with 10,668 in 1924.

New cars were produced in 8 different plants in Canada in 1925; new locomotives were made in 2 establishments; 1 firm made narrow gauge and mining cars; 2 made brake beams and parts; 7 made brakes, brakeshoes and parts; 11 made car wheels; 8 made piston rings, etc.; 8 made patterns and models; and a considerable number of firms reported an output of brass and iron castings. Sixteen of the plants in this group were engaged essentially in repair work during 1925, but also produced quantities of necessary parts for

cars and locomotives.

Quebec with 9 plants in this industry had a production valued at \$27,816,287 or slightly more than half of the total for Canada; Ontario's 17 establishments reported an aggregate output value of \$10,405,571, and Manitoba with only 3 plants showed \$9,863,162 as the total value of output for 1925. There were also 3 plants in Nova Scotia, 2 in Alberta and 1 in New Brunswick.

**Table 164.—Summary Statistics of the Railway Rolling Stock Industry in Canada, 1921-1925**

Year	Number of plants	Capital employed	Number of employees	Salaries and wages	Cost of fuel and electricity*	Cost of materials	Selling value of products	Value added by manufacturing
		\$		\$	\$	\$	\$	\$
1921.....	21	57,736,688	9,295	12,469,618	1,056,319	25,215,741	44,500,365	19,284,624
1922.....	23	54,653,320	9,297	11,912,706	735,898	11,189,198	26,310,776	15,130,576
1923.....	21	59,237,975	13,316	17,417,983	2,384,918	40,205,444	68,213,887	28,008,443
1924.....	23	50,793,093	10,668	13,895,344	1,148,792	26,205,930	45,129,671	18,898,741
1925.....	35	78,039,179	20,202	26,580,356	1,813,011	25,895,490	53,050,665	27,155,175

\*Electricity not included prior to 1923.

**Table 165.—Principal Statistics Pertaining to the Railway Rolling Stock Industry in Canada by Provinces, 1924 and 1925**

Province	1924				1925			
	Number of plants	Number of employees	Salaries and wages	Selling value of products	Number of plants	Number of employees	Salaries and wages	Selling value of products
			\$	\$			\$	\$
Nova Scotia.....					3	170	253,061	795,309
Quebec.....	7	8,100	10,628,024	31,721,611	9	9,636	12,781,591	27,816,287
Ontario.....	12	1,967	2,560,056	9,277,942	17	3,859	5,098,485	10,405,571
Manitoba.....					3	4,338	5,635,031	9,863,162
<b>Canada*</b> .....	<b>23</b>	<b>10,668</b>	<b>13,895,344</b>	<b>15,129,671</b>	<b>35</b>	<b>20,202</b>	<b>26,580,356</b>	<b>53,050,665</b>

\*Includes also data for 3 plants in Nova Scotia and 1 in Manitoba for 1924, and 1 plant in New Brunswick, and 2 in Alberta for 1925.

**Capital Employed.**—Capital employed in the 35 plants included in the railway rolling stock industry in 1925 amounted to \$78,039,179, of which \$56,988,539 represented the value of fixed assets such as lands, buildings, machinery, etc.. \$13,009,931 was the value placed on inventories at the end of the year, and \$8,040,709 was given as the value of cash, trading, operating accounts and bills receivable.

Investment in the plants in Quebec totalled \$35,640,048 or 46 per cent of the total for Canada. Ontario was next with an investment of \$22,321,459.

**Table 166.—Capital Employed in the Railway Rolling Stock Industry in Canada, by Classes and by Provinces, 1924 and 1925**

Province	1924				1925			
	Capital employed as represented by				Capital employed as represented by			
	Lands, buildings, fixtures, machinery and tools	Materials on hand, and stocks in process	Cash, trading and operating accounts	Total	Lands, buildings, fixtures, machinery and tools	Materials on hand, and stocks in process	Cash, trading and operating accounts	Total
	\$	\$	\$	\$	\$	\$	\$	\$
Nova Scotia.....					4,570,787	308,975	132,345	5,012,107
Quebec.....	18,267,748	4,403,604	8,508,098	31,179,450	21,364,174	5,795,908	5,479,966	33,640,048
Ontario.....	11,356,999	1,001,811	1,400,597	13,759,407	17,155,375	2,737,686	2,428,398	22,321,459
Manitoba.....					6,155,640	2,320,475		8,486,115
<b>Canada*</b> .....	<b>34,181,396</b>	<b>5,734,285</b>	<b>10,877,412</b>	<b>50,793,093</b>	<b>56,988,539</b>	<b>13,009,931</b>	<b>8,040,709</b>	<b>78,039,179</b>

\*Includes also data for 3 plants in Nova Scotia, and 1 in Manitoba for 1924, and 1 plant in New Brunswick and 2 in Alberta for 1925.

**Employment.**—The average number of persons employed during 1925 was 20,202, of whom 9,636 were employed in Quebec, 3,859 in Ontario, 4,338 in Manitoba, 170 in Nova Scotia, and 2,199 in Alberta and New Brunswick. Salaried employees numbered 1,547 and payments in salaries totalled \$3,122,240; wage-earners averaged 18,655 in number and disbursements for wages amounted to \$23,458,126 giving to each wage-earner an average yearly income of about \$1,257.

May was the busiest month of the year with 20,309 wage-earners employed. The year opened with 18,085 people on the wage rolls and this number increased gradually each month to the maximum in May. Thereafter the number steadily fell off until in October only 17,515 wage-earners were employed. By December the number had increased to 18,533. The average for the year stood at 18,655.

**Table 167.—Average Number of Employees, Salaries and Wages Paid in the Railway Rolling Stock Industry, in Canada, by Provinces, 1924 and 1925**

Province	Average number of employees					Salaries and wages		
	Salaried employees		Wage-earners		Total	Salaries	Wages	Total
	Male	Female	Male	Female				
1924						\$	\$	\$
Quebec.....	492	36	7,563	9	8,100	1,078,076	9,550,848	10,628,924
Ontario.....	247	48	1,671	1	1,967	494,919	2,065,137	2,560,056
Canada*	772	87	9,797	12	10,668	1,675,336	12,220,008	13,895,344
1925								
Nova Scotia.....	31	3	135	1	170	71,891	181,170	253,061
Quebec.....	732	36	8,838	30	9,636	1,522,799	11,258,792	12,781,591
Ontario.....	419	51	3,386	3	3,859	856,221	4,242,204	5,098,485
Manitoba.....	170	8	4,160	.....	4,338	432,931	5,202,100	5,635,031
Canada*	1,447	100	18,621	34	20,202	3,122,230	23,458,126	26,580,356

\*Includes also data for 3 plants in Nova Scotia and 1 in Manitoba for 1924, and 1 plant in New Brunswick and 2 in Alberta for 1925.

**Table 168.—Number of Wage-Earners Employed in the Railway Rolling Stock Industry in Canada, by Months, 1924 and 1925**

Month	1924			1925		
	Male	Female	Total	Male	Female	Total
January.....	10,413	16	10,429	18,058	27	18,085
February.....	11,189	16	11,205	18,656	34	18,690
March.....	11,329	16	11,345	19,357	34	19,391
April.....	11,833	16	11,849	20,036	36	20,072
May.....	12,224	16	12,240	20,273	36	20,309
June.....	12,823	15	12,838	19,633	36	19,669
July.....	11,134	10	11,144	18,346	36	18,382
August.....	8,648	7	8,655	17,550	35	17,585
September.....	7,974	6	7,980	17,499	26	17,525
October.....	7,279	5	7,284	17,488	27	17,515
November.....	6,568	4	6,572	18,063	36	18,099
December.....	6,148	6	6,154	18,496	37	18,533
Average.....	9,797	12	9,809	18,621	34	18,655

**Table 169.—Hours of Labour (In Month of Greatest Employment) in the Railway Rolling Stock Industry in Canada, by Provinces, 1925**

Province	Number of wage-earners working				Hours worked per man, per week, when working			
	8 hours or less per day	9 hours	10 hours	Over 10 hours	8 hours or less per day	9 hours	10 hours	Over 10 hours
Nova Scotia.....	.....	80	222	10	.....	54	60	73
Quebec.....	9,889	750	155	39	42	46	54	71
Ontario.....	2,723	748	372	21	44	51	58	65
Manitoba.....	4,108	209	6	.....	40	46	60	.....

**Table 170.—Fuel and Electricity Used in the Railway Rolling Stock Industry in Canada, 1924 and 1925**

Kind	Unit of measure	1924		1925	
		Quantity	Value	Quantity	Value
		No.	\$	No.	\$
Anthracite coal.....	short ton	8,784	48,915	458	5,617
Bituminous coal.....	short ton	86,762	476,863	177,888	868,406
Lignite coal.....	short ton	.....	.....	42,568	86,290
Coke.....	short ton	3,053	31,073	1,064	10,577
Fuel oil.....	gallon	2,647,191	236,190	3,476,191	294,004
Gasoline.....	gallon	14,605	3,979	23,994	7,069
Gas.....	M. cu. ft.	10,535	11,617	47,406	67,187
Wood.....	cord	498	2,747	467	2,774
Other fuel.....	.....	.....	336	.....	47,145
Electric power.....	k.w.h.	18,424,531	337,072	27,986,902	423,942
Total.....	.....	.....	1,148,792	.....	1,813,911



**Table 171.—Power Equipment Employed in the Railway Rolling Stock Industry in Canada, 1924 and 1925**

Kind	1924		1925	
	Number of units	Total h.p. according to manufacturers' rating	Number of units	Total h.p. according to manufacturers' rating
Steam engines and turbines.....	34	9,735	51	18,044
Gas engines.....			4	1,250
Hydraulic turbines or water wheels.....	4	200	4	200
Total primary power.....	38	9,935	59	19,494
Electric motors operated by purchased power.....	2,349	35,105	3,176	58,390
Total power equipment employed.....	2,387	45,040	3,235	77,884
Electric motors operated by primary power of the industry.....	519	9,962	679	9,876
Total electric motors.....	2,868	45,067	3,855	68,266
Boilers installed.....	62	17,285	119	30,707

**Materials Used.**—The cost at the works of all materials used in the railway rolling stock industry in 1925 was \$25,895,490. Steel castings, steel bars and shafting, scrap iron and steel, brass and bronze castings, lumber, steel plates and sheets, pig iron, iron pipe and fittings, and tires, were the most important of the materials which are listed in the accompanying table. In Table 29 of this report there is presented an alphabetical list showing the entire consumption of given commodities in the iron and steel industry as a whole.

**Table 172.—Materials Used in the Railway Rolling Stock Industry in Canada, 1924 and 1925**

Material	Unit of measure	1924		1925	
		Quantity	Cost at works	Quantity	Cost at works
		No.	\$	No.	\$
Iron and steel—					
Pig iron.....	long ton	29,956	727,613	20,680	562,621
Wrought iron and skelp.....	short ton	558	52,382	1,081	73,061
Malleable iron.....	short ton	549	128,679	1,823	250,455
Iron castings purchased.....	short ton	4,651	383,738	6,168	471,018
Steel castings purchased.....	short ton	7,658	1,511,362	8,568	1,735,602
Steel ingots, blooms, and billets.....	short ton	5,326	280,497	2,578	151,645
Steel bars and shafting.....	short ton	36,563	2,162,692	25,607	1,524,808
Steel plates and sheets.....	short ton	22,766	1,371,659	13,114	814,157
Steel rods and wire.....	short ton	4,931	387,744	3,320	221,541
Scrap.....	short ton	124,277	1,925,648	114,144	1,816,944
Other metals—					
Aluminium.....	lb.	1,021,810	203,060	7,489	3,399
Brass and bronze castings purchased.....	lb.	1,782,490	376,440	4,868,171	1,127,274
Copper.....	lb.	74,906	13,503	172,785	36,782
Lead.....	lb.	167,750	12,443	186,328	16,509
Tin.....	lb.	6,823	3,255	55,831	22,798
Zinc.....	lb.	5,314	545	13,977	1,476
Babbitt metals and solders.....	lb.	78,208	10,843	224,379	50,828
Articles used for further manufacture—					
Iron pipe, tubes and fittings.....			195,274		411,804
Bolts, nuts, rivets and screws.....			317,832		395,331
Paints, oils and varnishes.....			218,536		272,685
Centres.....	No.	7,558	263,276	5,997	138,163
Rings, shells, etc.....	No.	14	4,009	7	2,268
Tires.....	No.	16,208	565,083	20,254	712,840
Other materials—					
Foundry coke.....	short ton	23,209	296,710	21,703	254,530
Moulding and other sands.....	short ton	13,455	44,297	11,826	38,388
Foundry linings.....	lb.	2,331,152	35,019	1,613,988	25,127
Lumber.....	M ft. b.m.	86,565	2,047,073	49,336	1,950,289
Fire brick, fire clay and cupola blocks.....			30,735		45,001
Core oil and core compounds.....			21,864		21,094
Shipping containers.....			2,611		7,007
All other materials.....			12,636,499		12,735,955
<b>Total</b> .....			<b>26,239,930</b>		<b>25,895,490</b>

**Products.**—Production in the railway rolling stock industry in 1925 was worth \$53,050,665, and of this total \$30,116,151 was the value placed on repairs and custom work. The 1,475 new cars manufactured during the year were worth \$3,418,675, and the 8 locomotives were valued at \$342,000; car wheels sold for \$3,523,692; brake beams and parts for \$258,062; brakes, brake-shoes and parts for \$476,653 and castings of brass and iron for \$1,277,442. In 1924, car shops in Canada produced 4,554 new cars worth \$15,943,719 and 84 locomotives worth \$5,678,620; car wheels sold for \$4,266,686; brake beams and parts, \$263,595; brakes, brakeshoes and parts, \$417,532; and brass and iron castings, \$846,432. The total production value of \$45,129,671 given for 1924 is not comparable to the value given for 1925 as the figure for the latter year includes the 13 railroad shops which were not covered by the survey in 1924.

**Table 173.—Products of the Railway Rolling Stock Industry in Canada, 1924 and 1925**

Product	Unit of measure	1924		1925	
		Quantity	Selling value	Quantity	Selling value
			\$		\$
Bolsters.....	No.	3,709	224,965	1,252	74,716
Brake beams and parts.....	No.	33,042	263,595	29,932	258,062
Brakes, brakeshoes and parts.....	lb.	12,593,329	417,532	16,389,553	476,653
Cars, new.....	No.	4,554	15,943,719	1,475	3,418,675
Car wheels.....	lb.		4,266,686	141,453,942	3,523,692
Castings—					
Iron.....	lb.	25,833,119	845,032	32,556,441	1,078,044
Brass.....	lb.	2,799	1,400	1,245,621	199,398
Iron pipe.....	lb.	6,916,349	200,485	4,631,355	120,394
Locomotives, new.....	No.	84	5,678,620	8	342,000
Patterns and models.....			29,138		101,544
Rings, pistons, etc.....	lb.	53,536	9,362	408,345	45,992
Sashweights.....	No.	965,575	18,217		
Snow plows.....	No.	11	118,220		
Scrap iron and steel.....	ton	1,216	12,867	36,630	478,909
Tires.....	ton	3,593	375,685	2,613	251,741
Repairs on freight cars.....			3,542,371		9,278,372
Repairs on passenger car.....			3,006,358		7,985,606
Repairs on locomotive.....			3,037,662		12,104,105
Amount received for other custom and repair work.....			1,700,479		748,068
All other products.....			5,437,278		12,564,604
<b>Total.....</b>			<b>45,129,671</b>		<b>53,050,665</b>

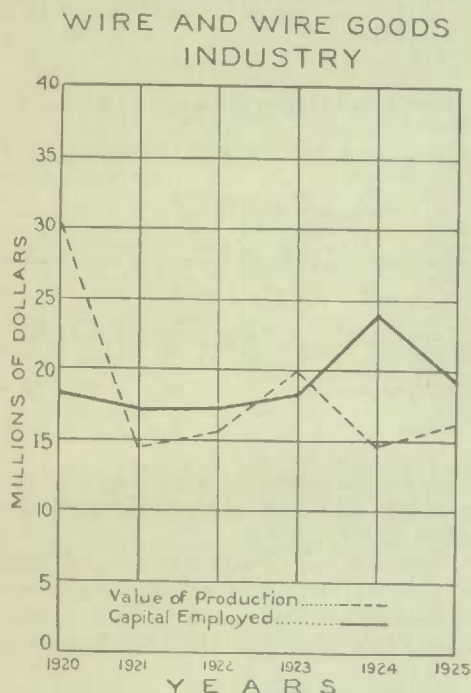
**Table 174.—Imports into Canada and Exports of Railway Rolling Stock, 1924 and 1925**

Item	1924		1925	
	Quantity	Value	Quantity	Value
	No.	\$	No.	\$
<b>IMPORTS—</b>				
Cars, railway, box and flat.....	94	102,815	159	130,814
Cars, railway, passenger.....			1	800
Cars, railway, tank.....	58	60,061	67	89,780
Cars, railway, train or horse.....			4	562
Cars, other, n.o.p.....	858	135,563	239	92,428
Cars, railway, parts of.....		860,202		373,670
Motor cars for railways and tramways.....	80	108,577	97	147,800
<b>Total.....</b>		<b>1,267,218</b>		<b>835,854</b>
<b>EXPORTS—</b>				
Railway cars and coaches, and parts.....	377	1,012,451		150,701
<b>Total.....</b>		<b>1,012,451</b>		<b>150,701</b>

## CHAPTER ELEVEN

## WIRE AND WIRE GOODS

**General.**—This industrial group includes all firms engaged in (a) the drawing of wire from rods, (b) the production of nails and spikes, brads and tacks, staples, etc., (c) the fabrication of woven wire products such as fencing, gates, wire cloth, screens, mats, etc., and (d) the manufacture of springs, chains, rope and cable, hoops and similar articles. In 1925 there were 52 firms included under this classification located as follows: Nova Scotia, 1; New Brunswick, 3; Quebec, 9; Ontario, 34; and British Columbia, 5. There was thus a net increase of 5 establishments over the number for 1924; Ontario showed a gain of 3 and Quebec 2 plants.



Income from sales of wire and wire goods produced in Canada during 1925 amounted to \$16,223,924 or 10.7 per cent more than the corresponding figure of \$14,655,256 reported for 1924. In addition there was an output of wire and wire goods in other industrial groups valued in the neighbourhood of \$12,574,809. A considerable portion of the wire made in the wire-drawing plants passed through other departments in the successive stages of manufacture into such articles as nails and spikes, staples, toe calks, etc. Prior to 1924, a value was placed on these interplant transfers and the final production value was computed as the sum of the sales values and interplant transfers. In 1924 and 1925 only final sales values have been given as it was thought this method would eliminate certain duplication of values that previously existed.

Plants in Canada making wire and wire goods as main products in 1925 represented a capital investment of \$19,015,655, afforded employment during the year to an average of 2,996 people, paid out \$3,451,405 in salaries and wages and used \$399,065 worth of fuel and electricity. Materials used during the year cost \$7,329,688 so that the value added

by manufacturing processes, being the difference between the cost of raw materials and the selling value of the products, was \$8,894,236.

A considerable variety of products was made in this industry. According to returns received in 1925, plain wire was made in 10 different establishments, galvanized wire in 7 plants, other coated wire in 6 plants, toe calks in 3, brads and tacks in 3, nails and spikes in 10, staples in 12, barbed wire in 7, horseshoe nails in 3, woven fence and netting in 11, gates in 8, rope and cable in 7, cold rolled flat wire in 3, brass wire in 5, screws in 3, screens in 6, steel springs in 5, bale ties in 2, mats in 1, chains in 1, wire cloth in 2 and wire shapes of all kinds in 16 different establishments.

Of the 52 operating plants in the industry, 5 had productions valued at more than a million dollars each; the outputs of 3 other concerns each exceeded the half million dollar mark; 6 others were above a quarter of a million dollars each; 10 more were each above 100 thousand dollars; 8 others were over 50 thousand; 10 more were over 10 thousand and the remaining 10 plants each had an output valued at less than 10 thousand dollars, factory selling prices.

Classed according to the number of employees the concerns were grouped as follows: under 10 employees, 20 concerns; 10 to 25 employees, 8 plants; 25 to 50 workers, 12 plants; 50 to 100 workers, 5 concerns; and over 100 employees in each, 7 establishments.

During 1925, the imports into Canada of wire and wire goods were valued at \$2,648,403 and exports of such products were valued at \$1,041,147. In the previous year imports totalled \$2,843,726 in value and exports were worth \$1,177,298.

**Table 175.—Summary Statistics of the Wire and Wire Goods Industry in Canada, 1921-1925**

Year	Number of plants	Capital employed	Number of employees	Salaries and wages	Cost of fuel and electricity*	Cost of materials	Selling value of products	Value added by manufacturing
		\$		\$	\$	\$	\$	\$
1921.....	44	17,009,842	2,988	3,215,234	319,835	7,455,336	14,784,891	7,329,555
1922.....	48	17,327,775	3,128	3,324,279	325,578	9,112,850	15,616,454	6,503,604
1923.....	48	18,388,722	3,313	3,782,605	608,810	10,722,141	19,991,525	9,269,384
1924.....	47	23,770,829	2,873	3,230,145	379,688	5,378,741	14,655,256	9,276,512
1925.....	52	19,015,655	2,996	3,451,405	399,065	7,329,688	16,223,924	8,894,236

\*Electricity not included prior to 1923.

**Table 176.—Principal Statistics of the Wire and Wire Goods Industry in Canada by Provinces, 1924 and 1925**

Province	1924				1925			
	Number of plants	Number of employees	Salaries and wages	Selling value of products	Number of plants	Number of employees	Salaries and wages	Selling value of products
			\$	\$			\$	\$
Quebec.....	7	568	634,537	3,692,214	9	639	746,222	4,169,845
Ontario.....	31	1,801	2,133,733	8,163,596	34	1,883	2,158,571	8,802,714
British Columbia.....	5	80	110,106	689,270	5	99	145,168	740,718
<b>Canada*</b> .....	<b>47</b>	<b>2,873</b>	<b>3,230,145</b>	<b>14,655,256</b>	<b>52</b>	<b>2,996</b>	<b>3,451,405</b>	<b>16,223,924</b>

\*Includes also, data for 1 firm in Nova Scotia and 3 in New Brunswick.

**Capital Employed.**—Although there were a larger number of plants in operation during 1925 the capital employed declined 20 per cent to \$19,015,655. Ontario showed a decline of 2 million dollars and Quebec reported a decrease of 2.7 million dollars.

In 1925, the value placed on lands, buildings, machinery, tools, etc., was \$12,594,206, about the same as in the previous year; inventories of stocks on hand and in process were estimated at \$3,488,644, a slight increase over 1924, but the value of cash, trading and operating accounts and bills receivable was only \$2,932,805 as compared with a figure of \$7,908,149 in the previous year.

The total investment in plants in Ontario was \$13,533,010 in 1925 or 71 per cent of the total for Canada. Quebec's investment was reported at \$3,488,705.

**Table 177.—Capital Employed in the Wire and Wire Goods Industry in Canada, by Classes and by Provinces, 1924 and 1925**

Province	1924				1925			
	Capital employed as represented by				Capital employed as represented by			
	Lands, buildings, fixtures, machinery and tools	Materials on hand and stocks in process	Cash, trading and operating accounts	Total	Lands, buildings, fixtures, machinery and tools	Materials on hand and stocks in process	Cash, trading and operating accounts	Total
	\$	\$	\$	\$	\$	\$	\$	\$
Quebec.....	1,736,172	866,524	3,614,134	6,216,830	1,807,419	999,659	681,627	3,488,705
Ontario.....	9,535,050	2,156,205	3,734,891	15,426,206	9,514,395	2,142,320	1,876,295	13,533,010
British Columbia.....	279,323	177,018	248,899	705,240	274,056	211,099	303,804	788,959
<b>Canada*</b> .....	<b>12,555,615</b>	<b>3,307,065</b>	<b>7,908,149</b>	<b>23,770,829</b>	<b>12,594,206</b>	<b>3,488,644</b>	<b>2,932,805</b>	<b>19,015,655</b>

\*Includes also data for 1 firm in Nova Scotia and 3 in New Brunswick.



**Employment.**—Plants in operation in the wire and wire goods industry during 1925 gave employment to 386 salaried employees and 2,610 wage-earners, a total of 2,996 employees as compared with a total of 2,873 workers in 1924. Firms in Ontario employed an average of 1,883 people as compared with 1,801 in 1924; Quebec's plants gave work to 639 as against 568 in the preceding year, and British Columbia employed 99 as against 80 in 1924. Salaries and wages paid during the year totalled \$3,451,405 as against \$3,230,145 in 1924.

Taking the number of wage-earners employed each month as an index, it is apparent that employment conditions were much better than in 1924 and remained fairly steady throughout the year. In February, 2,572 persons were employed and an increase was recorded in each following month until a maximum of 2,684 was reached in May. A decline was registered during the immediate succeeding months to the minimum of 2,571 in September after which a slight gain was noted and the year closed with 2,634 names on the rolls of the various companies. In the previous year the maximum of 2,797 was reached in March and thereafter a steady decline was recorded to 2,333 at the end of the year.

The majority of the plants operated steadily throughout the year.

**Table 178.—Average Number of Employees, Salaries and Wages Paid in the Wire and Wire Goods Industry in Canada, by Provinces, 1924 and 1925**

Province	Average number of employees					Salaries and wages		
	Salaried employees		Wage-earners		Total	Salaries	Wages	Total
	Male	Female	Male	Female				
<b>1924</b>						\$	\$	\$
Quebec.....	45	6	497	20	568	122,350	512,187	634,537
Ontario.....	192	88	1,346	175	1,801	530,854	1,602,870	2,133,733
British Columbia.....	12	.....	66	2	80	27,807	82,299	110,106
<b>Canada*</b> .....	<b>266</b>	<b>98</b>	<b>2,298</b>	<b>211</b>	<b>2,873</b>	<b>726,277</b>	<b>2,503,868</b>	<b>3,230,145</b>
<b>1925</b>								
Quebec.....	58	9	540	32	639	171,255	574,967	746,222
Ontario.....	194	80	1,449	160	1,883	547,431	1,611,140	2,158,571
British Columbia.....	21	3	75	.....	99	50,846	94,322	145,168
<b>Canada*</b> .....	<b>290</b>	<b>96</b>	<b>2,403</b>	<b>207</b>	<b>2,996</b>	<b>808,207</b>	<b>2,643,198</b>	<b>3,451,405</b>

\*Includes also data for 2 firms in New Brunswick and 1 in Nova Scotia.

**Table 179.—Number of Wage-Earners Employed in the Wire and Wire Goods Industry in Canada, by Months, 1924 and 1925**

Month	1924			1925		
	Male	Female	Total	Male	Female	Total
January.....	2,437	239	2,676	2,222	193	2,415
February.....	2,525	237	2,762	2,304	208	2,572
March.....	2,550	238	2,788	2,439	213	2,652
April.....	2,469	220	2,689	2,442	207	2,649
May.....	2,308	209	2,577	2,480	204	2,684
June.....	2,207	210	2,417	2,426	202	2,628
July.....	2,156	173	2,329	2,411	191	2,602
August.....	2,155	197	2,352	2,358	212	2,570
September.....	2,174	206	2,380	2,361	210	2,571
October.....	2,203	196	2,399	2,403	209	2,672
November.....	2,180	194	2,374	2,410	215	2,625
December.....	2,128	205	2,333	2,406	228	2,634
<b>Average.....</b>	<b>2,298</b>	<b>211</b>	<b>2,509</b>	<b>2,403</b>	<b>207</b>	<b>2,610</b>

**Table 180.—Hours of Labour (in Month of Greatest Employment) in the Wire and Wire Goods Industry in Canada, by Provinces, 1925**

Province	Number of wage-earners working				Hours worked per man per week when working			
	8 hours or less per day	9 hours	10 hours	Over 10 hours	8 hours or less per day	9 hours	10 hours	Over 10 hours
Quebec.....		66	532	41		50	57	61
Ontario.....	141	1,136	390	106	42	50	56	66
British Columbia.....	41	46			44	49		

**Table 181.—Fuel and Electricity Used in the Wire and Wire Goods Industry in Canada, 1924 and 1925**

Kind	Unit of measure	1924		1925	
		Quantity	Value	Quantity	Value
Anthracite coal.....	short ton	366	\$ 4,570	265	\$ 3,681
Bituminous coal.....	short ton	26,182	166,801	25,004	140,882
Lignite coal.....	short ton	4	32		
Coke.....	short ton	3,698	34,976	5,394	33,505
Fuel oil.....	gallon	68,259	6,894	69,761	7,079
Gasoline.....	gallon	49	14	1,620	485
Gas.....	M. cu. ft.	3,733	3,971	3,194	3,340
Wood.....	cord	560	2,281	575	2,329
Other fuel.....			278		12
Electric power.....	k. w. h.	7,221,465	159,871	10,215,225	198,752
<b>Total</b> .....			<b>379,688</b>		<b>399,065</b>

**Table 182.—Power Equipment Employed in the Wire and Wire Goods Industry in Canada, 1924 and 1925**

Kind	1924		1925	
	Number of units	Total h.p. according to manufacturers' rating	Number of units	Total h.p. according to manufacturers' rating
Steam engines and turbines.....	8	827	4	750
Gas engines.....	3	77	3	44
Oil and gasoline engines.....	1	2	4	17
Hydraulic turbines or water wheels.....	1	200		
<b>Total primary power</b> .....	<b>13</b>	<b>1,103</b>	<b>11</b>	<b>811</b>
Electric motors, operated by purchased power.....	403	8,699	447	11,417
<b>Total power equipment employed</b> .....	<b>416</b>	<b>9,805</b>	<b>458</b>	<b>12,228</b>
Electric motors operated by the primary power of the industry.....	43	1,523	7	41
<b>Total electric motors</b> .....	<b>446</b>	<b>10,222</b>	<b>454</b>	<b>11,458</b>
Boilers installed.....	33	3,428	29	3,425

**Materials Used.**—Purchased materials used in the manufacture of wire and wire goods during 1925 cost \$7,329,688 as compared with a corresponding figure of \$5,378,744 in 1924. In addition, interplant transfers including 18.7 million pounds of basic open hearth steel rods, 67.3 million pounds of Bessemer steel rods and 3 million pounds of plain or coated wire were received from other plants of the producing companies. No value has been placed on these interplant transfers.

Among the more important of the purchased materials were 41.3 million pounds of open hearth steel rods, 29.7 million pounds of Bessemer steel rods, 39.2 million pounds of plain or coated wire, 4.3 million pounds of zinc, 12.9 million pounds of sulphuric acid, 66° Bé, and various other commodities.

For the consumption of any material in the iron and steel industry reference should be made to the alphabetical list of materials used as shown in Table 29 of this report.

Table 183.—Materials Used in the Wire and Wire Goods Industry in Canada, 1924

Kind	Unit of measure	Companies' own production	Purchased materials	
			Quantity	Cost at works \$
Acid, nitric.....	lb.		5,663	454
Acid, sulphuric, 66° Bé.....	lb.	2,105,700	9,316,978	95,337
Acid, muriatic, 20° Bé.....	lb.		1,494,076	23,496
Lumber.....	M. ft. b.m.		2,477	119,549
Metals—Brass.....	lb.		16,365	4,065
Burr metal.....	lb.		55,436	5,048
Lead.....	lb.		372,178	27,529
Iron pipe.....	lb.		894,281	41,798
Iron sheets, galvanized.....	lb.		158,960	7,314
Spelter.....	lb.		3,909,249	312,626
Screen cloth.....				35,649
Tack plate.....	lb.	575,535	529,597	22,065
Tin.....	lb.		72,756	47,287
Wire, galvanized.....	lb.		876,950	40,001
Wire (not produced in mill reporting)—				
Wire, cold rolled flat.....	lb.		6,990	945
Plain or coated wire.....	lb.		29,182,887	1,305,964
Barbed wire.....	lb.		481,769	18,753
Wire rods—Brass.....	lb.		392,572	77,617
Copper.....	lb.		469,532	70,212
Iron.....	lb.		4,600	535
Steel—Bessemer.....	lb.		25,576,797	720,854
Basic open hearth.....	lb.	37,378,800	38,031,219	1,012,816
Acid open hearth.....	lb.		59,189	5,807
Crucible and other steel.....	lb.		309,234	55,315
Other iron and steel.....				522,995
Other metals.....				87,506
Paints, oils and varnishes.....				26,152
Sal ammoniac.....	lb.		31,530	2,459
Soap.....	lb.		60,775	4,654
Thread and cotton binding and other textiles.....				36,364
Shipping containers.....				210,633
All other materials.....				432,687
Lime.....	lb.		233,820	3,066
Flour.....			46,000	927
Bluestone.....	lb.		3,820	265
<b>Total.....</b>				<b>5,378,744</b>

Table 184.—Materials Used in the Wire and Wire Goods Industry in Canada, 1925

Kind	Unit of measure	Companies' own production	Purchased materials	
			Quantity	Cost at works \$
Iron and steel—				
Iron pipe.....	lb.		1,013,319	45,838
Iron sheets, galvanized.....	lb.		53,413	2,497
Iron rods.....	lb.		59,948	5,032
Screen cloth.....				30,029
Steel rods—acid open hearth.....	lb.		14,661	2,794
Steel rods—basic open hearth.....	lb.	18,755,442	41,337,901	1,069,516
Steel rods—Bessemer.....	lb.	67,325,600	29,664,007	1,882,231
Steel rods—crucible and other.....	lb.		593,358	59,810
Wire—plain or coated.....	lb.	3,000,125	39,178,718	1,730,690
Wire—barbed, galvanized.....	lb.		1,720,570	92,403
Other iron and steel.....				158,794
Other metals—				
Brass and copper rods.....	lb.		784,688	134,180
Brass, other.....	lb.		11,789	3,067
Lead.....	lb.		376,489	32,217
Tin.....	lb.		105,083	56,114
Zinc (spelter).....	lb.		4,278,672	372,632
All other metals.....				54,391
Other materials—				
Acid, muriatic, 20° Bé.....	lb.		1,755,075	26,009
Acid, sulphuric, 66° Bé.....	lb.		12,917,414	99,591
Lumber.....	M. ft. b.m.		1,904	108,329
Paints, oils and varnishes.....				28,011
Thread and cotton binding and other textiles.....				66,235
Shipping containers.....				307,371
All other materials.....				958,898
<b>Total.....</b>				<b>7,329,688</b>

**Products.**—Products made for sale in the wire and wire goods industry in 1925 amounted in value to \$16,233,924 as compared with a corresponding figure of \$14,655,256 in 1924. As has been pointed out before, these values do not include interplant transfers but only the income from sales during the year. In the accompanying table, however, both the quantity made and the quantity sold have been listed.

Production of plain wire amounted to 79.6 million pounds of which 57.9 million pounds were sold for \$1,862,220; output of galvanized wire was given at 47.6 million pounds of which slightly more than a half was sold for nearly a million dollars; wire fence and netting totalled 60.1 million pounds; toe calks, 11 million pounds; horseshoe nails, 2 million pounds; wire nails and spikes, 76.7 million pounds of which nearly all were sold for 3.5 million dollars; wire rope and cable, 7 million pounds; staples, 6.5 million pounds, and brads and tacks, 1.5 million pounds.

Wire and wire goods were also manufactured in smaller quantities by firms classed in other industrial groups; for the total production in the iron and steel industries, reference should be made to Table 30 of this report.

**Table 185.—Products of the Wire and Wire Goods Industry in Canada, 1924**

Item	Unit of measure	Total quantity made	Sales	
			Quantity sold	Income from sales
<b>Iron and steel:—</b>				\$
Bolts, nuts and rivets.....	kegs of 100 lb	24,152	11,046	223,542
Cold rolled flat wire.....	lb.	651,094	10,186	522
Fence and netting woven.....	lb.	54,509,213	51,230,239	2,430,933
Gates.....	No.	120,362	124,480	86,159
Screens.....				89,267
Screws.....				525,729
Sheet metal products.....				14,223
Steel springs.....				360,892
Wire:—Plain.....	lb.	63,538,760	52,553,823	1,819,090
Galvanized.....	lb.	54,460,017	34,124,858	1,371,697
Other coated.....	lb.	7,224,519	6,414,137	370,928
Barbed.....	lb.	19,526,712	15,934,844	660,202
Wire brads and tacks.....	lb.	268,830	735,452	97,132
Wire nails and spikes.....	lb.	82,151,853	74,950,983	3,115,549
Wire rope and cable.....	lb.	5,098,540	4,178,124	1,085,107
Wire shapes, garment hangers, baskets, lamp shades, etc.....				381,471
Wire staples.....	lb.	4,127,140	4,418,778	192,017
Amount received for custom work and repairs.....				12,112
All other products.....				629,663
*Products of 1 or 2 firms.....				1,186,021
<b>Total.....</b>				<b>14,655,256</b>

\*Products of 1 or 2 firms includes angle steel fencing, brass wire and wire cloth, bare copper wire, steel bale ties, chains, cotter pins, fence rods, horseshoe nails, steel hoops, toe calks, brass and bronze springs, steel wire cloth, paper fasteners, spliced wire hoops, wire guards and tellers' cages.

**Table 186.—Products of the Wire and Wire Goods Industry in Canada, 1925**

Item	Unit of measure	Total quantity made	Sales	
			Quantity sold	Income from sales
<b>Brass wire.....</b>	<b>lb.</b>	<b>355,461</b>	<b>80,601</b>	<b>\$</b>
Other brass products.....				23,407
Copper—bare wire and other.....				96,000
<b>Iron and steel:—</b>				<b>99,175</b>
Cold rolled flat wire.....	lb.	855,216	201,635	14,872
Fence and netting woven.....	lb.	60,094,333	58,588,019	2,882,843
Fence rods, hooks and posts.....				19,876
Gates.....	No.	162,155	160,311	164,436
Horseshoe nails.....	lb.	2,032,334	1,869,801	261,294
Screens.....				72,714
Screws.....				394,632
Sheet metal products.....				73,138
Steel springs.....				402,165
Toe calks.....	lb.	11,308,737	11,000,498	272,107
Wire, plain.....	lb.	79,588,126	57,911,377	1,862,220
Wire, galvanized.....	lb.	47,605,324	26,338,757	965,914
Wire, other coated.....	lb.	23,027,603	21,681,918	881,603
Wire, barbed.....	lb.	13,519,898	10,500,522	400,323
Wire brads and tacks.....	lb.	1,531,131	1,490,742	203,450
Wire nails and spikes.....	lb.	76,701,647	76,508,479	3,556,189
Wire rope and cable.....	lb.	7,158,714	6,971,347	1,229,230
Wire shapes, garment hangers, baskets, lamp shades, etc.....				533,347
Wire staples.....	lb.	6,455,230	5,689,016	206,372
Amount received for custom work and repairs.....				1,672
All other products.....				605,333
*Products of 1 or 2 firms.....				1,001,522
<b>Total.....</b>				<b>16,233,924</b>

\*Includes wire cloth, bale ties, bolts, nuts and rivets, steel hoops, bank cages, wire mats, paper clips, cut tacks, chains, cotter pins, and various other products.



Table 187.—Production of Wire and Wire Goods in Other Industrial Groups, 1924 and 1925

Item	1924		1925	
	Quantity	Selling Value	Quantity	Selling Value
		\$		\$
Iron and steel—				
Plain wire..... lb.	5,223,680	209,880	6,734,570	327,340
Box strapping wire..... lb.	700,000	42,510	900,000	64,013
Wire fence.....		14,000		21,000
Wire cloth.....		1,000		5,031
Wire guards..... sq. ft.			170,000	8,500
Fence gates.....				182,619
Other wire work.....		6,000		30,700
Non-ferrous metals—				
Plain wire—brass..... lb.	174,335	36,446	217,232	47,933
Plain wire—other than brass or copper..... lb.			20,000	
Wire cloth, brass..... sq. ft.	1,329,918	685,663	1,644,038	884,657
Screens.....		48,629		30,888
Wire and cable—				
Copper—bare.....		2,719,011		2,000,710
Copper—insulated.....		7,176,673		8,336,216
Aluminium—bare.....				17,202
<b>Total.....</b>		<b>10,939,812</b>		<b>12,574,809</b>

Table 188.—Imports into Canada and Exports of Wire, 1924 and 1925

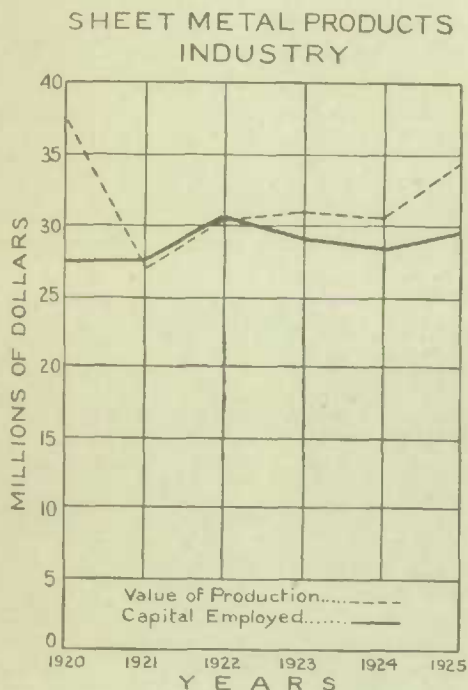
	1924		1925	
	Quantity	Value	Quantity	Value
		\$		\$
Imports—				
Barbed fence wire of iron or steel..... cwt.	114,535	419,309	48,376	166,055
Steel strips and flat steel wire, when imported by the manufacturers of buckthorn and plain strip fencing, for use exclusively in their own factories in the manufacture thereof..... cwt.	263	1,976	29	206
Steel wire, Bessemer soft drawn spring, of Nos. 10, 12 and 13 gauge, respectively, and homo steel spring wire of Nos. 11 and 12 gauge, respectively, when imported by the manufacturers of wire mattresses, to be used exclusively in their own factories in the manufacture of such articles..... cwt.	24,799	95,432	7,801	28,192
Steel wire, flat, of No. 16 gauge or thinner, when imported by the manufacturers of cradle or corset wires and dress stays, for use exclusively in the manufacture of such articles in their own factories..... cwt.	1,762	23,117	2,841	37,181
Wire bale ties.....		10,001		13,384
Wire, buckthorn strip fencing, woven wire fencing and wire fencing of iron or steel, n.o.p., not to include woven wire or netting made from wire smaller than No. 14 gauge, nor to include fencing of wire larger than No. 9 gauge.....		28,703		41,274
Wire cloth or woven wire and netting, of iron or steel.....		281,470		347,013
Wire, crucible cast steel, valued at not less than 6 cents per pound..... lb.	1,529,046	190,370	677,076	114,427
Wire, curved or not, galvanized iron or steel, Nos. 9, 12 and 13 gauge, with variations not exceeding 4-1000 of an inch, and not for use in telegraph or telephone lines..... cwt.	117,768	373,420	204,445	552,256
Wire rope for use exclusively for rigging of ships and vessels..... cwt.	416	6,407	87	1,238
Wire rope, stranded or twisted wire, clothes lines, picture or other twisted wire, and wire cables, n.o.p.....		516,121		255,104
Wire screens for doors and windows.....		11,381		11,639
Wire, single or several, covered with cotton, linen, silk, rubber or other material, including cable so covered, n.o.p.....		106,667		58,624
Wire, steel, valued at not less than 2½ cents per pound, when imported by manufacturers of rope, for use exclusively in the manufacture of rope..... cwt.	57,224	405,325	71,785	538,032
Wirebound wooden pipe, n.o.p.....		6,080		35,016
Wire of iron and steel, all kinds, n.o.p..... lb.	6,818,145	364,947	10,703,169	448,762
<b>Total.....</b>		<b>2,843,726</b>		<b>2,648,403</b>
Exports—				
Wire, barbed, of iron and steel..... cwt.	34,029	130,488	32,157	119,372
Wire, woven fencing of iron and steel.....		169,878		181,664
Wire, other, of iron and steel, n.o.p.....		876,932		740,111
<b>Total.....</b>		<b>1,177,298</b>		<b>1,041,147</b>

## CHAPTER TWELVE

## SHEET METAL PRODUCTS

**General.**—Production of the sheet metal products industry in Canada during 1925 amounted in value to \$34,442,488, an increase of 11 per cent over the corresponding figure of \$30,568,526 reported for 1924 and the highest output value recorded for this industry during the past five years.

In 1925, there were 127 plants in Canada engaged chiefly in the manufacture of sheet metal articles of various kinds. This was a net gain of 19 plants over the number in operation during 1924, there being a gain of 1 establishment in New Brunswick, 4 in Quebec, 5 in Ontario, 4 in Alberta, 2 in Saskatchewan, and 3 in British Columbia. By provinces, the plants in operation during 1925 were distributed as follows: British Columbia, 16; Alberta, 9; Saskatchewan, 2; Manitoba, 10; Ontario, 67; Quebec, 16; New Brunswick, 3; Nova Scotia, 3; and Prince Edward Island, 1. Capital employed in these establishments was reported at \$29,624,294 and the 6,730 people employed were paid the sum of \$7,730,165 in salaries and wages. Materials used cost \$18,454,685 and the value added to the purchased materials by the manufacturing operations was \$15,987,803.



Ontario was the centre of the industry with an output valued at \$20,892,643; this was 60 per cent of the entire Canadian production. Quebec was next with a production worth \$6,961,175; British Columbia reported \$4,231,007; Manitoba, \$1,245,737, and Nova Scotia, Alberta, Saskatchewan, Prince Edward Island and New Brunswick followed in the order named. Production in Quebec was 2 million dollars higher than in 1924; Ontario showed a gain of a million dollars, while the other provinces, with the exception of Manitoba, reported small increases over output value for the previous year. Production in this industry is of such a varied nature that it is almost impossible to design a schedule that is generally applicable to the whole industry. As a result definite data were obtained on only a few commodities. As a rule, concerns of this nature manufacture a wide range of articles, but in some cases only a special line is produced. For instance, 7 concerns made tin cans only, while 7 others reported an output of tin cans as well as a large production of other commodities; 3 concerns made bottle caps and crown corks only; 4 manufactured only hooks, eyes and fasteners; 2 made corset steels and clasps; 1

made etched name plates; 1 made curtain rods and fixtures; 1 made spring shade rollers; 2 made conduit pipe only, etc. Many companies also are engaged chiefly in a custom business and build to meet the requirements of their various customers; the outputs of such plants include a wide range of commodities.

The more important items of production included tin cans valued at 12.2 million dollars; sheet metal building materials at 5.6 million dollars; baths, sinks, etc., worth 2.7 million; galvanized sheets, 1.6 million, and auto stampings and tinware to a value of nearly 1 million dollars each.

A gauge of the industry may be obtained from the following information. Of the 127 plants in operation, only 3 had productions valued in excess of 2 million dollars each; the outputs of 9 other plants were each valued above a million dollars; 6 others exceeded the half-million dollar mark; 7 others were over \$250,000 each; 21 over \$100,000 each; 16 over \$50,000 each; 19 over \$25,000 each; 26 over \$10,000 each, and the output of each of the remaining 20 concerns was less than \$10,000 in value.

Grouped according to the number of persons employed, the plants were distributed as follows: 2 employed more than 500 persons; 7 others over 300 people; 10 plants employed from 100 to 300 persons; 8 from 50 to 100 people; 19 from 25 to 50; 32 from 10 to 25, while 49 concerns employed fewer than 10 people in each.

**Table 189.—Summary Statistics of the Sheet Metal Products Industry in Canada, 1921-1925**

Year	No. of plants	Capital employed	No. of employees	Salaries and wages	Costs of fuel electricity	Cost of materials	Selling Value of products	Value added by manufacturing
		\$		\$	\$	\$	\$	\$
1921.....	129	27,681,041	5,374	6,418,598	376,523	13,219,712	26,774,036	13,555,224
1922.....	125	30,614,573	6,434	7,107,285	402,706	16,128,024	30,209,584	14,080,660
1923.....	105	29,072,727	6,395	7,280,999	524,826	16,221,926	31,020,322	14,798,306
1924.....	108	28,419,951	6,298	7,109,038	495,982	17,107,429	30,568,526	13,551,097
1925.....	127	29,624,294	6,730	7,730,165	537,717	18,454,685	34,442,488	15,987,803

\*Electricity not included prior to 1923.

**Table 190.—Principal Statistics of the Sheet Metal Products Industry in Canada, by Provinces, 1924 and 1925**

Province	1924				1925			
	Number of plants	Number of employees	Salaries and wages	Value of products	Number of plants	Number of employees	Salaries and wages	Value of products
			\$	\$			\$	\$
Nova Scotia.....	3	152	168,382	500,965	3	129	157,690	527,473
New Brunswick.....					3	22	22,153	62,258
Quebec.....	12	1,422	1,349,046	4,902,596	16	1,677	1,798,716	6,961,175
Ontario.....	62	3,722	4,430,965	19,735,767	67	3,772	4,425,628	20,892,643
Manitoba.....	10	374	480,896	1,369,079	10	386	481,807	1,245,737
Alberta.....	5	54	60,774	218,676	9	68	91,413	266,951
British Columbia.....	13	531	608,820	3,619,543	16	594	679,420	4,231,007
<b>Canada*</b> .....	<b>108</b>	<b>6,298</b>	<b>7,109,038</b>	<b>30,568,526</b>	<b>127</b>	<b>6,730</b>	<b>7,730,165</b>	<b>34,442,488</b>

\*Includes also data for 1 plant in Prince Edward Island and 2 in New Brunswick for 1924; and 1 in Prince Edward Island and 2 in Saskatchewan for 1925.

**Capital Employed.**—Capital employed in the sheet metal products industry in 1925 amounted to \$29,624,294, an increase of 1.2 million dollars over the figure for the previous year. The 67 plants in Ontario employed a capital of \$17,133,609 or 58 per cent of the total for Canada, while Quebec with an investment of \$7,462,734 accounted for 60 per cent of the remainder. Quebec reported an increase of 1.2 million dollars over 1924; Manitoba showed a loss of half a million dollars, while each of the other provinces showed slight increases.

**Table 191.—Capital Employed in the Sheet Metal Products Industry in Canada, by Classes and by Provinces, 1924 and 1925**

Province	1924				1925			
	Capital employed as represented by				Capital employed as represented by			
	Lands, buildings, fixtures, machinery and tools	Materials on hand, and stocks in process	Cash, trading and operating accounts	Total	Lands, buildings, fixtures, machinery and tools	Materials on hand, and stocks in process	Cash, trading, and operating accounts	Total
	\$	\$	\$	\$	\$	\$	\$	\$
Nova Scotia.....	244,970	190,669	145,938	581,577	260,604	180,222	171,029	611,855
New Brunswick.....					72,400	15,735	19,637	107,772
Quebec.....	3,335,393	2,045,441	874,196	6,255,030	3,890,362	2,228,760	1,343,612	7,462,734
Ontario.....	9,808,970	4,458,132	2,919,076	17,186,178	9,852,778	4,383,432	2,897,399	17,133,609
Manitoba.....	1,210,773	339,991	498,409	2,049,173	937,554	309,356	288,381	1,535,291
Alberta.....	118,893	31,623	31,375	181,891	136,121	41,970	60,345	238,436
British Columbia.....	333,227	746,637	948,748	2,028,612	431,715	758,909	994,028	2,184,652
<b>Canada*</b> .....	<b>15,080,342</b>	<b>7,862,767</b>	<b>5,476,842</b>	<b>28,419,951</b>	<b>15,766,993</b>	<b>7,999,844</b>	<b>5,857,460</b>	<b>29,624,294</b>

\*Includes also data for 1 plant in Prince Edward Island and 2 in New Brunswick for 1924; and for 1 plant in Prince Edward Island and 2 in Saskatchewan for 1925.

**Employment.**—In 1925, an average of 6,730 people were employed in the sheet metal products industry as compared with 6,395 in 1924. Plants in Ontario gave employment to 3,772 people; in Quebec, 1,677 persons; in British Columbia, 594; in Manitoba, 386; in Nova Scotia, 129; in Alberta, 68; in New Brunswick, 22; and in Saskatchewan and Prince Edward Island 82 persons were given employment.

Altogether, there were 1,066 salaried employees to whom \$1,990,464 were paid during the year, and 5,664 wage-earners who received \$5,739,701 in wages, making an average income of \$1,014 to each of the wage-earners.

The industry showed a distinct seasonal trend with the boom period in the summer months when building activity was greatest. In January, 4,739 wage-earners were employed after which there was a steady increase to 6,265 in September; thereafter the number declined to 5,453 in December to make a monthly average of 5,664 the year round. In 1924, a similar trend was evident with a maximum number of 5,544 in August and a minimum of 4,701 in January.

**Table 192.—Average Number of Employees, Salaries and Wages Paid in the Sheet Metal Products Industry in Canada, by Provinces, 1924 and 1925**

Province	Average number of employees					Salaries and wages		
	Salaried employees		Wage-earners		Total	Salaries	Wages	Total
	Male	Female	Male	Female				
						\$	\$	\$
<b>1924</b>								
Nova Scotia.....	12	4	136		152	37,259	131,123	168,382
Quebec.....	152	26	1,029	215	1,422	289,812	1,060,134	1,349,946
Ontario.....	485	148	2,740	349	3,722	1,185,587	3,245,378	4,430,965
Manitoba.....	73	36	265		374	162,678	298,218	460,896
Alberta.....	13	4	37		54	19,598	41,170	60,774
British Columbia.....	75	15	299	42	531	138,596	470,224	608,820
<b>*Canada</b> .....	<b>838</b>	<b>202</b>	<b>4,724</b>	<b>631</b>	<b>6,395</b>	<b>1,874,451</b>	<b>5,407,796</b>	<b>7,282,247</b>
<b>1925</b>								
Nova Scotia.....	12	4	113		129	26,088	121,602	157,690
New Brunswick.....	2	1	18	1	22	3,150	19,003	22,153
Quebec.....	165	37	1,259	210	1,677	436,397	1,362,319	1,798,716
Ontario.....	452	156	2,800	364	3,772	1,120,756	3,304,872	4,425,628
Manitoba.....	69	35	282		386	162,986	318,821	481,807
Alberta.....	17	4	47		68	30,007	61,406	91,413
British Columbia.....	77	15	448	54	594	174,041	505,379	679,420
<b>*Canada</b> .....	<b>895</b>	<b>261</b>	<b>5,017</b>	<b>647</b>	<b>6,730</b>	<b>1,990,464</b>	<b>5,739,701</b>	<b>7,730,165</b>

\*Includes also data for 1 plant in Prince Edward Island and 2 in New Brunswick in 1924, and 1 plant in Prince Edward Island and 2 in Saskatchewan in 1925.



**Table 193.—Number of Wage-Earners Employed in the Sheet Metal Products Industry in Canada, by Months, 1924 and 1925**

Month	1924			1925		
	Male	Female	Total	Male	Female	Total
January.....	4,201	500	4,701	4,228	511	4,739
February.....	4,423	586	5,009	4,603	573	5,176
March.....	4,653	624	5,277	4,817	604	5,421
April.....	4,701	664	5,365	4,945	620	5,565
May.....	4,778	623	5,401	5,116	649	5,765
June.....	4,776	664	5,440	5,190	677	5,867
July.....	4,838	645	5,483	5,384	696	6,080
August.....	4,852	691	5,544	5,325	682	6,007
September.....	4,765	658	5,423	5,539	726	6,265
October.....	4,630	617	5,247	5,223	676	5,899
November.....	4,508	601	5,109	5,057	673	5,730
December.....	4,284	562	4,846	4,808	645	5,453
<b>Average.....</b>	<b>4,633</b>	<b>619</b>	<b>5,252</b>	<b>5,017</b>	<b>647</b>	<b>5,664</b>

**Table 194.—Hours of Labour (in Month of Greatest Employment) in the Sheet Metal Products Industry in Canada, by Provinces, 1925**

Province	Number of employees working				Hours worked per man per week when working			
	8 hours or less per day	9 hours	10 hours	Over 10 hours	8 hours or less per day	9 hours	10 hours	Over 10 hours
Nova Scotia.....		130				52		
New Brunswick.....	23				48			
Quebec.....	28	773	820	48	44	49	47	63
Ontario.....	580	2,160	537	98	44	50	58	66
Manitoba.....	274	89	14	3	45	49	54	64
Alberta.....	70	3			44	54		
British Columbia.....	827	1	1		44	49	54	

**Table 195.—Fuel and Electricity Used in the Sheet Metal Products Industry in Canada, 1924 and 1925**

Kind	Unit of measure	1924		1925	
		Quantity	Value	Quantity	Value
		No.	\$	No.	\$
Anthracite coal.....	short ton	636	6,709	566	6,742
Bituminous coal.....	short ton	26,169	167,747	27,057	174,817
Lignite coal.....	short ton	1,067	15,150	1,188	15,565
Coke.....	short ton	3,993	42,079	3,740	43,730
Gas oil.....	gallon	928,143	90,371	1,041,646	91,067
Gasoline.....	gallon	43,716	13,591	73,402	21,603
Gas.....	M. cu. ft.	67,128	49,612	58,283	52,751
Wood.....	cord	190	1,080	200	1,337
Other fuel.....			4,381		6,285
Electric power.....	k.w.h.	6,818,179	104,362	8,271,252	123,820
<b>Total.....</b>			<b>495,982</b>		<b>537,717</b>

**Table 196.—Power Equipment Employed in the Sheet Metal Products Industry in Canada, 1924 and 1925**

Kind	1924		1925	
	Number of units	Total h.p. according to manufacturers' rating	Number of units	Total h.p. according to manufacturers' rating
Steam engines and turbines.....	22	2,652	20	2,555
Oil and gasoline engines.....	1	10	1	10
Hydraulic turbines or water wheels.....	4	306	4	479
<b>Total primary power.....</b>	<b>26</b>	<b>2,958</b>	<b>25</b>	<b>3,044</b>
Electric motors operated by purchased power.....	875	8,793	747	8,342
<b>Total power equipment.....</b>	<b>901</b>	<b>11,751</b>	<b>772</b>	<b>11,386</b>
Electric motors operated by primary power of the industry.....	18	182	26	149
<b>Total electric motors.....</b>	<b>893</b>	<b>8,975</b>	<b>773</b>	<b>8,491</b>
Boilers installed.....	38	5,070	30	4,902

**Materials Used.**—The cost at the works of all materials used in the sheet metal industry in 1925 was \$18,454,685 which was an increase of 1.4 million dollars over the corresponding figure for 1924. Concerns in this industrial group used tin plate worth 7.4 million dollars; galvanized iron sheets valued at 3.2 millions; plain iron sheets and steel sheets each valued at nearly a million dollars; 5 million pounds of zinc worth half a million dollars, and many other commodities which are listed in as much detail as possible in the accompanying table. Comparative figures for 1924 are also given.

**Table 197.—Materials Used in the Sheet Metal Products Industry in Canada, 1924 and 1925**

Item	Unit of measure	1924		1925	
		Quantity	Cost at works \$	Quantity	Cost at works \$
Chemicals, n.e.s.....			69,008		89,960
Glass.....	sq. ft.	302,373	42,206	179,016	42,131
Iron sheets, galvanized.....	lb.	50,445,352	2,877,101	58,081,520	3,159,119
Iron sheets, plain.....	lb.	28,409,517	1,444,202	20,404,084	872,102
Iron pipe and fittings.....			418,328		271,011
Iron, other.....	lb.	29,812,075	716,449	13,681,021	958,003
Steel sheets.....	lb.	25,270,700	1,014,108	40,033,761	1,009,017
Tin plate.....			6,388,897		7,410,412
Terne plate.....			66,294		87,149
Lumber.....	M ft. b.m.	7,218	260,624	8,542	310,671
Metals: Aluminium.....	lb.	337,617	122,279	430,589	143,908
Brass, bronze and copper.....	lb.	992,415	232,684	1,772,362	421,990
Solder.....	lb.	563,124	170,697	833,543	260,849
Tin, ingots.....	lb.	301,801	105,952	102,051	112,819
Zinc.....	lb.	4,653,006	359,034	5,005,540	507,614
Other metals.....			29,460		88,339
Paints, oils, varnishes and enamelling materials, etc.....			249,213		247,046
Sulphuric acid (66°Be).....	lb.	2,672,105	33,185	3,073,469	20,808
Shipping containers.....			409,465		307,670
Wire and wire rods.....	lb.	2,084,663	90,295	2,533,164	139,674
Roofing materials, n.e.s.....			279,814		150,177
Heating and ventilating equipment, n.e.s.....			32,879		39,131
All other materials.....			1,448,254		1,735,755
<b>Total.....</b>			<b>17,017,429</b>		<b>18,454,685</b>

**Products.**—Production from sheet metal works in 1925 amounted in value to \$34,442,488 as compared with \$30,568,526 in 1924. Tin cans valued at \$12,270,982 was the most important commodity made in this industry; this output value compares with \$11,254,437 in 1924 and \$7,901,468 in 1923. Sheet metal building materials of all kinds worth 5.6 million dollars; baths, sinks, laundry tubs, etc., at 2.7 million; galvanized sheets at 1.6 millions; corrugated iron products at 1.7 millions; auto stampings and tinware of all kinds each at three-quarters of a

million dollars; and conduit pipe at more than half a million dollars were other important items listed. As has been stated, a number of the concerns in this industry are essentially engaged in contract work; such firms sometimes find it difficult to separate their outputs with the result that it has been bulked under the heading "value of contract work."

In addition to the output of sheet metal products shown in the accompanying table, there is also a considerable production in other industries. For the complete production of any article, reference should be made to the alphabetical list of products made in all the iron and steel industries as given in Table 30 of this report.

**Table 198.—Products of the Sheet Metal Products Industry in Canada, 1924 and 1925**

Item	1924	1925
	Selling value	Selling value
	\$	\$
Auto stampings.....	839,057	859,697
Baths, sinks, laundry tubs, etc.....	2,400,664	2,742,373
Castings and other foundry products.....	151,323	177,180
Conduit pipe.....	990,239	598,553
Corrugated iron and products made therefrom.....	1,697,205	1,684,604
Galvanized sheets.....	1,672,189	1,644,840
Hollowware, iron or steel, enamelled.....	1,415,446	481,059
Hollowware, iron or steel, not enamelled.....	233,460	82,137
Hooks, eyes, metal notions, etc.....	658,324	482,252
Metal lath.....	200,160	229,057
Sheet metal building materials sold.....	1,960,973	5,568,617
Tin cans.....	11,251,437	12,270,982
Tinware, japanned or not.....	1,866,141	879,020
Scrap sold.....	43,712	25,784
Stove pipes.....	.....	31,580
Galvanized ware.....	.....	89,899
Value of contract work.....	3,338,915	3,415,464
All other products.....	790,878	291,963
Products of 1 or 2 firms.....	1,055,403	2,887,427
<b>Total.....</b>	<b>30,568,526</b>	<b>34,442,488</b>

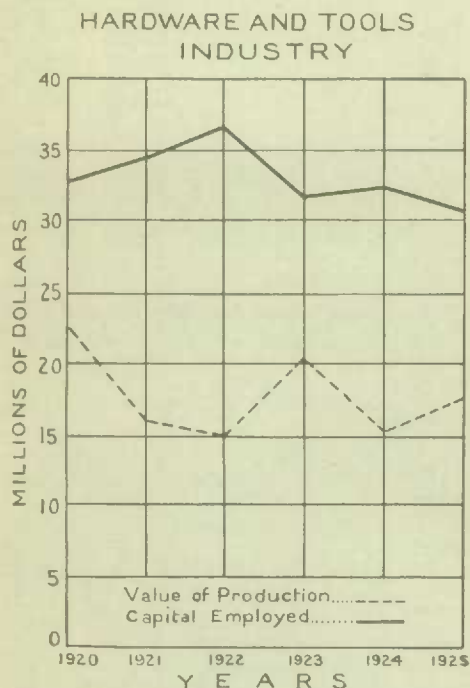
**Table 199.—Imports into Canada and Exports of Stamped and Coated Products, 1924 and 1925**

Item	1924		1925	
	Quantity	Value	Quantity	Value
		\$		\$
<b>Imports—</b>				
Baths, bath-tubs, basins, closets, lavatories, urinals, sinks and laundry tubs, n.o.p.....		30,574		29,054
Frames, not more than 10 inches in width, clasps and fasteners, adapted for use in the manufacture of purses and chatelaine bags or reticules.....		53,123		63,352
Metal tips, studs and eyes for the manufacture of corset clasps and corset wires.....		11,613		11,398
Tin cans and containers, n.o.p.....		545,616		679,718
Ware—Agate, granite or enamelled iron or steel.....		157,373		180,168
Ware—Iron or steel hollowware, plain black or coated, n.o.p., and nickel kitchen or household hollowware, n.o.p.....		98,407		131,365
Ware—Dairy tin hollowware, including cans for fresh milk or fresh cream; kitchen tin hollowware not painted, decorated or japanned.....		38,246		64,990
Ware—Tin, japanned or not, and all manufactures of tin, n.o.p.....		626,846		593,579
<b>Total.....</b>		<b>1,561,828</b>		<b>1,759,624</b>
<b>Exports—</b>				
Enamelware of iron and steel.....		33,452		26,664
Tinware.....		14,484		11,571
<b>Total.....</b>		<b>47,936</b>		<b>38,235</b>

## CHAPTER THIRTEEN

## HARDWARE AND TOOLS

**General.**—Considerable improvement was shown by the hardware and tools industry in Canada during 1925. In that year, production from plants classified in this group was valued at \$17,882,650, an increase of 15 per cent over the \$15,570,170 reported for 1924. The cost of materials used during the year was \$5,950,922, which when subtracted from the output value gives \$11,931,728 as the value added by the manufacturing processes as compared with a corresponding figure of \$10,637,050 in 1924. Employment also showed an increase, there being 5,528 persons employed in 1925 as against a number of 5,231 in the previous year. Capital employed, however, showed a loss of 1.5 million dollars due to the decline in inventories of stocks on hand at the end of the year and the decrease in cash, operating and trading accounts.



According to returns received at this Bureau, the manufacturers of hardware and tools experienced their best year in 1920 when the 152 plants in operation employed 6,413 persons and produced commodities valued at \$22,556,316. In 1921 and 1922 the industry suffered from the general depression prevalent throughout the country and in the latter year only 111 plants were in operation and the output was valued at \$14,978,409. However, in 1923 conditions were much better and although only 106 plants reported to the Bureau the total production value amounted to \$20,320,224. Reaction in 1924 sent production down to \$15,570,170 from which a fair recovery was made in 1925 to \$17,882,650.

In 1925, the hardware and tools group included 112 industrial plants distributed by provinces, as follows: 79 in Ontario, 23 in Quebec, 4 in British Columbia and 3 in each of the provinces of Nova Scotia and New Brunswick. As compared with 1924 there was a net gain of 8 plants in Ontario and 1 in British Columbia.

Ontario was the centre of the industry with 69 per cent of the operating plants and 72 per cent of the production for Canada.

Quebec accounted for the most of the remainder. Ontario's production stood at \$12,822,590 and Quebec's amounted to \$4,599,059.

Of the 112 plants in the industry only 3 reported a production valued in excess of a million dollars each; 6 others each had an output worth more than half a million dollars; 13 more exceeded a quarter of a million dollars each; the outputs from 24 more were each above \$100,000 in value; 12 others were over the \$50,000 mark each; 20 other plants exceeded \$25,000 each; 18 more were each above \$10,000 and 16 others made less than \$10,000 worth of goods in each.

Classified according to the number of employees, the plants were grouped as follows: over 200 employees, 7 plants; 100 to 200 employees, 11 concerns; 50 to 100 workers, 19 concerns; 25 to 50 workers, 17 plants; 10 to 25 employees, 21 concerns; and 37 plants employed fewer than 10 workers in each.



**Table 200.—Summary Statistics of the Hardware and Tools Industry in Canada, 1921-1925**

Year	No. of plants	Capital employed	No. of employees	Salaries and wages	Cost of fuel and electricity*	Cost of materials	Selling value of products	Value added by manufacturing
		\$		\$	\$	\$	\$	\$
1921.....	127	34,619,157	5,481	5,991,939	417,474	5,314,192	16,150,400	10,836,208
1922.....	111	36,729,088	5,331	5,534,429	406,416	4,884,307	14,978,409	10,094,102
1923.....	106	31,675,780	6,060	6,552,797	693,576	6,600,835	20,320,224	13,719,389
1924.....	103	32,275,750	5,231	5,620,704	526,130	4,933,120	15,570,170	10,037,050
1925.....	112	30,774,622	5,528	6,184,925	532,313	5,950,922	17,882,650	11,931,728

\*Electricity not included prior to 1923.

**Table 201.—Principal Statistics of the Hardware and Tools Industry in Canada, by Provinces, 1924 and 1925**

Province	1924				1925			
	Number of plants	Number of employees	Salaries and wages	Value of products	Number of plants	Number of employees	Salaries and wages	Value of products
			\$	\$			\$	\$
Nova Scotia.....	3	88	87,425	176,357	3	71	73,820	183,431
New Brunswick.....	3	40	41,027	97,375	3	38	40,171	92,810
Quebec.....	23	1,291	1,325,214	4,443,718	23	1,315	1,365,738	4,599,059
Ontario.....	71	3,779	4,127,196	10,742,587	79	4,056	4,649,177	12,822,590
British Columbia.....	3	33	39,842	110,133	4	48	56,019	184,760
<b>Canada.....</b>	<b>103</b>	<b>5,231</b>	<b>5,620,704</b>	<b>15,570,170</b>	<b>112</b>	<b>5,528</b>	<b>6,184,925</b>	<b>17,882,650</b>

**Capital Employed.**—Although there was a net gain of 9 operating plants, the capital employed in the hardware and tools industry in 1925 declined 5 per cent to \$30,774,622. The value of lands, buildings, machinery and tools remained about the same at \$15,358,286, inventories of stocks on hand at \$7,597,781 at the end of the year were lower by half a million dollars; and cash, trading and operating accounts showed a decline of a million dollars to \$7,818,555.

Capital employed in the plants of Ontario totalled \$19,481,265 or nearly 63 per cent of the total for Canada. Quebec reported an investment of \$10,218,338. Quebec and British Columbia showed improvement over 1924; Nova Scotia and New Brunswick reported about the same figures as in the preceding year, while Ontario showed a loss of over 2.3 million dollars.

**Table 202.—Capital Employed in the Hardware and Tools Industry in Canada, by Classes and by Provinces, 1924 and 1925**

Province	1924				1925			
	Capital employed as represented by				Capital employed as represented by			
	Lands, buildings, fixtures, machinery and tools	Materials on hand and stocks in process	Cash trading and operating accounts	Total	Lands, buildings, fixtures, machinery and tools	Materials on hand and stocks in process	Cash, trading and operating accounts	Total
	\$	\$	\$	\$	\$	\$	\$	\$
Nova Scotia.....	558,866	91,824	50,979	699,669	556,866	91,742	51,049	699,657
New Brunswick.....	139,312	38,072	20,951	198,335	139,101	31,792	19,804	191,697
Quebec.....	3,393,806	1,800,847	4,255,326	9,449,979	3,723,588	1,697,070	4,797,680	10,218,338
Ontario.....	11,157,859	6,148,842	4,500,147	21,806,848	10,854,957	5,710,207	2,916,101	19,481,265
British Columbia.....	55,541	42,665	22,713	120,919	83,774	66,970	33,921	184,665
<b>Canada.....</b>	<b>15,303,384</b>	<b>8,122,250</b>	<b>8,850,116</b>	<b>32,275,750</b>	<b>15,358,286</b>	<b>7,597,781</b>	<b>7,818,555</b>	<b>30,774,622</b>

**Employment.**—The average number of employees in 1925 was 5,528 as against 5,231 in 1924. Salaried employees numbered 729 as against 723 in 1924 and wage-earners averaged 4,799 as compared with 4,508 in the preceding year.

Plants in Ontario employed an average of 4,056 persons including wage-earners and salaried employees; concerns in Quebec gave work to 1,315 people; in Nova Scotia, 71; in British Columbia, 48; and in New Brunswick, 38.

Payments for salaries in 1925 totalled \$1,502,258 and wages amounted to \$4,682,667 as compared with corresponding figures of \$1,423,011 and \$4,197,693 respectively in the previous year.

**Table 203.—Average Number of Employees, Salaries and Wages Paid in the Hardware and Tools Industry in Canada, by Provinces, 1924 and 1925**

Province	Average number of employees					Salaries and wages		
	Salaried employees		Wage-earners		Total	Salaries	Wages	Total
	Male	Female	Male	Female				
<b>1924</b>						\$	\$	\$
Nova Scotia.....	8	3	74	3	88	16,137	71,288	87,425
New Brunswick.....	7	2	31		40	13,038	27,989	41,027
Quebec.....	124	48	809	310	1,291	342,806	982,408	1,325,214
Ontario.....	352	172	2,913	342	3,779	1,040,152	3,087,044	4,127,196
British Columbia.....	5	2	25	1	33	10,878	28,964	39,842
<b>Canada.....</b>	<b>496</b>	<b>227</b>	<b>3,852</b>	<b>656</b>	<b>5,231</b>	<b>1,423,011</b>	<b>4,197,693</b>	<b>5,620,704</b>
<b>1925</b>								
Nova Scotia.....	6		60	5	71	12,700	61,120	73,820
New Brunswick.....	6	2	30		38	12,739	27,432	40,171
Quebec.....	140	48	790	337	1,315	387,526	978,212	1,365,738
Ontario.....	348	172	3,156	380	4,056	1,078,450	3,570,727	4,649,177
British Columbia.....	5	2	39	2	48	10,843	45,176	56,019
<b>Canada.....</b>	<b>505</b>	<b>224</b>	<b>4,075</b>	<b>724</b>	<b>5,528</b>	<b>1,502,258</b>	<b>4,682,667</b>	<b>6,184,925</b>

**Table 204.—Number of Wage-Earners Employed in the Hardware and Tools Industry in Canada by Months, 1924 and 1925**

Month	1924			1925		
	Male	Female	Total	Male	Female	Total
January.....	4,052	686	4,738	3,841	663	4,504
February.....	4,017	702	4,719	4,019	644	4,663
March.....	4,040	693	4,733	4,134	693	4,827
April.....	4,084	692	4,776	4,128	687	4,815
May.....	3,983	660	4,643	4,234	699	4,933
June.....	3,819	627	4,446	4,143	692	4,835
July.....	3,736	630	4,366	4,002	689	4,691
August.....	3,685	614	4,299	3,866	719	4,585
September.....	3,686	625	4,311	3,946	758	4,704
October.....	3,705	633	4,338	3,983	778	4,761
November.....	3,635	643	4,278	4,026	818	4,844
December.....	3,650	641	4,291	4,027	893	4,920
<b>Average.....</b>	<b>3,852</b>	<b>656</b>	<b>4,508</b>	<b>4,075</b>	<b>724</b>	<b>4,799</b>

**Table 205.—Hours of Labour (in Month of Greatest Employment) in the Hardware and Tools Industry in Canada, by Provinces, 1925**

Province	Number of wage-earners working				Hours worked per man per week, when working			
	8 hours or less per day	9 hours	10 hours	Over 10 hours	8 hours or less per day	9 hours	10 hours	Over 10 hours
Nova Scotia.....	10	65	15		48	50	55	
New Brunswick.....	7	25			44	43		
Quebec.....	66	630	670	11	42	44	55	84
Ontario.....	1,029	2,171	725	47	44	50	62	71
British Columbia.....	49				44			

Table 206.—Fuel and Electricity Used in the Hardware and Tools Industry in Canada, 1924 and 1925

Kind	Unit of measure	1924		1925	
		Quantity	Value	Quantity	Value
		No.	\$	No.	\$
Anthracite coal.....	short ton	4,937	58,218	4,539	48,314
Bituminous coal.....	short ton	17,980	126,436	17,600	125,793
Lignite coal.....	short ton	1	9		
Coke.....	short ton	2,728	29,355	2,501	26,967
Fuel oil.....	gallon	1,294,538	120,827	1,234,012	128,235
Gasoline.....	gallon	7,297	2,291	6,689	1,928
Gas.....	M cu. ft.	43,158	22,310	38,856	24,307
Wood.....	cord	450	2,526	353	2,581
Other fuel.....			423		973
Electric power.....	k.w.h.	7,426,448	165,735	8,667,050	174,215
<b>Total</b> .....			<b>526,130</b>		<b>532,313</b>

Table 207.—Power Equipment Employed in the Hardware and Tools Industry in Canada, 1924 and 1925

Kind	1924		1925	
	Number of units	Total h.p. according to manufacturers' rating	Number of units	Total h.p. according to manufacturers' rating
Steam engines and turbines.....	10	911	10	911
Gas engines.....	1	18	1	18
Oil and gas-oil engines.....	2	54		
Hydraulic turbines or water wheels.....	18	1,510	18	1,306
<b>Total primary power</b> .....	<b>31</b>	<b>2,493</b>	<b>29</b>	<b>2,235</b>
Electric motors, operated by purchased power.....	724	11,475	846	12,400
<b>Total power equipment employed</b> .....	<b>755</b>	<b>13,968</b>	<b>875</b>	<b>14,635</b>
Electric motors operated by primary power of the industry.....	20	350	35	392
<b>Total electric motors</b> .....	<b>744</b>	<b>11,825</b>	<b>881</b>	<b>12,792</b>
Boilers installed.....	55	3,493	57	4,103

**Materials Used.**—Materials used in the hardware and tools industry in 1925 cost \$5,950,922 delivered at the works or a million dollars above the figure for 1924. Increases were noticeable in the consumption of steel, brass, malleable iron, manufactured articles purchased and shipping containers. A list of the principal materials are shown in the following table. For the total consumption of any material in the iron and steel industries, reference should be made to Table 29 of this report.

Table 208.—Materials Used in the Hardware and Tools Industry in Canada, 1924 and 1925

Item	Unit of measure	1924		1925	
		Quantity	Cost at works	Quantity	Cost at works
Bolts, nuts, rivets and screws.....			\$ 126,615		\$ 141,514
Handles.....			391,473		404,473
Leather.....			32,804		
<b>Metals—</b>					
Brass.....	lb.	426,319	79,916	883,309	248,902
Brass and bronze castings.....	lb.	141,214	27,086	174,787	35,937
Iron pig.....	long ton	1,968	61,323	2,262	65,620
Iron, malleable.....	lb.	1,626,539	128,332	4,395,810	224,550
Iron, castings.....	lb.	2,077,324	60,883	1,271,584	62,308
Iron, other.....	lb.	5,967,317	130,988	10,151,038	235,247
Steel, tool.....	lb.	3,164,150	400,069	2,560,974	359,995
Steel, castings.....	lb.	1,505,260	149,914	125,990	5,508
Steel, other.....	lb.	45,650,539	1,497,807	55,874,304	1,935,220
Wire, of iron or steel.....	lb.	9,694,289	388,327	14,378,678	399,148
Other metals.....			117,539		72,610
Parts, purchased for machines and tools.....			62,507		74,362
Paints, oils and varnishes.....			25,874		29,876
Wood and lumber.....	M ft. b.m.	1,181	74,381	1,821	98,908
Other manufactured supplies purchased.....			324,376		431,815
Shipping containers.....			138,489		202,361
Other materials used.....			705,427		922,378
<b>Total</b> .....			<b>4,933,120</b>		<b>5,950,922</b>

**Products.**—The selling value of all products made in this industry during 1925 reached a total of \$17,882,650, an increase of 2.3 million dollars over the value for the preceding year. Bolts, nuts and rivets were worth \$3,001,593; safety razors, blades and strops were valued at \$1,672,061; saws and parts at \$1,647,456; spades, shovels, forks, hoes, rakes and similar implements at \$1,653,990; builders' hardware at \$1,472,314; axes at \$543,527; files and rasps at \$418,136; and other products as shown in the following table. Many commodities in this group were reported by only 1 or 2 firms and cannot, therefore, be itemized separately in the table.

There was also a considerable production of hardware and tools in other industries; for the complete production of any commodity in the iron and steel industry, reference should be made to Table 30.

**Table 209.—Products of the Hardware and Tools Industry of Canada, 1924 and 1925**

Item	Unit of measure	1924		1925	
		Quantity	Selling value at works	Quantity	Selling value at works
			\$		\$
Auto accessories.....			105,625		246,567
Bolts, nuts and rivets.....	keg of 100 lb.	373,632	2,585,453	448,204	3,001,593
Castings:—					
Brass and bronze.....	lb.	4,800	1,700	7,000	2,350
Iron.....	lb.		31,207	135,000	10,750
Other.....			512		
Cutlery:—					
Utility knives.....	No.			41,581	11,005
Razor blades.....	No.	20,680,382	1,262,312	21,455,556	1,265,372
Razors, safety.....	No.	371,923	144,454	836,471	289,178
Razors, sets and strops.....			110,585		117,511
Other cutlery.....			7,987		17,718
Hardware:—					
Builders'.....			2,023,238		1,472,314
Carriage and saddlery.....			342,204		347,963
Other hardware.....			461,570		777,338
Implements:—					
Forks.....	No.	584,724	525,367	687,326	563,503
Hoes.....	No.	158,148	97,681	177,096	123,109
Peevees, canthooks and other logging tools.....			235,226		181,260
Rakes.....	No.	192,756	120,429	237,000	134,384
Other implements including scythes, spades and shovels, etc.....			669,139		651,734
Metal stampings.....			82,714		660,061
Nails, and tacks (cut and wire).....			164,488		158,172
Needles, knitting machine.....					461,463
Pins.....					142,885
Saws of all kinds.....			1,454,469		1,396,134
Saw parts.....			180,775		251,322
Screws and bolts.....			551,146		531,821
Skates.....	pair			111,527	168,697
Tools, edged:—					
Axes.....	No.	539,494	559,802	396,406	543,527
Machine knives.....	No.	107,531	216,670	85,274	188,167
Tools and parts:—					
Dies, taps and stocks.....			216,243		283,878
Drills of all kinds.....			276,019		343,721
Files and rasps.....	No.			209,675	418,136
Machine tools.....			44,869		72,653
Wrenches and spanners.....	No.	528,704	158,611		75,877
Other tools and parts including anvils, vises, hammers, etc.....			1,170,540		542,281
Containers.....					13,760
Received for custom and repair work.....			141,382		50,105
All other products.....			453,391		333,016
*Products of 1 or 2 firms.....			1,174,362		2,018,325
<b>Total.....</b>			<b>15,570,170</b>		<b>17,882,650</b>

\*Includes game traps, pumps, lawn mowers, furnaces, school desks, castors, anchors, pneumatic tools, axles, screw machine products, curtain rods, phonograph motors, chains and bathroom fixtures, diamond pointed tools, pins, hooks, eyes and fasteners, chains, fishing tackle, ball bearings, chains and other similar products.



Table 210.—Imports into Canada and Exports of Hardware and Cutlery, 1924 and 1925

Item	1924		1925	
	Quantity	Value	Quantity	Value
		\$		\$
<b>IMPORTS</b>				
<b>CUTLERY—</b>				
Knives and forks of steel, plated or not, n.o.p.		404,686		486,381
Pen-knives, jack-knives and pocket-knives of all kinds		424,234		313,416
Razors of all kinds		103,426		98,081
Safety razor blades	doz.		124,058	41,603
Scissors and shears, n.o.p.		156,117		172,211
All other cutlery, n.o.p.		315,848		283,913
<b>BUTTS AND HINGES—</b>				
Butts and hinges, n.o.p.		147,440		127,510
T and strap hinges of all kinds, n.o.p., and hinge blanks	cwt. 994	9,421	2,072	17,901
<b>NAILS, SPIKES AND TACKS—</b>				
Nails and spikes, composition and sheathing nails	lb. 15,349	1,212	23,512	1,267
Nails and spikes, cut, ordinary builders'	cwt. 1,768	6,753	1,618	6,296
Nails, wire, of all kinds, n.o.p.	cwt. 6,957	37,967	23,029	79,476
Railway spikes	cwt. 4,966	17,336	5,272	16,955
Tacks, shoe	lb. 207	65	1,439	270
Nails, brads, spikes and tacks of all kinds, n.o.p.	lb. 117,426	16,533	184,678	23,598
<b>NEEDLES AND PINS—</b>				
Needles of any material or kind, n.o.p.		274,056		264,357
Pins, n.o.p., of metal		88,962		69,196
<b>SCREWS, NUTS, RIVETS AND BOLTS—</b>				
Nuts, washers, rivets and bolts, with or without threads, nut and bolt blanks	cwt. 25,177	297,316	27,701	303,675
Screws, lag or coach, plated or not, machine or other screws, n.o.p.		92,946		77,136
Screws, commonly called 'wood screws,' n.o.p., of iron, steel, brass or other metal		31,106		40,901
<b>OTHER HARDWARE, N.O.P.—</b>				
Fish hooks for deep-sea or lake fishing, not smaller in size than No. 2-0, not including hooks commonly used for sportmen's purposes		26,932		32,530
Locks of all kinds		339,042		349,986
Skates of all kinds, roller or other, and parts thereof	pair 56,047		18,956	41,660
Hardware, viz.: builders', cabinetmakers', upholsterers' and carriage hardware		415,409		510,502
<b>Total</b>		<b>3,262,944</b>		<b>3,367,941</b>
<b>EXPORTS</b>				
Razors of all kinds		1,195,311		1,573,791
Cutlery, n.o.p.		680		2,699
Wire nails	cwt. 71,670	291,568	68,606	254,709
Nails, brads, spikes and tacks of iron and steel of all kinds, n.o.p.	cwt. 23,613	146,602	37,983	214,102
Needles and pins of all kinds		163,212		212,727
Bolts and nuts of iron and steel	cwt. 14,445	94,894	13,974	85,073
Screws of iron and steel, of all kinds		9,090		5,048
Skates	pair		39,070	91,918
Hardware, n.o.p.		201,469		146,554
<b>Total</b>		<b>2,102,826</b>		<b>2,586,621</b>

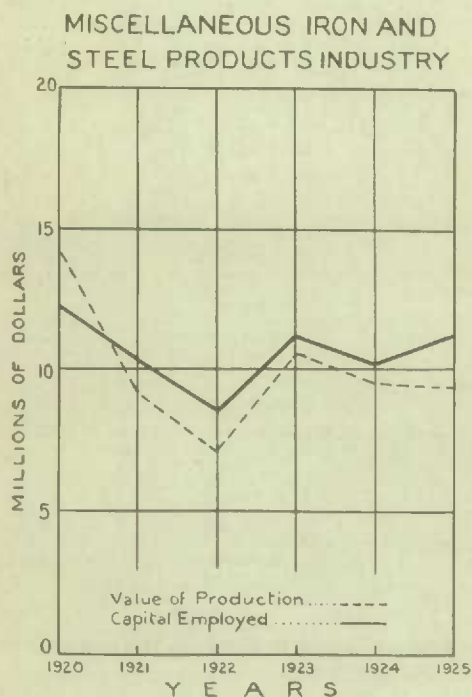
Table 211.—Imports into Canada and Exports of Tools and Hand Implements, 1924 and 1925

	1924		1925	
	Quantity	Value	Quantity	Value
		\$		\$
<b>IMPORTS—</b>				
Anvils and vises		73,070		91,399
Augers, bits and drills		82,405		102,697
Axes	doz. 3,423	30,907	3,007	30,344
Files and rasps, n.o.p.		184,442		188,041
Saws		106,876		111,936
Tools, hand, of all kinds, n.o.p.		1,180,365		1,387,787
<b>Total</b>		<b>1,664,065</b>		<b>1,912,204</b>
<b>EXPORTS—</b>				
Tools, hand or machine, n.o.p.		310,760		281,256
<b>Total</b>		<b>310,760</b>		<b>281,256</b>

## CHAPTER FOURTEEN

## MISCELLANEOUS IRON AND STEEL PRODUCTS

**General.**—This industrial group includes those plants in Canada engaged in the production of iron and steel products such as fabricated steel shapes, ornamental and architectural iron work of all kinds, safes, vaults and fittings, beds and springs, railway track equipment, frogs and switches, and many other commodities which do not naturally fall in any of the other classified industries. In 1925, the 65 operating establishments listed in this group were located as follows: 42 in Ontario, 17 in Quebec, 3 in Manitoba, 2 in British Columbia and 1 in Alberta. These



plants represented a capital investment of \$11,069,342 and afforded employment to an average of 2,363 persons to whom \$3,236,948 were paid in salaries and wages. Materials used cost \$4,204,108 and the selling value of products was \$9,397,208; thus, the value added by the manufacturing processes was \$5,193,100.

As compared with 1924 there was a net gain of 6 operating plants. Returns were received from 3 new plants in Ontario but 3 others in that province did not operate during the year, so the number of active concerns in that province was unchanged; but 5 new plants in Quebec and 1 in Manitoba were placed on the Bureau's list in 1925. Capital employed showed but little change from the figure reported in the preceding year, the number of employees was less by 100, and the value of production at \$9,397,208 was about 2 per cent below the output value for 1924.

Of the 65 firms in this industry only 4 reported a production valued at more than half a million dollars each; 10 other concerns each had outputs valued at more than a quarter of a million dollars; the outputs of 12 others each exceeded \$100,000 in value; 10 more were each above \$50,000; 8 others above \$25,000; 12 others above \$10,000, while 9

plants in this industry each produced commodities valued in the aggregate at less than \$10,000.

According to the number of employees the active firms in 1925 were grouped as follows: under 10 employees, 22 firms; 10 to 25 employees, 16 plants; 25 to 50 employees, 13 concerns; 50 to 100 employees, 6 concerns; 100 to 200 employees, 6 plants; while only 2 plants employed an average of more than 200 persons in each.

Production in this group included a considerable variety of commodities. Safes, vaults, and fittings were made in 4 plants, beds and springs in 3 plants, steel stable equipment in 2 plants, ornamental and architectural ironwork of various kinds in 25 different plants, steel shapes in 12 different establishments, while the following commodities were, in each case, the product of a single concern; horseshoes and calks, steam traps, gunsights, fuel saving jackets for boilers, fireplaces, shoe shanks of steel and fibre, steel hospital furniture, and steel burial vaults.

**Table 212.—Summary Statistics of the Miscellaneous Iron and Steel Products Industry in Canada, 1921-1925**

Year	No. of plants	Capital employed	No. of employees	Salaries and wages	Cost of fuel and electricity	Cost of materials	Selling value of products	Value added by manufacturing
		\$		\$	\$	\$	\$	\$
1921.....	52	10,288,526	2,575	3,425,449	104,873	4,032,935	9,349,750	5,316,815
1922.....	47	8,471,681	1,872	2,513,216	85,569	3,039,721	7,127,392	4,037,671
1923.....	57	11,119,418	2,650	3,442,650	152,051	4,570,402	10,508,307	5,937,905
1924.....	59	10,089,156	2,468	3,296,891	133,780	4,114,079	9,619,239	5,505,160
1925.....	65	11,069,342	2,363	3,236,948	136,547	4,204,108	9,397,208	5,193,100

\*Electricity not included prior to 1923.

**Table 213.—Principal Statistics of the Miscellaneous Iron and Steel Products Industry in Canada, by Provinces, 1924 and 1925**

Province	1924				1925			
	Number of plants	Number of employees	Salaries and wages	Selling value of products	Number of plants	Number of employees	Salaries and wages	Selling value of products
			\$	\$			\$	\$
Quebec.....	12	491	652,856	2,047,719	17	417	586,088	2,123,100
Ontario.....	42	1,655	2,178,777	6,220,306	42	1,662	2,243,690	6,189,045
Manitoba.....					3	244	342,763	809,583
<b>*Canada.....</b>	<b>59</b>	<b>2,468</b>	<b>3,296,891</b>	<b>9,619,239</b>	<b>65</b>	<b>2,363</b>	<b>3,236,948</b>	<b>9,397,208</b>

\*Includes data for 2 plants in Manitoba, 1 in Alberta, and 2 in British Columbia, in 1924 and for 1 plant in Alberta and 2 in British Columbia in 1925.

**Capital Employed.**—Capital employed in the miscellaneous iron and steel products industry in 1925 amounted to \$11,069,342, an increase of almost a million dollars over the figure for 1924. Lands, buildings and equipment at a total valuation of \$6,103,120 showed an increase of \$621,983; inventories of stocks on hand and in process at \$2,648,057 were higher by \$168,396; and the value of cash, trading and operating accounts at \$2,318,165 was also slightly above the figure for 1924.

Capital employed in Ontario's plants amounted to \$7,270,014 which was an increase of \$682,975 over 1924; investment in the 17 establishments in Quebec at \$1,579,150 showed but little change; while the plants in Manitoba, Alberta and British Columbia, accounted for \$2,220,178.

**Table 214.—Capital Employed in the Miscellaneous Iron and Steel Products Industry in Canada, by Classes and by Provinces, 1924 and 1925**

Province	1924				1925			
	Capital employed as represented by				Capital employed as represented by			
	Lands, buildings, fixtures, machinery and tools	Materials on hand and stocks in process	Cash trading and operating accounts	Total	Lands, buildings, fixtures, machinery and tools	Materials on hand and stocks in process	Cash trading and operating accounts	Total
	\$	\$	\$	\$	\$	\$	\$	\$
Quebec.....	643,584	432,913	508,679	1,585,176	694,816	498,590	395,744	1,579,150
Ontario.....	3,532,443	1,686,384	1,308,212	6,527,039	4,092,686	1,648,623	1,528,705	7,270,014
Manitoba.....					1,111,434	361,484	311,795	1,784,713
<b>*Canada..</b>	<b>5,491,137</b>	<b>2,479,661</b>	<b>2,128,358</b>	<b>10,099,156</b>	<b>6,103,120</b>	<b>2,648,057</b>	<b>2,318,165</b>	<b>11,069,342</b>

\*Includes data for 2 firms in Manitoba, 1 in Alberta and 2 in British Columbia in 1924 and for 1 plant in Alberta and 2 in British Columbia in 1925.

**Employment.**—The 65 plants in this industrial group gave employment to an average of 2,363 persons the year round, of whom 514 were on salaries and 1,849 earning wages. Plants in Ontario gave employment to 1,662 people; in Quebec, 417; in Manitoba, 244; and in British Columbia and Alberta, 40. In the previous year, 1924, salaried employees numbered 498 and wage-earners averaged 1,970 making a total of 2,468, of whom 1,655 were employed in Ontario and 491 in Quebec.

Payments for salaries and wages totalled \$3,236,948 in 1925 as against \$3,296,891 in the preceding year. In each year the payroll for Ontario totalled about 2·2 million dollars.

Monthly records of employment, which include only those persons paid on a daily or hourly basis, show that 1,772 wage-earners were working in January and a minimum of 1,641 in March; the number then increased gradually to reach a maximum of 1,971 in October, and then declined slightly to 1,879 in December. The average for the year was 1,849, of whom 1,804 were males and 45 were female workers.

**Table 215.—Average Number of Employees, Salaries and Wages Paid in the Miscellaneous Iron and Steel Products Industry in Canada by Provinces, 1924 and 1925**

Province	Average number of employees				Salaries and wages		
	Salaried employees		Wage-earners		Total	Salaries	Wages
	Male	Female	Male	Female			
<b>1924</b>						\$	\$
Quebec.....	63	14	413	1	491	186,422	466,434
Ontario.....	303	66	1,249	37	1,655	696,101	1,482,676
<b>*Canada.....</b>	<b>407</b>	<b>91</b>	<b>1,932</b>	<b>38</b>	<b>2,468</b>	<b>1,035,408</b>	<b>2,261,483</b>
<b>1925</b>							
Quebec.....	62	12	341	2	417	142,265	444,723
Ontario.....	298	68	1,253	43	1,662	758,575	1,485,115
Manitoba.....	55	12	177		244	145,400	197,363
<b>*Canada.....</b>	<b>421</b>	<b>93</b>	<b>1,804</b>	<b>45</b>	<b>2,363</b>	<b>1,064,208</b>	<b>2,172,740</b>

\*In 1924, totals include also data for 2 plants in Manitoba, 2 in British Columbia and 1 in Alberta; in 1925 totals also include data for 2 plant in British Columbia and 1 in Alberta.

**Table 216.—Number of Wage-Earners Employed in the Miscellaneous Iron and Steel Products Industry in Canada, by Months, 1924 and 1925**

Month	1924			1925		
	Male	Female	Total	Male	Female	Total
January.....	1,776	43	1,819	1,729	43	1,772
February.....	1,723	40	1,763	1,712	43	1,755
March.....	1,773	41	1,814	1,596	45	1,641
April.....	1,839	40	1,879	1,658	45	1,703
May.....	1,984	37	2,021	1,743	48	1,791
June.....	2,077	37	2,114	1,851	47	1,898
July.....	2,065	35	2,100	1,866	47	1,913
August.....	2,059	40	2,099	1,869	47	1,916
September.....	2,106	39	2,145	1,868	48	1,916
October.....	2,043	38	2,079	1,923	48	1,971
November.....	1,876	36	1,912	1,808	48	1,856
December.....	1,784	32	1,816	1,833	46	1,879
<b>Average.....</b>	<b>1,932</b>	<b>38</b>	<b>1,970</b>	<b>1,804</b>	<b>45</b>	<b>1,849</b>



**Table 217.—Hours of Labour (in Month of Greatest Employment) in the Miscellaneous Iron and Steel Products Industry in Canada, by Provinces, 1925**

Province	Number of wage-earners working				Hours worked per man per week when working			
	8 hours or less per day	9 hours	10 hours	Over 10 hours	8 hours or less per day	9 hours	10 hours	Over 10 hours
Quebec.....	156	213	103	82	44	50	55	72
Ontario.....	331	719	356	82	41	50	56	66
Manitoba.....	13	218			40	52		
Alberta.....	2				44			
British Columbia.....	35				46			

**Table 218.—Fuel and Electricity Used in the Miscellaneous Iron and Steel Products Industry in Canada, 1924 and 1925**

Kind	Unit of measure	1924		1925	
		Quantity	Value	Quantity	Value
		No.	\$	No.	\$
Anthracite coal.....	short ton	437	6,483	507	6,819
Bituminous coal.....	short ton	3,674	33,002	3,528	30,752
Lignite coal.....	short ton	1,234	7,703	888	5,896
Coke.....	short ton	862	6,960	931	11,006
Fuel oil.....	gallon	116,934	12,912	76,080	9,922
Gasoline.....	gallon	22,058	5,931	29,202	8,119
Gas.....	M. cu. ft.	1,641	1,681	2,167	2,110
Wood.....	cord	94	473	150	831
Other fuel.....					586
Electric power.....	k.w.h.	2,964,897	58,635	3,075,777	60,506
<b>Total.....</b>			<b>133,780</b>		<b>136,547</b>

**Table 219.—Power Equipment Employed in the Miscellaneous Iron and Steel Products Industry in Canada, 1924 and 1925**

Kind	1924		1925	
	Number of units	Total h.p. according to manufacturers' rating	Number of units	Total h.p. according to manufacturers' rating
Steam engines and turbines.....	3	70	3	70
Gas engines.....	1	3		
Oil and gasoline engines.....	1	30	2	33
<b>Total primary power.....</b>	<b>5</b>	<b>103</b>	<b>5</b>	<b>103</b>
Electric motors operated by purchased power.....	666	6,375	474	7,164
<b>Total power equipment employed.....</b>	<b>671</b>	<b>6,478</b>	<b>479</b>	<b>7,267</b>
Electric motors operated by primary power of the industry.....	3	11	5	33
<b>Total electric motors.....</b>	<b>669</b>	<b>6,386</b>	<b>479</b>	<b>7,197</b>
Boilers installed.....	18	951	16	1,073

**Materials Used.**—Materials used in the miscellaneous iron and steel group in 1925 cost \$4,204,108 delivered at the works. Iron and steel in its various unfinished forms made up the larger part of the total. Steel plates and sheets cost \$1,094,051; steel bars and shafting, \$431,593; and other forms of steel including castings, rods and wire ingots, blooms, etc., \$314,972; pig iron was valued at \$18,280, other iron \$101,739; scrap at \$26,347; and miscellaneous iron and steel at \$891,595. Non-ferrous metals used during the year cost \$165,579; manufactured articles such as iron pipe, bolts, nuts, etc., \$389,599; and miscellaneous materials, \$770,353.

**Table 220.—Materials Used in the Miscellaneous Iron and Steel Products Industry in Canada, 1924 and 1925**

Item	Unit of measure	1924		1925	
		Quantity	Cost at works	Quantity	Cost at works
			\$		\$
<b>Iron and steel—</b>					
Pig iron.....	long ton	639	18,621	681	18,280
Wrought iron and skelp.....	short ton	278	15,693	351	21,513
Malleable iron.....	short ton	513	49,912	89	16,764
Iron castings.....	short ton	1,260	154,846	555	63,462
Steel castings.....	short ton	335	48,965	207	19,186
Steel ingots, blooms and billets.....	short ton	123	23,401	3,056	154,486
Steel bars and shafting.....	short ton	5,107	306,358	7,359	431,593
Steel plates and sheets.....	short ton	12,346	888,817	18,864	1,094,051
Steel rods and wire.....	short ton	1,216	73,987	2,455	141,300
Scrap.....	short ton	1,123	22,115	1,038	26,347
Other iron and steel.....			1,357,005		891,595
<b>Other metals—</b>					
Aluminium.....	lb.	3,981	1,131	4,150	1,119
Brass and bronze castings.....	lb.	83,845	25,072	110,269	32,924
Copper.....	lb.	91,263	15,830	67,629	9,807
Lead.....	lb.	8,115	706	16,478	2,028
Tin.....	lb.	2,451	1,286	6,794	3,001
Zinc.....	lb.	35,815	2,787	37,658	3,393
Babbitt metals and solders.....	lb.	7,700	2,125	2,499	744
Other metals.....			27,735		112,563
<b>Articles used for further manufacture—</b>					
Iron pipe, tubes and fittings.....			191,956		214,981
Bolts, nuts, rivets and screws.....			111,148		101,202
Electrical goods.....			2,407		9,572
Other articles of this class.....			58,392		63,844
<b>Other materials—</b>					
Moulding and other sands.....	short ton	350	2,959	496	2,905
Foundry facings.....	lb.	14,514	1,528		777
Patterns and models.....			6,357		4,323
Lumber.....	M. ft. b.m.	749	38,180	586	32,032
Shipping containers.....			24,971		22,006
All other materials.....			639,791		708,310
<b>Total.....</b>			<b>4,114,079</b>		<b>4,204,108</b>

**Products.**—The value of production by all firms listed in the miscellaneous iron and steel products industry declined to \$9,397,208 as compared with \$9,619,239 in 1924 and \$10,508,307 in 1923, but marked an increase over the output values of \$7,127,392 in 1922 and \$9,349,750 in 1921. Output of beds and bed springs in 1925 was valued at \$1,036,797; fabricated structural steel shapes had a selling value of \$3,054,805; safes, vaults and fittings sold for \$666,558; sheet metal cabinets, boilers and tanks, \$616,121; metal sash, \$425,188; iron stairs, \$420,475; fire escapes, \$87,640; iron fence and railing, \$126,415; and other ornamental and architectural ironwork, \$657,000. Production data given in this chapter do not necessarily represent the entire output of these commodities in Canada as similar commodities may be made by firms classified in other industries; for complete information for the iron and steel industries reference should be made to Table 30.

**Table 221.—Products of the Miscellaneous Iron and Steel Products Industry in Canada, 1924 and 1925**

Item	Unit of measure	1924		1925	
		Quantity	Selling value	Quantity	Selling value
			\$		\$
Beds, brass and brass trimmed.....	No.	4,373	60,250	2,800	40,963
Beds, iron.....	No.	80,420	770,529	89,899	869,043
Bed springs.....	No.	36,014	131,433	36,014	126,191
Bolts, nuts and rivets.....	100 lb. keg	160	1,000		14,700
Castings—					
Brass.....	lb.	11,400	3,424	46,060	9,212
Iron.....	lb.	433,600	39,954	891,450	71,356
Steel.....	lb.	839,800	125,957		10,000
Fabricated structural steel shapes.....	short ton	31,345	3,236,984	41,092	3,054,805
Grate bars.....	lb.		300	119	1,477
Hardware.....			3,200		6,000
Iron pipe and fittings.....			2,300		2,300
Ornamental and architectural ironwork—					
Fire escapes.....			76,255		87,640
Iron fence and railing.....			154,746		126,415
Iron stairs.....			297,379		420,475
Metal sash.....			572,622		425,188
Other ornamental and architectural ironwork.....			1,043,704		657,000
Railway frogs, switches and other track equipment.....			528,919		271,570
Safes, vaults and fittings.....			772,837		666,558
Sheet metal products, including cabinets, lockers, tanks...			348,681		616,121
Transmission machinery, gears, etc.....			44,891		136,461
Other machinery and parts.....			273,515		117,163
Amount received for custom work and repairs.....			375,197		483,088
*Products reported by only 1 or 2 firms.....			336,927		1,052,451
All other products.....			418,235		130,431
<b>Total.....</b>			<b>9,619,239</b>		<b>9,397,208</b>

\*Includes horseshoes and horseshoe calks, steel, and fibre shanks, steel hospital equipment, gasoline locomotives, lumber carriers, elevator equipment, dredging machinery, mining tippie, coaling plant, metal covered doors, fireplaces, wire cloth and guards, electric fixtures, factory trucks, auto tire gunights, fuel saving jackets for boilers, steam traps, hand pumps, wire and iron fence gates, aeroplanes, and various other products not listed on the regular schedules.

Table 222.—Imports into Canada and Exports of Other Iron and Its Products, n.e.s., 1924 and 1925

	1924		1925	
	Quantity	Value	Quantity	Value
		\$		\$
Imports—				
Anchors for vessels.....cwt.	3,415	26,071	6,751	44,630
Articles which enter into the cost of the manufacture of goods (chiefly agricultural implements) enumerated in tariff items 445, 446, 446b, 447b, 448 and 591, when imported by manufacturers of such goods for use in such manufacture—(From April 11, 1924).....		670,823		1,776,055
Balls, steel, adapted for use on bearings of machinery and vehicles.....		60,045		81,020
Bayonets, swords, fencing foils and masks.....		5,168		5,531
Cream separator materials, which enter into the construction and form part of cream separators, when imported by manufacturers of cream separators, to be used in the manufacture thereof, and articles of metal for use in the manufacture of cream separator parts.....		242,572		488,404
Drums, cylinders, barrels and tanks of iron and steel, n.o.p.....		591,200		634,917
Furniture, house, office, cabinet or store, of metal in parts or finished.....		452,901		424,814
Gas buoys—articles for the manufacture of gas buoys and gas beacons for the Government of Canada, or for export.....		23,730		8,901
All materials or parts in the rough unfinished and screws, nuts, bands and springs and stud for rough unfinished parts to be used in rifles to be manufactured for the Government of Canada.....		297		347
Gun barrels in single tubes, forged rough bored.....		787		
Guns, rifles, including air guns and air rifles (not being toys) muskets, cannons, pistols, revolvers, or other firearms.....		419,948		366,281
Horse, mule and ox shoes.....		33,849		34,674
Knife blades or blanks, and table forks of iron or steel in the rough, not handled, filed, ground or otherwise manufactured.....		10,987		10,337
Magic lanterns and slides therefor.....		38,526		39,662
Metal parts adapted for the manufacture of covered buttons.....		14,204		20,773
Mould boards or shares or plough plates, land slides and other plates for agricultural implements, when cut to shape from rolled plates of steel, but not moulded, punched, polished or otherwise manufactured.....cwt.	22,412	123,359	62,111	309,834
Pumps, hand, n.o.p.....No.	15,827	235,753	25,924	516,202
Railway fish-plates.....cwt.	16,672	70,508	20,914	80,838
Railway tie-plates.....cwt.	68,118	192,454	43,197	100,347
Ribs of brass, iron or steel, runners, rings, caps, notches, ferrules, mounts and sticks or canes in the rough, or not further manufactured than cut into lengths suitable for umbrella, parasol or sunshade or walking sticks, when imported by manufacturers of such articles, for use exclusively in their own factories.....		194,240		191,882
Safes and doors for safes and vaults.....		103,754		110,866
Switches, frogs, crossings and intersections for railways.....		123,620		104,501
Saw or smoothing hatters' and tailors' irons, not plated.....		898		1,121
Scales, balances, weighing beams and strength testing machines of all kinds.....		149,661		243,684
Spade and shovel blanks, and iron and steel cut to shape for the same.....doz.			25	149
Steel wool.....		28,534		36,360
Stoves of all kinds, for coal, wood, oil, spirits or gas.....		357,759		372,579
Stove urns of metal, and dovetails, chaplet and hinge tubes of tin, for use in the manufacture of stoves.....		22,242		20,215
Valves, n.o.p.....		502,795		584,528
Window shade or blind rollers.....		32,304		20,379
Manufactured articles of iron or steel or brass, which at the time of their importation are of a class or kind not made in Canada, imported for use in construction or equipment of ships or vessels.....		817,621		1,274,580
Manufactures, articles or wares of iron or steel, or of which iron and steel (or either) are the component materials of chief value, n.o.p.....		8,448,876		8,355,439
<b>Total.....</b>		<b>13,995,495</b>		<b>16,268,850</b>
Exports—				
Chains of iron and steel.....		111,598		104,552
Furniture of metal.....		47,859		84,003
Lamps and lanterns of metal.....		52,068		84,789
Scales and weighing beams.....		35,140		71,088
Shingles, laths and corrugated roofing, metallic.....		16,526		12,427
Stoves of all kinds.....		133,169		118,679
All other manufactures of iron and steel, n.o.p.....		1,044,213		1,089,108
<b>Total.....</b>		<b>1,440,579</b>		<b>1,565,646</b>



# **DIRECTORY OF FIRMS IN THE INDUSTRIES CLASSIFIED UNDER IRON AND STEEL AND THEIR PRODUCTS IN CANADA**

NOTE.—In this directory no attempt is made to show all the products of the concerns listed; firms are classified only under the heading which most nearly describes the major part of their production.

Name of Firm	Head Office Address	Location of Plant
<b>Pig Iron and Ferro-Alloys</b>		
NOVA SCOTIA— British Empire Steel Corporation.....	Sydney.....	Sydney.
ONTARIO— Algoma Steel Corporation, Ltd.....	Sault Ste. Marie.....	Sault Ste. Marie.
Canadian Furnace Co.....	1012 Marine Trust Bldg., Buffalo, N.Y., U.S.A.....	Port Colborne. Welland.
Electro Metallurgical Co. of Canada.....	Welland.....	Hamilton.
Steel Co. of Canada.....	Hamilton.....	

## **Steel and Rolled Products**

NOVA SCOTIA— British Empire Steel Corporation.....	Sydney.....	Sydney.
Canadian Car and Foundry Co., Ltd.....	307 Craig St. W., Montreal, Quebec.....	Amherst.
Cumming, J. W., Mfg. Co., Ltd.....	New Glasgow.....	New Glasgow.
QUEBEC— Beauchemin & Fils, Ltd.....	Box 190, Sorel.....	Sorel.
Canadian Brake Shoe and Foundry Co., Ltd.....	354 St. James St., Montreal.....	Sherbrooke.
Canadian National Railway.....	Montreal.....	Pointe St. Charles, Montreal Pointe St. Charles, Montreal
Canadian Steel Foundries, Ltd.....	307 Craig St. W., Montreal.....	Longue Pointe, Montreal.
Grand Trunk Rolling Mills.....	Pte-St. Charles, Montreal.....	Pointe St. Charles.
Hull Iron and Steel Foundries, Ltd.....	207 Montcalm St., Hull.....	Hull.
La Compagnie F. X. Drolet.....	206 rue du Pont, Quebec.....	Quebec.
Manganese Steel Castings.....	Sherbrooke.....	Sherbrooke.
Peck Rolling Mills, Ltd.....	63 Mill St., Montreal.....	Montreal.
Steel Co. of Canada.....	Hamilton, Ont.....	St. Patrick St., Montreal. Notre Dame St., Montreal.
ONTARIO— Algoma Steel Corporation.....	Sault Ste. Marie.....	Sault Ste. Marie.
Canada Electric Castings Co., Ltd.....	Orillia.....	Orillia.
Canadian Horse Shoe Co., Ltd.....	Biggar Ave., Hamilton.....	Hamilton.
Dominion Foundries and Steel Ltd.....	Dewey St., Hamilton.....	Hamilton.
Kennedy, Wm. and Sons.....	Owen Sound.....	Owen Sound.
London Rolling Mill Co., Ltd.....	London.....	London.
Steel Co. of Canada.....	Hamilton.....	Hamilton (2 plants).
Steel Co. of Canada.....	Hamilton.....	Belleville.
Universal Products Ltd.....	Sherman Ave. N. Hamilton.....	Hamilton.
(operating Burlington Steel Co., Ltd.)		
Welland Steel Castings.....	Welland.....	Welland.
MANITOBA— Manitoba Rolling Mill Co., Ltd.....	875 Logan Ave., Winnipeg.....	Saskatoon.
Manitoba Steel Foundries, Ltd.....	907 Transportation Bldg., Winnipeg.....	Saskatoon.
Vulcan Iron Works.....	Pt. Douglas Ave. and Maple St., Winnipeg.....	Winnipeg.
BRITISH COLUMBIA— Vancouver Engineering Works.....	510-6th Ave. W., Vancouver.....	Vancouver.

## **Castings and Forgings**

PRINCE EDWARD ISLAND— Bishop, Geo. and Sons, Ltd.....	Water St., Summerside.....	Summerside.
Parker, A. H.....	Georgetown.....	Georgetown.
Stewart Bruce and Co., Ltd.....	Charlottetown.....	Charlottetown.
NOVA SCOTIA— Cumming, J. W., Mfg. Co., Ltd.....	New Glasgow.....	New Glasgow.
Dartmouth Iron Foundry Co.....	Dartmouth.....	Dartmouth.
Flemming Bros.....	1595-1599 Barrington St., Halifax.....	Halifax.
Frizzell, Alex.....	Mac'atridge's Wharf, Halifax.....	Halifax.
Hillis and Sons, Ltd.....	209-11 Hollis St., Halifax.....	Halifax.
Lloyd Manufacturing Co., Ltd.....	Kentville.....	Kentville.
Lunenburg Foundry Co., Ltd.....	Lunenburg.....	Lunenburg.
Mutheson, I. and Co., Ltd.....	New Glasgow.....	New Glasgow.
McKay and Fraser, Ltd.....	New Glasgow.....	New Glasgow.
Muir, W. and A.....	694-704 Barrington St., Halifax.....	Halifax.
New Glasgow Machine Co.....	New Glasgow.....	New Glasgow.
Oxford Foundry and Machine Co., Ltd.....	Oxford.....	Oxford.

## DIRECTORY OF FIRMS—Continued

Name of Firm	Head Office Address	Location of Plant
<b>Castings and Forgings—Continued</b>		
<b>NOVA SCOTIA—Concluded</b>		
Pictou Foundry and Machine Co., Ltd.	Front St., Pictou.	Pictou.
Quinn, Thomas W.	School St., Liverpool.	Liverpool.
Sydney Foundry and Machine Works, Ltd.	Pitt St., Sydney.	Sydney.
Thompson and Sutherland, Ltd.	North Sydney.	North Sydney.
Verner Engineering and Mfg. Works, Ltd.	Kings Road, Sydney.	Sydney.
Webber, A. A. and Son	King St., Dartmouth.	Dartmouth.
Windsor Foundry and Machine Co., Ltd.	Windsor.	Windsor.
<b>NEW BRUNSWICK—</b>		
Abrams, John, Sons, Ltd.	64 Foundry St., Moncton.	Moncton.
Courtney Iron and Brass Foundry.	Rothsay, Ave., St. John.	St. John.
Dunbar Engine and Foundry Co.	Main St., Woodstock.	Woodstock.
Enterprise Foundry Co., Ltd.	Sackville.	Sackville.
McLennan Foundry and Machine Works, Ltd.	Campbellton.	Campbellton.
Miramichi Foundry and Machine Works.	Water St., Chatham.	Chatham.
Record Foundry and Machine Co.	Moncton.	Moncton.
St. John Iron Works, Ltd.	5 Vuleau St., St. John.	St. John.
Union Foundry and Machine Works.	47 Union St., St. John.	St. John.
Wallace Machine Works, Ltd.	Sussex.	Sussex.
<b>QUEBEC—</b>		
Asbestos Foundry Co., Inc.	Thetford Mines.	Thetford Mines.
Bernier & Bernier.	Vieille Eglise, Co. Lotbinière.	Vieille Eglise.
Belanger, A. Ltd.	Montmagny.	Montmagny.
Belanger, O., Enreg.	1165 rue des Carrières, Montreal.	Montreal.
Boisclair, J.	St. Gabriel de Brandon.	St. Gabriel de Brandon.
Bryden Neverslip Co.	2155 Pius IX Ave., Maisonneuve.	Maisonneuve.
Burnett and Crampton.	27 Tansley St., Montreal.	Montreal.
Canadian Bronze Powder Works, Ltd.	325 Craig St., W. Montreal.	Valleyfield.
Canada Iron Foundries, Ltd.	Mark Fisher Bldg., Montreal.	Three Rivers.
Canadian Tube and Steel Products, Ltd.	107 Hamilton St., Montreal.	Montreal.
Canavan, W. F.	100 Belgrave Ave., Montreal.	Montreal.
Charland, Bernard and Company.	2-4th St., Limoilon, Quebec.	Quebec.
Coghlin Co., B. J., Ltd.	2050 Ontario St. E., Montreal.	Montreal.
Concord Steel Corporation Ltd.	Waterloo.	Waterloo.
Côte Bros. and Burritt.	52 Conde St., Montreal.	Montreal.
Crump Ltd.	386 Beaver Hall Square, Montreal.	Montreal.
Darling Bros, Ltd.	120 Prince St., Montreal.	Montreal.
Davignon, J. and P., Ltd.	1030 Ontario St. E., Montreal.	Montreal.
Décarie Boiler and Incinerator Co.	3328 St. Hubert St., Montreal.	Montreal.
Dejean, Léopold.	492 LaGauchetière St. W., Montreal.	Montreal.
Des Roberts, J. B. & Fils.	44 St. George St., Trois-Rivières.	Trois-Rivières.
Dumas, Octave.	Lacolle.	Lacolle.
Eriez Stove and Manufacturing Co. of Canada.	100 Ottawa St., Montreal.	Montreal.
Farand et Délorne Ltée.	59 St. Martin St., Montreal.	Montreal.
Faustin, A. Ltd.	1525 Moreau St., Montreal.	Montreal.
Fee, John.	107 LaGauchetière St., Montreal.	Montreal.
Garth Co.	28 Craig St. West, Montreal.	Montreal.
General Foundry, Ltd.	Box 289 Windsor East.	Windsor East.
Gurney Foundry Co., Ltd.	500 King St. W., Toronto, Ont.	90 Principal St., St-Laurent, de Montreal.
La Compagnie Bédard, Ltée.	L'Assomption.	L'Assomption
La Compagnie F. X. Drolet.	208 Dupont St., Quebec.	Quebec.
La Compagnie Dussault et Lamoureux.	2 St. Hyacinthe St., St. Hyacinthe.	St. Hyacinthe.
La Compagnie de Machineries Mercier.	17-19-21 rue St. Laurent, Lévis.	Lévis.
La Compagnie Savoie Guay.	Plessisville.	Plessisville.
La Fonderie de l'Islet, Ltée.	L'Islet Station.	L'Islet Station.
La Fonderie, Légaré.	Rue St. Martin, Sherbrooke.	Sherbrooke.
La Fonderie de Roberval.	Roberval.	Roberval.
La Fonderie de Ste-Anselme, Ltée.	Ste. Anselme Station.	Ste. Anselme Station.
La Fonderie de Thetford Ltée.	Rue Notre Dame, Thetford Mines.	Thetford Mines.
La Fonderie Supreme, Ltd.	Pont Rouge.	Pont Rouge.
La Fonderie de Victoriaville, Ltée.	23 rue Notre Dame, Victoriaville.	Victoriaville.
Lamarre et Cie, Ltée.	St. Rémi de Napierville.	St. Rémi de Napierville.
Laperle, Louis.	Box 45, St. Ours, Co. Richelieu.	Richelieu.
Leclaire, Wilfrid.	St. Césaire.	St. Césaire.
Lefebvre, Philibert et Fils.	St. Placide.	St. Placide.
Manganese Steel Castings.	Box 478, Sherbrooke.	Sherbrooke.
Munny, The E. S. Co.	27A Côté St., Montreal.	Montreal.
McOuat, T. and Son.	Lachute Mills.	Lachute Mills.
McSarrat Machine and Foundry, Ltd.	18 rue St. Magloire, Fraserville.	Fraserville.
Mount Royal Foundry Co., Ltd.	116 Ann St., Montreal.	Montreal.
Ouellette et Frère.	St. Léonard d'Aston, Co., Nicolet.	St-Léonard d'Aston.
Paquette et Frères.	Terrebonne.	Terrebonne.
Paquin, Alph.	Joliette.	Joliette.
Paradis, & Fils, Ltée.	276 Craig St. E., Montreal.	Montreal.
Paul Style Studio.	363 Craig St. W., Montreal.	Montreal.
Quebec Brass and Iron Foundries.	57 rue Commercial, Lévis.	Lévis.
Regal Kitchen, Ltd.	3547 Park Ave., Montreal.	Montreal.
Robertsonville Foundry Co., Ltd.	Robertsonville.	Robertsonville.
Rouleau, Ltée.	Mont Joli.	Mont Joli.
Roy & Raymond.	St-Jean.	St-Jean.
St. Lawrence Welding Co., Ltd.	138 Inspector St., Montreal.	Montreal.
Savoie, Alonzo.	Ste. Marie de Beauce.	Ste. Marie de Beauce.

## DIRECTORY OF FIRMS—Continued

Name of Firm	Head Offices Address	Location of Plant
<b>Castings and Forgings—Continued</b>		
<b>QUEBEC—Con.</b>		
Sleeper and Akhurst, Ltd.	Coaticook	Coaticook.
Sorel Mechanical Shops, Ltd.	Sorel	Sorel.
Steel Co. of Canada, Ltd.	Hamilton, Ont.	St. Henry St., Montreal.
Steel Specialties of Canada, Ltd.	1835d Ontario St. E., Montreal	Montreal.
Superheater Co., Ltd.	190 St. James St., Montreal	Sherbrooke.
Terreau et Racine	196 St. Paul St., Quebec	Quebec.
Vapour Car Heating Co.	65 Dalhousie St., Montreal	Montreal.
Viau, M. I. et Fils	St-Jérôme, Co., Terrebonne	St-Jérôme.
Warden King, Ltd.	Bennett Ave., Maisonneuve	Maisonneuve.
<b>ONTARIO—</b>		
Algoma Steel Corporation, Ltd.	Sault Ste. Marie	Sault Ste. Marie.
Anderson, R. and Co.	516 Richmond St. W., Toronto	Toronto.
Angrove Brass and Iron Foundry	Cor. Queen and King St., Kingston	Kingston.
Anthes Foundry, Ltd.	64 Jefferson Ave., Toronto	Toronto.
Armstrong, H. J.	Markdale	Markdale.
Armstrong, Mervin	166 Adelaide St. W., Toronto	Toronto.
Augustine Foundry, Ltd.	225 Queen St. S., Kitchener	Kitchener.
Bain, Jas. and Son	96 Mary St., Hamilton	Hamilton.
Baines, Albert	Petrolia	Petrolia.
Baird, Wm. and Son	568 Dundas St., Woodstock	Woodstock.
Barkey, I. S.	Stouffville	Stouffville.
Bastian Morley, Ltd.	123 Hanson St., Toronto	Toronto.
Beach Foundry Co., Ltd.	95 Broad St., Ottawa	Ottawa.
Beath, W. D. and Son, Ltd.	394 Synington Ave., Toronto	Toronto.
Bingley, W. & Son	42 William St., Cornwall	Cornwall.
Black Machine Shop & Foundry	St. Catharines	St. Catharines.
Bond Engineering Works	Cor. Villiers and Munition Sts., Toronto	Toronto.
Bowman Gas Range Mfg. Co.	10 Ernest Ave., Toronto	Toronto.
Bowmanville Foundry Co., Ltd.	Bowmanville	Bowmanville.
Bradley, Foundry	Walnut St., Paris	Paris.
Brantford Oven and Rack Co., Ltd.	Brock and Campbell Sts., Brantford	Brantford.
Bredanz, Louis and Sons	156 Duke St., Toronto	Toronto.
Brown Engineering Corp., Ltd.	415-419 King St. W., Toronto	Toronto.
Bryant Pattern & Manufacturing Co., Ltd.	201-203 Glengarry Ave., Windsor	Windsor.
Buchanan, F. L.	Orillia	Orillia.
Callender Foundry Co., Ltd.	Guelph	Guelph.
Caloric Furnace Co., Ltd.	366 Hamilton Road, London	London.
Canada Electric Casting Co., Ltd.	Orillia	Orillia.
Canada Forge Co., Ltd.	Queen St., Welland	Welland.
Canada Valve and Hydrant Co., Ltd.	Brantford	Brantford.
Canadian Billings and Spencer, Ltd.	166 Major St., Welland	Welland.
Canadian Blower and Forge Co., Ltd.	Kitchener	Kitchener.
Canadian Drawn Steel Co., Ltd.	Gerrard St., Hamilton	Hamilton.
Canadian General Electric Co.	212 King St. W., Toronto	Toronto.
Canadian Malleable Iron Co., Ltd.	1136 First Ave. W., Owen Sound	Owen Sound.
Canadian Metal Products, Ltd.	252 York Road, Guelph	Guelph.
Castings of Ottawa, Ltd.	51 Booth St., Ottawa	Ottawa.
Clare Bros. and Co., Ltd.	Preston	Preston.
Clark Bros.	158 Duke St., Toronto	Toronto.
Cobalt Foundry Company	J. O'Brien Ltd., Union Bank Bldg., Ottawa	Cobalt.
Cochrane Foundry and Machine Works	Tillsonburg	Tillsonburg.
Collins and Marson	17-19 Hunter St. W., Hamilton	Hamilton.
Connolly, A. A.	Yarker	Yarker.
Cooper, H. W., Machine Co.	321 Howland Ave., Toronto	Toronto.
Crowe Iron Works	265 Suffolk St., Guelph	Guelph.
Cunningham & Son	St. Paul St., St. Catharines	St. Catharines.
Cunningham Furnace & Machinery Co., Ltd.	151 Front St., Sarnia	Sarnia.
Darlow Iron Works	Brock St., Tillsonburg	Tillsonburg.
Dart Union Co., Ltd.	93 Niagara St., Toronto	Toronto.
Davidson and Crooks	16-18 Hamilton Ave., Ottawa	Ottawa.
Denesha and Son, A.	Cornwall	Cornwall.
Dietrich Bros.	Perth	Perth.
Devlin, C. and Sons	274 Pembroke St., W., Pembroke	Pembroke.
Doherty Mfg. Co., Ltd.	Sarnia	Sarnia.
Dominion Chain Co., Ltd.	Bender Ave., Niagara Falls	Niagara Falls.
Dominion Forge and Stamping Co.	Walkerville	Forl City.
Dominion Foundries	Tweed	Tweed.
Dominion Radiator and Boiler Co., Ltd.	1322 Dufferin St., Toronto	Toronto.
Dominion Stove and Foundry, Ltd.	Penetanguishene	Penetanguishene.
Dunham, C. A. Co., Ltd.	1523-1541 Davenport Road, Toronto	Toronto.
Eclipse Machine Co.	Argyle Road, Walkerville	Walkerville.
Empire Stove and Furnace Co., Ltd.	908-2nd Ave., Owen Sound	Owen Sound.
Evans, Chas.	34-36 Pearl St., Toronto	Toronto.
Feas Oil Burners of Canada, Ltd.	1301 Royal Bank Bldg., Toronto	Toronto.
Findlay Bros. Co., Ltd.	Carleton Place	Carleton Place.
Fittings, Limited	Bruce St., Oshawa	Oshawa.
Fleck, Alexander, Ltd.	416-428 Wellington St., Ottawa	Ottawa.
Foreman Motor and Machinery Co., Ltd.	Bay and Lake Sts., Toronto	Toronto.
Franklin Steel Works, Ltd.	Adams St., Hamilton	Hamilton.
Fruit Machinery Co.	368 Front St., Belleville	Belleville.
Galt Malleable Iron Co., Ltd.	60 Kerr St., Galt	Galt.
Galt Stove and Furnace Co., Ltd.	Beverly St., Galt	Galt.



## DIRECTORY OF FIRMS—Continued

Name of Firm	Head Office Address	Location of Plant
<b>Castings and Forgings—Continued</b>		
<b>ONTARIO—Continued</b>		
Gananoque Spring and Axle Co.	King St., Gananoque	Gananoque.
Gartshore-Thomson Pipe and Foundry Co., Ltd.	Caroline and Stuart Sts., Hamilton	Hamilton.
Georgetown Foundry and Machinery Co., Ltd.	King St., Georgetown	Georgetown.
Gies Philip, Foundry Co.	36 Water St., Kitchener	Kitchener.
Graham, Boyd and Co.	100 Front St. E., Toronto	Toronto.
Green, G. Walter, Co., Ltd.	406 McDonnell St., Peterboro.	Peterboro.
Grimmer-Willson Engineering Co.	87 Jarvis St. W. Toronto	Toronto.
Grimsby Foundry Co., Ltd.	John & Robinson Sts., Grimsby	Grimsby.
Guelph Stove Co., Ltd.	York Road, Guelph	Guelph.
Gurney Foundry Co., Ltd.	500 King St. W., Toronto	Toronto.
Hall, Adam	256 Simcoe St., Peterboro.	Peterboro.
Hall and Quick	39 Wentworth St., N. Hamilton	Hamilton.
Hall Zryd Foundry Co., Ltd.	Hespeler	Hespeler.
Hambly, John	Mount Pleasant	Mount Pleasant.
Hamilton Foundry Co.	Cor. Ruth & Clinton Sts., Hamilton	Hamilton.
Happy Thought Foundry Co., Ltd.	38 Elgin St., Brantford	Brantford.
Harrison, J. T.	James St., Wallaceburg	Wallaceburg.
Harriston Stove Co., Ltd.	Margaret St., Harristown	Harristown.
Hayden, Thos., and Sons	Cavnn St., Port Hope	Port Hope.
Hepburn, John T., Ltd.	18-60 Van Horne St., Toronto	Toronto.
Holmes Foundry Co., Ltd.	Exmouth St., Sarnia	Sarnia.
Hubbard Portable Oven Co. of Canada, Ltd.	1100 Queen St. W., Toronto	Toronto.
Huron Specialty Castings Co.	Clinton	Clinton.
Imperial Radiator Co.	Berryman Ave., St. Catharines	Toronto.
International Malleable Iron Co., Ltd.	Beverly St., Guelph	Guelph.
Ireland Manufacturing Co.	93 Cannon St. W., Hamilton	Hamilton.
James Bros.	Perth	Perth.
James Bros Foundry	Perth	Perth.
Jardine, A. B. and Co.	Hespeler	Hespeler.
Kennedy Spring Wheel Mfg. Co., Ltd.	15-17 Daisy Ave., Toronto	Toronto.
Kennedy, Wm. and Sons	1114-1st Ave. W., Owen Sound	Owen Sound.
Keer and Coombes Foundry Co., Ltd.	67 Bay St. N., Hamilton	Hamilton.
Kerr Engine Co., Ltd.	Walker Road, Walkerville	Walkerville.
K-T Foundry	86 North Water St., Galt	Galt.
L. and P. Manufacturing Co.	747 Buttery St., Niagara Falls	Niagara Falls.
Lawson Thos., and Sons Ltd.	376 Wellington St., Ottawa	Ottawa.
Levy and Westwood Machinery Co.	King and Tecumseh Sts., Toronto	Toronto.
Lindsay Foundry & Pattern Works, Ltd.	Victoria Ave., Lindsay	Lindsay.
Link Belt Ltd.	265 West Wellington St., Toronto	Toronto.
McClary Manufacturing Co.	333 Wellington St., London	London.
McCrae, John Machine & Foundry Co.	81-83 William St., Lindsay	Lindsay.
McKeough and Trotter Ltd.	17 Thames St., Chatham	Chatham.
McKinnon Columbus Chain Ltd.	Ontario St., St. Catharines	St. Catharines.
McKinnon Industries Ltd.	Ontario St., St. Catharines	St. Catharines.
Machinery and Foundries Ltd.	Brookville	Brookville.
Mack Furnace Co.	Lacroix St., Chatham	Chatham.
Marshall Foundry	128 Parent Ave., Windsor	Windsor.
May Foundry Co.	2018 Buchanan Ave., Niagara Falls	Niagara Falls.
Merritt Foundry	Box 282, Merritt	Merritt.
Midland Engine Works Co.	Manley St., Midland	Midland.
Milton Foundry Machine and Tool Co.	Milton	Milton.
Moffat Stove Co. of Weston Ltd.	Dennis Ave., Weston	Weston.
Moore Bros	61 Nelson St., Toronto	Toronto.
Moore, D. Co., Ltd.	178-200 Catherine St. N., Hamilton	Hamilton.
Morash Foundry Co., Ltd.	Morrisburg	Morrisburg.
Morrison, James, Brass Mfg. Co., Ltd.	93 Adelaide St. W., Toronto	Toronto.
Muskoka Foundry Co.	Bracebridge	Bracebridge.
Myers Manufacturing Co.	Dresden	Dresden.
National Castings Ltd.	Belleville	Belleville.
National Iron Corporation	Ashbridges Bay, Foot of Cherry St., Toronto	Toronto.
National Meter Co. of Canada, Ltd.	151 Duchess St., Toronto	Toronto.
New Standard Foundry Co.	Foot of Jarvis St., Toronto	Toronto.
Northern Foundry and Machine Co.	457 Bay St., Sault Ste. Marie	Sault Ste. Marie.
Norsworthy, C.	St. Thomas	St. Thomas.
Oliver Canadian Oil Burners	90 Jarvis St., Toronto	Toronto.
Ontario Equipment Co., Ltd.	354 Sparks St., Ottawa	Ottawa.
Ontario Malleable Iron Co., Ltd.	Prospect St., Oshawa	Oshawa.
Orangeville Foundry & Machine Shop	Wellington St., Orangeville	Orangeville.
Pace Hersey Tapes, Ltd.	100 Church St., Toronto	Guelph and Welland.
Pease Foundry Co., Ltd.	118 King St. East, Toronto	Brampton.
Perfection Stove Co., Ltd.	Clifford St., Sarnia	Sarnia.
Plummer Bros.	Bolton	Bolton.
Pneumatic Oil Burners Ltd.	104-106 Jarvis St., Toronto	Toronto.
Pratt and Letchworth Co., Ltd.	307 Craig St. W., Montreal Que.	Brantford.
Quigg Bros.	303 Water St. W., Cornwall	Cornwall.
Radigan, John and Co.	48-50 Ferguson Ave., Hamilton	Hamilton.
Rutley Warming and Ventilating Co.	228 King St. E., Toronto	Toronto.
Rund Manufacturing Co.	29th and Smallman Sts., Pittsburg, Penn.	Toronto.
Sandwich Foundry Ltd.	Brock & Chippewa Sts., Sandwich	Sandwich.
Saugeen Foundry Ltd.	Walkerton	Walkerton.
Shantz, P. E.	Preston	Preston.
Sheldons Ltd.	96 Grand Ave. S., Galt	Galt.



## DIRECTORY OF FIRMS—Continued

Name of Firm	Head Office Address	Location of Plant
<b>Castings and Forgings—Concluded</b>		
<b>ONTARIO—Continued</b>		
Slater, N. Co., Ltd.	34 Sydney St., Hamilton	Hamilton.
Smith's Falls Malleable Castings Co.	Smith's Falls	Smith's Falls.
Standard Foundry and Machine Co.	Box 120 Dunnville	Dunnville.
Standard Foundry and Supply Co., Ltd.	Walker Road, Walkerville	Walkerville.
Standard Tube and Fence Co., Ltd.	Woodstock	Woodstock.
Stanley Steel Co., Ltd.	59 Gerrard St., Hamilton	Hamilton.
Stark, Geo. S.	Newmarket	Newmarket.
Steel Co. of Canada, Ltd.	Hamilton	(Upper Gananoque. (Lower Gananoque.
Stewart, James Mfg. Co., Ltd.	Teemusch St., Woodstock	Woodstock.
Sturtevant, B. F., Co. of Canada, Ltd.	Middleton St., Galt	Galt.
Sulbury Construction & Machinery Co., Ltd.	149 Lorne Ave., Sulbury	Sulbury.
Superior Machinery Co., Ltd.	151 York St., London	London.
Taylor Forbes Co., Ltd.	Queen St., Guelph	Guelph.
Teeswater Foundry Co., Ltd.	Teeswater	Teeswater.
Tomlinson Foundry Co., Ltd.	9-11 Frederick St. Toronto	Toronto.
Toronto Blower Co.	156 Duke St., Toronto	Toronto.
Toronto Foundry Co.	1884 Davenport Road, Toronto	Toronto.
Toronto Furnace Co., Ltd.	35 Golden Ave., Toronto	Toronto.
Toronto Hardware Mfg. Co.	420 Dufferin St., Toronto	Toronto.
Tuttle & Bailey Mfg. Co. of Canada Ltd.	Bridgeburg	Bridgeburg.
Union Drawn Steel Co., Ltd.	2 Webber Ave., Hamilton	Hamilton.
Union Foundry Co.	Belleville	Belleville.
Victoria Foundry Co.	44 Booth St., Ottawa	Ottawa.
Wabi Iron Works	New Liskeard	New Liskeard.
Walker, H. and Sons, Metal Product Ltd.	Walkerville	Walkerville.
Wickerton Foundry Co.	Wickerton	Wickerton.
Welland Iron and Brass Co.	Welland	Welland.
West Lorne Motors Ltd.	West Lorne	West Lorne.
West Peachy and Son	Box 625, Simcoe	Simcoe.
Western Engineering Service	Montreal St., Port William	Port William.
Western Foundry Co., Ltd.	Wingham	Wingham.
Whitelaw, Robert	Main St., Woodstock	Woodstock.
Wilkie Products Co.	Simcoe	Simcoe.
Williams Machines Ltd.	311 Montrose St., Preston	Preston.
Wilson, D. M.	48 George St., Toronto	Toronto.
Woodsale Bros.	73 Manitou St., Port Arthur	Port Arthur.
Worr Foundry Co., Ltd.	163 Stirling Road, Toronto	Toronto.
Wrought Iron Range Co., Ltd.	149 King St. W., Toronto	Toronto.
<b>MANITOBA—</b>		
Anthes Foundry, Ltd.	64 Jefferson Ave., Toronto, Ont.	Winnipeg.
Canadian Corrugated Pipe Co., Ltd.	Portage la Prairie	Portage la Prairie.
Dominion Foundry Co.	Cor. Union and Watt St., Winnipeg	Winnipeg.
Hill, Chas. W.	Box 313, The Pas	The Pas.
Vulcan Iron Works, Ltd.	Point Douglas Ave. and Maple St., Winnipeg	Winnipeg.
Winnipeg Foundry Co.	115-117 Robinson St., Winnipeg	Winnipeg.
<b>SASKATCHEWAN—</b>		
Prince Albert Foundry Co.	Prince Albert	Prince Albert.
Springstein & Davidson Machine Shop	6th Ave. and Lorne St., Regina	Regina.
<b>ALBERTA—</b>		
Blairmore Iron Works Ltd.	Blairmore	Blairmore.
Calgary Iron Works, Ltd.	410-9th Ave. E., Calgary	Calgary.
Edmonton Iron Works, Ltd.	10410-46th St., Edmonton	Edmonton.
Esquimaux Foundry Co.	9946 Jasper Ave., Edmonton	Edmonton.
Lethbridge Iron Works Co., Ltd.	120-1st Ave. S., Lethbridge	Lethbridge.
Nichols Bros.	10103-95th St. Edmonton	Edmonton.
Porter's Machine Shop	690 Railway St., Medicine Hat	Medicine Hat.
Riverside Iron Works	410 Riverside Boulevard, N.E., Calgary	Calgary.
Union Iron and Foundry, Ltd.	Cor. 14th and 12th Ave. E., Calgary	Calgary.
<b>BRITISH COLUMBIA—</b>		
Albion Stove Works, Ltd.	Pembroke St., Victoria	Victoria.
Boundary Iron Works Ltd.	Box 310 Grand Forks	Grand Forks.
Britannia Wire Rope Co., Ltd.	Granville Island, Vancouver	Vancouver.
Canada Chain and Forge Co.	Granville Island, Vancouver	Vancouver.
Canadian Summer Iron Works Ltd.	1214 Pender St. E., Vancouver	Vancouver.
Cranbrook Foundry & Machine Shop	Cranbrook	Cranbrook.
Ellis, W. J.	Box 720 Kamloops	Kamloops.
Globe Iron Works	1815 Pandora St., Vancouver	Vancouver.
Hafer Machine Co., Ltd.	1720 Store St., Victoria	Victoria.
Heaps Engineering Co., Ltd.	Ewen Ave., New Westminster	New Westminster.
Letson and Burper Ltd.	172 Alexander St., Vancouver	Vancouver.
McLean and Powell Iron Works	2nd and Yukon Sts., Vancouver	Vancouver.
Mainland Engineering Co., Ltd.	422 Railway St., Vancouver	Vancouver.
Marine Iron Works	515 Pembroke St., Victoria	Victoria.
Nanaimo Foundry (c-o Dobson Bros)	Drawer 35, Nanaimo	Nanaimo.
Pacific Iron Works	241 Prior St., Vancouver	Vancouver.
Progressive Engineering Works Ltd.	360-1st Ave. W., Vancouver	Vancouver.
Ramsay & Adams Foundry Co., Ltd.	1630 Store St. Victoria	Victoria.
Tait Pipe and Foundry Co., Ltd.	500 Benty St., Vancouver	Vancouver.
Vancouver Machinery Depot Ltd.	1155-6th Avenue W., Vancouver	Vancouver.
Vancouver Stove and Heater Co., Ltd.	2100-11th Avenue W., Vancouver	Vancouver.
Victoria Machinery Depot Co., Ltd.	343 Bay St., Victoria	Victoria.
Wallace Foundry Ltd.	Granville Island, Vancouver	Vancouver.
Webb and Gifford	222 Front St., New Westminster	New Westminster.

## DIRECTORY OF FIRMS—Continued

Name of Firm	Head Office Address	Location of Plant
<b>Boiler Tanks and Engines</b>		
<b>NOVA SCOTIA—</b>		
Acadia Gas Engine, Ltd.	King Street, Bridgewater	Bridgewater.
Hawboldt Gas Engines, Ltd.	Chester	Chester.
Musgrave, Robert and Sons, Ltd.	North Sydney	North Sydney.
Robb Engineering Works, Ltd.	Amherst	Amherst.
<b>QUEBEC—</b>		
Latulippe, Michel	303 Dorchester St., Quebec	Quebec.
McKay, A. Co., Ltd.	West End Louise Embankment, Quebec	Quebec.
McKay, Alex. Boiler Works	1194-6 de Montigny E., Montreal	Montreal.
<b>ONTARIO—</b>		
Babcock-Wilcox and Goldie-McCulloch, Ltd.	68 Grand Ave. S., Galt	Galt.
Bell, Robert, Engine and Thresher Co., Ltd.	Seaforth	Seaforth.
Campbell Steel and Iron Works, Ltd.	855 Carling Ave., Ottawa	Ottawa.
Canadian Fairbanks-Morse Co., Ltd.	84 St. Antoine St., Montreal, Quebec	1379 Bloor St. W., Toronto.
Canadian John Wood Mfg. Co.	81-121 Hanson St., Toronto	Toronto.
Engineering and Machine Works of Canada, Ltd.	St. Catharines	St. Catharines.
Inglis, John Co., Ltd.	14 Strachan Ave., Toronto	Toronto.
Leonard, E. & Sons, Ltd.	381 York St., London	London.
London Gas Power Co., Ltd.	1109-35 York St., London, East	London East.
Napanee Iron Works, Ltd.	Napanee	Napanee.
National Equipment Co., Ltd.	1 Wabush Ave., Toronto	Toronto.
Ottawa Boiler Works	158 Queen St., Ottawa	Ottawa.
Port Colborne Iron Works, Ltd.	Fraser St., Port Colborne	Port Colborne.
Powers, P. J. Co., Ltd.	432 Wellington St., Ottawa	Ottawa.
Russel Bros., Ltd.	532 Front St., Fort Frances	Fort Frances.
St. Lawrence Engine Co., Ltd.	St. Andrew St., Brockville	Brockville.
Sylvester Manufacturing Co., Ltd.	1 Victoria Avenue, Lindsay	Lindsay.
Wells Motors Ltd.	1245 York St., London	London.
Wayne Forge and Machine Co.	191-193 Adelaide St. W., Toronto	Toronto.
Winnett, F. W.	Oil Springs	Oil Springs.
Winnett, Richard	271 Hamilton Road, London	London.
<b>BRITISH COLUMBIA—</b>		
Atlas Boiler Works	1st Avenue, Prince Rupert	Prince Rupert.
Blain, A., Boiler Works	494 Railway St., Vancouver	Vancouver.
Easthope Bros.	1747 Georgia St., Vancouver	Vancouver.
Empire Manufacturing Co., Ltd.	1201-6th Ave. West, Vancouver	Vancouver.
Patterson Boiler Works	750 Alexander St., Vancouver	Vancouver.
W. Vivian Gas Engine Works	1090-6th Avenue W., Vancouver	Vancouver.
Vulcan Iron Works Co., Ltd.	Granville Island, Vancouver	Vancouver.

## Agricultural Implements

<b>PRINCE EDWARD ISLAND—</b>		
Hall Manufacturing Co., Ltd.	Summerside	Summerside.
<b>QUEBEC—</b>		
Bedford Mfg. Co.	Bedford	Bedford.
Chabot, Alphonse J.	St. Charles de Bellechasse	St. Charles de Bellechasse.
Chulifoux, O. et Fils, Ltée	St. Hyacinthe	St. Hyacinthe.
Dominion Smith Co.	Waterville	Waterville.
La Compagnie Desjardins, Ltée	St. André de Kamouraska	St. André de Kamouraska.
La Compagnie Godbout, Inc.	Massueville	Massueville.
La Compagnie Jutras, Ltée	Victoriaville	Victoriaville.
Mongenon, Félix and Cie	Verchères	Verchères.
Moody, M. and Sons Co.	St. Louis St., Terrebonne	Terrebonne.
Omega Machinery Co., Ltd.	42 rue Mondor, St. Hyacinthe	St. Hyacinthe.
Rugg-Ball Mfg. Co.	Ayers Cliff	Ayers Cliff.
<b>ONTARIO—</b>		
Aylmer Pump and Scale Co.	1109-35 York St., London	Aylmer.
Bailey and Son, H. F.	Water St., South Galt	Galt.
Bateman-Wilkinson Co., Ltd.	1 Wiltshire Ave., Toronto	Toronto.
Beatty Bros., Ltd.	Fergus	Fergus and London.
Bell and Son Co., Ltd.	St. George	St. George.
Bissell, T. E. Co., Ltd.	Elora	Elora.
Bissell, T. E. Co., Ltd.	Elora	Ingersoll.
Burrell, D. H. and Co.	Little Falls, N.Y.	Brockville.
Canadian Potato Machinery Co., Ltd.	Cooper St., Galt	Galt.
Canadian Rumely Co., Ltd.	48 Abel St., Toronto	Toronto.
Cockshutt Plow Co., Ltd.	Mohawk St., Brantford	Brantford.
Deere Manufacturing Co., Ltd.	Welland	Welland.
De Laval Co., Ltd.	113 Park St., Peterborough	Peterborough.
Dennis, John	93 Lindsay St., South Lindsay	Lindsay.
Dominion Thresher Co., Ltd.	Peel St., New Hamburg	New Hamburg.
Ebersol, John R.	Mill St., Milverton	Milverton.
Eric Iron Works, Ltd.	102 Talbot St., St. Thomas	St. Thomas.
Ernst Bros Co., Ltd.	Durham St., Mount Forest	Mount Forest.
Eureka Planter Co., Ltd.	135-143 Winnett St., Woodstock	Woodstock.

## DIRECTORY OF FIRMS—Continued

Name of Firm	Head Office Address	Location of Plant
<b>Agricultural Implements—Concluded</b>		
<b>ONTARIO—Concluded</b>		
Ferguson Thresher Co.	Maxville.	Maxville.
Fleury's, J. Sons	Wellington St., Aurora.	Aurora.
Frost and Wood Co., Ltd.	25 Water St., Smiths Falls.	Smiths Falls.
Gilson Mfg. Co.	240 York St., Guelph.	Guelph.
Goodison, John, Thresher Co., Ltd.	Essex and Mitton Sts., Sarnia.	Sarnia.
Gould, Shupley and Muir Co., Ltd.	Cor. Clarence and Wellington Sts., Brantford.	Brantford.
Hamilton, Peter Co., Ltd.	279 George St., Peterboro.	Peterboro.
Hergott Bros.	Mildmay.	Mildmay.
International Harvester Co. of Canada, Ltd.	Sherman Ave., Hamilton.	Hamilton.
International Plow Works of Canada, Ltd.	Hillyard St., Hamilton.	Hamilton.
Louden Machinery Co. of Canada, Ltd.	Crimea St., Guelph.	Guelph.
McDougall, R. Co. Ltd.	Galt.	Galt.
Massey-Harris Co., Ltd.	915 King St. W., Toronto.	Brantford.
Massey-Harris Co., Ltd.	915 King St. W., Toronto.	Toronto.
Massey-Harris Co., Ltd., Verity Works	Drumwor 430 Brantford.	Brantford.
Maxwells, Limited	St. Mary's.	St. Mary's.
New Perfection Sprayer Co.	65 Main St., Galt.	Galt.
Ontario Wind, Engine & Pump Co., Ltd.	Atlantic Ave., Toronto.	Toronto.
Percival Plow and Stove Co., Ltd.	Merrickville.	Merrickville.
Renfrew Machinery Co., Ltd.	Renfrew.	Renfrew.
Ridgeway-Machine Co., Ltd.	Ridgeway.	Ridgeway.
Sawyer Massey Co., Ltd.	Wellington St., N. Hamilton.	Hamilton.
Spramotor Co.	69-74 King St., London.	London.
Templin Manufacturing Co.	St. Andrews St., Fergus.	Fergus.
Tudhope-Anderson Co., Ltd.	Winnipeg, Man.	Orillia.
Universal Machine & Tool Works	Ridgeway.	Ridgeway.
Waterloo Manufacturing Co., Ltd.	67 King St., Waterloo.	Waterloo.
Watson, John Mfg. Co., Ltd.	Ayr.	Ayr.
White, George and Sons Co., Ltd.	Cabell and Roberts Sts., London.	London.
Young Pump Co. of Canada.	96 Mary St., Hamilton.	Hamilton.
<b>MANITOBA—</b>		
Acme Manufacturing Co., Ltd.	513 Martin Ave., Winnipeg.	Winnipeg.
Gregg Mfg. Co., Ltd.	601 Bowman Ave., Winnipeg.	Winnipeg.
Twin City Sep. Co., Ltd.	1425 Whyte Ave. (Winston), Winnipeg.	Winnipeg.
<b>SASKATCHEWAN—</b>		
Innes Shocker Co.	Innes.	Innes.
<b>ALBERTA—</b>		
Alberta Foundry and Machine Co.	Smelter Ave., Medicine Hat.	Medicine Hat.
Canadian Farm Implement Co., Ltd.	Medicine Hat.	Medicine Hat.
Coutts (Coutts Machinery Co., Ltd.)	9543-110th Avenue, Edmonton.	Edmonton.
Western Shells and Box Co., Ltd.	Edmonton.	Edmonton.
<b>BRITISH COLUMBIA—</b>		
Wonder Pump and Engine Co., Ltd.	155 Cordova St. W., Vancouver.	Vancouver.
<b>Machinery</b>		
<b>NEW BRUNSWICK—</b>		
Stephenson, E. S. and Co.	17 and 19 Nelson St., St. John.	St. John.
<b>QUEBEC—</b>		
Allaster, Wm.	4 Bonsecours, Montreal.	Montreal.
Bailey Meter Co., Ltd.	84 St. Antoine St., Montreal.	Montreal.
Canadian Allis Chalmers	212 King St. W., Toronto, Ont.	St. Joseph St., Lachine.
Canadian Ingersoll Rand Co., Ltd.	260 St. James St., Montreal.	Montreal.
Collins Seale Co.	389 St. Paul E., Montreal.	Montreal.
Crammond Machinery Co.	113 Dagenais St., Montreal.	Montreal.
Dominion Engineering Works, Ltd.	Lachine.	Lachine.
Fairbanks, E. and T. and Co., Ltd. (Canadian Fairbanks-Morse Co., Ltd.)	62 Belvidere St. S., Sherbrooke.	Sherbrooke.
Gardner, Robert, and Son, Ltd.	40 Nazareth St., Montreal.	Montreal.
Golden Gate Mfg. Co., Ltd.	9 Youveill St., Montreal.	Montreal.
Hall Engineering Ltd.	14 Jurors St., Montreal.	Montreal.
Harris, J. W., Mfg. Co., Ltd.	120 Sanguinet St., Montreal.	Montreal.
Hydraulic Machinery Co., Ltd.	18 Tunsley St., Montreal.	Montreal.
Kieffer Bros, Rgt.	96 Prince St., Montreal.	Montreal.
La Compagnie J. A. Gosselin.	Drummondville.	Drummondville.
La Fonderie de Plessisville.	Plessisville.	Plessisville.
Machine Builders, Ltd.	738 St. Paul St. W., Montreal.	Montreal.
Miller Bros. and Sons, Ltd.	120 Dalhousie St., Montreal.	Montreal.
New Warren Seale Co.	297 St. Paul St. W., Montreal.	Montreal.
Norton, O. A., Ltd.	440 Brookline Ave., Boston, Mass.	Coaticook.
Scott, Walter	296 Lagacheville St. W., Montreal.	Montreal.
Sherbrooke Machinery Co., Ltd.	Sherbrooke.	Sherbrooke.
Singer Mfg. Co.	St. John.	St. John.
United Shoe Machinery Co. of Canada, Ltd.	2610 Bernet Ave., Montreal.	Montreal.
Vesot, S. et Cie.	Base de Roc, St. Joliette.	Joliette.
Wahnsley, Chas. and Co. (Canada), Ltd.	Drummond Bldg., Montreal.	Longueuil.
Wilson Machine Co., Ltd.	135 Nazareth St., Montreal.	Montreal.



## DIRECTORY OF FIRMS—Continued

Name of Firm	Head Office Address	Location of Plant
<b>Machinery—Continued</b>		
<b>ONTARIO—</b>		
American-La France Fire Engine Co. of Canada, Ltd.	195 Weston Road W., Toronto	Toronto.
Anderson, O. K.	611 King St. W., Toronto	Toronto.
Auto Knitter Hosiery (Canada) Co., Ltd.	1870 Davenport Road, Toronto	Toronto.
Baird, H. C., Son and Co., Ltd.	Parkhill	Parkhill.
Barber, C. and Sons	Meaford	Meaford.
Barnes Seal Co.	6521-23 John R. St., Detroit, Mich.	Windsor.
Bawden Machine Co., Ltd.	163-181 Sterling Road, Toronto	Toronto.
Beaver Laundry Machinery Co., Ltd.	393 Sorauren Ave., Toronto	Toronto.
Bertram, John and Sons Co., Ltd.	Dundas	Dundas.
Bickle Fire Engine Co.	12 Young St., Woodstock	Woodstock.
Boving Hydraulic and Engineering Co., Ltd.	8 Wellington St., Lindsay	Lindsay.
Bowser, S. F. and Co., Inc.	52-68 Fraser St., Toronto	Toronto.
Bramham, John	165 Munro St., Toronto	Toronto.
Brantford Washing Machine Co., Ltd.	5-9 Durham St., Brantford	Brantford.
Brown Boggs Co., Ltd.	37 Victoria Ave. N., Hamilton	Hamilton.
Burroughs Adding Machine Co. of Canada, Ltd.	700 McDougall St., Windsor	Windsor.
Canada Illinois Tools, Ltd.	187 Dufferin St., Toronto	Toronto.
Canada Machinery Corp., Ltd.	Galt	Galt.
Canada Slicer Co., Ltd.	Bowmanville	Bowmanville.
Canada Vulcanizer and Equipment Co., Ltd.	88 York St., London	London.
Canadian Barker Co., Ltd.	Sault Ste. Marie	Sault Ste. Marie.
Canadian Chaplet Co.	61 Sherbourne St., Toronto	Toronto.
Canadian Cleveland Firebox Co., Ltd.	846 Vine St., Preston	Cor. Duke and Laurel Sts., Preston.
Canadian Elevator Equipment Co., Ltd.	92 Sherbourne St., Toronto	Toronto.
Canadian General Electric Co., Ltd.	212 King St. W., Toronto	Stratford.
Canadian Hoffman Machine Co., Ltd.	91 Don Roadway, Toronto	Toronto.
Canadian Ice Machine Co.	Villiers and Munitor Sts., Toronto	Toronto.
Canadian Ironing Machine Co.	Woodstock	Woodstock.
Canadian Laundry Machinery Co., Ltd.	47 Sterling Road, Toronto	Toronto.
Canadian Linderman Co., Ltd.	Teumseh St., Woodstock	Woodstock.
Canadian Mead-Morrison Co., Ltd.	705 Canada Cement Bldg., Montreal	Welland.
Canadian Sirocco Co., Ltd.	Banwell & McDougall Sts., Windsor	Windsor.
Canadian Toledo Scale Co., Ltd.	Howard & Essex Terminal Ry., Windsor	Windsor.
Canners Machinery Ltd.	Brighton	Brighton.
Carthage Machine Co. of Canada	11-29 Water St., Belleville	Belleville.
C. L. C. Machinery Co.	Oakville	Oakville.
Climax Good Roads Machinery Co., Ltd.	Cor. Emerald and Burton Sts., Hamilton	Hamilton.
Coffield Washer Co. of Canada, Ltd.	80 Park St. N., Hamilton	Hamilton.
Connor, J. H. and Son, Ltd.	22 Lloyd St., Ottawa	Ottawa.
Cook and Denison Machine & Tool Works	49 Baker St., Guelph	Guelph.
Conroy Manufacturing Co.	Catharine St., St. Catharines	St. Catharines.
Corbet Machine & Gear Co., Ltd.	1076-1st Ave. W., Owen Sound	Owen Sound.
Cowan & Co. of Galt, Ltd.	81 North Water St., Galt	Galt.
Creelman Bros.	Georgetown	Georgetown.
Delemere and Williams	8 Mutual St., Toronto	Toronto.
Dodge Mfg. Co. of Canada, Ltd.	58 Pallam Ave., Toronto	Toronto.
Dominion Dustless Sweepers Co., Ltd.	226 George St., Peterboro	Peterboro.
Dominion Government Marine Dept.	Dominion Lighthouse Depot, King St. Prescott	Prescott.
Dominion Road Machinery Co., Ltd.	East St., Goderich	Goderich.
Dowsewell Lees and Co., Ltd.	Elgin St., Hamilton	Hamilton.
Easy Washing Machine Co., Ltd.	384 Pape Ave., Toronto	Toronto.
Elmhurst Machinery and Transmission Co., Ltd.	10 Church St., E., Elmira	Elmira.
Fairgrieve and Son	50 Dovercourt Road, Toronto	Toronto.
Fletcher Mfg. Co., Ltd.	39-41 Hayter St., Toronto	Glencoe, Toronto.
Flexible Shaft Co., Ltd.	349 Carlaw Ave., Toronto	Toronto.
Ford-Smith Machine Co., Ltd.	Cavell Ave., Hamilton	Hamilton.
Garton Manufacturing Ltd.	215 Victoria St., Toronto	Toronto.
Gerrard Wire Tying Machines Co.	Wentworth St. N., Hamilton	Hamilton.
Greay Wm. and J. G.	6 Church St., Toronto	Toronto.
Grinnell Co. of Canada Ltd.	2440 Dundas St. W., Toronto	Toronto.
Groh Refrigeration Co.	48 Abell St., Toronto	Toronto.
Gurney Scale Co.	Cor. James and Colborne Sts., Hamilton	Hamilton.
Hall Gear & Machine Co., Ltd.	31 Ternuley St., Toronto	Toronto.
Hamilton Gear and Machine Co.	76 Van Horne St., Toronto	Toronto.
Hamilton Machine Co.	11 Ferguson Ave. N., Hamilton	Hamilton.
Hamilton, Wm. Co., Ltd.	479 Reid St. Box 1004, Peterboro	Peterboro.
Hanna, David J.	Brantford	Brantford.
Happy Home Manufacturing Co.	12 St. Charens Ave., Toronto	Toronto.
Harley-Kay Ltd.	Water St., Georgetown	Georgetown.
Holden-Morgan, Ltd.	579 Richmond St. W., Toronto	Toronto.
Huntley Mfg. Co., Ltd.	Tillsonburg	Tillsonburg.
Ingersoll Machine and Tool Co., Ltd.	King St. W., Ingersoll	Ingersoll.
International Business Machines, Ltd.	300 Campbell Ave., Toronto	Toronto.
Iron Works Ltd.	1175-1st Ave. East, Owen Sound	Owen Sound.
Jackson Cochrane and Co.	16 Victoria St., Kitchener	Kitchener.
Kaiting, G. C. & Son	54 Ainslie St., Galt	Galt.
Ker and Goodwin Machinery Co., Ltd.	256 Colbourne St., Brantford	Brantford.
Kiibs, W. A. Co., Ltd.	Hespeler	Hespeler.



## DIRECTORY OF FIRMS—Continued

Name of Firm	Head Office Address	Location of Plant
<b>Machinery—Concluded</b>		
<b>ONTARIO—Concluded</b>		
London Concrete Machinery Co., Ltd.	Cor. Cabell and Kitchener Ave., London	London.
Long, E., Mfg. Co., Ltd.	Orillia	Orillia.
Lorne Tractors Ltd.	Tillsonburg	Tillsonburg
Marsh Engineering Works	Franklin St., Belleville	Belleville.
Mathew Conveyor Co., Ltd.	Port Hope	Port Hope.
McCaskey Systems Ltd.	Beverly St., Galt	Galt.
McKenzie, D., Machinery Co.	17 Gorlun St., Guelph	Guelph.
McLachlan, John, Sr.	Cannington	Cannington.
Meaford Steel Products	Meaford	Meaford.
Meyer Bros.	99 Queen St. E., Toronto	Toronto.
Morris, Herbert, Crane and Hoist Co., Ltd.	Stanley St., Niagara Falls	Niagara Falls.
National Cash Register Co.	Bloor and Dufferin St., Toronto	Toronto.
National Fire Extinguishers Co. of Canada	Belleville	Belleville.
National Mfg. Co., Ltd.	William and Brook St., Brockville	Brockville.
Northern Crane works Ltd.	Argyle Road and Essex Terminal R.R.	
	Walkerville	Walkerville.
Onward Mfg. Co.	399 King St. E., Kitchener	Kitchener.
Otis-Penson Elevator Co., Ltd.	Victoria Ave. N., Hamilton	Hamilton.
Paragon Products Ltd.	2 Broadbalt St., Toronto	Toronto.
Pendrith Machinery Co., Ltd.	775 W. King St., Toronto	Toronto.
Perfection Cooler Co., Ltd.	19 Terauley St., Toronto	Toronto.
Perrin, William R., Ltd.	530 King St. E., Toronto	Toronto.
Pilot Manufacturing Co., Ltd.	Galt	Galt.
Plant, W. P.	Hastings	Hastings.
Pollard Mfg. Co., Ltd.	54 Ferguson St., Niagara Falls	Niagara Falls.
Preston Woodworking Machinery Co., Ltd.	Railway St., Preston	Preston.
Pyrone Mfg. Co. of Canada, Ltd.	1197-1207 King St. W., Toronto	Toronto.
Richardson, C. and Co.	St. Marys	St. Marys.
Roelison Elevator Works	First Ave., Galt	Galt.
Rubber Machinery Shop	45 St. Alexander St., Montreal	Kitchener.
St. Clair Bros.	200 Beverly St., Galt	Galt.
Silver, Hugh and Son	Prescott	Prescott.
Simplex Motor and Machine Co., Ltd.	48 Abell St., Toronto	Toronto.
Smart-Turner Marine Co., Ltd.	191 Barton St. E., Hamilton	Hamilton.
Stuebing Lift Truck Systems, Ltd.	9th Street East, Cornwall	Cornwall.
Stuebing, W. H., Machinery Co.	7 St. Mary St., Toronto	Toronto.
Tinken Roller Bearing Co. (The)	Canton, Ohio, U.S.A.	Walkerville.
Toronto Computing Scale Co., Ltd.	Paris	Paris.
Turnbull Elevator Mfg. Co.	126 John St., Toronto	Toronto.
Watson, Thomas	655 Canterbury St., Woodstock	Woodstock.
Watrous Engine Works Co., Ltd.	South Market St., Brantford	Brantford.
Wayne Tank and Pump Co. of Can. Ltd.	165-187 Dufferin St., Toronto	Toronto.
Wetlaufer Bros., Ltd.	178-180 Spadina Ave., Toronto	Mitchell.
Williams Tool Corp. of Canada, Ltd.	32 Bridge St., Brantford	Brantford.
Wilson Scale and Machinery Corp., Ltd.	67 Esplanade St. E., Toronto	Toronto.
Wood Hydraulic Hoist and Body Co.	1025 Tecumseh Road E., Windsor	Windsor.
Yates, P. B. Machine Co., Ltd.	Cavell Ave. and Linden St., Hamilton	Hamilton.
<b>MANITOBA—</b>		
Brandon Fire Engine Co., Ltd.	335-9th St., Brandon	Brandon.
Strong-Scott Mfg., Co., Ltd.	772 Dufferin Ave., Winnipeg	Winnipeg.
<b>SASKATCHEWAN—</b>		
Canadian Well Supply Co.	Cor. Atkinson St. and Dewdney, Regina	Regina.
Richardson Road Machinery	112 Avenue I, South, Saskatoon	Saskatoon.
<b>BRITISH COLUMBIA—</b>		
Allard and Hansen	1031 Quebec St., New Westminster	New Westminster.
Barbour and Elgie	1008 Mainland St., Vancouver	Vancouver.
Cawston Dry Kilo Co., Ltd.	345 First Ave. E., Vancouver	Vancouver.
Gilchrist Mfg. Co.	432 Railway St., Vancouver	Vancouver.
Golightly Bros. Ltd.	771 Cordova St. E., Vancouver	Vancouver.
Murray and Larra Machine Works	619 Foot of Bidwell, Vancouver	Vancouver.
Nelson Iron Works, Ltd.	Drawer 1059, Nelson	Nelson.
Terminal City Iron Works	1949 Albert St., Vancouver	Vancouver.
Tyce-Machinery Co., Ltd.	Granville Island, Vancouver	Vancouver.
Weir Machinery Co., Ltd.	Granville Island, Vancouver	Vancouver.
Western Hardware and Steel Co.	Granville Island, Vancouver	Vancouver.
<b>Automobiles</b>		
<b>ONTARIO—</b>		
Brooks Steam Motors Ltd.	500 Ontario St., Stratford	Stratford.
Canadian Yellow Cab Mfg. Co.	Orillia	Orillia.
Chrysler Motor Co. of Canada	300 Tecumseh Road, Windsor	Windsor.
Dodge Bros., Motor Co.	1244 Dufferin St., Toronto	Toronto.
Durant Motors	Leaside	Leaside.
Ford Motor Company of Canada	Sandwich St., Ford	Ford.
General Motors Ltd.	Cor. Richmond and Mary Sts., Oshawa	Oshawa.
Gottfredson-Joyce Corp., Ltd.	Walker Rd., Walkerville	Walkerville.
Gray-Dort Motors Ltd.	Collborne St., Chatham	Chatham.
International Harvester Co.	Chatham	Chatham.
National Steel Car Corp.	Kenilworth and Burlington St., Hamilton	Hamilton.
Studebaker Corp. of Canada Ltd.	Walkerville	Walkerville.
Willys-Overland, Ltd.	210 Western Rd., Cor. McCormack, Toronto	Toronto.

## DIRECTORY OF FIRMS—Continued

Name of Firm	Head Office Address	Location of Plant
<b>Automobile Accessories</b>		
<b>QUEBEC—</b>		
Accessories Manufacturers Ltd.	321 St. James St., Montreal	Montreal.
Auto Fabric Products Co.	43 Dorchester St., W., Montreal	Montreal.
Canadian Auto Top Co.	982 St. Catherine St., Montreal	Montreal.
Cartier Manufacturing Ltd.	127 St. Dominique St., Montreal	Montreal.
Cutten and Foster	302 Church St., Toronto, Ont.	Montreal.
Perfect Piston Ring Reg'd	76 Station St., Montmagny	Montmagny.
<b>ONTARIO—</b>		
Alemite Products Co. of Canada	MacDonald Ave., Belleville	Belleville.
American Auto Trimming Co., Ltd.	Walker Road, Walkerville	Walkerville.
Automobile Specialties Mfg. Co. of Canada	Terumseh Rd., Windsor	Windsor.
Automotive Products Co., Ltd.	510 King St., East Toronto	Toronto.
Art Craft Top and Trimming Co.	Rear 9 Bloor St., E., Toronto	Toronto.
Breuls, Harold E.	50 Peter St., Toronto	Toronto.
Canada Auto Top and Trimming Co.	206 King St., E., Kitchener	Hatfield.
Canadian Commercial Car Co.	44 Goyeau St., Windsor	Windsor.
Canadian Lamp and Stamping Co., Ltd.	44 Edna St., Ford	Ford.
Canadian Lever-Springs Ltd.	Peterborough	Peterborough.
Canadian Products Ltd.	Walkerville	Walkerville.
Canadian Top and Body Corp., Ltd.	Factory St., Tillburg	Tillburg.
Carriage Factories Ltd.	Colborne W. and Andrew Sts., Orillia	Orillia.
Chatham Malleable and Steel Mfg. Co.	148 Inghes Ave., Chatham	Chatham.
Cutten and Foster	302 Church St., Toronto	Toronto.
Dill Manufacturing Co. of Canada, Ltd.	111 Adelaide St. W., Toronto	Toronto.
Dominion Truck Equipment Co.	Kitchener	Kitchener.
Dowsley Spring and Axle Co., Ltd.	Camanoque	Chatham.
Eck Brothers	55 William St. N., Lindsay	Lindsay.
Ferguson Commercial and Camp Trailer Co. Ltd.	Room 20, Trust Building, Ottawa	Ottawa.
Flaherty Mfg. Co.	52 Somerset Ave., Hamilton	Hamilton.
Fournier Mfg. Co., Ltd.	210 Walker Road, Walkerville	Walkerville.
Gabriel Manufacturing Co.	187 Duchess St., Toronto	Toronto.
Greor, A. B. and Son	101 York St., London	London.
Grey Bull Bearing Co., Ltd.	86 St. Clarens Ave., Toronto	Toronto.
Griffin, Sadler and Co.	Church and Richmond Sts., Toronto	Toronto.
Guile Motor Lamp Co.	105 Sherborn St. E., Toronto	Toronto.
H. and H. Top Manufacturers	151 Queen St. W., Toronto	Toronto.
Hynes Wheel Co. of Canada, Ltd.	240 Raleigh St., Chatham	Chatham.
Judson, Jas. W.	36 George St., Brockville	Brockville.
Kelsey Wheel Co., Ltd.	Detroit, Mich.	301 Bancroft Ave., Windsor.
Knight Mfg. Co.	752 King St. E., Hamilton	Hamilton.
Leggatt & Platt Spring Bed Co., Ltd.	928 McDougal St., Windsor	Windsor.
Lockite Patch Co.	4196 Bellevue Ave., Detroit Mich.	Walkerville.
McCord Manufacturing Co.	Detroit, Mich.	Walkerville.
Mitchell, Arthur	14 Ontario St., St. Catharines	St. Catharines.
Moto-Meter Co. of Canada, Ltd.	56 Manson St. E., Hamilton	Hamilton.
Motor Products Corporation	11801 Mack Ave., Detroit, Mich.	Walkerville.
M. & Y. Mfg. Co., Ltd.	55 Cameron E., Hamilton	Hamilton.
Ontario Insulated Wire Co., Ltd.	Walker Power Bldg., Walkerville	Walkerville.
Ren Automotive Supply Mfg. Co.	Preston	Preston.
Sapo Spring Co., Ltd.	410 Front St., Toronto	Toronto.
Universal Steel Wheel Co.	1489 Marentette Ave., Windsor	Windsor.
White Machine Works, Ltd.	301 Giles Blvd., Windsor	Windsor.
Widdicombe, A.	67 Ontario Str., St. Catharines	St. Catharines.
Wilson, Moses & Son	339 Talbot St., London	London.
<b>MANITOBA—</b>		
Cohen, Chas.	562 Portage Ave., Winnipeg	Winnipeg.
Hulse Manufacturing Co., Ltd.	476 Ross Ave., Winnipeg	Winnipeg.
Murray, J. and Co.	180 Princess St., Winnipeg	Winnipeg.
Peters and Herron Co.	579 McDermot Ave., Winnipeg	Winnipeg.
Portage Auto Top Co.	Portage La Prairie	Portage La Prairie.
<b>SASKATCHEWAN—</b>		
Rhoden, J. and Son	314 Avenue B. S., Saskatoon	Saskatoon.
<b>ALBERTA—</b>		
Andy's Radiator Repair Shop	412-4th Ave. S., Lethbridge	Lethbridge.
Calgary Auto Top Builders	515-4th St. E., Calgary	Calgary.
Lanoix, Jos. O.	428-17th Ave. E., Calgary	Calgary.
Totum Manufacturing Co.	302-310 First St. E., Calgary	Calgary.
<b>BRITISH COLUMBIA—</b>		
Black Bros., Limited	1040 Hornby St., Vancouver	Vancouver.
Dendoff, Herbert E.	Chapel St., Nanaimo	Nanaimo.
Grimm, Otto H. and Wm. H.	650-2 Pembroke St., Victoria	Victoria.
Hall-Wallace Auto and Carriage Works	375 Beatty St., Vancouver	Vancouver.
McAllister Spring Works	1132 Richards St., Vancouver	Vancouver.
Meston, John and Co., Ltd.	1407 Broad St., Victoria	Victoria.
Ribehester, G. W.	1253 Howe St., Vancouver	Vancouver.
Roote Auto Tops Co.	Pacific and Howe Sts., Vancouver	Vancouver.
Sanders Auto Top Co.	928 Johnson St., Victoria	Victoria.
Tupper and Steel, Ltd.	1669-3rd Ave. W., Vancouver	Vancouver.
Vancouver Spring Co.	826 Davie St., Vancouver	Vancouver.

## DIRECTORY OF FIRMS—Continued

Name of Firm	Head Office Address	Location of Plant
<b>Bicycles and Motorcycles</b>		
ONTARIO—		
Canada Cycle and Motor Co., Ltd.	Weston	Weston.
Hyslop Bros., Ltd.	12-20 Shuter St., Toronto.	Toronto.
Kay, Alex., Cycle Co.	320 Queen St. E., Toronto.	Toronto.
Planet Bicycle Co.	69-71 Queen St. E., Toronto.	Toronto.
Sidway Toplift Co., Ltd.	97 Pellam Ave., Toronto.	Toronto.

<b>Railway Rolling Stock</b>		
NOVA SCOTIA—		
Canadian Car and Foundry Co., Ltd.	307 Craig St. W., Montreal, Que.	Amherst.
Eastern Car Co., Ltd.	Sydney	Trenton.
Wheel and Foundry Co., Ltd.	131 Eastern Ave., Toronto, Ont.	New Glasgow.
NEW BRUNSWICK—		
Canadian National Railway	Moncton	Moncton.
QUEBEC—		
Canadian Car and Foundry Co., Ltd.	307 Craig St. West, Montreal.	Turcot and Ville St. Pierre.
Canadian National Railways	Montreal	Montreal.
Canadian Pacific Railway Co.	Windsor St., Station, Montreal.	Montreal.
Canadian Steel Tire and Wheel Co., Ltd.	Transportation Building, Montreal.	Montreal.
Montreal Locomotive Works Ltd.	30 Church St., New York City, N.Y.	Montreal.
ONTARIO—		
Buffalo Brake-Beam Co.	32 Nassau St., New York, N.Y.	Hamilton.
Canadian Car and Foundry Co.	307 Craig St. West, Montreal, Que.	Port William.
Canada Iron Foundries, Ltd.	Mark Fisher Building, Montreal, Que.	St. Thomas.
Canada Iron Foundries, Ltd.	Mark Fisher Building, Montreal, Que.	Hamilton.
Canada Iron Foundries, Ltd.	Mark Fisher Building, Montreal, Que.	Port William.
Canadian Locomotive Co., Ltd.	Ontario St., Kingston.	Kingston.
Canadian National Railways	Montreal, Que.	Spadina Ave., Toronto.
Dom. Brake Shoe and Foundry Co., Ltd.	30 Church St., New York City, N.Y.	St. Thomas.
Dominion Wheel and Foundries, Ltd.	131 Eastern Ave., Toronto.	Cobourg.
Dominion Wheel and Foundries, Ltd.	131 Eastern Ave., Toronto.	Toronto.
Hamilton Steel Car and Engineering Works.	Kenilworth Ave., Hamilton.	Hamilton.
National Steel Car Corporation, Ltd.	Kenilworth St., Hamilton.	Hamilton.
Ottawa Car Mfg. Co., Ltd.	301 Slater St., Ottawa.	Ottawa.
MANITOBA—		
Canadian National Railways	Montreal, Que.	1 <sup>st</sup> t. Rouge, Winnipeg.
Dominion Wheel and Foundries, Ltd.	131 Eastern Ave., Toronto, Ont.	St. Boniface.
ALBERTA—		
Canadian National Railways	Montreal, Que.	Edmonton.

## Aeroplanes

QUEBEC—		
Canadian Vickers, Ltd.	Viau Ave., Montreal.	Montreal.
ONTARIO—		
Ericson Aircraft, Ltd.	120 King St., East, Toronto.	Leaside.

## Wire and Wire Goods

NOVA SCOTIA—		
Dominion Iron & Steel Co., Ltd.	Sydney.	Sydney.
NEW BRUNSWICK—		
British Empire Steel Corporation.	Sydney, N.S.	St. John.
Canada Nail and Wire Co.	175 Union St. West, St. John.	St. John.
Maritime Nail Co., Ltd.	Portland St., St. John.	St. John.
New Brunswick Wire Fence Co., Ltd.	402 Main St., Moncton.	Moncton.
QUEBEC—		
Anglo-Canadian Wire Rope Co.	Lachine	Lachine.
Dominion Wire Rope Co., Ltd.	P.O. Box 1080, 286 St. James St., Montreal.	Lachine.
Dowhani, Fred S.	314 St. Catherine St. W., Montreal.	Montreal.
MacDonald Wire Goods.	Drummondville	Drummondville.
Montreal Wire Works.	40 Craig St., Montreal.	Montreal.
Schulman, Chaplin, Canada, Ltd.	6 St. Helen St., Montreal.	Montreal.
Security Fence Co., Ltd.	1521 St. Catherine St. E., Montreal.	Montreal.
Steel Co. of Canada, Ltd.	Hamilton, Ont.	Lachine.
Steel Co of Canada, Ltd.	Hamilton, Ont.	Notre Dame, Montreal.

## DIRECTORY OF FIRMS—Continued

Name of Firm	Head Office Address	Location of Plant
<b>Wire and Wire Goods—Concluded</b>		
<b>ONTARIO—</b>		
Andrews Wire Works of Canada, Ltd.	Watford	Watford.
Barton Wire Works	109 Pinhey St., Ottawa	Ottawa.
Brown Wire Specialty Co.	48 Market St., Hamilton	Hamilton.
Canada Tack and Nail Co., Ltd.	200 Catherine St. N., Hamilton	Morrisburg.
Canada Wire and Iron Goods Co.	180-186 King William St., Hamilton	Hamilton.
Canadian Steel and Wire Co., Ltd.	Lottridge Ave., Hamilton	Hamilton.
Capewell Horseshoe Co.	54 Duke St., Toronto	Toronto.
Collins Wire Goods Ltd.	16 Plymouth Ave., Toronto	Toronto.
Cruven, Edward	35 Church St., Toronto	Toronto.
Drummond, W. A. and Co.	77-79 Jarvis St., Toronto	Toronto.
Dyer Fence and Supply Co., Ltd.	1201 Queen St. E., Toronto	Toronto.
Ferrier Wire Goods Co.	22 Mulock Ave., Toronto	Toronto.
Frost Steel and Wire Co., Ltd.	Sherman Ave. and Princess St. Hamilton	Hamilton.
Greening, B., Wire Co., Ltd.	Queen and Napier Sts., Hamilton	Hamilton.
Ideal Fence and Spring Co. of Canada, Ltd.	Windsor	Windsor.
Isard, C. R.	89-91 Niagara St., Toronto	Toronto.
Landlaw Bale Tie Co.	Birmingham St., Hamilton	Hamilton.
Lundy Products, Ltd.	257 King St. W., Toronto	Toronto.
MacPherson, J. A.	Town Station	Town Station.
National Standard Co.	Guelph	Guelph.
Ottawa Wire Works	346 Wellington St., Ottawa	Ottawa.
Owen Sound Wire Fence Co., Ltd.	Owen Sound	Owen Sound.
Patridge and Sons	62 King St., Kingston	Kingston.
Peerless Wire Fence Co., Ltd.	227 Lottridge St., Hamilton	Hamilton.
Perfection Mfg. Co.	St. Ann's	St. Ann's.
Port Hope Mat and Mfg. Co.	Box 389, Port Hope	Port Hope.
Robertson, P. L., Mfg. Co., Ltd.	Box 248, Milton	Milton.
Sarnia Fence Co., Ltd.	241 St. Christina St., Sarnia	Sarnia.
Steel Co. of Canada, Ltd.	Hamilton	Hamilton.
Steele, James, Ltd.	145 Woolwich St., Guelph	Guelph.
Strang, Daniel	856-5th Ave. E., Owen Sound	Owen Sound.
Wallace Barnes Co., Ltd.	557 Main St. W., Hamilton	Hamilton.
Waterloo Spring Co.	51 William St., Waterloo	Waterloo.
Western Wire Nail Co., Ltd.	302 Ridout St., London	London.
Young, L. A., Industries of Canada, Ltd.	1025 McDougall St., Windsor	Windsor.
<b>BRITISH COLUMBIA—</b>		
Artistic Wire and Fence Co.	112-2nd Ave. E., Vancouver	Vancouver.
B. C. Anchor Fence Co.	1031 Pender St. W., Vancouver	Vancouver.
Britannia Wire Rope Co., Ltd.	Granville Island, Vancouver	Vancouver.
Morrison Steel and Wire Co.	Granville Island, Vancouver	Vancouver.
Pearson, Bert	2105 Albert St., Vancouver	Vancouver.
<b>Sheet Metal Products</b>		
<b>PRINCE EDWARD ISLAND—</b>		
Charlottetown Can. Co.	Esher St., Charlottetown	Charlottetown.
<b>NOVA SCOTIA—</b>		
Amherst Foundry Co., Ltd.	Station St., Amherst	Amherst.
Dryden, H. H.	Truro	Truro.
Shaw and Mason, Ltd.	204 George St., Sydney	Sydney.
<b>NEW BRUNSWICK—</b>		
Leger, T. and A.	283 St. George St., Moncton	Moncton.
Ratcliff, Richard P.	21 Waterloo St., St. John	St. John.
Wilson, Jas. E., Ltd.	17 Sydney St., St. John	St. John.
<b>QUEBEC—</b>		
American Can Co.	120 Broadway, New York City, N.Y.	Maisonneuve.
Aubry, A., et Fils, Ltd.	2340 Delormier Ave., Montreal	Montreal.
Canada Corset Steel and Wire Co.	45 Dorchester St., Quebec	Quebec.
Canadian Crown Co., Ltd.	187 Delisle St., Montreal	Montreal.
Davidson, Thos., Mfg. Co., Ltd.	187 Delisle St., Montreal	Montreal.
Dominion Corrugated Steel Pipe Co., Ltd.	72 Allen St., St. John	St. John.
Guardian Wire Screen Mfg. Co.	123-5th Ave., Ville St. Pierre	Ville St. Pierre.
Governor Eastern Co. of Canada, Ltd.	46 St. Alexander St., Montreal	Montreal.
Grimm Mfg. Co., Ltd.	58 Wellington St., Montreal	Montreal.
Henderson Barwick Co., Ltd.	5 Olier St., Montreal	Montreal.
McClary Mfg. Co., Ltd.	London, Ont.	Montreal.
Metal Shingle and Siding Co., Ltd.	Preston, Ont.	Montreal.
Reed, Geo. W., and Co., Ltd.	37 St. Antoine St., Montreal	Montreal.
Small Bros.	Dunham	Dunham.
Ventilating and Blow Pipe Co., Ltd.	144 Inspector St., Montreal	Montreal.
Whittall A. R., Can. Co., Ltd.	726 Mullins St., Montreal	Montreal.
<b>ONTARIO—</b>		
Acton Tool and Stamping Co., Ltd.	20 Haxter St., Toronto	Toronto.
Adjustable Skylight Works	651 College St., Toronto	Toronto.
American Can Co.	120 Broadway New York City, U.S.A.	Hamilton.
American Can Co.	120 Broadway New York City, U.S.A.	Niagara Falls.



## DIRECTORY OF FIRMS—Continued

Name of Firm	Head Office Address	Location of Plant
<b>Sheet Metal Products—Continued</b>		
<b>ONTARIO—Continued</b>		
Anchor Cap. and Closure Corporation of Canada, Ltd.	275 Wallace Ave., Toronto	Toronto.
Bowell, Fred F.	381-383 Parliament St., Toronto	Toronto.
Buhl Stamping Co.	Walker Road, Walkerville	Walkerville.
Burrowes Mfg. Co.	611 King St. W., Toronto	Toronto.
Byers, J. Ltd.	5 Grand Opera Lane, Toronto	Toronto.
Canada Ingot Iron Co., Ltd.	92 Norwich St., Guelph	Guelph.
Canadian Cannery	44 Hughson St. S., Hamilton	Simcoe.
Canadian Heater Co.	22 Norway St., Hamilton	Hamilton.
Canadian Rogers Sheet Metal and Roofing, Ltd.	1109 Winnipeg Ave., Winnipeg, Man.	Toronto.
Carr Fastener Co.	Gage Ave. N., Hamilton	Hamilton.
Chapman, J. S., and Co.	105 Richmond St. E., Toronto	Toronto.
Collins, Never-dry Products, Ltd.	1322 Burlington St. E., Hamilton	Hamilton.
Conduits Co., Ltd.	33 Labatt Ave., Toronto	Toronto.
Corrugated Pipe Co., Ltd.	Grove St. E., Stratford	Stratford.
Cunningham, H. W.	69 Lincoln Road, Walkerville	Walkerville.
Day Name Plates, Ltd.	4 Woodfield Road, Toronto	Toronto.
De Long Hook and Eye Co. of Canada, Ltd.	Water St. North, St. Marys	St. Marys.
Dennis and Jocelyn	63-65 Mary St., Hamilton	Hamilton.
Dillon, W. E., Co., Ltd.	189-191 George St., Toronto	Toronto.
Dominion Double Fastener Co.	49 Lombard St., Toronto	Toronto.
Dominion Sheet Metal Co., Ltd.	1322 Burlington Ave., Hamilton	Hamilton.
Fencher and Roadhouse	200 Dupont St., Toronto	Toronto.
Fleming and Houghtby	344 Talbot St., London	London.
Galt Art Metal Co., Ltd.	385 Dundas St., Galt	Galt.
Gurney, W. C.	4 Spruce St., Toronto	Toronto.
Hedges, Charles	637 College St., Toronto	Toronto.
Irwin, Thos., and Sons	22 McNab St. S., Hamilton	Hamilton.
Kaustine Co., Ltd.	Dundas	Dundas.
Kirsch Manufacturing Co.	Storgis, Mich.	Woodstock.
MacKenzie, Milne and Co., Ltd.	148 Front St., Sarnia	Sarnia.
McFarlane-Douglas Co., Ltd.	250 Slater St., Ottawa	Ottawa.
Mattthews, A., Ltd.	256 Adelaide St. W., Toronto	Toronto.
Merrill, W. J.	862 Kingston Ave., Toronto	Toronto.
Metal Shingle and Siding Co., Ltd.	308 Guelph St., Preston	Preston.
Metallic Roofing Co. of Canada, Ltd.	1194 King St. W., Toronto	Toronto.
National Conduit Co., Ltd.	348 Dufferin St., Toronto	Toronto.
Neville-Cooper Co.	117 Berkeley St., Toronto	Toronto.
Oceonore, H.	80 Norfolk St., Guelph	Guelph.
Ormsby, A. B., Co., Ltd.	150 Van Horne St., Toronto	Toronto.
Ormsby, C. B.	175 Adelaide St. W., Toronto	Toronto.
Pedlar People Ltd.	Simcoe St., Oshawa	Oshawa.
Port Hope Sanitary Mfg. Co., Ltd.	1404 Royal Bank Bldg., Toronto	Port Hope.
Purdy and King	639 St. Clurens Ave., Toronto	Toronto.
St. Lawrence Steel and Wire Co., Ltd.	Gananoque	Gananoque.
St. Thomas Sheet Metal Works	16 St. Catharines St., St. Thomas	St. Thomas.
Sheet Metal Products of Canada, Ltd.	199 River St., Toronto	Toronto (2 plants).
Stamped and Enamelled Ware Ltd.	Guelph St., Hespeler	Hespeler.
Standard Sanitary Mfg. Co., Ltd.	1000 Landsdowne Ave., Toronto	Toronto.
Steel Trough and Machine Co., Ltd.	4 James St., Tweed	Tweed.
Stewart Hartshorn Co.	East Newark, New Jersey	Toronto.
Thorne, W. J.	296 Talbot St., London	London.
Toronto Sheet Metal Works	36 d'Arcy St., Toronto	Toronto.
Trickey, Alfred R.	534 Manning Ave., Toronto	Toronto.
Tulung and Moulding Co., Ltd.	21 Prescott Ave., Toronto	Toronto.
Turnbull and Cutcliffe, Ltd.	50 Colborne St., Brantford	Brantford.
Turner, Wm., Rutherford	206 Simcoe St., Peterboro	Peterboro.
Universal Metal Products	Walkerville	Walkerville.
Western Steel Products	Box 3076, Winnipeg, Man.	Port Arthur.
White and Thomas	212 Simcoe St., Toronto	Toronto.
White Mop Wringer Co. of Canada	Suttonville, N.Y., U.S.A.	Paris.
Wilkes, Geo.	792 Ossington Ave., Toronto	Toronto.
Winterbottom, Geo. and Son	519 Richmond St., London	London.
Wright, E. T., Co., Ltd.	48 Cathcart St., Hamilton	Hamilton.
Willson and Warden	58 Duchess St., Toronto	Toronto.
<b>MANITOBA—</b>		
Canadian Rogers Sheet Metal and Roofing Co.	1109 Winnipeg Ave., Winnipeg	Winnipeg.
Central Sheet Metal Works	21-8th St., Brandon	Brandon.
Buffalo Sheet Metal Works	259 Princess St., Winnipeg	Winnipeg.
Decloux, Victor	Rear 482 Aulneau St., St. Boniface	St. Boniface.
MacDonald Bros. Ltd.	51 Aikins St., Winnipeg	Winnipeg.
Metallic Roofing Co. of Canada, Ltd.	797 Notre Dame Ave., Winnipeg	Winnipeg.
Northwestern Metalware Co., Ltd.	889 Erin St., Winnipeg	Winnipeg.
Peters Sheet Metal	356 Aikins St., Winnipeg	Winnipeg.
Peters, W. S.	Wawanesa	Wawanesa.
Sheet Metal Products Co. of Canada, Ltd.	199 River St., Toronto, Ont.	Winnipeg.
Western Cornice and Roofing Co.	611 Alverstone St., Winnipeg	Winnipeg.
Western Steel Products, Ltd.	P.O. Box 3076, Winnipeg	St. Boniface.
<b>* SASKATCHEWAN—</b>		
Western Steel Products	P.O. Box 3076 Winnipeg, Man.	Regina, Saskatoon.

## DIRECTORY OF FIRMS—Continued

Name of Firm	Head Office Address	Location of Plant
<b>Sheet Metal Products—Concluded</b>		
<b>ALBERTA—</b>		
Barry, M. D.	10171-98th St., Edmonton	Edmonton.
Freeze Sheet Metal Co.	11223-103rd Ave., Edmonton	Edmonton.
Hoover and Robertson	P.O. Box 281 Camrose	Camrose.
Milne Sheet Metal Works	9509-103rd Avenue, Edmonton	Edmonton.
Norwood Sheet Metal Works	9508-111th Ave., Edmonton	Edmonton.
South Side Sheet Metal Works	10142-82 Ave. Edmonton	Edmonton.
Stacey Sheet Metal Works	213-7th Ave. E., Calgary	Calgary.
Warren, H.	10301-96 St., Edmonton	Edmonton.
Western Steel Products Ltd.	P.O. Box 3076, Winnipeg, Man.	Calgary. [Edmonton.
<b>BRITISH COLUMBIA—</b>		
Ameriann Can. Co., Ltd.	535 Railway St., Vancouver	Vancouver.
Ansell Sheet Metal Works	3215-43th Ave. W., Vancouver	Vancouver.
B. C. Coiling and Roofing Co., Ltd.	523-7th Ave. W., Vancouver	Vancouver.
Campbell and Grill	1238 Seymour St., Vancouver	Vancouver.
Daly, F. T.	350 Broadway E., Vancouver	Vancouver.
Kirkland Sheet Metal Works	6214 East Boulevard, Vancouver	Vancouver.
Lee, Johnson, Sheet Metal Works	1227 Howe St., Vancouver	Vancouver.
Little, Frank, Sheet Metal Works	1168 Seymour St., Vancouver	Vancouver.
Pacific Sheet Metal Works	1009 Yates St., Victoria	Victoria.
Steen's, Ltd.	Box 928, Prince Rupert	Prince Rupert.
Stevenson Sheet Metal Works	Stevenson	Stevenson.
Tacey, J. R. and Son	550-6th Avenue, Vancouver	Vancouver.
Terminal Sheet Metal Works, Ltd.	1013 Ponder St., W., Vancouver	Vancouver.
Vancouver Sheet Metal Co., Ltd.	1090 Hamilton St., Vancouver	Vancouver.
Victoria Sheet Metal Works	434 Kingston St., Victoria	Victoria.
Western Steel Products	Industrial Island, Vancouver	Vancouver.
Western Steel Products	Box 3076, Winnipeg, Man.	Prince Rupert.
<b>Hardware and Tools</b>		
<b>NOVA SCOTIA—</b>		
Blenhorn, I. S.	Canning	Canning.
Riverbank Manufacturing Co.	New Glasgow	New Glasgow.
Starr Mfg. Co., Ltd.	Dartmouth	Dartmouth.
<b>NEW BRUNSWICK—</b>		
Lewis, Wm. and Son	60 Britain St., St. John	St. John.
Marm Axo Co.	Canada Foundries and Forgings Ltd., Brockville, Ont.	St. Stephen.
Somerset Edge Tool Works	63 Somerset St., St. John	St. John.
Wilson, Walter and Son	33 Union St., St. John	St. John.
<b>QUEBEC—</b>		
Anderson, Geo. Co. of Canada, Ltd.	225 St. Ambrose St., Montreal	Montreal.
Boisvert, J. R.	Grand Piles	Grand Piles.
Butterfield and Co., Inc.	Railroad St., Rock Island	Rock Island.
Canada Axe and Harvest Tool Mfg. Co., Ltd.	1464 St. Patrick St., Montreal	Montreal.
Canadian Pneumatic Tool Co., Ltd.	25 St. Antoine St., Montreal	Montreal.
Canada Grip Nut Co., Ltd.	St. Johns	St. Johns.
Colonial Die Co.	16-20 St. George St., Montreal	Montreal.
Dominion Die and Box Toe Co.	114 Delorimier St., Maisonneuve	Maisonneuve.
Dominion Nut and Bolt Fastener Co., Ltd.	341 de Gaspé Ave., Montreal	Montreal.
Dominion Tool and Forgings Co.	Sherbrooke	Sherbrooke.
Furniss Clarke and Co.	32 McGill Ave., Montreal	Montreal.
Gillette Safety Razor Co. of Can., Ltd.	73 St. Alexander St., Montreal	Montreal.
Gilmore, G., Company	1512 St. Patrick St., Montreal	Montreal.
Himply, W. J.	26 St. George St., rear, Montreal	Montreal.
Imperial Pin Co., Ltd.	2210 Parthenais St., Montreal	Montreal.
La Mfr. de Seies de Lévis	26 Côte Davidson, Lévis	Lévis.
Les Seies "Champion" Eng.	46 Des Fossés, Québec	Québec.
Montreal Hardware Mfg. Co., Ltd.	1401-93 Notre Dame St. E., Montreal	Montreal.
Nouveau, Eng. (Les)	Montmagny Station	Montmagny Station.
Richard, Alfred	St-Denis Rivière, Richelieu	St-Denis.
Rochette, Théophile	36 St. Valier St., Quebec	Quebec.
Simonds Canada Saw Co., Ltd.	95 St. René St., Montreal	Montreal.
Stanley Tool Co. of Canada, Ltd.	Boxton Pond	Roxton Pond.
Steel Co. of Canada, Ltd.	Hamilton, Ont.	Montreal.
Stowell Screw Co., Ltd.	290 St. Paul St. W., Montreal	Longueuil.
Torrington Co., Ltd.	Upper Bedford	Upper Bedford.
<b>ONTARIO—</b>		
Algoma Steel Corporation, Ltd.	Sault Ste. Marie	Sault Ste. Marie.
Animal Trap Co. of America Inc.	Lititz, Pa., U.S.A.	Niagara Falls.
Ackins, E. C. and Co.	Sherman Ave. N., Hamilton	Hamilton.
Auto Strip Safety Razor Co., Ltd.	83 Duke Street Toronto	Toronto.
Ballard, Sidney E., Skate Manufacturer	54-65 Lombard St., Toronto	Toronto.
Belleville Hardware and Lock Mfg. Co.	270 Pinnacle St., Belleville	Belleville.
Canadian Acme Screw and Gear Ltd.	1209 King W., Toronto	Toronto.
Canadian Detroit Twist Drill Co., Ltd.	Walkerville	Walkerville.
Canadian Edge Tool	115 Wellington Street, Galt	Galt.

## DIRECTORY OF FIRMS—Continued

Name of Firm	Head Office Address	Location of Plant
<b>Hardware and Tools—Continued</b>		
<b>ONTARIO—Concluded</b>		
Canadian Line Materials, Ltd.	9 Hillingdon Ave., Toronto.	Toronto.
Canadian Shovel and Tool Co., Ltd.	Imperial St., Hamilton.	Hamilton.
Canadian Warren Ave and Tool Co., Ltd.	Carlton St., St. Catharines.	St. Catharines.
Canadian Yale and Towne, Ltd.	200 Henry St., Stamford.	Stamford.
Clark Metals, Ltd.	Durham.	Durham.
Connor Machine Co.	244 McDougal St., Windsor.	Windsor.
Corman Engineering Co.	347 Sorciaren Ave., Toronto.	Toronto.
Cranor, Wm.	1403 Davenport Road, Toronto.	Toronto.
Crochman's Ltd.	Georgetown.	Georgetown.
Denton, L. Band Co.	344 Dundas St., Woodstock.	Woodstock.
Dexter Lock Co., Ltd.	76 Wellington St., N. Hamilton.	Hamilton.
Dillon Mfg. Co.	50 Peter St., Toronto.	Toronto.
Dissott, Henry and Sons, Ltd.	24 Fraser Ave., Toronto.	Toronto.
Dominion Machine and Tool Co., Ltd.	460 Richmond St., W., Toronto.	Toronto.
Dominion Tack and Nail Co., Ltd.	431 Dundas St., Galt.	Galt.
Draper Mfr. Co. of Canada, Ltd.	Petrolia.	Petrolia.
Dume, W. H.	243 MacDonnell Ave., Toronto.	Toronto.
Durham-Duplex Razor Co., Ltd.	190 Baldwin Ave., Jersey City, N.J.	St. Catharines.
Elliott, W. J. & Co.	Woodburn Ave., St. Catharines.	Galt.
Elliott and Whitehall.	Cor. Beverley and Dundas, Galt.	Hamilton.
Embrey Tool Mfg. Co.	151 Birge St., Hamilton.	Galt.
Galt Knife Co., Ltd.	99 State St., Galt.	Galt.
Galt Machine Screw Co., Ltd.	Beverley St., Galt.	Galt.
Globe Stamping Co., Ltd.	232 Albert St., Kitchener.	Kitchener.
Greenfield Tap and Die Corp. of Canada, Ltd.	Front St. and York Place, Galt.	Galt.
Hatch Manufacturing Co., Ltd.	Whitby.	Whitby.
Hay, Peter, Knife Co., Ltd.	43 Victoria Ave., Galt.	Galt.
Hi-Speed Tools, Ltd.	Samuelson St., Galt.	Galt.
Homer and Wilson.	3 to 5 Lancaster St., Hamilton.	Hamilton.
Ingersoll File Co., Ltd.	Ingersoll.	Ingersoll.
Jones, D. F. Mfg. Co., Ltd.	King St., Gananoque.	Gananoque.
Jensen and Shaw.	Walkerton.	Walkerton.
London Bolt and Hinge Works	623-630 Maitland St., London.	London.
McCowan, David A.	209 Main St., Toronto.	Toronto.
McLory, George W.	Blenheim.	Blenheim.
Macle Leaf Harvest Tool Co., Ltd.	Tilson Ave., Tillsonburg.	Tillsonburg.
Morrow, John, Screw and Nut Co., Ltd.	Thames St., Ingersoll.	Ingersoll.
Myatt, E. & Co.	21-23 Carlaw Ave., Toronto.	Toronto.
National Hardware Co., Ltd.	95 Barrie Road, Orillia.	Orillia.
Newell Mfg. Company.	King St., Prescott.	Prescott.
Niagara Hy-Tools, Ltd.	Bridgeburg.	Bridgeburg.
Nicholson File Co.	23 Acorn St., Providence, R.I., U.S.A.	Port Hope.
Normac Tool Co.	7125 Vine St., St. Catharines.	St. Catharines.
Northern Bolt, Screw and Wire Co., Ltd.	Owen Sound.	Owen Sound.
Ozden, J. Edward Co., Ltd.	131 St. Paul St. W., Montreal, Quebec.	Toronto.
Oil Well Supply Co., Ltd.	Robert St., Petrolia.	Petrolia.
Parmenter and Bulloch Co., Ltd.	Gananoque.	Gananoque.
Peterborough Lock Mfg. Co., Ltd.	68 Simcoe St., Peterborough.	Peterborough.
Pink, Thomas, Co., Ltd.	Alexander St., Pembroke.	Pembroke.
Prest and Whitney Co. of Canada, Ltd.	Hot St., Dundas.	Dundas.
Precision Tool Works.	11 Dundas St. W., Toronto.	Toronto.
Preston and Schwartz.	9 Huron St., Galt.	Galt.
Radcliff Saw Manufacturing Co., Ltd.	1550 Dundas St., Toronto.	Toronto.
Roe Machine Tools Works Ltd.	Emerald & Shaw Sts., Hamilton.	Hamilton.
Richards-Wilex Canadian Co., Ltd.	Chelsea Green, London.	London.
Shimer Carter Head Co., of Canada, Ltd.	Hobson St., Galt.	Galt.
Shurly, T. F., Co., Ltd.	Knee St., St. Catharines.	St. Catharines.
Shurly-Dietrich Co., Ltd.	17 Globe St., Galt.	Galt.
Skinner Co., Ltd.	Box 627, Gananoque.	Gananoque.
Smart, James, Mfg. Co., Ltd.	Brickville.	Brickville.
Snappy Manufacturing Co. of Canada, Ltd.	Galt.	Galt.
Springer Lock Mfg. Co.	180 Coleman St., Belleville.	Belleville.
Stanely Works of Canada, Ltd.	Hamilton.	Hamilton.
Steel Co. of Canada, Ltd.	Hamilton.	Toronto.
Stevens Co. of Galt, Ltd.	10 Rose St., Galt.	Galt.
Strom, Chas.	Wiley St., St. Catharines.	St. Catharines.
Taylor Bros.	9 McNab St., Hamilton.	Hamilton.
Taylor, C. H.	61 Sherbourne St., Toronto.	Toronto.
Tools and Hardware Ltd.	Orillia.	Orillia.
Toronto Lock Mfg. Co.	40 Queen St. E., Toronto.	Toronto.
Welland Vale Mfg. Co., Ltd.	St. Catharines.	St. Catharines.
Wheeler Needle Works.	William St., Paris.	Paris.
Wheel Tracing Tool Co.	2130 Penobscot Building, Detroit, Mich.	240 Walker Road, Walkerville
Woolfs Bros.	45 Church St., Kitchener.	Kitchener.
Wood, Fred and Son.	135 Richmond St., W., Toronto.	Toronto.
Wright Tool Co.	21 West Ave. N., Hamilton.	Hamilton.
<b>BRITISH COLUMBIA—</b>		
Gibbs, Tool and Stamping Works.	356-2nd Ave. W., Vancouver.	Vancouver.
Lister's Iron Works.	302-3rd Ave. W., Vancouver.	Vancouver.
Olson, M.O., Iron Works.	309 Alexander St., Vancouver.	Vancouver.
Speir & Jackson, Ltd.	Granville Island, Vancouver.	Vancouver.
Williams, B. A.	1450 Powell Ave., Vancouver.	Vancouver.



## DIRECTORY OF FIRMS—Concluded

Name of Firm	Head Office Address	Location of Plant
<b>Miscellaneous Iron and Steel Products, n.e.s.</b>		
<b>QUEBEC—</b>		
Ahern Safe Co., Ltd.	390 St. James St., Montreal	Montreal.
Atlas Metal Bed Mfg. Co.	1789 St. James St., Montreal	Montreal.
Bergeron, O.	1080 Beaudry St., Montreal	Montreal.
Courtemanche, J. A.	1758 Henri Julien, Montreal	Montreal.
Dominion Brass and Iron Bedstead Co.	300 Atlantic Ave., Montreal	Montreal.
Eastern Canada Steel and Iron Works, Ltd.	Lesage Ave., Box 400, Quebec	Quebec.
Gauthier, F. X.	1619 Notre-Dame E., Montreal	Montreal.
MacKinnon Steel Co., Ltd.	Drummond St., Sherbrooke	Sherbrooke.
Meldrum Ironworks, Ltd.	130 Van Horne Ave., Montreal	Montreal.
Moineau, Léon.	1882 rue Lafontaine E., Montreal	Montreal.
Montreal Architectural Ironworks, Ltd.	145 Prince St., Montreal	Montreal.
Poirier, Louis	4963-7th Ave., Rosemount, Montreal	Montreal.
Taylor and Arnold Engineering Co., Ltd.	37-39 Shannon St., Montreal	Montreal.
Union Architectural Iron Works	326a Clarke St., Montreal	Montreal.
Walsh Plate and Structural Works	St. George St., Drummondville	Drummondville.
Watson, John and Son, of Montreal, Ltd.	167 Wellington St., Montreal	Montreal.
<b>ONTARIO—</b>		
Art Wire and Iron Co.	3 Carlaw Ave., Toronto	Toronto.
Atlas Iron Wire and General Metal Works	815 Queen St. W., Toronto	Toronto.
Border Cities Wire and Iron Works	Assumption St., Walkerville	Walkerville.
Brooks Manufacturing Co.	78 Perth Ave., Toronto	Toronto.
Buchanan, M. T., and Co.	Ingersoll	Ingersoll.
Canadian General Electric Co., Ltd.	212 King St., W., Toronto	Toronto.
Canadian Metal Window and Steel Products	160 River St., Toronto	Toronto.
Canadian Morehead Mfg. Co., Ltd.	Woodstock	Woodstock.
Canadian Ornamental Iron Co., Ltd.	88 River St., Toronto	Toronto.
Canadian Ramapo Iron Works, Ltd.	Niagara Falls	Niagara Falls.
Cassady Tool and Stamping Co.	Paris	Paris.
Dennis Wire and Iron Works Co., Ltd.	20-40 Dundas St., London	London.
Diamond Calk and Horseshoe Co.	4632 W. Third St., Duluth Minn., U.S.A.	Toronto.
Disher Steel Construction Co., Ltd.	80 Commissioners St., Toronto	Toronto.
Dominion Safe and Vault Co., Ltd.	54 Ferguson Ave., Niagara Falls	Niagara Falls.
Eansor, T. J.	300-310 Pitt St. E., Windsor	Windsor.
Fireproof Door Co., Ltd.	31-57 Commissioners St., Toronto	Toronto.
Fuel Saving Corp. Co., Ltd.	458 Richmond St. W., Toronto	Toronto.
Hamilton Clump Works	42 Ashley St., Hamilton	Hamilton.
Horton Steel Works	Bridgeburg	Bridgeburg.
Invalute Gear Co.	2 Clinton Place, Toronto	Toronto.
Ives Building Co., Ltd.	Sidney St., Cornwall	Cornwall.
Kingdom Smith Co.	39 Wellington St., N., Hamilton	Hamilton.
London Bridge Works	London	London.
Lundy, A. R.	257 King St. W., Toronto	Toronto.
McGregor and McIntyre, Ltd.	1139 Shaw St., Toronto	Toronto.
Mahaffy, W. S., Co.	145 Kendal Ave., Toronto	Toronto.
Metal Craft Co., Ltd.	25 Depot St., Grimsby	Grimsby.
Olmsted Iron Works	161 Rebecca St., Hamilton	Hamilton.
Ottawa Iron Works	95 Nelson St., Ottawa	Ottawa.
Reid and Brown Structural Steel and Iron Works	63 Esplanade Ave., Toronto	Toronto.
St. Thomas Metallic Vault Co., Ltd.	155 Curtis St., St. Thomas	St. Thomas.
Shipway Iron Bell and Wire Co., Ltd.	700 Wellington St., W., Toronto	Toronto.
Standard Steel Construction Co.	Welland	Port Robinson.
Star Specialty Co.	661 Queen St. E., Toronto	Toronto.
Steel Equipment Co., Ltd.	Pembroke	Pembroke.
Steel Sash, Ltd.	581-3 Bathurst St., London	London.
Steel, H. W., Shank and Specialty Co.	St. Lawrence St., Preston	Preston.
Superior Burn Equipment Co.	Fergus	Fergus.
Taylor, J. and J., Ltd.	137-147 Front St. E., Toronto	Toronto.
Toronto Iron Works, Ltd.	1301 Royal Bank Bldg., Toronto	Toronto.
Trussed Concrete Steel Co. of Canada	Walkerville	Walkerville.
Watson Gunlight Co.	62 Dundas St., E., Toronto	Toronto.
Whittaker Stove Works	Wyandotte St. W., cor. Crawford, Windsor	Windsor.
<b>MANITOBA—</b>		
Chapuin, Maxime	St. Claude	St. Claude.
Dominion Bronze and Iron, Ltd.	Cor. Pacific and Yeoman Sts., Winnipeg	Winnipeg.
The Manitoba Bridge and Iron Works, Ltd.	875 Logan Ave., Winnipeg	Winnipeg.
<b>ALBERTA—</b>		
Edmonton Wire Fence and Iron Co.	10361-96th St., Edmonton	Edmonton.
<b>BRITISH COLUMBIA—</b>		
Canadian Northwest Steel Co., Ltd.	Box 430, Vancouver	Vancouver.
Children's Vehicle Co., Ltd.	2723 Telford Ave., Burnaby	Burnaby.
Ornamental Iron Works	2130 Cedar St., Vancouver	Vancouver.
Westminster Iron Works	66-10th St., New Westminster	New Westminster.



# LIST OF PUBLICATIONS

PREPARED IN THE

## MINING, METALLURGICAL AND CHEMICAL BRANCH DOMINION BUREAU OF STATISTICS

### MINERAL PRODUCTION (Mining and Metallurgy).

#### General Reports—

##### Preliminary Reports (semi-annual) on the Mineral Production of Canada.

##### Annual Report on the Mineral Production of Canada. (In one volume.)

PART ONE.—PRODUCTION STATISTICS.—General Statistical Review of the Mineral Production of Canada.

*Metals.*—Aluminium—Antimony—Arsenic—Chromite—Cobalt—Copper—Gold—Iron Ore—Iron, Pig—Lead—Manganese—Mercury—Molybdenum—Nickel—Platinum and Palladium—Silver—Tin—Zinc.

*Non-Metals.*—Abrasives—Actinolite—Asbestos—Barytes—Coal—Coke—Feldspar—Fluorspar—Graphite—Gypsum—Iron Oxides—Magnesite—Magnesium Sulphate—Mica—Mineral Water—Natro-Alunite—Natural Gas—Peat—Petroleum—Phosphate—Pyrites—Quartz—Salt—Sodium Carbonate—Sodium Sulphate—Talc and Soapstone.

*Structural Materials and Clay Products.*—Cement—Clay and Clay Products—Lime—Sand and Gravel—Sand-Lime Brick—Slate—Stone.

PART TWO.—GENERAL STATISTICS.—Text and tables presenting general reviews of the mineral industry in Canada (a) by provinces; (b) by industries.

PART THREE.—DIRECTORY.—List showing the names, head office and mine or plant addresses of all concerns operating in the mineral industry in Canada, arranged in alphabetical order by industrial groups.

#### Coal—

##### Monthly Report on Coal and Coke Statistics for Canada.

General review for the month with tables showing comparative data for the month and year to date, output by coal-mining districts and by provinces, imports and exports by ports and by kinds of coal. In this report there is also a section showing statistics on production, imports and exports of coke for the month and year to date by provinces.

##### Annual Report on Coal Statistics for Canada.

Text and tables showing for Canada, and for each of the coal-producing provinces, historical and current data on output, tonnage lost, disposition of coal from the mines, domestic and foreign shipments, exports and imports by ports, consumption of coal, prices, employment, salaries and wages paid, power equipment, capital investment, etc.

#### Bulletins—

##### (a) PRODUCTION—

*Metals.*—Arsenic—Cobalt—Copper—Gold—Iron Ore—Lead—Nickel—Metals of the Platinum Group—Silver—Zinc—Miscellaneous Non-Ferrous Metals including Aluminium, Antimony, Chromite, Manganese, Mercury, Molybdenum, Tin, Tungsten.

*Non-Metals.*—Asbestos—Coal—Feldspar—Gypsum—Iron Oxides—Mica—Natural Gas—Petroleum—Quartz—Salt—Talc and Soapstone—Miscellaneous Non-Metallic Minerals including Actinolite, Barytes, Corundum, Fluorspar, Graphite, Grindstones, Magnesite, Magnesium Sulphate, Mineral Waters, Natro-Alunite, Peat, Phosphate, Pyrites, Sodium Carbonate, Sodium Sulphate, Tripolite.

*Structural Materials.*—Cement—Clay and Clay Products—Lime—Sand and Gravel—Stone and Slate.

##### (b) ANNUAL INDUSTRIAL REVIEWS—

The Gold Industry—Copper-Gold-Silver Industry—Nickel-Copper Industry—Silver-Cobalt Industry—Silver-Lead-Zinc Industry.

##### (c) ANNUAL PROVINCIAL REVIEWS ON THE MINERAL INDUSTRY—

Nova Scotia—New Brunswick—Quebec—Ontario—Manitoba—Saskatchewan—Alberta—British Columbia—Yukon.

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