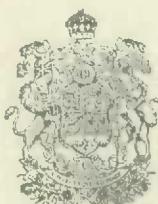


CANADA—DEPARTMENT OF TRADE AND COMMERCE
DOMINION BUREAU OF STATISTICS
MINING, METALLURGICAL AND CHEMICAL BRANCH

Manufactures of the
NON-FERROUS METALS
IN CANADA
1933-1934

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NOTES ON 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.

Manufacturing is subdivided into nine groups of industries, producing concerns being classified according to the principal component material of their major products. For example, manufactures of leather goods are classified under "Animal Products"; the pulp and paper industry under "Wood and Paper", etc. An outline of the scheme of classification in use for manufacturing industries is given below:—

- (1) **Vegetable Products**, including—Coffee, Tea and Spices; Fruit and Vegetable Preparations, including preserving, canning and Pickles, Vinegar and Cider; Flour and Grist-mill Products; Bread and other Bakery Products; Biscuits and Confectionery; Macaroni and Vermicelli; Distilled and Brewed Liquors and Wines; Rubber Products; Prepared Breakfast Foods; Starch and Glucose; Tobacco Products; Linseed Oil and Oil Cake; Sugar refineries.
- (2) **Animal and Fish Products**, including—Fish and Fish Products; Dairy Factory Products; Slaughtering and Meat Packing; 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; Cordage, Rope and Twine; Hats and Caps; Hosiery and Knitted Goods; Cotton and Jute Bags; Dyeing, Cleaning and Laundry Work; Dyeing and Finishing of Textiles; Awning, Tents and Sails.
- (4) **Wood and Paper**, including—Pulp and Paper; Paper Goods; Printing, Publishing and Lithographing; Furniture; Carriages, Wagons and Sleighs; Boxes, Baskets and Crates; Cooperage; Woodenware; Lumber; Planing Mills, Sash and Door Factories; Hardwood Flooring; Coffins and Caskets; Lasts, Trees and Shoe Findings; Handles, Spools and Wood-turning; Boatbuilding.
- (5) **Iron and Steel and Their Products**, including—Primary Iron and Steel (Pig Iron, Ferro-Alloys, Steel and Rolled Products); Castings and Forgings; Boilers, Tanks and Engines; Farm Implements; Machinery; Automobiles; Auto Parts and Accessories; Bicycles; Railway Rolling Stock; Wire and Wire Goods; Sheet Metal Products; Hardware, Tools and Cutlery; Miscellaneous Iron and Steel Products; Bridge Building and Structural Steel.
- (6) **Manufactures of the Non-Ferrous Metals**, including—Aluminium Products; Brass and Copper Products; White Metal Alloys; Jewellery and Silverware; Electrical Apparatus and Supplies; Miscellaneous Non-Ferrous Metal Products; Non-Ferrous Metal Smelting and Refining.
- (7) **Manufactures of the Non-Metallic Minerals**, including—Aerated Waters; Asbestos Products; Cement; Cement Products; Coke and gas; Glass (blown, cut, ornamental, etc.); Lime; Petroleum Products; Products from Domestic Clays; Products from Imported Clays; Salt, Sand-Lime Brick; Stone, Monumental and Ornamental; Artificial Abrasives and Abrasive Products; Miscellaneous Non-Metallic Mineral Products, including (a) Artificial Graphite and Electrodes, (b) Gypsum Products, (c) Mica Products, (d) Non-Metallic Mineral Products, n.e.s.
- (8) **Chemicals and Allied Products**, including—Coal Tar Distillation; Acids, Alkalies and Salts; Compressed Gases; Explosives, Ammunition and Fireworks; Fertilizers; Medicinal and Pharmaceutical Preparations; Paints, Pigments and Varnishes; Soaps, Cleaning Preparations and Washing Compounds; Toilet Preparations; Inks; Adhesives; Polishes and Dressings; Wood Distillation; Miscellaneous Chemical Products, including: (a) Boiler Compounds, (b) Cellulose Products, (c) Insecticides, (d) Sweeping Compounds, (e) Disinfectants, (f) Matches, (g) Dyes and Colours, (h) Miscellaneous Chemical Products, n.e.s.
- (9) **Miscellaneous Products**, including—Brooms and Brushes; Musical Instruments; Bed Springs and Mattresses, etc.
- (10) **Central Electric Stations.**

The statistics of manufacture 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; Oils 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**.

EXPLANATORY NOTES

Classification of Industries—The annual census of production in Canada which is carried out by the Dominion Bureau of Statistics divides the manufacturing plants into *nine main groups* according to the *principal component material of their major products*. These main groups in turn are subdivided into industries to which the various firms are classified in accordance with the nature of their *main products*. An outline of the scheme of classification is given on the next preceding page.

Scope of Present Report—The present report presents statistics for the Manufactures of the Non-Ferrous Metals, one of the nine major groups, and covers all manufacturing plants that used non-ferrous metals as their principal materials. This group in turn is subdivided into seven industries, as follows:—(a) aluminium products (other than smelter output); (b) brass and copper products; (c) white metal alloys, including solders, babbitt, etc.; (d) jewellery and silverware; (e) electrical apparatus and supplies; (f) non-ferrous metal smelting and refining, and (g) miscellaneous non-ferrous metal products. A special chapter is devoted to a review of each of these industries.

Period Covered—The returns from the manufacturers relate to the calendar year or to the business year which corresponded most nearly to that of the calendar year, and cover a year's operations except for establishments which began or discontinued business within the year.

Establishments Covered—The census of manufactures covers only manufacturing and assembling operations. Works engaged solely in repairs have been excluded but when concerns did both manufacturing and repair work their reports covered their entire operations. Wholesale and retail establishments also have been excluded and firms which carried on a wholesale or retail business in addition to manufacturing were instructed to confine their statements to manufacturing operations only.

Number of Plants—Final compilations include figures only for establishments which operated all or part of the year. As a rule, a report was received for each single plant or factory but in a few cases a single report covered two or more plants located in the same city or town and operated under a common ownership. On the other hand, when firms carried on more than one trade in the same establishment they were sometimes asked to make a separate return for each industry, in which event the single plant was counted as two or more establishments. In the majority of industries, however, the number of plants is identical with the number of establishments.

Capital Employed—Firms were asked to report only the capital employed for manufacturing purposes and were instructed to exclude any investment which was not a proper charge on manufacturing operations. Investments in other establishments were excluded as also were investments in land, building and equipment which were not used in manufacturing or which were under construction at the end of the year. In cases where the building or machinery was rented, the concerns were instructed to estimate the values on the basis of annual rentals. The value of fixed assets was computed at the "present value" or the original cost less reasonable depreciation plus any increases in land values. Inventory values were as at the end of the year.

Salaried Employees and Salaries—Salaried employees include all supervisory and office employees such as managers, superintendents, professional and office or clerical employees and travelling salesmen who were attached to the plant and who devoted all or the greater part of their time to such work. Employees in branch offices or salesmen on part time were excluded. In reporting the number of salaried employees the firms were instructed to give the number on the most representative date or the average for the year. In cases where the owner was also a manual worker such owner was considered to be a salaried employee. Salaried workers on new construction were excluded.

Salaries covered the actual amount of money paid to all salaried employees as defined above.

Wage-Earners and Wages—All manual workers whether skilled or unskilled who were engaged in the production or delivery of manufactured products were classed as wage-earners. Foremen and overseers who performed work similar to the other employees under their supervision were also included under this category. Wage-earners employed on new construction

were excluded. Firms were asked to give the number of workers or the pay-roll on the 15th of each month or on the nearest representative date. The average for the year in a single establishment was calculated by adding the monthly figures and dividing by 12. The average for an industry was obtained by adding the averages for individual establishments. No distinction was made between full-time and part-time workers.

Wages covered the actual amounts paid during the year to the wage-earners as defined above. Owing to the inclusion of part-time workers the figure obtained by dividing total wages by the average of employees does not represent the average wages received by full-time wage-earners.

Fuel and Electricity—All fuel and electricity for heating or power purposes was included under this heading. Any coal or coke charged directly to melting furnaces or used as a raw material in making manufactured goods was excluded. The value represents the cost delivered at the works.

Power Equipment—Firms were instructed to report under this heading all power units whether in use during the year or not.

Materials Used—Under this heading was included all materials used in the production of the goods recorded on the returns of the reporting companies. The value represents the cost delivered at the works. Any goods purchased for resale without further manufacture were excluded, as also were any charges for such items as rent, insurance, depreciation, new machinery, and new construction or plant repairs. The cost of containers and packing materials was included.

Products—Firms were instructed to report under this heading the quantity and value of all goods made during the year whether for home consumption or for export and whether sold during the year or not. The value represents the selling value at the works or the amounts actually received at the factories from the sale of their products, the value for any unsold products being computed at average prices. In cases where goods were transferred to another plant or department which was covered by a separate report, the producers were asked to give the transfer values as entered in their book. In certain specific industries the value of factory sales was asked for instead of the value of production but in most instances and unless otherwise specified the value shown is the value of actual output.

The products made by the establishments in a given industry, on the one hand, usually include minor products different from those covered by the industry designation, and, on the other hand, may not include the entire output of products normally belonging to the industry because some goods of this class may be made as secondary products in other industries. In the detailed tables for individual industries the figures relating to specific products are, therefore, likely to be incomplete. In most cases this fact is indicated by an asterisk and total figures are given in special tables. The alphabetical list for all industries also helps to avoid any misunderstanding by combining production data for all industries in the group.

Value Added by Manufacturing—The value of products is not a satisfactory measure of the importance of a given industry because only a part of this value is actually created within the industry, another, and often a larger part being contributed by the value of the materials used. Again, the finished products of one industry become the raw materials of another, thus leading to a multiplication in values as the materials go through the different manufacturing processes. This duplication is eliminated and a truer measure of the importance of an industry indicated by the "value added by manufacturing" which is obtained by deducting the cost of materials from the selling value of products. The cost of fuel and electricity has not been considered in this calculation nor have such miscellaneous costs as insurance, advertising, etc.

PREFACE

This report presents figures on production, capital, employees, etc., for the manufacturing plants in Canada which use non-ferrous metals as their principal materials. Smelters and refineries, brass foundries, jewellery and silverware factories, electrical equipment factories and other such works which were engaged in fabricating non-ferrous metals are covered by this review.

The importance of this group of factories to Canada's industrial life is indicated by the fact that, in 1934 the 487 plants employed 30,177 workers and produced goods worth \$237,233,670. This output, however, was 16 per cent below the record of \$283,545,666 in 1929 when 39,867 persons were employed in the 408 establishments which operated in that year.

Statistics given herein are for the years 1933 and 1934 bringing up-to-date, in printed form, the yearly records which were started in 1920.

Attention is directed to the notes on the preceding pages which outline the Bureau's classification of industries for the collection of production statistics and describe the various terms used in the report.

The letters "n.o.p." or "n.e.s." mean "not otherwise provided for" or "not elsewhere specified".

The alphabetical lists of materials (Table 22) and of products (Table 23) provide convenient summaries for the several industries in this group. A similar list of products for all manufacturing industries in Canada is published annually by the Bureau and may be obtained upon request.

Statistics of imports and exports are available on a monthly basis, and detailed reports are published quarterly and annually.

This report has been prepared by Mr. Harold McLeod, B.Sc., under the direction of Mr. W. H. Losee, B.Sc., Chief of the Mining, Metallurgical and Chemical Branch of the Bureau.

R. H. COATS,
Dominion Statistician.

DOMINION BUREAU OF STATISTICS,
OTTAWA, November 18, 1935.

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DOMINION BUREAU OF STATISTICS

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MANUFACTURES OF THE NON-FERROUS METALS IN CANADA, 1934

CHAPTER ONE

GENERAL REVIEW

Final statistics for 1934 show that the manufactures from non-ferrous metals amounted in value to \$237,233,670 at the works. This total was 44 per cent above the corresponding value of \$164,765,604 for 1933 and was higher than in any preceding year except 1929 when the peak of \$283,545,666 was attained and 1930, the second best year on record, when output was valued at \$250,458,721.

A total of 487 factories were in operation in this group in 1923 or 10 more than in the previous year but capital employed declined \$2·8 millions to \$263,488,479. The number of persons employed, however, increased to 30,177 from 25,273 in 1933 and payments for salaries and wages advanced to \$35,097,986 from \$28,096,026. The cost of materials and supplies used during 1934 was \$119,713,328 as against \$71,990,608 in 1933 and the value added by manufacturing was \$117,520,342 compared with \$92,774,906 in 1933.

Each of the industries in this group showed a gain in output value in 1934 compared with 1933. The greatest recovery was in the non-ferrous smelting and refining industry which advanced 49 per cent to \$149,936,239; brass and copper products increased 47 per cent in value to \$19,309,314; the electrical apparatus industry, 36 per cent to \$50,234,811; white metal alloys, 23 per cent to \$5,227,047; jewellery and silverware, 23 per cent to \$7,859,902, and the miscellaneous industry, 40 per cent to \$920,924.

Most of the factories were located in Ontario and Quebec. In 1934 Ontario had 318 establishments or 65 per cent of the total for the entire group and their output valued at \$150,327,372 accounted for 63 per cent of the total for Canada. Quebec had 110 manufacturing plants and an output valued at \$57,108,642. British Columbia had 27 works and a production of \$20,877,471, and Manitoba had 20 plants with an output at \$7,588,338. There were also 6 factories in Alberta, 3 in Nova Scotia, 2 in New Brunswick, and 1 in Saskatchewan. Compared with 1933 the value of production advanced \$60 millions in Ontario; \$6·7 millions in Quebec, \$5·2 millions in British Columbia, \$166,000 in Nova Scotia and New Brunswick, and \$7,000 in Saskatchewan and Alberta.

Capital employed in 1934 totalled \$263,488,479 of which \$160,158,906 was given as the value of land, buildings, machinery and tools, \$27,542,931 as the inventory value of materials and other supplies on hand and stocks in process, \$30,182,645 as the value of finished products on hand, and \$45,803,997 as the total of cash, bills and accounts receivable and other working capital. The smelting and refining industry and the electrical apparatus industry together accounted for 85 per cent of the total investment, the former showing a total of \$146,047,422

and the latter, \$77,980,366; brass and copper products came next at \$22,325,567; jewellery and silverware, \$7,528,257; white metal alloys, \$4,847,914; aluminium products, \$3,759,900; and the miscellaneous group, \$999,053.

Factories in Ontario employed capital amounting to \$157,449,563 and the works in Quebec reported a total of \$56,795,895. For the other provinces the totals were: British Columbia, \$43,035,799; Manitoba, \$4,382,967; Nova Scotia and New Brunswick, \$680,024; Saskatchewan and Alberta, \$1,144,231.

The number of employees in the non-ferrous metal fabricating plants was 30,177 in 1934 compared with 25,273 in 1933. Salaried workers included 4,767 males and 1,535 females, a total of 6,302 who were paid \$11,302,042 during the year. Wage-earners averaged 23,875 in number, including 20,462 males and 3,413 females and payments for wages during the year amounted to \$23,795,944.

Concerns in Ontario employed 19,433 workers; in Quebec, 6,566; in British Columbia, 3,248; in Manitoba, 543; in New Brunswick and Nova Scotia, 257; in Saskatchewan and Alberta, 130.

The electrical industry employed the largest number of workers with an average pay roll of 13,657 hands; smelting and refining was next at 8,298; brass and copper products, 3,932; jewellery and silverware, 2,420; white metal alloys, 790; aluminium products, 789; and the miscellaneous group, 291.

In 1934 the average number of wage-earners was 23,875. In January the pay rolls carried 21,455 names from which there was a steady gain to 25,627 in November. A slight decline occurred in the closing month of the year. In 1933 the average was 19,500.

Expenditures for fuel and power totalled \$5,364,840 in 1934 compared with \$4,347,012 in 1933. Electric power alone cost \$4,111,166 in 1934 and \$3,245,784 in 1933, the quantities being 1,155,088,561 k.w.h. and 893,645,107 k.w.h. respectively.

Plants in Ontario used fuel worth \$812,134 and electric power worth \$1,247,569 while concerns in Quebec paid out \$300,542 for fuel and \$731,620 for electricity.

Consumption of bituminous coal in 1934 was reported at 114,263 tons and anthracite coal at 4,298 tons. Coke, exclusive of that used in blast furnaces, amounted to 10,118 tons; fuel oil, 5,326,191 gallons; manufactured gas, 237,762 M cubic feet; natural gas, 21,252 M cubic feet; gasoline, 73,630 gallons; kerosene, 11,591 gallons; wood, 552 cords; and other fuel, \$9,514.

Power installations included 64 steam engines rated at 27,120 h.p., 17 internal combustion engines at 573 h.p., 18 hydraulic turbines at 18,460 h.p., 15,663 electric motors at 359,095 h.p. run by purchased power and 1,688 electric motors at 22,055 h.p. run by power generated in the producing plants. The number of boilers in use was 195 and the total rating of these installations was given at 43,551 h.p.

Imports of non-ferrous metals and their products into Canada during 1934 were valued at \$25,959,546 as against \$18,035,947 in 1933. Of this total \$19,025,509 or 74 per cent came from the United States and \$4,071,354 or 17 per cent came from the United Kingdom.

Exports, not including re-exports, during 1934 were appraised at \$93,677,123 of which \$46,459,152 went to the United Kingdom and \$23,554,085 to the United States. In 1933 exports totalled \$69,340,625 in value. Re-exports amounted to \$444,998 in 1934 and \$329,408 in 1933.

MANUFACTURES OF THE NON-FERROUS METALS

Table 2.—Principal Statistics of the Manufactures of the Non-Ferrous Metals in Canada, by Provinces, 1930-9134

Years	Number of plants	Capital employed \$	Average number of employees	Salaries and wages \$	Cost of fuel and electricity at works \$	Cost of materials at works \$	Selling value of products at works \$	Value added by manufacturing \$
NOVA SCOTIA AND NEW BRUNSWICK*								
1930	6	979,888	371	367,111	35,778	208,399	370,587	162,188
1931	6	860,615	287	280,714	24,255	107,706	511,815	404,109
1932	5	840,952	223	159,102	18,697	52,184	268,575	216,391
1933	5	829,077	168	164,738	18,509	50,230	242,800	192,570
1934	5	680,024	257	219,237	23,887	74,600	408,863	334,263
QUEBEC								
1930	82	83,890,714	10,632	14,580,384	1,969,440	24,008,747	60,203,968	35,595,221
1931	85	81,275,872	8,913	11,682,020	2,099,984	29,086,280	58,022,652	28,936,352
1932	92	64,276,923	6,598	8,312,237	2,018,329	27,093,942	52,612,669	25,548,727
1933	107	60,674,602	5,736	6,074,525	944,760	26,632,312	50,422,332	23,790,020
1934	110	56,795,895	6,566	7,869,308	1,032,162	32,322,584	57,108,642	24,786,058
ONTARIO								
1930	289	175,109,832	23,821	31,053,457	3,752,685	68,390,575	159,709,057	91,318,462
1931	311	171,842,384	21,154	27,060,152	3,067,258	55,922,021	127,738,686	71,816,665
1932	303	159,915,537	16,950	19,301,667	1,899,921	32,157,861	77,913,135	45,755,274
1933	312	159,329,946	16,055	17,173,992	1,745,620	35,260,861	90,304,137	55,043,276
1934	318	157,440,563	19,433	22,395,615	2,059,703	72,575,785	150,327,372	77,751,587
MANITOBA								
1930	17	7,143,515	312	410,961	30,991	1,568,811	2,335,879	707,068
1931	20	9,996,206	712	1,401,933	89,599	2,344,379	7,091,919	4,717,540
1932	18	4,944,730	541	735,570	102,119	2,671,379	7,182,665	4,511,286
1933	20	3,761,631	356	455,802	72,632	2,481,682	7,206,575	4,724,893
1934	20	4,382,967	543	434,613	86,826	2,215,032	7,588,338	5,373,306
SASKATCHEWAN AND ALBERTA								
1930	8	726,975	67	74,198	10,269	276,360	443,928	167,568
1931	7	376,859	45	57,104	6,767	139,856	264,855	124,099
1932	7	355,271	44	56,984	6,274	126,067	255,466	129,399
1933	7	1,248,814	79	119,455	20,878	332,986	915,991	583,105
1934	7	1,144,231	130	102,086	20,334	294,787	922,984	628,197
BRITISH COLUMBIA								
1930	26	57,095,625	3,553	5,832,916	2,600,418	16,685,519	27,395,322	10,709,803
1931	26	54,044,017	3,303	5,615,850	2,450,009	7,742,516	18,232,505	10,489,959
1932	26	41,712,028	2,348	4,189,543	1,980,106	5,833,507	13,848,807	8,015,300
1933	26	40,422,373	2,879	3,210,514	1,544,613	7,232,637	15,673,769	8,491,132
1934	27	43,035,799	3,248	4,077,037	2,141,928	12,230,540	20,877,471	8,616,931
Canada								
1930	128	325,605,549	38,756	52,319,027	8,399,591	111,738,411	250,458,721	138,720,310
1931	455	318,395,983	31,411	46,111,373	7,737,871	95,312,788	211,832,412	116,519,624
1932	452	272,045,441	28,701	32,755,103	6,025,415	67,934,910	152,111,317	84,176,377
1933	177	265,266,413	25,273	28,099,026	4,317,012	71,930,605	161,765,601	92,771,996
1934	487	263,188,479	30,127	35,037,986	5,384,840	419,713,328	237,233,670	117,520,312

*Includes 2 firms in New Brunswick in each of 1930, 1931, 1932, 1933 and 1934.

†Includes 2 firms in Saskatchewan in 1930, and 1 firm in each of 1931, 1932, 1933 and 1934.

Table 3.—Principal Statistics of the Manufactures of the Non-Ferrous Metals in Canada, by Industries and by Provinces, 1933

NOTE.—Under the Statistics Act the Bureau is not permitted to publish information which will in any way reveal the operations of individual concerns. Therefore, in the analyses by provinces, separate figures are not shown for the industries in which there were only 1 or 2 plants in operation. Data for these concerns are, however, included in the totals.

Provinces and industries	Number of plants	Capital employed	Average number of employees	Salaries and wages	Cost of fuel and electricity at works	Cost of materials at works	Selling value of products at works	Value added by manufacturing
NOVA SCOTIA AND NEW BRUNSWICK:								
Brass and copper products	2							
Jewellery and silverware	2							
Electrical apparatus and supplies	1							
Total:	5	\$29,077	168	164,738	18,509	56,230	242,800	192,570
QUEBEC:								
Aluminium products	1							
Brass and copper products	26	7,833,391	1,065	1,064,714	160,791	3,580,672	5,140,007	1,568,335
White metal alloys	11	1,018,824	122	159,584	12,897	854,677	1,378,033	523,356
Jewellery and silverware	36	1,467,149	935	603,619	12,066	882,381	1,788,229	905,848
Electrical apparatus and supplies	24	18,292,685	2,772	3,758,367	212,731	2,461,880	6,966,010	4,504,730
Miscellaneous non-ferrous metal products	5							
Non-ferrous metal smelting and refining	4	31,908,997	1,061	1,355,220	543,572	18,827,565	35,058,237	16,230,672
Total:	107	\$6,674,002	5,736	6,974,525	944,766	26,632,312	50,422,332	23,790,620
ONTARIO:								
Aluminium products	14	3,646,488	833	664,964	77,401	1,457,839	2,755,874	1,297,835
Brass and copper products	79	12,667,878	2,006	2,005,495	255,263	3,437,836	6,991,934	3,554,098
White metal alloys	14	3,379,481	524	567,082	52,223	1,455,929	2,622,457	1,160,528
Jewellery and silverware	56	5,977,214	1,462	1,522,508	69,464	1,766,492	4,452,778	2,680,286
Electrical apparatus and supplies	130	61,630,220	8,696	8,421,709	617,850	11,826,510	29,367,697	17,541,187
Miscellaneous non-ferrous metal products	12	972,418	199	205,380	10,031	155,140	594,543	430,403
Non-ferrous metal smelting and refining	7	71,056,241	2,535	3,783,854	663,388	15,161,115	43,519,054	28,357,939
Total:	312	\$59,329,916	16,055	17,123,992	1,745,670	35,260,851	90,301,137	55,043,276
MANITOBA:								
Brass and copper products	6	491,940	103	121,029	17,172	238,321	528,493	290,172
White metal alloys	2							
Jewellery and silverware	1							
Electrical apparatus and supplies	8	460,198	107	100,389	8,816	133,709	303,590	169,881
Miscellaneous non-ferrous metal products	2							
Non-ferrous metal smelting and refining	1							
Total:	20	3,761,631	356	455,802	72,632	2,481,682	7,206,575	4,724,898
SASKATCHEWAN AND ALBERTA:								
Brass and copper products	1							
Jewellery and silverware	2							
Electrical apparatus and supplies	4	96,641	15	17,521	2,080	15,185	37,198	22,013
Total:	7	1,248,814	79	119,455	20,878	332,886	915,991	583,105
BRITISH COLUMBIA:								
Brass and copper products	9	91,431	40	36,661	4,525	19,809	79,101	50,382
White metal alloys	2							
Jewellery and silverware	6	55,624	31	30,033	1,122	30,311	80,324	50,013
Electrical apparatus and supplies	7	357,181	176	129,879	9,907	65,812	335,230	209,418
Non-ferrous metal smelting and refining	2							
Total:	26	10,122,373	2,879	3,210,514	1,544,613	7,232,637	15,673,769	8,441,132
Canada, 1933:								
Aluminium products	15	3,654,541	638	671,267	77,615	1,438,444	2,778,271	1,319,830
Brass and copper products	123	22,167,121	3,395	3,416,823	459,901	7,409,636	13,150,558	5,740,923
White metal alloys	29	4,842,077	686	785,075	69,275	2,501,790	4,234,751	1,731,961
Jewellery and silverware	103	7,556,158	2,207	2,181,152	84,295	2,093,258	6,367,898	3,671,610
Electrical apparatus and supplies	174	80,844,131	11,767	12,428,430	861,575	14,501,269	37,012,569	22,508,210
Miscellaneous non-ferrous metal products	19	1,123,131	226	233,098	12,029	180,618	638,316	477,698
Non-ferrous metal smelting and refining	14	146,085,281	6,360	8,403,181	2,792,322	43,212,563	100,501,297	57,318,724
Total:	477	266,266,413	25,273	28,099,026	4,347,012	71,990,608	161,763,604	92,271,996

Table 4.—Principal Statistics of the Manufactures of the Non-Ferrous Metals in Canada, by Industries and by Provinces, 1934

(See note at beginning of Table 3)

Provinces and industries	Number of plants	Capital employed	Average number of employees	Salaries and wages	Cost of fuel and electricity at works		Cost of materials at works	Selling value of products at works	Value added by manufacturing
					No.	\$	No.	\$	\$
NOVA SCOTIA AND NEW BRUNSWICK: —									
Brass and copper products	2								
Jewellery and silverware	2								
Electrical apparatus and supplies	1								
Total	5	680,924	257	219,237	23,887	74,600	408,863	334,283	
QUEBEC: —									
Aluminium products	1								
Brass and copper products	26	8,092,766	1,133	1,184,527	181,850	4,758,379	7,210,090	2,460,711	
White metal alloys	12	1,061,209	147	183,841	16,080	989,420	1,596,671	607,251	
Jewellery and silverware	38	1,498,533	780	699,470	13,046	989,436	2,134,420	1,144,984	
Electrical apparatus and supplies	24	18,941,439	3,239	4,218,447	244,967	4,050,245	9,800,455	5,750,210	
Miscellaneous non-ferrous metal products	5								
Non-ferrous metal smelting and refining	4	27,050,482	1,226	1,536,332	572,953	21,500,709	36,230,880	14,730,171	
Total	110	56,795,895	6,566	7,869,398	1,032,162	32,322,584	57,108,612	24,786,058	
ONTARIO: —									
Aluminium products	15	3,752,220	784	818,871	103,933	2,114,528	3,717,333	1,602,805	
Brass and copper products	81	12,752,840	2,392	2,597,236	292,841	6,035,541	10,974,073	4,938,532	
White metal alloys	15	3,295,046	609	611,799	56,035	1,924,287	3,325,569	1,401,282	
Jewellery and silverware	57	5,948,728	1,581	1,896,351	78,165	2,380,871	5,603,501	3,222,630	
Electrical apparatus and supplies	130	58,400,911	10,239	10,830,430	726,374	17,014,883	39,900,081	22,885,248	
Miscellaneous non-ferrous metal products	13	845,217	253	271,808	11,999	195,085	817,618	622,533	
Non-ferrous metal smelting and refining	7	72,454,601	3,575	5,309,120	790,356	42,910,590	85,989,197	43,078,607	
Total	318	157,449,563	19,433	22,395,615	2,059,703	72,575,785	150,327,372	77,751,587	
MANITOBA: —									
Brass and copper products	5	449,140	79	102,075	1,063	194,352	422,237	227,885	
White metal alloys	2								
Jewellery and silverware	1								
Electrical apparatus and supplies	9	455,425	118	116,019	9,726	170,657	370,887	200,230	
Miscellaneous non-ferrous metal products	2								
Non-ferrous metal smelting and refining	1								
Total	20	4,382,967	543	434,613	86,828	2,215,832	7,588,333	5,373,306	
SASKATCHEWAN AND ALBERTA: —									
Brass and copper products	1								
Jewellery and silverware	2								
Electrical apparatus and supplies	4	65,188	21	16,976	2,025	15,939	36,788	20,849	
Total	7	1,144,231	130	102,986	26,334	294,787	922,934	628,187	
BRITISH COLUMBIA: —									
Brass and copper products	10	120,835	53	55,531	5,095	33,509	117,897	84,388	
White metal alloys	2								
Jewellery and silverware	7	61,350	47	45,988	1,424	35,656	89,853	54,197	
Electrical apparatus and supplies	6	107,303	39	37,600	3,277	55,304	125,154	69,850	
Non-ferrous metal smelting and refining	2								
Total	27	43,035,799	3,248	4,077,637	2,141,928	12,230,540	20,877,471	8,616,931	
Canada, 1934: —									
Aluminium products	16	3,759,900	789	826,597	104,115	2,115,100	3,745,433	1,630,333	
Brass and copper products	125	22,325,567	3,932	4,187,652	523,103	11,177,964	19,369,314	8,131,350	
White metal alloys	31	4,847,914	790	840,698	78,111	3,138,319	5,227,047	2,088,729	
Jewellery and silverware	187	7,528,257	2,420	2,650,918	93,618	3,418,798	7,859,902	4,441,104	
Electrical apparatus and supplies	174	77,988,366	13,657	15,220,022	936,528	21,308,006	50,231,811	28,926,865	
Miscellaneous non-ferrous metal products	20	999,053	291	312,863	14,623	229,589	920,924	691,335	
Non-ferrous metal smelting and refining	11	146,047,422	8,298	11,059,286	3,561,712	78,325,552	149,936,239	71,610,687	
Total	487	263,489,479	30,177	35,097,986	5,364,840	119,713,328	237,233,670	117,520,342	

Table 5.—Capital Employed in the Manufacture of the Non-Ferrous Metals in Canada,
by Industries and by Provinces, 1933

Provinces and industries	1933				Total 1933
	Present value of lands, buildings, machinery and tools	Inventory value of materials on hand, stocks in process, fuel and other supplies	Inventory value of finished products on hand	Operating capital (cash, bills and accounts receivable, etc.)	
	\$	\$	\$	\$	\$
NOVA SCOTIA AND NEW BRUNSWICK:—					
Total*.....	365,043	133,679	138,419	191,936	829,077
QUEBEC:—					
Brass and copper products.....	5,608,406	749,249	520,128	955,606	7,333,331
White metal alloys.....	445,056	62,603	191,617	319,548	1,014,824
Jewellery and silverware.....	546,461	395,337	185,334	340,017	1,467,110
Electrical apparatus.....	10,710,250	1,712,616	3,212,819	2,656,970	18,292,085
Miscellaneous non-ferrous metal products.....	70,740	18,5+1	13,192	43,030	145,503
Non-ferrous metal smelting and refining.....	19,466,009	1,779,034	3,803,486	6,800,468	31,909,997
Total.....	36,847,282	4,717,410	7,986,576	11,123,334	60,674,602
ONTARIO:—					
Aluminium products.....	1,800,679	386,382	931,832	437,595	3,646,488
Brass and copper products.....	7,124,741	1,327,063	1,434,870	2,781,174	12,667,878
White metal alloys.....	1,962,227	297,077	456,090	664,087	3,379,481
Jewellery and silverware.....	2,506,342	1,106,711	795,603	1,568,498	5,977,214
Electrical apparatus.....	28,224,063	6,430,223	4,901,347	22,094,093	61,630,226
Miscellaneous non-ferrous metal products.....	322,068	132,385	111,980	406,875	972,418
Non-ferrous metal smelting and refining.....	56,885,357	7,185,610	3,952,824	3,032,450	71,056,241
Total.....	98,915,477	16,845,491	12,584,506	30,984,472	159,329,946
MANITOBA:—					
Brass and copper products.....	270,300	64,422	16,119	141,098	491,910
Electrical apparatus.....	217,804	96,498	43,024	102,272	400,198
Total*.....	2,923,496	191,310	365,676	281,149	3,761,631
ALBERTA AND SASKATCHEWAN:—					
Electrical apparatus.....	31,792	10,503	16,467	37,879	96,641
Total*.....	946,490	75,326	120,418	106,586	1,248,814
BRITISH COLUMBIA:—					
Brass and copper products.....	46,966	11,168	8,686	24,011	91,431
Jewellery and silverware.....	19,449	21,001	8,351	6,823	55,624
Electrical apparatus.....	143,443	65,590	14,158	133,990	357,181
Total*.....	22,418,704	3,576,742	8,665,628	5,261,299	46,422,373
Canada:—					
Aluminium products.....	1,891,039	386,382	931,832	445,288	3,651,511
Brass and copper products.....	13,542,325	2,342,951	2,129,673	4,152,142	22,167,121
White metal alloys.....	2,632,612	375,191	726,240	1,054,651	4,412,077
Jewellery and silverware.....	3,091,981	1,510,398	990,518	1,921,031	7,550,158
Electrical apparatus.....	39,338,732	8,296,950	8,188,315	25,028,104	80,814,131
Miscellaneous non-ferrous metal products.....	398,158	150,986	126,122	449,865	1,123,131
Non-ferrous metal smelting and refining.....	101,508,625	12,446,854	16,768,433	15,361,312	146,085,284
Total.....	162,416,492	25,539,852	29,861,223	48,448,776	266,266,443

*Totals also include data for industries in which there were only one or two plants in operation; for the number and distribution of these factories see Tables 3 and 4.

Table 6.—Capital Employed in the Manufactures of the Non-Ferrous Metals in Canada,
by Industries and by Provinces, 1934

Provinces and industries	1934				Total 1931
	Present value of lands, buildings, machinery and tools	Inventory value of materials on hand, stocks in process, fuel and other supplies	Inventory value of finished products on hand	Operating capital (cash, bills and accounts receivable, etc.)	
	\$	\$	\$	\$	\$
NOVA SCOTIA AND NEW BRUNSWICK:—					
Total*.....	369,553	131,226	63,503	115,739	630,024
QUEBEC:—					
Brass and copper products.....	5,579,005	853,881	668,573	991,307	8,092,766
White metal alloys.....	400,169	120,803	139,406	400,832	1,061,209
Jewellery and silverware.....	573,142	342,133	283,364	299,893	1,495,533
Electrical apparatus.....	10,557,718	2,015,718	3,198,955	3,169,048	15,941,439
Miscellaneous non-ferrous metal products.....	70,848	20,575	9,605	32,758	143,786
Non-ferrous metal smelting and refining.....	19,048,269	1,363,535	2,001,982	4,636,716	27,050,482
Total.....	36,229,510	4,716,645	6,301,865	9,547,875	56,795,895
ONTARIO:—					
Aluminium products.....	1,792,758	319,138	1,104,167	536,157	3,752,229
Brass and copper products.....	7,184,653	1,330,129	1,282,936	2,945,123	12,732,840
White metal alloys.....	1,778,601	240,633	448,316	827,433	3,295,016
Jewellery and silverware.....	2,442,795	1,259,995	711,010	1,534,928	5,918,728
Electrical apparatus.....	27,718,404	6,207,622	5,375,771	19,099,114	58,400,911
Miscellaneous non-ferrous metal products.....	324,604	147,201	77,801	295,611	845,317
Non-ferrous metal smelting and refining.....	57,870,674	7,485,135	4,349,327	2,749,465	72,451,601
Total.....	99,112,552	16,999,852	13,359,328	27,987,831	157,449,563
MANITOBA:—					
Brass and copper products.....	276,131	48,768	22,899	101,342	449,140
Electrical apparatus.....	203,032	86,129	40,721	125,543	453,425
Total*.....	3,062,897	182,111	870,565	267,394	4,382,967
ALBERTA AND SASKATCHEWAN:—					
Electrical apparatus.....	19,495	13,452	19,022	13,219	65,188
Total*.....	783,719	72,235	223,944	64,333	1,111,231
BRITISH COLUMBIA:—					
Brass and copper products.....	67,229	14,386	8,466	30,754	120,835
Jewellery and silverware.....	17,083	20,259	8,426	15,582	61,350
Electrical apparatus.....	65,062	24,935	8,584	8,722	107,303
Total*.....	20,500,675	5,450,862	9,363,437	7,620,835	43,635,799
CANADA:—					
Aluminium products.....	1,793,118	319,138	1,104,167	543,477	3,749,900
Brass and copper products.....	13,507,313	2,421,390	2,067,745	4,225,912	22,323,567
White metal alloys.....	2,109,237	390,961	692,421	1,355,286	4,847,914
Jewellery and silverware.....	3,043,413	1,626,380	1,002,800	1,855,661	7,528,257
Electrical apparatus.....	38,567,111	8,319,336	8,613,053	22,120,846	77,980,366
Miscellaneous non-ferrous metal products.....	401,152	167,726	88,076	338,719	999,053
Non-ferrous metal smelting and refining.....	100,331,062	14,264,927	16,581,377	14,861,056	116,017,422
Total.....	160,158,906	27,542,931	30,182,645	45,603,997	263,488,479

*Total includes also data for industries in which there were only one or two plants in operation; for the number and distribution of these factories see Tables 3 and 4.

Table 7.—Employees, Salaries and Wages in the Manufactures of the Non-Ferrous Metals in Canada, by Industries and by Provinces, 1933

Provinces and industries	Salaried employees		Wage-earners		Total employees	Salaries	Wages	Total salaries and wages
	Male	Female	Male	Female				
NOVA SCOTIA AND NEW BRUNSWICK:						\$	\$	\$
Total*.....	42	11	108	7	168	66,806	97,932	164,738
QUEBEC:								
Brass and copper products.....	214	42	730	79	1,065	398,818	665,896	1,064,714
White metal alloys.....	39	6	73	4	122	85,750	73,834	159,584
Jewellery and silverware.....	81	41	418	145	685	200,483	403,138	603,619
Electrical apparatus and supplies.....	781	241	1,334	416	2,772	2,115,551	1,042,816	3,758,367
Miscellaneous non-ferrous metal products.....	8	2	11	5	26	15,317	11,401	26,718
Non-ferrous metal smelting and refining.....	82	15	958	6	1,061	207,932	1,147,288	1,355,220
Total	1,208	348	3,525	655	5,736	3,629,918	3,941,607	6,971,525
ONTARIO:								
Aluminium products.....	104	34	440	55	633	217,233	447,731	664,964
Brass and copper products.....	400	92	1,395	119	2,006	812,238	1,183,257	2,005,495
White metal alloys.....	68	39	291	126	524	194,700	372,382	567,082
Jewellery and silverware.....	205	107	904	246	1,462	531,082	991,426	1,522,504
Electrical apparatus and supplies.....	1,727	618	4,844	1,507	5,698	3,959,006	4,462,103	8,421,109
Miscellaneous non-ferrous metal products.....	42	11	111	35	199	92,577	112,803	205,380
Non-ferrous metal smelting and refining.....	174	16	2,345	.....	2,535	580,772	3,190,082	3,786,854
Total	2,720	917	10,330	2,088	16,055	6,398,208	10,775,784	17,173,992
MANITOBA:								
Brass and copper products.....	21	4	78	.....	103	54,400	66,629	121,029
Electrical apparatus and supplies.....	24	6	74	3	107	57,620	42,769	100,389
Total*	56	14	281	5	356	139,531	316,271	455,802
ALBERTA AND SASKATCHEWAN:								
Electrical apparatus and supplies.....	7	.....	8	.....	15	8,955	8,566	17,521
Total*	17	.....	62	.....	79	35,496	63,950	119,455
BRITISH COLUMBIA:								
Brass and copper products.....	5	1	33	1	40	6,742	29,919	36,661
Jewellery and silverware.....	7	.....	24	.....	31	7,143	22,890	30,033
Electrical apparatus and supplies.....	28	6	142	.....	176	71,006	57,973	129,679
Total*	378	62	2,438	1	2,879	743,098	2,467,416	3,210,514
Canada, 1933:								
Aluminum products.....	105	35	441	55	638	223,302	447,965	671,267
Brass and copper products.....	685	148	2,356	206	3,395	1,351,604	2,062,219	3,416,823
White metal alloys.....	115	50	385	130	680	301,525	163,550	765,075
Jewellery and silverware.....	300	152	1,362	393	2,207	749,714	1,431,438	2,181,152
Electrical apparatus and supplies.....	2,567	871	6,403	1,926	11,767	6,213,638	6,211,792	12,428,430
Miscellaneous non-ferrous metal products.....	51	13	122	40	226	108,894	124,201	233,098
Non-ferrous metal smelting and refining.....	596	83	5,675	6	6,360	1,461,380	6,941,801	8,403,181
Total	4,431	1,352	16,744	2,756	25,273	10,413,057	17,685,969	28,099,026

*Totals also include data for industries in which there were only one or two plants in operation; for the number and distribution of these factories see Tables 3 and 4.

MANUFACTURES OF THE NON-FERROUS METALS

Table 8.—Employees, Salaries and Wages in the Manufactures of the Non-Ferrous Metals in Canada, by Industries and by Provinces, 1934

Provinces and industries	Salaried employees		Wage-earners		Total em- ployees	Salaries	Wages	Total salaries and wages
	Male	Female	Male	Female				
NOVA SCOTIA AND NEW BRUNSWICK:						\$	\$	\$
Total*.....	59	13	173	12	257	89,499	129,738	219,237
QUEBEC:								
Brass and copper products.....	200	45	804	84	1,133	405,322	779,205	1,184,527
White metal alloys.....	34	6	101	6	147	85,203	98,638	183,841
Jewellery and silverware.....	88	45	475	172	780	219,862	470,608	699,470
Electrical apparatus and supplies.....	855	284	1,005	495	3,239	2,103,155	2,115,292	4,218,447
Miscellaneous non-ferrous metal products.....	13	3	15	5	36	24,384	14,671	39,055
Non-ferrous metal smelting and refining.....	141	8	1,071	6	1,226	286,474	1,249,858	1,536,332
Total.....	1,334	392	4,672	768	6,566	3,131,801	4,737,597	7,869,398
ONTARIO:								
Aluminium products.....	106	40	560	78	784	232,198	586,673	818,871
Brass and copper products.....	402	108	1,734	148	2,392	869,742	1,727,494	2,597,236
White metal alloys.....	73	40	362	134	609	199,864	411,935	611,799
Jewellery and silverware.....	218	112	978	273	1,581	611,263	1,285,088	1,896,351
Electrical apparatus and supplies.....	1,822	679	5,782	1,956	10,239	4,276,206	6,554,224	10,830,430
Miscellaneous non-ferrous metal products.....	49	23	139	42	253	111,133	160,675	271,808
Non-ferrous metal smelting and refining.....	213	41	3,321	.....	3,575	775,896	4,593,224	5,368,120
Total.....	2,883	1,043	12,876	2,631	19,433	7,076,362	15,319,313	22,395,615
MANITOBA:								
Brass and copper products.....	21	1	57	.....	79	56,605	45,470	102,075
Electrical apparatus and supplies.....	35	8	73	2	118	71,364	44,655	116,019
Total*.....	65	11	465	2	543	152,733	281,890	434,613
ALBERTA AND SASKATCHEWAN:								
Electrical apparatus and supplies.....	9	2	10	.....	21	8,005	8,970	16,976
Total*.....	18	2	110	.....	130	33,510	68,576	102,086
BRITISH COLUMBIA:								
Brass and copper products.....	9	3	41	.....	53	16,693	38,838	55,531
Jewellery and silverware.....	9	.....	38	.....	47	7,871	38,117	45,988
Electrical apparatus and supplies.....	8	5	26	.....	39	14,691	22,909	37,600
Total*.....	408	74	2,766	.....	3,248	818,197	3,258,840	4,077,037
Canada, 1934:								
Aluminium products.....	109	41	561	78	789	239,359	586,393	826,587
Brass and copper products.....	694	169	2,825	241	3,932	1,453,322	2,732,330	4,187,652
White metal alloys.....	116	51	485	140	790	309,766	530,932	840,698
Jewellery and silverware.....	320	158	1,497	445	2,420	843,967	1,806,981	2,650,948
Electrical apparatus and supplies.....	2,729	978	7,497	2,453	13,657	6,473,422	8,746,600	15,220,022
Miscellaneous non-ferrous metal products.....	64	26	154	47	291	137,517	175,346	312,863
Non-ferrous metal smelting and refining.....	737	112	7,443	6	8,298	1,842,449	9,216,757	11,059,206
Total.....	4,767	1,535	20,462	3,413	30,177	11,302,042	23,795,944	35,097,986

*Totals also include data for industries in which there were only one or two plants in operation; for the number and distribution of these factories see Tables 3 and 4.

Table 9.—Wage-Earners Employed in the Manufactures of the Non-Ferrous Metals in Canada, by Months and by Industries, 1933

Months	Aluminium products	Brass and copper products	White metal alloys	Jewellery and silverware	Electrical apparatus and supplies	Miscellaneous non-ferrous metal products	Non-ferrous metal smelting and refining	Total
	No.	No.	No.	No.	No.	No.	No.	
January.....	443	2,389	496	1,671	8,107	127	5,003	18,236
February.....	457	2,338	498	1,690	7,950	132	4,831	17,896
March.....	470	2,318	493	1,691	7,867	130	4,920	17,901
April.....	477	2,396	485	1,666	7,550	138	4,890	17,602
May.....	469	2,470	487	1,653	7,370	146	4,910	17,705
June.....	471	2,592	500	1,677	7,700	146	5,534	18,620
July.....	473	2,641	522	1,663	7,985	166	6,080	19,530
August.....	523	2,712	520	1,688	8,186	177	6,322	20,108
September.....	531	2,668	531	1,817	8,481	177	6,308	20,573
October.....	547	2,726	544	1,901	8,852	196	6,478	21,244
November.....	571	2,755	561	1,980	9,292	211	6,396	21,766
December.....	561	2,676	557	1,912	9,150	200	6,410	21,466
Average...	496	2,562	515	1,755	8,329	162	5,681	19,500

Table 10.—Wage-Earners Employed in the Manufactures of the Non-Ferrous Metals in Canada, by Months and by Provinces, 1933

Months	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan and Alberta	British Columbia	Canada
	No.	No.	No.	No.	No.	No.	No.	
January.....	15	83	4,170	11,294	239	62	2,367	18,236
February.....	14	47	4,088	11,286	234	61	2,160	17,896
March.....	16	53	4,020	11,271	241	59	2,241	17,901
April.....	13	89	3,999	10,856	257	61	2,327	17,602
May.....	15	91	4,097	10,807	279	63	2,293	17,705
June.....	14	105	4,118	11,701	283	62	2,337	18,620
July.....	13	114	4,184	12,490	301	66	2,362	19,530
August.....	12	128	4,224	12,866	306	66	2,403	20,108
September.....	13	123	4,165	13,487	319	62	2,404	20,573
October.....	13	125	4,348	13,936	305	62	2,455	21,214
November.....	13	125	4,415	14,392	305	62	2,454	21,766
December.....	12	125	4,278	14,252	273	64	2,462	21,466
Average...	14	101	4,180	12,418	286	62	2,439	19,500

Table 11.—Wage-Earners Employed in the Manufactures of the Non-Ferrous Metals in Canada, by Months and by Industries, 1934

Months	Aluminium products	Brass and copper products	White metal alloys	Jewellery and silverware	Electrical apparatus and supplies	Miscellaneous non-ferrous metal products	Non-ferrous metal smelting and refining	Total
	No.	No.	No.	No.	No.	No.	No.	
January.....	587	2,677	589	1,832	8,724	176	6,870	21,455
February.....	831	2,877	600	1,824	9,023	199	6,832	21,986
March.....	622	3,012	587	1,861	9,417	202	7,034	22,735
April.....	628	3,064	601	1,915	9,432	205	7,264	23,109
May.....	638	3,148	609	1,880	9,807	199	7,530	23,911
June.....	640	3,216	607	1,865	9,864	205	7,717	21,114
July.....	628	3,118	636	1,844	9,847	214	7,734	21,021
August.....	622	3,073	625	1,905	10,055	201	7,767	21,218
September.....	642	3,112	649	2,001	10,363	206	7,595	21,588
October.....	644	3,174	632	2,123	11,023	211	7,816	25,623
November.....	686	3,134	676	2,102	11,141	208	7,620	25,627
December.....	675	3,095	654	2,136	10,636	194	7,606	21,986
Average...	639	3,068	625	1,942	9,950	201	7,449	23,875

Table 12.—Wage-Earners Employed in the Manufactures of the Non-Ferrous Metals in Canada, by Months and by Provinces, 1934

Months	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan and Alberta	British Columbia	Canada
	No.	No.	No.	No.	No.	No.	No.	No.
January.....	18	122	4,289	13,921	488	117	2,500	21,455
February.....	17	140	4,316	14,411	491	119	2,492	21,386
March.....	15	147	4,480	14,887	500	120	2,586	22,735
April.....	27	107	4,614	15,014	503	117	2,667	23,109
May.....	16	164	4,849	15,465	486	115	2,716	23,811
June.....	14	189	4,902	15,672	447	106	2,784	24,114
July.....	15	194	4,914	15,586	413	97	2,802	24,021
August.....	15	204	5,070	15,510	444	107	2,898	24,248
September.....	20	206	5,070	15,823	455	103	2,891	24,568
October.....	16	190	5,321	16,606	466	104	2,920	25,623
November.....	13	163	5,217	16,734	447	100	2,953	25,627
December.....	14	147	5,045	16,242	466	108	2,964	24,986
Average.....	16	169	4,840	15,507	467	110	2,766	23,875

Table 13.—Power Equipment in Plants under the Manufactures of the Non-Ferrous Metals in Canada, by Kinds and by Industries, 1933

Industries	Steam engines and turbines	Gasoline, gas and oil engines*	Hydraulic turbines or water wheels	Total primary equipment	Electric motors run by purchased power	Total	Electric motors run by power generated in the same plant	Total electric motors	Boilers
Aluminium products.....					185	195		195	4
H.P.					2,857	2,857		2,857	403
Brass and copper products.....	No. 11	2	2	15	1,254	1,269	15	1,269	34
H.P.	1,380	58		1,488	19,555	21,043	340	19,895	3,207
White metal alloys.....	No. 50				322	322		322	3
H.P.					3,498	3,498		3,498	130
Jewellery and silverware.....	No. 742				742	742		742	16
H.P.					2,877	2,877		2,877	1,015
Electrical apparatus and supplies.....	No. 17	1	7	85	7,273	7,298	805	8,078	87
H.P.	9,034	22	4,400	15,458	76,342	89,798	4,937	81,879	13,042
Miscellaneous non-ferrous metal products.....	No. 67				67	67		67	2
H.P.					437	437		437	175
Non-ferrous metal smelting and refining.....	No. 32	11	21	64	4,265	4,329	832	5,097	48
H.P.	16,542	348	65,160	82,050	232,021	314,071	16,556	248,577	25,459
Total.....	No. 60	14	39	104	14,118	14,222	1,652	15,770	104
H.P.	26,956	428	69,610	96,994	337,587	434,581	21,333	359,420	43,431

*Includes 1 diesel engine rated at 50 horse power.

Table 14.—Power Equipment in Plants under the Manufactures of the Non-Ferrous Metals in Canada, by Kinds and by Provinces, 1933

Provinces	Steam engines and turbines	Gasoline, gas, and oil engines	Hydraulic turbines or water wheels	Total primary equipment	Electric motors run by purchased power	Total	Electric motors run by power generated in the same plant	Total electric motors	Boilers
Nova Scotia.....	No. 5				5	5		5	
H.P.					28	28		28	
New Brunswick.....	No. 1	1			36	36		36	3
H.P.	500	50		550	461	1,011	461	500	
Quebec.....	No. 14		13	27	3,855	3,882	5	3,880	44
H.P.	6,290		51,175	57,465	38,442	95,967	90	58,532	8,244
Ontario.....	No. 43	3	7	53	8,212	8,265	1,306	9,518	127
H.P.	12,166	90	4,400	16,656	180,582	197,238	11,753	192,335	23,087
Manitoba.....	No. 104				104	104		104	1
H.P.					632	632		632	10
Saskatchewan and Alberta.....	No. 31				31	31		31	
H.P.					169	169		169	
British Columbia.....	No. 22	10	10	22	1,875	1,897	341	8,216	19
H.P.	8,000	288	14,035	22,323	117,273	139,596	9,990	127,263	11,590
Total.....	No. 60	14	30	104	14,118	14,222	1,652	15,770	104
H.P.	26,956	428	69,610	96,994	337,587	434,581	21,333	359,420	43,431

Table 15.—Power Equipment in Plants under the Manufacture of the Non-Ferrous Metals in Canada, by Kinds and by Industries, 1934

Industries	Steam engines and turbines	Gasoline, gas, and oil engines	Hydraulic turbines or water wheels	Total primary equipment	Electric motors run by purchased power	Total	Electric motors run by power generated in the same plant	Total electric motors	Boilers
Aluminium products	No.				200	200		200	4
	H.P.				2,964	2,964		2,964	403
Braes and copper products	No.	13	1	1	15	1,365	1,380	15	29
	H.P.	1,530	8	25	1,663	22,748	21,311	343	2,539
White metal alloys	No.					370	370	370	3
	H.P.					3,518	3,518	3,518	130
Jewellery and silverware	No.					782	782	782	15
	H.P.					2,851	2,851	2,851	1,005
Electrical apparatus and supplies	No.	17	1	7	25	7,878	7,803	827	92
	H.P.	9,034	22	4,400	13,456	78,730	92,186	4,962	13,598
Miscellaneous non-ferrous metal products	No.					65	65	65	2
	H.P.					395	395	395	175
Non-ferrous metal smelting and refining	No.	34	15	10	59	5,003	5,062	846	50
	H.P.	16,556	543	14,035	51,134	247,889	279,023	16,750	25,701
Total	No.	64	17	18	99	15,663	15,762	1,688	17,351
	H.P.	27,120	573	18,460	46,155	359,095	465,248	22,055	381,160
									43,551

Table 16.—Power Equipment in Plants under the Manufacture of the Non-Ferrous Metals in Canada, by Kinds and by Provinces, 1934

Provinces	Steam engines and turbines	Gasoline, gas, and oil engines	Hydraulic turbines or water wheels	Total primary equipment	Electric motors run by purchased power	Total	Electric motors run by power generated in the same plant	Total electric motors	Boilers
Nova Scotia	No.				5	5		5	.....
	H.P.				28	28		28	.....
New Brunswick	No.	2			2	36	39	36	3
	H.P.	550			550	461	1,011	461	500
Quebec	No.	15	1	1	17	4,256	4,273	5	40
	H.P.	6,390	65	25	8,480	44,057	50,537	44,147	7,511
Ontario	No.	45	6	7	58	8,838	8,896	1,342	133
	H.P.	12,180	220	4,400	16,800	185,049	201,849	11,975	197,024
Manitoba	No.					198	198	198	.....
	H.P.					4,543	4,543	4,543	.....
Saskatchewan and Alberta	No.					58	58	58	.....
	H.P.					1,178	1,178	1,178	.....
British Columbia	No.	2	10	10	22	2,272	2,294	341	19
	H.P.	8,000	288	14,035	22,323	123,779	146,102	9,990	153,769
Total	No.	64	17	18	99	15,663	15,762	1,688	17,351
	H.P.	27,120	573	18,460	46,155	359,095	465,248	22,055	381,160
									43,551

Table 17.—Fuel and Electricity used in the Manufactures of the

Industries	Anthracite coal	Bituminous coal		Coke	Fuel oil
		Canadian	Imported		
Aluminium products—	Short tons	Short tons	Short tons	Short tons	Imp. gals.
Quantity.....		36	1,814	1,326	111,782
Value.....\$		404	10,045	10,026	8,283
Brass and copper products—					
Quantity.....	1,265	3,959	10,492	3,424	1,245,652
Value.....\$	11,807	21,833	54,494	27,863	95,252
White metal alloys—					
Quantity.....	374	262	1,448	554	147,294
Value.....\$	3,818	1,878	8,845	4,233	10,581
Jewellery and silverware—					
Quantity.....	196	620	4,280	230	30,960
Value.....\$	2,082	3,849	27,092	1,168	2,500
Electrical apparatus and supplies—					
Quantity.....	1,849	23,754	36,344	481	809,393
Value.....\$	15,312	131,792	196,145	3,969	57,820
Miscellaneous non-ferrous metal products—					
Quantity.....	57	.....	635	15	.....
Value.....\$	586	.....	3,717	175	.....
Non-ferrous metal smelting and refining—*					
Quantity.....	84	4,315	16,120	1,783	3,078,478
Value.....\$	957	23,550	88,448	16,528	114,325
Total—					
Quantity.....	3,825	32,916	71,133	7,813	5,423,559
Value.....\$	34,562	183,306	388,786	63,962	288,761

*Coke and coal charged to non-ferrous smelting furnaces have not been included under fuel. For details of these charges see Table 117.

Table 18.—Fuel and Electricity used in the Manufactures of the

Provinces	Anthracite coal	Bituminous coal		Coke	Fuel oil
		Canadian	Imported		
Nova Scotia—	Short tons	Short tons	Short tons	Short tons	Imp. gals.
Quantity.....	15	37	.....	20	425
Value.....\$	255	269	.....	280	51
New Brunswick—					
Quantity.....		1,121	.....	109	54,866
Value.....\$		3,770	.....	1,390	8,086
Quebec—					
Quantity.....	2,224	15,786	1,492	2,926	1,911,514
Value.....\$	20,236	88,813	69,420	21,692	86,287
Ontario—					
Quantity.....	1,586	11,357	60,532	4,345	1,718,713
Value.....\$	14,071	63,740	378,312	35,658	123,745
Manitoba—					
Quantity.....		568	109	157	78,166
Value.....\$		4,393	1,054	2,072	8,032
Saskatchewan—					
Quantity.....		.....	.....	.....	.....
Value.....\$		.....	.....	.....	.....
Alberta—					
Quantity.....		2	.....	1	.....
Value.....\$		11	.....	8	.....
British Columbia—					
Quantity.....		4,075	.....	255	1,659,875
Value.....\$		22,310	.....	2,862	62,560
Total—					
Quantity.....	3,825	32,916	71,133	7,813	5,423,559
Value.....\$	34,562	183,306	388,786	63,962	288,761

See note to Table 17.

Non-Ferrous Metals in Canada, by Kinds and by Industries, 1933

Gasoline	Kerosene	Gas		Wood	Other fuel	Electricity purchased	Total cost at works	Electricity generated for own use	Electricity generated for sale
		Manufactured	Natural						
Imp. gals.	Imp. gals.	M cu. ft.	M cu. ft.	Cords	\$	K.W.H.	\$	K.W.H.	K.W.H.
		250	4,999			5,327,148			
		53	4,819		44	43,941	77,615		
1,832	2,348	14,307	16,341	226		17,170,905			
422	440	13,842	5,482	1,259	407	226,800	459,901		
4,476	346	5,789	908	56		2,171,635			
838	62	5,922	622	445	1,040	30,991	69,275		
1,202	499	10,439	1,003	15		2,514,665			
224	103	9,239	559	65	164	37,250	84,295		
5,199	1,863	78,518	4,316	110		32,693,430			
1,310	302	61,320	3,010	605	66	379,924	831,575	19,930	
4,965		1,475	201	1		293,753			
1,370		1,266	111	4		4,800	12,029		
29,541	4,395	127,372	79	160		833,473,571			
5,653	948	14,011	69	657	5,098	2,522,078	2,792,322	15,442,203	
47,215	9,701	212,889	22,818	568		893,645,107			
9,817	1,908	110,419	9,853	3,035	6,819	3,245,784	4,347,012	15,462,133	

Non-Ferrous Metals in Canada, by Kinds and by Provinces, 1933

Gasoline	Kerosene	Gas		Wood	Other fuel	Electricity purchased	Total cost at works	Electricity generated for own use	Electricity generated for sale
		Manufactured	Natural						
Imp. gals.	Imp. gals.	M cu. ft.	M cu. ft.	Cords	\$	K.W.H.	\$	K.W.H.	K.W.H.
		5				16,785			
		1			50	705	1,611		
						243,434			
						3,652	16,898		
1,655	2,783	26,102		49		128,320,832			
419	519	25,079		404	298	690,993	944,760	19,230	
44,227	5,676	83,741	8,986	181		199,317,709			
9,035	1,054	65,832	6,020	1,051	1,373	1,045,729	1,745,620	7,312,550	
1,268		2,015		93		132,018,901			
340		2,127		511		54,103	72,632		
		90				44,001,100			
		77				14,621	14,628		
		275	13,862			95,073			
		288	3,833			2,040	6,180		
65	1,237	130,666		245		389,031,273			
23	334	16,416		1,069	5,098	1,433,941	1,544,613	8,129,653	
47,215	9,701	242,889	22,848	568		893,645,107			
9,817	1,908	110,419	9,853	3,035	6,819	3,245,784	4,347,012	15,462,133	

Table 19.—Fuel and Electricity used in the Manufactures of the

Industries	Anthracite coal	Bituminous coal		Coke	Fuel oil
		Canadian	Imported		
Aluminium products—	Short tons	Short tons	Short tons	Short tons	Imp. gals.
Quantity.....		58	2,197	1,916	105,672
Value.....	\$	555	12,612	15,663	8,631
Brass and copper products—					
Quantity.....	1,450	5,458	11,262	4,288	1,319,888
Value.....	\$ 14,337	28,193	63,301	35,498	101,052
White metal alloys—					
Quantity.....	321	223	1,866	716	174,255
Value.....	\$ 2,330	1,506	11,984	5,857	13,346
Jewellery and silverware—					
Quantity.....	186	889	4,368	182	23,175
Value.....	\$ 2,097	5,621	28,979	821	1,992
Electrical apparatus and supplies—					
Quantity.....	2,216	25,355	38,465	629	961,321
Value.....	\$ 17,133	141,658	215,700	6,330	68,886
Miscellaneous non-ferrous metal products—					
Quantity.....	67	.....	682	16	.....
Value.....	\$ 728	.....	4,625	179	.....
Non-ferrous metal smelting and refining—*					
Quantity.....	58	3,315	20,131	2,371	2,741,880
Value.....	\$ 889	15,374	113,051	25,506	121,952
Total—					
Quantity.....	4,298	35,298	78,971	10,118	5,326,191
Value.....	\$ 37,514	192,907	450,252	89,854	315,859

*Coke and coal charged to non-ferrous smelting furnaces have not been included under fuel. For details of these charges see Table 118.

Table 20.—Fuel and Electricity used in the Manufactures of the

Provinces	Anthracite coal	Bituminous coal		Coke	Fuel oil
		Canadian	Imported		
Nova Scotia—	Short tons	Short tons	Short tons	Short tons	Imp. gals.
Quantity.....	15	37	.....	.....	350
Value.....	\$ 255	370	.....	.....	39
New Brunswick—					
Quantity.....		2,070	.....	185	93,288
Value.....	\$	7,245	.....	2,436	7,463
Quebec—					
Quantity.....	2,312	18,285	1,502	3,819	2,102,545
Value.....	\$ 19,814	92,465	10,687	30,121	114,860
Ontario—					
Quantity.....	1,971	13,141	77,160	5,248	1,702,010
Value.....	\$ 17,445	75,545	437,273	45,332	131,673
Manitoba—					
Quantity.....		505	290	186	72,861
Value.....	\$	2,391	2,209	2,314	7,688
Saskatchewan—					
Quantity.....		.....	.....	.....	.....
Value.....	\$	.....	.....	.....	.....
Alberta—					
Quantity.....		.....	.....	.....	.....
Value.....	\$	.....	.....	.....	.....
British Columbia—					
Quantity.....		3,260	19	680	1,355,137
Value.....	\$	14,891	83	9,651	54,136
Total—					
Quantity.....	\$ 4,298	35,298	78,971	10,118	5,326,191
Value.....	\$ 37,514	192,907	450,252	89,854	315,859

See note to Table 19.

Non-Ferrous Metals in Canada, by Kinds and by Industries, 1934

Gasoline	Kerosene	Gas		Wood	Other fuel	Electricity purchased	Total cost at works	Electricity generated for own use	Electricity generated for sale
		Manufactured	Natural						
Imp. gals.	Imp. gals.	M cu ft.	M cu. ft.	Cords	\$	K.W.H.	\$	K.W.H.	K.W.H.
		5,929				6,503,335			
		5,422				61,232	104,115		
2,823	1,264	16,635	14,491	401		21,257,215		100	
962	234	13,867	4,879	2,191	485	258,104	523,103		
8,265	312	5,424	2,205	33		2,477,205			
1,329	54	5,792	916	244		34,783	78,141		
3,589	891	12,754	24	4		2,861,837			
718	147	11,544	12	45	116	41,526	93,618		
5,869	1,935	102,778	4,200	43		43,895,946		10,400,000	
1,385	337	77,286	3,128	280	61	454,344	986,528		
5,691		2,207	180	2		337,616			
1,369		2,065	100	10		5,547	14,623		
47,393	7,089	92,035	152	69		1,077,755,407		20,251,795	
10,133	1,539	11,320	123	344	8,852	3,255,630	3,564,712		
73,630	11,591	237,762	21,252	552		1,155,698,561		30,651,905	
15,896	2,311	127,296	8,157	3,114	9,514	4,111,166	5,364,840		

Non-Ferrous Metals in Canada, by Kinds and by Provinces, 1934

Gasoline	Kerosene	Gas		Wood	Other fuel	Electricity purchased	Total cost at works	Electricity generated for own use	Electricity generated for sale
		Manufactured	Natural						
Imp. gals.	Imp. gals.	M cu. ft.	M cu. ft.	Cords	\$	K.W.H.	\$	K.W.H.	K.W.H.
100 330	5 2					16,094 682		1,803	
					125				
						329,330 4,940	22,084		
7,039 1,534	4,274 810	29,129 29,451		65 563		150,524,900 731,620		1,032,162	100
64,665 13,498	6,376 1,246	111,147 82,648	8,787 5,702	191 1,033		272,245,638 1,247,569		2,059,703	22,100,250
1,752 508		3,427 2,151		178 948		146,777,541 68,556		86,826	
		80 80				30,556,530 14,437		14,517	
		230 230	12,465 3,455			92,152 2,126		5,517	
74 26	936 253	93,740 12,730		118 570		548,540,378 2,041,236		2,141,928	8,491,545
73,630 15,896	11,581 2,311	237,762 127,396	21,252 9,157	552 3,114		1,155,088,561 4,111,166		5,364,840	30,651,895

Table 21.—Size of Establishments according to Production, Number of Employees and Capital Employed, 1933 and 1934

	1933				1934			
	Number of plants	Capital employed	Number of employees	Selling value of products at works	Number of plants	Capital employed	Number of employees	Selling value of products at works
(a) Production		\$		\$		\$		\$
Under \$5,000	67	346,478	127	193,064	66	432,250	139	206,418
\$ 5,000-\$ 10,000	59	928,831	265	429,626	58	757,660	240	426,427
\$ 10,001-\$ 25,000	105	2,821,194	775	1,763,596	92	2,106,922	708	1,545,110
\$ 25,001-\$ 50,000	61	4,086,558	812	2,191,334	73	3,731,948	899	2,494,257
\$ 50,001-\$ 100,000	52	6,258,337	1,294	3,762,950	44	4,609,661	1,003	3,179,876
\$ 100,001-\$ 250,000	66	18,300,439	3,580	11,566,279	59	9,966,947	2,438	9,294,076
\$ 250,001-\$ 500,000	25	14,175,964	2,443	8,165,741	48	20,048,583	4,452	16,694,528
\$ 500,001-\$ 1,000,000	19	18,389,004	2,611	12,689,637	21	18,948,945	2,786	14,664,951
Over \$1,000,000	23	200,959,638	13,366	124,000,377	26	202,885,563	17,512	188,728,027
Total.	477	266,266,443	25,273	164,765,604	487	263,488,479	30,177	237,233,670
(b) Number of Employees								
1 or 2	68	403,548	101	432,598	70	461,468	107	691,064
3-10	184	4,888,825	1,055	3,732,073	172	4,467,113	1,001	3,951,489
11-20	62	5,558,758	929	4,647,745	76	4,308,866	1,106	3,972,302
21-50	70	11,746,777	2,260	8,521,064	69	11,660,874	2,231	12,045,858
51-100	48	24,276,926	3,745	17,362,408	46	19,970,924	3,688	20,063,780
101-200	24	28,028,623	3,445	22,774,720	24	18,857,850	3,200	12,267,194
201-500	15	80,582,048	4,702	58,183,467	21	69,412,225	6,380	86,779,891
Over 500	6	110,720,938	9,036	49,111,529	9	134,349,159	12,464	97,462,092
Total.	477	266,266,443	25,273	164,765,604	487	263,488,479	30,177	237,233,670
(c) Capital Employed								
Under \$25,000	206	1,921,042	1,094	2,856,609	216	2,193,303	1,217	3,225,500
\$ 25,000-\$ 100,000	106	5,263,091	1,356	4,313,499	109	5,854,311	1,567	5,999,004
\$ 100,001-\$ 500,000	110	25,172,642	5,647	21,003,226	105	24,102,501	6,333	24,397,464
\$ 500,001-\$ 1,000,000	22	15,496,606	2,199	9,001,204	25	17,098,646	2,749	14,974,308
\$1,000,001-\$5,000,000	22	49,287,238	4,023	49,264,119	22	50,719,847	5,771	64,048,809
Over \$5,000,000	11	169,125,824	10,954	78,326,947	10	163,519,871	12,540	124,588,585
Total.	477	266,266,443	25,273	164,765,604	487	263,488,479	30,177	237,233,670

Table 22.—Alphabetical List of Materials Used in All Industries Classified under the Manufactures of the Non-Ferrous Metals, 1933 and 1934

NOTE.—This table is a composite alphabetical list of all materials used as specified on the various questionnaires sent to the manufacturers of non-ferrous metal products. The letters "n.e.s." mean not elsewhere specified. The "ton" is the short ton of 2,000 pounds unless otherwise specified.

Materials	Industry number (see list on page 30)	Unit of measure	1933		1934	
			Quantity	Cost at works	Quantity	Cost at works
Acid, sulphuric	2-5	lb.	.....	88,166	3,478,722	54,423
Aluminium—						
Castings	2-5	lb.	319,783	146,114	383,247	185,590
Ingots	1-2-5	lb.	6,380,819	1,144,746	9,076,265	1,632,064
Punchings	5	lb.	42,617	10,439	63,485	22,127
Rods and bars	5	lb.	120,679	18,310	128,475	21,960
Scrap	2	lb.	588,647	62,828	1,190,245	149,901
Sheets and circles for making aluminium ware	1	lb.	1,083,615	233,236	1,346,560	381,030
Sheets	2-3-5	lb.	704,849	186,064	1,047,737	221,736
Other and unclassified	2-5	lb.	139,189	28,788	289,321	65,160
Ammium chloride (sal ammoniac)	5	lb.	696,714	23,891	719,330	23,614
Antimony	3-5	lb.	626,777	36,182	578,863	42,836
Argon	5	cu. ft.	71,368	31,697	95,982	41,365
Asbestos—						
Board	5	lb.	49,138	6,513	96,757	16,093
Yarn	5	lb.	52,963	16,830	57,174	20,589
Tape	5	lb.	1,001	1,815	1,577	1,645

Table 22.—Alphabetical List of Materials Used in All Industries Classified under the Manufactures of the Non-Ferrous Metals, 1933 and 1934—(concluded)

Materials	Industry number (see list on page 30)	Unit of measure	1933		1934	
			Quantity	Cost at works	Quantity	Cost at works
Jewellers' findings, waste and scrap.....	4			23,316		34,530
Lead—				\$		\$
Pig.....	2-3-5	lb.	16,812,941	582,759	22,602,040	762,519
Scrap, battery plates.....	3	lb.	11,429,592	171,350	7,286,483	115,521
Scrap, other.....	2-3-5	lb.	2,413,960	70,017	2,753,625	77,642
Sheets.....	5	lb.	12,023	1,001	10,033	741
Other.....	2-5	lb.	606,648	24,333	552,611	21,643
Lead oxide (litharge and red lead).....	5	lb.	4,721,551	253,941	4,899,031	251,977
Lumber.....	2-5	M bd. ft.	1,778	70,446	2,470	107,139
Manganese dioxide.....	5	lb.	2,451,149	42,194	2,646,545	37,275
Metals, other non-ferrous (details not given).....	4			145,488		295,679
Mica.....	5	lb.	35,098	27,129	93,297	60,520
Mineral wool.....	5	lb.	98,374	2,197	194,771	4,451
Nickel.....	2-3	lb.	133,452	40,252	165,190	42,163
Nickel-silver, including blanks for plating.....	2-3-4			346,794		338,909
Nickel-silver tubing.....	5	ft.	57,832	8,168	106,854	15,364
Nitrogen.....	5	cu. ft.	278,830	3,404	255,677	4,915
Oil, switch.....	5	imp. gal.	99,189	25,278	129,584	31,094
Oil, transformer.....	5	imp. gal.	275,634	62,745	321,497	77,539
Ores, concentrates and residues for smelting and refining.....	7			43,242,563		78,325,552
Paint.....	5			41,598		59,288
Paper.....	3-5			256,339		156,994
Plating and polishing supplies.....	2			6,948		14,467
Platinum.....	4			35,714		38,307
Precious and semi-precious stones.....	4			188,130		279,378
Pressboard.....	5			39,630		50,213
Radio cabinets.....	5	no.	72,287	474,239	134,651	898,407
Radio parts for assembling.....	5			1,160,458		1,507,989
Radio tubes.....	5			339,620		551,855
Rouge and other polishes.....	4			24,155		32,798
Rubber.....	5	lb.	963,460	94,833	1,485,673	155,307
Sands, moulding.....	2	lb.	3,575,104	10,307	8,217,054	14,499
Scrap, kind unclassified.....	3	lb.	4,150,925	196,269	7,990,187	379,402
Silk, artificial.....	5	lb.	16,529	20,570	17,091	23,334
Silver—						
Used by jewellery manufacturers.....	4			47,798		41,917
Used by refiners of scrap, etc.....	4			4,868		12,081
Used by silverware manufacturers.....	4			173,953		248,827
Solder.....	2-4-5-6			9,164		11,151
Springs, clock and watch.....	4			16,879		20,024
Steel cutlery.....	4			82,719		114,734
Talc.....	5	lb.	119,677	1,833	193,587	2,299
Tanks, steel.....	5	no.	1,130	17,574	1,712	34,419
Thermometers.....	5	no.	5,701	28,491	10,846	40,446
Tin—						
Ingots.....	2-4			97,899		203,488
Scrap.....	2	lb.	3,568	1,293	91,939	19,830
Pig.....	3	lb.	2,086,320	876,521	2,455,847	1,297,448
Other.....	2-5	lb.	37,339	5,007		10,546
Trimmings, handles, etc., for aluminium ware.....	1			27,324		22,043
Tungsten wire, etc.....	5			48,701		48,996
Type metal, scrap.....	3	lb.	289,341	11,689	1,264,055	37,282
Watch cases.....	4			25,043		35,183
Watch and clock crystals.....	4			11,201		15,501
Watch parts, other, including complete movements.....	4			66,956		92,719
Wire, resistance.....	5			61,808		73,029
Zinc—						
Ingots, slabs and bars.....	2-3-5	lb.	4,294,559	182,090	5,240,356	268,569
Sheets.....	5	lb.	1,401,941	97,845	1,587,233	111,010
Scrap.....	2-3	lb.	417,343	23,850	306,182	10,220
Other.....	2-5-6	lb.	337,493	31,467	330,081	29,711
Zinc chloride.....	5	lb.	231,001	13,303	252,545	13,329
Containers.....				529,843		991,990
All other materials.....	1-2-3-4-5-6-7			6,179,090		8,546,868
Total.....				71,990,608		119,713,328

Table 23.—Alphabetical List of Products Made in All Industries Classified under the Manufactures of the Non-Ferrous Metals, 1933 and 1934

NOTE.—In this table all commodities shown on the reports received from the manufacturers of non-ferrous metal products are listed in alphabetical order. However, it is necessary to point out that all of these items were not printed on the questionnaires which were sent to the producers and that in many cases the item was simply written in as additional information by the reporting firm. In such cases the figures may not represent the entire Canadian output. Again, some of the articles which are listed may have been made also by concerns which have been classified to other industrial groups; the figure (1) indicates that the figures are incomplete for this reason.

The asterisk in the production column indicates that the commodity was reported by only one or two concerns, in which case the Statistics Act does not permit the publication of separate figures.

The letters "n.e.s." mean "not elsewhere specified".

Products	Industry number (See list on page 30)	Unit of measure	1933		1934	
			Quantity	Selling value at works	Quantity	Selling value at works
Aluminium—				\$		\$
Castings (1)	1-2	lb.	266,617	132,082	765,856	238,675
Other (except kitchenware)	1-3-5			1,857,470		2,667,352
Ammeters, switches, coils, distributors, condensers, etc., for automobiles	5			13,065		19,642
Appliances, motor-driven, not elsewhere specified (1)	5			40,588		38,835
Automobile parts (1)	1-2			68,844		181,941
Babbitt metal	3	lb.	1,485,915	320,472	1,948,510	436,182
Batteries—						
Storage—						
For automobile and internal combustion engine starting and ignition	5	no.	446,488	2,106,376	522,132	2,262,960
For farm lighting plants	5	no. of jars	12,423	84,091	13,291	87,928
For motive power	5	no.	2,089	60,551		84,773
For telephone switchboards	5	no.	951	18,769	1,029	25,025
For all other purposes	5	no.	6,774	70,817		257,046
Primary dry cell—						
6-inch cells	5	no. of cells	1,524,714	401,615	1,441,501	398,246
"B" and "C" for radio	5	no. of cells	13,538,823	757,841	14,856,878	865,119
Flashlight	5	no. of cells	6,347,659	384,339	7,371,893	447,930
Parts, supplies and other batteries	5			294,323		355,917
Bells and gongs	2			6,054		8,472
Blanks, nickel-silver, for plating	4			57,589		77,013
Boilers, electric steam (1)	5					
Brass—						
Ingots	2-3	lb.	1,093,578	101,670	2,392,764	198,109
Castings, not elsewhere specified (1)	2-3	lb.	2,323,439	419,188	3,184,836	607,790
Scrap	2	lb.	273,521	16,714	305,156	20,182
Other, including bars and rods, plates, sheets, strips, tubing, wire, etc.	2			1,229,642		1,561,218
Bronze—						
Ingots	2-3	lb.	169,940	17,302	730,654	84,218
Castings, not elsewhere specified (1)	2-3	lb.	995,465	206,474	1,119,006	244,576
Other, including bars and rods, sheets, plates, strips, tubing, wire, etc.	2			45,174		328,058
Bronze powders	2			• • •		• • •
Brushes, carbon, for generators and motors	5			• • •		• • •
Capacitors (static condenser) for power factor correction	5			• • •		• • •
Castings, iron (1)	2	short ton	1,001	136,249	2,080	198,779
Castings, other non-ferrous, chiefly zinc, cadmium and nickel	1-3			58,388		109,102
Cigarette lighters and cases	6			• • •		• • •
Clippers, electric, and vibrators	5			• • •		• • •
Clocks and watches	4-5			589,514		905,950
Cooking and heating apparatus, not elsewhere specified (1)	5			90,036		153,340
Conduit, electrical—						
Flexible (steel and non-metallic)	5	ft.	2,977,382	78,515	4,105,988	76,533
Rigid iron	5	lb.	4,222,832	360,057	6,308,120	530,918
Conduit fittings	5			78,035		98,604
Converter equipment—						
Motor generator sets, A.C. to D.C.	5	no.	29	45,641	43	43,559
Other converter equipment	5			16,607		26,852
Copper—						
Ingots	2	lb.	23,149	1,861	46,072	3,634
Refined (from scrap)	3	lb.	1,598,347	113,679	1,648,869	112,866
Castings, not elsewhere specified (1)	2	lb.	40,055	9,806	55,149	13,421
Bars and rods (except wire rods)	2	lb.	157,283	25,638	238,799	39,706
Wire rods	2	lb.	52,305,438	3,680,284	78,399,083	6,275,199
Scrap	2	lb.	475,722	33,474	1,127,522	78,513
Other, including plates, sheets, pipe, tubing, etc.	2			829,677		1,418,188
Cutlery, silverplated and other (1)	4			257,359		372,048
Cutouts and fuses—						
Primary cutouts, all types	5	no.	10,490	76,541	56,313	103,542
Cutouts for cartridge and plug fuses	5	no.	85,197	4,882	111,514	7,966
Cartridge and other fuses and renewals	5			191,876		274,904

Table 23.—Alphabetical List of Products Made in All Industries Classified under the Manufactures of the Non-Ferrous Metals, 1933 and 1934—(continued)

Products	Industry number (See list on page 30)	Unit of measure	1933		1934	
			Quantity	Selling value at works	Quantity	Selling value at works
Dental supplies (gases, bridges, etc.)	4			\$ 33,642		\$ 26,213
Dies and blocks, hat, aluminium	1			* * *		* * *
Doors, revolving	2			* * *		* * *
Electrical apparatus, not elsewhere specified	5			523,896		653,597
Fans, portable type	5	no.		13,246	1,428	34,089
Fasteners, metal (except zippers)	2			* * *		* * *
Fasteners, zipper and parts	2-3			* * *		334,006
Feeder regulators, induction voltage	5			4,488		13,708
Fire extinguishers (1)	2			45,338		34,871
Flatware, electroplated on nickel-silver	4			736,400		904,607
Flatware, sterling silver	4			201,754		174,989
Floor polishers, electric (1)	2-5			* * *		* * *
Foil (tin, lead, etc.)	3			* * *		* * *
Furnaces, resistance and arc types and industrial ovens	5	no.	37	38,332	45	64,476
Furniture trimmings, metal	2-5			* * *		* * *
Gauges	2			* * *		* * *
Generators, electric—						
Alternating current	5	no.	16	806,481	26	463,645
Direct current, including exciters	5	no.	19	6,000	71	95,682
Steam turbo-generator sets	5	no.	25	2,634	38	3,871
Parts for steam turbo sets	5			9,580		23,082
Glassware (1)	4			31,084		44,334
Gold leaf and gold filled wire	4			41,850		54,210
Gold, including dental gold (from scrap, sweepings, etc.)	4			768,196		957,343
Hair dryers, electric	5			* * *		* * *
Hairpins	2			* * *		* * *
Hardware, automobile (1)	2			* * *		* * *
Hardware, builders' (1)	2			31,672		41,536
Hardware, casket (1)	5			* * *		* * *
Hardware, other	2-5			16,996		72,223
Heaters, air and space, electric	1-5	no.	17,174	73,030	12,001	48,599
Heaters, automobile and automobile engine (1)	5			* * *		* * *
Heaters, water, domestic (1)	5	no.	25,181	84,506	10,159	73,798
Hollow-ware—						
Electro-plated on Britannia metal	4			346,522		355,447
Electro-plated on nickel-silver	4			366,390		391,330
Electro-plated on brass and copper	4			246,865		399,457
Sterling silver	4			129,668		134,111
Hollow-ware and spinnings, brass and copper	2-5			8,520		30,036
Hooks and eyes	2			* * *		* * *
Industrial heating equipment, not elsewhere specified	5			31,444		54,776
Instruments and meters (except ammeters for automobiles)—						
Demand meters	5	no.	1,306	32,073	3,208	60,818
Watthour meters	5	no.	39,732	402,044	65,608	529,485
Electrical indicating and graphic instruments	5	no.	404	32,654	599	31,729
Other electrical instruments and meters	5			58,052		65,149
Meter parts	5			63,383		76,673
Ironers, electric (1)	2-5			* * *		* * *
Irons, flat, electric	5	no.	123,204	233,051	130,137	240,122
Irons, gasoline	6			* * *		* * *
Jewellery of all kinds	4			1,661,942		2,111,750
Kitchenware, aluminium (1)	1-2			843,948		1,013,982
Lamps, incandescent—						
Standard size, all types	5	no.	15,176,002	3,230,911	20,622,906	4,035,361
Miniature size, all types	5	no.	5,763,149	485,166	7,282,187	496,574
Lamps and lanterns, railway and marine	6			* * *		* * *
Lamps and lanterns, gasoline	6			* * *		* * *
Lamp and lantern burners	6			* * *		* * *
Lasts, boot and shoe, aluminium	1			* * *		* * *
Lead—						
Bars and ingots (except antimonial lead)	3	lb.	4,448,617	168,782	2,698,079	100,873
Castings	3	lb.	121,000	18,119	57,485	7,036
Pipe	3	lb.	2,291,606	176,270	2,558,465	228,776
Sheet	3	lb.	1,042,751	79,642	1,782,684	136,166
Traps and fittings	3	lb.	436,623	118,187	441,783	130,472
Antimonial lead	3	lb.	5,103,276	175,027	6,219,485	213,479
Miscellaneous					149,222	25,044

Table 23.—Alphabetical List of Products Made in All Industries Classified under the Manufactures of the Non-Ferrous Metals, 1933 and 1934—(continued)

Products	Industry number (See list on page 30)	Unit of measure	1933		1934	
			Quantity	Selling value at works	Quantity	Selling value at works
Lighting fixtures—				\$		\$
Interior, residential.....	2-5		524,776			633,835
Interior, metal reflectors.....	5		57,451			85,665
Other interior.....	5		85,239			100,808
Exterior lighting standards.....	5		17,352			21,360
Exterior lighting fixtures.....	2-5		45,344			73,220
Exterior lighting control devices.....	5		3,301			9,714
Searchlights and floodlights.....	5		7,399			20,661
Other lighting equipment.....	2-5		152,230			50,156
Lightning rods and supplies.....	2		150,930			48,910
Line material, light and power, excluding wire and insulators.....	5		67,192			218,571
Mantles, lamp, incandescent.....	6		• • •			• • •
Meters, water and gas and parts.....	2		171,312			131,065
Mixers, domestic, electric.....	5		• • •			• • •
Motors, electric, A.C. and D.C. (except starting motors)—						
1/2 h.p. and under (1).....	5	no.	96,887	935,033	120,219	1,171,684
Over 1/2 to 5 h.p., single phase, A.C.	5	no.	3,640	221,040	3,970	178,675
Over 1/2 to 5 h.p., induction.....	5	no.	2,627	196,958	4,994	345,164
Over 1/2 to 5 h.p., D.C.	5	no.	9	1,115	81	8,399
Over 5 to 200 h.p., induction.....	5	no.	1,357	297,462	1,800	415,194
Over 5 to 200 h.p., D.C.	5	no.	7	4,801	22	18,661
200 h.p. and over, induction.....	5	no.	5	18,445	16	49,521
200 h.p. and over, D.C.	5	no.	1	14,963	2	10,446
Synchronous condensers and motors.....	5	no.	23	96,151	44	103,037
Starting and control equipment.....	5		399,853			470,374
Accessories and parts.....	5		80,603			109,264
Nickel-silver plates, sheets, etc.	2		• • •			• • •
Ornaments, church.....	2		• • •			• • •
Ornamental and architectural work, brass and bronze.....	2		49,870			43,967
Ornamental and architectural work, iron.....	2		63,380			40,581
Packing, metal.....	3		• • •			• • •
Panel boards and cabinets.....	5		77,214			101,507
Percolators, electric.....	5	no.	2,115	11,826	3,304	18,301
Pins.....	2		• • •			• • •
Photo engravers' supplies.....	2		• • •			• • •
Platinum from sweepings, etc.	4		3,350			1,075
Plumber's supplies, not elsewhere specified.....	2		637,668			994,020
Pot scourers.....	2		• • •			• • •
Radio apparatus and supplies.....						
Railway car and locomotive bearings and fittings.....	2	lb.	7,809,510	1,087,814	11,341,788	1,140,981
Refined metals (from scrap), not elsewhere specified.....	3	lb.	62,663	4,662	12,508	1,689
Rectifiers for storage battery charging, and parts.....	5	no.	614	24,970	340	32,649
Refrigerators, electric (1).....	2-5		1,893,025			3,581,816
Scrap, kind not specified.....	3	lb.	421,177	16,546	280,106	7,775
Screens, window (1).....	6		27,038			35,145
Shot, dropped and moulded.....	3		• • •			
Sigils, brass and copper.....	2		2,075			4,012
Sigils, electric (1).....	5		220,087			39,436
Silver, from scrap, sweepings, etc.	4		8,766			6,927
Smelter and refinery products.....	7		100,561,297			149,936,239
Solders of all kinds.....	3	lb.	2,244,210	498,362	3,090,359	816,712
Spray painting equipment.....	6		• • •			• • •
Sprays and atomizers for perfume, etc.	6		• • •			• • •
Spectacle frames, parts and cases.....	4		• • •			• • •
Stoves, range-tops, cooking plates, etc., electric (1).....	5		400,781			661,469
Stoves, camp, gasoline.....	6		• • •			• • •
Switch gear and protective equipment (except telephone switchboards)—						
Switchboard panels and equipment.....	5			629,341		867,707
Lightning arresters.....	5			50,739		111,488
Oil circuit breakers.....	5			165,956		309,131
Air circuit breakers.....	5			46,850		78,534
Disconnecting switches.....	5			66,400		125,303
Other equipment, including parts and supplies.....	5			55,656		48,370
Switches, time.....	5			• • •		• • •
Tanks, brass and copper.....	2			55,351		64,082
Taps, brass.....	2			127,780		154,629
Telephone material (telephones, switchboards, etc.).....	5			1,811,509		2,057,404

Table 23.—Alphabetical List of Products Made in All Industries Classified under the Manufactures of the Non-Ferrous Metals, 1933 and 1934—(concluded)

Products	Industry number (See list below)	Unit of measure	1933		1934	
			Quantity	Selling value at works	Quantity	Selling value at works
Therapeutic lamps, etc., electric.	5			\$ 24,605		\$ 18,516
Thermit forging.	1			• • •		• • •
Thermometers.	2			• • •		• • •
Toasters, electric.	5	no.	103,072	174,369	108,889	187,029
Toiletware and dresserware, sterling silver.	4			139,071		145,402
Tin and tin pipe (from scrap).	3	lb.			168,568	106,817
Transformers—						
Distribution transformers, 200 k.v.a. and under and 15,000 volts and below.	5	no.	3,122	471,449	4,081	659,604
Power transformers, 200 k.v.a. to 7,500 k.v.a. inclusive, over 15,000 volts to 110,000 volts.	5	no.	88	347,158	181	664,227
Power transformers, over 7,500 k.v.a. and over 110,000 volts.	5	no.	20	634,249	14	446,931
Current and potential transformers.	5			61,657		108,259
Constant current transformers.	5	no.	14	9,692	15	10,892
Series lamp transformers.	5	no.	157	2,443	405	9,001
Radio transformers.	5			75,504		159,901
Luminous tube and ignition transformers.	5	no.	2,649	38,391		51,036
All other transformers.	5			19,216		66,254
Parts and supplies.	5			73,215		72,629
Tubes, collapsible.	3					
Type and type metal.	3	lb.	2,999,017	230,576	4,102,902	318,644
Vacuum cleaners and parts (1).	2-5			1,257,048		1,517,808
Vacuum tubes—						
Radio receiving tubes.	5	no.	1,808,595	1,094,810	2,367,674	1,389,815
Other vacuum tubes, including X-Ray.	5	no.	14,160	65,415	18,985	94,376
Valves, brass.	2			453,498		769,743
Valves, iron (1).	2	no.		181,800	10,652	344,333
Washing machines and parts (1).	1-2-5			353,780		252,578
Watch cases.	4			161,291		202,630
Water and steam fittings, not elsewhere specified.	2			168,493		112,904
Weatherstrip, metal.	6			54,289		68,750
Welding apparatus.	5			38,755		66,722
Welding portions, rail.	1			• • •		• • •
Wires and cables, electrical (except aluminium)—						
Copper, bare (1).	5			1,117,170		1,682,324
Weatherproof.	5			611,741		939,614
Rubber, insulated, braided.	5			918,527		1,416,529
Cambric, insulated, braided.	5			53,569		90,080
Rubber, cambric and paper insulated.	5			417,366		638,474
Telephone cable of all kinds.	5			387,235		423,922
Armoured cable.	5			406,916		496,277
Cord, heater, lamp, fixture, all rubber, etc.	5			265,591		550,037
All other wires and cables.	5			958,692		1,269,404
Wire cloth, brass and bronze.	2	sq. ft.	1,894,716	878,877	2,213,225	1,067,508
Wire rope, steel (1).	5			• • •		• • •
Wiring devices (except auto starting switches and time switches)—						
Sockets, brass shell.	5			145,016		205,348
Sockets, porcelain.	5			36,459		77,163
Switches, surface and flush types.	5			86,488		138,551
Switches, enclosed safety type.	5			199,804		282,106
Switches, canopy.	5			15,971		28,030
Switches, all other.	5			84,573		166,481
Receptacles, single and duplex, flush.	5			35,879		73,448
Cord sets.	5			61,276		99,155
Other wiring devices.	5			360,894		561,404
Zinc (recovered from scrap).	3	lb.	1,449,458	63,532	1,005,832	45,375
Amount received for custom and repair work.	1-2-4-5			1,087,356		1,522,343
Products reported by only 1 or 2 firms as indicated by asterisks (*) above.	1-2-3-4-5-6			4,597,511		5,065,229
All other products, kind not specified.	4-5-6			1,869,328		2,751,616
Total.				164,765,604		237,233,670

KEY TO THE NUMBERED INDUSTRIES

- 1. Aluminium Products.
- 2. Brass and Copper Products.
- 3. White Metal Alloys.
- 4. Jewellery and Silverware.
- 5. Electrical Apparatus and Supplies.
- 6. Miscellaneous Non-Ferrous Metal Products.
- 7. Non-Ferrous Metal Smelting and Refining.

Table 24.—Imports of Non-Ferrous Metals and Their Products into Canada, Fiscal Years ended March 31, 1932-1934—(concluded)

Classification	Total Imports for Consumption (Merchandise)			Imports from United Kingdom		Imports from United States	
	1932	1933	1934	1933	1934	1933	1934
Zinc—							
Spelter..... Cwt.	224	2,274	3	600	.....	1,674	3
\$ 1,113	6,684	20	1,531	.....	5,153	20	
Sheets and plates.... Cwt.	38,535	40,116	39,072	588	430	26,894	27,024
\$ 263,385	268,586	264,811	2,498	3,065	208,546	198,545	
Other..... \$	170,349	104,731	138,684	1,129	2,390	100,219	110,776
Phosphor-tin and bronze... Lb.	520,539	312,109	574,868	99,366	312,929	81,466	86,006
\$ 155,686	78,631	154,574	29,216	83,599	19,081	19,282	
Other alloys, n.o.p..... \$	25,481	29,174	30,174	8,799	12,234	15,636	16,750
Clocks and watches..... \$	1,763,763	918,240	1,024,092	26,745	17,299	256,622	262,006
Electrical Apparatus—							
Batteries, primary..... \$	145,912	104,684	97,309	1,566	1,506	101,893	95,628
Batteries, storage..... No.	7,581	2,950	.....	179	.....	2,771	.....
\$ 392,331	168,709	110,114	92,105	29,242	76,598	80,738	
Electric heating and cooking apparatus..... \$	306,639	178,060	68,923	1,274	706	174,244	67,736
Dynamics, generators..... \$	466,112	187,159	428,093	23,866	21,385	158,672	150,551
Incandescent lamps—							
Carbon filament..... No.	476,907	213,498	157,980	192	529	28,142	49,127
\$ 33,779	12,608	18,771	99	275	6,154	14,586	
Metal filament..... No.	1,209,458	2,008,513	731,471	2,076	3,035	871,978	414,970
\$ 44,882	64,376	63,211	1,063	746	32,761	49,380	
Head, side, tail and flashlights..... \$	325,005	205,575	330,272	2,116	2,629	182,572	322,232
Electric light fixtures...	696,995	187,947	176,764	9,997	12,912	160,138	149,708
Motors..... \$	184,142	84,110	76,883	23,491	18,599	59,975	56,252
Motors..... \$	1,750,859	878,384	682,806	168,576	128,244	683,543	543,039
Spark plugs, etc..... \$	239,937	261,190	218,915	48,110	14,191	208,572	203,546
Switches, etc..... \$	892,990	404,121	343,803	26,314	40,139	369,466	302,436
Telegraph instruments.... \$	304,754	25,261	92,395	4,751	2,575	20,088	89,625
Telephone instruments.... \$	1,111,663	367,603	207,906	40,379	29,759	315,783	177,458
Transformers..... \$	483,208	294,425	47,440	242,900	12,113	51,084	34,518
Radio tubes..... No.	87,606	65,023	144,892	258	104	64,765	144,728
Radio tubes..... \$	92,829	61,448	97,667	5,409	223	56,039	97,400
Wireless and radio appa- ratus, n.o.p..... \$	4,067,380	1,043,345	1,308,472	36,192	63,609	1,005,459	1,244,416
Other..... \$	3,153,006	1,519,537	1,544,280	117,045	159,110	1,366,161	1,357,198
Total Electrical Appa- ratus, n.o.p..... \$	14,672,423	6,048,542	5,915,024	854,283	537,903	5,029,203	5,036,487
Gas apparatus..... \$	94,838	100,125	90,677	3,534	4,294	95,538	79,943
Printing materials (except machinery)—							
Stereotypes..... Sq. in.	7,434,367	10,446,142	10,258,115	104,829	124,883	10,339,478	10,123,773
\$ 426,107	417,838	329,316	2,796	3,582	414,784	325,449	
Other..... \$	311,901	225,014	250,132	11,966	16,742	210,950	235,085
Manganese oxide... Cwt.	532,506	36,997	679,454	28	22	24,956	28,090
Ores, n.o.p..... Cwt.	68,307	96,529	187,572	551	1,013	95,978	181,132
\$ 176,985	98,485	182,377	603	2,202	97,872	151,638	
Antimony, not ground... Lb.	783,048	447,266	758,681	34,328	157,920	322,239	541,223
\$ 49,004	25,125	41,840	2,117	9,092	18,315	29,538	
Mercury..... Lb.	24,528	40,298	93,723	13,217	14,938	19,759	67,374
\$ 27,938	31,989	66,441	9,789	9,650	16,456	50,470	
Buckles, clasps, fasteners... \$	136,260	146,923	221,288	12,373	51,537	122,654	147,902
Lamps and lanterns.... \$	162,709	40,979	32,249	2,205	2,275	29,271	21,040
Articles for shipbuilding.... \$	546,859	179,099	178,633	89,659	61,870	82,035	102,034
Other non-ferrous metals.... \$	1,814,768	1,256,255	1,306,387	138,828	121,527	986,569	1,176,879
Total Non-Ferrous Metals..... \$	34,802,350	18,035,401	20,171,000	3,314,548	2,967,035	12,940,862	14,142,239

CHAPTER TWO

THE ALUMINIUM PRODUCTS INDUSTRY

The aluminium products industry, for which statistics are given in this chapter, includes the factories in Canada which were engaged *chiefly* in making aluminium articles such as kitchen utensils, etc. The large aluminium smelters at Arvida, P.Q., and Shawinigan Falls, P.Q., are not included in this group as these works have been classified to the Non-Ferrous Smelting and Refining Industry which is reviewed in Chapter Seven of this report. In connection with the smelter at Shawinigan Falls there is a large fabricating mill in which wire and other such products are manufactured but all information for this department has been included in the general report for the smelter at that point. Therefore the data given in this chapter are incomplete to the extent that they do not cover the manufacture of aluminium products at Shawinigan Falls. Aluminium castings were made also in brass and iron foundries, but as the casting of aluminium was only a small part of their business such works were necessarily classified to the brass and iron industries. The production of aluminium castings in these other industries amounted to about 600 tons worth \$277,000 in 1934.

Production from the aluminium products industry in 1934 was valued at \$3,745,433, an increase of 35 per cent over the 1933 total of \$2,778,274. Sixteen plants were in operation and nine of these were engaged chiefly in the manufacture of cooking utensils and hollow-ware. Capital employed by these concerns amounted to \$3,759,900 of which \$1,793,118 was the value of lands and buildings and equipment. The number of employees was 789 and payments in salaries and wages to these workers totalled \$826,597. Materials used in manufacturing, chiefly aluminium sheets and circles, cost \$2,115,100 delivered at the works.

In 1934, 9 plants in this group manufactured aluminium kitchenware, 1 made miscellaneous fabricated products, 1 made boot and shoe lasts, 1 made thermit and welding portions, 2 made hat blocks and dies, 1 made hair curlers and 1 made die castings.

The production of aluminium kitchenware in this industry was valued at \$995,135 in 1934, but, in addition, concerns in other industries made aluminium kitchenware worth \$178,742, bringing the total for Canada to \$1,173,877; the comparable total figure for 1933 amounted to \$969,948.

Imports into Canada of aluminium ingots or blocks during the calendar year 1934 were valued at \$18,907, bars and rods at \$78,155, sheets, strips or plates at \$336,469, leaf or foil at \$55,493, pipes and tubing at \$38,694, aluminium powder at \$48,137, scrap at \$45,174, kitchen or household hollowware at \$92,411 and other manufactures of aluminium at \$433,797. Exports of aluminium goods from Canada in the same period included bars and blocks at \$7,206,541, scrap at \$354,617, kitchenware at \$11,920 and other manufactures at \$434,564. Re-exports of imported aluminium and manufactures of aluminium were appraised at \$5,554.

Table 26.—Principal Statistics, Nine Years 1926-1934

Years	Number of plants	Capital employed	Average number of employees	Salaries and wages	Cost of fuel and electricity at works	Cost of materials at works	Selling value of products at works	Value added by manufacturing
		\$		\$	\$	\$	\$	\$
1926.....	12	3,930,336	428	554,024	48,293	801,835	1,917,810	1,115,975
1927.....	12	4,189,658	485	625,669	54,562	976,901	2,318,894	1,341,993
1928.....	14	5,094,213	609	805,393	75,430	1,865,328	3,192,696	1,327,368
1929.....	14	5,264,388	723	930,216	91,438	2,754,726	4,263,801	1,509,075
1930.....	14	5,217,665	808	1,065,195	92,572	2,184,058	4,343,436	2,168,778
1931.....	14	4,540,834	793	923,546	79,364	2,096,851	3,597,784	1,530,913
1932.....	14	3,906,196	661	678,400	66,628	1,375,902	2,703,212	1,327,310
1933.....	15	3,654,541	638	671,207	77,015	1,458,444	2,778,274	1,319,830
1934.....	16	3,759,900	789	826,597	104,115	2,115,100	3,745,433	1,630,333

Table 27.—Size of Establishments according to Production, Number of Employees and Capital Employed, 1933 and 1934

	1933				1934			
	Number of plants	Capital employed	Number of employees	Selling value of products at works	Number of plants	Capital employed	Number of employees	Selling value of products at works
(a) Production		\$		\$		\$		\$
Under \$25,000.....	6	118,225	29	96,407	3	93,558	20	37,153
\$25,000 to \$100,000.....	4	185,777	71	183,799	8	197,390	133	348,459
Over \$100,000.....	5	3,350,539	538	2,498,068	5	3,468,952	636	3,359,821
Total.....	15	3,654,541	638	2,778,274	16	3,759,900	789	3,745,433
(b) Employees								
Under 10.....	7	144,685	36	124,400	6	128,970	36	138,688
10 and over.....	8	3,509,856	602	2,653,874	10	3,630,930	753	3,606,745
Total.....	15	3,654,541	638	2,778,274	16	3,759,900	789	3,745,433
(c) Capital								
Under \$25,000.....	5	62,915	48	119,830	7	94,054	92	217,440
\$25,000 to \$100,000.....	5	241,087	52	160,376	4	196,294	61	168,172
Over \$100,000.....	5	3,350,539	538	2,498,068	5	3,468,952	636	3,359,821
Total.....	15	3,654,541	638	2,778,274	16	3,759,900	789	3,745,433

Table 28.—Capital Employed, 1933 and 1934

Capital employed as represented by:	1933	1934
	\$	\$
Present value of lands, buildings, machinery and other equipment.....	1,891,039	1,793,118
Inventory value of materials on hand, stocks in process, fuel and other supplies on hand.....	386,382	319,138
Inventory value of finished products on hand.....	831,832	1,104,167
Operating capital (cash, bills and accounts receivable, prepaid expenses, etc.).....	445,288	543,477
Total.....	3,654,541	3,759,900

Table 29.—Employees, Salaries and Wages, 1933 and 1934

	1933	1934
Salaried Employees—		
Male.....	107	109
Female.....	35	41
Total.....	142	150
Wage-earners—		
Male.....	441	561
Female.....	55	78
Total.....	496	639
Total employees.....	638	789
Salaries.....	\$	223,302
Wages.....	\$	447,965
Total salaries and wages.....	\$	671,267
		239,599
		580,998
		826,587

Table 30.—Wage-Earners, by Months, 1933 and 1934

(On the 15th of each month or nearest representative date)

Months	1933			1934		
	Male	Female	Total	Male	Female	Total
January.....	394	49	443	508	79	587
February.....	404	53	457	540	91	631
March.....	424	52	476	551	71	622
April.....	425	52	477	560	68	628
May.....	414	55	469	570	68	638
June.....	416	55	471	561	79	610
July.....	423	50	473	556	72	628
August.....	464	59	523	550	72	632
September.....	465	66	531	568	74	612
October.....	471	76	547	570	74	644
November.....	496	75	571	599	87	686
December.....	503	58	561	593	82	675
Average.....	441	55	496	561	78	639

Table 31.—Fuel and Electricity Used, 1933 and 1934

Kinds	Unit of measure	1933		1934	
		Quantity	Cost at works	Quantity	Cost at works
Bituminous coal—Canadian.....	short ton	36	\$ 404	58	555
Imported.....	short ton	1,814	10,045	2,197	12,612
Coke.....	short ton	1,326	10,026	1,916	15,663
Fuel oil.....	Imp. gal.	111,782	8,283	105,672	8,631
Gas—Manufactured.....	M cu. ft.	4,989	4,819	5,929	5,422
Other fuel.....	xxx		.97		
Electricity purchased.....	K.W.H.	5,327,148	43,941	6,503,335	61,232
Total.....	xxx		77,615		104,115

Table 32.—Power Equipment, 1933 and 1934

Kinds	1933		1934	
	Number of units	Total rated horse power	Number of units	Total rated horse power
Total primary power.....				
Electric motors run by purchased power.....	195	2,857	200	2,964
Total.....	195	2,857	200	2,964
Boilers.....	4	403	4	403

Table 33.—Materials Used, 1933 and 1934

Materials	1933		1934	
	Pounds	Cost at works	Pounds	Cost at works
		\$		\$
Aluminium sheets, circles, etc.....	7,417,635	1,372,249	10,531,691	2,033,441
Handles, trimmings, etc.....		27,324		22,043
All other materials.....		58,871		59,616
Total.....		1,458,444		2,115,100

Table 34.—Products Made, 1932, 1933 and 1934

Products	1932	1933	1934
Kitchen utensils (a)	\$ 908,184	\$ 831,274	\$ 995,135
All other products (b)	1,795,028	1,947,000	2,750,298
Total	2,703,212	2,778,274	3,745,433

(a) In addition to the above output, aluminium kitchen utensils valued at about \$178,742 in 1934, \$138,674 in 1933 and \$134,254 in 1932 were made as minor products by concerns in other industrial groups.

(b) Includes data for miscellaneous fabricated products, electric heaters, welding portions, boot and shoe lasts, hat blocks and dies, hair curlers and wavers, forging and nickel thermit, etc.

Table 35.—Total Production of Aluminium Hollow-ware and Kitchenware in Canada, 1925-1934

(This table shows total production in Canada regardless of the industry in which produced)

Years	Selling value at works
1925.....	\$ 1,056,920
1926.....	1,028,261
1927.....	1,571,269
1928.....	1,457,679
1929.....	1,303,010
1930.....	1,671,984
1931.....	1,302,008
1932.....	1,042,438
1933.....	909,948
1934.....	1,173,877

Table 36.—Imports into Canada and Exports of Aluminium and Its Products, 1933 and 1934

	1933		1934	
	Quantity	Value	Quantity	Value
(a) IMPORTS				
Alumina.....	cwt. 753	\$ 8,461	1,052	12,235
Bauxite, ore.....	cwt. 1,050,641	1,750,230	1,639,070	2,170,878
Cryolite or kryolite.....	cwt. 47,327	204,357	3,345	27,718
Aluminium in pigs, ingots, blocks, notch bars, slabs, billets and blooms.....	cwt. 1,091	26,882	796	18,907
Aluminium scrap.....	cwt. 1,394	21,794	3,520	45,174
Aluminium in bars, rods and wire.....	cwt. 452	14,570	2,480	78,155
Aluminium in plates, sheets and strips, including circles.....	cwt. 7,993	239,395	12,198	336,469
Aluminium—angles, channels, beams, tees and other rolled or drawn sections and shapes.....	cwt. 81	4,694	115	4,345
Aluminium pipes and tubes.....	cwt. 463	21,439	805	38,094
Aluminium—wire and cable, twisted or stranded, reinforced with steel or not.....	cwt. 2	74		15
Aluminium leaf, less than .005 millimetres in thickness (from April 18, 1934).....				2,023
Aluminium leaf, n.o.p., or foil, less than .005 inch in thickness, plain or embossed with or without backing.....		40,579		53,470
Aluminium powder.....	lb. 30,073	14,382	109,673	48,137
Aluminium kitchen or household hollow-ware, n.o.p.....		61,428		92,411
Aluminium, manufactures of, n.o.p.....		405,103		433,797
Total		2,813,388		3,362,428
(b) EXPORTS				
Aluminium scrap.....	cwt. 14,988	176,269	27,969	354,617
Aluminium in bars, blocks, etc.....	cwt. 339,135	5,979,988	417,470	7,206,541
Aluminium kitchen utensils and hollow-ware.....		8,634		11,920
Aluminium, manufactures of, n.o.p.....		137,083		434,564
Total		6,301,974		8,067,642
(c) RE-EXPORTS				
Aluminium and manufactures of.....		27,730		5,554

Table 37.—Exports from Canada of Manufactures of Aluminium, by Countries of Destination, Calendar Years 1933 and 1934

Countries of Destination	1933		1934	
	Aluminium kitchen-ware and hollow-ware	Manufactures of aluminium, n.o.p.	Aluminium kitchen-ware and hollow-ware	Manufactures of aluminium, n.o.p.
	\$	\$	\$	\$
Argentina.....		8,351		8,695
Australia.....		421		4,136
Belgium.....		5,515		6,018
Brazil.....		3,532		9,846
British India.....				10,389
Chile.....		1,134		6,185
China.....		2,323		559
Colombia.....		3,429		13,369
Cuba.....		192		
Dutch East Indies.....		10,973		
Italy.....		482		176,391
Japan.....		1,469		14,672
Mexico.....	854			
Newfoundland.....		2,787		3,722
New Zealand.....		192	2,255	12,782
Peru.....		9,820		412
Spain.....		51,960	7,153	94,059
United Kingdom.....	6,642			
United States.....		4,893	5	34,645
Venezuela.....		16,144		18,704
Other countries.....	946	13,496	2,507	19,980
Total.....	8,634	137,083	11,920	431,564

NOTE.—The letters "n.o.p." mean "not otherwise provided for" in the trade classification. This item does not include ingots, bars, blocks, scrap, etc., which are listed separately in the trade report.

Directory of Firms Included in the Aluminium Products Industry, 1934

Names of firms	Location of plants	Products reported, 1934
QUEBEC— Maple Leaf Hat Block.....	916 St. George St., Montreal.....	Aluminium dies, plaster blocks.
ONTARIO— Aluminum Company of Canada, Ltd..... Aluminum Goods Limited..... Aluminum Ware Mfg. Co., Limited..... Canadian Die Castings, Limited..... Clark, Geo. C., Metal Last Company..... Duro Aluminum Limited.....	158 Sterling Rd., Toronto..... 158 Sterling Rd., Toronto..... 20 Dundas St., Oakville..... 1790 3rd Ave. E., Owen Sound..... Peabody Building, Walkerville..... 80 Park St. N., Hamilton.....	Fabricated aluminium products. Aluminium hollow ware of all kinds. Aluminium kitchen utensils. Zinc and aluminium die castings. Aluminium boot and shoe lasts. Aluminium kitchen utensils; aluminium scrap. Aluminium kitchen utensils. Aluminium kitchen utensils, spinneys. Aluminium kitchen utensils; electric heaters; specialties. Rail welding portions, forging thermit; nickel thermit. Aluminium utensils; copper utensils. Aluminium hat blocks and dies. Aluminium cooking utensils. Aluminium cooking utensils. Hair wavers, curlers and clips, jewellery.
Hamilton Aluminum Ware Co..... Hudson Aluminum Ware..... Metal Stampings, Limited.....	13 Ferguson Ave. N., Hamilton..... 370 Dufferin St., Toronto..... Fleet St., Toronto.....	
Metal and Thermit Corporation.....	15 Emily St., Toronto.....	
Radiant Aluminum Co. Ltd..... Shaw, Formaci, Michaels Co..... Sterling Aluminum Co. Ltd..... Super Health Aluminum Co. Limited..... Wintrob, M., & Sons, Ltd.....	575 Adelaide St. W., Toronto..... 24 Mercer St., Toronto..... 2466 Dundas St. W., Toronto..... 107 McGill St., Toronto..... 12 Queen St. E., Toronto.....	

NOTE.—The following concerns in other industrial groups reported an output of aluminium kitchen utensils as secondary products in 1934. E. & T. Fairbanks Co. Ltd. (Acme Aluminium Corp.), Sherbrooke, P.Q.; General Steel Wares Ltd., 199 River St., Toronto, Ont.; Sully Brass Foundry Ltd., 7-15 Wabash Ave., Toronto, Ont.

The fabricating plant of the Aluminum Company of Canada, Ltd., Shawinigan Falls, P.Q., is not classified to this industry but is considered as a part of the smelter at that point and is included in the Non-Ferrous Smelting and Refining Industry which is reviewed in chapter seven.

CHAPTER THREE

THE BRASS AND PRODUCTS INDUSTRY

Data given in this chapter cover the operations of brass foundries and other factories in Canada engaged chiefly in the manufacture of commodities (other than electrical supplies) from brass, bronze and copper. Eighty-one foundries and 44 fabricating plants reported under this industry in 1934, and production was valued at \$19,309,314 at factory prices, compared with outputs worth \$13,150,559 in 1933 and \$9,594,115 in 1932. The record output value for the industry was \$36,115,581 attained in 1929.

Products manufactured during 1934 included copper wire rods, \$6,275,199; copper sheets, plates and tubing, \$1,418,188; brass bars, rods, sheets and tubing, \$1,561,218; railway car and locomotive bearings and fittings, \$1,140,981; brass and bronze wire cloth, \$1,067,508; brass valves, \$769,743; iron valves, \$344,333; brass taps, \$154,629; other water and steam fittings, \$112,904; other plumbers' supplies, \$994,020; brass castings, \$510,944; bronze castings, \$225,205; bronze rods, plates, etc., \$328,058, and many other commodities of less importance. Copper wire and cable, lighting fixtures, switches and other such articles for electrical purposes have not been listed under this industry as the concerns which were engaged chiefly in making these products have been classified to the Electrical Apparatus and Supplies Industry which is reviewed in a separate chapter. The total Canadian production of brass and copper wire and cable, lighting fixtures and commercial castings of brass, bronze and copper is recorded in Tables 101, 100 and 49 respectively.

Of the 125 factories included in this group in 1934, 81 were located in Ontario, 26 in Quebec, 10 in British Columbia, 5 in Manitoba and 1 in each of Nova Scotia¹, New Brunswick and Alberta. The works in Ontario accounted for 57 per cent of the production and the concerns in Quebec for 37 per cent.

Capital employed in 1934 was reported at \$22,325,567 of which \$13,607,513 represented the value of lands, buildings and equipment, \$4,492,135 the value of inventories and \$4,225,919 the total of operating capital. About 57 per cent of this investment was in Ontario and 36 per cent in Quebec.

The number of employees in 1934 was 3,932 compared with 3,395 in 1933. Salaries and wages aggregated \$4,187,652 in 1934 as against \$3,416,823 for last year.

Materials used for manufacturing during 1934 cost \$11,177,964 delivered at the works. About 45 per cent of this expenditure was for copper ingots, slabs, etc., chiefly for rolling into wire rods for the manufacture of electrical wires and cables.

Three rolling mills operated during 1934 as follows: Anaconda American Brass Ltd., at New Toronto, Ont.; Eugene F. Phillips Electrical Works Limited at Brockville, Ont.; and Canada Wire and Cable Company Limited at Montreal East, P.Q. The first mentioned company manufactured bars, rods, sheets, plates, wire, and tubing of brass, bronze and copper, while the other two mills rolled copper wire rods only.

Table 38.—PRINCIPAL STATISTICS, TEN YEARS, 1925-1934

Years	Number of plants	Capital employed	Average number of employees	Salaries and wages	Cost of fuel and electricity at works	Cost of materials at works	Selling value of products at works	Value added by manufacturing
		\$		\$	\$	\$	\$	\$
1925	91	20,508,838	4,032	4,985,645	517,887	10,137,373	19,155,309	9,007,036
1926	98	20,764,404	4,533	5,716,529	533,893	11,810,686	22,028,036	10,217,950
1927	99	22,425,179	4,832	6,065,671	583,132	12,546,718	24,054,057	11,507,939
1928	97	23,576,863	5,437	6,797,416	624,983	15,710,748	28,457,430	12,740,682
1929	102	27,431,520	6,232	7,800,591	619,946	21,118,038	36,115,581	14,997,543
1930	117	26,820,527	5,297	6,742,752	577,171	13,358,186	25,412,225	12,057,039
1931	127	24,351,039	4,437	5,027,480	485,717	7,200,608	16,052,756	8,852,148
1932	119	23,148,843	3,535	3,880,838	402,025	3,949,157	9,594,115	5,644,958
1933	123	22,167,121	3,395	3,416,823	459,901	7,409,636	13,150,559	5,740,923
1934	125	22,325,567	3,932	4,187,652	523,103	11,177,064	19,309,314	8,131,350

Table 39.—Principal Statistics, by Sub-Groups, 1933 and 1934

Sub-groups	Number of plants	Capital employed	Average number of employees	Salaries and wages	Cost of materials at works	Selling value of products at works	Value added by manufacturing
1933		\$		\$	\$	\$	\$
Foundries making taps, valves, etc.....	13	6,947,490	1,043	972,794	284,253	1,785,255	1,501,002
Other brass and bronze foundries.....	63	8,350,091	1,490	1,577,695	2,699,584	5,302,177	2,602,593
Fabricating plants (not foundries).....	47	6,869,540	862	866,334	4,425,799	6,063,127	1,637,328
Total.....	123	22,167,121	3,395	3,416,823	7,409,636	13,150,559	5,740,923
1934							
Foundries making taps, valves, etc.....	12	6,463,231	1,144	1,121,915	438,679	2,378,185	1,939,506
Other brass and bronze foundries.....	69	8,881,171	1,953	2,134,924	3,734,906	8,064,155	4,329,249
Fabricating plants (not foundries).....	44	6,981,165	835	930,813	7,004,379	8,860,974	1,862,595
Total.....	125	22,325,567	3,932	4,187,652	11,177,964	19,309,314	8,131,350

Table 40.—Principal Statistics, by Provinces, 1933 and 1934

Provinces	Number of plants	Capital employed	Average number of employees	Salaries and wages	Cost of materials at works	Selling value of products at works	Value added by manufacturing
1933		\$		\$	\$	\$	\$
Quebec.....	26	7,833,391	1,065	1,064,714	3,580,672	5,149,007	1,568,335
Ontario.....	79	12,667,878	2,006	2,005,495	3,437,836	6,991,934	3,554,098
British Columbia.....	9	91,431	40	36,661	19,809	79,191	59,382
Nova Scotia.....	1						
New Brunswick.....	1	1,574,421	284	309,953	371,319	930,427	559,108
Manitoba.....	6						
Alberta.....	1						
Canada.....	123	22,167,121	3,395	3,416,823	7,409,636	13,150,559	5,740,923
1934							
Quebec.....	26	8,092,766	1,133	1,184,527	4,758,379	7,219,090	2,460,711
Ontario.....	81	12,752,840	2,392	2,597,238	6,035,541	10,974,073	4,935,532
British Columbia.....	10	120,835	53	55,531	33,509	117,897	84,388
Nova Scotia.....	1						
New Brunswick.....	1	1,359,126	354	350,358	350,535	998,254	647,719
Manitoba.....	5						
Alberta.....	1						
Canada.....	125	22,325,567	3,932	4,187,652	11,177,964	19,309,314	8,131,350

Table 43.—Employees, Salaries and Wages, by Provinces, 1933 and 1934

Provinces	Average number of employees						Salaries	Wages	Total salaries and wages			
	On salaries		On wages		Total							
	Male	Female	Male	Female	Male							
1933												
Quebec.....	214	42	730	79	1,065	398,818	665,896	1,064,714				
Ontario.....	400	92	1,395	119	2,095	812,238	1,193,257	2,005,495				
British Columbia.....	5	1	33	1	40	6,742	29,919	36,661				
Other provinces.....	66	13	198	7	284	136,806	173,147	309,953				
Canada.....	685	148	2,356	205	3,395	1,354,604	2,052,219	3,416,823				
1934												
Quebec.....	200	45	804	84	1,133	405,322	779,205	1,184,527				
Ontario.....	402	108	1,734	148	2,392	869,742	1,727,494	2,597,236				
British Columbia.....	9	3	41	—	53	16,693	38,838	55,531				
Other provinces.....	83	13	246	12	354	163,565	186,793	350,358				
Canada.....	691	169	2,825	241	3,932	1,455,322	2,732,330	4,187,652				

Table 44.—Wage-Earners, by Months, 1933 and 1934

(On the 15th of each month or the nearest representative date)

Months	1933			1934		
	Male	Female	Total	Male	Female	Total
January.....	2,194	195	2,339	2,485	192	2,677
February.....	2,135	203	2,338	2,608	209	2,875
March.....	2,121	197	2,318	2,795	217	3,012
April.....	2,213	183	2,398	2,834	230	3,054
May.....	2,277	193	2,470	2,899	249	3,143
June.....	2,387	205	2,592	2,982	254	3,216
July.....	2,439	202	2,641	2,878	240	3,118
August.....	2,498	214	2,712	2,834	230	3,075
September.....	2,457	211	2,668	2,872	240	3,112
October.....	2,501	225	2,726	2,942	232	3,174
November.....	2,540	215	2,755	2,895	239	3,134
December.....	2,478	198	2,676	2,847	238	3,085
Average.....	2,356	206	2,562	2,855	244	3,059

Table 45.—Fuel and Electricity Used, 1933 and 1934

Kinds	Unit of measure	1933		1934	
		Quantity	Cost at works	Quantity	Cost at works
			\$		\$
Biluminous coal—Canadian.....	short ton	3,959	21,833	5,458	38,196
Imported.....	short ton	10,492	54,494	11,262	63,301
Anthracite coal.....	short ton	1,265	11,807	1,450	14,337
Coke.....	short ton	3,424	27,863	4,288	35,498
Gasoline.....	Imp. gal.	1,832	422	3,823	907
Kerosene.....	Imp. gal.	2,348	440	1,264	234
Fuel oil.....	Imp. gal.	1,245,652	95,252	1,319,888	101,070
Wood.....	cord	226	1,259	401	2,121
Gas—Manufactured.....	M cu. ft.	14,307	13,842	16,635	13,867
Natural.....	M cu. ft.	16,341	5,482	14,491	4,879
Other fuel.....	xx		407		48
Electricity purchased.....	K.W.H.	17,170,905	226,800	21,257,215	258,104
Total.....	xx		459,901		523,103

Table 48.—Products Made, 1933 and 1934

NOTE.—Data in this table are for the Brass and Copper Products Industry only and represent only the production of firms classified to this group. The figure (1) indicates that the production figures given in this table do not represent the total output for Canada as these articles were produced also in other industrial groups. See table 23.

Products	Unit of measure	1933		1934	
		Quantity	Selling value at works	Quantity	Selling value at works
Aluminium—			\$		\$
Castings (1).....	lb.	266,617	132,082	785,856	188,675
Other (1).....	lb.	21,829	2,733	541,053	68,946
Brass—					
Ingots (1).....	lb.	431,555	32,158	1,500,510	104,145
Castings, not elsewhere specified (1).....	lb.	1,214,365	274,848	2,292,582	510,944
Scrap.....	lb.	273,521	16,714	305,156	20,182
Other, including bars and rods, sheets, tubing and wire which were reported by only one company.....	lb.	8,556,977	1,229,642	10,140,988	1,561,218
Bronze—					
Ingots (1).....	lb.	152,968	14,124	728,581	84,087
Castings, not elsewhere specified (1).....	lb.	922,854	195,123	1,006,305	225,205
Other, including bars and rods, sheets, plates and strip, screen plate, tubing and wire.....	lb.	127,065	45,174	1,563,440	328,058
Copper—					
Ingots (1).....	lb.	23,149	1,861	46,072	3,634
Castings.....	lb.	40,055	9,806	55,149	13,421
Bars and rods (except wire rods).....	lb.	157,283	25,638	238,799	39,706
Wire rods.....	lb.	52,305,438	3,680,284	78,399,983	6,275,199
Scrap.....	lb.	475,722	33,474	1,127,522	79,513
Other, including plates and sheets, and tubing.....	lb.	4,925,294	829,677	8,059,411	1,418,188
Iron castings (1).....	short ton	1,601	136,249	2,080	198,779
Architectural work, brass and bronze (1).....	xx		49,870		43,967
Architectural work, iron (1).....	xx		63,380		19,841
Brass and copper hollow-ware and spinnings.....	xx		8,520		27,558
Fire extinguishers (1).....	xx		45,338		34,871
Hardware, builders' (1).....	xx		31,672		41,536
Lighting fixtures (1).....	xx		69,766		80,334
Lightning rods and supplies.....	xx		150,930		48,910
Meters, water and gas, and parts.....	xx		171,312		131,065
Plumbers' supplies, not elsewhere specified (1).....	xx		637,608		994,020
Railway car and locomotive hearings and fittings.....	lb.	7,808,516	1,087,814	11,341,788	1,140,981
Tanks, brass and copper.....	xx		55,351		64,082
Taps, brass—Quantity given.....	No.	105,743	47,307	145,435	76,971
Quantity not given.....	xx		80,473		77,658
Valves, brass—Quantity given.....	No.	158,596	342,007	266,477	583,532
Quantity not given.....	xx		111,491		186,211
Valves, iron (1)—Quantity given.....	No.	5,902	128,992	10,652	344,333
Quantity not given.....	xx		52,808		
Water and steam fittings, not elsewhere specified.....	xx		168,493		112,904
Wire cloth, brass and bronze.....	sq. ft.	1,894,716	878,877	2,213,225	1,067,508
Custom work and repairs.....	xx		287,135		357,833
All other products (x).....	xx		2,021,768		2,755,299
Total	xx		13,150,559		19,309,314

(x) Includes nickel-silver sheets and blanks, metal fasteners, furniture trimmings, bronze powders, washing machines, pins, auto hardware, photo engravers' plates, fire department supplies, gauges, pot scourers, and other such articles which were reported by only one or two concerns in this industry and which, therefore, cannot be itemized separately under the Statistics Act.

Table 49.—Total Production in Canada of Commercial Castings of Brass, Bronze and Copper, 1933 and 1934

(These figures represent the total output for Canada under these headings and include the castings made as minor products by concerns in other industries.)

	1933		1934	
	Quantity	Selling value at works	Quantity	Selling value at works
	Pounds	\$	Pounds	\$
Brass castings.....	2,867,439	557,475	3,784,836	757,790
Bronze castings.....	1,049,465	219,804	1,179,006	259,576
Copper castings.....	50,055	13,268	65,149	16,921
Total	3,966,859	790,514	5,028,991	1,034,287

Table 50.—Imports into Canada of Brass and Copper and Their Products,
1933 and 1934

		1933		1934	
		Quantity	Value	Quantity	Value
BRASS AND ITS PRODUCTS					
Brass in blocks, ingots or pigs.....	cwt.	4	\$ 88	190	2,352
Brass, scrap.....	cwt.	776	5,081	1,056	7,844
Brass caps, adapted for use in the manufacture of electric batteries.....			9,586		12,687
Brass cups, being rough blanks, for the manufacture of paper shells or cartridges.....			44,499		48,026
Brass in bars and rods, in coils or otherwise, not less than 6 feet in length.....	cwt.	1,501	20,677	2,699	34,050
Brass in strips, sheets or plates, not polished, planished or coated.....	cwt.	1,134	20,176	2,485	44,934
Brass tubing, not polished, bent or otherwise manufactured in lengths not less than 6 feet.....	lb.	275,740	55,382	329,483	70,035
Carburetors of brass.....	xx		1,762		1,584
Coin locks.....	xx		1,088		1,226
Pumps, hand, brass, n.o.p.....	xx		3,150		7,540
Valves, brass.....	xx		134,117		239,801
Water meters and parts, n.o.p.....	no.	339	8,685	964	12,724
Wire, brass, n.o.p.....	lb.	365,356	83,237	434,692	92,458
Wire cloth, or woven wire of brass, n.o.p.....	xx		29,777		34,135
Manufactures of brass, n.o.p.....	xx		1,078,445		1,449,687
Total Brass and Its Products.....	xx		\$ 1,495,750		\$ 2,039,153
COPPER AND ITS PRODUCTS					
Copper, precipitate of, crude.....	lb.	20	\$ 4	704	113
Copper, in blocks, pigs or ingots.....	cwt.	172	1,603	347	3,693
Copper, scrap; cathode plates of electrolytic copper for melting.....	cwt.	40	247	267	1,256
Copper in bars or rods, when imported by manufacturers of trolley, telegraph and telephone wires, electric wires and cables for use in the manufacture of such articles in their own factories, also copper bars for use only in the manufacture of rods to be used exclusively as electrical conductors.....	cwt.	1,014	12,384	4,751	54,852
Copper in bars or rods, in lengths of not less than 6 feet, unmanufactured.....	cwt.	3,059	38,736	2,422	31,097
Copper in strips, sheets or plates, not polished, planished or coated.....	cwt.	1,441	25,142	2,237	37,707
Copper tubing, in lengths of not less than 6 feet, and not polished, bent or otherwise manufactured.....	lb.	256,491	53,464	329,275	74,887
Copper rollers adapted for use in calico printing.....	xx		51,115		53,222
Copper wire, n.o.p.....	lb.	22,355	3,997	72,515	18,011
Copper wire or cloth or woven wire of copper.....	xx		4,304		1,803
Copper, manufactures of, n.o.p.....	xx		249,680		287,429
Total Copper and Its Products.....	xx		\$ 410,676		\$ 564,670

Directory of Firms Included in the Brass and Copper Products Industry, 1934

Names of firms	Location of plants
(a) Firms engaged chiefly in making Valves, Taps, Plumbers' Supplies, etc.	
NEW BRUNSWICK— McAvity, T. & Sons, Ltd.....	Rothesay Ave., Saint John.
QUEBEC— Cuthbert, W. R., & Co..... Jenkins Bros. Ltd..... Robertson, The James, Co. Ltd.....	55 Duke St., Montreal. 617 St. Rémi St., Montreal, and St. Joseph St., Lachine. 948 William St., Montreal.
ONTARIO— Canadian Brass Co. Ltd..... Empire Brass Mfg. Co. Ltd..... Galt Brass Co. Ltd..... Malcolm Supplies Ltd..... Morrison, The James, Brass Mfg. Co. Ltd..... Mueller Ltd..... Penberthy Injector Co. Ltd..... Wolverine Ltd.....	415 Dundas St., Galt. Dundas St. E., London. 471 Dundas St., Galt. 62 Richmond St. E., Toronto. 276 King St. W., Toronto. Clifford St., Sarnia. 105 Windsor Ave., Windsor. 76 Nelson St., Toronto.
(b) Firms engaged chiefly in operating Brass and Bronze Foundries (other than for Valves, Taps, etc.)	
NOVA SCOTIA— Collings, Wm., & Sons, Ltd.....	711 Barrington St., Halifax.
QUEBEC— Archambault Brass Foundry..... Bouliane Brass Foundry..... Canadian Bronze Powder Works Ltd., Incorporating Valleyfield Iron Works..... Clark, C. O., & Bro..... Eastern Brass Foundry, Ltd..... Empire Brass Foundry Ltd..... Excel Brass & Aluminum Works..... Hazel, James, & Son..... Miller's Brass Foundry, Reg'd..... Mitchell, The Robert, Co. Ltd..... Montreal Bronze Ltd..... Union Screen Plate Co. of Canada, Ltd..... Vandevoorde Foundry.....	8010 Henri Julien St., Montreal. 941 Clarke St., Montreal. Valleyfield. 5010 St. Patrick St., Montreal. 541 Harbour St., Montreal. 137 Nazareth St., Montreal. 117 Nazareth St., Montreal. 128 Grant St., Quebec. 791 Hertel St., Three Rivers. 750 Bégin Ave., Montreal, and 102 Monkland Blvd., St. Laurent. 999 Delormier Ave., Montreal. 78 Main St., Lennoxville. 910 Cartier St., Montreal.
ONTARIO— Anaconda American Brass Ltd..... Atkins & Hoyle..... Balfour, Hugh..... Brydon Brass Mfg. Co..... Canadian Bell Foundry..... Chadwick-Carroll Brass & Fixtures Ltd..... Clayton Brass Works, The..... Coulter Copper & Brass Co. Ltd..... Dempsey, Chas. W..... Dominion Brass Products Ltd..... Dominion Gas Meter Co. Ltd..... Dominion Smelting Works Ltd..... Fisher & Son..... Foley, J. J., Brass Foundry..... Hahn Brass Co. Ltd..... Howard, Fred G..... Kitchener Brass & Aluminum Foundry..... Kondor Manufacturing Co. Ltd..... Lawrence, T. C., & Son..... May Foundry Co..... Monarch Foundry Co..... National Brass & Aluminum Foundry..... Ottawa Brass Foundry..... Ottawa Car Mfg. Co. Ltd..... Petric Brass Company..... Precision Die Castings Ltd..... Quality Brass Foundry..... Queen City Brass Foundry..... St. Catharines Brass Works Ltd..... St. Thomas Bronze Co. Ltd..... Sherratt, W., & Son..... Standard Brass Foundry..... Stratford Brass Co. Ltd..... Sully Brass Foundry Ltd..... Tallman, A. H., Bronze Co. Ltd..... Tools and Hardware Ltd..... Toronto Brass Machine & Foundry Ltd..... Wallaceburg Brass Limited..... Wilson & Cousins, Ltd..... Windsor Brass Works Ltd.....	8th and Birmingham Sts., New Toronto. 69 Portland St., Toronto. 65 Frederick St., Toronto. 35 Collier St., Toronto. 34 Lancaster St., Kitchener. 365 Wilson St., Hamilton. 157 Waterloo St. E., Guelph. 115 Sumach St., Toronto. 17 Division St., Guelph. 65 Sault Ste., Toronto. 328 Wortley Road, London. 25 McKay St., Ottawa. 366 Wilson St., Hamilton. Atherley Road, Orillia. Waterloo St., New Hamburg. Elmira. 983 King St. W., Kitchener. South St., Preston. 512 Dundas St., Galt. 2018 Buchanan Ave., Niagara Falls. 71 Browns Ave., Toronto. 117 St. Patrick St., Toronto. 542 Wellington St., Ottawa. 424 Slater St., Ottawa. 163 Sterling Road, Toronto. 282 St. Helens Ave., Toronto. Russin House Lane, Toronto. 28 Dalhousie St., Toronto. 62 George St., St. Catharines. First Ave., St. Thomas. 6 Britton St., Toronto. Catharine and Burlington Sts., Hamilton. 342 Erie St., Stratford. 11 Wabash Ave., Toronto. Cavell Ave., Hamilton. West St. S., Orillia. 78 Market St., Toronto. 1355 Wallace St., Wallaceburg. 35 McCaul St., Toronto. 400 Huron St. E., Windsor.

Directory of Firms Included in the Brass and Copper Products Industry, 1934
 —(concluded.)

Names of firms	Location of plants
MANITOBA—	
Acme Brass Foundry	576 Minto St., Winnipeg.
Northwestern Brass Ltd.	13 Bury St., Winnipeg.
Western Canada Bronze Co.	330 Newton Ave., Winnipeg.
Winnipeg Brass Limited.....	600 Clifton St., Winnipeg.
ALBERTA—	
Northwestern Brass Ltd.	1609-24th Ave. E., Calgary.
BRITISH COLUMBIA—	
Hastings Brass Foundry	236 Clark Drive, Vancouver.
McPhail, Wm., & Sons	251 East 2nd Ave., Vancouver.
Ornamental Bronze Company, Ltd.	122 West 6th Ave., Vancouver.
Service Foundry	237 Industrial Ave., Vancouver.
Smith Bros. Foundry Ltd.	632 Pembroke St., Victoria.
Star Foundry Ltd.	194 West 3rd Ave., Vancouver.
Sumner Brass Foundry Ltd.	619 Bidwell St., Vancouver.
Vancouver Brass Works	1304 Frances St., Vancouver.
Victoria Brass & Iron Works Ltd.	Pioneer St., Esquimalt.
Wilson's Brass Foundry	22-2nd Ave. E., Vancouver.

(c) Firms engaged chiefly in making Fabricated Articles (not foundries)

QUEBEC—	
Booth-Coulter Coppersmithing Co. Ltd.	997 Wellington St., Montreal.
Braas and Bronze Mfg. Co. Ltd.	269 Craig St. W., Montreal.
Brehn, Chas. G.	756 St. Paul St. W., Montreal.
Canada Wire & Cable Co. Ltd.	Montreal East.
Cassidy and Maillard Ltd.	1575 Craig St. E., Montreal.
Christie, George, (Canada) Ltd.	2106 Bellefeuille St., Three Rivers.
Edwards, O. M., Co. of Canada, Ltd.	5010 St. Patrick St., Montreal.
Imperial Pin Co. Ltd.	2210 Parthenais St., Montreal.
Johnson Wire Works Ltd., The	4760 Dagenais St., Montreal.
Metaderat Mfg. Co.	907 St. Alexander St., Montreal.
ONTARIO—	
Air-Coils Ltd.	Colborne St., Oakville.
Alcor Co.	220 King St. W., Toronto.
Beaver Brass Mfg. Co.	83 Ryerson Ave., Toronto.
Booth, W. E., Co. Ltd.	12 Mercer St., Toronto.
Brown, S. V.	20 Lennox St., Toronto.
Bunker, Geo.	363 Parliament St., Toronto.
Canadian Gasket Co. Ltd.	Central Ave., Fort Erie North.
Canadian Meter Co. Ltd.	90 Caroline St. N., Hamilton.
Canadian Terrazzo Metal Strip Co. Ltd.	292 Geary Ave., Toronto.
Capital Wire Cloth & Mfg. Co. Ltd.	Hinton Ave., Ottawa.
Crown Brass & Spinning Co.	117 St. Patrick St., Toronto.
D. Long Hook & Eye Co. of Canada, Ltd.	Water St. N., St. Marys.
Dodd & Struthers	105 Sandwich St. E., Walkerville.
Domunion Lightning Rod Co.	63 Main St., Dundas.
Hamilton Brass Co.	124 McNab St. N., Hamilton.
Jeune Canopy & Manufacturing Co.	1260 Queen St. W., Toronto.
Lauder & Co.	188 Adelaide St. W., Toronto.
Metal Textile Corp. of Canada, Ltd.	129 Steven St., Hamilton.
Neptune-National Meters Ltd.	345 Soraru Ave., Toronto.
Niagara Wire Weaving Co. Ltd.	Robinson St., Niagara Falls.
Patterson & Heward	319 King St. W., Toronto.
Phillips, B., Co. Ltd.	32 Osbora Ave., Toronto.
Phillips, Eugene F., Electrical Works Ltd.	Kingston Road, Brockville.
Standard Meter Co. Ltd.	10 Morrow Ave., Toronto.
Teeswater Lightning Rod Co.	Teeswater.
Tickell, J. G., & Son	525 King St. W., Toronto.
Toronto Coppersmithing Co.	1105 Queen St. E., Toronto.
Toronto Metal Spinning Co.	32-34 Eastern Ave., Toronto.
Toronto Wire Works Co.	942 Queen St. W., Toronto.
Universal Lightning Rod Co.	Tannery St., Hespeler.
United Carr Fastener Co. of Canada, Ltd.	Gage Ave. and Beach East, Hamilton.
Westwood Bros.	214 Bathurst St., Toronto.
Wilson, J. A., Co. Ltd.	9 Morrison St., Toronto.
MANITOBA—	
Liberty Glass Manufacturing Co. of Canada, Ltd.	Winnipeg.

CHAPTER FOUR

THE WHITE METAL ALLOYS INDUSTRY

Statistics given in this chapter cover the operations of firms in Canada which were engaged chiefly in (a) the manufacture of white metal alloys such as babbitt metal, solders and type metal; (b) the refining of scrap to recover white metals such as zinc, tin, lead, etc.; and (c) the manufacture of products made of lead, tin, etc., such as lead bars, sheet and pipe; antimonial lead; collapsible tubes; metal foil, nickel-silver zipper fasteners and similar commodities.

Thirty-one factories were included in this group in 1934 and the value of products was reported at \$5,227,047. This value was the highest for the industry since 1929, exceeding the 1933 total of \$4,236,751 by 23 per cent and the 1932 value of \$3,498,049 by 49 per cent. Over 63 per cent of the output was from the 15 works in Ontario and about 30 per cent from the 12 factories in Quebec; there were also 2 plants in Manitoba and 2 in British Columbia.

Capital employed by the concerns in this group amounted to \$4,847,914 of which 50 per cent or \$2,409,237 represented the value of land, buildings, and plant equipment. The investment in Ontario's plants was \$3,295,046; in Quebec, \$1,061,209; and in Manitoba and British Columbia, \$491,659.

Employment was given to 790 workers in 1934, including 165 on salaries and 625 on wages. Salaries for the year amounted to \$309,766 and wages to \$530,932, a total of \$840,698. In 1933 only 680 persons were employed and salaries and wages totalled \$765,075.

Materials used in manufacturing during 1934 cost \$3,138,319 delivered at the works. Included in this total were 1,228 tons of pig iron worth \$1,297,448; 4,380 tons of pig lead at \$297,068; 5,500 tons of zinc spelter at \$59,075; 571 tons of other metals at \$225,848; and 12,744 tons of scrap valued at \$840,039.

Production of solders of all kinds amounted to 1,545 tons valued at \$816,712 at factory prices; type metal amounted to 2,051 tons at \$318,644, and babbitt to 974 tons at \$436,182.

Table 51.—Principal Statistics, Ten Years 1925-1934

Years	Number of plants	Capital employed	Average number of employees	Salaries and wages	Cost of fuel and electricity at works	Cost of materials at works	Selling value of products at works	Value added by manufacturing
1925.....	22	\$ 3,782,120	529	\$ 619,973	\$ 54,494	\$ 3,130,257	\$ 4,103,732	\$ 973,475
1926.....	25	4,241,731	609	806,849	64,631	3,766,648	5,184,096	1,417,448
1927.....	25	4,295,256	602	702,298	90,420	3,854,979	5,148,092	1,294,113
1928.....	25	4,673,882	644	759,603	60,055	4,105,167	5,493,360	1,388,193
1929.....	28	5,988,683	755	929,295	98,958	4,757,366	6,466,163	1,708,802
1930.....	23	4,612,408	614	734,650	78,147	3,813,569	5,178,583	1,365,014
1931.....	23	4,507,307	532	679,631	72,185	2,330,652	4,137,600	1,806,948
1932.....	24	4,434,722	532	621,480	62,970	1,935,507	3,498,040	1,562,542
1933.....	29	4,842,077	680	765,075	69,275	2,501,790	4,236,751	1,734,961
1934.....	31	4,847,914	790	840,698	78,141	3,138,319	5,227,047	2,088,728

Table 52.—Principal Statistics, by Provinces, 1933 and 1934

Provinces	Number of plants	Capital employed	Average number of employees	Salaries and wages	Cost of fuel and electricity at works	Cost of materials at works	Selling value of products at works	Value added by manufacturing
1933		\$	\$	\$	\$	\$	\$	\$
Quebec.....	11	1,018,824	122	159,584	12,897	854,677	1,378,033	523,356
Ontario.....	14	3,379,481	524	567,082	52,223	1,455,929	2,822,457	1,166,528
Manitoba.....	2							
British Columbia.....	2	443,772	34	38,409	4,155	191,184	236,261	45,077
Canada.....	29	4,842,077	680	765,075	69,275	2,501,790	4,236,751	1,734,961
1934								
Quebec.....	12	1,061,209	147	183,841	16,080	939,420	1,596,671	607,251
Ontario.....	15	3,295,046	609	611,799	56,035	1,924,287	3,325,569	1,401,282
Manitoba.....	2							
British Columbia.....	2	491,659	34	45,058	6,026	224,612	304,807	80,195
Canada.....	31	4,847,914	790	840,698	78,141	3,138,319	5,227,047	2,088,728

Table 53.—Size of Establishments, According to Production, Number of Employees and Capital Employed, 1933 and 1934

	1933				1934			
	Number of plants	Capital employed	Number of employees	Selling value of products at works	Number of plants	Capital employed	Number of employees	Selling value of products at works
		\$		\$		\$		\$
(a) Production								
Under \$10,000	4	28,330	8	15,145	4	28,717	10	19,149
\$ 10,000 to \$ 25,000	3	106,758	13	42,379	5	166,198	20	71,512
25,001 to 50,000	8	914,080	61	285,325	6	409,412	52	223,502
50,001 to 100,000	4	315,335	36	278,495	5	553,157	66	377,157
100,001 to 250,000	6	1,145,310	265	1,179,970	5	804,256	126	857,487
Over \$250,000	4	2,332,254	297	2,435,437	6	2,886,174	526	3,678,150
Total	29	4,842,077	680	4,236,751	31	4,847,914	790	5,227,047
(b) Employees								
1 or 2	3	14,529	5	12,058	4	35,026	8	36,510
3 to 10	15	1,220,316	86	658,563	13	1,021,361	73	681,671
11 to 20	5	558,099	76	833,857	7	598,340	95	601,680
Over 20	6	3,049,133	513	2,632,273	7	3,193,187	614	3,907,177
Total	29	4,842,077	680	4,236,751	31	4,847,914	790	5,227,047
(c) Capital								
Under \$25,000	7	47,598	19	200,598	9	194,915	30	90,661
\$ 25,000 to \$ 100,000	9	456,863	67	343,346	11	962,569	108	600,749
100,001 to 500,000	10	2,107,270	317	1,733,136	8	1,927,860	340	1,838,348
500,001 to 1,000,000	3	2,230,346	277	1,959,671	3	1,762,570	312	2,097,289
Total	29	4,842,077	680	4,236,751	31	4,847,914	790	5,227,047

Table 54.—Capital Employed, by Provinces, 1933 and 1934

Provinces	Present value of lands, buildings, machinery, tools, etc.	Inventory value of materials on hand, stock in process, fuel and other supplies	Inventory value of finished products on hand	Operating capital (cash, bills and accounts receivable)	Total capital employed
		\$	\$	\$	
1933					
Quebec	445,050	62,603	191,617	319,548	1,018,224
Ontario	1,962,227	207,077	455,090	664,087	3,379,481
Manitoba	245,320	15,511	78,533	104,399	443,772
British Columbia					
Canada	2,652,612	375,191	726,240	1,088,034	4,842,077
1934					
Quebec	400,168	120,803	139,406	400,832	1,061,209
Ontario	1,778,664	240,633	448,316	827,433	3,295,046
Manitoba	230,405	29,528	104,705	127,021	491,659
British Columbia					
Canada	2,109,237	390,964	692,427	1,355,286	4,847,914

Table 55.—Employees, Salaries and Wages, by Provinces, 1933 and 1934

Provinces	Average number of employees						Salaries	Wages	Total Salaries and Wages			
	On salaries		On wages		Total							
	Male	Female	Male	Female								
1933							\$	\$	\$			
Quebec.....	39	6	73	4	122	85,750	73,834	159,584				
Ontario.....	68	39	291	126	524	194,700	372,382	567,082				
Manitoba.....	8	5	21	.....	34	21,075	17,334	38,409			
Canada	115	50	385	130	680	301,525	463,550	765,075				
1934												
Quebec.....	34	6	101	6	147	85,203	98,638	183,841				
Ontario.....	73	40	362	134	609	199,864	411,935	611,799				
Manitoba.....	7	5	22	.....	34	24,099	20,359	45,058			
Canada	114	51	485	140	790	305,766	530,932	840,698				

Table 56.—Wage-Earners, by Months, 1933 and 1934

(On the 15th of each month or nearest representative date.)

Months	1933			1934		
	Male	Female	Total	Male	Female	Total
January.....	361	135	496	459	130	589
February.....	364	134	498	469	131	600
March.....	361	132	493	461	126	587
April.....	367	118	485	482	119	601
May.....	373	114	487	487	122	609
June.....	381	119	500	477	130	607
July.....	400	122	522	500	136	636
August.....	398	122	520	481	144	625
September.....	401	130	531	478	171	619
October.....	396	148	544	479	153	632
November.....	410	151	561	512	164	676
December.....	409	148	557	501	153	654
Average	385	130	515	485	140	625

Table 57.—Fuel and Electricity Used, 1933 and 1934

Kinds	Unit of measure	1933		1934	
		Quantity	Cost at works	Quantity	Cost at works
Bituminous coal—Canadian.....	short ton	262	\$ 1,878	223	1,506
Imported.....	short ton	1,448	8,845	1,866	11,984
Anthracite coal.....	short ton	374	3,818	321	2,850
Coke.....	short ton	554	4,233	716	5,887
Gasoline.....	Imp. gal.	4,476	838	8,265	1,320
Kerosene.....	Imp. gal.	346	62	312	54
Fuel oil.....	Imp. gal.	147,294	10,581	174,255	13,336
Wood.....	cord	56	445	33	344
Gas—Manufactured.....	M cu. ft.	5,789	5,922	5,424	5,792
Natural.....	M cu. ft.	908	622	2,205	916
Other fuel.....	K.W.H.	2,171,635	1,040	2,477,205	34,780
Total			69,275		78,141

Table 58.—Power Equipment, 1933 and 1934

	1933		1934	
	Number of units	Total rated horse power	Number of units	Total rated horse power
Electric motors operated by purchased power.....	322	3,498	370	3,518
Boilers.....	3	130	3	130

Table 59.—Materials Used, 1933 and 1934

Materials	Unit of measure	1933		1934	
		Quantity	Cost at works	Quantity	Cost at works
Antimony.....	lb.	482,571	\$ 29,362	385,052	\$ 32,212
Lead, pig—Canadian.....	lb.	7,100,045	244,737	8,742,649	296,325
Other.....	lb.	38,577	2,416	16,490	733
Tin, pig.....	lb.	2,086,320	876,521	2,455,847	1,297,448
Zinc spelter—Canadian.....	lb.	389,491	18,939	1,100,791	59,075
Other metals (not including scrap).....					
Aluminium sheets, etc.	lb.	620,040	159,656	860,696	165,096
Copper bars, sheets, etc.	lb.	42,821	3,862	38,764	3,173
Nickel.....	lb.	52,930	15,504	165,190	42,103
Other.....	lb.	56,245	17,286	70,882	15,416
Scrap—					
Brass.....	lb.	1,622,126	78,368	1,125,492	58,578
Copper.....	lb.	1,007,143	82,590	1,898,265	95,051
Lead—battery plates.....	lb.	11,429,592	171,350	7,286,483	115,521
Other.....	lb.	2,163,823	60,317	2,473,883	68,363
Type metal.....	lb.	289,341	11,689	1,264,055	37,282
Zinc.....	lb.	396,837	22,944	283,278	9,125
Drosses.....	lb.	3,481,035	77,464	3,163,640	76,717
Other.....	lb.	4,150,925	196,268	7,990,187	379,402
Shipping containers.....				3,524	268,013
All other materials.....				428,992	118,816
Total.....				2,501,790	3,138,319

Table 60.—Products Made, 1933 and 1934

Products	Unit of measure	1933		1934	
		Quantity	Selling value at works	Quantity	Selling value at works
Babbitt metal.....	lb.	1,485,915	\$ 320,472	1,948,510	\$ 436,182
Castings—Brass.....	lb.	1,109,074	144,340	892,254	96,846
Bronze.....	lb.	72,611	11,351	112,701	19,371
Other (chiefly zinc, cadmium and nickel).....	lb.	240,749	58,368	520,924	150,133
Lead—Bars and ingots (except antimonial lead).....	lb.	4,448,617	168,782	2,698,079	100,873
Castings.....	lb.	121,000	18,119	57,485	7,036
Pipe.....	lb.	2,271,606	174,015	2,558,465	228,776
Sheet.....	lb.	1,042,751	79,042	1,782,684	136,166
Traps and fittings.....	lb.	436,623	118,197	441,783	130,472
Antimonial lead.....	lb.	5,103,276	175,027	6,219,485	213,479
Miscellaneous.....	lb.			149,922	25,044
Recovered metals (except lead)—Copper.....	lb.	1,598,347	113,879	1,048,860	112,866
Tin and tin pipe.....	lb.	127,491	60,479	168,568	106,817
Zinc.....	lb.	1,449,458	63,532	1,005,832	45,375
Other.....	lb.	62,663	4,662	12,508	1,680
Scrap sold.....	lb.	421,177	16,546	280,106	7,775
Solders of all kinds.....	lb.	2,244,210	498,362	3,090,359	816,712
Type and type metal.....	lb.	2,999,017	230,576	4,102,992	318,044
Other products (x).....			1,980,002		2,272,791
Total.....				4,236,751	5,227,047

(x) Includes data for tin, lead and aluminium foil; collapsible tubes, zipper fasteners, dropped and moulded shot, brass bronze and aluminium bars and ingots; tube and bottle caps, which were reported by only 1 or 2 concerns in this industry.

Table 61.—Production of Babbitt, Solders, Type and Type Metal, 1924-1934

Years	Babbitt metal		Solders of all kinds		Type and type metal	
	Quantity	Selling value at works	Quantity	Selling value at works	Quantity	Selling value at works
1924.....	Pounds	\$	Pounds	\$	Pounds	\$
3,088,741	869,007	1,979,797	625,642	1,381,426	278,705	
1925.....	4,366,973	1,063,940	2,139,116	700,040	2,242,259	246,794
1926.....	4,999,541	1,185,200	2,549,567	888,001	2,491,084	294,652
1927.....	5,186,021	1,003,391	2,853,399	941,020	2,093,905	309,176
1928.....	5,485,375	1,099,616	3,361,987	851,395	2,475,724	253,619
1929.....	5,247,142	730,358	3,336,575	824,101	4,094,203	407,046
1930.....	4,361,533	609,388	2,933,237	581,386	4,105,235	401,042
1931.....	2,011,315	432,506	2,235,221	398,378	3,065,283	274,483
1932.....	1,413,699	255,058	2,084,447	353,361	2,777,781	218,066
1933.....	1,485,915	320,472	2,244,210	498,362	2,099,017	230,576
1934.....	1,948,510	436,182	3,090,359	816,712	4,102,992	318,044

Table 62.—Imports Into and Exports From Canada of Lead, Tin, Zinc and Their Products, 1933 and 1934

Item	Unit of measure	1933		1934	
		Quantity	Value	Quantity	Value
IMPORTS					
Lead, pig and block.....	lb.	12,788	\$ 943	96,373	3,599
Lead, bars and sheets.....	lb.	88,607	3,820	59,877	2,500
Lead, other, and manufactures, n.o.p.....			93,227		114,027
Total lead and its products.....			\$7,990		126,126
Tin, blocks, pigs or bars.....	cwt.	28,341	1,149,378	39,999	2,053,773
Tinfoil.....	lb.	8,271	4,076	35,158	18,990
Collapsible tubes.....			81,258		38,597
Total tin and its products.....			1,234,712		2,111,360
Zinc, blocks, bars, rods and zinc plate, n.o.p.....	cwt.	164	1,074	183	1,282
Zinc strip and sheets and zinc plate for marine boilers.....	cwt.	39,691	273,439	39,649	260,449
Zinc dust.....	cwt.	8,414	47,826	10,673	61,135
Zinc, other, and manufactures, n.o.p.....			77,455		83,088
Total zinc and its products.....			399,794		405,919
ALLOYS, N.O.P.					
Babbitt metal in blocks, bars, plates and sheets.....	cwt.	403	9,267	311	9,587
Britannia metal in blocks, pigs or bars.....	cwt.	40	1,330	50	1,353
Britannia metal, manufactures of, not plated.....			6,324		7,900
Phosphor tin and phosphor bronze in blocks, bars, plates, sheets and wire.....	lb.	506,464	135,997	826,611	232,483
Yellow metal in bars, bolts and sheets, for use in the construction or repairs of vessels.....	cwt.	38	475	44	541
Chromium metal and tungsten metal in lumps, powder, ingots, blocks or bars, and scrap of alloy metal containing chromium and tungsten, when imported by manufacturers for use exclusively for alloying purposes, in their own factories.....	lb.	17,755	8,801	26,223	16,481
Total alloys, n.o.p.....			162,194		268,445
Type metal in blocks, bars, plates and sheets.....	lb.	7,207	915	687	733
Type for printing, including chasses, quoins and slugs of all kinds.....			34,643		42,023
Total type and type metal.....			35,558		42,756
EXPORTS					
Lead, metallic, contained in ore.....	cwt.	76,000	267,805	236,448	548,526
Lead in pigs, refined lead, etc.....	cwt.	2,843,294	4,922,514	2,831,590	5,253,300
Total lead and its products.....	cwt.	2,919,294	5,180,319	3,068,038	5,747,829
Tin.....			Nil		
Zinc, contained in ore.....	cwt.	83,256	135,248	390,434	654,876
Zinc spelter.....	cwt.	1,734,534	4,900,705	2,378,944	6,990,629
Zinc scrap, dross and ashes.....	cwt.	63,021	47,060	42,900	48,639
Total zinc and its products.....	cwt.	1,880,811	5,173,011	2,812,284	7,694,013

Directory of Firms Included in the White Metal Alloys Industry, 1934

Names of firms	Location of plants	Main products in 1934
QUEBEC—		
Atlas Metal & Alloys Co. (Canada) Ltd., The.....	421 St. Henry St., Montreal.....	Babbitt; solders; type metal; lead bars and ingots.
Colonial Fastener Company Ltd.....	2210 Parthenais St., Montreal.....	Zipper fasteners.
Commercial Letter Service.....	359 St. James St., Montreal.....	Type metal.
Dominion Smelting and Refining Co. Ltd.....	153 Nazareth St., Montreal.....	Lead bars and ingots.
Eagle Smelting and Refining Works, Ltd.....	400 Richmond St., Montreal.....	Babbitt; solders; type metal; lead, tin and zinc from scrap; dross.
Liberty Smelting Works.....	267 Prince St., Montreal.....	Babbitt; solders; type metal; lead bars and ingots; tin, zinc, aluminium and copper from scrap; brass castings.
Magnolia Metal Co. of Canada, Ltd.....	2028 Manufacturers St., Montreal.....	Babbitt; solders; dross.
Mount Royal Metal Company, Ltd.....	1205 Mill St., Montreal.....	Babbitt; solders; type metal; lead bars and ingots; lead pipe; antimonial lead; tin and tin pipe; dross.
Ouellette, O. J., & Co.....	1419 Clark St., Montreal.....	Type and type composition.
Robertson Lead Manufacturing Co. Ltd., The.....	6251 Lafontaine St. E., Montreal.....	Babbitt; solders; type metal; lead castings, bars and ingots, sheets, pipe, traps and fittings; antimonial lead; lead wool.
Steel Company of Canada, Ltd., The.....	2320 Notre Dame St. W., Montreal.....	Dropped and moulded shot.
Typographic Craftsmen, Ltd.....	455 Craig St. W., Montreal.....	Type and composition.
ONTARIO—		
Canada Foils, Limited.....	7 Fraser Ave., Toronto.....	Foils of lead, tin, etc.
Canada Metal Co. Ltd., and Hoyt Metal Co. of Canada, Ltd.....	721 Eastern Ave., Toronto.....	Babbitt; solders; type metal; antimonial lead; lead bars and ingots, castings, pipe, sheets, traps and fittings, etc.; brass, bronze and aluminium ingots; bronze, aluminium and brass castings; bar tin; lead, tin and antimony alloys; zinc and copper cames.
Canadian Hanson & Van Winkle Co. Ltd.....	15 Morrow Ave., Toronto.....	Anodes of nickel, cadmium, zinc, tin and copper; brass castings.
Collapsible Tubes and Containers, Ltd.....	95 Sterling Rd., Toronto.....	Collapsible tubes; small aluminium articles.
Frankel Brothers, Ltd. and National Metal Co., Ltd.....	Don Rd. and Eastern Ave., Toronto.....	Babbitt; solders; type metal, antimonial lead; lead bars and ingots; lead, tin and zinc from scrap.
General Smelting Co. of Canada, Ltd.....	Wilcox St., Hamilton.....	Zinc spelter recovered from dross; aluminium from scrap.
Holland Metal Company.....	7 Bolton Ave., Toronto.....	Solders; type metal.
Kester Solder Co. of Canada, Ltd.....	51 Bruce St., Brantford.....	Lightning fasteners and parts.
Lightning Fastener Co. Ltd.....	Ningara St., St. Catharines.....	Collapsible tubes; moulded tube and bottle caps.
Modern Machine Company Ltd.....	344 Queen St., Ottawa.....	Type metal.
Monarch Type Foundry.....	300A St. Johns Rd., Toronto.....	Type metal.
Moore Type Foundry.....	88 Richmond St. W., Toronto.....	Babbitt; brass and bronze castings; antimonial lead.
Rahn Metals, Ltd.....	Regina St., North Bay.....	Zinc castings.
Schultz Die Casting Co. of Canada, Ltd.....	Wallaceburg.....	Solders.
Spooner Copperine Co. Ltd.....	Port Hope.....	Babbitt; solders; type metal; lead bars and ingots, pipe, sheet, etc.; antimonial lead; bar tin.
MANITOBA—		
Canada Metal Co., Ltd., The.....	301 Chambers St., Winnipeg.....	Babbitt; solders; type metal; lead bars and ingots, sheet, pipe, etc.; antimonial lead; bar tin.
Union Metal Co. Ltd., The.....	405 Langside St., Winnipeg.....	Babbitt; solders; type metal; antimonial lead; lead bars and ingots.
BRITISH COLUMBIA—		
Canada Metal Co. Ltd.....	1428 Granville St., Vancouver.....	Babbitt; solders; type metal; lead bars and ingots, sheet, pipe, etc.; antimonial lead; bar tin.
Great Western Smelting Co. Ltd.....	310 Prior St., Vancouver.....	Babbitt; solders; type metal; lead bars antimonial lead; bar tin.

CHAPTER FIVE

THE JEWELLERY AND SILVERWARE INDUSTRY

The jewellery and silverware industry covers all factories in Canada which made as their main products the following classes of goods: (*a*) clocks, watches, rings and other jewellery; (*b*) silver-plated ware and sterling silverware; (*c*) gold, silver and platinum from sweepings and scrap; and (*d*) dental supplies. Wholesalers, retailers or shops engaged only in repair work have not been included.

Manufacturers in this group reported an increase of 23 per cent in the value of products made during 1934 as compared with 1933, this advance bringing the output value for the year to \$7,859,902 which was the highest recorded since 1930. Jewellery production increased to \$2,111,750 from \$1,661,942 in 1933, plated hollowware to \$1,146,234 from \$959,777, plated flatware to \$904,607 from \$736,400, cutlery to \$372,948 from \$257,359, clocks and watches to \$890,170 from \$579,228, and recovered gold to \$957,343 from \$768,196. Sterling silverware including toileware declined in value to \$454,482 from \$470,493 in 1933.

In 1934, 107 factories were in operation, including 57 in Ontario, 38 in Quebec, 7 in British Columbia, and 1 in each of Nova Scotia, New Brunswick, Manitoba, Saskatchewan and Alberta. Eighty-six works in the jewelry division employed 1,328 workers and produced goods valued at \$3,474,876; 12 silverware factories with 1,031 employees had an output worth \$3,350,453; 6 gold and silver refineries gave work to 44 people and made products worth \$1,006,499, and 3 dental laboratories with 17 employees reported production at \$28,074.

Altogether the 107 establishments gave work to 2,420 persons in 1934 compared with 2,207 in the 103 factories which operated in 1933 and total payments in salaries and wages advanced to \$2,650,948 from \$2,181,152.

Capital employed in 1934 amounted to \$7,528,257 of which \$3,043,413 was the value of land, buildings and equipment, \$2,629,180 the value of inventories and \$1,855,664 the total of operating capital. In 1933 capital was reported at \$7,550,158.

Materials for manufacturing cost \$3,418,798 in 1934 compared with \$2,693,288 in the previous year. Gold, silver, gold-filled stock, nickel-silver, cutlery steel and precious stones were the most important items.

The chief import items under jewellery and silverware in 1934 were: jewellery, \$621,842; watch actions, movements and parts, \$778,111; electro-plated ware, \$384,400; sterling silverware, \$67,425; clocks, \$204,477; watches, \$118,641; and watch cases, \$65,057.

Exports of clocks, watches and parts were valued at \$298,737, electro-plated ware at \$10,036, and jewellery, \$28,826. Exports of jewellers' sweepings amounted to \$520,067 in 1934.

Table 63.—PRINCIPAL STATISTICS, TEN YEARS 1925-1934

Years	Number of plants	Capital employed	Average number of employees	Salaries and wages	Cost of fuel and electricity at works	Cost of materials at works	Selling value of products at works	Value added by manufacturing
		\$	\$	\$	\$	\$	\$	\$
1925.....	108	10,130,772	2,556	3,346,867	87,973	3,991,106	9,581,773	5,590,667
1926.....	109	10,545,761	2,831	3,625,770	97,146	4,456,047	10,751,795	6,295,748
1927.....	109	11,238,475	2,806	3,717,989	95,672	4,700,566	11,344,618	6,644,052
1928.....	106	11,090,082	2,932	3,880,576	99,003	4,709,743	11,702,648	6,992,005
1929.....	98	10,781,963	2,931	3,998,851	100,912	4,913,604	11,933,593	7,019,989
1930.....	96	10,159,074	2,634	3,431,059	93,885	3,735,346	9,242,126	5,506,780
1931.....	95	8,511,317	2,435	2,949,467	87,090	2,892,228	7,449,754	4,557,526
1932.....	93	7,460,760	2,169	2,322,392	72,434	2,432,728	6,118,871	3,686,143
1933.....	103	7,550,158	2,207	2,181,152	84,295	2,693,288	6,367,898	3,674,610
1934.....	107	7,528,257	2,420	2,650,948	93,618	3,418,798	7,859,902	4,441,104

MANUFACTURES OF THE NON-FERROUS METALS

Table 67.—Capital Employed, by Provinces, 1933 and 1934

Provinces	Present value of lands, buildings, fixtures, machinery, etc.	Inventory value of materials on hand and stocks in process	Inventory value of finished products on hand	Operating capital (cash, bills and accounts receivable, prepaid expenses, etc.)	Total capital employed
	\$	\$	\$	\$	\$
1933					
Quebec.....	546,461	395,337	185,334	340,017	1,467,119
Ontario.....	2,506,342	1,106,711	795,663	1,568,408	5,977,214
British Columbia.....	19,449	21,001	8,351	6,823	55,624
Other provinces.....	22,729	17,549	1,200	8,693	50,171
Canada.....	3,094,981	1,540,598	990,548	1,924,631	7,550,158
1934					
Quebec.....	573,142	342,133	283,364	299,804	1,498,533
Ontario.....	2,442,795	1,259,995	711,010	1,534,928	5,948,728
British Columbia.....	17,083	20,259	8,426	15,582	61,350
Other provinces.....	10,393	3,993	.....	5,200	19,646
Canada.....	3,043,413	1,626,380	1,002,800	1,855,664	7,528,257

Table 68.—Employees, Salaries and Wages, 1933 and 1934

Provinces	Average number of employees					Salaries	Wages	Total Salaries and Wages
	On salaries		On wages		Total			
	Male	Female	Male	Female	\$	\$	\$	
1933								
Quebec.....	81	41	418	145	685	200,481	403,138	603,619
Ontario.....	205	107	904	246	1,462	531,082	991,426	1,522,508
British Columbia.....	7	.....	24	.....	31	7,143	22,890	30,033
Other provinces.....	7	4	16	2	29	11,008	13,984	24,992
Canada.....	300	152	1,362	393	2,287	749,714	1,431,438	2,181,152
1934								
Quebec.....	88	45	475	172	750	219,862	479,608	699,470
Ontario.....	218	112	978	273	1,381	611,263	1,285,088	1,896,351
British Columbia.....	9	.....	38	.....	47	7,871	38,117	45,988
Other provinces.....	5	1	6	.....	12	4,971	4,168	9,139
Canada.....	320	158	1,497	445	2,420	843,967	1,806,981	2,650,948

Table 69.—Wage-Earners, by Months, 1933 and 1934

(On 15th of each month or nearest representative date)

Months	1933			1934		
	Male	Female	Total	Male	Female	Total
January.....	1,299	372	1,671	1,424	408	1,832
February.....	1,318	372	1,690	1,428	396	1,824
March.....	1,315	376	1,691	1,437	424	1,861
April.....	1,309	357	1,666	1,469	446	1,915
May.....	1,294	359	1,653	1,432	448	1,880
June.....	1,314	363	1,677	1,446	419	1,865
July.....	1,297	366	1,663	1,428	416	1,814
August.....	1,327	361	1,688	1,472	433	1,905
September.....	1,404	413	1,817	1,540	461	2,001
October.....	1,464	437	1,901	1,620	503	2,123
November.....	1,518	462	1,980	1,646	516	2,162
December.....	1,490	422	1,912	1,638	498	2,136
Average.....	1,382	393	1,755	1,437	445	1,942

Table 70.—Fuel and Electricity Used, 1933 and 1934

Kinds	Unit of measure	1933		1934	
		Quantity	Cost at works	Quantity	Cost at works
Bituminous coal—Canadian Imported	short ton	620	\$ 3,849	889	5,621
Anthracite coal	short ton	4,280	27,092	4,368	28,979
Coke	short ton	196	2,082	186	2,097
Gasoline	short ton	230	1,168	182	821
Kerosene	Imp. gal.	1,202	224	3,589	718
Fuel oil	Imp. gal.	499	103	991	147
Wood	Imp. gal. cord	30,960 15	2,500 65	23,175 4	1,992 45
Gas—Manufactured Natural	M cu. ft.	10,439	9,239	12,754	11,544
Other fuel	M cu. ft.	1,003	559	24	12
Electricity purchased	K.W.H.	2,514,665	37,280	2,861,837	41,526
Total			\$ 4,285		\$ 3,618

Table 71.—Power Equipment, 1933 and 1934

Kinds	1933		1934	
	Number of units	Total rated horse power	Number of units	Total rated horse power
Total primary equipment				...
Electric motors run by purchased power	742	2,877	782	2,851
Total	742	2,877	782	2,851
Boilers	16	1,015	15	1,005

Table 72.—Materials Used, 1933 and 1934

Materials	Cost at works	
	1933	1934
Precious metals—	\$	\$
Gold used by jewellery manufacturers	303,398	393,939
Gold used by refiners	618,740	748,510
Gold used by silverware manufacturers	3,691	29,303
Silver used by jewellery manufacturers	47,798	41,917
Silver used by refiners	4,868	12,081
Silver used by silverware manufacturers	173,953	248,827
Platinum used by jewellery manufacturers	20,204	19,955
Platinum used by refiners	9,611	9,430
Platinum used by silverware manufacturers	5,899	8,922
Gold filled wire and stock	217,681	187,949
Base metals and alloys—		
Britannia metal, including blanks for plating	39,684	38,147
Nickel-silver, including blanks for plating	270,595	338,909
Cutlery steel, including blanks and stubs	82,719	114,734
Brazing sheets	50,519	64,509
Tin ingots	47,580	74,882
Solder	7,134	7,625
Other base metals and alloys	67,988	125,407
Other materials—		
Dental sundries	5,162	4,858
Precious and semi-precious stones	188,130	279,378
Jewellers' findings, waste and scrap	23,316	34,530
Crystals for watches and clocks	11,201	15,501
Clock and watch springs	16,879	20,024
Watch cases	25,043	35,183
Other watch parts	66,956	92,719
Celluloid	9,214	14,026
Semi-porcelain or china	300	500
Glass liners	57,057	68,629
Flatware (butter knives, salad servers, etc.)	457	911
Rouge and other polishes	24,155	32,796
Containers (boxes, cartons, labels, etc.)	86,504	126,736
All other materials	206,852	229,061
Total	2,693,288	3,418,798

Table 73.—Products Made, 1933 and 1934

Products	Selling value at works	
	1933	1934
	\$	\$
Refined metals—		
Gold, including dental gold.....	768,196	957,343
Silver.....	8,766	6,927
Platinum.....	3,350	1,075
Dental supplies (gases, teeth, bridges, etc.).....	33,642	26,213
Gold filled wire and gold leaf.....	41,530	54,210
Clocks and watches*	579,228	890,170
Watch cases.....	161,291	202,630
Jewellery of all kinds.....	1,661,942	2,111,750
Hollow-ware, electro-plated on Britannia metal.....	346,522	355,447
Hollow-ware, electro-plated on nickel-silver.....	366,390	391,530
Hollow-ware, electro-plated on brass or copper.....	246,805	399,457
Hollow-ware, sterling silver.....	129,668	134,111
Flatware, electro-plated on nickel-silver.....	736,400	904,607
Flatware, sterling silver.....	201,754	174,969
Toiletware and dresserware, sterling silver.....	139,071	145,402
Cutlery, silver-plated and otherf.....	257,359	372,948
Blanks for plating, nickel-silver.....	57,569	77,013
Job work and repairs.....	202,330	188,504
Other products.....	425,705	465,796
Total.....	6,367,898	7,859,902

*In addition to the clocks made by concerns in this industry, there was a production of electric clocks valued at \$10,286 in 1933 and \$15,780 in 1934, by concerns in the Electrical Apparatus and Supplies Industry.

*Tin-plated cutlery, paring knives and bread knives were produced in the iron and steel industries; this output, which is not included above, was valued at \$101,757 in 1934, \$71,051 in 1933, \$61,201 in 1932 and \$77,806 in 1931.

Table 74.—Production of Jewellery, Clocks and Watches, and Watch Cases, 1925-1934

Years	Jewellery	Clocks	Watch cases
		and watches*	
1925.....	3,321,598	635,542	438,544
1926.....	3,169,911	856,741	476,884
1927.....	3,405,108	800,711	424,306
1928.....	3,630,403	894,436	408,611
1929.....	3,471,867	958,483	379,824
1930.....	2,570,019	783,136	252,026
1931.....	1,983,102	794,550	189,604
1932.....	1,613,417	727,079	144,640
1933.....	1,661,942	589,514	161,291
1934.....	2,111,750	905,950	202,630

*Includes electric clocks which were made by concerns in the Electrical Apparatus and Supplies Industry.

Table 75.—Production of Silverware, 1925-1934

Years	Hollow-ware, electro-plated			Flatware, electro- plated	Sterling silver hollow- ware and flatware	Sterling silver toiletware and dres- serware	Cutlery, silver- plated and other*
	On Britannia metal	On nickel- silver	On other metals				
	\$	\$	\$				
1925.....	769,880	305,184	.....	1,152,325	410,984	.....	544,120
1926.....	700,063	444,480	48,532	1,463,307	622,855	Not	612,138
1927.....	655,888	574,328	66,985	1,423,904	635,102		644,433
1928.....	614,619	674,122	89,495	1,518,199	661,933		594,016
1929.....	776,710	674,659	75,555	1,540,409	531,903	avail-	618,916
1930.....	834,083	420,702	130,027	1,308,034	484,356	able	431,361
1931.....	659,254	275,660	173,788	918,992	532,368		349,851
1932.....	424,905	333,770	110,514	543,008	390,846		198,643
1933.....	346,522	386,390	246,865	736,400	331,422	139,071	328,410
1934.....	355,447	391,330	399,457	904,607	309,080	145,402	474,705

*Including bread knives, paring knives and tin-plated cutlery made in the iron and steel industry.

Table 76.—Imports into Canada and Exports of Jewellery, Silverware, Clocks and Watches, Etc., 1933 and 1934

	1933	1934
IMPORTS	\$	\$
Clocks.....	135,363	204,477
Clock movements, clock cases and clockwork mechanisms.....	12,288	39,789
Time recorders and parts.....	7,500	12,899
Watches.....	91,391	118,641
Watch cases and parts, thereof, finished or unfinished.....	42,569	65,057
Watch actions and movements, finished or unfinished.....	488,503	622,820
Parts of watch movements, finished or unfinished, not including plates.....	100,153	155,291
Parts of clock movements or of clockwork mechanisms, finished or unfinished, not including plates.....	79,016	82,090
Gold, silver and Dutel or schild metal leaf.....	52,790	61,908
Gold and silver sweepings.....	4,119	140
Gold, manufactures of, not otherwise provided for.....	17,729	23,860
Gold, unmanufactured, for commercial purposes (From April 1, 1933).....	168,382	157,691
Electro-plated ware and gilt ware, not otherwise provided for.....	260,176	384,400
Medals of gold, silver or copper and other metallic articles actually bestowed as trophies or prizes.....	32,224	35,070
Silver, manufactures of, and articles consisting wholly or in part of sterling or other silverware.....	73,666	67,425
Jewellery, not otherwise provided for.....	552,688	621,842
Regalia and badges.....	15,503	15,377
Spectacle and eye-glass frames—metal parts, unfinished, for the manufacture of such frames.....	134,817	110,458
Spectacle and eye-glass frames and metal parts thereof, not otherwise provided for.....	378,536	352,189
EXPORTS		
Jewellers' sweepings.....	502,506	520,067
Clocks, watches and parts.....	171,420	298,737
Plated ware, not otherwise provided for.....	10,610	19,036
Jewellery of all kinds.....	6,440	28,826

Directory of Firms Included in the Jewellery and Silverware Industry, 1934

Names of firms	Location of plants
(a) Refined precious metals	
QUEBEC— Canadian Refining Company, Ltd.	254 St. Catherine St. E., Montreal.
ONTARIO— Canadian Seamless Wire Co., Ltd., The..... Goldsmith Bros., S. & R., Co., Ltd. Imperial Refining and Smelting Works..... National Refining Co., Ltd. Williams Gold Refining Co. of Canada, Ltd.	198 Clinton St., Toronto. 21 Dundas Square, Toronto. 34 Beverley St., Toronto. 34 Ross St., Toronto. Courtwright St., Fort Erie North.
(b) Dental supplies	
NEW BRUNSWICK— Maritime Dental Laboratory.....	117 Union St., Saint John.
QUEBEC— Montreal Dental Supply & Mfg. Co., Ltd.	406 Birks Bldg., Montreal.
ALBERTA— Calgary Dental Laboratory.....	1208-5th St. E., Calgary.
(c) Silverware	
QUEBEC— Birks, Henry, & Sons, Ltd. Cumirand, Ltd.	Phillipe Square, Montreal. 119 St. Paul St. W., Montreal.
ONTARIO— Benefit Proctor Mfg. Co., Ltd. Canadian Silversmiths, Ltd. Canadian Wm. A. Rogers, Ltd. (Oneida Community, Ltd., Successor).... International Silver Co. of Canada, Ltd.	Ontario St., Trenton. 110 Adelaide St. W., Toronto. 570 King St. W., Toronto. 164 Wellington St. N., Toronto, and 303 River Rd., Niagara Falls.
Lipman Bros. McGillivray, Clarke Co., Ltd. Oneida Community, Ltd. Roden Bros., Ltd.	251 Mutual St., Toronto. Palmer Ave., Niagara Falls. Ferry St., Niagara Falls. 345 Carlaw Ave., Toronto.
BRITISH COLUMBIA— Carmichael, W. M.	1023 Fort St., Victoria.

(d) Jewellery, Clocks and Watches

NOVA SCOTIA— Eastwood, James.....	107 Archimedes St., New Glasgow.
QUEBEC— Bick & Ostor Co., Ltd. Bourassa, J. A. Brooks, John J., Reg'd. Canadian Ornament & Jewellery Mfg. Co., Ltd. Canadian Sturdy Chain Co. Coffey, J. G.	619 St. James St. W., Montreal. 332 St. Catherine St. E., Montreal. 1420 Victoria St., Montreal. 1061 Hleury St., Montreal. George and Richmond Sts., Sherbrooke. 1504 St. Alexander St., Montreal.

Directory of Firms Included in the Jewellery and Silverware Industry, 1934—(concl'd.)

Names of firms	Location of plants
(d) Jewellery, Clocks and Watches—Concluded	
QUEBEC—Concluded	
Consolidated Optical Co., Ltd.	Nicolet.
Cosmo Ornament Co., Reg'd.	1193 Phillips Square, Montreal.
Farmer Broe, Jewellery, Ltd.	760 St. Lawrence Blvd., Montreal.
Grothe, T. A., Engr.	1011 Blvd. St. Laurent, Montreal.
Hochberg, M.	1030 St. Alexander St., Montreal.
Hutt, Robert E.	1420 Victoria St., Montreal.
Imperial Jewellery Mfg. Co.	262 Vitre St. W., Montreal.
Ingersoll-Waterbury Co., The	209 St. Catherine St. E., Montreal.
Lumond, C., & Fils	929 Bleury St., Montreal.
Lusker, Moses	907 Bleury St., Montreal.
Lemaitre, Paul, Limitée	1405 Iberville St., Montreal.
Liberty Watch Case Co., Ltd.	736 Notre Dame St. W., Montreal.
Lucas, G. L.	704 University Tower Bldg., Montreal.
Mappin & Webb (Canada), Ltd.	751 St. Catherine St. W., Montreal.
Marion, Aly	360 Craig St. W., Montreal.
Paquet, M. Gédéon	74 St. Joseph St., Quebec.
Picard, J. E.	401 Blvd. Charest, Quebec.
Roughton & Skelton, Ltd.	1450 McGill College Ave., Montreal.
Shechtman, G. A.	460 St. Catherine St. W., Montreal.
Shurack, H.	529 St. Catherine St. W., Montreal.
Simon, A. L., Reg'd.	3993 St. Lawrence Blvd., Montreal.
Sloves, N. & Co.	455 Craig St. W., Montreal.
Soltanoff, Isaac	1485 Bleury St., Montreal.
Smith-Nemo, Ltd.	105 Montcalm St., Hull.
Smith-Patterson Co., Ltd.	494 Laguacheletière St. W., Montreal.
Stephenson-Robillard Co. Ltd.	630 Dorchester St. W., Montreal.
Vaughn Leech Mfg. Co.	223 Notre Dame St., Hull.
Vernette, O.	4324 Delaroche St., Montreal.
ONTARIO—	
A. & S. Platinum Co.	102 Richmond St. W., Toronto.
Amell, Robert, & Co.	1 Ternay St., Toronto.
American Watch Case Co., Ltd.	511 King St. W., Toronto.
Anthony Bros., Ltd.	39 Lombard St., Toronto.
Arrowsmith & Co.	45 Richmond St. E., Toronto.
Baker, T. H., & Co., Ltd.	115 Carling St., London.
Bassett, W. F., Co.	85 Yonge St., Arcade, Toronto.
Berlin & Racelye Mfg. Co., Ltd.	53 Frederick St., Kitchener.
Breadner Mfg. Co., Ltd.	1002 Somerset St. W., Ottawa.
Cope, C. H.	51 Richmond St. E., Toronto.
Cowdrill, S., & Co.	31 Lombard St., Toronto.
Eaton, T. Co., Ltd.	190 Yonge St., Toronto, 2.
Electric Chain Co., Ltd.	171 John St., Toronto.
Elliott-Bishop Co., Ltd.	71 Lombard St., Toronto.
Excellent Jewellery Co.	74 Yonge St., Arcade, Toronto.
Excelsior Jewellery Mfg. Co.	36 Lombard St., Toronto.
Fashion Craft Mfg. Jewellery Co.	39 Lombard St., Toronto.
Feeley, J. J.	12 Market Lane, London.
Fremes, S., & Co., Ltd.	333 Adelaide St. W., Toronto.
Friedman & Hurwitz	55 York St., Toronto.
Gray, Alfred	45 Richmond St. E., Toronto.
Jackson, How & Brooks & Co., Ltd.	9 Temperance St., Toronto.
Jewel Craft, The	39 Lombard St., Toronto.
Johnston, W. R., Co.	38 Dundas St. E., Toronto.
Lackin Mfg. Co.	106 Lombard St., Toronto.
Lees, Geo. H., & Co., Ltd.	47 Main St. E., Hamilton.
Levy Bros. Co., Ltd.	60 King St. E., Hamilton.
Libman & Shaw	23 Adelaide St. W., Toronto.
Lorie, Ltd.	200 Adelaide St. W., Toronto.
Nolan, Jas. J.	39 Lombard St., Toronto.
Parkinson, F. A.	67½ Richmond St. E., Toronto.
Pugh, Wm. A., Co.	82 Chestnut St., Toronto.
Robertson & Turner	120 King St. E., Hamilton.
Royal Jewellery Mfg. Co.	81 Yonge St., Arcade, Toronto.
Traub Mfg. Co. of Canada, Ltd.	Imperial Bldg., Walkerville.
Unity Jewellery Mfg. Co.	60 Bond St., Toronto.
Valier & Millard	1 Duchess St., Toronto.
Walker, B.	9 Richmond St. E., Toronto.
Western Clock Co., Ltd.	Hunter St. E., Peterborough.
Whitecomb, A. W.	133 Sparks St., Ottawa.
White, T., & Son	45 Richmond St. E., Toronto.
Wellings Mfg. Co. of Toronto, Ltd.	67 Richmond St. E., Toronto.
MANITOBA—	
Binder, S., & Co.	322 Donald St., Winnipeg.
SASKATCHEWAN—	
Harrington, E. & J.	1755 Scarth St., Regina.
BRITISH COLUMBIA—	
Birkett & Cobold	434 W. Pender St., Vancouver.
Flewelling, E. R.	18 Hastings St. W., Vancouver.
Jacoby Bros., Ltd.	423 Hamilton St., Vancouver.
Pettigrew, J. D.	Bernard Ave., Kelowna.
Trayling & Manson	535 Granville St., Vancouver.
Trayling & Waters	326 Hastings St. W., Vancouver.

CHAPTER SIX

THE ELECTRICAL APPARATUS AND SUPPLIES INDUSTRY

This industrial group includes most of the concerns in Canada which manufacture equipment for use in the generation, transmission and utilization of electricity. However, it is not possible to include all such producers in this industry as the system of classification which is used for the annual Census of Industry provides for the grouping of concerns according to the chief component material of the major product made, and under this system some important manufacturers of electrical supplies must be allotted to other industries. For example, since clay is the chief material used in making porcelain insulators the producers of these goods have been classified to the Clay Products Industry under the manufactures of the non-metallic minerals; similarly, the makers of electric washing machines have been included in the Machinery Industry of the iron and steel group. Again, there were some electrical supplies made as minor products of plants which were primarily engaged in other lines of business and therefore were included in other industries. The output of electrical apparatus in these other industries amounted in value to \$13,587,204 in 1934 without including adding machines, electric pumps and other such electrically driven machines. The items which go to make up this outside production are shown in Table 88 in as much detail as is possible without violating the secrecy clause of the Statistics Act which provides that the Bureau may not publish information pertaining to only one or two companies.

Production by firms in the electrical apparatus and supplies industry was valued at \$50,234,811 in 1934 compared with \$37,012,509 in 1933, a gain of 36 per cent. In 1934 there were 174 factories in this group, 130 in Ontario, 24 in Quebec, 6 in British Columbia, 9 in Manitoba, 4 in Alberta, and 1 in Nova Scotia. These plants represented fixed and working capital of \$77,980,366 and employed a monthly average of 13,657 people throughout the year. A total of \$15,220,022 was expended in salaries and wages and \$21,308,006 was paid out for purchased materials. The value added by manufacturing was \$28,926,805.

Statistics given in Tables 77 to 87 inclusive of this chapter cover only the concerns in the electrical apparatus and supplies industry. Table 88 shows the output of electrical apparatus by firms in other industries. Tables 89 to 113 give the total Canadian output (regardless of the industries in which they were produced) of motors, generators, transformers, batteries, washing machines, vacuum cleaners, lighting fixtures, wire and cable, electric refrigerators, stoves, water heaters, conduit, radios, ironers and oil burners.

Imports into Canada under the heading of electrical apparatus and supplies were valued at \$7,654,071 in 1934 compared with \$5,248,917 in 1933. Exports of Canadian made goods of this class were appraised at \$2,130,819 in 1934 and re-exports of imported goods were valued at \$148,178. Details are shown in Tables 24 and 25. About 89 per cent of Canada's imports of electrical equipment in 1934 came from the United States and 8.5 per cent from the United Kingdom.

Radio sales during 1934 numbered 167,177 sets at \$7,344,635 as against 130,493 sets at \$5,383,846 in 1933 and 133,454 sets at \$6,758,959 in 1932. Of the total sales in 1934 standard broadcast band receivers accounted for 81,651 sets at \$2,772,259, selective wave receivers 70,484 sets at \$3,380,430 and the all wave sets numbered 15,042 at \$1,191,946. Distributed by provinces Ontario took 40 per cent of the 1934 sales, Quebec 18.8 per cent, Saskatchewan and Alberta 13.9 per cent, British Columbia 10.1 per cent, Manitoba 9.7 per cent and the Maritimes 7.5 per cent.

Inventories of radio receivers in the hands of the manufacturers on December 31, 1934, were reported at 34,387 sets and included 14,347 standard band, 15,257 selective and 4,783 all wave receivers.

Table 80.—Capital Employed, by Provinces, 1933 and 1934

Provinces	Present value of lands, buildings, fixtures, machinery and tools	Inventory value of materials on hand and stocks in process	Inventory value of finished products on hand	Operating capital (cash, trading and operating accounts and bills receivable)	Total capital employed
1933	\$	\$	\$	\$	\$
Nova Scotia and Quebec.....	10,713,650	1,714,146	3,212,819	2,659,270	18,299,585
Ontario.....	28,224,063	6,410,223	4,901,247	22,084,093	61,630,326
Manitoba.....	217,804	96,498	43,624	102,272	460,198
Alberta.....	31,792	10,503	10,467	37,879	96,441
British Columbia.....	143,443	65,590	14,158	133,990	357,181
Canada.....	39,336,752	8,296,960	8,188,313	25,028,104	80,844,131
1934					
Nova Scotia and Quebec.....	10,561,118	2,017,218	3,198,955	3,174,248	18,951,310
Ontario.....	27,718,404	6,207,622	5,375,771	19,099,114	58,400,911
Manitoba.....	203,032	86,129	40,721	125,543	455,425
Alberta.....	19,495	13,452	19,022	13,219	55,188
British Columbia.....	65,062	24,935	8,584	8,722	107,303
Canada.....	38,567,111	8,349,356	8,643,653	22,429,846	77,980,366

Table 81.—Size of Establishments according to Production, Number of Employees and Capital Employed, 1933 and 1934

	1933				1934			
	Number of plants	Capital employed	Number of employees	Selling value of products at works	Number of plants	Capital employed	Number of employees	Selling value of products at works
(a) PRODUCTION								
Under \$5,000.....	13	70,251	20	35,249	14	102,647	30	40,430
\$ 5,000-\$ 10,000.....	13	139,174	55	90,416	15	159,938	79	113,172
\$ 10,001-\$ 25,000.....	38	1,105,359	281	650,479	26	903,769	243	445,047
\$ 25,001-\$ 50,000.....	29	1,743,526	408	1,057,100	31	1,716,083	375	1,049,232
\$ 50,001-\$ 100,000.....	22	2,718,311	531	1,614,856	18	1,544,308	377	1,275,675
\$ 100,001-\$ 250,000.....	26	6,404,035	1,329	4,563,251	22	3,799,533	791	3,460,455
\$ 250,001-\$ 500,000.....	15	8,130,731	1,523	4,887,755	25	8,861,501	1,998	8,205,051
\$ 500,001-\$ 1,000,000.....	12	11,945,137	1,519	8,172,565	15	12,130,055	1,990	9,976,031
Over \$1,000,000.....	8	48,587,607	6,101	15,931,838	8	48,762,532	7,774	25,669,118
Total.....	174	80,844,131	11,767	37,012,509	174	77,980,366	13,657	50,234,811
(b) EMPLOYEES								
1 or 2.....	18	80,569	21	58,791	14	81,697	22	56,143
3-10.....	54	1,293,874	326	1,122,063	47	1,306,474	295	1,070,153
11-20.....	28	2,024,488	411	1,398,323	38	2,008,529	557	2,129,112
21-50.....	36	5,918,800	1,174	4,526,764	31	5,070,619	1,035	4,092,015
51-100.....	22	12,289,505	1,729	8,382,484	20	8,285,040	1,575	8,145,008
101-500.....	15	21,126,350	2,002	9,711,626	20	19,610,724	3,890	15,094,213
Over 500.....	3	38,110,545	5,204	11,812,438	4	40,608,283	6,483	18,747,509
Total.....	174	80,844,131	11,767	37,012,509	174	77,980,366	13,657	50,234,811
(c) CAPITAL								
Under \$25,000.....	60	682,172	382	1,043,440	56	651,165	378	917,564
\$ 25,000-\$ 100,000.....	42	2,142,129	612	1,712,001	45	2,204,789	725	2,695,716
\$ 100,001-\$ 500,000.....	60	11,589,649	2,793	12,179,598	48	11,182,487	3,064	14,085,585
\$ 500,001-\$ 1,000,000.....	9	6,233,158	891	2,685,155	12	7,710,838	1,102	4,783,815
Over \$1,000,000.....	13	60,197,023	7,089	19,392,225	13	56,231,087	8,328	27,781,831
Total.....	174	80,844,131	11,767	37,012,509	174	77,980,366	13,657	50,234,811

Table 82.—Employees, Salaries and Wages, by Provinces, 1933 and 1934

Provinces	Average number of employees					Salaries	Wages	Total salaries and wages			
	On salaries		On wages		Total						
	Male	Female	Male	Female							
1933						\$	\$	\$			
Nova Scotia and Quebec	781	241	1,335	416	2,773	2,115,551	1,643,381	3,758,932			
Ontario	1,727	618	4,844	1,507	8,656	3,959,606	4,482,103	8,421,709			
Manitoba	24	6	74	3	107	57,620	42,769	100,389			
Alberta	7	—	8	—	15	8,955	8,566	17,521			
British Columbia	28	6	142	—	176	71,906	57,973	129,879			
Canada	2,567	871	6,403	1,926	11,767	6,213,638	6,214,792	12,428,430			
1934											
Nova Scotia and Quebec	855	284	1,606	495	3,210	2,103,155	2,115,842	4,218,997			
Ontario	1,822	679	5,782	1,956	10,239	4,276,206	6,554,224	10,830,430			
Manitoba	35	8	73	2	118	71,364	44,655	116,019			
Alberta	9	2	10	—	21	8,006	8,970	16,976			
British Columbia	8	5	26	—	39	14,691	22,909	37,600			
Canada	2,729	978	7,497	2,453	13,657	6,473,422	8,716,600	15,220,022			

Table 83.—Wage-Earners, by Months, 1933 and 1934

(On the 15th of each month or nearest representative date.)

Months	1933			1934		
	Male	Female	Total	Male	Female	Total
January	6,327	1,780	8,107	6,485	2,239	8,724
February	6,204	1,746	7,950	6,777	2,246	9,023
March	6,088	1,779	7,847	7,140	2,277	9,417
April	5,921	1,620	7,550	7,265	2,167	9,432
May	5,916	1,654	7,570	7,636	2,171	9,807
June	6,035	1,695	7,700	7,570	2,294	9,864
July	6,239	1,746	7,985	7,538	2,309	9,847
August	6,330	1,830	8,166	7,651	2,404	10,055
September	6,409	2,072	8,481	7,735	2,628	10,363
October	6,628	2,234	8,852	8,098	2,925	11,023
November	6,798	2,494	9,292	8,189	2,952	11,141
December	6,741	2,409	9,150	7,914	2,722	10,636
Average	6,403	1,926	8,329	7,497	2,453	9,850

Table 84.—Fuel and Electricity Used, 1933 and 1934

Kinds	Unit of measure	1933		1934	
		Quantity	Cost at works	Quantity	Cost at works
Bituminous—Canadian Imported	ton	23,754	131,792	25,355	141,658
Anthracite	ton	36,344	196,145	38,465	215,700
Coke	ton	1,849	15,312	2,216	17,133
Gasoline	Imp. gal.	5,199	1,310	5,889	1,385
Kerosene	Imp. gal.	1,863	302	1,935	337
Fuel oil	Imp. gal.	809,393	57,820	961,321	68,886
Wood	cord	110	605	43	280
Gas—Manufactured Natural	M cu. ft.	78,518	61,320	102,778	77,286
Other fuel	M cu. ft.	4,316	3,010	4,200	3,128
Electricity purchased	K.W.H.	32,693,430	379,924	43,895,946	454,344
Total			851,575		986,528
Electricity generated for own use	K.W.H.	9,119,930		10,400,000	

Table 85.—Power Equipment, 1933 and 1934

Kinds	1933		1934	
	Number of units	Total rated horse power	Number of units	Total rated horse power
Steam engines and turbines.....	17	9,034	17	9,034
Gasoline, gas and oil engines.....	1	22	1	22
Hydraulic turbines or water wheels.....	7	4,400	7	4,400
<i>Total primary equipment.</i>	25	15,456	25	15,456
Electric motors run by purchased power.....	7,273	78,342	7,578	78,730
Total	7,298	85,798	7,603	82,186
Electric motors run by power generated by above primary units.....	805	4,937	827	4,962
<i>Total electric motors.</i>	8,078	81,279	8,705	83,698
Boilers.....	87	13,042	92	13,598

Table 86.—Materials Used, 1933 and 1934

Materials	Unit of measure	1933		1934	
		Quantity	Cost at works	Quantity	Cost at works
Aluminium—		\$	\$		\$
Castings.....	lb.	309,835	144,346	348,653	180,059
Ingots and scrap.....	lb.	41,147	5,867	23,664	4,663
Punchings and spinnings.....	lb.	42,617	10,439	63,465	22,127
Rods and bars.....	lb.	120,679	18,310	128,475	21,900
Sheets.....	lb.	54,768	18,139	113,537	39,082
Other.....	lb.	46,566	14,975	120,215	33,348
Ammonium chloride (sal ammoniac).....	lb.	696,714	23,891	719,330	23,614
Antimony.....	lb.	144,206	6,820	193,811	10,624
Argon.....	cu. ft.	71,368	31,607	95,982	41,365
Asbestos—					
Board.....	lb.	49,138	6,513	96,757	16,003
Yarn.....	lb.	52,963	16,830	57,174	20,589
Tape.....	lb.	1,001	1,815	1,577	1,045
Bakelite in all forms.....			97,011		136,960
Battery boxes.....	no.	480,815	245,607	575,289	305,452
Brass and bronze—					
Castings.....	lb.	387,546	123,040	710,081	217,028
Rods and bars.....	lb.	409,583	70,884	633,596	95,001
Tubing and pipe.....	lb.	62,984	10,958	60,053	12,031
Lamp bases.....			32,395		95,050
Sheets.....	lb.	691,706	109,041	656,646	106,065
Screws.....			14,500		29,350
Other.....			21,049		39,307
Carbon brushes, brush stock and plates.....			73,787		93,172
Carbon electrodes.....			43,323		47,700
Copper—					
Pig and bars.....	lb.	90,742	9,748	36,503	7,309
Rods.....	lb.	14,793,411	1,166,520	21,369,673	1,633,552
Tubing and pipe.....	lb.	120,108	23,854	294,685	62,223
Sheets and plates.....	lb.	136,413	23,465	193,502	35,894
Wire, bare.....	lb.	1,823,238	219,248	2,527,365	319,406
Wire, other insulated.....			121,749		363,857
Wire, enamelled.....			155,467		282,087
Cotton and linen yarns.....			303,161		438,067
Cotton sheets, tapes and webbing.....			44,513		81,405
Cork sheet.....			2,082		3,006
Fibre rod, sheet, tubing.....			48,325		70,915
Frit for enamelling.....	lb.	160,954	12,826	276,601	23,555
Glass bulbs, tubing and cane.....	xx		455,124		543,114
Insulating varnishes, japsans, lacquers, etc.....	xx		91,236		129,561
Insulating waxes.....	xx		60,182		97,367
Insulators, porcelain.....	xx		114,943		181,288
Iron and steel—					
Pig iron.....	long ton	427	9,374	876	17,504
Iron castings.....	short ton	1,470	192,431	2,662	417,091
Steel castings.....	short ton	324	42,577	225	64,490
Steel forgings.....	short ton	186	22,957	202	32,725
Steel bars.....	short ton	793	77,359	1,145	101,551
Steel rods.....	short ton	430	61,777	836	112,473
Iron and steel pipe.....	short ton	1,958	176,584	3,606	400,284
Steel sheets.....	short ton	7,035	562,514	9,604	890,166
Steel wire.....	short ton	919	102,113	978	104,196
Structural steel.....	short ton	1,794	94,885	1,414	79,314
Bolts, nuts and screws.....	xx		72,534		142,487
Other iron and steel.....	xx		59,022		123,960

MANUFACTURES OF THE NON-FERROUS METALS

Table 86.—Materials Used, 1933 and 1934—(concluded)

Materials	Unit of measure	1933		1934	
		Quantity	Cost at works	Quantity	Cost at works
Lead—			\$		\$
Pig	lb.	9,480,166	327,806	13,211,023	442,046
Scrap	lb.	185,202	7,025	166,684	5,883
Other	lb.	612,993	24,886	556,427	21,583
Lead oxide (litharge and red lead)	lb.	4,721,551	253,941	4,899,031	251,977
Lumber	M bd. ft.	1,361	50,039	1,702	65,887
Manganese oxide	lb.	993,552	16,805	2,646,545	37,275
Mica	lb.	35,098	27,129	93,297	60,520
Mineral wool	lb.	98,374	2,197	194,771	4,451
Nickel-silver tubing	ft.	57,832	8,166	106,854	15,364
Nitrogen	cu. ft.	278,830	3,404	253,677	4,915
Oil—Transformer	Imp. gal.	275,634	62,745	321,497	77,539
Oil—Switch	Imp. gal.	99,189	25,278	129,584	31,094
Paint	xx		41,506		50,286
Paper	xx		109,449		156,994
Pressboard	xx		39,630		50,213
Radio cabinets	no.	72,287	474,239	134,651	898,407
Radio parts for assembling	xx		1,160,458		1,567,989
Radio tubes purchased and used to equip radio receiving sets manufactured	xx		339,620		551,855
Resistance wire	xx		61,808		73,029
Rubber, reclaimed or compounded	lb.	572,923	67,587	800,912	68,024
Rubber, other	lb.	390,537	27,246	684,761	87,293
Silk, artificial	lb.	16,529	20,570	17,091	23,334
Steel tanks	no.	1,130	17,574	1,712	34,419
Sulphuric acid	lb.	2,987,412	48,790	3,487,722	51,423
Talc	lb.	119,677	1,833	193,597	2,299
Thermometers	no.	5,701	28,491	10,846	40,446
Tungsten wire, etc.	xx		48,701		48,996
Wood battery separators	xx		93,992		142,442
Zinc—					
Ingot and bar	lb.	293,551	18,235	448,343	20,829
Sheets	lb.	1,491,941	97,845	1,587,233	111,010
Zinc chloride	lb.	231,001	13,303	252,545	13,329
All other materials	xx		5,123,880		7,408,411
Containers and packing material	xx		392,094		529,596
Total	xx		14,584,269		21,388,006

Table 87.—Products Made in the Electrical Apparatus and Supplies Industry, 1933 and 1934.

NOTE.—Data in this table represent only the output of concerns classified to the Electrical Apparatus and Supplies Industry. The figures for the individual items do not necessarily represent the total output in Canada as these articles may have been produced as minor products by companies which have been classified to other industrial groups. The sign (x) indicates that the article was made also in other industries. For the total Canadian output of certain major items, see Tables 90 to 113.

Products	Unit of measure	1933		1934	
		Quantity	Selling value at works	Quantity	Selling value at works
Appliances, motor driven, including vacuum cleaners (x); fans; washing machines (x); electric clocks, ironing machines (x), blowers (x), oil burners (x), floor polishers (x), etc. (See Tables 93, 94, 99, 102)	xx		\$		\$
Batteries (see Table 91)	xx				
Conduit and fittings (x) (see Table 103)	xx				
Converter equipment:					
Motor generator sets, A.C. to D.C.	No.	29	45,641	43	43,559
Other converter equipment and parts	xx		16,607		26,852
Cooking and heating apparatus, electric:					
Stoves, etc. (x) (see Table 95)	No.	30,980	409,781	60,872	661,469
Heaters, air and space (x)	No.	17,174	73,030	12,001	46,598
Heaters, water, domestic (x) (see Table 97)	No.	25,181	84,506	10,159	73,796
Toasters	No.	103,072	174,369	108,889	187,029
Percolators	No.	2,115	11,826	3,364	18,301
Irons, flat	No.	123,204	233,051	130,137	240,122
All other cooking and heating apparatus	xx		87,136		153,340
Cutouts and fuses:					
Primary cutouts, all types	No.	10,490	76,541	56,313	103,542
Cutouts for cartridge and plug fuses	No.	85,197	4,882	111,514	7,966
Cartridge and other fuses and renewals	xx		191,876		274,004
Electric signs (x)	xx				
Generators, A.C. and D.C. (See Table 89)	No.	60	815,115	133	586,280
Industrial electrical heating equipment:					
Furnaces, resistance and arc types and industrial ovens	No.	32	38,332	45	64,476
Other industrial heating equipment	xx		31,444		54,776

Table 87.—Products Made in the Electrical Apparatus and Supplies Industry, 1933 and 1934.—(concluded)

Products	Unit of measure	1933		1934	
		Quantity	Selling value at works	Quantity	Selling value at works
Instruments and meters (except ammeters for autos):—			\$		\$
Demand meters.....	No.	1,306	32,073	3,208	60,818
Watthour meters.....	No.	39,732	402,044	65,608	529,485
Electrical indicating and graphic instruments.....	No.	404	32,654	599	31,729
Other electrical instruments and meters.....	No.	.....	58,052	.....	65,149
Meter parts.....	xx	.....	63,383	.....	76,673
Lamps, incandescent:—					
Standard size.....	No.	15,176,002	3,230,911	20,622,906	4,035,361
Miniature size.....	No.	5,763,149	485,166	7,282,187	496,574
Lighting fixtures (x) (See Table 100).....	xx	.....	823,326	.....	915,085
Line material (excluding wire and insulators).....	xx	.....	67,192	.....	218,571
Motors, A.C. and D.C. and parts (x) (See Table 80).....	xx	.....	2,266,424	.....	2,952,419
Panel boards and cabinets.....	xx	.....	77,314	.....	101,507
Radios and parts (x) (except tubes) (See Table 104).....	xx	.....	4,046,625	.....	6,683,424
Rectifiers, for storage battery charging, and parts.....	No.	614	24,970	340	32,649
Refrigerators, electric (x) (See Table 92).....	No.	13,577	1,888,025	25,326	3,579,841
Switch gear and protective equipment (except telephone switchboards):—					
Switchboard panels and equipment.....	xx	.....	629,341	.....	867,707
Lightning arresters.....	xx	.....	56,739	.....	111,488
Oil circuit breakers.....	xx	.....	165,956	.....	369,131
Air circuit breakers.....	xx	.....	46,830	.....	78,534
Disconnecting switches.....	xx	.....	66,406	.....	125,303
Other equipment including parts and supplies.....	xx	.....	55,656	.....	48,379
Telephone material (telephones, switchboards, etc.).....	xx	.....	1,811,509	.....	2,057,404
Transformers (See Table 90).....	No.	1,732,884	.....	.....	2,249,334
Therapeutic lamps, etc.....	xx	.....	24,605	.....	18,516
Vacuum tubes:—					
Radio receiving tubes.....	No.	1,808,595	1,094,810	2,367,674	1,389,815
Other vacuum tubes, including X-ray.....	No.	14,160	65,415	18,985	94,376
Welding apparatus.....	xx	.....	38,755	.....	66,722
Wiring devices (except auto starting switches and time switches):—					
Sockets, brass shell.....	xx	.....	145,016	.....	205,348
Sockets, porcelain.....	xx	.....	36,459	.....	77,163
Switches, surface and flush types.....	xx	.....	86,488	.....	138,551
Switches, enclosed safety type.....	xx	.....	199,604	.....	282,106
Switches, canopy.....	xx	.....	15,971	.....	28,030
Switches, all other.....	xx	.....	84,573	.....	166,481
Receptacles, single and duplex (flush).....	xx	.....	35,879	.....	73,448
Cord sets.....	xx	.....	61,276	.....	99,155
Other wiring devices.....	xx	.....	360,834	.....	561,404
Wires (x) and cables, except aluminum (See Table 101).....	xx	.....	5,136,807	.....	7,432,107
Receipts from custom and repair work.....	xx	.....	578,723	.....	872,781
Any electrical apparatus not elsewhere reported.....	xx	.....	1,147,937	.....	1,627,229
All other products.....	xx	.....	1,260,842	.....	1,682,121
Total.....	xx	.....	37,012,509	.....	50,234,811

Table 88.—Production of Certain Electrical Apparatus, by Firms Classified to Industries other than the Electrical Apparatus and Supplies Industry, 1933 and 1934.

Note.—Data given in this table represent the output of electrical appliances or equipment by concerns which have been classified to industries other than the Electrical Apparatus and Supplies Industry. These figures should be added to those given in Table 87 to arrive at the total Canadian output for these items. (See Tables 89 to 112).

Products	Selling value at works	
	1933	1934
Radio sets and parts.....	\$	\$
Washing machines, electric.....	947,938	2,077,530
Stoves, range tops, hot plates, etc., electric.....	2,637,492	3,412,043
Electrodes, furnace.....	902,227	1,021,391
Generators and starters, automobile.....	1,160,151	1,575,233
Oil burners.....	880,838	1,400,056
Signs, electric.....	761,627	509,478
Lighting fixtures.....	550,992	749,580
Blowers for domestic furnaces.....	69,766	80,334
Water tank heaters, electric.....	109,485	72,578
Air and space heaters.....	18,460	12,053
Porcelain insulators, spark plugs, electric irons, electric motors, vacuum cleaners, copper wire, electric refrigerators, etc.....	4,610	2,000
Total.....	2,231,210	2,674,828
	10,274,796	13,587,204

Table 89.—Production of Electric Generators and Electric Motors in Canada, 1933 and 1934.

—	Number	Total rating	Selling value at works
1933			
Generators (excluding double current generators).....	16	116,236 K.V.A.	806,481
Alternating current.....	19	.....	6,000
Direct current.....	25	.....	2,634
Total generators.....			815,115
Motors (excluding starting motors).....			
$\frac{1}{2}$ h.p. and under.....	100,841	22,733 H.P.	980,240
Over $\frac{1}{2}$ to 5 h.p.—single phase—A.C.....	3,640	5,048 H.P.	221,040
Over $\frac{1}{2}$ to 5 h.p.—induction.....	2,627	7,897 H.P.	196,958
Over $\frac{1}{2}$ to 5 h.p.—D.C.....	9	19 H.P.	1,115
Over 5 to 200 h.p.—induction.....	1,357	23,583 H.P.	297,462
Over 5 to 200 h.p.—D.C.....	7	127 H.P.	4,801
201 h.p. and over—induction.....	5	1,700 H.P.	18,445
201 h.p. and over—D.C.....	1	800 H.P.	14,963
Synchronous condensers and motors.....	23	14,980 K.V.A.	96,151
Starting and control equipment.....	.....	.....	399,853
Accessories and parts for motors.....	.....	.....	80,603
Total motors.....			2,311,631
1934			
Generators (excluding double current generators).....			
Alternating current.....	26	134,682	463,645
Direct current and including excitors.....	71	.....	95,682
Steam turbo-generator sets.....	36	.....	3,871
Parts for turbo-generators.....	.....	.....	23,082
Total generators.....			586,280
Motors (excluding starting motors).....			
$\frac{1}{2}$ h.p. and under.....	130,776	30,926	1,305,250
Over $\frac{1}{2}$ to 5 h.p.—single phase—A.C.....	3,970	4,735	178,675
Over $\frac{1}{2}$ to 5 h.p.—induction.....	4,994	8,580	345,164
Over $\frac{1}{2}$ to 5 h.p.—D.C.....	81	127	8,390
Over 5 to 200 h.p.—induction.....	1,600	38,658	415,194
Over 5 to 200 h.p.—D.C.....	22	594	18,661
201 h.p. and over—induction.....	16	5,475	49,521
201 h.p. and over—D.C.....	2	850	16,446
Synchronous condensers and motors.....	44	17,478	103,037
Starting and control equipment.....	.....	.....	476,374
Accessories and parts for motors.....	.....	.....	169,264
Total motors.....			3,085,985

Table 90.—Total Production of Transformers in Canada, 1933 and 1934

Types	Number	Total rating	Selling value at works
1933			
Distribution transformers, 200 k.v.a. and under, and 15,000 volts and below.....	3,122	50,949	471,412
Power transformers, 200 k.v.a. to 7,500 k.v.a. inclusive, over 15,000 volts to and including 110,000 volts.....	88	156,987	347,153
Power transformers, over 7,500 k.v.a. and over 110,000 volts.....	20	381,000	634,249
Current and potential transformers.....	.....	.....	61,657
Constant current transformers.....	14	398	9,682
Series lamp transformers.....	157	.....	2,443
Luminous tube and ignition transformers.....	2,849	.....	38,301
Radio transformers.....	.....	.....	75,504
All other transformers.....	.....	.....	19,216
Parts and supplies.....	.....	.....	73,218
Total.....			1,732,884
1934			
Distribution transformers, 200 k.v.a. and under, and 15,000 volts and below.....	4,081	66,577	659,604
Power transformers over 200 k.v.a. to 7,500 k.v.a. inclusive, over 15,000 volts to and including 110,000 volts.....	181	180,902	664,227
Power transformers, over 7,500 k.v.a. and over 110,000 volts.....	14	200,800	446,934
Current and potential transformers.....	.....	.....	108,250
Constant current transformers.....	15	253	10,892
Series lamp transformers.....	405	.....	9,691
Luminous tube and ignition transformers.....	.....	.....	51,059
Radio transformers.....	.....	.....	159,901
All other transformers.....	.....	.....	66,254
Parts and supplies.....	.....	.....	72,629
Total.....			2,249,334

Table 91.—Total Production of Electric Batteries in Canada, 1933 and 1934

Kind	1933		1934	
	Number	Selling value at works	Number	Selling value at works
		\$		\$
Storage—				
For internal combustion engine starting and ignition.....	446,488	2,106,376	522,132	2,262,960
For farm lighting plants (cells).....	12,423	84,091	13,261	87,928
For motive power (cells).....	2,089	60,551	.....	84,773
For all other purposes, including telephone switchboard.....	7,725	89,586	.....	282,071
Total storage.....		2,340,604		2,717,732
Dry cell—				
6-inch cells.....(cells).....	1,524,714	401,615	1,441,501	398,246
B and C for radio.....(cells).....	13,538,823	757,841	14,856,878	865,119
Flashlight.....(cells).....	6,347,659	384,339	7,371,893	447,930
Total dry cells.....	21,410,996	1,543,795	23,670,272	1,711,295
Parts and supplies, including all other dry cells and primary wet cells.....	.....	294,323	.....	355,917
Total.....		4,178,722		4,784,944

Table 92.—Total Production of Electric Refrigerators, 1929-1934

(Includes production from all industries and represents total Canadian output.)

			Number	Selling value at works
1929.....			4,687	\$ 1,608,304
1930.....			8,302	1,607,784
1931—				
Individual domestic type.....			9,879	1,708,327
All other types.....			4,344	1,088,590
Total for 1931.....			14,193	2,796,917
1932—				
Individual domestic type.....			19,451	2,218,798
All other types.....				914,455
Total for 1932.....				3,133,253
1933—				
Individual domestic type.....			15,059	1,899,033
Individual commercial type for use in stores, etc.....			574	107,855
All other types (compressors only, ice cream cabinets, etc.).....			1,016	197,833
Total for 1933.....			16,649	2,301,721
1934—				
Individual domestic type.....			27,897	3,502,059
Individual commercial type.....			1,110	284,654
All other types (compressors only, ice cream cabinets, etc.).....			1,241	140,279
Total for 1934.....			30,257	3,933,923

Table 93.—Total Production of Domestic Washing Machines, 1927-1934

(Includes production from all industries and represents total Canadian output.)

Years	Hand		Electric		Other power		Total	
	Number	Selling value at works	Number	Selling value at works	Number	Selling value at works	Number	Selling value at works
1927.....	21,841	\$ 356,409	38,309	\$ 4,606,631	1,986	\$ 133,452	62,136	\$ 5,096,492
1928.....	22,118	374,491	60,871	7,724,740	3,408	212,028	86,397	8,311,359
1929.....	25,586	487,519	70,261	9,109,794	4,377	479,135	109,224	10,766,445
1930.....	16,038	339,017	67,577	8,807,068	2,443	244,726	86,058	9,391,711
1931.....	16,189	331,732	59,443	6,490,378	1,061	96,348	76,693	6,918,458
1932.....	10,416	122,605	47,440	3,158,122	630	36,520	58,486	3,317,337
1933.....	7,852	84,941	50,597	2,723,847	482	35,243	58,931	2,841,031
1934.....	9,325	116,998	73,657	3,807,098	1,097	96,912	84,079	3,829,998

Table 94.—Total Production of Electric Vacuum Cleaners and Parts, 1930-1934
(Includes production from all industries and represents total Canadian output.)

		1930	1931	1932	1933	1934
Electric floor models.....	No.	77,451	72,224	44,464	22,802	32,103
	\$	3,034,885	2,650,872	1,401,727	746,577	1,173,044
Electric hand models.....	No.	31,476	35,458	38,679	28,151	15,663
	\$	334,728	302,765	380,029	272,773	163,558
Attachments and parts for above.....	\$	493,375	364,486	731,795	278,587	212,006
Total.....	\$	3,862,998	3,378,123	2,513,551	1,295,337	1,549,908

Table 95.—Number and Factory Selling Value of Stoves made in Canada, 1931-1934

(Includes production from all industries and represents total Canadian output)

		1931	1932	1933	1934
Coal and wood cooking stoves and ranges, all styles.....	No.	59,196	49,038	59,068	74,291
	\$	2,483,809	1,894,873	2,034,434	2,904,402
Coal and wood heating stoves (including all heaters, circulators, Quebec, box, oak, Franklyn, globe or laundry).....	No.	42,157	25,110	29,599	52,056
	\$	744,014	370,701	456,495	716,318
Combination for gas and coal.....	No.	3,510	2,167	3,537	5,796
	\$	272,850	171,565	237,165	404,118
Combination for gas and electric.....	No.	33	.....	.....	7
	\$	4,950	.....	.....	500
Combination for coal and electric.....	No.	1,593	1,415	887	1,055
	\$	150,727	151,930	80,736	101,992
Gas cooking stoves and ranges not combinations, including all styles with ovens.....	No.	31,530	23,513	16,490	20,506
	\$	1,135,776	775,974	557,024	783,634
Electric cooking stoves and ranges over 35 amperes, all styles with ovens.....	No.	26,441	15,778	15,445	18,575
	\$	1,903,765	1,094,506	1,115,144	1,358,050
Electric rangettes, including cord attachment and oven as one unit.....	No.	4,049	3,977	1,663	5,561
	\$	69,556	68,289	35,863	88,357
Electric cooking plates and grills.....	No.	62,168	39,655	29,201	61,064
	\$	167,897	109,175	80,265	130,901
Gas cooking plates.....	No.	7,127	6,018	4,771	3,987
	\$	46,153	48,375	37,813	30,521
Total.....	\$	6,979,497	4,683,388	4,631,939	6,521,913

Table 96.—Number and Factory Selling Value of Stoves, by Provinces, 1933 and 1934

		Nova Scotia and New Brunswick	Quebec	Ontario	Manitoba, Saskatchewan and British Columbia	Canada
1933						
Coal and wood cooking stoves and ranges.....	No.	6,521	7,221	44,329	997	59,068
	\$	252,963	363,077	1,394,612	23,782	2,031,434
Coal and wood heating stoves.....	No.	6,151	6,479	16,722	247	29,599
	\$	105,924	73,178	273,916	3,477	456,495
Combinations for gas and coal.....	No.	26	806	2,705	.....	3,537
	\$	3,755	57,364	176,046	.....	237,165
Combinations for coal and electric.....	No.	15	291	581	.....	887
	\$	1,500	26,568	52,608	.....	80,736
Gas cooking stoves and ranges.....	No.	485	3,261	12,743	1	16,490
	\$	27,971	101,634	427,069	350	557,024
Electric cooking stoves and ranges.....	No.	336	1,155	13,954	.....	15,445
	\$	25,389	61,376	1,028,379	.....	1,115,144
Electric rangettes.....	No.	.....	.....	1,663	.....	1,663
	\$	.....	.....	35,863	.....	35,863
Electric cooking plates and grills.....	No.	.....	20	28,881	300	29,201
	\$	.....	225	79,542	498	80,265
Gas cooking plates.....	No.	.....	279	4,492	.....	4,771
	\$	.....	1,215	30,598	.....	37,813
Total.....	\$	417,502	641,637	3,501,693	28,107	4,631,939

Table 96.—Number and Factory Selling Value of Stoves, by Provinces, 1933 and 1934—Concluded

	Nova Scotia and New Brunswick	Quebec	Ontario	Manitoba, Saskat- chewan and British Columbia	Canada
1934					
Coal and wood cooking stoves and ranges.....	No. 11,587	10,678	50,851	1,175	74,291
\$ 524,132	612,671	1,724,744	42,915	2,904,462	
Coal and wood heating stoves.....	No. 8,311	9,201	33,183	1,271	52,056
\$ 100,307	106,154	491,648	18,209	716,318	
Combinations for gas and coal.....	No. 38	1,451	4,307		5,796
\$ 2,660	111,873	289,585			101,118
Combinations for gas and electric.....	No. ....	....	7	....	7
\$ ....	....	5,00			500
Combinations for coal and electric.....	No. 37	176	842		1,055
\$ 4,425	18,074	82,493			104,992
Gas cooking stoves and ranges.....	No. 388	3,982	16,220		20,596
\$ 11,650	110,407	661,577			783,631
Electric cooking stoves and ranges.....	No. 411	1,037	17,127		18,575
\$ 28,346	50,928	1,278,770			1,358,056
Electric rangettes.....	No. ....	....	5,561	....	5,561
\$ ....	....	88,357			88,357
Electric cooking plates and grills.....	No.	27	60,837	200	61,061
\$ ....	....	360	130,191	350	160,901
Gas cooking plates.....	No. 70	81	3,835	1	3,987
\$ 350	559	29,587		25	30,521
Total.....	\$ 671,870	1,011,026	4,777,518	61,499	6,521,913

Table 97.—Total Production of Domestic Water Heaters, 1932-1934

(Includes production from all industries and represents total Canadian output.)

	1932		1933		1934	
	Number	Selling value at works	Number	Selling value at works	Number	Selling value at works
Electric water heaters—		\$		\$		\$
Circulating type.....	3,557	43,084	5,411	35,628	2,241	28,024
Immersion type.....	5,417	21,992	20,461	45,897	8,308	33,717
Storage tank type.....	347	28,468	1,845	21,441	1,236	24,108
Total electric.....	9,321	93,544	27,717	102,906	11,785	85,849
Gas water heaters—						
Automatic type.....	823	37,694	533	26,623	1,005	51,305
Non-automatic type.....	14,735	104,434	11,214	60,575	13,758	80,029
Total gas.....	15,558	142,128	11,777	87,198	14,763	131,334
Total.....	24,879	235,672	39,494	190,164	26,548	217,183

Table 98.—Total Production of Incandescent Lamps in Canada, 1931-1934

Year	Standard size		Miniature size	
	Number	Selling value at works	Number	Selling value at works
1931.....	18,205,931	\$ 4,044,243	7,255,194	\$ 655,015
1932.....	17,102,308	3,597,173	6,244,103	520,835
1933.....	15,176,002	3,230,911	5,703,149	485,166
1934.....	20,022,906	4,035,361	7,282,187	490,574

Table 99.—Total Production and Factory Sales of Electric Ironers, 1934

(Includes production from all industries and represents total Canadian output.)

	Quantity made 1934	Factory sales, 1934	
		Quantity sold	Income from sales
	No.	No.	\$
Ironers operated by own motor.....	4,200	3,914	228,503
Ironers attached to washing machines.....	3,176	1,671	52,808
Total.....	7,436	5,585	281,311

Table 100.—Total Production of Electric Lighting Fixtures, 1933 and 1934

(Includes production from other industries and represents total Canadian output.)

		Selling value at works	
		1933	1934
		\$	\$
Interior lighting fixtures, residential.....	524,776	633,835	
Interior lighting fixtures, metal reflectors.....	57,451	85,665	
All other interior lighting fixtures.....	85,239	100,808	
Exterior lighting standards.....	17,352	21,369	
Exterior lighting fixtures.....	45,344	73,220	
Exterior lighting control devices.....	3,301	9,714	
Searchlights and floodlights.....	7,399	20,661	
All other lighting equipment.....	152,230	50,166	
Total lighting fixtures.....	893,092	995,419	

Table 101.—Total Production of Brass and Copper Wire and Cable, 1933 and 1934

(Includes production from other industries and represents total Canadian output.)

Kinds		Selling value at works	
		1933	1934
		\$	\$
Brass wire.....	54,919	92,109	
Copper wire, bare.....	1,120,080	1,672,376	
Weatherproof.....	611,741	939,614	
Rubber insulated, braided.....	918,527	1,416,526	
Cambric insulated, braided.....	53,569	90,080	
Rubber insulated, leaded.....	180,338	299,891	
Cambric insulated, leaded.....	88,603	172,748	
Paper insulated, leaded.....	148,425	185,865	
Telephone cable of all kinds.....	387,235	423,922	
Armoured cable.....	406,916	496,277	
Cord, heater, lamp, fixture, all rubber, etc.....	265,591	550,037	
All other copper wire and cable.....	958,692	1,269,401	
Total.....	5,203,636	7,628,822	

Table 102.—Total Production and Factory Sales of Oil Burners, 1934, and Factory Stocks on December 31, 1934

(Includes production from other industries and represents total Canadian output.)

	Oil burners	
	Atmospheric, gravity feed	Power, for domestic and commercial uses
	No.	No.
Manufacturers' stocks, December 31, 1934.....	1,850	550
Production, 1934—Number made.....	6,504	2,142
Selling value at works.....	147,691	361,787
Factory sales, 1934—Number sold.....	6,057	2,195
Income from sales (factory value).....	138,830	380,256

Table 103.—Total Production of Electrical Conduit in Canada, 1933 and 1934

Types	1933		1934	
	Quantity	Selling value at works	Quantity	Selling value at works
	\$		\$	
Rigid iron conduit.....lb.	4,222,832	360,057	6,308,120	530,918
Flexible conduit (steel and non-metallic).....ft.	2,977,382	78,515	4,105,988	76,533
Conduit fittings.....		70,935		98,604
Total.....		513,507		706,055

Table 104.—Total Production of Radio Receiving Sets in Canada, 1925-1934

Years	Number of sets	Selling value at works	Years	Number of sets	Selling value at works
		\$			\$
1925.....	48,531	2,278,292	1930.....	170,082	10,196,936
1926.....	42,430	2,253,098	1931.....	291,711	18,555,710
1927.....	47,500	3,748,622	1932.....	121,408	6,808,877
1928.....	81,032	7,486,127	1933.....	112,273	4,401,313
1929.....	150,050	15,604,145	1934.....	188,710	8,186,248

Table 105.—Production of Radio Receiving Sets, by Quarters, 1931-1934

	1931	1932	1933	1934
	No.	No.	No.	No.
First quarter.....	41,129	42,430	9,480	32,531
Second quarter.....	33,782	6,393	12,765	25,453
Third quarter.....	85,023	30,804	22,061	40,969
Fourth quarter.....	131,777	41,841	67,967	83,757
Total.....	291,711	121,468	112,273	188,710

Table 106.—Production of Radio Receiving Sets, by Quarters and by Types, 1934

Note—"A"—Standard broadcast band (with or without police band) 530 to 3,800 k.c.

"B"—Multi or Selective Wave (continuous or non-continuous) 530 to 16,000 k.c.

"B" — Multi or Selective wave (continuous or non-continuous) 532 to 10,000 k.c.
"C" — All wave (continuous or non-continuous) 532 to 23,000 k.c. or higher

	"A"	"B"	"C"	Total
	No.	No.	No.	No.
First quarter.....	25,729	3,384	3,418	32,531
Second quarter.....	10,198	4,336	1,919	25,453
Third quarter.....	22,196	21,455	3,318	46,969
Fourth quarter.....	16,306	55,922	11,529	83,757
Total.....	83,429	85,697	20,184	188,710

Table 107.—Producers' Sales of Radio Receiving Sets, by Provinces, 1930-1934

Provinces	1930	1931	1932	1933	1934
	No.	No.	No.	No.	No.
Maritimes.....	13,640	17,298	8,740	8,720	12,566
Quebec.....	61,512	78,171	30,545	26,559	31,384
Ontario.....	104,155	126,404	52,412	53,622	66,834
Manitoba.....	11,689	19,340	12,875	12,542	16,261
Saskatchewan and Alberta.....	14,527	21,007	16,059	15,741	23,277
British Columbia.....	17,705	23,902	12,823	13,309	16,865
Canada.....	223,228	286,122	133,454	130,493	167,177

Table 108.—Producers' Sales of Radio Receiving Sets, by Provinces and by Types, 1934

(For explanation of "A", "B" and "C" see note at beginning of Table 106).

Provinces	"A"	"B"	"C"	Total
	No.	No.	No.	No.
Maritimes.....	4,284	6,044	1,338	12,566
Quebec.....	14,015	13,764	3,605	31,384
Ontario.....	36,450	25,187	5,197	66,834
Manitoba.....	7,705	7,085	1,461	16,251
Saskatchewan and Alberta.....	11,452	10,389	1,436	23,277
British Columbia.....	7,745	7,115	2,005	16,865
Canada.....	81,651	70,484	15,042	167,177

Table 109.—Producers' Sales of Radio Receiving Sets, by Quarters and by Types, 1934

(For explanation of "A", "B" and "C" see note at beginning of Table 106).

Provinces	"A"	"B"	"C"	Total
	No.	No.	No.	No.
First quarter.....	20,175	2,621	2,024	25,420
Second quarter.....	13,983	2,031	1,595	17,599
Third quarter.....	24,069	16,148	2,478	42,695
Fourth quarter.....	23,424	49,684	8,355	81,463
Total.....	81,651	70,484	15,042	167,177

Table 110.—Producers' Sales of Radio Receiving Sets, by Provinces and by Quarters, 1931-1934

Provinces	Years	First	Second	Third	Fourth	Calendar year	Per cent of the total Canadian sales
		quarter	quarter	quarter	quarter		
		No.	No.	No.	No.		
Maritimes.....	1931	2,611	2,000	4,786	7,901	17,298	6·0
	1932	2,591	602	1,940	3,607	8,710	6·6
	1933	1,704	836	1,763	4,417	8,720	6·7
	1934	2,146	1,096	2,647	6,677	12,566	7·5
Quebec.....	1931	13,624	7,907	22,648	33,992	78,171	27·3
	1932	10,820	2,953	6,166	10,606	30,515	22·9
	1933	3,071	3,168	5,304	14,116	26,559	20·3
	1934	5,217	3,254	6,778	16,135	31,344	18·8
Ontario.....	1931	23,272	12,355	30,312	60,435	126,404	44·2
	1932	19,252	4,498	12,164	16,498	52,412	39·3
	1933	10,554	6,256	11,589	25,193	53,622	41·1
	1934	11,639	9,392	15,463	30,340	66,834	40·0
Manitoba.....	1931	2,581	1,491	5,919	9,349	19,310	6·7
	1932	3,083	1,463	4,458	3,871	12,875	9·8
	1933	1,806	908	2,635	7,193	12,542	9·6
	1934	1,680	935	5,063	8,573	16,251	9·7
Saskatchewan and Alberta.....	1931	2,107	2,243	5,713	10,944	21,007	7·4
	1932	3,301	854	5,719	6,185	16,859	12·0
	1933	2,157	1,014	4,366	8,204	15,741	12·1
	1934	1,852	1,285	8,455	11,685	23,277	13·9
British Columbia.....	1931	3,458	2,096	7,500	10,848	23,902	8·4
	1932	3,357	840	3,853	4,773	12,823	9·6
	1933	1,592	1,902	3,709	6,106	13,399	10·2
	1934	2,886	1,637	4,289	8,053	16,865	10·1
Canada.....	1931	47,653	28,092	76,308	133,469	286,122	100·0
	1932	42,404	11,210	34,300	45,540	133,451	100·0
	1933	31,814	14,084	29,366	65,229	130,493	100·0
	1934	35,120	17,599	42,695	81,463	167,177	100·0

Table 111.—Total Production and Factory Sales of Radio Receiving Sets, 1933, with Inventory as of December, 31st, 1933

Classification	Unit	Production	Sales	Inventory December 31, 1933
A.C. operated receiving sets—				
Consols only (medium wave)—				
5 tubes or less.....	No.	13,635	13,143	1,463
6 tubes.....	No.	6,280	5,186	1,203
7 tubes.....	No.	10,694	12,470	2,185
8 tubes.....	No.	5,360	9,100	645
9 tubes.....	No.	1,795	6,000	208
10 tubes and over.....	No.	6,955	14,337	1,760
Total consols.....	No. \$	44,719 2,230,285	60,836 3,014,176	7,464
Table and Mantle only (medium wave)—				
4 tubes or less.....	No.	10,521	9,196	594
5 tubes.....	No.	24,864	24,464	1,599
6 tubes and over.....	No.	2,700	4,509	337
Total table and mantle.....	No. \$	38,085 898,379	38,109 933,403	2,530
Combinations—				
Phonograph and radio.....	No. \$	820 65,918	1,015 86,212	206
Medium and short wave.....	No. \$	7,777 434,239	9,544 556,330	544
Total combinations.....	No. \$	8,597 500,187	10,550 642,542	750
Battery sets—				
Automobile and portable.....	No. \$	9,905 335,274	0,252 310,183	962
All other battery sets.....	No. \$	10,967 437,188	11,677 474,542	1,353
Total battery sets.....	No. \$	20,872 772,462	20,929 793,725	2,315
Total of all sets—1933.....	No. \$	112,273 4,401,313	130,493 5,383,846	12,659

Table 112.—Producers' Sales of Radio Receiving Sets, by Classes and by Types, Calendar Year 1934

(For explanation of "A," "B" and "C," see note at beginning of Table 106.)

Classes according to number of tubes	—	"A"	"B"	"C"	Total
A.C. operated receiving sets—					
Consoles only—					
4 tubes or less.....	No.	749	1,522	.....	2,271
5 tubes.....	No.	11,371	8,580	.....	19,951
6 tubes.....	No.	2,960	13,813	1,376	18,149
7 tubes.....	No.	3,846	4,080	848	8,774
8 tubes.....	No.	940	5,628	4,879	11,447
9 tubes.....	No.	225	789	301	1,315
10 tubes.....	No.	1,718	656	1,947	4,321
11 tubes.....	No.	305	.....	1,730	2,035
12 tubes and over.....	No.	993	170	1,100	2,263
Total consols.....	No.	23,107	35,238	12,181	70,526
Table and mantle only—					
4 tubes or less.....	No.	12,944	1,315	52	14,311
5 tubes.....	No.	15,540	10,294	.....	25,834
6 tubes.....	No.	1,035	11,031	1,218	13,284
7 tubes.....	No.	242	1,351	.....	1,593
8 tubes and over.....	No.	92	1,098	1,324	2,512
Total table and mantle.....	No.	29,853	25,087	2,594	57,534
Combinations:—phonograph and radio.....	No.	592	364	158	1,114
Total A.C. Receiving Sets.....	No.	53,552	60,689	14,933	129,174
Automobile sets—					
4 tubes or less.....	No.	3,439	.....	.....	3,439
5 tubes.....	No.	3,421	.....	.....	3,421
6 tubes.....	No.	5,319	.....	.....	5,319
7 tubes and over.....	No.	189	.....	.....	189
Total Automobile Sets.....	No.	12,368	.....	.....	12,368
Portable Sets.....	No.	337	.....	.....	337
Battery operated receiving sets (excluding automobile and portable)—					
Consoles only—					
4 tubes or less.....	No.	773	.....	.....	773
5 tubes.....	No.	3,071	1,410	.....	4,481
6 tubes.....	No.	3,691	415	.....	4,106
7 tubes.....	No.	4	5,336	3	5,343
8 tubes and over.....	No.	1,003	60	100	1,163
Total Consols.....	No.	8,541	7,221	103	15,865
Table and Mantle only—					
4 tubes or less.....	No.	1,317	.....	.....	1,317
5 tubes.....	No.	3,294	1,262	.....	4,556
6 tubes.....	No.	1,616	.....	.....	1,616
7 tubes.....	No.	.....	1,312	3	1,315
8 tubes and over.....	No.	626	.....	3	629
Total Table and Mantle.....	No.	6,853	2,574	6	9,433
Total Battery Sets (except automobile and portable).....	No.	15,394	9,795	109	25,298
Total All Sets.....	No.	81,651	70,484	15,042	167,177

Table 113.—Production of Radio Receiving Sets, by Classes and by Types, Calendar Year 1934

(For explanation of "A," "B" and "C," see note at beginning of Table 106.)

Classes according to number of tubes	Unit	Production Calendar Year, 1934			
		"A"	"B"	"C"	Total
A.C. Operated Receiving Sets—					
Consoles only—					
4 tubes or less.....	No.	469	2,467	.....	2,956
5 tubes.....	No.	11,067	10,935	.....	22,002
6 tubes.....	No.	2,329	10,389	2,617	21,345
7 tubes.....	No.	1,016	4,760	1,053	7,729
8 tubes.....	No.	366	6,802	5,498	12,666
9 tubes.....	No.	138	1,018	343	1,459
10 tubes.....	No.	663	604	2,686	3,953
11 tubes.....	No.	238	.....	1,861	2,099
12 tubes and over.....	No.	488	176	1,638	2,302
Total Consoles.....	No.	17,694	43,161	15,696	76,551
Table and Mantle only—					
4 tubes or less.....	No.	15,132	2,436	547	18,115
5 tubes.....	No.	17,020	11,675	.....	24,695
6 tubes.....	No.	382	14,163	1,931	16,676
7 tubes.....	No.	248	1,420	.....	1,668
8 tubes and over.....	No.	209	1,463	1,572	3,214
Total Table and Mantle.....	No.	33,191	31,157	4,060	68,388
Combinations:—phonograph and radio.....	No.	510	366	356	1,232
Total A.C. Receiving Sets.....	No.	51,395	74,684	20,102	146,181
Automobile Sets—					
Consoles only—					
4 tubes or less.....	No.	4,387	.....	.....	4,387
5 tubes.....	No.	4,343	.....	.....	4,343
6 tubes.....	No.	7,333	.....	.....	7,333
7 tubes and over.....	No.	207	.....	.....	207
Total Automobile Sets.....	No.	16,280	.....	.....	16,280
Portable Sets.....	No.	396	.....	.....	396
Battery operated Receiving Sets (excluding Automobile and Portable)—					
Consoles only—					
4 tubes or less.....	No.	898	.....	.....	898
5 tubes.....	No.	3,113	1,416	.....	4,529
6 tubes.....	No.	4,314	501	.....	4,815
7 tubes.....	No.	.....	5,609	.....	5,609
8 tubes and over.....	No.	354	.....	76	439
Total Consoles.....	No.	8,679	7,526	76	16,281
Table and Mantle only—					
4 tubes or less.....	No.	353	.....	.....	253
5 tubes.....	No.	3,346	907	.....	4,253
6 tubes.....	No.	1,917	362	3	2,282
7 tubes.....	No.	875	1,618	.....	2,493
8 tubes and over.....	No.	288	.....	3	291
Total Table and Mantle.....	No.	6,679	2,887	6	9,572
Total Battery Sets (excluding Automobile and Portable).....	No.	15,358	10,413	82	25,853
Total All Sets.....	No.	83,423	85,097	20,184	188,710

Directory of Firms Included in the Electrical Apparatus and Supplies Industry, 1934

Names of firms	Location of plants
NOVA SCOTIA— Amherst Battery Manufacturing Plant.....	108 Victoria St., Amherst.
QUEBEC—	
Cables, Conduits & Fittings Ltd.....	63 Richelieu St., St. Johns.
Canada Wire & Cable Co. Ltd.....	Durocher Ave., Montreal East.
Canadian Laco Lamps Ltd.....	1511 St. James St., Montreal.
Canadian Marconi Co.....	2442 Trenton Ave., Montreal.
Canadian Rockbestos Products Ltd.....	5795 De Gaspé Ave., Montreal.
Devco Electric Switch Co.....	865 St. Maurice St., Montreal.
Economy Fuse & Mfg. Co. of Canada, Ltd.....	1030 St. Alexander St., Montreal.
Electrical Manufacturing Co. Ltd.....	Montmagny.
Electrolite Mfg. Co. Ltd.....	5849 Boyer St., Montreal.
Electrolux (Canada) Ltd.....	1725 Basin St., Montreal.
Elpeco of Canada, Ltd.....	2591 Notre Dame St. E., Montreal.
Fittes Battery & Ignition Ltd.....	3475 Park Ave., Montreal.
Flex-i-con Manufacturing Co. Ltd.....	1315 Bellechasse St., Montreal.
Hale Bros. Ltd.....	6230 Chambord St., Montreal.
Haliburton & White Ltd.....	886 Notre Dame St. W., Montreal.
Hart Battery Co. Ltd.....	170 St. Georges St., St. Johns.
Hughes, Benjamin, Electric Co.....	263 Vitre St. W., Montreal.
Lighting Appliance Co. of Canada, Ltd.....	1812 Notre Dame St. E., Montreal.
New Era Battery Co.....	2240 Bellechasse St., Montreal.
Northern Electric Co. Ltd.....	1261 Shearer St., Montreal.
Nu Way Battery Ignition Service.....	1200 Demontigny E., Montreal.
Phillips, Eugene F., Electrical Works Ltd.....	5795 De Gaspé Ave., Montreal.
Pomerville Electric Water Heater & Mfg. Co.....	7130 Chambord St., Montreal.
Pyle-National Co. of Canada, Ltd.....	4857 Acorn Ave., Montreal.
Solex Company Ltd.....	4060 St. Lawrence Blvd., Montreal.
ONTARIO—	
Air-Way Ltd.....	Howard Ave., Windsor.
Amalgamated Electric Corp. Ltd.....	372 Pape Ave., Toronto.
Arrow-Hart & Hegeman (Canada) Ltd.....	310 Spadina Ave., Toronto.
Avon Battery Co. Ltd.....	177 Richmond St. W., Toronto.
Baeker, C. H., Co. Ltd.....	Aberdeen St., Ottawa.
Baird, Wm., & Son.....	568 Dundas St., Woodstock.
Baldwin International Radio of Canada, Ltd.....	620 King St. W., Toronto.
Boston Insulated Wire & Cable Co. Ltd.....	118 Shaw St., Hamilton.
Branton, Chas. A., Ltd.....	58 Stewart St., Toronto.
Burgess Battery Company.....	399 Battrey St., Niagara Falls.
Braun & Bonnick Ltd.....	22 Orillia St., Toronto 2.
Brock Snyder Manufacturing Co.....	21 John St., Grimsby.
Canada Batteries Ltd.....	927 Dufferin St., Toronto 4.
Canada Wire and Cable Co. Ltd.....	Leaside.
Canadian Chromalox Co. Ltd.....	251 Queen St. E., Toronto.
Canadian Curtis Refrigerator Co. Ltd.....	20 George St., Hamilton.
Canadian Crocker-Wheeler Co. Ltd.....	George St., St. Catharines.
Canadian Electric Box Co.	1402 Queen St. E., Toronto.
Canadian Fitzgerald Ltd.	781 King St. W., Toronto.
Canadian General Electric Co. Ltd.	224 Wallace Ave., Toronto.
Canadian General Electric Co. Ltd.	Park St., Peterborough.
Canadian General Electric Co. Ltd. (Vacuum Tube Division)	1025 Lansdowne Ave., Toronto.
Canadian General Electric Co. Ltd. (Edison LampWorks)	189 Dufferin St., Toronto.
Canadian Jefferson Electric Co. Ltd.	221 Dufferin St., Toronto.
Canadian Lime Materials Ltd.	533 College St., Toronto.
Canadian National Carbon Co. Ltd.	St. Clair Ave., Scarborough Jct., Toronto.
Canadian Transformer Co.	805 Davenport Road, Toronto.
Canadian Triangle Conduit Co. Ltd.	New Dundee.
Canadian Westinghouse Co. Ltd.	2382 Dundas St. W., Toronto.
Cansfield Electrical Works Ltd.	Sanford Ave. and Myler St., Hamilton.
Chadwick, F., & Son Brass Co. Ltd.	260 Geary Ave., Toronto.
Commercial Fixture Co. Ltd.	8 George St., Hamilton.
Commonwealth Electric Corp. Ltd.	75 Sherbourne St., Toronto.
Conduits Co. Ltd.	Wooland.
Continental Carbon of Canada, Ltd.	120 Don Esplanade, Toronto.
Continental Electric Co. Ltd.	54 Sunach St., Toronto.
Couroy Manufacturing Co. Ltd.	30 Duncan St., Toronto.
Crouse-Hinds Co. of Canada, Ltd.	St. Catharines.
Crown Electrical Manufacturing Co. Ltd.	7 Labatt Ave., Toronto.
Curtis Lighting of Canada, Ltd.	19 Sydenham St., Brantford.
Dominion Carbon Brush Co. Ltd.	260 Richmond St. W., Toronto.
Dominion Cutout Co. Ltd.	250 Richmond St. W., Toronto.
Dominion Electric Mfg. Co. Ltd.	250 Richmond St. W., Toronto.
Dominion Electrohome Industries Ltd.	60 Symach St., Toronto.
Dominion Refrigeration Co.	480 Victoria St., Kitchener.
Durable Electric Appliance Co.	457 King St. W., Toronto.
Eastern Power Devines, Ltd.	81 Jarvis St., Toronto.
Electric Auto-Lite Ltd.	1244 Dufferin St., Toronto.
Electric Magnetic Blanket Co.	Christine St. N., Sarnia.
Electric Repairs & Coal Blowers.	Doherty Bldg., Spadina Ave., Toronto.
Eric Resistor of Canada, Ltd.	51 Richmond St. E., Toronto.
	49 Bathurst St., Toronto.

Directory of Firms Included in the Electrical Apparatus and Supplies Industry, 1934—(continued)

Names of firms	Location of plants
ONTARIO—Concluded	
Exide Batteries of Canada, Ltd.	153 Dufferin St., Toronto.
Falls Electric Resistors Ltd.	30 Courtwright St., Fort Erie N.
Federal Wire & Cable Co. Ltd.	225 Dublin St., Guelph.
Ferranti Electric Ltd.	Mount Dennis, Toronto 9.
Ferguson, J. R.	56 Ainslie St. N., Galt.
Flexible Shaft Co. Ltd.	349 Carlaw Ave., Toronto.
Force Electric Products.	Montrose St., Preston.
Frigidaire Corporation.	35 Fraser Ave., Toronto.
General Dry Batteries of Canada, Ltd.	1244 Dufferin St., Toronto.
Hammond Mfg. Co.	37 Yarmouth St., Guelph.
Hawke Electric and Machine Co.	103 Curling St., London.
Hoover Company Limited, The	Gage and Burton Sts., Hamilton.
Igloo Refrigeration Co. Ltd.	103 Bathurst St., Toronto.
Imperial Manufacturing Co.	29 Leslie St., Toronto.
International Resistance Co. Ltd.	187 Duthess St., Toronto.
Ireland Mfg. Co.	93 Cannon St. W., Hamilton.
Jones & Moore Electric Co. Ltd.	299 Adelaide St. W., Toronto.
Kearney, J. R., Corp. of Canada, Ltd.	95 Hanson St., Toronto.
Kelvinator of Canada, Ltd.	1152 Dundas St. E., London.
La Salle Lead Products Ltd.	630 Wyandotte St. E., Windsor.
Leland Electric Canada Ltd.	9 Duke St., Toronto.
Lighting Products Ltd.	366 Adelaide St. W., Toronto.
Lincoln Electric Co. of Canada, Ltd.	65 Bellwoods Ave., Toronto 3.
Line & Cable Accessories Ltd.	347 Soroured Ave., Toronto 3.
Markel Electric Products Ltd.	23 Lewis St., Fort Erie N.
Marr Machine & Mig. Co.	62 Wallace Ave., Toronto.
Meredith, C. C., & Co. Ltd.	Streetsville.
Metal Industries Ltd.	112 York St., Hamilton.
Minneapolis-Honeywell Regulator Co. Ltd.	117 Peter St., Toronto.
Mohawk Radio Ltd.	263 Seventh St., New Toronto.
Moloney Electric Co. of Canada, Ltd.	213 Sterling Rd., Toronto.
Monarch Battery Mfg. Co. Ltd.	Montreal St., Kingston.
National Batteries Ltd.	45 Richmond St. E., Toronto.
National Conduit Co. Ltd.	348 Dufferin St., Toronto.
National Electric Heating Co. Ltd.	344 Queen St. E., Toronto.
Nonelectric Co. of Canada, Ltd.	179 John St., Toronto.
Owen Battery Co. of Canada Ltd.	2 Overend St., Toronto.
Packard Electric Company, Ltd.	13 Race St., St. Catharines.
P. & E. Mfg. Co.	171 John St., Toronto.
Philo Products of Canada, Ltd.	1244 Dufferin St., Toronto.
Phillips, Eugene F., Electrical Works Ltd.	Brockville.
Pierce Fuse Corp. Ltd.	24 Klauck St., Fort Erie North.
Plate Lock Battery Co. Ltd.	37 Ritson Rd. N., Oshawa.
Polynet of Canada, Ltd.	35 Catharine St. S., Hamilton.
Premier Vacuum Cleaner Co. Ltd.	18 Breadalbane St., Toronto.
Prest-O-Lite Storage Battery Co. Ltd.	1352 Dufferin St., Toronto.
Radio Condenser Co. Ltd.	579 Richmond St. W., Toronto.
Radio Valve Company of Canada, Ltd.	180 Dufferin St., Toronto.
Railway & Power Engineering Corp. Ltd.	171 Eastern Ave., Toronto.
Redi-Heat Electrical Appliance Co.	Mill St., Deseronto.
Reed-Cameron	579 Richmond St. N., Toronto.
Renfrew Electric Products Ltd.	Renfrew.
Robbins & Myers Co. of Canada, Ltd.	Morrell St., Brantford.
Rogers-Majestic Corporation, Ltd.	622 Fleet St., Toronto 2.
Rogers Radio Tubes Ltd.	100 Sterling Road, Toronto.
Sampsor United of Canada Ltd.	49 Sherbourne St., Toronto.
Smith & Stone Ltd.	Georgetown.
Sungano Co. Ltd.	183 George St., Toronto.
Service Lamp Co. Ltd.	197 King St., London.
Sparton of Canada, Ltd.	Cor. Elm and Pine Sts., London.
Square D Co. of Canada Ltd.	672 Dupont St., Toronto.
Standard Underground Cable Co. of Canada, Ltd.	Sheridan Ave. N., Hamilton.
Standard Bronze Co. Ltd.	4 Trafalgar Ave., Toronto 3.
Star Electric Fixtures Ltd.	99 Queen St. E., Toronto.
Stewart-Warner Alenite Corp. of Canada.	McDonald Ave., Belleville.
Stromberg-Carlson Telephone Mfg. Co. of Canada, Ltd.	211 Geary Ave., Toronto.
Superior Electries Ltd.	Pembroke.
Taylor Electric Mfg. Co. Ltd.	520 Adelaide St., London.
Temple Radio Specialties	240 King St. E., Toronto.
Universal Cooler Co. of Canada, Ltd.	Brant St., Brantford.
Ulab-Carter Radio Co. Ltd.	559 College St., Toronto.
Virden, J. C., Ltd.	35 Front St. E., Toronto.
Volta Manufacturing Co. Ltd.	Alexander St., Welland.
Vulcan Electric Products.	3114 Dundas St. W., Toronto.
Walker Metal Products Ltd.	Kildare Rd., Walkerville.
Walsh Electrical Co. Ltd.	465 Church St., Toronto.
Wheeler Reflector Co. of Canada, Ltd.	44 York St., Toronto.
White Radio Ltd.	41 West Ave. N., Hamilton.
Willard Storage Battery Co. of Canada, Ltd.	269 Campbell Ave., Toronto 9.
Wilson Battery Products.	14 Church St., Oshawa.

**Directory of Firms Included in the Electrical Apparatus and Supplies
Industry, 1934—(concluded)**

Names of firms	Location of plants
MANITOBA—	
Burgess Dry Cells Ltd.	14 Bury St., Winnipeg.
Canadian Electric & Brass Ltd.	120 Lombard St., Winnipeg.
Electric Heating & Mfg. Co. Ltd.	902 Home St., Winnipeg.
Globeelite Batteries Ltd.	147 Pacific Ave., Winnipeg.
Ideal Electric Mfg. Co.	364 Manitoba Ave., Winnipeg.
Langley Electric Mfg. Co. Ltd.	677 Notre Dame Ave., Winnipeg.
Leeders' Limited	1375 Portage Ave., Winnipeg.
L. & S. Electric Mfg. Co.	157 Portage Ave., Winnipeg.
Wahl Mfg. Co. of Canada	62 Albert St., Winnipeg.
Western Claude Neon Lights Ltd.	166 Donald St., Winnipeg.
ALBERTA—	
Alberta Battery Co. Ltd.	422-9th Ave. E., Calgary.
Blain Brothers Battery Co. Ltd.	10363-106th St., Edmonton.
Langley Electric Co. Ltd.	1301-11th Ave. E., Calgary.
Smith Battery Co.	407 Centre St., Calgary.
BRITISH COLUMBIA—	
Coyle Batteries Ltd.	1481 Venables St., Vancouver.
Cruickshank Bros. Ltd.	540 East Hastings St., Vancouver.
Electric Panel Mfg. Ltd.	1250 Richards St., Vancouver.
Francis Battery Service	1412 Quadra St., Victoria.
Jones Bros. Service Station Ltd.	928 Johnson St., Victoria.
Ker's Batteries Ltd.	5 Second Ave. E., Vancouver.
Langley Mfg. Co. Ltd.	Granville Island, Vancouver.
Neon Products of Western Canada, Ltd.	260 Terminal Ave., Vancouver.

CHAPTER SEVEN

THE NON-FERROUS SMELTING AND REFINING INDUSTRY

Statistical data reflect the very pronounced and almost general expansion realized throughout the Canadian non-ferrous smelting and refining industry in 1934. The estimated cost of ores, concentrates, etc., treated in smelters and refineries in 1934 totalled \$78,325,552 as compared with \$43,242,563 in 1933; value of primary products in metallurgical plants in 1934 amounted to \$149,936,239 as against \$100,561,297 and the total value added through the treatment of crude or semi-crude mine material in Canadian works totalled \$71,610,687, representing an increase of 24.9 per cent over the corresponding value of \$57,318,734 in 1933.

Employees in the industry totalled 8,298 in 1934 as compared with 6,360 in 1933, an increase of 30.5 per cent. Salaries and wages paid amounted to \$11,059,206 as against \$8,403,181 in the preceding year; the number of employees in 1934 was only surpassed in the history of the industry by that of 1929, a year of extensive mine and plant development.

The results of the survey of the non-ferrous metallurgical industry are particularly interesting in 1934 in that they include particulars relating to the purchase of mine and mill equipment, insurance costs, etc., and are the first of this nature compiled since 1923. The total value of such items as reported by the nickel-copper mines, smelters and refineries; copper-gold mines, smelters and refineries; silver-lead-zinc smelters and refineries, and cobalt-silver smelters totalled \$35,029,644 in 1934. Some of the outstanding values for expenditures during the last calendar year include \$6,272,642 for incoming freight, \$2,082,485 for outgoing freight, \$5,429,202 for fuel, \$1,472,833 for smelter fluxes, \$1,384,388 for lumber, \$958,387 for electrical equipment, and \$573,535 for flotation reagents.

Review of the Industry by Provinces

QUEBEC.—Aluminium ores are not mined in Canada; however, the production of primary metallic aluminium in Quebec, from imported material, has constituted an important industry for several years. The Aluminum Company of Canada, Limited, the sole producer of new metal in the Dominion, operated its Shawinigan Falls fabricating plant continuously throughout 1934; the company's reduction works at Shawinigan Falls was inactive. The reduction plant of the company located at Arvida maintained steady production of aluminium ingot during the calendar year 1934. This plant employed both imported alumina and aluminium produced at Arvida; the slag ore works was not operated in 1934.

During 1934 the Noranda smelter treated 1,050,684 tons of copper-gold-silver ore, concentrate and refinery slag, and produced 70,607,764 pounds of anodes, the average analysis of which was 99.39% copper, 7.04 ounces gold per ton, and 15.66 ounces silver per ton. The following table shows the amount of material treated in the Noranda smelter and the production each year since commencement of operations:—

Year	Tons of ore, concentrate and refinery slag smelted	Pounds of fine copper produced	Gold produced	Silver produced
1927.....	10,740	552,345	707	2,844
1928.....	271,926	33,065,281	52,949	180,277
1929.....	428,221	51,223,115	68,732	334,279
1930.....	734,072	75,509,373	117,393	691,920
1931.....	755,544	62,859,355	253,363	558,801
1932.....	918,567	63,013,485	341,350	619,597
1933.....	1,010,629	65,008,731	284,675	510,739
1934.....	1,050,684	70,175,512	248,615	552,809

During 1934 the concentrator treated 920,363 tons of ore from the Horne mine, the average assay of which was 2.34% copper, 0.125 ounce gold per ton, and 0.32 ounce silver per ton, from which 181,938 tons of concentrate were produced and sent to the smelter. In April, 1934, the rated daily capacity of the concentrator was increased from 2,000 to 3,000 tons and at the same time additional equipment, designed to regrind and retreat the entire mill tailing, was placed in operation. This tailing retreatment plant is operating very satisfactorily and is effecting a substantial saving of gold that was formerly lost in the tailing. A hundred ton experimental cyanide unit, designed to extract additional gold from the pyrite residue of the retreated mill tailing, was constructed and placed in operation in June, 1934. The results obtained from this unit were so satisfactory that a separate 500 ton cyanide mill to treat the entire pyrite portion of the tailing was constructed and placed in operation in 1935. The converter Cottrell plant was increased to twice its former size and capacity and the power house extended to accommodate a 2,600 k.w. steam turbine driven generator to be installed as an auxiliary source of power.

At Montreal East, the electrolytic copper refinery of Canadian Copper Refiners, Ltd., maintained steady production throughout 1934. Blister copper from Flin Flon, Manitoba, and anode copper from Noranda, Quebec, are treated in this plant for the production of refined copper, gold and silver; refined copper is marketed in the form of wire bars, ingot bars, and cathodes. Selenium is now being produced in substantial tonnage at the refinery; production of tellurium has been delayed as, owing to the demand for selenium, efforts were concentrated on the production of the latter metal. Tellurium was produced in 1935.

ONTARIO.—The International Nickel Company of Canada, Limited, reported that operations throughout the year, conducted on an increased scale and at a uniform rate, afforded the management opportunity to cut costs of production to the lowest figures obtaining since the plants were reconstructed and the Frood mine fully developed. The expanded operations called for additions to payrolls and decreased unemployment in the various localities in which operations were conducted. The concentrator of the company was operated at a uniform rate during 1934 and treated 1,843,146 tons of ore, the greatest tonnage thus far handled. As the result of certain re-arrangement of equipment and with the completion of some minor installations the available capacity in the grinding and flotation sections is 8,000 tons per day. This capacity can be readily increased to 11,000 tons per day should demand call for increased quantities of nickel. The Copper Cliff smelter produced 92,174 tons of bessemer matte and 97,611 tons of blister copper. Three reverberatory furnaces were in operation throughout the year. The installation of additional converters was completed; this not only adds to plant capacity, but from a metallurgical standpoint balances adequately the copper and nickel smelting operations. For the Oxford separation process one blast furnace was used in 1934 and a second for seven months. At the Coniston smelter three blast furnaces were in operation up to April 1st and four thereafter; during the year 840,980 tons of ore were smelted and 59,732 tons of bessemer matte produced. All four hydro-electric plants were in use throughout the year.

At the Port Colborne nickel refinery six electrolytic circuits were in continuous operation during the year and a seventh was in use from April to August inclusive. The total output of nickel, inclusive of nickel in oxide, was 70,974,850 pounds.

The electrolytic copper refinery of the Ontario Refining Company, Limited (90 per cent owned by the International Nickel Company of Canada, Limited) maintained steady production at Copper Cliff, Ontario, throughout 1934. As a result of increased nickel production there was a corresponding increase in the tonnage of blister copper received from the Copper Cliff smelter, which rose from approximately 6,500 tons per month at the beginning of the year to 9,000 tons per month during the last quarter. Refined copper production amounted to 95,558 tons compared with 58,098 tons in 1933. Shipments from the refinery were 97,292 tons in 1934 compared with 53,678 tons in 1933. Selenium and tellurium are now regularly produced as by-products in addition to by-product gold, silver and platinum metals. A plant for refining tellurium was constructed during the year and was started in October, 1934. Selenium has found its best use as a decolorizer and as a base for various colors in the manufacture of glass. An interesting application is found in the photo-electric cell. Tellurium is used as a hardening and strengthening agent in lead and its alloys. In the manufacture of rubber products strength and resistance to abrasion are improved by the use of selenium and tellurium.

The mill and smelter of Falconbridge Nickel Mines, Limited, operated throughout 1934 with only the normal interruptions for repairs and the excellent overall metallurgical recovery was

reported as slightly improved. No important changes occurred during the year in the milling and smelting plants. It was rather a year of crowding the existing facilities to their utmost with the result that 272,923 tons were treated or 17 per cent more than the previous year. Results of operations are tabulated as follows:—

Total ore treated.....	272,923 short tons
Matte produced.....	9,271·4 short tons
Nickel in matte produced.....	5,202·6 short tons
Copper in matte produced.....	2,450·8 short tons
Metals per ton in ore.....	41·00 lb. nickel and 19·90 lb. copper
Metallurgical losses per ton of ore.....	2·88 lb. nickel and 1·94 lb. copper

From 317,646 tons of ore delivered to the crushing plant 44,116 tons or 13·9 per cent of waste was eliminated by sorting and discarded.

The plants of the Deloro Smelting and Refining Company, Limited, located at Deloro, Hastings county, were operated continuously during 1934. Silver-cobalt ores from the Cobalt and Gowganda areas were treated by the company for the production of silver bullion, white arsenic, cobalt metal, cobalt oxides and salts, and nickel oxide. A silver-lead-bismuth bullion was also exported by the company.

It is interesting to note, that according to a statement by Sir Edmund Davis, 1,217,925 pounds of by-product cobalt were recovered for the fourteen months to the end of August, 1934, from ore on the Mindola section of Rhokana in Northern Rhodesia and Union Minière du Haut Katanga have announced that the cobalt market developed substantially in 1934, the tonnage of its sales being heavier than for any previous year.

At Port Hope the radium refinery of Eldorado Gold Mines, Limited, was in continuous operation during 1934. Silver-pitchblende ores and concentrates from Great Bear Lake, North West Territories, were treated in this plant and products included radium salts, sodium uranate (orange), sodium uranate (yellow), uranium oxide (black), uranium salts, and by-product silver and lead. During 1934 the plant was reported to have received from the mine 77 tons of pitchblende and silver ore and 7 tons of silver concentrates. Twenty-six tons of ore were treated during the year with recovery of radium, uranium, silver and lead amounting to \$210,000, leaving 48 tons of roasted ore on hand at December 31, 1934. During the period January 1, 1935, to May 31, 1935, the remaining 48 tons of ore were treated with recovery amounting to \$250,000, in addition to which there remained in the plant in process about \$135,000 in products. Radium has been supplied to the following countries: England, Ireland, Scotland, United States, South Africa, Egypt, Iraq, Cyprus, Estonia, Australia and Canada.

MANITOBA AND SASKATCHEWAN.—The Flin Flon mine, copper smelter and zinc refinery are situated on the interprovincial boundary of Manitoba and Saskatchewan, and for this reason, the operations of the Hudson Bay Mining and Smelting Company, Limited, are reviewed under the heading of the two provinces.

There was treated by the concentrator during 1934 an average daily tonnage during the days the plant operated of 4,420 tons or a total for the eleven months operated during the year of 1,463,716 tons of ore. This averaged gold, ounces 0·095; silver, ounces 4·45; copper, 1·71 per cent, and zinc, 4·4 per cent. The tonnage treated was approximately the same as that treated during the previous year. From the 1934 tonnage there were produced 250,595 tons of copper concentrates, assaying gold, ounces 0·353; silver, ounces 5·16; copper, 8·29 per cent, and 76,149 tons of zinc concentrates assaying gold, 0·071 ounces; silver, 1·90 ounces; copper, 0·87 per cent, and zinc, 45·5 per cent.

The operation of the cyanide annex continued with minor changes, all of which tended towards improving the operations. A maximum tonnage of 921,388 was put through this plant; this consisted of sulphide ore tailings averaging 0·0417 ounces gold per ton and 0·605 ounces of silver per ton.

The copper smelter was operated continuously during the year with the exception of the strike period. There were smelted in the reverberatory in 1934, 245,425 tons of Flin Flon ore and concentrates; from the Flin Flon concentrates and other products there were produced and shipped 19,101 tons of blister copper containing a total of 99,334 ounces gold, 1,348,807 ounces of silver, and 37,677,064 pounds of copper. The average tonnage of new material treated per day by the smelter was 828 tons.

The electrolytic zinc plant operated steadily throughout 1934 with the exception of June, the strike month. There were treated during the year 72,896 tons of zinc concentrates averaging gold 0.070 ounces; silver, 1.89 ounces; copper, 0.89 per cent, and zinc, 45.5 per cent, from which were produced 49,427,280 pounds of zinc, the average grade of which was 99.9893 per cent zinc. In 1934 the refinery produced 647 tons of die casting zinc averaging 99.9919 per cent zinc. The amount of cadmium precipitate in stock at the close of 1934 totalled 5,495 tons, the metal content of which is cadmium, 3.63 per cent, copper, 6.76 per cent, and zinc, 55.0 per cent.

BRITISH COLUMBIA.—The Consolidated Mining and Smelting Company of Canada, Limited, reported that the cost of producing lead and zinc was again the lowest in the history of the company. Cost reductions in 1934 were due largely to the enhancement in the value of silver (silver values being credited against the cost of lead and zinc) and to the increased tonnages handled.

Concentration costs at the Kimberley concentrator were slightly above the record of 1933. Recoveries, while good in comparison with all other years, were a little below those of 1933. The drop in recoveries is ascribed partly to the larger tonnage treated, 25 per cent over 1933, and partly to the oxidation due to sprinkling the ore to control the dust. The small increase in mining and concentrating costs was much more than offset by the increased value of silver, with the result that the cost of both lead and zinc in concentrates constituted an all time low record.

The 1933 record costs of smelting lead were maintained in 1934. Lead losses were a little higher owing to smelting a large tonnage of Rossland ore in the lead plant, the available tonnage of this ore not being sufficient to run a copper furnace.

Record costs and recoveries were made in the zinc plant; the reduction in cost was mainly due to larger tonnage and to the new roasting process. The cadmium and bismuth plants, both by-product works, are only run as occasion demands.

Following is the metal production and tonnage treated at Kimberley and Trail plants together, from 1894 to date, and for 1934:—

	Tons ore treated	Gold produced	Silver produced
	ounces	ounces	ounces
1894 to date..... 1934.....	24,463,646 1,792,298	2,381,581 35,328	113,951,029 7,316,231

	Lead produced	Copper produced	Zinc produced
	pounds	pounds	pounds
1894 to date..... 1934.....	3,797,121,176 315,346,312	184,673,769 1,567,078	2,020,575,232 221,955,701

	Cadmium produced	Bismuth produced	Fertilizer
	pounds	pounds	tons
1894 to date..... 1934.....	2,650,668 293,611	578,871 246,092	237,706 82,497

The plants of Granby Consolidated Mining, Smelting and Power Company, Limited, located at Anyox consist of a crushing plant and concentrator of about 5,000 tons capacity, smelter, coke ovens and power plant. During 1934 the continued low copper price adversely affected the Granby operations at Anyox and the bulk of the blister output was necessarily stored. A generally lower tenor of ore was met by a slight increase in tonnage to the mill, which, towards the end of the year, was treating about 5,200 tons of ore per day. No new ore developments of importance materialized in the mine during the year. In the early part of December a blast involving 500,000 or more tons of ore, mainly in pillars and sills of old stopes in No. 1 and No. 5 ore bodies between the 385 foot level and surface, was carried out. About 1,100 men were employed at Anyox with a payroll of \$135,000 per month. Mining operations of the company were discontinued in July.

1935. "The Miner", Vancouver, comments on Granby as follows: "The operating efficiency that distinguished the first, or boundary, stage of the Granby undertaking, has been more than duplicated in the last stage at Anyox, and during the past few years in particular. Indeed, in point of low cost production of copper, we question if any mine in the world, where the conditions are similar, can show comparable results with Granby. This has meant that although during the depression period, with the world price of copper falling below six cents a pound, the company has continued to operate—not without loss, it is true—but nevertheless to operate. Corporations are supposed to be soulless, but it is difficult, as we have previously noted, to discover motives other than primarily benevolent to its employees and their community, in the company's policy since 1933 of continuing to produce copper for accumulation when metal could have been purchased in the open market at a price considerably below the cost of production at Anyox . . . actually the Anyox orebodies, commercially considered, were depleted three years ago . . . "

Table 114.—Principal Statistics, Ten Years 1925-1934

Years	Number of plants	Capital employed	Average number of employees	Salaries and wages	Cost of fuel and electricity at works	Estimated cost of ores, etc., treated at works	Selling value of products at works	Value added by smelting and refining
1925	6	\$ 61,691,928	5,104	\$ 8,568,997	5,280,674	\$ 27,329,409	\$ 56,633,793	\$ 29,304,384
1926	9	81,779,240	6,226	9,584,938	6,076,627	39,237,657	72,853,566	33,615,909
1927	10	85,366,662	7,671	12,120,240	6,380,127	32,516,687	77,906,265	45,479,578
1928	10	120,035,742	7,528	12,228,738	5,180,770	33,200,255	94,341,702	61,081,477
1929	10	146,699,085	8,119	13,772,383	6,208,733	41,416,446	109,854,468	68,438,022
1930	13	175,010,686	8,026	13,796,124	6,465,897	45,310,472	100,910,130	55,635,664
1931	14	175,649,195	7,860	13,245,327	6,053,398	48,336,301	98,563,755	50,220,454
1932	13	149,708,860	5,343	8,778,970	4,435,394	37,719,947	76,442,076	38,722,129
1933	14	146,085,284	6,360	8,403,181	2,792,322*	43,242,563	100,581,297	57,319,734
1934	14	146,047,422	8,298	11,059,206	3,564,712*	78,325,552	149,936,239	71,610,687

* Does not include coal, oil, etc., for metallurgical purposes. See tables 117 and 118.

Table 115.—Capital Employed, by Classes, 1932-1934

	1932	1933	1934
Present value of lands, buildings, machinery and equipment	\$ 107,238,667	\$ 101,508,625	\$ 100,334,062
Inventory value of materials on hand, stocks in process, fuel and other supplies	10,370,049	12,446,854	14,204,927
Inventory value of finished products on hand	17,925,108	16,768,493	16,584,377
Operating capital (cash, bills and accounts receivable, etc.)	14,175,036	15,361,312	14,864,056
Total	149,708,860	146,085,284	146,647,422

Table 116.—Employees, Salaries and Wages, 1932-1934

(On the 15th of each month or nearest representative date.)

	1932	1933	1934
Number of employees—			
Salaried employees.....	739	679	849
Wage-earners—			
January.....	5,496	5,003	6,870
February.....	5,400	4,831	6,832
March.....	5,355	4,926	7,034
April.....	4,750	4,890	7,264
May.....	4,297	4,910	7,530
June.....	4,475	5,534	7,717
July.....	4,205	6,080	7,734
August.....	4,180	6,322	7,767
September.....	4,198	6,368	7,695
October.....	4,326	6,478	7,816
November.....	4,316	6,396	7,620
December.....	4,274	6,410	7,606
Average wage-earners.....	4,604	5,681	7,449
Total employees.....	5,343	6,360	8,298
Salaries and wages—			
Salaries.....	\$ 1,690,710	\$ 1,461,380	\$ 1,842,449
Wages.....	7,088,260	6,941,801	9,210,757
Total.....	8,778,970	8,403,181	11,059,239

MANUFACTURES OF THE NON-FERROUS METALS

Table 117.—Fuel and Electricity Used, 1933

Kind	Unit of measure	For heat and power		For metallurgical purposes	
		Quantity	Cost at works	Quantity	Cost at works
Bituminous coal—Canadian.....	tons	4,315	\$ 23,550	244,701	\$ 1,657,991
Imported.....	tons	16,120	88,448	100,006	578,272
Anthracite.....	tons	84	957		
Coke.....	tons	1,783	16,528	129,605	1,165,432
Gasoline (exclusive of that used in motor cars).....	Imp. gal.	29,541	5,653		
Fuel oil and diesel oil.....	Imp. gal.	3,078,478	114,325	7,218,294	327,775
Kerosene or coal oil.....	Imp. gal.	4,395	948		
Wood (cords of 128 cubic feet).....	cords	160	657	5,489	28,963
Gas—Manufactured.....	M cu. ft.	127,372	14,011	45,886	4,998
Natural.....	M cu. ft.	79	69		
Other fuel.....	xx		5,098		22,079
Electricity purchased.....	K.W.H.	833,473,571	2,522,078	380,331,833	1,232,104
Total	xxx		2,792,322		5,017,614
Electricity generated for own use.....	K.W.H.		15,442,203		

Table 118.—Fuel and Electricity Used, 1934

Kinds	Unit of measure	For heat and power		For metallurgical purposes	
		Quantity	Cost at works	Quantity	Cost at works
Bituminous coal—Canadian.....	tons	3,315	\$ 15,374	370,362	\$ 2,320,359
Imported.....	tons	20,131	113,051	50,493	299,308
Anthracite.....	tons	58	889		
Coke.....	tons	2,371	25,506	261,897	2,416,231
Gasoline (exclusive of that used in motor cars).....	Imp. gal.	47,393	10,133	713	2,6
Fuel oil and diesel oil.....	Imp. gal.	2,741,580	121,052	9,894,420	551,779
Kerosene or coal oil.....	Imp. gal.	7,089	1,539	399	32
Wood (cords of 128 cubic feet).....	cords	69	344	4,662	26,731
Gas—Manufactured.....	M cu. ft.	92,035	11,320	50,418	5,818
Natural.....	M cu. ft.	152	122		
Other fuel.....	xx		8,852		30,888
Electricity purchased.....	K.W.H.	1,077,755,407	3,255,630	411,073,814	1,197,717
Total	xxx		3,564,712		6,912,350
Electricity generated for own use.....	K.W.H.		20,251,795		

Table 119.—Power Equipment, 1933 and 1934

Kind	1933		1934	
	Number of units	Total horse power	Number of units	Total horse power
Steam engines and steam turbines.....	32	16,542	34	16,466
Gasoline, gas and oil engines.....	11	348	15	642
Hydraulic turbines or water wheels.....	21	65,160	10	13,335
Total primary power	64	82,050	69	51,443
Electric motors operated by purchased power.....	4,285	232,021	5,003	247,889
Total	4,323	314,071	5,062	279,023
Electric motors operated by company's power.....	832	16,556	846	16,730
Total electric motors	5,097	248,577	5,849	274,733
Boilers.....	48	25,159	50	25,704

Table 120.—Purchases of Equipment and General Supplies, together with Cost of Insurance, Freight, etc., in the Canadian Non-Ferrous Smelting and Refining Industry during 1934*

	Value, £.o.b. plant
Belting of all kinds, including elevator, conveyor, transmission, etc., and fasteners for same.....	\$ 113,153
Bolts, nuts, rivets, studs, washers, coach, set and machine screws, etc.....	160,401
Castings—unfinished iron and steel.....	134,091
Unfinished brass castings; brass and copper rods and sheets, babbitt and non-ferrous metals of all kinds.....	419,087
Cars and locomotives and mechanical parts for same.....	209,928
Truck materials—rails and fittings, switches, spikes, bolts, etc.....	203,517
Explosives—powder, fuse and detonators.....	1,495,097
Rock drills and parts.....	309,830
Drill and tool steels.....	180,041
Pipe and fittings, plumbing supplies and valves.....	484,090
Iron and steel bars, sheets, plates, and all structural steel.....	953,763
Wire rope and fittings.....	138,562
Diamonds and bort for drilling.....	16,900
Safety equipment and apparel—safety hats, boots, gloves, goggles, respirators, etc.; miners' lamps and accessories and lamp rentals.....	241,683
Fuel—coal, coke, charcoal and wood.....	5,429,202
Fuel oil, kerosene, and gasoline.....	780,651
Lubricants—oil, grease and waste.....	175,399
Lumber and timber of all kinds.....	1,384,388
Building materials—cement, brick, tile, roofing and building paper, insulating material, building hardware, glass, putty, paints, varnishes and brushes, wood screws, nails, screw hooks and eyes, sand, lime, and miscellaneous.....	530,383
Electrical equipment and supplies—motors, batteries, wire and cable, etc.....	958,387
Crushing, grinding and screening machinery and parts; ball and tube mill liners, roll shells, etc.....	424,982
Filter cloth, rotor covers and ore dressing blankets.....	121,115
Balls and rods for grinding.....	315,987
Machinery, mill, n.o.p. and parts.....	279,403
Machinery, mine, n.o.p. and parts—steel shop equipment, hoists, mine pumps, etc.....	382,266
Machinery, smelter, n.o.p. and parts.....	724,668
Machinery, miscellaneous, and parts—machine, blacksmith, carpenter shop and general surface equipment.....	438,236
Motor cars, trucks and accessories.....	97,157
Tools—brooms, picks, shovels, hammers, handles, saws, wrenches, machinists' tools, etc.....	273,348
Welding and cutting equipment and accessories—oxygen, acetylene welding, rods, tips, etc.....	112,778
Rubber goods, suits, boots, hose and accessories, pump valves, launder linings, etc. (not including belts).....	220,157
Flotation reagents.....	573,535
Cyanide and cyanide plant chemicals.....	137,663
Acids and chemicals, n.o.p.	273,781
Refractories—brick, cement, fireclay, etc.....	784,359
Smelter fluxes—fluorspar, limestone, quartz, sand, etc.....	1,472,833
Hospital equipment and medical supplies.....	22,276
Stationery, office equipment and supplies, survey and drafting equipment and supplies.....	98,068
Miscellaneous materials, n.o.p. (includes all materials not otherwise provided for in any other item).....	1,120,676
Power—electric.....	3,740,221
Freight—(a) incoming—only amounts paid direct to Railway Company.....	3,272,642
(b) outgoing.....	2,082,485
Express—(a) incoming—only amounts paid direct to Express Company.....	24,991
(b) outgoing.....	30,923
Insurance—(a) Fire	146,502
(b) Sickness and accident.....	1,925
(c) Group	45,277
(d) Workmen's compensation.....	398,412
(e) Bullion.....	8,107
(f) Other.....	87,760
Total.....	35,029,644

*Owing to the difficulty of segregating certain data, the figures of purchases, etc., by nickel-copper and copper-gold-silver mines are included in the above.

Table 121.—Capacities of Canadian Copper Smelting and Refining Works, 1934*

Company	Blast furnaces		Reverberatories		Converters	
	Number	Annual capacity, tons of ore and concentrates	Number	Annual capacity, tons of ore and concentrates	Number	Annual capacity, tons of ore and concentrates
Consolidated Mining & Smelting Co. (b).....			1	48,000	2	16,000
Falconbridge Nickel Mines.....	1	200,000			2	35,000
Grundy Consolidated Mining, Smelting & Power Co.	2	200,000			3	15,000
Hudson Bay Mining & Smelting Co.			1	325,000	2	
Noranda Mines.....			2	900,000	4	150,000
International Nickel Co.	4	800,000	5	2,100,000	17	
ELECTROLYTIC COPPER REFINERIES—						
Canadian Copper Refiners Ltd.			Annual capacity—short tons			
Ontario Refining Co. Ltd.			65,000			
			120,000			

Table 122.—Metal Prices, 1929-1934

Metal	Market	Unit of measure	1930	1931	1932	1933	1934
			\$	\$	\$	\$	\$
Arsenic.....	New York	Pound	0.04	0.045	0.04	0.04	0.04
Cobalt.....	New York	Pound	2.50	2.50	2.50	2.50	2.50
Cobalt oxide.....	New York	Pound	2.00	1.75	1.35	1.35	1.35
Copper.....	New York	Pound	0.1298	0.0837*	0.0555	0.07025	0.08428
Copper.....	London	Pound			0.0330*	0.04548*	0.04193*
Lead.....	London	Pound	0.0302	0.210*	0.0211*	0.02918*	0.024364*
Silver.....	New York	Ounce	0.3815	0.2987*	0.3167*	0.378328*	0.474609*
Zinc.....	London	Pound	0.0360	0.0255*	0.0240*	0.032105*	0.030438*

*Canadian funds.

Table 123.—Copper Production of the World, on Smelter Basis (a), 1929, 1932, 1933 and 1934

(Taken from the 1934 Year Book of the American Bureau of Metal Statistics)

(in tons of 2,000 lb.)

—	1929	1932	1933	1934
United States*.....	1,179,269	309,160	284,172	314,198
Whereof from scrap.....	47,628	18,183	25,284	52,754
Whereof from foreign ore.....	105,293	35,468	25,239	29,145
Mexico.....	63,795	37,440	43,642	51,903
Canada.....	79,186	106,050	129,763	168,203
Chile.....	333,296	107,232	173,057	271,589
Peru.....	59,527	22,910	27,068	29,306
Austria.....	4,293	1,703	808	533
Germany.....	59,083	56,107	54,895	58,432
Great Britain.....	14,440	8,207	8,818	10,362
Jugoslavia.....	22,700	33,244	44,154	48,394
Norway.....	2,633	5,937	7,341	8,726
Russia.....	28,443	33,816	36,034	48,587
Spain.....	22,215	9,998	9,947	7,718
Sweden.....	5,271	7,016	9,643	8,747
Other Europe.....	10,498	5,658	3,000	3,000
Japan.....	83,189	68,100	67,000	66,100
India.....	1,976	4,976	5,376	7,054
Other Asia.....	2,000	1,000	1,000	1,000
Australasia.....	13,907	16,472	16,539	12,555
Africa.....	159,250	145,031	200,430	202,536
Whereof, Belgian Congo.....		59,522	73,409	123,458
Whereof, Rhodesia.....		75,403	117,800	160,701
Totals.....	2,145,961	981,027	1,122,687	1,410,023
Deduct U.S. secondary.....	47,628	18,183	25,284	52,754
Total new copper.....	2,097,433	962,844	1,097,403	1,357,329

(a) The above table gives only the copper that is smelted, including direct production by electrolysis, and does not break down to origin back of the place of beneficiation; every effort has been made to eliminate secondary copper so far as possible. The production of Japan is reported as blister copper beginning with 1932; previously as refined copper, which includes a certain quantity of secondary. The entire production of Katanga is credited to Belgian Congo, irrespective of where smelted.

The United States Bureau of Mines reports the smelter production of primary copper from domestic sources in the United States during 1934 at 488,454,107 pounds, an increase of approximately 9 per cent. The value of smelter production increased approximately 36 per cent in 1934. The average price of copper delivered during the year, as reported to the Bureau of Mines by selling agencies, was 8.0 cents a pound, f.o.b. refinery. The total production of new refined copper in 1934 was 891,000,000 pounds, an increase of 149,000,000 pounds or 20 per cent over that in 1933. In addition to their output of metals, smelters also require certain nonferrous products (by-product copper sulphate) having a copper content of 5,531,000 pounds, as compared with 6,379,000 pounds in 1933.

Table 124.—Lead Smelting Capacity of Canada, 1934

Company	Situation of plant	Number of blast furnaces	Annual capacity (tons of charge)
Consolidated Mining & Smelting Co.....	Trail, B.C.	5	700,000

Table 125.—World Production of Lead (a)

(short tons)

Country	1922	1929	1931	1932	1933	1934
North America.....	649,022	1,121,394	796,202	560,727	562,213	687,515
South America.....	6,547	34,038	14,992	15,303	12,817	10,692
Total Europe.....	314,647	458,279	442,795	412,165	403,966	445,412
Total Asia.....	53,441	100,743	88,871	86,819	88,216	88,941
Australia.....	118,004	195,403	171,607	208,577	233,532	226,336
Africa.....	37,419	22,663	21,067	15,523	10,395	30,105
Total.....	1,179,140	1,932,520	1,535,534	1,299,117	1,316,939	1,489,001

(a) In general, output is reported in terms of base bullion allocated as far as possible to origin of ore, according to the American Bureau of Metal Statistics.

Of the output recorded for North America in 1934, Canada contributed 159,833 short tons, excluding lead exported to European countries, the corresponding figure for 1933 was 129,932 short tons.

The American Bureau of Metal Statistics estimates that the lead refining capacity of the world aggregates about 1,042,000 short tons in the United States and about 1,945,000 tons elsewhere, a grand total of 2,987,000 tons. However, probably not more than 900,000 tons in the United States and 1,450,000 tons elsewhere, a grand total of 2,350,000 tons, is to be rated as useful and effective, the remainder being obsolete, incapable of economical ore supply, or otherwise useless.

Table 126.—Capacity and Production of Electrolytic Zinc Plants in Canada, 1932-1934

	Maximum h.p. used	Estimated annual capacity for cathode zinc (short tons)	Actual production as ingot zinc (short tons)		
			1932	1933	1934
Consolidated Mining & Smelting Co. of Canada, Ltd.....	73,000	140,000	65,284	68,810	110,217
Hudson Bay Mining & Smelting Co. Ltd.....	13,500	23,400	20,868	23,153	24,714

Supplied by the American Bureau of Metal Statistics.

Table 127.—World Production of Zinc (a), 1929, 1933 and 1934

(Supplied by the American Bureau of Metal Statistics)

(in short tons—2,000 lb.)

Country	1929	1933	1934
United States.....	631,601	324,705	386,933
Mexico.....	29,954	30,712	40,354
Canada.....	86,049	91,227	134,926
Belgium.....	218,145	151,348	192,885
Czechoslovakia.....	12,604	7,480	9,773
France.....	100,984	61,217	56,410
Germany.....	112,435	56,071	80,358
Great Britain.....	65,294	45,987	57,344
Italy.....	17,421	24,504	26,921
Yugoslavia.....	8,081	3,369	4,450
Netherlands.....	28,342	20,308	21,948
Norway.....	6,080	49,546	49,604
Poland.....	186,324	93,397	102,522
Russia.....	3,789	18,320	29,823
Spain.....	13,035	9,421	9,010
Sweden.....	5,301	—	—
Australia.....	60,001	60,425	58,353
Japan.....	21,807	32,537	32,518
French Indo-China.....	4,196	3,472	4,575
Rhodesia.....	13,575	20,767	21,882
Total.....	1,629,898	1,104,871	1,301,595

(a) The statistics in this table are the summaries of production as made by the metallurgical works of the world whose principal business is the reduction of ore. Insofar as they produce slab zinc from secondary material such is included. The quantity of such inclusion is, however, relatively small. Production is not allocated according to the origin of the ore except in the instances of the United States and Mexico beginning 1929. Slab zinc produced in the United States from Mexican ore has been separated and credited to Mexico in that year and subsequently. Other production from Mexican ore is included in figures of countries where treated.

The American Bureau of Metal Statistics estimates the capacity of American zinc metallurgical works at the end of 1934 as being nominally for the production of 700,000 short tons of spelter per annum by distilling and 231,000 tons by electrolysis, a total of 931,000 tons, the same as at the end of 1931, but the first class effective capacity is something less, probably not more than for 850,000 tons, and perhaps materially less than that. It is estimated that the effective capacity outside of the United States at the end of 1934 was 1,150,000 metric tons whereof about 275,000 tons was in Australia, Canada and Mexico, and about 875,000 tons elsewhere. New plants both electrolytic and distilling, were built in 1934, but their effect was largely to displace previous capacity.

Table 128.—World Production of Aluminium

(Supplied by the American Bureau of Metal Statistics.)
(in metric tons)

Country	1922	1929	1931	1932	1933	1934
United States.....	33,600	102,100	80,500	47,600	38,600	33,646
Canada.....	10,000	42,000	31,000	18,000	16,200	15,500
Europe.....	48,200	137,898	107,635	87,454	80,742	119,058
Total for World.....	91,800	281,998	219,135	153,054	111,542	169,104

Omitted from this table are possibly small productions in Belgium and Japan, as to which information is uncertain.

Table 129.—World Production of Nickel Ore, 1932-1934 (a)

(In terms of metal)

Country	1932	1933	1934
	(short tons)	(short tons)	(short tons)
Canada (b).....	15,164	41,632	64,344
New Caledonia (c).....	3,200	4,900	5,500
Greece.....	1,053	1,344	(e)
India (d).....	1,042	1,090	1,300
Norway.....	1,042	1,096	(e)
Russia.....			951

(a) Production outside of these countries is very small.

(b) Production in all forms from Canadian ores, as reported by Ontario Bureau of Mines.

(c) Exports of matte; content, estimated at 75 per cent.

(d) Nickel content of spoils obtained as a by-product.

(e) Data not yet available.

Directory Canadian Copper Smelting Companies, 1934

Name	Head office address	Plant location
Noranda Mines Ltd.....	2 King St. E., Toronto, Ont.....	Noranda, P.Q.
(a) International Nickel Co. of Canada, Ltd.....	67 Wall St., New York City, U.S.A.....	Copper Cliff, Port Colborne and Coniston, Ont.
(a) Falconbridge Nickel Mines Ltd.....	25 King St. W., Toronto, Ont.....	Falconbridge, Ont.
Hudson Bay Mining & Smelting Co. Ltd.....	404 Dundas St., Woodstock, Ont.....	Flin Flon, Man.
Granby Consolidated Mining, Smelting & Power Co. Ltd.....	789 Pender St. W., Vancouver, B.C.....	Anoxo, B.C.

Canadian Electrolytic Copper Refining Companies, 1934

Canadian Copper Refiners Ltd.....	2 King St. E., Toronto, Ont.....	Montreal East, P.Q.
Ontario Refining Co. Ltd.....	Copper Cliff, Ont.....	Copper Cliff, Ont.

Canadian Lead Smelting and Refining Companies, 1934

Consolidated Mining and Smelting Co. of Canada Ltd.*.....	Dominion Square Bldg., Montreal, P.Q.....	Trail, B.C.
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Canadian Electrolytic Zinc Refining Companies, 1934†

Consolidated Mining and Smelting Co. of Canada, Ltd.....	Dominion Square Bldg., Montreal, P.Q.....	Trail, B.C.
Hudson Bay Mining and Smelting Co. Ltd.....	404 Dundas St., Woodstock, Ont.....	Flin Flon, Man.

Canadian Smelters and Refiners of Cobalt-Silver-Arsenic Ores, 1934

Deloro Smelting and Refining Co. Ltd.*.....	Deloro, Ont.....	Deloro, Ont.
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Canadian Refiners of Uranium-Radium Ores, 1934

Eldorado Gold Mines Ltd.....	Star Bldg., Toronto, Ont.....	Port Hope, Ont.
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Canadian Producers of Primary Aluminium, 1934

Aluminum Company of Canada, Ltd.....	Canada Life Bldg., Toronto, Ont.....	Arvida and Shawinigan Falls, P.Q.
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(a) Smelt nickel-copper ores.

*Produce bismuth or bismuth-bearing bullion as by-products.

†Produce cadmium or cadmium compounds as by-products.

CHAPTER EIGHT

THE MISCELLANEOUS NON-FERROUS METAL PRODUCTS INDUSTRY

This industry covers the operations of the concerns in Canada which made, from non-ferrous metals, certain commodities which could not properly be classified to any of the other industries included under the Manufactures of the Non-Ferrous Metals.

In 1934 there were 20 plants in this category, 13 being in Ontario, 5 in Quebec, and 2 in Manitoba. Six companies made metal weatherstrip only; 6 others made weatherstrip and fly screens; 1 made railway and marine lamps, lanterns and signals; 1 made incandescent gas mantles for use in railway car lights; 1 made lamp and lantern burners, 1 made gasoline vapour appliances such as lamps, lanterns, camp stoves, etc.; 1 made atomizers and perfume sprays and spray painting equipment; 1 made electric floor lamps and shades; 1 made etched name plates, and 1 assembled cigarette lighters and parts.

Production from these factories was valued at \$920,924 in 1934. The monthly average of employees was 291 and salaries and wages totalled \$312,863. Materials for manufacturing cost \$229,589.

In 1933 the value of production was \$658,316 from 19 establishments and in 1932 the output from 20 works was worth \$490,076.

Table 130.—Principal Statistics, Ten Years 1925-1934

Years	Number of plants	Capital employed	Average number of employees	Salaries and wages	Cost of fuel and electricity at works	Cost of materials at works	Selling value of products at works	Value added by manufacturing
		\$		\$	\$	\$	\$	\$
1925.....	17	919,733	233	313,145	6,378	346,518	999,277	652,759
1926.....	18	918,420	222	286,537	9,417	344,196	998,512	654,316
1927.....	16	905,937	234	309,236	9,557	291,940	947,705	605,765
1928.....	17	943,914	227	269,807	9,169	304,387	1,105,039	802,252
1929.....	17	788,359	230	345,245	11,326	317,130	1,116,053	708,923
1930.....	16	803,293	209	289,243	9,210	277,551	758,425	530,874
1931.....	19	755,326	150	231,595	9,142	130,800	480,188	340,382
1932.....	20	927,306	159	210,655	9,542	106,855	490,076	383,221
1933.....	19	1,123,131	226	233,098	12,029	180,618	658,316	477,698
1934.....	20	999,053	291	312,863	14,623	229,589	920,924	691,335

Table 131.—Principal Statistics, by Provinces, 1933 and 1934

Provinces	Number of plants	Capital employed	Average number of employees	Salaries and wages	Cost of fuel and electricity at works	Cost of materials at works	Selling value of products at works	Value added by manufacturing
		\$		\$	\$	\$	\$	\$
1933								
Quebec.....	5	145,503	26	20,718	1,889	24,532	59,016	35,084
Ontario.....	12	972,418	199	205,380	10,031	155,140	594,543	439,403
Manitoba.....	2	5,210	1	1,000	109	946	4,157	3,211
Canada.....	19	1,123,131	226	233,098	12,029	180,618	658,316	477,698
1934								
Quebec.....	5	143,786	36	39,055	2,484	33,823	99,026	65,203
Ontario.....	13	845,217	263	271,808	11,999	195,085	817,618	622,533
Manitoba.....	2	10,050	2	2,000	140	681	4,280	3,599
Canada.....	20	999,053	291	312,863	14,623	229,589	920,924	691,335

Table 132.—Size of Establishments according to Production, Number of Employees and Capital Employed, 1933 and 1934

	1933				1934			
	Number of plants	Capital employed	Number of employees	Selling value of products at works	Number of plants	Capital employed	Number of employees	Selling value of products at works
(a) Production								
Under \$10,000.....	8	64,449	18	29,807	8	67,872	16	30,211
\$10,000 to \$25,000.....	8	245,011	51	136,423	5	59,622	30	88,308
Over \$25,000.....	3	813,671	157	492,086	7	871,559	245	796,405
Total.....	19	1,123,131	226	658,316	20	999,053	291	920,924
(b) Employees								
1 or 2.....	5	18,864	5	11,762	6	54,122	8	22,179
3 to 10.....	11	290,596	64	154,438	8	89,159	46	137,738
Over 10.....	3	813,671	157	492,086	6	835,772	237	701,007
Total.....	19	1,123,131	226	658,316	20	999,053	291	920,924
(c) Capital								
Under \$25,000.....	13	111,256	51	124,404	14	121,624	69	183,453
Over \$25,000.....	6	1,011,875	175	533,912	6	877,429	222	737,471
Total.....	19	1,123,131	226	658,316	20	999,053	291	920,924

Table 133.—Capital Employed, by Classes and by Provinces, 1933 and 1934

Provinces	Present value of lands, buildings, machinery, tools and other equipment	Inventory value of materials on hand, stocks in process, and miscellaneous supplies on hand	Inventory value of finished products on hand	Operating capital (cash, bills and accounts receivable, prepaid expenses, etc.)	Total capital employed
					\$
1933					
Quebec.....	70,740	18,541	13,192	43,030	145,503
Ontario.....	322,068	132,395	111,980	405,975	972,418
Manitoba.....	3,350	50	950	860	5,210
Canada.....	396,158	150,986	126,122	449,865	1,123,131
1934					
Quebec.....	70,848	20,575	9,605	42,758	143,786
Ontario.....	324,604	147,201	77,801	295,011	845,217
Manitoba.....	9,000	.....	670	380	10,050
Canada.....	404,452	167,776	88,976	338,719	999,053

Table 134.—Employees, Salaries and Wages, 1933 and 1934

Provinces	Average number of employees					Salaries	Wages	Total salaries and wages
	On salaries		On wages		Total			
	Male	Female	Male	Female	\$	\$	\$	
1933								
Quebec.....	8	2	11	5	26	15,317	11,401	26,718
Ontario.....	42	11	111	35	199	92,577	112,803	295,389
Manitoba.....	1	.....	.....	.....	1	1,000	.....	1,000
Canada.....	51	13	122	40	226	108,894	124,294	233,098
1934								
Quebec.....	13	3	15	5	36	24,384	14,671	39,055
Ontario.....	49	23	139	42	253	111,133	160,675	271,808
Manitoba.....	2	.....	.....	.....	2	2,000	.....	2,000
Canada.....	64	26	154	47	291	137,517	175,346	312,863

Table 135.—Wage-Earners, by Months, 1933 and 1934

(On the 15th of each month or nearest representative date.)

Months	1933			1934		
	Male	Female	Total	Male	Female	Total
January.....	93	34	127	133	43	176
February.....	98	34	132	154	45	199
March.....	96	34	130	155	47	202
April.....	103	35	138	158	47	205
May.....	109	37	146	155	44	199
June.....	107	39	146	160	45	205
July.....	122	44	166	163	51	214
August.....	133	44	177	150	51	201
September.....	134	43	177	157	49	206
October.....	149	47	196	159	52	211
November.....	103	49	211	160	48	208
December.....	155	45	200	141	53	194
Average.....	123	40	162	154	47	201

Table 136.—Fuel and Electricity Used, by Kinds, 1933 and 1934

Kinds	Unit of measure	1933		1934	
		Quantity	Cost at works	Quantity	Cost at works
Bituminous coal—Imported.....	short ton	635	\$ 3,717	682	\$ 4,625
Anthracite coal.....	short ton	57	586	67	728
Coke.....	short ton	15	175	10	179
Gasoline.....	Imp. gal.	4,965	1,370	5,691	1,369
Wood.....	cord	1	4	2	10
Gas—Manufactured.....	M cu. ft.	1,475	1,206	2,207	2,005
Natural.....	M cu. ft.	201	111	189	100
Electricity purchased.....	K.W.H.	293,753	4,800	337,616	5,547
Total.....	xx	.....	12,029	.....	14,623

Table 137.—Power Equipment, 1933 and 1934

Kinds	1933		1934	
	Number of units	Total rated horse power	Number of units	Total rated horse power
Total primary equipment.....	67	437	65	395
Electric motors run by purchased power.....	67	437	65	395
Total.....	2	175	2	175
Boilers.....				

Table 138.—Materials Used in Manufacturing, 1933-1934

Materials	Unit of measure	1933		1934	
		Quantity	Cost at works	Quantity	Cost at works
Brass sheets, etc.....	lb.	.....	\$	.....	\$
Bronze.....	lb.	30,660	280,037	47,529	51,112
Iron castings.....	lb.	5,259	24,873	5,088	7,957
Steel bars and sheets.....	lb.	5,088	119,006	4,302	153,335
Zinc.....	lb.	4,302	101,127	6,488	11,118
All other materials.....	lb.	121,430	133,558	7,386	6,990
Containers (boxes, etc.).....	lb.	.....	17,325	.....	180,618
Total.....					229,589

Table 139.—Products Made in the Miscellaneous Non-Ferrous Metal Products Industry, 1933-1934

Products	Selling value at works	
	1933	1934
Metal weatherstrip.....	\$	\$
Fly screens.....	54,289	68,750
All other products.....	27,636	35,145
	576,391	817,029
Total.	658,316	929,924

*Includes the following articles for which figures cannot be shown separately as they were reported by only 1 or 2 concerns:—gasoline vapour appliances such as lamps, lanterns, camp stoves and irons, lamp and lantern burners, mantles for gasoline appliances, incandescent gas mantles for railway cars, railway and marine lamps and signals, spray painting equipment, atomizer and perfume sprays, cigarette lighters and parts.

Table 140.—Imports into Canada of Lamps and Lanterns, Gas Mantles, etc., 1933-1934

	1933	1934
	\$	\$
Gas mantles and incandescent gas burners and complete parts.....	10,009	13,090
Gas, coal oil or other lighting fixtures and appliances, n.o.p., including tips, burners, collars, galleries and complete parts.....	54,216	74,370
Lamps and lanterns, n.o.p.....	30,378	50,162

Directory of Firms in the Miscellaneous Non-Ferrous Metal Products Industry, 1934

Names of firms	Location of plants	Main products in 1934
QUEBEC—		
Canada Metal & Wood Mfg. Co.....	1424 Pie IX Blvd., Montreal.....	Metal weatherstrip.
Modern Lite Mfg. Co.....	710 Notre Dame St. W., Montreal.....	Electric floor lamps; lamp shades.
Piper, The Hiram L., Co., Ltd.....	555 St. Remi St., Montreal.....	Railway and marine lamps and lanterns.
Safety Car Heating & Lighting Co.....	620 Versailles St., Montreal.....	Incandescent gas mantles.
White Bros.....	1234 Van Horne Ave., Montreal.....	Fly screens.
ONTARIO—		
Aluminium Bronze Screen Co. Ltd., The.....	200 Clinton St., Toronto.....	Metal screens.
Best Weather Strip Co., Ltd.....	28 James St. S., Hamilton.....	Metal weatherstrip; linoleum bindings.
Chamberlin Metal Weather Strip Co., Ltd., The.....	Lansdowne Ave., Kingsville.....	Metal weatherstrip.
Coleman Lamp & Stove Co., Ltd., The.....	9 Davies Ave., Toronto.....	Gasoline vapour appliances such as lamps, lanterns, heaters, etc.; rag mantles.
De Vilbiss Mfg. Co., Ltd., The.....	225 Wellington Ave., Windsor.....	Atomizers and perfume sprays; spray painting equipment.
Dominion Art Metal Works, Ltd.....	Adelaide Bldg., Toronto.....	Cigarette lighters and parts.
Etched Name Plate Co.....	2202 Gerrard St., Toronto.....	Celluloid radio dials, brass and aluminium name plates, sill strip for auto.
Higgin Manufacturing Co., The.....	33 McCaul St., Toronto.....	Metal window screens; metal weatherstrip.
Ideal Metal Weatherstrip Co., The.....	1107 Broadview Ave., Toronto.....	Metal weatherstrip; screens.
Ladore & Company, Ltd.....	Walkerville.....	Metal weatherstrip; refrigerator gasket; garage door hardware.
Schultz Manufacturing Co., Ltd., The.....	156 York St., Hamilton.....	Lamp and lantern burners.
Toronto Weatherstrip & Screen Co., Winston, A. E.....	245 Browning Ave., Toronto.....	Metal weatherstrip; screens.
	2 Gibson Ave., Toronto.....	Metal weatherstrip; screens.
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Deeley's Improved Metal Weatherstrip.....	1086 Main St., Winnipeg.....	Metal weatherstrip.
Peace Weatherstrip.....	284 Stradbroke Ave., Winnipeg.....	Metal weatherstrip.

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