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

MANUFACTURES OF THE NON-METALLIC MINERALS IN CANADA

1928-1929

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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:—

Manufactures of:

- (1) **Vegetable Products**, including—Coffee and Spices; Cocoa and Chocolate; Preserved and Canned Products; Pickles, Vinegar and Cider; Flour and Cereals; Bread and other Bakery Products; Macaroni and Vermicelli; Distilled and Brewed Liquors and Wines; Rubber Products; Starch and Glucose; Sugar; Tobacco Products; Linseed Oil and Oil Cake
- (2) **Animal Products**, including—Fish and Fish Products; Dairy Factory Products; Meat and Meat Products; Leather and Leather Products; Furs and Fur Products.
- (3) **Textiles and Textile Products**, including—Cotton Textiles (Cloth, Yarn, Thread and Waste); Woollen Textiles (Cloth, Yarn, Blankets, Felt and Waste); Silk Products; Factory-Made Clothing; Carpets, Rugs and Mats; Cordage, Rope and Twine.
- (4) **Wood and Paper**, including—Pulp and Paper Mill Products; Paper Goods; Printing, Publishing and Lithographing; Saw and Planing Mill Products; Furniture; Carriages, Wagons and Sleighs; Wooden Containers; Woodenware; Turned Wood Products; and the Output of Similar Wood-Using Industries.
- (5) **Iron and Steel and Their Products**, including—Pig Iron and Ferro-Alloys; Steel and Rolled Products; Castings and Forgings; Boilers, Tanks and Engines; Agricultural Implements; Machinery; Automobiles; Auto Parts and Accessories; Bicycles; Railway Rolling Stock; Wire and Wire Goods; Sheet Metal Products; Hardware and Tools; Miscellaneous Iron and Steel Products.
- (6) **Manufactures of the Non-Ferrous Metals**, including—Aluminium Products; Brass and Copper Products; Lead, Tin and Zinc Products; Jewellery and Silverware; Electrical Apparatus and Supplies; Miscellaneous Non-Ferrous Metal Products; Non-Ferrous 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) Magnesite Products, (e) Miscellaneous 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 and Washing Compounds; Toilet Preparations; Inks; Adhesives; Polishes and Dressings; Flavouring Extracts; Wood Distillates and Extracts; Miscellaneous Chemical Products including: (a) Baking Powder, (b) Boiler Compounds, (c) Plastics, (d) Insecticides, (e) Sweeping Compounds, (f) Disinfectants, (g) Matches, (h) Dyes and Colours, (i) Miscellaneous Chemical Products, n.e.s.
- (9) **Miscellaneous Products**, including—Brooms and Brushes; Electric Light and Power; Musical instruments, etc.

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

- (1) **Food**, including—Breadstuffs; Fish; Nuts; Fruits and Vegetables; Meats; Milk Products; 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**.

PREFACE

This report covers the manufacturing industries in Canada which use non-metallic minerals as the principal raw materials.

Non-metallic minerals are used in the manufacture of many important commodities to a far greater extent than is generally realized. Coke, artificial gas, coal tar and many other products, are obtained from coal; gasoline, fuel oil, lubricating oils, etc., are products of the distillation of crude petroleum; silicon carbide is made from crushed coke and silica in an electric furnace; glass is produced by the fusion of silica, lime, soda ash, etc.; asbestos, on account of its fire resisting and insulating qualities, is used in the manufacture of brake linings, packings, shingles, pipe coverings, etc.; gypsum is used to make wallboard for insulating purposes; cement products such as concrete tile, concrete blocks, are made of cement, stone, and sand; stone dressing includes the finishing of stone for ornamental and monumental purposes.

Data for other industries such as the manufacture of clay products, the Portland cement industry, the manufacture of lime, and the manufacture of salt, are also included in order to make the report more comprehensive and complete. These latter industries are often considered as primary rather than manufacturing and so are included also in the Bureau's reports on the mineral production of Canada.

As no issue was made in 1928, the present report includes data for that year as well as for 1929. In this way the continuity of the series is not broken.

The value of production of this group of industries in 1929 totalled \$242,023,518, an increase of 18 per cent over 1928. The output value was greater than in the next preceding year in nearly all industries, the major gains being in coke and gas, and in petroleum products.

The present report was prepared by Mr. H. McLeod, B.Sc., under the direction of Mr. W. H. Losee, B.Sc., Chief of the Mining, Metallurgical and Chemical Branch.

R. H. COATS,

Dominion Statistician.

DOMINION BUREAU OF STATISTICS,

OTTAWA, March 10, 1931.

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DOMINION BUREAU OF STATISTICS

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MANUFACTURES OF THE NON-METALLIC MINERALS IN CANADA, 1929

CHAPTER ONE

GENERAL REVIEW

(a) Summary

Manufactures of the non-metallic minerals in Canada during 1929 reached a value of \$242,023,518, or about 36 millions above the corresponding figure for 1928. Figures for 1929 cover the operation of 1,188 factories which represented a capital of \$329,448,844 and employed 31,431 workers throughout the year. In 1928 only 28,650 people were employed in the 1,178 plants of this class and production totalled \$206,082,141 in value.

Firms in this group are classified into 15 different industries and only one of these showed a lower output value in 1929 than in the preceding year. Petroleum products advanced \$16.3 millions to \$99,408,314; coke and gas gained \$5.2 millions to \$39,910,443; cement, \$2.6 millions to \$19,337,235; glass, \$2 millions to \$15,507,442; abrasives and abrasive products, \$1.8 millions to \$8,961,951; aerated waters, \$1.6 millions to \$12,249,218; products from domestic clays, \$1.5 millions to \$13,904,643; lime, \$1.4 millions to \$5,908,610; the miscellaneous group, \$1.2 millions to \$6,000,697; stone dressing, \$1.1 millions to \$8,224,060; production from imported clays, \$0.9 millions to \$3,373,038. Cement products at \$4,419,417 and asbestos products at \$2,286,638, each showed a gain of about \$250,000, and the salt industry recorded a slight advance to \$1,578,086. Sand-lime brick declined in value to \$953,726 from \$1,112,466 in 1928.

Measured by production value, the petroleum products industry was by far the most important and accounted for about 41 per cent of the total for the group. Coke and gas was next at 16 per cent of the total; cement, glass, and domestic-clay products were the other major industries.

Manufacturing of secondary products from non-metallic minerals was centered in Ontario and Quebec. Of the 1,188 factories in operation in 1929, there were 642 or 54 per cent in Ontario and 249 or 21 per cent in Quebec. Ontario's plants produced commodities worth \$115,368,237, or 48 per cent of the total, and Quebec's output was worth \$54,684,907 or 23 per cent of the Canadian total. Alberta ranked third with 43 establishments and a total output worth \$47,740,774. British Columbia was next with production valued at \$15,814,497 from 70 plants; 54 factories in Nova Scotia made non-metallic mineral products worth \$15,330,695; the 34 plants in Saskatchewan produced commodities worth \$14,390,871; Manitoba's 51 concerns had an aggregate output valued at \$7,500,021; New Brunswick had 41 plants with an output worth \$1,121,926, and the 4 concerns in Prince Edward Island reported a total production worth \$71,590.

Capital employed in the manufacture of non-metallic mineral products in 1929 was reported at \$329,448,844, an increase of \$30.8 millions over the corresponding figure for 1928. The cost of lands, buildings and plant fixtures including machinery and tools was given at \$232,680,217; the cost of supplies and stock on hand was placed at \$60,110,250; and working capital including cash, trading and operating accounts and bills receivable totalled \$36,658,377. By-product coke and artificial gas works accounted for the greatest investment at \$94,749,062; petroleum products came next with \$71,260,459; cement mills reported \$50,881,818; plants making products from domestic clays such as brick and tile, sewer pipe, etc., represented an investment of \$34,190,056; glass plants reported capital at \$16 millions; aerated waters at \$13 millions,

the miscellaneous group in the neighbourhood of \$10 millions; lime, abrasive products and stone dressing, \$7 millions each; salt and cement products, about \$5 millions each; asbestos products and imported-clay products about \$3 millions each; and sand-lime brick, about \$2.3 millions.

Investment in Ontario's plants amounted to \$146,284,130 or 44 per cent of the total; Quebec reported an aggregate capital of \$82,298,831; British Columbia, \$31,193,257; Nova Scotia, \$24,303,167; Manitoba, \$16,190,352; Alberta, \$18,623,714; Saskatchewan, \$9,049,952; New Brunswick, \$1,405,574; and Prince Edward Island, \$99,867. Every province, except Nova Scotia, showed a higher capital investment than in 1928.

Including both salaried employees and wage-earners, the total number of people employed in the manufacture of non-metallic minerals in Canada in 1929 was 31,431, of whom 3,975 were salaried employees and 27,456 were wage-earners. Of this total 15,936 were working in Ontario 8,298 in Quebec, 2,009 in British Columbia, 1,574 in Alberta, 1,279 in Nova Scotia, 1,156 in Manitoba, 773, in Saskatchewan, 388 in New Brunswick and 18 in Prince Edward Island. Salaries and wages for the year amounted to \$41,503,846.

As reflected by the monthly records of the number of wage-earners on the pay rolls, employment reached a maximum in July when 29,660 workers were engaged in the various factories. In January there were 21,884 wage-earners employed and this number increased gradually to the maximum in July after which there was a steady decline each month to 24,767 in December. The average for the year was 27,456.

Fuel and electricity used in these plants during 1929 cost \$18,272,560 delivered at the works. Electricity alone cost \$3,390,515 while among the fuel items bituminous coal was of most importance at a cost of \$7,852,484 for 957,200 tons of imported and 416,131 tons of Canadian coal. Fuel oil was also a major fuel there being used a total of 64,915,979 gallons at a cost of \$2,332,276. Manufactured gas cost \$2,404,347 for 10,213,592 M cubic feet; much of this was delivered from the companies' own metallurgical works at a low cost per unit. Natural gas cost \$501,280 for 2,952,752 M cubic feet used mostly in Alberta. Concerns in Ontario expended \$9,466,828 for fuel and electricity while firms in Quebec spent \$4,918,939 for the same purpose.

Imports into Canada of non-metallic minerals and their products totalled \$185,921,799 in value during 1929 as compared with \$162,172,427 in the previous year. Imports of coal and its products alone were valued at \$63,652,325, and imports of petroleum, asphalt and their products, chiefly crudes, were worth \$77,839,410. The United States supplied \$149,531,567 worth or 80 per cent of Canada's imports in this class, while only \$13,207,944 or 7 per cent came from the United Kingdom. Exports from Canada during 1929 were valued at \$29,719,996 as against \$26,583,611 in 1928. Exports of asbestos and its products were worth \$12,748,634; exports of coal and its products were valued at \$5,411,417, and stone and its products exported were valued at \$7,009,017. The United States took \$19,645,319 worth or 66 per cent of Canada's exports of non-metallic minerals and their products and the United Kingdom took \$2,170,488 or a little more than 7 per cent.

(b) By Industries

Aerated Waters.—In 1929 a total of 345 plants in Canada were engaged chiefly in the manufacture of carbonated beverages. Production from these works was valued at \$12,249,218 and employees numbered 2,174. Ontario had 141 factories which made beverages worth \$4,284,244 and Quebec had 99 establishments with a total output worth \$5,075,213.

Output from this industry has been nearly doubled since 1924 when the 296 plants employing 1,543 hands reported a total production valued at \$6,354,358.

Artificial Abrasives and Abrasive Products.—Five factories in Canada made artificial abrasives such as fused alumina and silicon carbide, 6 other concerns made abrasive wheels, and 1 made abrasive cloth and paper. These 12 plants employed 828 persons in 1929 and produced commodities worth \$8,961,951. This was an increase of \$1.8 millions over the 1928 figure and \$3 millions above the corresponding value for 1925. Eleven of the plants were in Ontario and 1 in Quebec.

Production included 53,857 tons of fused alumina valued at \$4,974,789 and 21,592 tons of silicon carbide at \$2,577,033 and abrasive wheels at \$819,884.

Asbestos Products.—Asbestos manufactures such as brake linings, shingles, pipe covering, lumber, etc., were manufactured in 12 different factories in 1929. Four of the largest works were in Quebec in the proximity of the asbestos mines from which they drew their raw materials. The total output for Canada was valued at \$2,286,638, and of this, plants in Quebec produced \$1,666,368. Employees in the industry numbered 351 of whom 270 worked in Quebec.

In 1928, the value of asbestos manufactures in Canada was \$2,050,432, in 1927 it was \$1,663,300, and in 1924 it was only \$589,339.

Cement.—Eleven mills in Canada, operated by 5 different companies, produced Portland cement in 1929. Shipments were the highest ever recorded for the industry at 12,284,081 barrels valued at \$19,337,235 as compared with 11,023,928 barrels worth \$16,739,163 in 1928, the best previous year. The output of cement has increased steadily since 1921 when 5,752,888 barrels were made, and has been more than doubled within the span of eight years.

Employees in 1929 numbered 2,546 and payments in salaries and wages totalled \$3,523,595.

Imports of cement during 1929 amounted to 55,980 barrels and exports were recorded at 234,111 barrels. Thus, the quantity made available for consumption in Canada during 1929 was 12,105,950 barrels.

Cement Products.—The value of cement manufactures in Canada during 1929 was \$4,419,417. This was a record for the industry being 7 per cent above the 1928 figure and 66 per cent above the aggregate for 1927. A total of 153 plants manufactured concrete blocks, tile, pipe, etc., in 1929; these concerns gave employment to 1,347 workmen and paid \$1,608,238 for salaries and wages. There were 106 plants in Ontario, 30 in Quebec, 5 in British Columbia, 3 in each of Nova Scotia, New Brunswick and Saskatchewan, 2 in Alberta and 1 in Manitoba.

Records for this group include a great number of small producers but many small operators who worked in spare time only were not asked to make reports.

Coke and Gas.—Seven by-product coke works, 1 beehive plant, 24 artificial gas works, 8 small units making Pintsch oil gas and 3 town-lighting acetylene plants were included in this industry in 1929. These 43 establishments employed a capital of \$94,749,062 and gave work to an average of 3,902 persons. Production, including coke, gas and by-products, was valued at \$39,910,443, or \$5.2 millions above the value for 1928.

Coke production in 1929 totalled 2,677,581 tons including 2,372,229 tons of metallurgical coke and 305,352 tons of gas-house coke. Output from ovens in Ontario was reported at 1,624,884 tons; works in the eastern provinces made 850,452 tons and the western provinces produced 202,245 tons. In addition 109,516 tons of petroleum coke were obtained as a by-product from Canadian refineries.

Output of gas from these plants totalled 38,925,086 M cubic feet; of this quantity only 17,649,371 M cubic feet were sold, the remainder being used for fuel in the reporting plants and in associated metallurgical works.

Glass.—Production from the glass industry in Canada was valued at \$15,507,442 in 1929 and included \$11,197,338 from the 6 plants which made pressed and blown glass and \$4,310,104 from the 54 bevelling and cutting plants. The total of 60 establishments represented a capital of \$16,289,364 and gave employment to 3,948 people throughout the year.

The value of production in this industry has increased by 50 per cent since 1925 when the output was reported at \$10,117,604. The 1929 figure was a record for the industry.

Plate or sheet glass was not made in Canada but during 1929 approximately \$3 millions worth was imported, mostly from Belgium, to supply the domestic market. Total imports of glass and glassware were valued at \$10,569,457 in 1929.

Lime.—Canadian lime production in 1929 amounted to 674,087 tons valued at \$5,968,610 and included 580,583 tons of quicklime and 93,504 tons of hydrated lime. This tonnage was the highest for any year to date and marked an increase of 32 per cent over the total for 1928. About 60 per cent of this was used in chemical works and in pulp and paper plants.

Fifty-three different plants produced lime in 1929. These concerns represented a capital of \$7,404,677 and employed 1,382 workers throughout the year.

Petroleum Products.—Petroleum products showed an increase of \$16 millions in 1929 when the output value was \$99,408,314. This was a record for the industry and was almost double the corresponding value for 1925. The 15 oil refineries contributed \$98,384,180 to the total and the 10 compounding plants accounted for \$1,024,134.

In 1929 the refineries treated 1,072,828,496 gallons of crude oil to make 448,099,760 gallons of fuel oil, 436,620,614 gallons of gasoline, 49,362,381 gallons of kerosene, 24,447,243 gallons of lubricating oils and other commodities such as coke, grease, asphalt, etc.

The refineries employed an average of 4,883 people and the compounding plants gave work to 95 persons over the yearly period.

Imports of petroleum and its products in 1929 were valued at \$76,886,930 and exports were worth \$2,728,872.

Products from Domestic Clay.—Products made from Canadian clays were valued at \$13,904,643 in 1929 as against \$12,381,718 in 1928. The number of plants in operation was 196; capital employed amounted to \$34,190,056; employees numbered 5,530, and payments for salaries and wages totalled \$5,727,014.

In 1929 this group included 181 brick and tile plants, 5 factories which made sewer pipe as their principal product, 4 pottery works, and 6 which produced firebrick and similar refractories. Of these, the 134 in Ontario accounted for an output of \$6,830,162, or 50 per cent of the total for Canada.

Products from Imported Clay.—Clay products made in Canada from imported raw materials were valued at \$3,373,038 in 1929. Fifteen plants were in operation and employment was given to 872 people throughout the year.

Products included porcelain insulators, firebrick, sanitaryware, pottery, floor tile, and sewer pipe. Electrical insulators alone were valued at \$2,065,404.

Salt.—A record production of salt in Canada was reported for 1929 when the output totalled 330,264 tons valued at \$1,578,086. Approximately one-half of this quantity was in the form of brine for use in chemical works to make soda ash, caustic soda, bleaching powder, etc.

Seven plants in Western Ontario and 1 in Nova Scotia were in operation during the year. An average of 424 workers were employed in these establishments. Ontario accounted for 92 per cent of the entire Canadian output.

Sand-Lime Brick.—Sand-lime brick was manufactured in Canada in 12 different plants during 1929; 7 were in Ontario, 2 in Quebec, 2 in Manitoba, and 1 in Alberta. Production totalled 78,361 M brick valued at \$953,726 as compared with 82,271 M worth \$1,038,510 in 1928.

Employees numbered 304; salaries and wages totalled \$341,005; and working capital was reported at \$2,356,726.

Stone Dressing.—In 1929 there were 220 plants in Canada engaged chiefly in the cutting and finishing of stone for building or monumental purposes. Production from these establishments was valued at \$8,224,060 in 1929 as compared with \$7,176,035 in 1928.

Many of the establishments were small, there being 108 which employed only one or two persons and 71 others with fewer than 10 workers on the pay roll. The total number of employees in the industry was 1,863, but 1,082 or 58 per cent of these were employed in the 22 larger establishments.

Miscellaneous Non-Metallic Mineral Products.—This group includes factories in Canada which manufactured products that could not be classified in any of the other 14 industrial groups reviewed in this report. In 1929 the output was valued at \$6,000,697, including \$3,476,019 from the 5 factories which made gypsum products, \$1,778,556 from 3 carbon electrode plants, \$177,432 from 3 works which made magnesite stucco, \$112,454 from the 3 mica trimming shops and \$456,236 from the 9 other establishments of which 8 made foundry facings and supplies and 1 milled electrical slate.

For the 23 plants in this group the capital employed was \$9,747,157 and the average number of employees was 982.

(c) By Provinces

Prince Edward Island.—Only 4 establishments in Prince Edward Island made non-metallic mineral products in 1929. Of these, 2 made aerated waters and 2 produced monumental stone. The total value of products from these plants was \$71,590 and 18 people were employed the year round. In the previous year there were 3 such plants in this province when output was valued at \$70,861 and 18 people were employed.

Nova Scotia.—In 1929, Nova Scotia had 24 plants producing aerated waters, 10 in the monumental and ornamental stone industry, 9 making clay products, 3 manufacturing cement products, 2 in the lime industry, and 1 concern in each of the asbestos products, coke, gas, glass, salt and petroleum refining industries. These 54 factories represented a capital investment of \$24,303,167, afforded employment to 1,279 persons and had a combined output valued at \$15,330,695. From the standpoint of output values the petroleum refinery at Halifax was the most important of the works in this group, and the coke plant of the Dominion Iron and Steel Company at Sydney was next in line. The plants making clay products, gas, aerated waters, salt, lime, asbestos manufactures and cement products, followed in the order named.

In 1928, the 49 establishments in operation reported an aggregate output value of \$14,540,182.

New Brunswick.—Non-metallic mineral products were made in 41 different factories in New Brunswick in 1929 and the total output value was \$1,121,926. In that year, there were 17 concerns manufacturing aerated waters, 11 in the stone dressing group, 4 producing lime, 3 manufacturing products from domestic clays, 2 making artificial or oil gas, 1 in the glass industry, and 3 making cement products. Production of aerated waters amounted to \$422,101, the highest value for any of the industries mentioned above; the output of lime was worth \$174,553; of monumental and ornamental stone, \$180,850; and of clay products, \$160,006.

Quebec.—Quebec ranked next to Ontario in the production of manufactured non-metallic mineral products. In 1929, there were 249 plants in operation in the following industries; aerated waters, 99; stone dressing, 45; cement products, 30; domestic-clay products, 20; lime 14; miscellaneous non-metallic mineral products, 6; glass, 11; imported-clay products, 4; artificial gas, 4; petroleum products, 6; asbestos manufactures, 4; Portland cement, 3; sand-lime brick, 2; and artificial abrasives, 1.

Production from these plants during the year was valued at \$54,684,907 of which petroleum products contributed \$19,087,138 from 2 refineries and 4 compounding plants; glass, \$5,621,270 from 2 pressed and blown glass factories and 9 glass-cutting works; coke and gas, \$5,581,405 and aerated waters, \$5,075,213. Products from domestic clays, the miscellaneous group, asbestos products, stone dressing, lime, cement products, manufactures from imported clays, artificial abrasives and sand-lime brick followed in order of importance.

These concerns represented a capital of \$82,298,831 and employed 8,298 people the year round. A total of \$10,546,463 was paid out in wages and salaries during the year; \$4,918,939 was spent for fuel and electricity, and \$21,137,403 was expended for materials used in manufacturing in the various plants.

In 1928, the 254 active plants in this industry in Quebec employed 7,926 persons and produced commodities valued at the works at \$48,532,268.

Ontario.—Of the 1,188 establishments in Canada which were classified under the manufactures of the non-metallic mineral products in 1929 there were 642 or 54 per cent in Ontario, and of a total production valued at \$242,023,518 Ontario accounted for \$115,368,237, or 48 per cent.

Petroleum products held first place with 4 refineries and 5 compounding plants which represented a total investment of \$27,228,752 and produced commodities worth \$36,058,623. The coke and gas industry was next with 3 by-product coke plants and 18 gas plants which had a combined output valued at \$25,294,463. The glass industry held third place with production worth \$8,493,026 from 2 pressed and blown glass factories and 33 cutting and bevelling works. Artificial abrasives and abrasive products were valued at \$8,365,526; products from domestic clays at \$6,830,162; Portland cement at \$6,608,246; stone dressing at \$5,064,697; aerated waters

at \$4,284,244; lime at \$3,364,411; the miscellaneous products at \$3,043,695; cement products at \$2,790,439; products from imported clays at \$2,463,081; salt at \$1,420,424; sand-lime brick at \$708,584; and asbestos products at \$578,616.

Including 2,209 salaried employees and 13,727 wage-earners the manufacture of non-metallic minerals in Canada gave employment to an average of 15,936 people throughout the year while payments for salaries and wages amounted to \$21,537,831. Capital employed in the industries in this group was given at \$146,284,130, expenditure for fuel and electricity was \$9,466,828, and the cost at the plant of all materials used in manufacture was \$50,084,186.

Manitoba.—In 1929, Manitoba had 13 plants in the monumental and ornamental stone industry; 11 in the aerated waters group; 6 making clay products; 4 burning lime; 6 in the gas industry; 4 in the glass industry; 2 making sand-lime brick; 1 cement mill; 1 petroleum refinery; 1 concern making magnesite stucco, 1 gypsum wallboard plant, and 1 making cement products. These 51 establishments used raw materials worth \$1,565,571 in the production of non-metallic mineral products valued at \$7,500,021 and afforded employment to 1,156 persons throughout the year. The cement industry was the most important of the group, with the gas industry, aerated waters, stone dressing, gypsum products, clay products, lime, petroleum refining, glass and sand-lime brick following in order of importance.

Saskatchewan.—Manufactures of non-metallic mineral products in Saskatchewan were valued at \$14,390,871 in 1929. There were 34 plants in operation during the year; 17 made aerated waters; 7 produced monumental or ornamental stone; 4 made products from domestic clays; 1 made Pintsch gas; 3 made cement products; and 1 plant refined petroleum. Capital employed in these industries was reported at \$9,049,952; the average number of employees was 773, and expenditures for raw materials totalled \$8,876,745.

Alberta.—With 43 plants in this group, Alberta contributed \$17,740,774 to the total value of non-metallic mineral products made in Canada. Alberta was represented by 14 firms manufacturing aerated waters; 4 oil refineries; 10 making clay products; 5 concerns producing monumental and dressed building stone; 2 making cement; 2 producing lime; 1 plant making oil gas; 1 making pressed and blown glass; 1 cutting and bevelling glass to make mirrors, etc.; 1 making sand-lime brick; and 2 concerns making cement products. Some 1,574 people were employed in these factories which represented a capital of \$18,623,714 and used materials valued at \$9,708,887.

British Columbia.—Plants in British Columbia engaged in the manufacture of non-metallic mineral products numbered 70 and the total production was valued at \$15,814,497. Capital employed in the whole group amounted to \$31,193,257 and employment was given to an average of 2,009 people the year round. There were 20 plants manufacturing carbonated beverages of all kinds and the total output was worth \$381,421; 6 establishments produced coke, artificial gas and by-products worth \$2,846,217; 10 factories made clay products valued at \$866,427; 4 concerns produced lime having a sales value of \$510,592; 11 plants produced finished stone worth \$258,837; 5 firms made leaded glass, mirrors, art glass, etc., valued at \$89,995; 5 firms made cement products; 1 made Portland cement; 2 refined petroleum; 1 compounded lubricating oil; 2 made asbestos pipe covering; 1 manufactured gypsum products; and 2 produced magnesite stucco.

Table 1.—Principal Statistics of the Manufactures of the Non-Metallic Minerals in Canada, by Industries, 1925-1929

Year	Number of plants	Capital employed \$	Average number of employees	Salaries and wages \$	Cost of fuel and electricity \$	Cost of materials at works \$	Selling value of products at works \$	Value added by manufacturing \$
AERATED WATERS								
1925	313	10,873,331	1,684	1,840,254	145,500	3,076,563	6,877,524	3,800,961
1926	347	10,695,527	1,691	1,870,321	156,510	3,053,477	7,406,504	4,353,027
1927	335	11,665,086	1,802	2,053,043	126,959	3,461,311	8,712,427	5,251,116
1928	347	11,650,938	1,967	2,407,861	133,491	4,705,656	10,677,831	5,972,175
1929	345	12,756,026	2,174	2,553,456	137,210	4,576,027	12,249,218	7,673,191
ARTIFICIAL ABRASIVES AND ABRASIVE PRODUCTS (Included with Miscellaneous Non-Metallic Mineral Products, prior to 1928)								
1928	12	7,317,105	691	1,048,521	644,557	2,169,428	7,122,588	4,953,100
1929	12	6,683,533	828	1,270,898	873,068	2,905,928	8,961,951	6,058,020
ASBESTOS PRODUCTS								
1925	12	2,624,260	258	282,382	62,640	783,063	1,344,097	561,034
1926	14	2,773,433	270	321,865	64,288	750,907	1,530,094	779,187
1927	13	2,860,945	300	358,959	73,495	797,975	1,663,300	865,325
1928	14	3,064,164	345	421,448	72,421	925,661	2,050,432	1,124,771
1929	12	2,949,712	351	359,433	80,902	1,348,400	2,286,638	938,178
CEMENT PRODUCTS								
1925	197	2,594,736	819	697,716	40,442	730,296	2,020,239	1,289,943
1926	185	2,857,752	922	778,062	70,815	880,041	2,544,242	1,664,201
1927	151	2,671,273	872	936,053	58,576	912,686	2,663,065	1,750,379
1928	151	4,140,543	1,262	1,406,508	73,825	1,261,653	4,136,055	2,875,302
1929	153	5,024,497	1,347	1,608,238	84,130	1,502,852	4,419,417	2,916,465
COKE AND GAS								
1925	50	70,035,105	4,387	5,943,339	2,342,523	13,200,920	28,894,777	15,603,857
1926	50	74,343,106	4,293	5,897,273	1,652,598	15,070,181	33,526,334	17,556,153
1927	48	84,011,030	4,146	5,869,119	1,972,122	16,614,903	34,044,747	17,429,846
1928	45	92,145,190	3,914	5,608,779	2,073,736	17,164,246	34,708,447	17,544,201
1929	43	94,749,062	3,902	5,938,814	2,628,714	18,517,214	39,910,443	21,393,220
GLASS								
1925	52	12,694,338	2,778	3,201,912	1,101,808	4,029,035	10,117,604	6,088,569
1926	52	11,432,823	3,033	3,443,644	1,143,180	4,884,559	11,670,269	6,785,710
1927	54	12,736,057	3,120	3,876,959	1,243,311	5,257,950	14,164,086	8,906,136
1928	59	12,694,882	3,219	3,878,165	1,061,341	4,791,486	13,565,354	8,773,868
1929	60	16,289,364	3,948	4,740,676	1,323,150	5,355,159	15,507,442	10,152,286
PETROLEUM PRODUCTS								
1925	21	50,580,549	3,738	5,775,046	3,447,130	38,261,024	50,792,127	12,501,103
1926	23	57,178,125	3,753	5,892,399	3,584,795	51,172,159	71,196,311	20,024,152
1927	23	56,135,564	3,856	6,188,226	3,033,456	53,059,921	64,528,820	11,468,899
1928	25	56,531,614	4,310	6,922,580	3,447,782	57,381,841	83,122,172	25,738,331
1929	25	71,200,450	4,978	8,153,625	3,754,655	76,861,939	99,408,314	22,546,373
IMPORTED—CLAY PRODUCTS								
1925	12	2,762,951	552	653,211	170,339	326,023	1,741,745	1,415,722
1926	12	2,849,558	507	783,448	194,903	520,218	2,039,514	1,519,296
1927	13	2,834,820	652	843,535	185,779	567,519	2,088,238	1,520,719
1928	14	3,068,592	696	891,125	195,716	708,571	2,458,801	1,750,230
1929	15	3,472,052	872	1,112,881	220,910	992,150	3,373,038	2,350,888
SAND—LIME BRICK								
1925	10	990,729	239	257,116	62,044	130,555	854,055	723,500
1926	10	1,082,577	218	223,599	50,119	197,400	629,672	432,372
1927	11	1,596,004	254	300,318	67,416	258,777	939,911	681,134
1928	11	1,916,900	281	352,311	92,749	322,027	1,112,466	790,430
1929	12	2,356,726	304	341,005	68,039	264,465	953,726	689,261
STONE DRESSING								
1925	214	5,015,729	1,262	1,811,512	96,929	1,964,817	5,355,997	3,391,180
1926	232	5,443,707	1,491	2,175,223	106,492	1,859,964	5,799,691	3,939,726
1927	228	5,758,806	1,514	2,235,638	112,895	1,798,672	5,606,984	3,808,312
1928	222	6,305,519	1,686	2,578,707	105,833	2,466,900	7,176,035	4,715,135
1929	220	7,107,192	1,893	3,048,094	138,508	2,788,934	8,224,060	5,435,126
MISCELLANEOUS NON-METALLIC MINERAL PRODUCTS								
1925	35	8,322,096	1,316	1,371,895	592,327	2,686,850	7,978,183	5,291,327
1926	31	8,926,857	1,552	1,626,661	730,604	3,004,413	8,612,658	5,608,245
1927	31	13,331,203	1,592	1,729,777	1,023,502	3,582,815	10,231,304	6,648,489
1928	17	8,331,500	995	1,117,733	315,887	1,790,404	4,799,640	3,009,236
1929	23	9,747,157	982	1,224,582	262,694	2,035,905	6,000,697	3,964,792
Total for all Industries Listed Above								
1925	916	166,263,824	17,031	21,933,383	8,061,688	65,279,152	115,946,348	59,667,196
1926	936	177,583,585	17,820	23,022,095	7,751,364	82,293,319	144,955,288	62,661,969
1927	977	193,591,848	18,108	24,411,627	8,499,511	86,312,529	141,612,884	58,339,355
1928	917	237,166,977	19,375	26,693,778	8,217,248	93,683,873	170,936,721	77,216,848
1929	920	232,395,750	21,549	30,351,692	9,571,980	117,119,130	291,394,901	81,115,814

MANUFACTURES OF NON-METALLIC MINERALS

Table 1.—Principal Statistics of the Manufactures of the Non-Metallic Minerals in Canada, by Industries, 1925-1929—Concluded

Year	Number of plants	Capital employed \$	Average number of employees	Salaries and wages \$	Cost of fuel and electricity \$	Cost of materials at works \$	Selling value of products at works \$	Value added by manufacturing \$
DOMESTIC—CLAY PRODUCTS								
1925.....	193	27,760,864	4,136	4,034,075	1,909,591	.....	9,529,691	.....
1926.....	200	28,152,062	4,395	4,346,987	2,080,054	.....	10,357,323	.....
1927.....	194	30,437,607	4,776	4,769,307	2,088,724	.....	11,173,189	.....
1928.....	186	32,473,203	5,195	5,181,398	2,294,350	.....	12,381,718	.....
1929.....	196	34,190,056	5,530	5,719,014	2,920,384	.....	13,904,643	.....
CEMENT								
1925.....	11	38,081,583	1,926	2,511,400	2,848,904	.....	14,046,704	.....
1926.....	12	41,380,000	2,340	3,052,662	3,424,156	.....	13,013,283	.....
1927.....	12	40,509,319	2,270	3,143,932	3,546,000	.....	14,391,937	.....
1928.....	11	47,678,841	2,407	3,405,385	3,872,108	.....	16,739,163	.....
1929.....	11	50,881,818	2,546	3,523,595	4,347,219	.....	19,337,235	.....
LIME								
1925.....	62	5,154,046	1,006	960,434	762,814	.....	3,387,652	.....
1926.....	60	5,825,809	1,106	1,082,854	788,990	.....	3,781,484	.....
1927.....	60	6,200,481	1,132	1,133,708	826,436	.....	3,923,388	.....
1928.....	54	6,952,079	1,218	1,316,115	912,395	.....	4,534,568	.....
1929.....	53	7,404,677	1,382	1,393,092	1,183,313	.....	5,908,610	.....
SALT								
1925.....	13	2,563,508	402	407,487	315,368	.....	1,410,697	.....
1926.....	12	2,782,728	384	482,651	324,612	.....	1,480,149	.....
1927.....	11	3,194,802	376	499,967	287,260	.....	1,614,667	.....
1928.....	10	4,422,922	455	539,775	252,468	.....	1,495,971	.....
1929.....	8	4,576,543	424	516,453	249,664	.....	1,578,086	.....
Total of Mineral Industries Listed Above								
1925.....	276	73,560,091	7,470	7,973,396	5,836,677	.....	28,374,741	.....
1926.....	284	78,110,599	8,225	8,964,854	6,617,812	.....	28,632,239	.....
1927.....	277	80,242,209	8,554	9,516,914	6,748,430	.....	31,133,181	.....
1928.....	261	91,527,045	9,275	10,442,673	7,331,321	.....	35,151,420	.....
1929.....	268	97,053,094	9,882	11,152,154	8,700,580	.....	49,728,574	.....
GRAND TOTAL								
1925.....	1,192	239,823,825	24,501	29,906,779	13,898,365	65,279,152	144,321,092	79,641,940
1926.....	1,241	255,724,184	26,045	31,986,949	14,372,116	82,293,319	173,587,527	91,294,208
1927.....	1,184	271,933,057	26,662	33,958,541	15,243,931	86,312,529	175,716,065	89,433,536
1928.....	1,178	298,693,122	28,650	37,436,451	15,548,569	93,683,873	206,082,141	112,398,268
1929.....	1,188	329,418,844	31,431	41,503,846	18,272,560	117,149,130	242,023,518	121,874,388

Table 2.—Principal Statistics of the Manufactures of the Non-Metallic Minerals in Canada, by Provinces, 1926-1929

Year	Number of plants	Capital employed \$	Average number of employees	Salaries and wages \$	Cost of fuel and electricity \$	Cost of materials at works \$	Selling value of products at works \$	Value added by manufacturing \$
PRINCE EDWARD ISLAND AND NOVA SCOTIA								
1926	58	21,580,760	961	1,167,353	680,826	7,367,943	13,008,539	5,640,596
1927	54	24,256,518	1,012	1,342,732	719,137	10,003,971	12,316,661	2,312,690
1928	52	27,080,980	1,176	1,501,313	670,271	8,971,708	14,611,043	5,639,335
1929	58	24,403,034	1,297	1,701,083	717,692	10,663,221	15,402,285	4,739,064
NEW BRUNSWICK								
1926	45	1,111,242	324	275,253	78,963	190,288	830,400	640,112
1927	43	1,104,301	321	306,078	77,995	224,816	882,880	658,064
1928	41	1,094,731	334	331,723	71,951	222,310	853,470	631,166
1929	41	1,405,574	388	375,084	104,496	243,945	1,121,926	877,081
QUEBEC								
1926	260	60,733,609	7,420	8,156,631	4,135,229	17,278,460	39,946,596	22,668,136
1927	250	68,167,009	7,575	8,829,925	4,595,138	18,785,521	41,908,404	28,581,241
1928	254	76,791,419	7,926	9,711,750	4,610,191	19,031,096	48,532,268	29,501,172
1929	249	82,298,831	8,298	10,546,463	4,918,939	26,137,403	54,684,907	28,547,504
ONTARIO								
1926	676	116,091,479	13,035	16,928,932	7,408,249	38,729,031	84,195,914	45,466,883
1927	643	119,908,060	13,427	17,759,809	7,621,025	38,835,609	85,832,634	51,839,389
1928	637	130,185,263	14,197	19,088,109	7,942,665	42,433,900	96,995,773	54,561,873
1929	642	146,284,130	15,936	21,537,831	9,466,828	50,084,166	115,368,237	65,284,051
MANITOBA								
1926	52	12,718,184	927	1,141,667	428,493	1,385,828	5,088,556	3,702,728
1927	51	13,138,222	887	1,165,653	532,414	1,387,755	4,997,944	5,199,727
1928	48	13,037,947	1,067	1,174,143	519,410	1,335,515	5,453,168	4,117,653
1929	51	16,190,352	1,156	1,338,847	917,365	1,565,571	7,500,021	5,934,450
SASKATCHEWAN								
1926	36	6,452,055	564	684,837	469,855	5,784,310	8,434,804	2,650,494
1927	35	6,950,511	673	918,057	504,752	5,456,112	7,885,008	2,428,896
1928	34	7,308,473	692	975,606	429,505	6,516,164	11,111,638	4,565,474
1929	34	9,049,952	773	1,110,086	528,524	8,876,745	14,300,871	5,514,126
ALBERTA								
1926	42	12,426,666	1,131	1,473,653	533,511	5,226,940	11,450,059	6,232,119
1927	43	12,624,508	1,135	1,507,128	540,864	4,927,845	10,456,295	6,809,707
1928	43	15,375,722	1,468	1,856,588	659,322	7,779,949	15,727,188	7,947,239
1929	43	18,623,714	1,574	2,074,263	717,942	9,708,887	17,740,774	8,031,887
BRITISH COLUMBIA								
1926	72	24,610,189	1,683	2,158,623	636,990	6,330,519	10,623,659	4,293,140
1927	65	27,783,928	1,632	2,129,159	652,600	6,690,900	11,376,239	5,864,365
1928	69	27,818,587	1,790	2,497,129	654,254	7,363,231	12,797,587	5,434,356
1929	70	31,193,257	2,009	2,820,239	900,774	9,869,172	15,814,497	5,945,325
CANADA								
1926	4,211	255,724,184	26,045	31,986,919	11,372,116	82,293,319	173,587,527	91,294,208
1927	4,184	273,933,057	26,662	33,958,541	15,241,931	86,312,529	175,746,065	103,694,079
1928	4,178	298,693,122	28,659	37,136,451	13,518,569	93,684,873	206,082,141	112,398,268
1929	4,188	329,418,841	31,431	41,503,846	18,272,560	117,149,130	212,023,518	121,871,388

Table 3.—Principal Statistics of the Manufactures of the Non-Metallic Minerals in Canada, by Groups of Production Values and by Groups of Employees, 1929

Production values	Total number of plants	Total Capital	Total number of employees	Total production
	No.	\$	No.	\$
Under 5,000.....	265	1,308,365	572	677,049
From 5,000 to 10,000.....	210	2,274,178	734	1,556,890
" 10,000 to 25,000.....	243	5,631,319	1,381	3,865,884
" 25,000 to 50,000.....	144	8,468,110	1,868	5,089,392
" 50,000 to 100,000.....	102	11,704,326	2,247	7,232,974
" 100,000 to 250,000.....	118	27,870,550	4,793	18,121,429
" 250,000 to 500,000.....	44	30,305,928	3,610	15,583,723
" 500,000 to 1,000,000.....	23	26,503,921	2,731	16,115,454
" 1,000,000 to 5,000,000.....	30	120,327,934	7,533	72,655,624
Over 5,000,000.....	9	89,047,613	5,962	101,125,099
Total.....	1,188	329,448,844	31,431	242,023,518
Groups of Employees				
1 or 2.....	377	2,736,351	504	2,254,179
3 to 10.....	400	9,320,559	2,137	8,000,663
11 to 20.....	130	10,516,885	1,952	7,400,044
21 to 50.....	145	30,132,927	4,487	18,116,108
51 to 100.....	75	36,165,562	5,231	25,840,303
101 to 250.....	45	115,622,988	7,073	66,428,069
251 to 500.....	9	52,589,234	3,166	52,623,430
501 to 1,000.....	5	30,079,086	3,502	27,977,274
Over 1,000.....	2	42,285,252	3,370	33,383,448
Total.....	1,188	329,448,844	31,431	242,023,518

Table 4.—Principal Statistics of the Manufactures of the Non-Metallic Minerals in Canada, by Industries and by Provinces, 1928

Provinces and Industries	Number of plants	Capital employed	Average number of employees	Salaries and wages	Cost of fuel and electricity	Cost of materials at works	Selling value of products at works	Value added by manufacturing
		\$		\$	\$	\$	\$	\$
PRINCE EDWARD ISLAND:								
Aerated waters.....	1							
Stone dressing.....	2							
Total*.....	3	59,850	18	17,573	1,308	24,546	70,861	46,315
NOVA SCOTIA—								
Aerated waters.....	19	192,806	67	51,836	3,454	66,063	168,776	102,713
Asbestos products.....	1							
Cement products.....	3	11,924	13	6,790	103	3,238	9,116	5,878
Coke and gas.....	2							
Glass.....	1							
Lime.....	2							
Products from domestic clay.....	9	1,054,397	223	185,578	82,266		496,577	496,577
Petroleum products.....	1							
Salt.....	1							
Stone dressing.....	10	70,543	33	36,711	1,938	42,406	113,205	70,799
Total*.....	49	27,621,130	1,158	1,483,746	668,963	8,847,162	14,540,182	5,593,620
NEW BRUNSWICK—								
Aerated waters.....	19	482,288	75	82,813	4,973	132,808	358,040	226,132
Cement products.....	3	19,447	11	3,713	370	8,431	13,934	5,503
Coke and gas.....	2							
Glass.....	1							
Lime.....	4	147,450	67	64,041	32,878		130,784	130,784
Products from domestic clay.....	2							
Stone dressing.....	10	157,690	73	74,980	2,630	34,143	146,846	112,703
Total*.....	41	1,094,731	334	331,723	71,951	222,310	853,476	631,166

Table 4.—Principal Statistics of the Manufactures of the Non-Metallic Minerals in Canada, by Industries and by Provinces, 1928—Continued

Provinces and Industries	Number of plants	Capital employed	Average number of employees	Salaries and wages	Cost of fuel and electricity	Cost of materials at works	Selling value of products at works	Value added by manufacturing
		\$		\$	\$	\$	\$	\$
QUEBEC—								
Abrasive products	1							
Aerated waters	102	4,258,049	791	915,021	52,594	1,833,193	4,562,695	2,729,502
Asbestos and allied products	4	2,330,800	264	308,125	64,143	674,708	1,455,853	781,145
Cement	3							
Cement products	34	1,415,941	483	590,456	29,912	376,753	1,324,561	947,808
Coke and gas	4	9,692,184	440	661,925	105,977	2,410,049	5,766,749	3,356,700
Glass	11	5,387,000	1,235	1,424,331	536,479	1,662,029	5,535,815	3,873,786
Lime	13	1,766,192	319	310,030	278,879		896,782	896,782
Petroleum products	5	12,475,081	905	1,390,765	729,240	10,338,704	14,690,850	4,352,065
Products from domestic clay	20	11,394,206	1,221	1,156,937	605,547		3,097,295	3,097,295
Products from imported clay	5	1,136,310	274	366,255	110,254	231,829	900,366	668,537
Sand-lime brick	2							
Stone dressing	45	887,544	324	481,395	25,077	282,578	1,081,091	798,513
Miscellaneous	5	5,498,908	554	529,882	210,475	923,847	2,040,057	1,116,210
Total*	254	76,791,419	7,926	9,111,750	4,616,191	19,031,096	48,532,268	29,591,172
ONTARIO—								
Abrasive products	11	4,956,208	609	927,997	506,938	1,927,635	6,451,088	4,523,453
Aerated waters	145	4,409,979	647	863,771	45,754	1,892,250	3,680,547	1,788,297
Asbestos and allied products	5	511,214	53	83,093	7,369	201,768	485,155	283,387
Cement	4							
Cement products	105	2,501,018	875	763,917	39,669	736,641	2,441,717	1,705,076
Coke and gas	22	46,029,491	2,463	3,524,693	1,666,886	10,849,063	21,459,356	10,610,293
Glass	36	6,102,509	1,767	2,205,308	515,725	2,780,202	7,129,381	4,369,179
Lime	25	2,662,238	484	550,252	438,848		2,467,843	2,467,843
Petroleum products	9	20,065,748	1,894	3,093,525	1,506,868	20,962,944	30,515,904	9,552,960
Products from domestic clay	122	14,435,038	2,461	2,641,450	1,276,019		6,177,664	6,177,664
Products from imported clay	9	1,932,252	422	524,870	85,462	478,742	1,558,435	1,081,693
Salt	9	3,666,856	352	434,970	236,625		1,377,629	1,377,629
Sand-lime brick	7	1,365,321	200	257,780	63,606	234,446	819,675	585,229
Stone dressing	118	4,051,546	963	1,584,648	56,355	1,751,702	4,739,096	2,987,394
Miscellaneous	10	2,192,148	325	432,902	72,728	640,507	2,171,386	1,530,879
Total	637	130,185,263	14,197	19,088,109	7,942,665	42,433,900	96,995,773	54,561,873
MANITOBA—								
Aerated waters	10	627,800	97	138,196	7,942	223,188	502,144	278,956
Asbestos and allied products	1							
Cement	1							
Coke and gas	7	5,597,184	176	256,661	39,640	462,065	1,218,170	756,105
Glass	3	115,112	26	38,100	1,041	64,743	127,059	62,316
Lime	4	536,337	119	95,652	68,858		319,699	319,699
Petroleum products	1							
Products from domestic clay	5	346,238	277	143,778	81,885		291,791	291,791
Sand-lime brick	2							
Stone dressing	13	478,134	132	172,719	7,312	120,226	396,303	276,077
Miscellaneous	1							
Total*	48	13,637,947	1,067	1,174,143	519,410	1,335,515	5,453,168	4,117,632
SASKATCHEWAN—								
Aerated waters	17	573,751	91	111,702	8,140	148,147	440,909	292,762
Coke and gas	1							
Cement products	2							
Products from domestic clay	5	1,030,115	153	160,056	60,344		377,896	377,896
Petroleum products	1							
Stone dressing	8	273,472	53	85,674	5,248	97,411	302,054	204,643
Total*	34	7,308,473	692	975,696	429,595	6,546,164	11,111,638	4,565,474
ALBERTA—								
Aerated waters	14	558,498	114	146,289	5,070	274,714	597,803	323,089
Cement	2							
Cement products	1							
Coke and gas	1							
Glass	2							
Lime	2							
Petroleum products	5	5,645,866	442	631,077	242,300	7,156,864	11,255,742	4,098,878
Products from domestic clay	11	2,870,493	474	512,265	66,344		1,162,264	1,102,264
Stone dressing	5	214,048	53	64,184	3,427	75,395	201,868	126,473
Total*	43	15,375,722	1,468	1,856,588	659,322	7,779,949	15,727,188	7,947,239

Table 4.—Principal Statistics of the Manufactures of the Non-Metallic Minerals in Canada, by Industries and by Provinces, 1928—Concluded

Provinces and industries	Number of plants	Capital employed	Average number of employes	Salaries and wages	Cost of fuel and electricity	Cost of materials at works	Selling value of products at works	Value added by manufacturing
		\$		\$	\$	\$	\$	\$
BRITISH COLUMBIA—								
Aerated waters.....	20	517,717	79	93,560	4,743	132,843	344,017	211,174
Asbestos and allied products.....	3							
Cement.....	1							
Cement products.....	3	125,027	36	45,519	2,859	52,024	146,872	94,848
Coke and gas.....	6	12,602,896	500	686,899	101,482	1,009,010	2,338,628	1,329,618
Glass.....	5	92,374	33	34,671	984	28,421	73,762	45,341
Lime.....	4	1,578,714	145	199,400	35,270		473,996	473,996
Petroleum products.....	3	5,388,305	343	627,886	227,732	6,031,846	6,051,695	919,849
Products from domestic clay.....	12	1,227,175	334	329,200	109,569		706,039	706,039
Stone dressing.....	11	142,742	43	65,486	3,269	31,943	146,711	111,768
Miscellaneous.....	1							
Total*	69	27,818,587	1,790	2,497,129	654,254	7,363,231	12,797,587	5,434,356
Canada 1928—								
Abrasive products.....	12	7,317,165	691	1,048,521	644,557	2,169,424	7,122,588	4,953,160
Aerated waters.....	347	11,659,838	1,967	2,407,861	133,461	4,705,656	10,672,831	5,972,175
Asbestos and allied products.....	14	3,061,161	345	421,148	72,421	925,661	2,659,432	1,124,771
Cement.....	11	47,678,841	2,107	3,405,385	3,872,608		16,739,163	16,739,163
Cement products.....	151	4,140,543	1,262	1,466,508	73,825	1,261,653	4,136,955	2,875,302
Coke and gas.....	45	92,145,190	3,911	5,608,779	2,073,736	17,164,216	34,708,447	17,544,201
Glass.....	59	12,694,882	3,219	3,878,165	1,061,341	4,791,486	13,565,354	8,773,868
Lime.....	54	6,952,079	1,218	1,316,115	912,395		4,534,568	4,534,568
Petroleum products.....	25	56,531,614	4,319	6,922,590	3,147,782	57,383,841	83,122,172	25,738,331
Products from domestic clay.....	186	32,423,203	5,195	5,181,398	2,294,350		12,381,718	12,381,718
Products from imported clay.....	14	3,068,562	696	891,125	195,716	708,571	2,458,801	1,550,230
Salt.....	10	4,122,922	455	539,775	52,468		1,495,971	1,495,971
Sand-lime brick.....	11	1,916,060	281	352,311	92,749	322,027	1,112,166	790,439
Stone dressing.....	222	6,305,519	1,686	2,578,207	465,833	2,469,900	7,476,035	4,745,135
Miscellaneous.....	17	8,331,500	995	1,117,773	315,887	1,790,464	4,799,640	3,009,236
Total.....	4,178	298,693,122	29,650	37,136,451	15,548,569	93,683,973	206,082,141	112,399,268

* Totals also include data for industries in which there were only one or two plants in operation.

Table 5.—Principal Statistics of the Manufactures of the Non-Metallic Minerals in Canada, by Industries and by Provinces, 1929

Provinces and industries	Number of plants	Capital employed	Average number of employees	Salaries and wages	Cost of fuel and electricity	Cost of materials at works	Selling value of products at works	Value added by manufacturing
		\$		\$	\$	\$	\$	\$
PRINCE EDWARD ISLAND—								
Aerated waters.....	2							
Stone dressing.....	2							
Total*	4	99,867	18	19,290	1,162	25,495	71,590	46,095
NOVA SCOTIA—								
Aerated waters.....	24	358,417	86	66,561	4,363	92,012	313,424	221,412
Asbestos products.....	1							
Cement products.....	3	11,920	10	8,320	130	3,830	10,365	6,535
Coke and gas.....	2							
Glass.....	1							
Lime.....	2							
Petroleum products.....	1							
Products from domestic clay.....	9	1,026,057	263	229,387	65,601		653,157	653,157
Salt.....	1							
Stone dressing.....	10	109,011	36	41,300	2,554	46,667	139,604	92,937
Total*	54	21,393,167	1,279	1,651,893	716,530	10,637,726	15,439,695	4,692,969
NEW BRUNSWICK—								
Aerated waters.....	17	493,712	78	85,414	5,062	133,083	422,101	289,018
Cement products.....	3	24,556	12	6,537	544	9,917	29,851	19,934
Coke and gas.....	2							
Glass.....	1							
Lime.....	4	106,500	83	73,782	47,041		174,553	174,553
Products from domestic clay.....	3	258,105	97	68,927	27,342		160,006	160,006
Stone dressing.....	11	159,648	74	85,718	4,720	55,061	180,850	125,789
Total*	41	1,465,574	388	375,084	104,496	243,945	1,121,926	877,081
QUEBEC—								
Aerated waters.....	99	4,817,558	830	1,013,267	51,380	1,950,428	5,075,213	3,124,785
Abrasive products.....	1							
Asbestos products.....	4	2,413,937	270	247,329	72,282	1,145,678	1,666,368	520,690
Cement.....	3							
Cement products.....	30	1,362,009	413	523,325	29,879	316,845	1,145,674	798,829
Coke and gas.....	4	10,688,314	345	606,771	211,232	3,196,551	5,581,405	2,384,854
Glass.....	11	6,603,980	1,344	1,619,798	553,436	1,650,952	5,621,270	3,970,318
Lime.....	14	2,012,423	407	381,519	416,286		1,264,194	1,264,194
Petroleum products.....	6	15,045,987	1,013	1,708,916	850,988	16,040,711	19,087,138	3,046,427
Products from imported clay.....	4	1,180,554	281	367,389	104,043	237,393	909,957	672,564
Products from domestic clay.....	20	12,476,300	1,259	1,252,803	623,091		3,187,702	3,187,702
Sand-lime brick.....	2							
Stone dressing.....	45	1,128,465	413	679,985	30,534	481,784	1,486,177	1,004,393
Miscellaneous.....	6	4,962,019	453	423,981	144,625	833,090	1,828,393	995,297
Total*	249	82,398,831	8,298	10,546,463	4,918,839	26,137,493	54,684,997	29,547,504
ONTARIO—								
Aerated waters.....	141	4,525,261	757	872,170	47,796	1,643,620	4,284,244	2,640,624
Abrasive products.....	11	5,151,066	736	1,147,391	732,713	2,692,240	8,365,526	5,673,286
Asbestos products.....	5	507,092	71	100,136	8,176	188,107	678,616	390,509
Cement.....	4							
Cement products.....	106	3,297,927	796	934,066	49,974	968,586	2,790,439	1,821,863
Coke and gas.....	21	49,142,427	2,512	3,816,994	1,991,542	11,035,209	25,294,463	14,259,254
Glass.....	35	7,391,187	2,231	2,716,227	688,623	3,153,474	8,493,026	5,339,552
Lime.....	23	2,810,784	463	494,886	543,548		3,364,411	3,364,411
Petroleum products.....	9	27,228,752	2,341	3,731,654	1,526,441	26,878,563	36,058,623	9,180,060
Products from imported clay.....	11	2,291,498	591	745,492	116,867	754,757	2,463,081	1,708,324
Products from domestic clay.....	134	14,321,316	2,658	2,801,896	1,838,896		6,830,162	6,830,162
Salt.....	7	3,808,692	349	421,498	237,791		1,420,424	1,420,424
Sand-lime brick.....	7	1,429,721	194	262,714	52,149	179,164	708,584	529,420
Stone dressing.....	116	4,496,124	1,002	1,737,746	75,360	1,794,935	5,064,697	3,269,762
Miscellaneous.....	12	3,132,224	400	607,405	77,765	795,531	3,043,695	2,248,164
Total*	642	146,284,130	15,936	21,537,831	9,466,828	50,084,186	115,368,237	65,284,051

MANUFACTURES OF NON-METALLIC MINERALS

Table 5.—Principal Statistics of the Manufactures of the Non-Metallic Minerals in Canada, by Industries and by Provinces, 1929—Concluded

Provinces and industries	Number of plants	Capital employed \$	Average number of employees	Salaries and wages \$	Cost of fuel and electricity \$	Cost of materials at works \$	Selling value of products at works \$	Value added by manufacturing \$
MANITOBA—								
Aerated waters.....	11	674,715	109	137,164	8,028	265,152	602,727	337,575
Cement.....	1							
Cement products.....	1							
Coke and gas.....	6	5,577,007	176	256,627	82,523	625,035	1,887,382	1,262,347
Glass products.....	4	834,477	135	117,368	63,359	127,080	411,064	283,075
Lime.....	4	595,608	148	112,151	71,031		361,104	361,104
Petroleum products.....	1							
Products from domestic clay.....	6	454,147	210	180,281	75,171		362,240	362,240
Sand-lime brick.....	2							
Stone dressing.....	13	589,046	143	201,863	11,435	157,219	547,779	390,560
Miscellaneous.....	2							
Total*	51	16,190,352	1,156	1,338,847	917,365	1,565,571	7,500,021	5,934,450
SASKATCHEWAN—								
Aerated waters.....	17	606,639	86	102,839	8,058	140,023	415,082	275,059
Cement products.....	3	141,370	43	60,271	1,200	89,827	231,961	142,134
Coke and gas.....	1							
Glass.....	1							
Petroleum products.....	1							
Products from domestic clay.....	4	1,102,440	183	201,368	69,393		502,522	502,522
Stone dressing.....	7	225,947	62	95,088	6,118	88,787	280,263	191,470
Total*	34	9,049,352	773	1,110,636	529,524	8,876,745	14,390,871	5,514,126
ALBERTA—								
Aerated waters.....	14	795,054	131	171,748	7,313	213,987	732,584	518,597
Cement.....	2							
Cement products.....	2							
Coke and gas.....	1							
Glass products.....	2							
Lime.....	2							
Petroleum products.....	4	7,745,833	448	716,667	275,835	9,055,313	12,738,164	3,682,851
Products from domestic clay.....	10	3,148,756	469	552,562	74,545		1,342,427	1,342,427
Sand-lime brick.....	1							
Stone dressing.....	5	208,871	59	75,006	2,711	72,218	216,685	144,470
Total*	43	18,623,714	1,574	2,074,263	717,942	9,768,887	17,740,774	8,031,887
BRITISH COLUMBIA—								
Aerated waters.....	20	415,203	91	98,716	4,586	133,717	381,421	247,704
Asbestos products.....	2							
Cement.....	1							
Cement products.....	5	139,963	52	60,315	1,915	53,405	160,001	106,596
Coke and gas.....	6	15,026,718	525	735,750	96,030	1,121,289	2,846,217	1,724,928
Glass.....	5	86,861	32	36,132	1,281	30,735	89,985	50,260
Lime.....	4	1,535,463	195	239,480	48,474		510,592	510,592
Petroleum products.....	3	6,430,542	366	674,690	286,021	8,227,133	8,729,492	602,269
Products from domestic clay.....	10	1,402,935	391	431,790	145,435		866,427	866,427
Stone dressing.....	11	159,050	62	117,675	4,538	70,776	258,837	188,061
Miscellaneous.....	3	649,461	84	123,587	20,682	223,472	461,150	237,678
Total*	70	31,193,257	2,009	2,820,239	990,774	9,869,172	15,814,497	5,945,325
Canada, 1929—								
Aerated waters.....	345	12,756,626	2,174	2,553,456	137,210	4,576,027	12,249,218	7,673,191
Abrasive products.....	12	6,643,533	828	1,270,898	873,068	2,905,928	9,961,951	6,056,023
Asbestos products.....	12	2,949,712	351	359,433	89,992	1,318,460	2,286,638	938,178
Cement.....	11	59,881,818	2,546	3,523,595	4,347,219		19,337,235	19,337,235
Cement products.....	153	5,021,197	1,317	1,608,238	84,130	1,502,952	4,419,417	2,916,465
Coke and gas.....	43	94,749,062	3,902	5,938,814	2,628,714	18,517,214	39,910,443	21,393,229
Glass.....	60	16,289,364	4,948	4,740,676	1,323,450	5,355,156	15,507,142	10,152,286
Lime.....	53	7,404,677	1,382	1,393,692	1,183,313		5,908,610	5,908,610
Petroleum products.....	25	71,260,459	1,978	8,153,625	3,751,655	76,861,939	99,408,314	22,516,375
Products from imported clay.....	15	3,472,052	872	1,112,881	220,010	992,150	3,373,038	2,380,888
Products from domestic clay.....	196	34,190,056	5,530	5,719,014	2,920,384		13,904,613	13,904,613
Salt.....	8	4,576,513	421	516,432	249,664		1,578,086	1,578,086
Sand-lime brick.....	12	2,356,726	304	341,065	68,039	264,465	353,726	689,261
Stone dressing.....	229	7,107,162	1,863	3,048,084	138,508	2,788,934	8,221,060	5,135,126
Miscellaneous.....	23	9,747,157	982	1,221,382	262,691	2,035,905	6,060,697	3,964,792
Total	1,188	329,448,844	31,431	41,563,846	18,272,560	117,149,130	242,023,518	124,874,388

*Totals also include data for industries in which there were only one or two plants in operation.

Table 6.—Capital Employed in the Manufactures of the Non-Metallic Minerals in Canada, by Industries and by Provinces, 1928 and 1929

Provinces and industries	1928				1929			
	Capital employed as represented by				Capital employed as represented by			
	Lands, buildings, machinery and tools	Cost of supplies and stocks on hand	Cash, trading and operating accounts and bills receivable	Total	Lands, buildings, machinery and tools	Cost of supplies and stocks on hand	Cash, trading and operating accounts and bills receivable	Total
\$	\$	\$	\$	\$	\$	\$	\$	
PRINCE EDWARD ISLAND—	28,050	30,400	1,400	59,850	66,096	20,888	6,883	93,867
NOVA SCOTIA—								
Aerated waters.....	125,284	19,700	47,822	192,806	210,956	36,064	111,397	358,417
Cement products.....	10,294	1,300	330	11,924	9,450	1,920	550	11,920
Products from domestic clay.....	836,452	140,551	77,394	1,054,397	701,818	149,547	84,692	1,026,057
Stone dressing.....	34,651	20,822	15,070	70,543	52,750	32,412	24,449	109,611
Total*	17,896,047	5,151,792	3,973,291	27,021,130	17,966,138	5,038,093	1,298,936	24,303,167
NEW BRUNSWICK—								
Aerated waters.....	275,663	71,416	135,209	482,288	273,624	91,163	128,925	493,712
Cement products.....	13,537	4,435	1,475	19,447	15,300	8,400	856	24,556
Lime.....	107,500	28,450	11,500	147,450	112,500	25,500	28,500	166,500
Products from imported clay.....					210,039	26,547	21,519	258,105
Stone dressing.....	73,809	62,378	21,503	157,690	68,909	61,160	29,579	159,648
Total*	714,188	189,532	191,911	1,094,731	961,616	219,881	224,683	1,405,574
QUEBEC—								
Aerated waters.....	2,837,246	488,931	931,872	4,258,049	3,488,145	526,880	802,533	4,817,558
Asbestos products.....	1,710,877	423,500	196,423	2,330,800	1,786,204	476,150	151,585	2,413,937
Cement products.....	717,879	236,535	461,527	1,415,941	759,906	257,152	344,951	1,362,009
Coke and gas.....	7,272,010	1,970,067	449,477	9,691,554	7,559,898	2,661,013	467,403	10,688,314
Glass.....	3,384,036	1,164,274	838,786	5,387,096	4,248,080	1,568,504	787,402	6,603,986
Lime.....	1,279,684	179,843	306,665	1,766,192	1,612,404	174,574	225,445	2,012,423
Petroleum products.....	8,251,878	3,993,266	229,937	12,475,081	8,315,790	6,653,108	77,089	15,045,987
Products from domestic clay.....	9,644,445	961,729	788,032	11,394,206	10,512,410	1,067,893	805,997	12,476,300
Products from imported clay.....	629,878	230,182	276,250	1,136,310	900,364	263,819	313,371	1,480,554
Stone dressing.....	400,376	268,224	218,944	887,544	467,251	370,204	291,010	1,128,465
Miscellaneous.....	4,011,378	1,274,944	212,586	5,498,908	4,064,596	721,385	179,038	4,962,619
Total*	54,913,347	12,835,376	9,042,696	76,791,419	58,249,723	16,313,572	7,725,536	82,288,831
ONTARIO—								
Abrasive products.....	2,584,303	811,747	1,500,218	4,896,268	3,865,864	1,263,418	1,021,784	5,151,066
Aerated waters.....	3,203,105	439,176	767,698	4,409,979	3,288,285	558,185	678,791	4,525,261
Asbestos products.....	255,025	160,218	95,971	511,214	267,450	145,663	73,773	507,082
Cement products.....	1,277,623	477,368	740,027	2,501,018	1,877,860	494,163	955,895	3,297,927
Coke and gas.....	37,842,681	3,647,467	5,139,343	46,629,491	39,764,854	4,052,467	5,825,106	49,142,427
Glass.....	3,213,524	1,602,010	1,289,975	6,102,509	3,861,340	1,906,133	1,523,708	7,291,187
Lime.....	2,177,855	240,340	244,013	2,662,208	2,466,818	230,258	113,708	2,810,784
Petroleum products.....	12,530,441	6,976,047	539,260	20,065,748	15,304,052	11,073,346	851,354	27,228,752
Products from domestic clay.....	11,417,193	1,510,741	1,507,104	14,435,038	11,068,103	1,087,749	1,565,464	14,321,310
Products from imported clay.....	1,157,271	412,737	362,244	1,932,252	1,240,518	357,540	684,434	2,291,498
Salt.....	3,079,339	220,439	307,078	3,606,856	3,158,174	295,647	354,871	3,808,692
Sand-lime brick.....	1,119,348	61,094	184,879	1,365,321	969,517	119,921	340,283	1,429,721
Stone dressing.....	2,039,075	851,602	1,157,809	4,051,546	2,327,903	853,978	1,314,243	4,496,124
Miscellaneous.....	1,095,895	371,030	725,223	2,192,148	1,529,401	408,735	1,194,028	3,132,224
Total*	93,348,845	19,071,150	17,765,268	130,185,263	102,111,758	24,724,126	19,445,246	146,284,130
MANITOBA—								
Aerated waters.....	545,201	40,490	42,109	627,800	572,018	51,227	51,470	674,715
Coke and gas.....	5,326,705	184,030	86,449	5,597,184	5,309,910	113,388	153,709	5,577,007
Glass.....	56,700	42,430	15,982	115,112	322,827	268,147	43,503	834,477
Lime.....	487,061	46,040	3,230	536,337	548,563	44,002	3,043	595,608
Products from domestic clay.....	186,670	58,610	120,958	366,238	274,108	74,089	105,050	454,147
Stone dressing.....	205,403	88,583	184,148	478,134	193,631	190,794	204,921	589,616
Total*	10,460,934	1,027,910	1,349,163	13,037,947	13,267,689	1,335,159	1,587,504	16,190,352

* Totals also include data for industries in which there were only one or two plants in operation. For the number and distribution of these works see Tables 4 and 5.

Table 6.—Capital Employed in the Manufactures of the Non-Metallic Minerals in Canada, by Industries and by Provinces, 1928 and 1929—Concluded

Provinces and industries	1928				1929			
	Capital employed as represented by				Capital employed as represented by			
	Lands, buildings, machinery and tools	Cost of supplies and stocks on hand	Cash, trading and operating accounts and bills receivable	Total	Lands, buildings, machinery and tools	Cost of supplies and stocks on hand	Cash, trading and operating accounts and bills receivable	Total
	\$	\$	\$	\$	\$	\$	\$	\$
SASKATCHEWAN—								
Aerated waters.....	384,761	110,739	78,251	573,751	367,259	143,655	95,725	606,639
Cement products.....					99,023	20,620	21,727	141,370
Products from domestic clay.....	873,246	76,443	80,426	1,030,115	895,884	72,424	134,132	1,102,440
Stone dressing.....	71,528	83,267	118,677	273,472	71,028	71,082	83,237	225,947
Total*	4,860,123	2,134,271	314,079	7,308,473	5,117,603	3,563,466	368,883	9,049,952
ALBERTA—								
Aerated waters.....	337,572	87,951	132,975	558,498	448,070	189,110	157,865	795,054
Petroleum products.....	3,305,436	2,110,347	164,084	5,645,866	3,675,880	3,755,928	314,025	7,745,833
Products from domestic clay.....	2,005,553	339,726	525,214	2,870,493	2,249,900	299,277	599,579	3,149,756
Stone dressing.....	55,274	64,198	94,576	214,048	55,870	53,444	83,237	208,871
Total*	10,149,327	3,277,525	1,948,870	15,375,722	11,397,547	5,060,276	2,255,891	18,623,714
BRITISH COLUMBIA—								
Aerated waters.....	250,445	63,390	208,873	517,717	285,777	89,501	39,925	415,203
Asbestos products.....	3,300	1,140	1,807	6,247				
Cement products.....	79,884	12,368	32,775	125,027	96,725	15,605	27,543	139,963
Coke and gas.....	10,872,550	584,336	1,146,004	12,602,896	11,478,905	506,579	3,041,174	15,026,718
Glass.....	21,921	35,002	35,451	92,374	22,941	32,542	31,198	86,681
Lime.....	1,335,840	93,260	149,614	1,578,714	1,375,029	70,368	90,076	1,535,463
Petroleum products.....	3,600,467	1,638,568	149,270	5,388,305	3,713,716	2,563,224	213,602	6,430,512
Products from domestic clay.....	905,604	187,698	133,873	1,227,175	1,054,296	181,846	166,793	1,402,935
Stone dressing.....	64,455	38,817	39,470	142,742	66,794	29,636	62,720	159,050
Miscellaneous.....					575,421	71,251	2,789	619,461
Total*	22,045,135	2,941,943	2,211,509	27,818,587	23,629,653	3,828,789	3,734,815	31,193,257
Canada—								
Abrasive products.....	3,783,462	884,250	2,639,393	7,317,105	4,166,186	1,331,556	1,185,791	6,683,533
Aerated waters.....	7,980,327	1,330,802	2,339,809	11,650,938	8,993,239	1,690,673	2,072,114	12,756,026
Asbestos products.....	2,006,557	669,191	397,416	3,064,164	2,070,960	649,296	239,456	2,919,712
Cement.....	33,365,970	4,020,658	8,292,213	47,678,841	39,007,891	3,968,456	7,905,171	50,881,518
Cement products.....	2,130,631	740,118	1,269,791	4,140,543	2,886,795	778,779	1,358,923	5,024,497
Coke and Gas.....	73,072,115	8,540,278	10,532,497	92,145,190	75,572,969	8,648,599	10,327,494	94,749,062
Glass.....	7,439,608	2,956,776	2,299,498	12,694,882	9,684,273	4,092,877	2,513,214	16,289,364
Lime.....	5,591,176	620,662	740,241	6,952,079	6,325,083	582,849	496,745	7,404,677
Petroleum products.....	35,983,798	19,407,545	1,140,271	56,531,614	39,151,572	30,623,120	1,682,767	71,260,459
Products from domestic clay.....	25,939,434	3,292,034	3,241,735	32,473,203	27,056,558	3,560,272	3,523,226	34,190,056
Products from imported clay.....	1,787,149	642,919	638,494	3,068,562	1,832,882	621,365	997,905	3,472,052
Salt.....	3,731,853	235,405	455,561	4,422,822	3,865,994	354,338	376,211	4,376,543
Sand-lime brick.....	1,645,050	70,040	200,970	1,916,060	1,782,797	153,436	420,493	2,356,726
Stone dressing.....	2,951,371	1,502,351	1,851,597	6,305,319	3,311,736	1,681,610	2,110,816	7,107,162
Miscellaneous.....	5,617,895	1,755,970	957,735	8,331,590	6,948,282	1,390,024	1,408,851	9,747,157
Total	215,033,396	46,659,599	36,097,227	298,693,122	232,680,217	60,110,250	36,658,377	329,448,844

* Totals also include data for industries in which there were only one or two plants in operation. For the number and distribution of these works see Tables 4 and 5.

Table 7.—Employees, Salaries and Wages in the Manufactures of the Non-Metallic Minerals in Canada, by Industries and by Provinces, 1928

Provinces and industries	Salaried employees		Wage-earners		Total employees	Salaries	Wages	Total salaries and wages
	Male	Female	Male	Female				
PRINCE EDWARD ISLAND—						\$	\$	\$
Total	3		12	3	15	3,728	13,845	17,573
NOVA SCOTIA—								
Aerated waters.....	6	2	55	4	67	11,029	40,897	51,926
Cement products.....	5		8		13	4,498	2,292	6,790
Products from domestic clay	9	2	212		223	31,035	154,543	185,578
Stone dressing.....	3		29	1	33	3,300	33,411	36,711
Total	100	10	1,041	7	1,158	233,865	1,249,875	1,483,740
NEW BRUNSWICK—								
Aerated waters.....	21	4	46	4	75	42,725	40,088	82,813
Cement products.....	2		9		11	1,550	2,163	3,713
Lime.....	7	2	58		67	16,540	47,501	64,041
Stone dressing.....	11	2	58	2	73	10,735	58,255	74,990
Total	65	13	250	6	334	115,133	216,596	331,729
QUEBEC—								
Aerated waters.....	151	28	577	35	791	265,986	649,035	915,021
Asbestos products.....	32	7	200	25	264	79,475	228,650	308,125
Cement products.....	55	4	423	1	483	114,500	475,956	590,456
Coke and gas.....	77	4	356	3	440	86,905	575,020	661,925
Glass.....	79	26	975	155	1,235	198,112	1,226,219	1,424,331
Lime.....	22		297		319	37,810	272,220	310,030
Petroleum products.....	60	13	828	4	905	168,745	1,228,029	1,396,775
Products from domestic clay	73	8	1,140		1,221	153,694	1,003,243	1,156,937
Products from imported clay	27	4	237	6	274	73,431	292,824	366,255
Stone dressing.....	44	3	277		324	95,675	385,720	481,395
Miscellaneous.....	58	8	326	162	554	133,600	396,262	529,862
Total	724	108	6,703	391	7,326	1,504,947	8,206,893	9,711,750
ONTARIO—								
Abrasive products.....	63	25	516	5	609	200,768	727,220	927,997
Aerated waters.....	161	21	439	26	647	332,943	530,829	863,771
Asbestos products.....	15	6	29	3	53	43,038	40,055	83,093
Cement products.....	77	8	588	2	675	140,414	617,503	767,917
Coke and gas.....	418	189	1,854	2	2,463	911,131	2,613,562	3,524,693
Glass.....	120	32	1,470	145	1,767	318,887	1,886,421	2,205,308
Lime.....	32	9	443		484	81,830	468,422	550,252
Petroleum products.....	183	32	1,601	18	1,894	535,505	2,558,020	3,093,525
Products from domestic clay	168	32	2,261		2,461	437,193	2,204,257	2,641,450
Products from imported clay	38	11	331	42	422	144,464	380,406	524,870
Salt.....	39	14	203	36	352	97,756	337,214	434,970
Sand-lime brick.....	14	3	183		200	52,283	205,497	257,780
Stone-dressing.....	148	18	794	3	963	317,728	1,266,920	1,584,648
Miscellaneous.....	37	14	263	11	325	109,981	322,921	432,902
Total	1,552	417	11,934	293	14,197	3,820,600	15,267,509	19,088,109
MANITOBA—								
Aerated waters.....	26	6	64	1	97	45,992	82,204	138,196
Coke and gas.....	34	23	117	2	176	86,492	170,109	256,601
Glass.....	7	2	14	3	26	14,850	21,250	36,100
Lime.....	7		112		119	12,968	82,684	95,652
Products from domestic clay	10	2	265		277	26,090	117,688	143,778
Stone dressing.....	21	5	106		132	46,881	125,838	172,719
Total	123	38	900	6	1,067	276,440	904,103	1,174,143
SASKATCHEWAN—								
Aerated waters.....	27	3	59	2	91	51,736	59,966	111,702
Products from domestic clay	13		140		153	28,834	131,222	160,056
Stone dressing.....	13	3	36	1	53	28,222	57,452	85,674
Total	86	10	593	3	692	268,850	769,846	973,696
ALBERTA—								
Aerated waters.....	30	8	64	12	114	66,873	79,416	146,289
Petroleum products.....	42	6	391	3	442	119,549	511,528	631,077
Products from domestic clay	26	3	445		474	68,941	443,324	512,265
Stone dressing.....	5	9	38	1	53	21,067	43,117	64,184
Total	133	30	1,270	35	1,468	314,642	1,511,946	1,856,589

Table 7.—Employees, Salaries and Wages in the Manufactures of the Non-Metallic Minerals in Canada, by Industries and by Provinces, 1928—Concluded

Provinces and industries	Salaried Employees		Wage-earners		Total employees	Salaries	Wages	Total salaries and wages
	Male	Female	Male	Female				
						\$	\$	\$
BRITISH COLUMBIA—								
Aerated waters.....	19	3	54	3	79	32,022	61,538	93,560
Asbestos products.....	2		3		5	2,888	4,108	6,996
Cement products.....	2		34		36	4,200	41,319	45,519
Coke and gas.....	77	9	414		500	152,146	534,753	686,899
Glass.....	6	3	22	2	33	11,844	22,827	34,671
Lime.....	12	4	129		145	28,084	171,316	199,400
Petroleum products.....	55	3	285		343	144,307	483,479	627,886
Products from domestic clay	18	1	315		334	41,874	287,326	329,200
Stone dressing.....	5		38		43	12,840	52,646	65,486
Total*	209	28	1,548	5	1,790	484,832	2,012,297	2,497,129
Canada, 1928—								
Abrasive products.....	67	25	594	5	691	213,268	835,253	1,048,521
Aerated waters.....	442	75	1,360	90	1,967	850,831	1,357,827	2,497,861
Asbestos products.....	53	13	250	29	345	131,984	287,361	421,448
Cement.....	113	9	2,285		2,407	256,867	3,148,518	3,405,385
Cement products.....	146	12	1,101	3	1,262	283,545	1,182,963	1,466,508
Coke and gas.....	653	230	3,024	7	3,914	1,304,531	4,301,245	5,605,779
Glass.....	221	60	2,607	325	3,219	874,442	3,303,722	3,878,165
Lime.....	84	16	1,118		1,218	184,732	1,141,383	1,316,115
Petroleum products	412	62	3,820	25	4,319	1,169,042	5,753,538	6,922,580
Products from domestic clay	321	48	4,826		5,195	806,209	4,375,189	5,181,398
Products from imported clay	65	15	565	48	693	317,865	673,230	891,125
Salt.....	45	16	355	36	455	117,376	422,399	539,775
Sand-lime brick	20	3	258		281	65,343	286,968	352,311
Stone dressing.....	252	40	1,386	8	1,686	345,418	2,033,259	2,578,707
Miscellaneous.....	102	24	698	173	995	280,818	856,955	1,117,773
Total	2,996	654	24,251	749	28,650	6,983,637	30,152,814	37,136,451

* 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 Table 4.

Table 8.—Employees, Salaries and Wages in the Manufactures of the Non-Metallic Minerals in Canada, by Industries and by Provinces, 1929

	Salaried employees		Wage-earners		Total employees	Salaries	Wages	Total salaries and wages
	Male	Female	Male	Female				
						\$	\$	\$
PRINCE EDWARD ISLAND..								
Total	3		13	2	18	3,936	15,344	19,280
NOVA SCOTIA—								
Aerated waters.....	9	2	67	8	86	11,446	55,115	66,561
Cement products.....	2		8		10	2,400	5,020	8,320
Products from domestic clay	15	3	245		263	30,953	195,434	229,387
Stone dressing.....	5	1	29	1	36	6,620	34,680	41,300
Total*	113	13	1,142	11	1,279	242,094	1,439,709	1,681,803
NEW BRUNSWICK—								
Aerated waters.....	15	5	55	3	78	29,337	56,077	85,414
Cement products.....	2		10		12	1,074	5,463	6,537
Lime.....	7	2	74		83	15,840	57,932	73,782
Products from domestic clay	8		89		97	9,965	58,962	68,927
Stone dressing.....	12	3	59		74	19,884	65,834	85,718
Total*	56	14	315	3	388	85,858	279,216	375,084
QUEBEC—								
Aerated waters.....	144	29	625	32	830	286,996	726,271	1,013,267
Asbestos products.....	30	11	211	18	270	79,593	167,736	247,329
Cement products.....	63	4	345	1	413	122,406	400,919	523,325
Coke and gas.....	74	4	266		345	170,410	436,361	606,771
Glass.....	102	28	1,044	170	1,344	261,457	1,358,341	1,619,798
Lime.....	13		394		407	19,357	302,102	381,519
Petroleum products	70	12	829	2	1,013	188,402	1,520,514	1,708,916
Products from domestic clay	81	10	1,168		1,259	195,371	1,057,432	1,252,803
Products from imported clay	22	4	240	6	281	62,038	305,351	367,389
Stone dressing.....	49	3	361		413	109,575	570,410	679,985
Miscellaneous.....	41	7	223	182	453	105,103	318,878	423,981
Total*	737	116	7,833	412	8,298	1,706,811	8,839,652	10,546,463

Table 8.—Employees, Salaries and Wages in the Manufactures of the Non-Metallic Minerals in Canada, by Industries and by Provinces, 1929—Concluded

	Salaried employees		Wage-earners		Total employees	Salaries	Wages	Total salaries and wages
	Male	Female	Male	Female				
ONTARIO—						\$	\$	\$
Abrasive products.....	70	27	633	8	736	224,785	922,600	1,147,391
Aerated waters.....	170	38	514	35	757	324,013	547,557	872,170
Asbestos products.....	15	6	48	2	71	48,594	51,542	100,136
Cement products.....	93	12	689	2	796	180,119	753,947	934,066
Coke and gas.....	422	194	1,893	3	2,512	958,990	2,857,004	3,816,994
Glass.....	150	50	1,865	166	2,231	425,681	2,290,546	2,716,227
Lime.....	44	9	410	.....	463	67,352	427,234	494,586
Petroleum products.....	202	35	2,087	17	2,341	578,263	3,153,391	3,731,654
Products from imported clay.....	45	20	440	77	591	189,797	556,095	745,492
Products from domestic clay.....	187	29	2,442	.....	2,658	518,533	2,283,363	2,801,896
Salt.....	35	10	262	42	349	83,702	337,790	421,498
Sand-lime brick.....	19	1	174	.....	194	55,772	200,942	262,714
Stone dressing.....	160	29	810	3	1,002	347,285	1,390,461	1,737,746
Miscellaneous.....	63	32	291	14	400	254,701	352,704	607,405
Total*.....	1,714	495	13,360	367	15,936	4,344,870	17,192,961	21,537,831
MANITOBA—								
Aerated waters.....	26	7	75	1	109	49,443	87,721	137,161
Coke and gas.....	35	25	116	.....	176	97,676	158,961	256,627
Glass.....	12	3	91	29	135	22,592	94,776	117,368
Lime.....	9	.....	137	.....	146	13,579	98,572	112,151
Products from domestic clay.....	10	2	198	.....	210	27,350	152,931	180,281
Stone dressing.....	18	5	120	.....	143	41,807	157,050	201,863
Total*.....	125	44	956	31	1,156	296,235	1,052,612	1,338,847
SASKATCHEWAN—								
Aerated waters.....	19	.....	64	3	86	38,953	63,886	102,839
Cement products.....	6	1	30	.....	43	15,291	44,990	60,271
Products from domestic clay.....	18	1	164	.....	183	40,180	161,188	201,368
Stone dressing.....	13	4	44	1	62	27,801	67,287	95,088
Total*.....	56	16	302	5	326	122,225	337,351	459,576
ALBERTA—								
Aerated waters.....	35	10	70	16	131	81,158	90,590	171,748
Petroleum products.....	43	0	394	5	448	122,281	594,386	716,667
Products from domestic clay.....	23	3	443	.....	469	67,505	485,057	552,562
Stone dressing.....	5	9	44	1	59	22,090	52,916	75,006
Total*.....	106	32	951	22	1,079	373,624	1,262,949	1,636,573
BRITISH COLUMBIA—								
Aerated waters.....	23	4	60	4	91	42,119	56,597	98,716
Cement products.....	7	.....	45	.....	52	10,692	49,623	60,315
Coke and gas.....	31	10	434	.....	525	171,667	594,083	735,750
Glass.....	6	2	23	1	32	11,270	24,862	36,132
Lime.....	14	6	175	.....	195	36,076	293,404	329,480
Petroleum products.....	57	4	305	.....	366	161,108	513,582	674,690
Products from domestic clay.....	23	2	366	.....	391	51,588	380,202	431,790
Stone dressing.....	5	.....	57	.....	62	15,413	192,202	207,615
Miscellaneous.....	8	3	20	53	84	21,262	102,325	123,587
Total*.....	233	34	1,684	58	2,009	561,619	2,254,620	2,820,239
Canada, 1929—								
Abrasive products.....	74	27	721	6	828	239,725	1,631,173	1,870,898
Aerated waters.....	442	95	1,533	104	2,174	865,001	1,638,455	2,503,456
Asbestos products.....	14	17	264	22	351	132,287	227,146	359,433
Cement.....	111	10	2,422	.....	2,548	260,579	3,264,016	3,523,595
Cement products.....	176	18	1,150	3	1,347	335,906	1,272,332	1,608,238
Coke and gas.....	652	237	3,009	4	3,902	1,469,347	4,469,467	5,938,814
Glass.....	230	91	3,182	385	3,948	782,026	3,958,650	4,740,676
Lime.....	91	18	1,273	.....	1,382	158,604	1,234,488	1,393,092
Petroleum products.....	445	65	4,444	24	4,978	1,253,174	6,900,451	8,153,625
Products from domestic clay.....	365	59	5,115	.....	5,530	941,445	4,777,569	5,719,014
Products from imported clay.....	67	24	698	83	872	250,835	862,846	1,112,881
Salt.....	41	12	329	42	424	102,562	413,951	516,513
Sand-lime brick.....	23	2	278	1	304	61,691	279,314	341,005
Stone dressing.....	269	54	1,534	6	1,863	596,175	2,451,609	3,048,084
Miscellaneous.....	115	43	574	250	982	389,262	835,220	1,224,582
Total.....	3,212	763	26,526	839	31,431	7,838,859	33,664,887	41,503,846

* 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 Table 5.

Table 9.—Wage-Earners Employed in the Manufactures of the Non-Metallic Minerals in Canada, by Months and by Provinces, 1928

Month	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Canada
January.....	3	849	121	5,713	9,959	489	329	886	1,286	19,635
February.....	8	857	110	5,988	10,048	484	333	882	1,275	19,985
March.....	8	863	161	6,120	10,553	513	413	978	1,328	20,937
April.....	14	950	210	6,586	11,142	632	523	1,036	1,352	22,445
May.....	16	1,053	272	7,432	11,966	952	640	1,267	1,466	25,064
June.....	18	1,089	280	7,347	12,461	1,021	673	1,334	1,540	25,793
July.....	18	1,162	288	7,320	12,773	990	690	1,436	1,660	26,496
August.....	18	1,147	287	7,435	12,661	1,028	707	1,539	1,664	26,516
September.....	17	1,091	277	7,222	12,489	887	655	1,439	1,617	25,694
October.....	16	1,068	258	7,161	12,420	721	618	1,331	1,598	25,131
November.....	13	1,069	254	6,952	12,157	658	558	1,290	1,594	24,545
December.....	13	1,041	176	6,402	11,444	581	402	1,099	1,530	22,688
Average* 1928	15	1,049	256	7,094	12,227	906	596	1,305	1,553	25,090
Average* 1927	11	883	255	6,556	11,566	724	581	992	1,407	22,975

*Note on the Method of Computing the Average Number of Wage-earners for Each Industry.—A company works only 3 months in the year: the average number of wage-earners for this company is obtained by adding the monthly figures and dividing by 3. A second company operates every month in the year: the average number of wage-earners for this company is obtained by adding the monthly figures and dividing by 12. The average number of wage-earners for each other company in the industry is computed in the same way. The average number of wage-earners in the industry during the year is the sum of these individual averages and not the total number of wage-earners divided by 12.

Table 10.—Wage-Earners Employed in the Manufactures of the Non-Metallic Minerals in Canada, by Months and by Provinces, 1929

Month	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Canada
January.....	9	977	175	6,055	11,217	484	411	1,015	1,541	21,884
February.....	6	906	191	5,917	11,275	479	418	982	1,519	21,696
March.....	10	973	209	6,126	11,871	511	497	1,042	1,663	22,902
April.....	16	1,090	259	6,966	12,752	670	659	1,289	1,703	25,404
May.....	17	1,157	318	7,565	13,668	857	699	1,480	1,835	27,596
June.....	19	1,183	353	8,063	14,168	1,180	736	1,591	1,860	29,153
July.....	19	1,193	361	8,159	14,364	1,241	831	1,612	1,880	29,660
August.....	19	1,178	355	8,090	14,260	1,239	810	1,543	1,809	29,303
September.....	18	1,212	356	7,667	14,278	1,120	771	1,339	1,768	28,529
October.....	17	1,215	344	7,446	13,609	922	717	1,294	1,694	27,258
November.....	14	1,196	320	7,335	13,049	863	642	1,260	1,613	26,292
December.....	15	1,178	265	6,802	12,462	777	532	1,255	1,481	24,767
Average for 1929	15	1,153	318	7,445	13,727	967	669	1,400	1,742	27,456

*See footnote to Table 9.

Table 11.—Wage-Earners Employed in the Manufactures of the Non-Metallic Minerals in Canada, by Months and by Industries, 1928

Month	Abrasive products	Aerated waters	Asbestos and allied products	Cement	Cement products	Coke and gas	Glass products	Lime
January	552	1,110	241	1,867	609	2,889	2,754	913
February	568	1,141	258	1,941	615	2,789	2,858	898
March	579	1,153	255	2,030	711	2,800	2,764	909
April	571	1,324	281	2,156	856	2,929	2,758	997
May	576	1,504	294	2,412	1,061	3,256	2,908	1,121
June	573	1,628	300	2,468	1,217	3,095	2,934	1,174
July	580	1,797	304	2,433	1,252	3,247	2,889	1,180
August	581	1,747	296	2,423	1,269	3,107	2,966	1,197
September	586	1,580	279	2,383	1,181	3,049	2,965	1,168
October	611	1,359	272	2,311	1,210	3,106	3,103	1,227
November	626	1,259	258	2,356	1,076	3,133	3,174	1,201
December	636	1,254	243	2,263	963	2,949	3,132	1,017
Average*, 1928	599	1,450	279	2,285	1,104	3,031	2,932	1,118
Average*, 1927	539	1,308	245	2,245	744	3,107	2,830	1,035

Month	Petroleum products	Products from domestic clay	Products from imported clay	Salt	Sand-lime brick	Stone dressing	Miscellaneous	Total
January	3,438	2,421	526	346	163	877	929	19,635
February	3,650	2,370	524	373	145	905	950	19,885
March	3,755	2,912	529	380	168	1,031	961	20,937
April	3,833	3,503	550	403	211	1,187	880	22,445
May	3,764	4,665	597	435	272	1,343	856	25,064
June	3,765	4,980	594	414	311	1,485	855	25,793
July	3,882	5,129	636	415	320	1,574	798	26,408
August	4,023	5,136	635	411	306	1,689	730	26,516
September	4,135	4,700	665	387	258	1,669	689	25,694
October	4,066	4,362	664	379	249	1,629	673	25,131
November	4,022	4,004	651	390	222	1,522	647	24,545
December	3,786	3,348	640	367	167	1,274	649	22,689
Average*, 1928	3,845	4,826	616	394	258	1,394	869	25,000
Average*, 1927	3,337	4,416	564	322	230	1,267	886	22,975

*See footnote to Table 9.

Table 12.—Wage-Earners Employed in the Manufactures of the Non-Metallic Minerals in Canada, by Months and by Industries, 1929

Month	Abrasive products	Aerated waters	Asbestos products	Cement	Cement products	Domestic Clay products	Coke and gas	Glass products	Imported clay products
January	657	1,261	267	2,190	778	2,838	2,795	3,338	713
February	683	1,301	282	2,087	729	2,445	2,835	3,394	737
March	707	1,356	254	2,220	722	2,940	2,894	3,470	745
April	707	1,517	281	2,239	865	4,033	2,942	3,568	760
May	726	1,717	287	2,432	1,105	5,113	3,053	3,552	779
June	738	1,904	295	2,555	1,231	5,576	3,246	3,604	778
July	733	2,043	290	2,619	1,359	5,665	3,242	3,650	806
August	729	1,957	270	2,613	1,340	5,644	3,065	3,674	817
September	759	1,799	271	2,447	1,310	5,200	3,046	3,665	810
October	777	1,387	302	2,435	1,277	4,697	3,051	3,377	811
November	774	1,307	279	2,428	1,110	4,307	2,983	3,436	798
December	738	1,279	268	2,250	947	3,598	2,971	3,381	786
Average for 1929	727	1,637	286	2,422	1,153	5,113	3,013	3,567	781

*See footnote to Table 9.

Table 12.—Wage-Earners Employed in the Manufactures of the Non-Metallic Minerals in Canada, by Months and by Industries, 1929—Concluded

Month	Lime	Petroleum products	Salt	Sand-lime brick	Stone dressing	Miscellaneous	Total
January.....	1,186	3,618	302	133	1,141	667	21,884
February.....	1,145	3,644	352	116	1,213	733	21,696
March.....	1,072	3,907	381	123	1,320	791	22,902
April.....	1,174	4,418	404	215	1,511	770	25,404
May.....	1,288	4,515	401	310	1,565	753	27,596
June.....	1,341	4,813	366	321	1,601	764	29,153
July.....	1,329	4,824	382	313	1,616	769	29,669
August.....	1,253	4,804	382	309	1,599	847	29,303
September.....	1,271	4,867	380	299	1,605	794	28,529
October.....	1,288	4,720	396	266	1,651	823	27,254
November.....	1,167	4,740	347	224	1,570	822	26,292
December.....	1,049	4,717	353	195	1,453	802	24,767
*Average for 1929.....	1,273	4,468	371	279	1,540	824	27,456

*See footnote to Table 9.

Table 13.—Total of Wage-Earners in Months of Highest Employment by Hours usually Worked per Day or Shift and by Industries, 1929

Industries	No. of wage-earners in months of highest employment working per day of				
	8 hours or less	9 hours	10 hours	Over 10 hours	Total
Aerated waters.....	554	578	732	239	2,103
Abrasive products.....	154	599	29	23	805
Asbestos products.....	29	46	260	.....	335
Cement.....	943	551	845	482	2,821
Cement products.....	229	598	904	112	1,843
Coke and gas.....	1,315	1,257	159	642	3,373
Glass.....	1,785	884	729	744	4,142
Lime.....	310	295	780	226	1,611
Petroleum products.....	4,840	479	39	14	5,372
Products from domestic clay.....	829	1,986	3,010	435	6,260
Products from imported clay.....	32	533	279	12	856
Salt.....	43	179	158	20	400
Sand-lime brick.....	15	50	324	8	397
Stone dressing.....	1,044	324	236	260	1,864
Miscellaneous.....	250	201	441	85	977
Total.....	12,372	8,560	8,925	3,302	33,159

Table 14.—Average Wage-Earners Subdivided according to Hours usually Worked per Day or Shift, by Industries, 1929

Industries	No. of wage-earners usually working per day of				
	8 hours or less	9 hours	10 hours	Over 10 hours	Total
Aerated waters.....	504	421	712	.....	1,637
Abrasive products.....	230	479	.....	18	727
Asbestos products.....	20	38	228	.....	286
Cement.....	322	1,451	368	281	2,422
Cement products.....	108	416	629	.....	1,153
Coke and gas.....	1,060	1,236	183	534	3,013
Glass.....	1,750	1,100	717	.....	3,567
Lime.....	321	125	701	126	1,273
Petroleum products.....	4,028	284	156	.....	4,468
Products from domestic clay.....	606	1,846	2,619	44	5,115
Products from imported clay.....	1	529	251	.....	781
Salt.....	18	194	114	45	371
Sand-lime brick.....	.....	44	235	.....	279
Stone dressing.....	618	573	318	31	1,540
Miscellaneous.....	394	104	247	79	824
Total.....	9,990	8,840	7,478	1,158	27,456

Table 15.—Average Hours Worked by Wage-Earners per Day and per Week, by Industries, 1929

Industries	Average number of wage-earners	Total* man-hours worked by wage-earners per day or shift	Average hours worked by wage-earners per day or shift	Total* man-hours worked by wage-earners per week	Average hours worked by wage-earners per week
Aerated waters.....	1,637	14,957	9.14	87,302	53.33
Abrasive products.....	727	6,360	8.74	38,620	53.05
Asbestos products.....	286	2,782	9.73	16,171	56.54
Cement.....	2,422	22,629	9.30	148,071	61.13
Cement products.....	1,153	10,898	9.45	63,173	54.79
Coke and gas.....	3,013	27,794	9.22	169,497	56.25
Glass.....	3,567	31,064	8.71	183,664	51.50
Lime.....	1,273	12,215	9.60	75,341	59.11
Petroleum products.....	4,468	36,322	8.13	218,251	48.85
Products from domestic clay.....	5,115	48,180	9.42	282,655	55.26
Products from imported clay.....	781	7,279	9.32	40,227	51.51
Salt.....	371	3,570	9.62	20,766	55.97
Sand-lime brick.....	279	2,746	9.84	15,508	53.58
Stone dressing.....	1,540	13,614	8.84	76,566	49.71
Miscellaneous.....	824	7,321	8.88	44,069	53.48
Total.....	27,456	247,631	9.02	1,479,881	53.99

*The total man-hours for each industry was obtained as follows:—For each plant the average number of wage-earners was multiplied by the number of hours usually worked per day or shift by the wage-earners in that plant, this gave the approximate total man-hours worked per day or shift in that plant, and the sum of all such plant totals was taken as the grand total for the industry.

Table 16.—Fuel and Electricity Used in the Manufactures of the Non-Metallic Minerals

Industries	Bituminous coal		Anthracite	Lignite coal		Coke	
	Canadian	Imported		Canadian	Imported		
	Tons	Tons	Tons	Tons	Tons	Tons	
Abrasive products—							
Quantity	113	3,725	300			24	
\$	758	24,494	3,712			231	
Aerated waters—							
Quantity	1,468	3,318	893	126		134	
\$	15,320	31,182	12,635	848		1,790	
Asbestos and allied products—							
Quantity	401	3,574	118				
\$	3,027	22,004	1,036				
Cement—							
Quantity	276,721	282,914		20,358		84	
\$	1,473,885	1,551,324		61,126		781	
Cement products—							
Quantity	583	4,822	252	4	9	114	
\$	3,936	31,165	2,278	30	150	1,190	
Coke and gas—							
Quantity	16,967	37,469		5		56,264	
\$	105,221	228,653		73		331,201	
Glass—							
Quantity	17,313	52,203	1,511	20	40	55	
\$	109,257	352,455	8,639	224	368	665	
Lime—							
Quantity	18,409	57,762	1,642	90		10,940	
\$	125,620	285,337	7,383	450		73,143	
Petroleum products—							
Quantity	5,607	112,066	14			24,550	
\$	19,464	539,690	197			111,370	
Products from domestic clay—							
Quantity	30,870	205,688	4,676	27,058		4,745	
\$	211,385	1,284,679	33,557	56,785		33,553	
Products from imported clay—							
Quantity	2,750	19,882	17			304	
\$	18,233	148,187	249			2,526	
Salt—							
Quantity	2,576	47,481					
\$	11,310	213,416					
Sand-lime brick—							
Quantity	2,300	6,464	1,356	674			
\$	16,236	43,577	7,981	3,026			
Stone dressing—							
Quantity	433	563	199	7	6	265	
\$	1,831	5,653	2,733	77	75	2,955	
Miscellaneous—							
Quantity	11	16,273	51			1,474	
\$	153	113,700	628			12,863	
Canada, 1926—	Quantity	376,522	855,104	11,029	48,342	55	98,953
	\$	2,115,636	4,875,516	81,028	122,639	593	572,268
Canada, 1927—	Quantity	365,652	882,736	9,249	31,064	24	73,082
	\$	2,153,818	4,775,188	69,313	88,741	288	485,998

in Canada, by Kinds and by Industries, 1928, with Comparative Totals for 1927

Gasoline	Kerosene	Fuel oil	Wood	Gas		Other fuel	Electricity	Total
				Manufactured	Natural			
Imp. gals.	Imp. gals.	Imp. gals.	Cords	M cu. ft.	M cu. ft.		K.W.H.	\$
	3			223	324		259,201,114	
	1			194	262		614,905	644,557
11,981	704	14,816	1,212	2,281	5,002		2,115,330	
3,965	175	2,188	6,477	2,349	2,782	1,113	52,577	133,401
66		185,100		600			1,676,260	
23		16,916		576			28,839	73,421
7,486	803						179,771,381	
1,695	168						783,129	3,872,108
12,475	1,272	82	122	40	420		1,339,721	
4,545	240	30	799	9	286	175	28,992	73,525
		237,063		5,319,390			28,564,710	
		21,117		1,221,630		4,171	161,670	2,673,736
	360	1,770,919	12	29,431	339,091		16,500,298	
	60	153,152	86	25,327	278,294	240	132,574	1,061,311
1,465	245	385,525	71,561	217,108	13,000		4,864,482	
338	61	15,746	324,943	17,369	6,500		55,505	912,39
		53,188,828	10	2,429,701	1,099,106		20,470,188	
		1,843,517	76	550,438	99,350	55,537	228,143	3,447,782
34,174	2,345	339,815	55,337	629	727,218		15,640,454	
7,981	512	33,300	306,344	50	36,907		289,297	2,291,359
	1,805	2,473	233		22,333		979,546	
	181	277	1,462		10,349		14,252	195,716
		27,272	2				1,845,790	
		3,548	8			6,472	17,714	252,468
	550		20				1,100,593	
	122		124				21,683	92,749
7,283	827	5,044	332	7	1,314		4,331,311	
2,221	245	620	2,261	7	1,125	192	85,838	105,833
		174,429	580	158	2,082		82,295,632	
		11,502	3,351	162	1,362		172,166	215,897
71,330	8,911	56,337,365	129,491	7,999,563	2,209,890		629,696,810	
29,768	1,765	2,161,913	645,931	1,818,111	437,217	67,900	2,687,281	15,548,569
84,329	7,672	49,517,804	124,943	5,158,764	2,662,846		548,720,489	
21,933	1,799	2,373,396	596,349	1,886,684	452,740	594,000	2,547,444	15,243,931

Table 17.—Fuel and Electricity Used in the Manufactures of the Non-

Industries	Bituminous coal		Anthracite coal	Lignite coal		Coke
	Canadian	Imported		Canadian	Imported	
	Tons	Tons	Tons	Tons	Tons	Tons
Abrasive products—	Quantity	5	4,296	392		123
	\$	50	26,923	4,178		719
Aerated waters—	Quantity	2,058	3,023	947	234	187
	\$	18,379	24,776	13,856	1,726	2,356
Asbestos products—	Quantity	4,860	636	207		
	\$	28,630	4,123	1,324		
Cement—	Quantity	308,090	298,969		11,826	130
	\$	1,597,808	1,750,170		43,726	1,362
Cement products—	Quantity	802	5,112	330		94
	\$	6,154	33,359	4,764		973
Products from domestic Clay—	Quantity	30,425	266,046	3,550	28,309	4,279
	\$	210,132	1,725,021	28,074	61,970	31,193
Coke and gas—	Quantity	9,923	34,573			93,036
	\$	43,827	207,143			512,908
Glaze—	Quantity	10,766	76,606	1,851	85	180
	\$	68,369	491,920	7,478	759	1,740
Products from imported clay—	Quantity	2,700	25,476	24		447
	\$	17,956	171,773	355		3,895
Lime—	Quantity	39,948	90,014	1,225		11,760
	\$	254,344	421,068	5,156		79,607
Petroleum products—	Quantity	3,218	80,633	21		24,069
	\$	13,945	357,798	328		119,539
Salt—	Quantity	2,095	49,713			
	\$	9,641	216,911			
Sand-lime brick—	Quantity	1,308	6,679			
	\$	5,531	40,513			
Stone dressing—	Quantity	132	447	387	56	525
	\$	1,425	3,635	5,692	529	6,125
Miscellaneous—	Quantity	1	14,977	62		1,623
	\$	6	100,255	820		13,603
Canada 1929—	Quantity	416,131	957,206	8,996	46,510	137,353
	\$	2,276,196	5,576,288	72,025	108,710	774,029

Metallic Minerals in Canada, by Kinds and by Industries, 1929

Gasoline	Kerosene	Fuel oil	Wood	Gas		Other fuel	Electricity	Total
				Manufactured	Natural			
Imp gals.	Imp. Gals.	Imp. Gals.	Cords	M cu. ft.	M cu. ft.		K.W.H.	\$
	175			341	693		322,238,707	
	26			266	401		840,505	873,068
9,436	1,719	7,354	982	1,925	12,052		2,988,633	
3,338	516	2,695	5,167	2,328	4,378	798	56,897	137,210
3,480		225,326	7	677			1,548,853	
748		19,314	56	426			26,281	80,902
18,086	2,798	27,471					200,133,083	
4,501	612	3,571					945,469	1,347,219
10,102	1,237		133		258		1,594,761	
2,618	278		978		171	615	34,223	84,130
57,352	2,109	222,950	65,711		915,979		30,008,402	
13,360	639	24,793	339,282		36,853		449,067	2,920,384
2,789				6,635,272			40,191,480	
683				1,587,172		27,820	249,185	2,628,714
		2,046,537	8	165,706	721,820		20,747,673	
		171,061	37	83,011	322,325	9,433	167,017	1,323,150
20		1,707	82		15,728		1,252,285	
6		189	783		7,655	182	18,117	220,910
3,706	310	343,245	73,104	268,588	17,549		9,443,592	
967	76	11,330	310,792	21,487	8,537		69,049	1,183,313
		61,756,806	11	3,140,336	1,266,972		27,709,769	
		2,085,556	82	708,936	119,591	98,427	250,453	3,754,655
		98,427					1,323,087	
		4,678				5,898	12,536	249,664
			8				1,228,821	
			56				21,939	68,039
7,130	668	2,559	276		1,253		6,573,963	
2,141	201	257	1,759		1,010	69	115,665	138,508
774	40	183,597	603	747	448		47,133,177	
332	8	8,832	3,610	721	359		134,142	262,694
113,472	9,056	64,913,979	148,925	10,213,592	2,952,732		714,116,286	
28,691	2,356	2,332,376	662,698	2,404,347	501,386	143,248	3,390,313	18,272,560

Table 18.—Fuel and Electricity Used in the Manufactures of the Non-Metallic Minerals

Provinces	Bituminous coal		Anthracite coal	Lignite coal		Coke
	Canadian	Imported		Canadian	Imported	
	Tons	Tons	Tons	Tons	Tons	Tons
Prince Edward Island.....	Quantity	47				
	\$	531				
Nova Scotia.....	Quantity	14,923	68	53		6,414
	\$	78,993	394	903		42,192
New Brunswick.....	Quantity	2,022		87		1,098
	\$	13,464		897		10,065
Quebec.....	Quantity	259,030	137,367	4,705	36	9
	\$	1,467,114	921,067	36,116	464	150
Ontario.....	Quantity	10,759	685,255	5,290	17	46
	\$	67,460	3,703,278	36,532	227	443
Manitoba.....	Quantity	933	32,334	318		684
	\$	9,306	249,564	3,125	3,157	31,477
Saskatchewan.....	Quantity	3,853	21	46	17,841	
	\$	34,663	219	485	30,468	25,758
Alberta.....	Quantity	39,982		43	29,763	
	\$	222,982		526	88,290	2
British Columbia.....	Quantity	44,993	50	478		
	\$	221,143	994	2,444	24	
Canada, 1928.....	Quantity	376,322	855,104	11,029	48,342	55
	\$	2,115,636	4,875,516	81,028	122,639	593
Canada, 1927.....	Quantity	365,652	882,736	9,249	31,064	24
	\$	2,153,818	4,775,188	69,313	88,741	288

Table 19.—Fuel and Electricity Used in the Manufactures of the Non-

Provinces	Bituminous coal		Anthracite coal	Lignite coal		Coke
	Canadian	Imported		Canadian	Imported	
	Tons	Tons	Tons	Tons	Tons	Tons
Prince Edward Island.....	Quantity	41				10
	\$	453				118
Nova Scotia.....	Quantity	16,131	31	46		23,128
	\$	68,590	340	836		122,813
New Brunswick.....	Quantity	3,538	8	2		1,173
	\$	23,033	136	25		10,820
Quebec.....	Quantity	292,469	127,551	6,106		15,750
	\$	1,616,197	872,938	44,723		74,046
Ontario.....	Quantity	1,536	766,306	2,562	95	70,970
	\$	10,584	4,184,182	23,581	909	429,907
Manitoba.....	Quantity	1,542	63,198	174		6,246
	\$	14,000	517,510	1,785	1,117	34,275
Saskatchewan.....	Quantity	4,332	33	102	18,344	11,875
	\$	39,352	360	1,029	32,003	64,869
Alberta.....	Quantity	37,433	40		21,930	2,620
	\$	215,174	282		74,645	7,188
British Columbia.....	Quantity	59,009	33	4	3	5,581
	\$	288,813	540	46	36	29,984
Canada, 1929.....	Quantity	416,131	857,206	8,996	46,516	137,353
	\$	2,276,196	5,576,288	72,025	168,710	774,020

in Canada, by Kinds and by Provinces, 1928, with Comparative Totals for 1927

Gasoline	Kerosene	Fuel oil	Wood	Gas		Other fuel	Electricity	Total
				Manu- factured	Natural			
Imp. gals.	Imp. gals.	Imp. gals.	Cords	M cu. ft.	M cu. ft.		K.W.H.	\$
1,500	363						4,000	
450	127						200	1,395
2,451	453	11,987,192	5,182	1,858,727			654,503	
762	104	332,109	21,810	178,299		15	13,375	668,963
1,935	700	4,846	9,211	490	1,000		161,763	
561	144	598	40,408	222	911		4,681	71,951
11,899	2,383	15,655,593	25,877	683,527			275,541,491	
3,335	325	723,926	139,742	176,267			1,121,425	4,610,191
50,555	4,440	16,273,427	46,685	4,417,855	400,692		310,075,279	
13,620	958	618,411	243,585	1,220,758	316,822	62,838	1,274,716	7,942,665
1,450		130,543	22,731	20			9,898,310	
471		11,431	139,082	24			70,813	519,110
3,605		3,244,293	45	478,476			2,245,170	
1,063		152,800	293	154,197		3,602	36,987	420,505
750	190	1,955,367	2,327	302,680	1,802,198		16,109,166	
232	51	62,358	10,636	48,722	119,484		104,426	659,322
779	385	7,086,105	17,343	257,793			6,007,128	
207	56	220,220	50,975	33,662		485	60,661	654,254
74,930	8,914	56,337,366	129,401	7,999,568	2,209,890		620,696,810	
20,788	1,765	2,101,913	645,931	1,818,111	437,217	67,940	2,687,284	15,548,569
84,320	7,672	49,517,804	124,943	5,158,764	2,062,846		548,720,489	
24,993	1,799	2,375,396	596,519	1,086,694	452,740	584,990	2,517,444	15,243,931

Metallic Minerals in Canada, by Kinds and by Provinces, 1929

Gasoline	Kerosene	Fuel oil	Wood	Gas		Other fuel	Electricity	Total
				Manu- factured	Natural			
Imp. gals.	Imp. gals.	Imp. gals.	Cords	M cu. ft.	M cu. ft.		K.W.H.	\$
1,410							1,070	
424							167	1,162
2,466	207	12,931,430	5,186	1,697,355			765,142	
747	72	314,168	21,897	164,459		6,858	15,750	716,530
3,288	620	18,823	14,884	134	1,131		375,060	
1,208	175	2,183	57,059	284	951	25	8,597	104,496
26,501	2,786	17,298,142	22,093	978,903			259,899,318	
6,491	759	806,175	119,986	217,016		4,909	1,155,699	4,918,939
68,313	2,429	19,679,592	46,282	6,151,109	775,953		397,183,477	
16,149	505	710,496	243,433	1,678,528	349,686	107,248	1,711,710	9,466,825
740		115,542	23,717	117,714			19,705,067	
187		11,013	126,667	58,867		985	150,959	917,365
4,557	2,050	4,214,879	483	573,094			2,828,337	
1,325	619	156,358	1,909	176,971		6,021	47,708	529,524
4,008	398	2,137,854	2,300	287,930	2,175,668		20,654,552	
1,392	117	77,258	9,771	51,355	150,643		130,117	717,942
2,209	566	8,519,717	25,960	407,353			12,704,263	
768	109	254,715	81,886	56,867		17,202	169,808	800,774
113,472	9,856	64,915,379	140,925	10,213,592	2,952,752		714,116,286	
28,691	2,356	2,332,276	662,608	2,464,347	561,280	143,248	3,390,515	18,272,560

Table 20.—Power Employed in the Manufactures of the Non-Metallic Minerals in Canada, by Classes and by Industries, 1928, with Comparative Totals for 1927

Industries	Steam engines and turbines	Gasoline, gas and oil engines	Hydraulic turbines or water wheels	Total primary power	Electric motors run by purchased power	Total power employed	Electric motors run by primary power in same plant	Total electric motors	Boilers
Abrasive products.....No.					301	301		301	6
H.P.					3,894	3,894		3,894	555
Aerated waters.....No.	10	19	1	30	736	766		796	43
H.P.	168	44	3	216	2,055	2,270		2,055	1,213
Asbestos and allied products.....No.					109	109		109	7
H.P.					2,059	2,059		2,059	716
Cement.....No.	3	9	10	22	1,125	1,147	157	1,282	15
H.P.	2,151	290	4,400	6,841	66,768	73,609	8,640	75,408	3,427
Cement products.....No.	6	62		68	155	226		158	15
H.P.	84	312		396	1,862	2,258		1,862	376
Coke and gas.....No.	186	3	1	190	640	830	153	793	
H.P.	6,060	116	3	6,186	14,772	20,557	4,060	19,432	17,095
Glass.....No.	2	2		4	515	519		515	24
H.P.	130	300		430	7,060	7,490		7,060	1,259
Lime.....No.	9	5	1	15	181	196	28	209	33
H.P.	448	92	20	566	3,866	4,426	615	4,481	1,815
Petroleum products.....No.	327	9		336	453	789	54	507	96
H.P.	12,180	1,038		13,218	9,633	22,851	1,683	11,316	21,367
Products from domestic clay.....No.	91	38		129	416	545	10	498	107
H.P.	7,719	1,150		8,869	16,331	25,100	234	16,765	9,176
Products from imported clay.....No.	1			1	94	95	12	106	12
H.P.	35			35	731	766	127	868	756
Salt.....No.	25	3		28	73	161	3	76	31
H.P.	642	350		992	928	1,920	46	973	6,480
Sand-lime brick.....No.	2	1		3	50	53		50	8
H.P.	225	7		232	1,242	1,474		1,242	970
Stone dressing.....No.	3	14		17	427	444		427	6
H.P.	55	137		192	5,865	6,657		5,865	100
Miscellaneous.....No.	3			3	373	376	14	387	8
H.P.	150			150	6,143	6,293	210	6,353	1,986
Canada, 1928.....No.	668	165	13	846	5,651	6,497	431	6,682	622
H.P.	30,652	3,836	4,426	38,315	143,409	181,724	16,215	153,674	67,291
Canada, 1927.....No.	624	163	8	795	4,822	5,617	414	5,236	550
H.P.	27,343	3,515	47	31,665	129,131	160,196	11,039	140,170	59,622

Table 21.—Power Employed in the Manufactures of the Non-Metallic Minerals in Canada, by Classes and by Industries, 1929

Industries	Steam engines and turbines	Gasoline, gas and oil engines	Hydraulic turbines or water wheels	Total primary power	Electric motors run by purchased power	Total power employed	Electric motors run by primary power in same plant	Total electric motors	Boilers
Abrasive products.....No.					346	346		346	6
H.P.					4,197	4,197		4,197	600
Aerated waters.....No.	8	13	1	22	792	814		792	42
H.P.	170	36	2	208	2,182	2,390		2,182	1,194
Asbestos products.....No.					112	112		112	7
H.P.					1,969	1,969		1,969	716
Cement.....No.	2	8	9	19	1,194	1,213	70	1,284	19
H.P.	2,000	278	4,000	6,278	72,454	78,732	2,800	75,254	3,847
Cement products.....No.	10	58		68	200	268		200	15
H.P.	154	278		432	2,383	2,815		2,383	691
Coke and gas.....No.	203	6	1	210	704	914	191	896	202
H.P.	6,413	258	3	6,674	17,982	21,656	6,447	24,489	18,066
Glass.....No.	2	2		4	623	675		623	20
H.P.	120			120	7,205	7,325		7,205	1,495
Lime.....No.	12	6	1	19	237	256	31	268	10
H.P.	570	130	20	720	11,477	12,197	575	12,052	898
Petroleum products.....No.	351	7		358	533	891	54	587	102
H.P.	13,180	1,031		14,211	12,380	26,591	1,683	14,063	23,088
Products from imported clay.....No.	2	1		3	101	104	12	113	14
H.P.	85	4		89	771	869	127	898	940
Products from domestic clay.....No.	88	42		130	569	699	21	690	101
H.P.	7,424	1,110		8,534	19,823	28,357	497	20,320	8,925
Salt.....No.	8	2		10	32	42	103	135	13
H.P.	185	330		515	422	937	1,151	1,673	3,260
Sand-lime brick.....No.	3			3	51	54		51	10
H.P.	285			285	1,255	1,540		1,255	1,165
Stone dressing.....No.		12		12	551	563		551	2
H.P.		138		138	8,745	8,883		8,745	35
Miscellaneous.....No.	6	1		7	529	536	21	550	11
H.P.	150	25		175	9,180	9,355	243	9,423	2,411
Canada 1929.....No.	695	156	12	863	6,574	7,437	563	7,077	574
H.P.	30,736	3,618	4,025	38,379	172,425	210,804	13,523	185,948	67,671

Table 22.—Power Employed in the Manufactures of the Non-Metallic Minerals in Canada, by Classes and by Provinces, 1928, with Comparative Totals for 1927

Provinces	Steam engines and turbines	Gasoline, gas and oil engines	Hydraulic turbines or water wheels	Total primary power	Electric motors run by purchased power	Total power employed	Electric motors run by primary power in same plant	Total electric motors	Boilers
Prince Edward Island	No 2 H.P. 11			2 11	4 8	6 19		4 8	
Nova Scotia	No 59 H.P. 4,229	14 1,308		73 5,627	69 497	142 6,124	218 6,701	287 7,198	32 7,776
New Brunswick	No 6 H.P. 247	7 79		13 326	51 311	64 637	1 30	62 341	9 298
Quebec	No 237 H.P. 8,932	29 145		266 9,077	1,792 56,357	2,058 65,434		1,792 59,367	92 12,358
Ontario	No 229 H.P. 8,994	93 1,354	12 4,423	334 14,771	2,734 59,194	3,068 73,965	144 7,185	2,878 69,379	398 32,366
Manitoba	No 16 H.P. 266	1 1		17 267	221 6,961	238 7,228		221 6,961	12 1,615
Saskatchewan	No 16 H.P. 1,479	3 176		19 1,655	115 1,445	134 3,100	2 14	117 1,460	22 2,966
Alberta	No 51 H.P. 4,293	10 493		61 4,786	338 9,631	399 14,411	61 2,005	399 11,639	26 6,104
British Columbia	No 54 H.P. 1,613	6 179	1 3	61 1,795	327 9,005	388 10,800	5 280	383 9,285	31 1,808
Canada, 1928	No 648 H.P. 39,653	165 3,836	13 4,426	846 38,315	5,651 143,499	6,497 181,724	431 16,215	6,062 159,621	622 67,291
Canada, 1927	No 624 H.P. 27,563	163 3,515	8 47	795 31,065	4,822 129,131	5,627 169,196	414 11,639	5,236 149,170	559 59,622

Table 23.—Power Employed in the Manufactures of the Non-Metallic Minerals in Canada, by Classes and by Provinces, 1929

Provinces	Steam engines and turbines	Gasoline, gas and oil engines	Hydraulic turbines or water wheels	Total primary power	Electric motors run by purchased power	Total power employed	Electric motors run by primary power in same plant	Total electric power	Boilers
Prince Edward Island	No 3 H.P. 14			3 14	4 8	7 22		4 8	
Nova Scotia	No 59 H.P. 3,763	16 1,409		75 5,172	75 517	150 5,689	218 6,701	293 7,218	32 7,871
New Brunswick	No 4 H.P. 217	9 96		13 313	64 475	77 788	9 207	73 682	7 533
Quebec	No 278 H.P. 9,824	11 86		289 9,910	2,084 68,653	2,373 78,563		2,084 68,653	81 12,875
Ontario	No 238 H.P. 9,318	92 1,237	10 4,020	340 14,676	3,163 72,733	3,503 87,306	203 4,312	3,306 77,045	362 31,031
Manitoba	No 19 H.P. 504	1 1		20 505	255 7,388	275 7,893		255 7,388	13 1,748
Saskatchewan	No 17 H.P. 1,501	3 218		20 1,719	144 1,533	164 3,272		144 1,567	20 2,931
Alberta	No 35 H.P. 4,284	6 177		41 4,461	302 10,020	403 14,481	14 2,014	424 12,053	29 6,460
British Columbia	No 45 H.P. 1,325	15 380	2 5	62 1,710	423 11,078	485 12,788	0 275	485 11,353	30 4,222
Canada	No 695 H.P. 39,736	156 3,618	12 4,025	863 38,379	6,574 172,425	7,437 216,864	503 13,523	7,077 185,948	574 67,671

Table 24.—Alphabetical List of Materials Used in all Industries Classified under the Manufactures of the Non-Metallic Minerals in Canada, 1928

Material	Industry number (See key on page 44)	Unit of measure	Quantity	Cost at works \$
Abrasive grains, artificial (fused alumina, silicon carbide, etc.)	2	lb.	5,079,000	149,967
Abrasive grains, natural (corundum, silica, flint, garnet, etc.)	2	lb.	451,000	15,011
Acid, sulphuric, 66° Bé	6-11	lb.	93,194,790	733,972
Adhesives, not elsewhere specified	3	lb.	.....	32,868
Asbestos cloth	3	lb.	13,254	5,221
Asbestos, crude	3-17	lb.	12,294,147	170,275
Asbestos paper, corrugated and plain	3	lb.	8,814,782	229,868
Asbestos yarn	3	lb.	187,053	72,430
Asphalt	3	lb.	6,120,185	91,673
Bauxite and alumina	2	ton	43,046	896,280
Bonding and bushing material	2	.....	.....	33,506
Calcium carbide	6	lb.	148,410	6,272
Carbon dioxide gas (in cylinders)	1	lb.	1,718,847	177,777
Carbons, raw and scrap	18	ton	1,771	84,899
Cement, Portland	3-5-15-20	brl.	345,203	696,473
Cinders	5-15	.....	.....	34,582
Clay, fire, imported	13	ton	24,333	137,301
Clay, other imported and flint and feldspar	13	ton	11,417	202,119
Clay, domestic	2-17	ton	1,032	19,288
Coal, anthracite, for foundry facings	20	ton	882	4,051
Coal, anthracite, for gas making (not for fuel)	6	ton	1,317	15,362
Coal, anthracite, for manufacture of artificial abrasives	2	ton	5,601	36,279
Coal, bituminous, for foundry facings	20	ton	2,151	15,147
Coal, bituminous, for by-product coke plants (not for fuel)—				
(a) Canadian	6	ton	829,157	2,730,503
(b) Imported	6	ton	1,965,993	9,689,206
Coal, bituminous, in gas plants (not for fuel)—				
(a) Canadian	6	ton	80,382	414,460
(b) Imported	6	ton	323,627	1,984,779
Coke and anthracite coal for making carbon electrodes	18	ton	22,047	339,905
Coke for gas making (not for fuel)	6	ton	111,617	706,032
Coke (not for fuel), for making artificial abrasives	2	ton	21,787	295,57
Compounding materials	11	.....	.....	732,956
Containers, boxes, bags, etc.	1-3-5-7-8-10-13-17-19-20	.....	.....	4,712,180
Cotton cloth and yarn	2	.....	.....	59,930
Electrodes	2	lb.	1,952,974	128,234
Electrodes, scrap	18	ton	4,083	39,888
Extracts and essences for flavouring aerated waters	1	.....	.....	683,578
Felt	3	lb.	85,338	8,089
Fuller's earth	11	ton	5,854	109,221
Glass blanks	7	.....	.....	164,516
Glass, figured and cathedral	7	sq. ft.	518,796	88,731
Glass, plate	7	sq. ft.	4,191,427	1,156,382
Glass, sheet and window	7	sq. ft.	3,534,000	186,305
Glazing material	13	.....	.....	9,472
Glue	17	lb.	265,597	53,119
Graphite	10-20	ton	275	22,435
Gravel	5	cu. yd.	81,189	137,651
Greases, petroleum	10	lb.	74,926	4,369
Grease, soap	10	lb.	40,950	1,095
Gypsum, crude	17	lb.	538,502	2,423
Hair	3-17	lb.	625,924	35,235
Hardware for insulators	13	.....	.....	240,754
Iron for manufacture of ferrosilicon	2	ton	5,505	56,937
Lead	2-7	lb.	266,639	35,126
Lead, red	10	lb.	54,000	4,704
Lime	5-6-15-17	ton	19,364	188,672
Lime dust and wood fibre	17	ton	133	3,108
Litharge	11	lb.	659,882	57,527
Magnesite	3	lb.	587,840	19,489
Manufactured mica plate from U.S.A.	19	lb.	2,715	3,259
Mica, amber, thumb-trimmed	19	lb.	49,747	9,952
Mica, cut and uncut, India and amber	19	lb.	2,422	3,027
Mica, knife trimmed	19	lb.	69,065	15,367
Mica, splittings, India	19	lb.	16,224	3,742
Oil, animal	10	Imp. gal.	22,948	23,732
Oil, black	18	lb.	492,940	12,420
Oil, crude, imported for refining	11	Imp. gal.	829,608,956	50,952,144
Oil, crude, product of Canadian wells, for refining	11	Imp. gal.	20,324,814	2,112,314
Oil, for gas making	6	Imp. gal.	11,898,419	1,008,226
Oil, linseed	10-20	Imp. gal.	27,645	20,324
Oil, lubricating	10	Imp. gal.	19,000	8,275
Oil, mineral	10	Imp. gal.	1,242,336	229,837

Table 24.—Alphabetical List of Materials Used in all Industries Classified under the Manufactures of the Non-Metallic Minerals in Canada, 1928—Concluded

Material	Industry number (See key on page 44)	Unit of measure	Quantity	Cost at works
Oil, paraffin.....	20	Imp. gal.	7,591	\$ 1,940
Oxide or purifying materials.....	6	ton	2,753	21,882
Paper.....	17	lb.	11,464,000	323,138
Paper, kraft.....	2	lb.	89,897	5,753
Pitch.....	18-20	ton	7,494	145,009
Plaster of Paris.....	17	ton	91,747	330,680
Polishing and grinding materials.....	7			55,705
Repair and renewal materials.....	8			140,976
Retarder.....	17	lb.	221,303	6,382
Rubber.....	3	lb.	23,318	7,694
Salt.....	2	lb.	944,860	4,048
Sand.....	5-15-18	ton	306,075	247,984
Sand, silica.....	2-3-8	ton	110,511	550,405
Sawdust and shavings.....	2-17-18	ton	8,188	33,757
Shellac.....	2-19	lb.	3,663	1,022
Silver nitrate.....	7	lb.	2,538	17,651
Soap, chip.....	10	lb.	11,500	2,300
Sodium carbonate (soda ash).....	8-11	lb.	59,693,021	990,599
Sodium hydroxide (caustic soda).....	6-10-11	lb.	4,682,085	172,031
Solder.....	7	lb.	16,882	5,520
Starch.....	17	lb.	1,209,754	56,247
Steel and wire reinforcing.....	5-17			30,226
Stone for cutting and dressing.....	16			2,400,900
Stone, crushed.....	5	cu. yd.	49,306	151,293
Sugar for aerated waters.....	1	lb.	14,457,765	955,785
Sulphur.....	11	lb.	161,044	5,105
Syrups and fruit juices for aerated waters.....	1			1,058,350
Talc.....	17	ton	119	1,779
Tallow, crude.....	10	lb.	98,700	27,468
Tar.....	18	Imp. gal.	134,847	9,742
Water.....	6			14,734
Whiting.....	17	lb.	2,764,628	27,228
Zinc oxide.....	2	lb.	2,500	196
All other materials.....	All industries			2,355,386
Total.....				\$3,683,873

Table 25.—Alphabetical List of Materials Used in all Industries Classified under the Manufactures of the Non-Metallic Minerals, in Canada, 1929

Material	Index number (See list on page 44)	Unit of measure	Quantity	Cost at works \$
Abrasive grains, artificial (fused alumina, silicon carbide, etc.)	2	lb.	8,140,844	190,529
Abrasive grains, natural (corundum, silica, flint, garnet, etc.)	2	lb.	326,152	15,018
Acid, sulphuric, 66° Bé	6-11	lb.	103,925,398	832,315
Adhesives, not elsewhere specified	3			55,011
Asbestos cloth	3	lb.	48,724	22,919
Asbestos, crude	3-19	lb.	16,569,503	241,238
Asbestos paper, corrugated and plain	3	lb.	11,474,070	305,041
Asbestos yarn	3	lb.	394,825	157,804
Asphalt	3-10	lb.	10,038,353	98,779
Bauxite and alumina	2	ton	61,668	1,349,529
Bonding and bushing materials	2			37,730
Calcium carbide	6	lb.	82,740	3,398
Carbon dioxide gas (in cylinders)	1	lb.	3,950,733	390,699
Carbons, raw and scrap	18	ton	2,191	67,165
Cement, Portland	3-5-19	brl.	556,402	759,950
Cinders	5			43,786
Clay	17	ton	12,025	328,667
Clay, fire, imported	13	ton	9,492	63,091
Coal, anthracite, for foundry facings	21	ton	1,105	5,331
Coal, anthracite, for manufacture of artificial abrasives	2	ton	6,310	36,029
Coal, bituminous, for foundry facings	21	ton	3,209	22,576
Coal, bituminous, for coke and gas making (not for fuel)—				
(a) Canadian	6	ton	961,391	3,308,849
(b) Imported	6	ton	2,750,894	12,676,139
Coke for gas making (not for fuel)—				
(a) Purchased	6	ton	7,728	73,080
(b) Companies' own make	6	ton	140,078	1,006,941
Coke, foundry	18	ton	344	2,867
Coke (not for fuel) for making artificial abrasives	2	ton	42,238	362,723
Coke, petroleum	18	ton	15,457	246,706
Compounding materials	10-11			880,200
Containers, boxes, bags, etc.	1-2-3-5-7-8-10 -11-13-17-18-19 -20-21			4,473,383
Cotton cloth and yarn	3			51,418
Cotton cloth	2	sq. yd.	139,658	20,329
Electrodes	2	lb.	2,326,640	158,898
Electrodes, scrap	18	ton	3,395	33,827
Extracts and essences for flavouring aerated waters	1			642,212
Feldspar	5-8-13	ton	5,039	99,341
Felt	3	lb.	121,336	8,003
Flint	13	ton	4,501	45,321
Fluorspar	8			7,637
Fuller's earth	11	ton	9,257	207,931
Glass, blanks	7			211,964
Glass, figured and cathedral	7	sq. ft.	327,693	69,049
Glass, plate	7	sq. ft.	2,270,726	844,504
Glass, sheet and window	7	sq. ft.	1,171,959	154,463
Glazing material	13			11,017
Glue	17	lb.	197,280	49,320
Graphite	10-21	ton	222	10,623
Gravel	5	cu. yd.	190,045	145,116
Greases, petroleum	10	lb.	83,897	5,043
Grease, soap	10	lb.	40,870	3,883
Gypsum, crude	17	lb.	48,589,280	217,710
Hair	3-17	lb.	1,308,402	86,466
Hardware for insulators	13			332,019
Iron, for manufacture of ferrosilicon	2	ton	9,896	112,366
Lead	2-7	lb.	271,675	33,745
Lead, red	10	lb.	6,128	494
Lime	5-6-8-11-15-17	ton	27,506	280,520
Litharge	11	lb.	799,444	69,698
Magnesite	3-19	lb.	684,238	20,628
Mica, manufactured plate from U.S.A.	20	lb.	4,754	5,942
Mica, amber, thumb-trimmed	20	lb.	25,674	4,621
Mica, cut or uncut, India and amber	20	lb.	2,902	3,597
Mica, knife-trimmed	20	lb.	125,866	23,613
Mica, splittings, India	20	lb.	23,654	5,370
Oil, animal	10	gal.	17,201	19,485
Oil, black	18	gal.	389,882	7,873
Oil, crude, imported for refining	11	Imp. gal.	1,035,490,094	68,082,715
Oil, crude, product from Canadian wells	11	Imp. gal.	37,338,402	4,026,272
Oil, (gas oil) for gas making (not for fuel)	6	Imp. gal.	9,364,684	787,855

Table 25.—Alphabetical List of Materials Used in all Industries Classified under the Manufactures of the Non-Metallic Minerals, in Canada, 1929—Concluded

Material	Index number (See list on page 44)	Unit of measure	Quantity	Cost at works
				\$
Oil, fuel and gas oils imported for use in cracking process.....	11	Imp. gal.	440,475	18,270
Oil, linsed.....	10-21	Imp. gal.	56,816	43,549
Oil, mineral.....	10-21	Imp. gal.	867,918	191,946
Oils, other.....	10	Imp. gal.	28,387	8,190
Oil, paraffin.....	21	Imp. gal.	11,988	3,000
Oxide or purifying materials.....	6	ton	4,959	49,775
Paper.....	2-7-17	lb.	8,223,339	234,471
Paper, kraft.....	2	lb.	69,834	4,409
Pitch.....	18-21	ton	6,006	109,997
Plaster of Paris.....	17	ton	80,251	210,694
Polishing and grinding materials.....	7			44,570
Repair and renewal materials.....	8			406,991
Rubber.....	3	lb.	28,748	5,458
Salt.....	2	lb.	733,309	3,061
Sand.....	5-15-18	ton	332,282	289,481
Sand, siliceous.....	2-3-8-19-21	ton	141,977	690,649
Sawdust and shavings.....	2-17-18	ton	8,645	43,601
Silver nitrate.....	7	lb.	2,912	19,660
Soap, chip.....	10	lb.	30,000	8,000
Sodium carbonate (soda ash).....	8-11	lb.	73,426,706	1,164,024
Sodium hydroxide (caustic soda).....	10-11	lb.	6,717,214	243,972
Solder.....	7	lb.	15,747	4,726
Starch.....	17			42,554
Steel and wire reinforcing.....	5-7-17			129,557
Stone for cutting and dressing.....	16			2,788,931
Stone, crushed.....	5	Cu. yd.	32,928	106,377
Sugar for aerated waters.....	1	lb.	19,063,949	1,059,204
Sulphur.....	11	lb.	201,032	6,770
Syrups and fruit juices for aerated waters.....	1			1,280,189
Tallow, crude.....	10	lb.	160,451	43,856
Tar.....	18	Imp. gal.	181,927	12,862
Water.....	6			34,222
Whiting.....	17	lb.	2,466,000	23,994
Zinc and tin.....	8			101,329
All other materials.....	All industries			2,694,203
Total.....				117,149,139

Table 26.—Alphabetical List of Products Made in all Industries Classified under Manufactures of the Non-Metallic Minerals in Canada, 1928

Product	Index number (See list on page 44)	Unit of measure	Quantity	Value
				\$
Abrasive wheels.....	2			847,480
Alumina, fused.....	2	ton	39,413	3,786,113
Ammonia liquor.....	6	lb. NH ³	1,644,516	25,867
Ammonium sulphate.....	6	lb.	56,179,417	1,108,744
Asbestos boiler and pipe covering.....	3	feet	3,674,092	376,399
Asbestos brake linings.....	3	feet	2,178,278	439,431
Asbestos packings.....	3	lb.	383,837	218,904
Asbestos products, other, including blackboards, wallboard, shingles, etc.....	3			317,913
Asphalt.....	11	Imp. gal.	22,329,392	2,016,933
Brick from domestic clay:—				
Soft mud process—Face.....	12	No.	17,532,000	349,847
Common.....	12	No.	93,280,000	1,328,981
Soft mud (wire cut) process—Face.....	12	No.	101,717,000	2,247,472
Common.....	12	No.	144,304,000	2,182,307
Dry press—Face.....	12	No.	36,587,000	748,301
Common.....	12	No.	24,291,000	337,096
Fancy and ornamental.....	12	No.	599,000	28,743
Sewer.....	12	No.	2,888,000	59,010
Paving.....	12	No.	338,000	4,464
Bricks, cement.....	5	M	2,599	40,007
Brick, sand-lime.....	15	M	82,271	1,038,510
Building blocks, cement, hollow.....	5			1,158,508
Cement, Portland.....	4	brl.	11,023,928	16,739,163
Cement poles, posts, etc.....	5			17,748
Cement products, other, including laundry trays and tubs, etc.....	5			85,786
Cinder blocks.....	5-15	M	1,562	266,314
Coke:—				
By-product coke—				
For use in coke plant.....	6	ton	28,711	234,692
For use in associated metallurgical works.....	6	ton	1,046,775	6,058,530
For sale.....	6	ton	771,359	5,797,002
Gas house coke—				
For use in coke plant.....	6	ton	182,046	1,033,358
For sale.....	6	ton	149,015	1,140,090
Coke breeze:—				
By-product coke—				
For use in coke plant.....	6	ton	3,592	16,165
For use in associated metallurgical works.....	6	ton	100,131	157,493
For sale.....	6	ton	30,023	89,706
Gas house coke—				
For use in coke plant.....	6	ton	1,471	5,344
For sale.....	6	ton	1,004	3,331
Coke, petroleum.....	11	ton	95,908	561,430
Core compound.....	20	ton	1,141	45,026
Electrodes, carbon and graphite.....	18	ton	33,012	1,663,701
Facings, foundry.....	20	ton	4,018	105,056
Fireclay.....	12	ton	5,128	35,309
Fireclay blocks and shapes from domestic clay.....	12			105,091
Firebrick and stove linings from imported clay.....	13			313,637
Firebrick from domestic clay.....	12	No.	4,940	234,460
Gas made:—				
Straight coal gas including coke-oven gas.....	6	M cu. ft.	29,470,003	
Carburetted water gas.....	6	M cu. ft.	5,247,013	
Mixed coal and water gas.....	6	M cu. ft.	270,701	
Oil gas.....	6	M cu. ft.	70,586	
Acetylene gas.....	6	M cu. ft.	617	
Total gas made.....	6	M cu. ft.	35,058,920	
Gas sold.....	6	M cu. ft.	15,606,609	13,933,537
Gas used in maker's own plants.....	6	M cu. ft.	7,058,981	1,369,655
Gas used in associated metallurgical works.....	6	M cu. ft.	11,237,155	1,205,064
Gas not accounted for.....	6	M cu. ft.	1,156,175	211,327
Gas from petroleum refineries (still gas).....	11	M cu. ft.	2,489,346	572,847
Gasoline.....	11	Imp. gal.	344,129,861	52,228,842
Glass, bent.....	7			16,269
Glass, bevelled and ground edge plates.....	7			1,159,806
Glass, cut.....	7			342,648
Glass, leaded.....	7			235,233
Glass, leaded, lights and domes.....	7			4,080
Glass, ornamental.....	7			69,760
Glass, pressed and blown.....	8			9,323,968
Glass, showcases.....	7			218,146
Glass, silvered mirror plate.....	7			664,783
Glass, store fronts.....	7			325,124
Glass, products, not elsewhere specified, including lenses, silvered reflectors, signs, etc.....	7			839,100
Glass, memorial windows.....	7			126,365
Granite for building purposes.....	16			314,553

Table 26.—Alphabetical List of Products Made in all Industries Classified under Manufactures of the Non-Metallic Minerals in Canada, 1928—Concluded

Product	Index number (See list on page 44)	Unit of measure	Quantity	Value
Grease, lubricating.....	12	lb.	15,100,960	\$ 348,915
Gypsum products, including blocks and tiles, wallboard, wall-coating, etc.....	17			2,594,841
Insulators, porcelain.....	13			1,321,556
Kerosene.....	11	Imp. gal.	55,981,919	7,340,544
Lime, hydrated.....	9	ton	79,969	982,377
Lime, quick.....	9	ton	428,920	3,552,191
Limestone for building purposes.....	16			2,861,336
Magnesite flooring and stucco.....	3			103,225
Marble for building purposes.....	16			883,076
Marble chips and dust.....	16			24,677
Mica products including amber heater plate, commutator plate cut and uncut, thin, split, etc.....	19			63,373
Mineral water, natural (fortified or not).....	1			261,977
Monuments and bases, limestone.....	16			132,406
Monuments, finished, lettered only.....	16			773,975
Monuments, granite, cut and polished.....	16			1,718,988
Monuments, marble, cut and polished.....	16			404,058
Oil, core.....	10-20	gal.	49,867	42,613
Oils, fuel and gas.....	11	Imp. gal.	361,391,859	14,451,334
Oils, light (toluol, benzol, etc.).....	6	Imp. gal.	4,052,859	500,365
Oils, lubricating.....	10-11	Imp. gal.	20,293,396	3,808,594
Parting, foundry.....	20	ton	340	21,303
Petroleum spirits, including engine distillate, V.M.P., naphtha, etc.....	11	Imp. gal.	4,959,471	644,726
Pipe, drain, cement.....	5			145,968
Pipe, sewer, and culvert, cement.....	5			1,148,168
Pipe, sewer (including copings, etc.), from domestic clay.....	12			1,723,644
Pottery from unported clay.....	13			38,144
Pottery from domestic clay.....	12			356,093
Repair and custom work.....	3-7			23,197
Salt.....	14	ton	299,445	1,495,971
Silicon carbide, crude.....	2	ton	19,008	2,098,199
Soups.....	10			70,859
Soda water and other carbonated beverages.....	1			8,902,542
Stone, artificial.....	5			1,173,645
Syrups and fruit juices.....	1			1,250,077
Tar and tar products:—				
Used in maker's own plants or in assoc. met. works.....	6	Imp. gal.	2,956,246	176,552
Sold.....	6	Imp. gal.	24,185,086	1,544,880
Tile, drain, from domestic clay.....	12	No.	22,629	656,054
Tile, structural, from domestic clay:—				
Hollow blocks.....	12	ton	205,257	1,030,152
Roofing tile.....	12	No.	72,930	6,435
Floor tile.....	12	sq. ft.	171,520	45,729
Wax.....	11	lb.	15,873,074	530,814
All other products including abrasive cloth and paper, candles, sanitaryware and ceramic floor tile from domestic clay, artificial graphite, ferrosilicon and various other products.....				3,307,430
Total				286,082,141

Table 27.—Alphabetical List of Products Made in all Industries Classified under the Non-Metallic Mineral Products Industry in Canada, 1929

Product	Industry number (See key on page 44)	Unit of measure	Quantity	Selling value at works \$
Abrasive wheels	2			819,884
Alumina, fused	2	ton	53,858	4,974,789
Ammonia liquor	6	lb. NH ³	1,694,538	25,631
Ammonium sulphate	6	lb.	68,282,003	1,296,952
Asbestos boiler and pipe covering	3	ft.	3,593,131	406,395
Asbestos brake lining	3	ft.	2,921,243	555,739
Asbestos packings	3	lb.	506,787	234,595
Asbestos products not elsewhere specified, including corrugated sheathing, lumber, millboard, paper, shingles, wallboard, gaskets, blackboards, tile, etc.	3			1,070,312
Asphalt	11	Imp. gal.	35,253,769	2,689,760
Boiler compound	10	Imp. gal.	51,830	26,405
Brick, clay—				
Soft mud process—Face	12	No.	26,624,063	538,096
Common	12	No.	77,399,073	1,195,511
Stiff mud process—Face	12	No.	114,093,455	2,469,417
(wire cut) Common	12	No.	170,840,374	2,509,451
Dry press—Face	12	No.	38,590,401	813,461
Common	12	No.	26,130,929	368,039
Fancy or ornamental, including embossed and enamelled brick	12	No.	186,588	12,795
Sewer brick	12	No.	4,765,357	96,588
Paving brick	12	No.	96,640	3,844
Brick, cement	5			178,257
Brick, sand-lime	15	M	78,361	953,720
Building blocks, cement, hollow	5			902,413
Cement, Portland	4	brl.	12,284,081	19,337,235
Cement posts, poles, etc.	5			19,843
Cement products, other, including catch basins, chimney blocks, battery wells, basement foundations, vaults, cribbing, flue blocks, ready-mix concrete, laundry tubs, trays, lintels and sills, railway slabs, septic tanks, etc.	5			277,042
Cinder blocks	5	M	2,209	306,228
Coke, petroleum	11	ton	109,516	605,983
Coke, gas house	6	ton	305,352	2,009,192
Coke, by-product	6	ton	2,372,229	15,938,466
Core compound	21	lb.	665,886	31,964
Electrodes, carbon and graphite	18	ton	29,403	1,758,671
Facings, foundry	21	ton	4,635	114,792
Fireclay	12-13	ton	5,056	35,451
Fireclay blocks and shapes from domestic clay	12			130,411
Firebrick and stove linings from imported clay	13			362,360
Firebrick from domestic clay	12	No.	5,196,319	251,043
Gases made—				
Straight coal gas including coke oven gas	6	M cu. ft.	34,381,044	
Straight water gas (blue gas)	6	M cu. ft.	337,223	
Carburized water gas	6	M cu. ft.	3,763,697	
Mixed coal and water gas	6	M cu. ft.	271,335	
Oil gas	6	M cu. ft.	171,574	
Acetylene gas	6	M cu. ft.	213	
Total gas made	6	M cu. ft.	38,925,086	
Gas sold	6	M cu. ft.	17,649,371	13,316,684
Gas used in heating ovens or retorts in coke or gas plants	6	M cu. ft.	7,493,291	1,573,146
Gas used in associated metallurgical works	6	M cu. ft.	12,870,553	1,411,670
Gas otherwise accounted for but not sold	6	M cu. ft.	178,092	185,595
Gas, not accounted for	6	M cu. ft.	733,779	888,322
Gas, still from petroleum refineries	11	M cu. ft.	3,140,187	708,781
Gasoline	11	Imp. gal.	436,620,614	63,502,116
Glass, bent plate	7			28,346
Glass, bent sheet	7			14,952
Glass, bevelled or polished edge plates	7			1,114,329
Glass, bevelled or polished edge sheet	7			99,306
Glass, chipped or edged plate	7			112,254
Glass, chipped or edged sheet	7			32,230
Glass, cut (tumblers, fruit bowls, etc.)	7			263,161
Glass, leaded, including memorial windows	7			403,592
Glass vials, etc.	7			73,287
Glass, plate mirrors	7			810,201
Glass, pressed and blown	8			11,069,373
Glass, sheet mirrors	7			28,073
Glass products, not elsewhere specified, including non-shatterable plate signs, sheet signs, showcases, display cases, silvered reflectors, store fronts, lenses, lamp shades, framed mirrors, auto windshields, etc.	7			932,595
Granite, cut and polished, for building purposes	16			465,185
Grease, lubricating	10-11	lb.	17,734,230	408,950

Table 27.—Alphabetical List of Products Made in all Industries Classified under the Non-Metallic Mineral Products Industry in Canada, 1929—Concluded

Product	Industry number (See key on page 44)	Unit of measure	Quantity	Selling value at works
				\$
Gypsum products including blocks and tiles, hardwall plasters, crushed rock, wallcoating, wallboard, dry insulex, etc.	17			3,475,120
Insulators, porcelain	13			2,065,404
Kerosene	11	Imp. gal.	49,362,381	6,879,474
Lime, hydrated	9	ton	93,504	1,200,451
Lime, quick	9	ton	580,583	4,708,159
Limestone for building purposes	16			2,739,504
Magnesite flooring and stucco	19			174,951
Marble, chips and dust	16			23,802
Marble, cut and polished	16			1,621,112
Mica plate of all kinds	20			44,567
Mica products, not elsewhere specified, including cut or uncut washers, thin split, tubes, etc.	20			67,887
Mineral water, natural (fortified or not)	1			165,286
Monuments, finished, lettered only	16			785,748
Monuments, granite, cut and polished	16			1,815,463
Monuments and bases and cut bases, limestone	16			331,004
Monuments, marble, cut and polished	16			391,947
Oil, core	16-21	Imp. gal.	182,076	80,261
Oils, fuel and gas	11	Imp. gal.	448,699,760	17,895,253
Oils, light (toluol, benzol, etc.)	6	Imp. gal.	6,058,061	874,012
Oils, lubricating	10-11	Imp. gal.	24,447,243	4,693,485
Parting, foundry	21	lb.	570,379	17,317
Petroleum spirits, including engine distillate, V.M.P. naphtha or solvent	11	Imp. gal.	7,269,281	975,838
Pipe, drain, cement	5			95,711
Pipe, sewer and culvert, cement	5			1,450,065
Pipe, sewer, clay, including flue linings, copings, etc.	12-13			2,155,166
Pottery, glazed or unglazed	12-13			392,334
Repairs and custom work	3-7-19-21			98,742
Salt	14			1,578,086
Silicon carbide, crude	2	ton	21,592	2,577,033
Silicon carbide, firesand	2	lb.	5,591,042	55,910
Soaps	10	lb.	465,064	66,395
Soda fountains	7			140,000
Soda water and other carbonated beverages, non-alcoholic	1			10,871,570
Stone, artificial	5			1,135,828
Syrups and fruit juices	1			1,052,319
Tar	6-11	Imp. gal.	30,222,726	1,972,006
Tile, drain	12	No.	25,000,013	720,316
Tile, floor and wall	13-16	sq. ft.	670,000	197,513
Tile, structural, hollow blocks, including fireproofing and load-bearing tile:—Roofing tile	12	ton	256,875	2,219,012
Floor tile (quarries)	12	sq. ft.	307,400	70,186
Wax and candles	11	lb.	10,784,609	538,233
All other products including abrasive cloth and paper, sanitary-ware and floor tile from domestic clay, ferrosilicon, artificial graphite and other products	1-2-3-4-5-6-7-8-10-11-12-13-16-18-21			2,841,759
Total				242,023,518

KEY TO NUMBERED INDUSTRIES

Industry	Industry number
Aerated Waters.....	1
Artificial Abrasives and Abrasive Products.....	2
Asbestos Products.....	3
Cement.....	4
Cement Products.....	5
Coke and Gas.....	6
Glass:—	
Plate, Cut and Ornamental.....	7
Pressed and Blown.....	8
Lime.....	9
Petroleum Products:—	
Lubricating Oils and Greases.....	10
Petroleum Refining.....	11
Products from Domestic Clays.....	12
Products from Imported Clays.....	13
Salt.....	14
Sand-Lime Brick.....	15
Stone, Monumental and Ornamental.....	16
Miscellaneous—	
Gypsum Products.....	17
Graphite and Its Products.....	18
Magnesite Products.....	19
Mica Trimming.....	20
Non-Metallic Mineral Products, n.e.s.....	21

Table 28.—Imports into Canada of the Non-Metallic Minerals and their Products in 1928 and 1929

	Total		United Kingdom		United States	
	1928	1929	1928	1929	1928	1929
NON-METALLIC MINERALS AND THEIR PRODUCTS (Except Chemicals)						
ASBESTOS						
Asbestos packing..... lb.	202,663	227,033	82,618	73,058	118,885	153,975
Asbestos in any form other than crude, all manufactures of, n.o.p..... \$	108,014	116,207	44,464	36,938	63,197	79,269
	272,843	307,229	83,705	102,801	128,802	175,509
CLAY AND ITS PRODUCTS						
CLAYS						
China clay, ground or unground..... cwt.	462,357	197,571	271,997	274,906	189,919	221,724
Fireclay, ground or unground..... cwt.	1,219,155	1,521,282	137,916	139,608	123,755	152,776
Pipe clay, ground or unground..... \$	266,320	322,508	21,344	27,712	1,196,719	1,492,007
Clays, all other, n.o.p..... \$	794	570	6,612	8,171	258,797	313,239
Zirconium silicate..... \$	93,663	150,604	9	.....	785	570
Zirconium oxide..... \$	2,450	8,223	7,261	4,695	85,986	141,074
	.....	8,244	.....	.....	2,450	8,223
	.....	.....	.....	.....	.....	8,244
BRICKS AND TILE						
Brick, building..... M	14,513	15,678	67	286	12,392	15,392
Brick, fire, chrome..... \$	216,723	231,370	4,073	11,938	234,434	279,434
Brick, fire, magnesite..... \$	56,375	101,302	.....	.....	56,375	101,302
Brick, fire, containing not less than 90 per cent of silica..... \$	110,944	256,635	.....	8,697	140,944	247,938
Brick, fire, other, valued at not less than \$100 per M., rectangular-shaped; the dimensions of each not to exceed 125 cubic inches, for use exclusively in the construction or repair of a furnace, kiln or other equipment of a manufacturing establishment..... \$	259,192	330,592	1,389	252	257,803	330,340
Brick, fire, n.o.p., for use exclusively in the construction or repair of a furnace, kiln or other equipment of a manufacturing establishment..... \$	38,327	93,513	21	1,062	38,306	92,451
Brick, fire, n.o.p..... \$	1,217,003	1,706,109	156,618	153,566	1,058,609	1,552,135
Brick, paving..... M	117,539	76,963	13,162	8,301	104,109	68,662
Building blocks, partition hollow and fireproof building tile..... \$	3,431	5,173	22	764	3,409	4,409
Drain pipes, sewer pipes and earthenware fittings therefor, chimney linings or vents, chimney tops and inverted blocks, glazed or unglazed..... \$	88,943	120,871	384	16,796	88,559	104,075
Drain tiles, not glazed..... \$	58,016	222,917	10,065	11,589	47,951	211,358
Tiles or blocks of earthenware or stone, prepared for mosaic flooring..... \$	103,506	119,654	1,611	4,461	99,697	112,046
Tiles, earthenware, n.o.p..... \$	556	2,809	.....	162	556	2,647
	155,780	197,658	47,752	57,346	49,877	52,235
	479,995	576,192	313,704	382,472	74,353	73,777
POTTERY AND CHINAWARE						
Brown or coloured earthen and stoneware, and Rockingham ware..... \$	40,539	46,313	25,960	24,525	13,466	20,087
C.C. or cream-coloured ware, decorated, printed or sponged, and all earthenware, n.o.p..... \$	466,744	496,818	248,833	250,316	86,284	87,902
China and porcelain ware, n.o.p..... \$	95,602	105,424	28,263	31,009	33,076	41,228
China ware, to be silver mounted, imported by manufacturers of silverware..... \$	5,109	5,268	4,224	4,153	371	136
Demijohns, churns or crocks..... \$	19,969	18,727	1,855	2,927	10,658	11,280
Tableware of china, porcelain, white granite or ironstone..... \$	3,907,461	4,434,311	2,346,853	2,084,208	87,975	81,073
Manufactures of earthenware, n.o.p..... \$	246,818	377,243	56,313	66,430	165,591	260,444
OTHER CLAY PRODUCTS						
Artificial teeth, not mounted..... \$	445,609	461,832	1,847	1,007	443,553	460,824
Baths, bath-tubs, basins, closets, lavatories, urinals, sinks and laundry tubs of earthenware, stone, cement or clay..... \$	573,604	628,874	464,836	457,060	108,564	181,044
Cruibles, clay or sand..... \$	33,283	33,267	21,441	23,579	10,969	9,679
Insulators, electric, porcelain..... \$	510,008	556,535	6,706	3,071	408,211	476,357
Manufactures of clay, n.o.p..... \$	90,668	105,210	2,638	3,355	87,207	99,971
Total clay and its products..... \$	10,023,747	12,159,566	3,910,376	4,360,754	4,179,331	5,582,551

Table 28.—Imports into Canada of the Non-Metallic Minerals and their Products in 1928 and 1929—Continued

	Total		United Kingdom		United States	
	1928	1929	1928	1929	1928	1929
COAL AND ITS PRODUCTS						
COAL						
Anthracite coal, grate, egg, stove, nut, and pea..... ton	3,411,149	3,703,113	515,978	721,601	2,887,536	2,863,996
	\$ 26,875,196	\$ 28,044,933	3,536,480	4,461,782	23,299,320	22,889,342
Anthracite coal, n.o.p., buckwheat, rice and barley..... ton	337,667	316,804	13,262	7,857	324,405	308,946
	\$ 894,822	\$ 764,859	52,884	41,143	751,938	723,700
Bituminous coal, and coal, n.o.p..... ton	12,761,484	13,707,543	153,515	114,044	12,607,967	13,503,402
	\$ 25,385,242	\$ 26,259,794	494,633	376,653	24,890,591	25,881,752
Coal, lignite, and lignite dust..... ton	10,780	14,108			10,780	14,108
	\$ 14,247	\$ 62,508			44,247	62,508
Coal, ex-warehoused, for ships' stores... ton	684,461	462,595			684,461	462,595
	\$ 1,229,185	\$ 881,264			1,229,185	881,264
Total coal..... ton	17,205,341	18,204,163	682,755	843,502	16,515,149	17,243,047
	\$ 54,338,692	\$ 58,013,268	4,083,997	4,879,578	50,215,281	50,438,566
COAL PRODUCTS						
*Coal tar, crude, in packages of not less than 15 gallons..... gal.	4,368,849	5,626,457			4,368,809	5,626,097
	\$ 304,768	\$ 428,543			304,723	428,496
*Coal pitch..... gal.	696,293	803,109	518	3,370	695,775	790,739
	\$ 61,481	\$ 90,295	111	2,051	61,370	88,244
Coal tar, crude, in packages of not less than 15 gallons; and coal pitch..... gal.	938,040				938,040	
	\$ 71,995				71,995	
Carbolic or heavy oil..... gal.	1,803,659	2,398,042	173,439	513,663	1,129,449	1,299,934
	\$ 346,428	\$ 445,321	43,595	101,146	207,029	243,043
Coke..... ton	1,060,629	1,226,853	12,224	28,054	1,039,131	1,195,068
	\$ 6,102,842	\$ 6,659,514	85,548	135,946	5,976,373	6,503,247
Coke, ground, when imported by manufacturers of electric batteries, for use in their own factories in the manufacture of such batteries..... cwt.	9,820	7,442			9,820	7,442
	\$ 25,189	\$ 15,344			25,189	15,344
Total coal and its products..... \$	61,251,395	63,652,325	4,213,251	5,118,721	56,861,960	57,716,940
GLASS AND GLASSWARE						
CUT, PRESSED OR BLOWN GLASS						
Glass plates or discs, rough cut or unwrought, for use in the manufacture of optical instruments, when imported by manufacturers of such optical instruments..... \$	92,960	81,168	3,264	2,442	88,139	71,698
Glass milk bottles..... \$	24,379	21,263			24,379	21,263
Glass carboys, or demijohns, bottles, n.o.p., decanters, flasks, jars and phials..... \$	1,485,205	1,693,483	98,986	120,246	1,205,069	1,352,514
Glass tableware, cut, pressed, moulded or crystal, blown glass tableware, other cut glass ware and glass balls..... \$	1,041,826	1,110,456	67,540	80,593	628,772	684,622
Incandescent lamp bulbs and glass tubing for use in the manufacture of incandescent lamps..... \$	563,147	595,113		53	511,849	540,011
Lamp chimneys, glass shades or globes..... \$	420,141	548,741	1,076	2,185	354,795	464,331
Lenses, glass, unfinished..... \$	95,150	103,424	6,497	4,342	72,401	81,751
PLATE, SHEET AND WINDOW GLASS						
Common and colourless window glass. sq. ft.	45,509,833	51,389,896	1,950,933	2,703,631	93,096	637,492
	\$ 1,179,052	\$ 1,550,939	75,271	100,933	13,653	42,871
Glass, cut to size for the manufacture of dry plates for photographic purposes, when imported by the manufacturers of such dry plates, for use exclusively in the manufacture thereof in their own factories..... \$	9,327	2,113				2,113
Plate glass, not bevelled, in sheets or panes not exceeding 7 sq. feet each, n.o.p..... sq. ft.	4,743,644	5,004,282	797,706	668,754	1,083,979	1,233,406
	\$ 1,343,920	\$ 1,433,703	266,604	203,511	389,943	462,948
Plate glass, not bevelled, in sheets or panes exceeding 7 sq. ft. each and not exceeding 25 sq. ft. each, n.o.p..... sq. ft.	937,562	1,060,294	258,195	348,463	223,096	169,467
	\$ 336,891	\$ 383,250	113,018	133,945	88,553	71,362
Plate glass, n.o.p..... sq. ft.	1,338,273	1,680,167	546,400	593,452	300,440	179,196
	\$ 330,101	\$ 628,166	233,919	230,790	121,886	77,922
Plate glass, bevelled, n.o.p..... sq. ft.	72,518	1,473	25,172		12,906	555
	\$ 28,879	\$ 828	10,996		5,197	475
German looking-glass (thin plate), un-silvered or for silvering..... \$		134				
Glass in sheets and bent glass plate, n.o.p..... \$	681,419	694,371	176,302	206,420	269,191	160,224

* April 1 to December 31, 1928.

† January 1 to March 31, 1928.

Table 28.—Imports into Canada of the Non-Metallic Minerals and their Products in 1928 and 1929—Continued

	Total		United Kingdom		United States	
	1928	1929	1928	1929	1928	1929
GLASS AND GLASSWARE—Concluded						
STAINED, ORNAMENTAL AND SILVERED GLASS						
Lenses, silvered, for automobile lamps. \$	113	79			113	79
Ornamental figured and enamelled coloured glass, and memorial or other ornamental window glass, n.o.p. \$	6,526	9,302	6,315	7,545		1,384
Painted or vitrified, chipped, figured, enamelled and obscured white glass. \$	4,741	7,522	4,187	4,457	374	831
Plain, coloured, opaque, stained or tinted, or muffled glass in sheets. \$	1,834	1,745	777	810	724	905
Stained or ornamental glass windows. \$	18,209	61,502	13,196	46,739	3,286	11,915
Silvered glass, bevelled or not, framed or not framed. \$	228,134	260,344	59,052	76,771	108,084	115,723
OTHER GLASS AND GLASSWARE						
Articles of glass, not plate or sheet, designed to be cut or mounted. \$	192,042	184,167	3,689	1,817	120,619	119,792
Photographic dry plates. \$	38,197	37,079	20,239	22,001	7,365	6,873
Spectacles, eye glasses and ground or finished spectacle or eye-glass lenses. \$	124,519	164,776	3,488	5,600	106,510	134,477
Manufactures of glass, n.o.p. \$	847,383	1,085,789	49,668	56,276	565,437	732,948
Total glass and glassware. \$	9,294,095	10,569,457	1,214,084	1,307,476	4,686,339	5,179,032
GRAPHITE AND ITS PRODUCTS						
Plumbago, not ground or otherwise manufactured. \$	4,023	6,546	462		3,561	6,546
Plumbago crucibles. \$	55,488	66,833	33,989	26,912	21,499	39,886
Plumbago, ground, and manufactures of, n.o.p. \$	68,515	82,391	17,276	15,600	81,239	66,791
Total graphite and its products. \$	128,026	155,770	51,727	42,512	76,299	113,223
MICA AND ITS PRODUCTS						
Mica and manufactures of, n.o.p. \$	135,301	169,018	12,534	23,406	93,725	89,613
PETROLEUM, ASPHALT AND THEIR PRODUCTS						
ASPHALT AND ITS PRODUCTS						
Asphaltum or asphalt, solid. cwt. \$	959,811	1,075,002	142	499	959,655	1,072,303
Asphalt, not solid. \$	822,425	829,328	719	443	821,637	827,535
Asphaltum oil for paving purposes. \$	46,890	99,704	357	515	46,533	98,828
	95,562	23,448	5,400		90,162	23,448
PETROLEUM OILS, CRUDE, FUEL AND GAS						
Petroleum and other oils imported by miners or mining companies or concerns, for use in the concentration of ores of metals in their own concentrating establishments. gal. \$						
	236,516	114,899	52,557	1,062	183,959	143,828
	66,727	81,691	16,985	192	49,742	81,499
Petroleum, crude, gas oils, other than naphtha, benzine and gasoline, lighter than .8235 but not less than .775 specific gravity at 60 degrees temperature. gal. \$						
	247,624	182,035			247,624	182,035
	20,269	19,599			20,269	19,599
Petroleum, crude, in its natural state, .7900 specific gravity or heavier at 60 degrees temperature, when imported by oil refiners to be refined in their own factories. gal. \$						
	853,889,703	1,060,000,971			585,356,951	814,763,020
	35,237,350	46,154,347			23,765,422	34,782,352
Petroleum, crude, not in its natural state, .725 specific gravity or heavier but not heavier than .770 specific gravity at 60 degrees temperature, when imported by oil refiners to be refined in their own factories. gal. \$						
	263,771	5,726,147			263,771	1,139,042
	26,378	376,001			26,378	86,659
Petroleum (not including crude petroleum imported to be refined, or illuminating or lubricating oils) .8235 specific gravity or heavier at 60 degrees temperature. gal. \$						
	62,640,093	63,264,841			54,247,789	47,774,709
	2,452,504	2,441,259			2,106,677	1,820,758
Fuel oil, ex-warehoused for ship's stores. gal. \$	32,539,383	32,302,612			27,719,307	28,122,660
	981,622	868,925			857,166	751,632

Table 28.—Imports into Canada of the Non-Metallic Minerals and their Products 1928 in and 1929—Continued

	Total		United Kingdom		United States	
	1928	1929	1928	1929	1928	1929
PETROLEUM, ASPHALT AND THEIR PRODUCTS—Concluded						
PETROLEUM OILS, REFINED						
Illuminating oils, composed wholly or in part of the products of petroleum, coal, shale or lignite, costing more than 30 cents per gallon..... gal.	3,952	3,486	176	34	2,450	9,257
..... \$	2,959	3,910	234	27	915	3,661
Coal oil and kerosene, distilled, known as "engine distillate", when .725 specific gravity and heavier, but not heavier than .770 specific gravity at 60 degrees temperature..... gal.	14,598	17,092		208	14,598	16,427
..... \$	1,588	1,714		60	1,588	1,572
Coal oil and kerosene, distilled, purified or refined, n.o.p..... gal.	3,950,894	4,506,253			3,949,208	4,504,297
..... \$	353,339	398,010			353,101	397,598
Gasoline under .725 specific gravity at 60 degrees temperature..... gal.	116,062,590	135,558,699			116,062,273	135,558,699
..... \$	13,526,618	15,096,277			13,526,521	15,096,277
Gasoline .725 specific gravity and heavier, but not heavier than .770 specific gravity at 60 degrees temperature..... gal.	27,531,961	39,551,756			27,512,871	39,543,037
..... \$	3,278,465	4,702,487			3,273,988	4,700,644
Gasoline, n.o.p..... gal.	58,565	41,115			5,865	39,100
..... \$	7,333	5,372			7,333	4,803
Lubricating oils, composed wholly or in part of petroleum, and costing less than 25 cents per gallon..... gal.	6,797,536	7,369,099			6,797,536	7,369,099
..... \$	1,114,645	1,289,594			1,144,645	1,289,594
Lubricating oils, n.o.p..... gal.	8,690,409	10,035,095	347,198	438,853	8,339,742	9,593,388
..... \$	3,357,818	4,153,353	242,648	264,330	3,113,571	3,888,118
Oils, all other, n.o.p..... gal.	211,832	194,794	2,271	1,153	209,415	192,809
..... \$	149,548	137,337	1,155	688	147,502	135,933
PETROLEUM PRODUCTS, N.O.P.						
Grease, axle..... lb.	5,245,699	7,010,528	37,737	21,339	5,206,642	6,989,189
..... \$	283,682	383,513	2,564	2,530	290,909	380,983
Vaseline and all similar preparations of petroleum, for toilet, medicinal or other purposes..... \$	240,968	259,753	7,586	2,006	200,793	211,217
Paraffine wax..... lb.	2,247,547	3,299,236	293,215	359,309	1,929,241	2,906,131
..... \$	107,223	135,169	13,358	16,062	91,496	117,790
Paraffine wax candles..... lb.	396,717	393,158	3,365	3,149	349,207	314,091
..... \$	88,798	85,513	911	596	77,807	68,243
Petroleum, products of, n.o.p..... gal.	1,860,069	1,828,536	381	40	1,859,592	1,828,079
..... \$	332,155	297,126	264	22	331,815	296,974
Total Petroleum, Asphalt and their Products..... \$	62,631,866	77,839,410	291,581	287,471	50,345,972	65,085,717
STONE AND ITS PRODUCTS						
ABRASIVES						
Artificial abrasives in bulk, crushed or ground, when imported for use in the manufacture of abrasive wheels and polishing composition..... \$	244,771	251,704	30	89	244,741	251,615
Carborundum wheels or stones not further manufactured than moulded and burned..... \$	222,386	219,475			222,386	219,475
Diamond dust or bort, and black diamonds for borers..... \$	2,281,249	2,727,285	136,422	141,676	2,115,508	2,560,323
Diatomaceous earth or infusorial earth (Kieselguhr) ground or unground*..... cwt.	5,354	23,857			5,354	23,829
..... \$	9,394	40,539			9,594	40,457
Emery in bulk, crushed or ground..... \$	53,289	54,433	1,407	1,496	51,309	52,937
Emery wheels and carborundum wheels, n.o.p..... \$	109,185	133,779	1,995	5,021	107,160	128,074
Emery or carborundum, manufactures of, including carborundum stones, n.o.p..... \$	83,942	99,036	394	902	83,133	97,692
Grindstones, not mounted, and not less than 36 inches in diameter..... \$	612,792	424,613	80,424	22,379	530,217	400,425
Grindstones, n.o.p..... \$	40,598	23,769	78	575	39,747	22,911
Pumice and pumice stone, lava and calcareous tufa, not further manufactured than ground..... \$	48,062	35,955	105	77	43,384	32,706
Sand paper, glass, flint and emery paper or emery cloth..... \$	423,357	498,328	20,997	20,528	394,466	467,640

* April, to December 31, 1928.

Table 28.—Imports into Canada of the Non-Metallic Minerals and their Products in 1928 and 1929—Continued

	Total		United Kingdom		United States	
	1928	1929	1928	1929	1928	1929
STONE AND ITS PRODUCTS—						
Concluded						
BUILDING AND PAVING STONE						
Building stone, other than marble or granite, sawn on more than two sides, but not sawn on more than four sides	cwt. 6,110	9,427			6,110	9,427
	\$ 4,085	6,285			4,085	6,285
Building stone, other than marble or granite, planed, turned, cut or further manufactured than sawn on four sides	cwt. 5,186	35,528		420	5,186	36,108
	\$ 27,781	77,685		4,999	27,781	72,086
Flagstone, sandstone, and all building stone, not hammered, sawn or chiselled	\$ 167,568	304,452	1,638		155,130	296,441
Flagstone, and building stone, other than marble or granite, sawn on not more than two sides	\$ 213,448	233,084	345		213,103	233,084
Granite, rough, not hammered or chiselled*	\$ 47,449	67,597	336	497	26,330	35,972
Granite, sawn only	\$ 7,437	22,799	68	75	7,562	18,143
Granite monument	\$ 129,169	137,359	59,948	75,118	4,749	9,202
Granite, manufactures of, n.o.p.	\$ 63,932	44,857	30,972	21,476	17,709	12,190
Paving blocks	\$ 10,919				10,919	
LIME, PLASTER AND CEMENT						
Gypsum, crude (sulphate of lime)	ton 1,097	1,244	4	706	1,093	537
	\$ 43,312	18,671	125	1,046	40,165	17,581
Lime	cwt. 108,345	88,957			108,223	88,957
	\$ 64,811	49,395			64,557	49,395
Plaster of Paris, or gypsum, ground, not calcined	cwt. 5,129	3,299	3,024	1,804	2,073	1,494
	\$ 7,379	5,283	3,143	2,078	4,214	3,201
Plaster of Paris, or gypsum, calcined, and prepared wall plaster	cwt. 211,268	327,127	14	112	197,802	315,147
	\$ 142,550	189,438	45	117	137,228	185,899
Cement, Portland, and hydraulic or waterlime	cwt. 119,166	195,929	80	607	115,156	148,129
	\$ 146,164	189,169	162	803	141,693	173,155
Cement, n.o.p., and manufactures of, n.o.p.	\$ 31,594	64,942	217	687	29,103	61,104
MARBLE						
Marble, rough, not hammered or chiselled	\$ 137,126	237,650			87,737	140,206
Marble, sawn or sand rubbed, not polished	\$ 170,074	267,497	29	17	142,222	226,506
Marble, manufactures of, n.o.p.	\$ 126,729	187,717	6,350	7,869	72,944	143,230
SLATE						
Roofing slate	square 7,453	9,594	51	710	7,256	8,733
	\$ 95,468	124,793	731	11,969	93,214	111,075
Slate pencils	\$ 8,036	9,338		93	6,554	7,543
School writing slates	\$ 83,248	95,296	7		81,500	93,553
Slate mantels and manufactures of slate, n.o.p.	\$ 52,544	67,151	1,088	2,463	48,798	59,546
OTHER STONE PRODUCTS						
Burrstones in blocks, rough or unmanufactured, not bound up or prepared for binding into mill-stones	No. 119	39			5	30
	\$ 925	1,310			696	1,310
Chalk, China or Cornwall stone, cliff stone and mica schist, ground or unground	\$ 22,519	32,828	4,566	5,484	14,970	21,023
Chalk, prepared	\$ 124,287	106,922	7,793	7,413	113,188	97,460
Curling stones and handles therefor	pair 1,760	1,617	1,760	1,617		
	\$ 38,860	39,588	38,860	39,588		
Feldspar	cwt. 63,412	79,183			63,081	77,085
	\$ 53,818	65,997			53,540	63,616
Flint and ground flint stones	cwt. 70,909	71,948			26,040	25,929
	\$ 35,204	39,322			14,667	15,704
Fluorspar	cwt. 287,233	211,839	187,780	74,420	97,825	131,765
	\$ 135,046	159,798	72,996	30,360	79,046	113,942
Ganister	cwt. 3,426	2,913	408	877	2,958	2,036
	\$ 1,221	1,558	274	731	1,450	827
Lithographic stones, not engraved	\$ 2,265	2,687			2,265	2,687
Magnesite	cwt. 4,399	2,192	437		2,421	2,428
	\$ 9,543	4,123	814		6,109	4,282
Phosphate rock	cwt. 297,733	363,836			297,733	363,836
	\$ 68,266	114,741			68,266	114,741

*April 1 to December 31, 1928.

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Table 28.—Imports into Canada of the Non-Metallic Minerals and their product in 1928 and 1929—Concluded

	Total		United Kingdom		United States		
	1928	1929	1928	1929	1928	1929	
STONE AND ITS PRODUCTS—							
Concluded							
OTHER STONE PRODUCTS—Concluded							
Sand, silica, for glass and carborundum manufacture, and for use in steel foundries.....	cwt.	3,087,676	4,678,252	3	802	2,431,551	3,959,930
	\$	332,338	499,358	36	1,190	268,458	421,142
Sand and gravel, n.o.p.....	ton	588,211	269,426	21	5	585,885	268,875
	\$	275,322	216,918	638	275	269,838	214,948
Silex or crystallized quartz, ground or unground.....	cwt.	57,309	79,908			56,978	79,888
	\$	73,755	79,653			73,335	79,028
Stone refuse, not sawn, hammered or chiselled, nor fit for flagstone, building stone or paving.....	ton	597,134	615,768			355,306	377,870
	\$	373,453	435,077			215,104	230,473
Talc or soapstone, ground or unground..	cwt.	108,413	110,313	1,924	2,578	91,277	100,830
	\$	91,702	109,675	4,878	9,467	66,127	90,703
Whiting, gilders' whiting and Paris white.....	cwt.	312,031	350,098	189,812	183,060	98,914	109,807
	\$	290,769	293,935	106,290	101,196	67,924	71,971
Manufactures of stone, n.o.p.....	\$	78,826	76,364	10,414	10,423	49,195	49,675
Total stone and its products.....	\$	7,837,212	9,059,918	594,675	528,177	6,022,217	7,822,444
OTHER NON-METALLIC MINERAL PRODUCTS							
Barytes.....	cwt.	57,568	52,924	2,169	1,333	26,606	25,146
	\$	58,710	52,078	2,336	1,317	31,750	28,294
Carbons over 3 inches in circumference, and not exceeding 35 inches.....	\$	337,178	319,771	173		337,005	319,771
Carbon electrodes over 35 inches in circumference.....	\$	91,467	88,740			91,467	88,740
Carbons, electric light and carbon points, of all kinds, n.o.p.....	\$	51,689	61,472	109	489	42,002	42,802
Diamonds, unset.....	\$	3,402,993	3,633,839	1,122,458	1,093,562	49,025	31,793
Earths, crude only.....	\$	5,319	3,893	2,270	540	2,802	3,338
Foundry facings of all kinds.....	\$	8,913	20,342	308	308	8,605	20,234
Fuller's earth in bulk only.....	\$	86,678	82,340	22,792	15,777	63,736	68,073
Gas for cooking, heating or illuminating, when imported by pipe line.....	M cu. ft.	128,004	132,942			128,004	132,942
	\$	82,681	85,338			82,083	85,338
Insulators, electric, n.o.p.....	\$	429,529	465,578	7,224	7,260	414,109	434,396
Magnesia pipe covering.....	\$	187,381	259,080	20,736	20,452	166,645	232,628
Meerschaum, crude or raw.....	lb.	2	15	2			1
	\$	37	113	37			18
Salt, table, made by an admixture of other ingredients, when containing not less than ninety per cent of pure salt.....	lb.	957,050	489,400	185,845	85,763	771,205	403,637
	\$	35,067	16,477	9,759	4,280	25,248	11,917
Salt, for use of the sea or gulf fisheries.....	cwt.	1,485,842	1,659,590	2,580	6,276	693,370	474,774
	\$	417,594	370,211	1,059	2,809	304,551	265,013
Salt, in bulk, n.o.p.....	cwt.	1,375,311	1,099,931	5,806	2,857	1,250,701	1,003,458
	\$	254,218	208,430	3,255	1,875	227,156	190,180
Salt, n.o.p., in bags, barrels and other coverings.....	cwt.	911,787	775,885	507,805	453,933	251,168	207,060
	\$	416,149	342,302	235,467	197,967	146,104	121,518
Sulphur and brimstone, crude, or in roll or flour.....	cwt.	3,645,860	4,698,520		6	3,646,816	4,697,201
	\$	2,962,935	3,789,243		18	2,962,808	3,787,476
Mineral and bituminous substances, n.o.p.....	\$	1,293,420	1,495,431	45,005	47,054	1,104,228	1,405,674
Total non-metallic minerals and their products.....		162,172,427	185,921,799	11,889,385	13,307,944	129,617,884	149,531,567

Table 29.—Exports of Non-Metallic Minerals and their Products in 1928 and 1929

	Total		United Kingdom		United States	
	1928	1929	1928	1929	1928	1929
NON-METALLIC MINERALS AND THEIR PRODUCTS (Except Chemicals)						
ASBESTOS						
Asbestos..... ton	129,192	143,725	6,886	3,508	80,765	91,876
Asbestos sand and waste..... ton	8,982,558	10,127,208	547,250	350,410	5,157,955	6,033,946
Asbestos manufactures, including asbestos roofing..... \$	135,729	138,505	1,904	2,335	126,417	140,588
	2,177,729	2,507,474	40,727	55,850	1,900,491	2,320,084
Asbestos manufactures, including asbestos roofing..... \$	65,895	113,952	7,738	58,769	22,711	21,556
Total asbestos..... \$	11,646,182	12,748,634	595,715	465,029	7,141,157	8,375,586
CLAY AND ITS PRODUCTS						
Clays, unmanufactured..... cwt.	19,903	16,379			19,903	16,107
Bricks, building..... M	29,577	6,640			29,577	6,301
Porcelain insulators..... \$	3,034	1,585			3,001	1,521
Earthenware and manufactures of..... \$	46,037	21,797			45,296	20,486
Clay, manufactures of..... \$	124,140	268,109	20,244	127,501	283	626
	17,235	21,563	396	360	12,760	17,567
	76,529	54,397		450	67,834	44,041
Total clay and its products..... \$	284,518	375,506	20,640	128,311	146,750	89,621
COAL AND ITS PRODUCTS						
Coal, lignite..... ton	31,437	32,143			34,437	32,143
Coal, n.o.p..... ton	109,131	99,185			101,131	99,185
Cinders..... \$	823,584	810,820	27,390	26,605	421,058	419,373
Coke..... \$	1,360,868	1,276,113	202,252	195,958	1,010,351	1,061,622
Tar and pitch, coal..... gal.	11,713	2,516			11,713	2,510
Creosote oil..... gal.	44,915	53,130			44,781	52,721
	625,862	732,489			624,680	729,015
	3,572,781	3,069,247		200	452,976	296,333
	311,031	140,541		144	31,956	24,578
	1,150,766	1,025,223			1,150,666	1,025,223
	188,194	160,543			188,115	160,543
Total coal and its products..... \$	5,666,796	5,411,417	202,252	196,102	2,884,946	2,997,459
GLASS AND GLASSWARE						
Glassware for lighting..... \$	5,102	3,921	430	236	25	18
Glass and glassware, n.o.p..... \$	145,163	96,586	94,334	38,323	10,419	21,144
GRAPHITE AND ITS PRODUCTS						
Graphite or plumbago, crude and refined..... cwt.	21,065	31,643	78	196	20,066	31,446
	45,381	88,647	834	1,860	44,304	86,740
MICA AND ITS PRODUCTS						
Mica, rough cobbled and thumb trimmed..... cwt.	630	30	77	15	551	14
Mica, scrap and waste..... cwt.	15,951	1,342	3,617	1,218	12,244	103
Mica splittings..... cwt.	86,914	95,784	45	45	86,869	95,739
Mica plate and manufactures of (micamite)..... \$	78,262	112,965	90	80	78,172	112,825
	1,679	1,822	90	15	1,589	1,807
	80,902	96,726	3,005	930	77,807	95,796
Total mica and its products..... \$	646	2,086			367	576
	175,761	213,059	6,712	2,228	168,680	209,300
PETROLEUM AND ITS PRODUCTS						
Oil, petroleum, crude..... gal.	21,531,929	28,177,495	5,003,569	11,034,607	15,003,454	15,703,196
Oil, coal and kerosene, refined..... gal.	1,098,586	1,548,288	301,275	749,350	742,851	695,723
Oil, gasoline and naphtha..... gal.	1,297,081	1,367,241			5,787	33,944
Oil, mineral, n.o.p..... gal.	127,391	137,160			921	4,904
Oil, mineral, n.o.p..... gal.	3,957,557	1,669,078		1,292	744,097	1,038,596
Oil, mineral, n.o.p..... gal.	686,256	875,627		233	152,156	399,086
Oil, mineral, n.o.p..... gal.	279,916	433,634	4,480	9,569	70,556	261,885
Oil, mineral, n.o.p..... gal.	85,014	105,426	5,017	13,383	12,224	30,216
Wax, mineral..... cwt.	10,010	11,556			9,806	11,383
	54,501	62,171			53,104	60,659
Total petroleum and its products..... \$	2,051,748	2,728,072	303,322	762,966	961,256	1,109,588

Table 29.—Exports of Non-Metallic Minerals and their Products in 1928 and 1929
—Concluded

	Total		United Kingdom		United States	
	1928	1929	1928	1929	1928	1929
STONE AND ITS PRODUCTS						
ABRASIVES						
Abrasives, natural, n.o.p. in ore or bulk, crushed or ground, including infusorial earth, rotten stone, tripoli, etc.	cwt.	5,871	8,287	4	5,867	8,287
	\$	7,071	9,757	19	7,052	9,757
Abrasives, artificial, crude, including carborundum	cwt.	1,235,302	1,571,816	68,078	77,062	1,132,388
	\$	3,295,460	3,815,804	257,574	262,847	2,868,516
Abrasives, artificial, made up into wheels, stones, etc.		63,745	53,666	39,871	34,000	7,191
Stones for the manufacture of grindstones rough	ton		61			64
	\$		154			154
Grindstones, manufactured	\$	28,747	36,536			28,525
						30,438
BUILDING AND PAVING STONE						
Freestone, limestone and other building stone, unwrought	ton	383	661		196	383
	\$	3,664	8,867		3,319	3,664
Granite and marble, unwrought	ton	2,523	2,467	1	5	2,528
	\$	26,031	23,189	23	100	26,011
Stone of all kinds, dressed	\$	10,665	5,065			2,999
						3,979
LIME, PLASTER AND CEMENT						
Gypsum or plaster, crude	ton	821,536	893,445			824,536
	\$	1,210,987	1,086,939			1,210,987
Lime	cwt.	100,872	141,769			384,846
	\$	357,985	328,209			345,580
Plaster of Paris, ground, and prepared wall plaster	cwt.	161,610	158,751		432	67,891
	\$	140,946	137,046		3,300	62,890
Cement, Portland	cwt.	955,638	829,389			123,592
	\$	340,624	252,955			83,026
						3,532
OTHER STONE PRODUCTS						
Crushed stone	ton	128,379	116,959			128,379
	\$	209,852	200,000			209,852
Feldspar	ton	28,101	29,896	6	20	28,035
	\$	339,915	212,915	180	940	228,965
Magnesite, calcined, dead burned, etc.	cwt.	36,743	105,587	31,830	104,980	
	\$	41,101	125,613	41,807	124,884	
Phosphate rock	ton		52			
	\$	41	1,408			44
Sand and gravel	ton	797,111	1,903,312			797,076
	\$	232,422	441,798			232,151
Talc	cwt.	218,915	227,988	12,855	19,878	198,179
	\$	133,607	130,096	7,850	14,547	120,770
Total stone and its products	\$	6,365,993	7,009,017	347,324	443,997	5,468,231
						6,146,490
OTHER NON-METALLIC MINERAL PRODUCTS						
Carbon and graphite electrodes	\$	133,871	183,971	492		14,814
Sulphur contained in pyrites	ton	31,596	31,987			31,596
	\$	249,705	216,771			249,705
Salt	cwt.	58,602	187,187			512
	\$	36,399	70,762			317
Other non-metallic minerals and products	\$	436,989	543,633	70,368	131,436	222,711
						255,235
Total non-metallic minerals and their products	\$	26,583,611	29,719,956	1,645,393	2,170,483	17,313,405
						19,645,319

CHAPTER TWO

THE AERATED WATERS INDUSTRY

Production from the 345 concerns engaged chiefly in making non-alcoholic carbonated beverages in Canada during 1929 amounted in value to \$12,249,218, an increase of 15 per cent over the corresponding figure for 1928. Capital employed in the industry in 1929 was reported at \$12,756,026; the average number of employees was 2,174; payments in salaries and wages totalled \$2,553,456; materials cost \$4,576,027, and the value added by manufacturing was \$7,673,191.

Production of soda water and other carbonated beverages in this industry amounted to \$10,874,570, but in addition there was an output valued at about \$958,356 by concerns which were classified in the Brewery Industry. Thus the total output for Canada was \$11,832,926. Imports of mineral and aerated waters in 1929 were valued at \$253,940 and exports were worth \$12,320.

Table 30.—Principal Statistics by Provinces, 1928 and 1929

Provinces	Number of plants	Capital employed	Average number of employees	Salaries and wages	Cost of fuel and electricity	Cost of materials at works	Selling value of products at works	Value added by manufacturing
		\$		\$	\$	\$	\$	\$
1928								
Prince Edward Island and Nova Scotia.....	20	222,856	73	56,599	4,185	68,513	190,776	122,263
New Brunswick.....	19	482,288	75	82,813	4,973	132,808	358,940	226,132
Quebec.....	102	4,258,049	791	915,021	52,524	1,833,103	4,562,695	2,729,502
Ontario.....	145	4,409,979	647	863,771	45,754	1,892,250	3,680,547	1,788,297
Manitoba.....	10	627,890	97	138,196	7,942	223,188	502,144	278,956
Saskatchewan.....	17	573,751	91	111,702	8,140	148,147	440,909	292,762
Alberta.....	14	558,498	114	146,289	5,070	274,714	597,803	323,089
British Columbia.....	20	517,717	79	93,560	4,743	132,843	344,017	211,174
Canada.....	347	11,650,938	1,967	2,497,861	133,331	4,765,656	10,677,831	5,972,175
1929								
Prince Edward Island and Nova Scotia.....	26	427,884	92	72,138	4,987	96,017	335,846	239,829
New Brunswick.....	17	493,712	78	85,414	5,062	133,083	422,101	289,018
Quebec.....	99	4,817,558	830	1,013,267	51,380	1,950,429	5,075,213	3,124,785
Ontario.....	141	4,525,261	757	872,170	47,796	1,643,620	4,284,344	2,640,624
Manitoba.....	11	674,715	109	137,164	8,028	265,152	602,727	337,575
Saskatchewan.....	17	606,639	86	102,839	8,058	140,023	415,082	275,059
Alberta.....	14	795,054	131	171,748	7,313	213,987	732,584	518,597
British Columbia.....	20	415,203	91	98,716	4,586	133,717	381,421	247,704
Canada.....	345	12,756,026	2,174	2,553,456	137,210	4,576,027	12,249,218	7,673,191

Table 31.—Principal Statistics, by Groups of Production Values, 1929

Production values	Number of plants	Capital employed	Number of employees	Production
\$		\$		\$
Under 5,000.....	93	502,719	145	240,523
5,000 to 10,000.....	86	861,380	190	630,896
10,000 to 25,000.....	82	1,734,686	344	1,328,040
25,000 to 50,000.....	42	1,660,628	342	1,462,486
50,000 to 100,000.....	24	1,493,299	322	1,587,938
100,000 to 250,000.....	10	2,046,461	308	1,511,860
250,000 to 500,000.....	4	1,406,755	162	1,316,717
Over 500,000.....	4	3,044,098	361	4,170,758
Total.....	345	12,756,026	2,174	12,249,218

MANUFACTURES OF NON-METALLIC MINERALS

Table 32.—Principal Statistics, by Groups of Employees, 1929

Employees	Number of plants	Capital employed \$	Number of employees	Production \$
1 or 2.....	154	1,214,937	219	853,528
3 to 10.....	148	3,506,979	739	2,896,158
11 to 20.....	25	1,824,071	363	1,824,939
21 to 50.....	10	1,460,793	240	1,277,824
Over 50.....	8	4,749,246	613	5,396,760
Total	345	12,756,026	2,174	12,249,218

Table 33.—Capital Employed, by Classes and by Provinces, 1928 and 1929

Provinces	1928				1929			
	Capital employed as represented by				Capital employed as represented by			
	Lands, buildings, fixtures, machinery and tools	Materials on hand and stocks in process	Cash, trading, and operating accounts and bills receivable	Total	Lands, buildings, fixtures, machinery and tools	Materials on hand and stocks in process	Cash, trading, and operating accounts and bills receivable	Total
\$	\$	\$	\$	\$	\$	\$	\$	
Prince Edward Island and Nova Scotia.....	146,334	28,700	47,822	222,856	270,052	40,952	116,980	427,884
New Brunswick.....	275,603	71,416	135,209	482,288	273,624	91,163	128,925	493,712
Quebec.....	2,837,240	488,931	931,872	4,258,049	3,488,145	526,880	802,533	4,817,558
Ontario.....	3,203,165	439,176	767,698	4,409,979	3,288,285	558,185	678,791	4,525,261
Manitoba.....	545,201	40,490	42,109	627,800	572,018	51,227	51,470	674,715
Saskatchewan.....	384,761	110,739	78,251	573,751	367,259	143,655	95,725	606,639
Alberta.....	337,572	87,951	132,975	558,498	448,079	189,110	157,865	795,051
British Columbia.....	250,445	63,399	203,873	517,717	285,777	89,501	39,925	415,203
Canada	7,930,327	1,330,802	2,339,809	11,650,938	8,993,239	1,690,673	2,072,114	12,756,026

Table 34.—Employees, Salaries and Wages, by Provinces, 1928 and 1929

Provinces	Average number of employees				Salaries and wages			
	Salaried employees		Wage-earners		Total	Salaries	Wages	Total
	Male	Female	Male	Female				
					\$	\$	\$	
1928								
Prince Edward Island and Nova Scotia.....	7	2	57	7	73	11,757	44,752	56,509
New Brunswick.....	21	4	46	4	75	42,725	40,088	82,813
Quebec.....	151	28	577	35	791	265,986	649,035	915,021
Ontario.....	161	21	439	26	647	332,943	530,828	863,771
Manitoba.....	26	6	64	1	97	45,092	92,204	138,196
Saskatchewan.....	27	3	59	2	91	51,736	59,066	111,792
Alberta.....	30	8	64	12	114	66,873	79,416	146,289
British Columbia.....	19	3	54	3	79	32,022	61,538	93,560
Canada	442	75	1,369	90	1,967	859,034	1,557,827	2,407,861
1929								
Prince Edward Island and Nova Scotia.....	10	2	70	10	92	12,382	59,756	72,138
New Brunswick.....	15	5	55	3	78	29,337	56,077	85,414
Quebec.....	144	29	625	32	830	286,096	726,271	1,013,267
Ontario.....	170	38	514	35	757	324,613	547,557	872,170
Manitoba.....	26	7	75	1	109	49,443	87,721	137,164
Saskatchewan.....	19	3	64	3	86	38,953	63,886	102,839
Alberta.....	35	10	70	16	131	81,158	90,590	171,748
British Columbia.....	23	4	60	4	81	42,119	56,597	98,716
Canada	442	95	1,533	104	2,174	865,001	1,688,455	2,553,456

Table 35.—Wage-Earners, by Months, 1928 and 1929

Months	1928			1929		
	Male	Female	Total	Male	Female	Total
January.....	1,049	61	1,110	1,179	82	1,261
February.....	1,071	70	1,141	1,217	84	1,301
March.....	1,088	65	1,153	1,269	87	1,356
April.....	1,242	82	1,324	1,422	95	1,517
May.....	1,411	93	1,504	1,615	102	1,717
June.....	1,534	94	1,628	1,791	113	1,904
July.....	1,699	98	1,797	1,929	114	2,043
August.....	1,648	90	1,737	1,847	110	1,957
September.....	1,492	88	1,580	1,701	98	1,799
October.....	1,274	85	1,359	1,312	75	1,387
November.....	1,175	84	1,259	1,234	73	1,307
December.....	1,172	82	1,254	1,206	73	1,279
Average*	1,360	90	1,450	1,533	104	1,637

* See note on page 24.

THE AERATED WATERS INDUSTRY

Table 36.—Total of Wage-Earners in Months of Highest Employment, by Provinces and by Hours Worked per Day or Shift, 1929

Provinces	Number of wage-earners in months of highest employment working per day or shift of				
	8 hours or less	9 hours	10 hours	Over 10 hours	Total
Prince Edward Island and Nova Scotia.....	49	24	11	.....	84
New Brunswick.....	45	33	8	.....	86
Quebec.....	161	31	494	102	788
Ontario.....	123	349	198	85	755
Manitoba.....	28	39	8	20	104
Saskatchewan.....	42	26	13	.....	81
Alberta.....	41	70	.....	12	123
British Columbia.....	65	6	.....	11	82
Canada.....	554	578	732	239	2,103

Table 37.—Average Wage-Earners Subdivided according to Hours usually Worked per Day or Shift, by Provinces, 1929

Provinces	Number of wage-earners usually working per day or shift of				
	8 hours or less	9 hours	10 hours	Over 10 hours	Total
Prince Edward Island and Nova Scotia.....	53	19	8	.....	80
New Brunswick.....	29	23	6	.....	58
Quebec.....	129	58	470	.....	657
Ontario.....	107	271	171	.....	549
Manitoba.....	33	16	27	.....	76
Saskatchewan.....	34	17	16	.....	67
Alberta.....	68	12	6	.....	86
British Columbia.....	51	5	8	.....	64
Canada.....	594	431	712	.....	1,637

Table 38.—Average Hours Worked by Wage-Earners per Day or Shift and per Week, by Provinces, 1929

Provinces	Average number of wage-earners	Total man-hours worked by wage-earners per day	Average hours worked by wage-earners per day	Total man-hours worked by wage-earners per week	Average hours worked by wage-earners per week
Prince Edward Island and Nova Scotia.....	80	675	8.44	3,785	47.31
New Brunswick.....	58	499	8.60	2,930	50.52
Quebec.....	657	6,253	9.52	36,637	55.76
Ontario.....	519	5,004	9.11	29,364	53.49
Manitoba.....	76	678	8.92	3,993	62.58
Saskatchewan.....	67	585	8.73	3,375	50.37
Alberta.....	88	712	8.28	4,048	47.07
British Columbia.....	64	551	8.61	3,167	49.48
Canada	1,637	14,857	9.14	87,302	53.33

Table 39.—Average Number of Days Worked by Wage-Earners, 1929

	Number of plants	Average number of wage-earners	Total man-days worked by wage-earners			Average days worked by wage-earners		
			Full time	Part time	Idle	Full time	Part time	Idle
On full time for entire year.....	212	1,190	361,760			304		
On part time for entire year.....	10	11		3,344			304	
On full time for part of year and idle the rest.....	68	330	73,231		27,089	222		82
On part time for part of year and idle the rest.....	14	20		3,663	2,417		183	121
On full time for part of year and part time the rest.....	10	16	3,284	1,580		205	99	
On full time for part of year, part time for part of year, and idle the rest.....	31	70	11,284	5,095	4,901	161	73	70
Total	345	1,637	449,559	13,682	34,407	275	8	31

Table 40.—Fuel and Electricity Used, 1928 and 1929

Kinds	Unit of measure	1928		1929	
		Quantity	Cost at works	Quantity	Cost at works
			\$		\$
Bituminous coal—Canadian.....	short ton	1,468	15,320	2,058	18,379
Imported.....	short ton	3,318	31,182	3,023	24,776
Anthracite coal.....	short ton	893	12,635	947	13,856
Lignite coal—Canadian.....	short ton	126	848	234	1,726
Coke.....	short ton	134	1,790	187	2,356
Gasoline.....	imp. gal.	11,981	3,965	9,430	3,338
Kerosene.....	imp. gal.	704	175	1,719	516
Fuel oil.....	imp. gal.	14,816	2,188	7,354	2,695
Wood.....	cord	1,212	6,477	982	5,167
Gas—Manufactured.....	M cu. ft.	2,281	2,349	1,925	2,328
Natural.....	M cu. ft.	5,002	2,782	12,052	4,378
Other fuel.....			1,113		798
Electricity purchased.....	k.w.h.	2,115,330	52,577	2,988,633	56,897
Total			133,401		137,210

Table 41.—Power Employed, 1928 and 1929

Description	1928		1929	
	Number of units	Total h.p. according to manufacturers' rating	Number of units	Total h.p. according to manufacturers' rating
Steam engines and turbines.....	10	168	8	170
Gasoline, gas and oil engines.....	19	44	13	36
Hydraulic turbines or water wheels.....	1	3	1	2
<i>Total primary power.....</i>	<i>30</i>	<i>215</i>	<i>22</i>	<i>208</i>
Electric motors run by purchased power.....	736	2,056	792	2,182
Total power employed.....	766	2,270	814	2,390
Electric motors run by primary power in same plant.....				
<i>Total electric mo'ors.....</i>	<i>736</i>	<i>2,055</i>	<i>792</i>	<i>2,182</i>
Boilers.....	43	1,213	42	1,191

Table 42.—Materials Used in Manufacturing, 1928 and 1929

Materials	Unit of measure	1928		1929	
		Quantity	Cost at works	Quantity	Cost at works
			\$		\$
Carbon dioxide gas (in cylinders).....	lb.	1,718,847	177,777	3,950,733	380,699
Flavouring extracts and essences.....			683,578		642,212
Sugar.....	lb.	14,457,765	955,785	19,063,949	1,059,204
Syrups and fruit juices.....			1,058,350		1,280,189
Boxes, cases, bottles, labels, corks, caps, etc.....			1,511,190		961,786
All other materials.....			318,976		251,937
Total.....			4,705,656		4,576,027

Table 43.—Products of the Aerated Waters Industry, 1928 and 1929

Products	Selling value at works	
	1928	1929
	\$	\$
Natural mineral water (fortified or not).....	261,977	165,286
*Soda water and other carbonated beverages (non-alcoholic).....	8,902,542	10,874,570
Syrups and fruit juices.....	1,250,077	1,052,319
All other products.....	263,235	157,043
Total.....	10,677,831	12,249,218

* In addition to the production of carbonated beverages in this industry there was an output valued at about \$958,356 by concerns classified in the Breweries Industry.

Table 44.—Total Production in Canada of Soda Water and Other Carbonated Beverages, 1925-1929

Years	Production		
	In aerated waters industry	In other industries	Total
	\$	\$	\$
1925.....	5,731,217	524,675	6,255,892
1926.....	6,257,658	338,805	6,596,463
1927.....	7,062,967	609,591	7,672,558
1928.....	8,902,542	827,708	9,730,250
1929.....	10,874,570	958,356	11,832,926

Table 45.—Total Production in Canada of Soda Water and Other Carbonated Beverages by Provinces, 1927-1929

Provinces	Production		
	1927	1928	1929
	\$	\$	\$
Prince Edward Island and Nova Scotia.....	139,087	148,006	321,004
New Brunswick.....	347,211	344,347	417,163
Quebec.....	3,074,287	4,099,933	4,541,618
Ontario.....	2,523,826	3,508,904	4,241,457
Manitoba.....	610,743	509,017	793,834
Saskatchewan.....	292,316	243,360	355,623
Alberta.....	439,318	637,905	772,393
British Columbia.....	245,770	238,747	388,834
Canada.....	7,672,558	9,730,250	11,832,926

Primary Production of Mineral Waters.—(From the Annual Report on the *Mineral Production of Canada*, 1929).—Mineral springs and wells in Canada produced 321,905 imperial gallons of mineral waters valued at \$16,139 in 1929 as compared with an output of 269,045 imperial gallons at \$33,493 in the preceding year. The 1929 shipments were made up of 12,205 imperial gallons from Quebec and 309,700 imperial gallons from Ontario.

Table 46.—Production in Canada, Imports and Exports of Mineral Waters, 1928 and 1929

	1928		1929	
	Imp gal.	Value	Imp gal.	Value
		\$		\$
PRODUCTION, BY PROVINCES—				
Quebec.....	15,415	5,608	12,205	2,488
Ontario.....	253,630	27,890	309,700	13,651
Total.....	269,045	33,498	321,905	16,139
IMPORTS—Mineral and aerated waters.....		209,714		253,940
EXPORTS—Mineral and aerated waters.....		31,021		12,320

CHAPTER THREE

THE ARTIFICIAL ABRASIVES AND ABRASIVE PRODUCTS INDUSTRY

Manufactures of artificial abrasives and abrasive products in Canada were valued at \$8,961,951 in 1929. This output was 26 per cent over the corresponding selling value of \$7,122,588 in 1928 which in turn was 17 per cent over the total of \$6,106,794 in 1927. Among the principal products made in this industry were 53,857 tons of fused alumina at \$4,974,789 and 21,592 tons of silicon carbide at \$2,577,033, abrasive wheels worth \$819,884 and other commodities such as ferrosilicon, abrasive cloth and paper, firesand, pulpstones and sharpening stones.

For 1929 reports were received from 12 plants of which 11 were in Ontario and 1 in Quebec. Capital employed by these firms amounted to \$6,683,533; the average number of employees was 828 and salaries and wages for the year totalled \$1,270,898; materials used in manufacturing cost \$2,905,928 at the works, and the value added by manufacturing processes was \$6,056,023.

Artificial abrasives were manufactured in 5 different plants which were located near the power centres of Niagara Falls, Ont., and the Shawinigan Falls, P.Q. The Canadian Carborundum Co. Ltd., produced silicon carbide in their Shawinigan Falls works and made fused alumina in their Niagara Falls factory. The Norton Company manufactured both fused alumina and silicon carbide at Chippawa, Ont.; the Exolon Company produced silicon carbide at Thorold, Ont.; and the Abrasive Co. of Canada, Ltd., made fused alumina at Hamilton, Ont. Practically the whole output from these works was shipped in the crude state to the parent plants in the United States for crushing, cleaning and grading, none of which is done in Canada.

Abrasive wheels were made in 7 factories in 1929. Abrasives Ltd. at Brantford made only abrasive paper and cloth but in addition to the other names listed under "Abrasive Products" (page 146) the Canadian Carborundum Co. Ltd., manufactured abrasive wheels in their fused alumina plant at Niagara Falls, Ont.

Imports and exports are tabulated in tables 28 and 29 of this report.

Table 47.—Principal Statistics, 1925-1929

Years	Number of plants	Capital employed	Average number of employees	Salaries and wages	Cost of fuel and electricity	Cost of materials at works	Selling value of products at works	Value added by manufacturing
		\$		\$	\$	\$	\$	
1925.....	13	6,160,392	598	853,458	506,705	2,006,618	5,909,318	3,988,388
1926.....	11	6,398,369	622	929,755	599,744	2,093,434	6,081,822	4,107,646
1927.....	11	6,303,669	627	955,134	601,751	1,999,148	6,106,794	4,953,160
1928.....	12	7,317,105	691	1,048,521	644,557	2,169,428	7,122,588	6,056,023
1929.....	12	6,683,533	828	1,270,898	873,038	2,905,928	8,961,951	

Table 48.—Capital Employed, by Classes, 1925-1929

Years	Capital employed as represented by			
	Lands, buildings, fixtures, machinery and tools	Materials on hand and stocks in process	Cash, trading and operating accounts and bills receivable	Total
	\$	\$	\$	\$
1925.....	3,694,051	1,012,802	1,453,536	6,160,392
1926.....	3,654,489	967,921	1,775,959	6,398,369
1927.....	3,500,683	1,005,614	1,957,372	6,563,669
1928.....	3,793,462	884,250	2,639,393	7,317,105
1929.....	4,106,186	1,331,556	1,185,791	6,683,533

MANUFACTURES OF NON-METALLIC MINERALS

Table 49.—Employees, Salaries and Wages, 1925-1929

Years	Average number of employees				Total	Salaries and wages		
	Salaried employees		Wage-earners			Salaries	Wages	Total
	Male	Female	Male	Female				
						\$	\$	\$
1925.....	62	19	512	5	598	175,054	678,404	853,458
1926.....	67	24	527	4	622	178,264	751,491	929,755
1927.....	64	24	534	5	627	203,065	752,069	955,134
1928.....	67	25	594	5	691	213,268	835,253	1,048,521
1929.....	74	27	721	6	828	239,725	1,031,173	1,270,898

Table 50.—Wage-Earners by Months, 1928 and 1929

Months	1928			1929		
	Male	Female	Total	Male	Female	Total
January.....	517	5	552	653	4	657
February.....	503	5	568	678	5	683
March.....	574	5	579	701	6	707
April.....	566	5	571	701	6	707
May.....	571	5	576	720	6	726
June.....	568	5	573	732	6	738
July.....	575	5	580	727	6	733
August.....	576	5	581	723	6	729
September.....	581	5	586	753	6	759
October.....	606	5	611	771	6	777
November.....	621	5	626	768	6	774
December.....	631	5	636	732	6	738
Average*	594	5	599	721	6	727

* See note on page 24.

Table 51.—Average Hours Worked by Wage-Earners per Day or Shift and per Week, 1929

Day or shift	Total of wage-earners for months of highest employment	Average wage-earners according to hours usually worked	Total man-hours worked by wage-earners per day	Average hours worked by wage-earners per day	Total man-hours worked by wage-earners per week	Average hours worked by wage-earners per week
8 hours or less.....	154	230	1,840	8-00	12,676	55-07
9 hours.....	599	479	4,311	9-00	24,614	51-39
10 hours.....	29	19	209	11-00	1,330	70-00
Over 10 hrs.....	23					
Total	805	728	6,369	8-74	38,620	53-05

Table 52.—Fuel and Electricity Used, 1928 and 1929

Kinds	Unit of measure	1928		1929	
		Quantity	Cost at works	Quantity	Cost at works
			\$		\$
Bituminous coal—Canadian.....	short ton	113	758	5	50
Imported.....	short ton	3,725	24,494	4,266	26,423
Anthracite coal.....	short ton	300	3,712	392	4,178
Coke.....	short ton	24	231	123	719
Kerosene.....	imp. gal.	3	1	175	26
Gas—Manufactured.....	M. cu. ft.	223	194	341	266
Natural.....	M. cu. ft.	324	262	693	401
Electricity purchased.....	k. w. h.	259,201,114	614,905	322,238,707	840,505
Total			644,557		873,068

Table 53.—Power Employed, 1928 and 1929

Description	1928		1929	
	Number of units	Total h. p. according to manufacturers' rating	Number of units	Total h. p. according to manufacturers' rating
Electric motors run by purchased power.....	301	3,804	346	4,197
Total power employed.....	301	3,804	346	4,197
Electric motors run by primary power in same plant.....				
<i>Total electric motors.....</i>	<i>301</i>	<i>3,804</i>	<i>346</i>	<i>4,197</i>
Boilers.....	6	555	6	600

Table 54.—Materials Used in Manufacturing, 1928 and 1929

Materials	Unit of measure	1928		1929	
		Quantity	Cost at works	Quantity	Cost at works
			\$		\$
Aluminum oxide.....	ton	3,295	83,498	5,128	206,698
Anthracite coal (not for fuel).....	ton	5,601	36,279	6,310	35,029
Bauxite.....	ton	39,751	812,782	56,540	1,142,831
Coke (not for fuel).....	ton	21,787	295,571	42,238	362,723
Electrodes.....	ton	976	128,234	1,163	158,898
Iron.....	ton	5,505	56,937	9,896	112,306
Salt.....	ton	472	4,048	367	3,061
Sawdust.....	ton	7,432	28,513	7,439	34,017
Silica sand.....	ton	37,152	177,342	43,242	211,196
Artificial abrasive grains.....	ton	2,840	149,067	4,070	190,529
Natural abrasive grains.....	ton	275	15,011	163	15,018
Bonding and bushing materials.....			41,463		37,730
Cotton cloth.....	sq. yd.	167,178	29,209	139,658	20,329
Kraft paper.....	ton	45	5,753	35	4,409
Containers, boxes, packages, etc.....			17,236		12,308
All other materials.....			287,555		357,666
Total.....			2,169,428		2,965,928

Table 55.—Products Made, 1928 and 1929

Products	Unit of measure	1928		1929	
		Quantity	Selling value at works	Quantity	Selling value at works
			\$		\$
Crude silicon carbide.....	ton	19,009	2,098,199	21,592	2,577,033
Fused alumina.....	ton	39,413	3,786,113	53,857	4,974,789
Abrasive wheels.....			847,489		819,884
Other products (*).....			390,787		500,245
Total.....			7,122,588		8,961,951

(*) Includes ferrosilicon, abrasive cloth, abrasive paper, firesand, sharpening stones, and pulpstones.

Table 56.—Production of Artificial Abrasives in Canada, 1923-1929

Years	Silicon carbide		Fused alumina		Total	
	Quantity	Selling value at works	Quantity	Selling value at works	Quantity	Selling value at works
	Tons	\$	Tons	\$	tons	\$
1923.....	12,660	1,382,747	32,201	3,620,497	44,861	5,003,244
1924.....	15,207	1,773,864	29,822	3,170,205	45,029	4,944,069
1925.....	16,945	1,864,009	30,337	3,281,708	47,282	5,145,717
1926.....	17,958	1,732,942	34,649	3,423,520	52,607	5,156,468
1927.....	17,333	1,961,910	35,086	3,230,928	52,419	5,192,838
1928.....	19,008	2,098,199	39,413	3,786,113	58,421	5,884,312
1929.....	21,592	2,577,033	53,857	4,074,789	75,449	7,551,822

Table 57.—Production of Artificial Abrasive Wheels in Canada, 1923-1929

Years	Selling value at works
	\$
1923.....	506,426
1924.....	425,384
1925.....	426,341
1926.....	619,124
1927.....	634,007
1928.....	847,480
1929.....	819,884

Primary Production.—(From the annual report on the *Mineral Production of Canada, 1929*).—**Natural Abrasives.**—Production data on corundum, diatomite, garnets, grinding pebbles, grindstones, pulpstones, scythestones, and volcanic dust in Canada during 1929, was reported as follows:—

CORUNDUM.—Corundum is found in an area embracing several townships in Renfrew and Hastings counties in the province of Ontario. The industry made its appearance there in 1900 and production reached a maximum in 1906. In 1921, grain corundum amounting to 403 tons valued at \$55,965 was exported to the United States. Since that date no shipments of corundum have been reported.

DIATOMITE.—Shipments of diatomite in 1929 were made from deposits at East New Annan, Nova Scotia, and Quesnel, B.C. The total production for the year was 429 tons valued at \$10,330 as compared with 368 tons worth \$8,960 shipped in 1928.

GARNETS.—Operations in the garnet industry in Canada during 1929 consisted of development work on deposits in Beaudin, Joly and Trevet townships, Quebec. A small experimental shipment was made from the Joly property during the year.

GRINDING PEBBLES.—No shipments from Canadian deposits of grinding pebbles have been reported since 1926; during that year 64 tons were produced. This tonnage was shipped from deposits on the shore of Lake Superior, near Jackfish, Ontario.

GRINDSTONES, PULPSTONES AND SCYTHESTONES.—The production of grindstones, pulpstones and scythestones from Canadian quarries during 1929 amounted to 1,917 tons valued at \$106,354; in the preceding year shipments totalled 1,855 tons worth \$100,960. Grindstones were obtained from Nova Scotia and New Brunswick; pulpstones from New Brunswick and British Columbia; and scythestones from New Brunswick.

VOLCANIC DUST.—Volcanic dust is used for purposes similar to ground pumice, particularly in the manufacture of cleansers and scouring powders and in some instances as a substitute for fuller's earth in the refining of hard oils and fats. The Canadian market for volcanic dust is not large, nevertheless, only about 2 per cent is supplied by the domestic product.

The extensive beds of volcanic dust that occur near Waldeck, Saskatchewan, were first discovered in 1918. Shipments have been made from these deposits annually for the past six years. In 1929, production amounted to 300 tons valued at \$6,000 as compared with 485 tons at \$9,795 shipped in the preceding year.

The 9 firms operating in the natural abrasives industry in Canada during 1929 reported a capital investment of \$790,791. Salaried employees and wage-earners totalled 154 persons and their combined earnings were \$152,805. Fuel and electricity costs amounted to \$18,942.

Table 58.—Production of Natural Abrasives in Canada, 1929

Provinces	Diatomite		Grindstones, pulpstones and scythestones		Volcanic dust	
	Tons	\$	Tons	\$	Tons	\$
Nova Scotia.....	254	5,080	6	110		
New Brunswick.....			1,731	103,514		
Saskatchewan.....					300	6,000
British Columbia.....	175	5,250	210	2,730		
Canada.....	429	10,330	1,947	106,354	300	6,000

Table 59.—Principal Statistics of the Natural Abrasives Industry in Canada, 1928 and 1929

	1928	1929
Number of firms.....	9	9
Capital employed..... \$	448,615	790,791
Number of employees—On salary.....	11	18
On wages.....	152	136
Total.....	163	154
Salaries and Wages—Salaries..... \$	20,710	38,648
Wages..... \$	75,848	114,157
Total..... \$	96,558	152,805
Cost of fuel and electricity..... \$	12,998	18,942
Selling value of products..... \$	119,715	122,684

CHAPTER FOUR

THE ASBESTOS PRODUCTS INDUSTRY

Manufactures of asbestos products in Canada reached a new high production value during 1929 at \$2,286,638. This output was 12 per cent greater in value than the previous record of \$2,050,432 in 1928 and 37 per cent over the total of \$1,663,300 reported for 1927. Returns were received from 12 concerns in this line of work; 5 were located in Ontario, 4 in Quebec, 2 in British Columbia and 1 in Nova Scotia.

Capital employed by these firms amounted to \$2,949,712; the average number of employees was 351; payments for salaries and wages during the year totalled \$359,433; materials cost \$1,348,460 and the value added by manufacturing was \$938,178.

The larger factories are situated in Quebec which is the centre of asbestos mining in Canada. Here are located the works of the Canadian Johns Manville Co. Ltd. at Asbestos, which manufactures brake linings, pipe covering, packings, paper, shingles and other products; the Asbestos Manufacturing Co. Ltd. at Lachine, which makes lumber, shingles, corrugated sheathing, wall-board, millboard, tile and blackboards; the Asbestonos Corporation Ltd. at Montreal which produces brake linings; and the Atlas Asbestos Co. Ltd. at Montreal which makes asbestos packings. In Ontario, the Canadian Raybestos Co. Ltd. at Peterborough makes brake linings, packings, clutch facings and gaskets; the Garlock Packing Co. at Hamilton produces packings; and A. C. Wild Co., Insulation and Asbestos Co. Ltd., and Asbestos Goods Co., all of Toronto, manufacture pipe and boiler covering. In Nova Scotia, Guildford and Sons, Ltd., at Halifax make packings, tape and gaskets, pipe covering and ice cream packers. In British Columbia, H. Baillie & Co. at Vancouver produces pipe covering and Spicers Asbestos Ltd. at Vancouver makes an asphaltic and asbestos expansion joint for roads, sidewalks, etc.

Imports of asbestos products were valued at \$1,013,436 in 1929 as against \$835,887 in 1928, and exports, including mine shipments of crude asbestos, were appraised at \$12,748,634 as compared with \$11,046,182 in the previous year.

In the tables given below the figures for 1929 are not strictly comparable with those given for 1928. In the latter year data for plants making magnesite stucco and flooring were included but in 1929 returns for these concerns were taken from this industry and transferred to the miscellaneous group; in 1928 the output from the 3 magnesite plants amounted to \$104,703.

Table 60.—Principal Statistics by Provinces, 1928 and 1929

Provinces	Number of plants	Capital employed	Average number of employees	Salaries and wages	Cost of fuel and electricity	Cost of materials at works	Selling value of products at works	Value added by manufacturing
		\$		\$	\$	\$	\$	\$
1928								
Quebec.....	4	2,330,800	264	308,125	64,143	674,708	1,455,853	781,145
Ontario.....	5	511,214	53	83,093	7,369	201,768	485,155	283,387
Canada*	14	3,064,164	345	421,448	72,421	925,661	2,050,432	1,124,771
1929								
Quebec.....	4	2,443,937	270	247,329	72,282	1,145,678	1,666,368	520,690
Ontario.....	5	507,092	71	100,136	8,176	188,107	578,616	390,509
Canada*	12	2,949,712	351	359,433	80,902	1,348,460	2,286,638	938,178

*Includes also data for 1 plant in Nova Scotia, 1 in Manitoba and 3 in British Columbia for 1928; and for 1 plant in Nova Scotia and 2 in British Columbia for 1929.

Table 61.—Principal Statistics by Groups of Production Values, 1929

Production values	Number of plants	Capital employed	Number of employees	Value of production
\$		\$		\$
Under 10,000	3	14,388	20	23,261
10,000 to 50,000	4	57,980	19	95,855
Over 100,000	5	2,877,344	312	2,167,321
Total	12	2,949,712	351	2,286,637

Table 62.—Principal Statistics by Groups of Employees, 1929

Employees	Number of plants	Capital employed	Number of employees	Total value of production
		\$		\$
1 or 2	2	8,460	2	18,641
3 to 10	5	169,281	32	236,024
Over 10	5	2,771,971	317	2,031,972
Total	12	2,949,712	351	2,286,637

Table 63.—Capital Employed by Classes and by Provinces, 1928 and 1929

Provinces	1928				1929			
	Capital employed as represented by				Capital employed as represented by			
	Lands, buildings, fixtures, machinery and tools	Materials on hand and stocks in process	Cash, trading and operating accounts and bills receivable	Total	Lands, buildings, fixtures, machinery and tools	Materials on hand and stocks in process	Cash, trading and operating accounts and bills receivable	Total
	\$	\$	\$	\$	\$	\$	\$	\$
Quebec	1,710,877	423,500	196,423	2,330,800	1,786,204	476,150	151,583	2,413,937
Ontario	255,025	160,218	95,071	511,214	267,656	165,663	73,773	507,092
Canada*	2,006,557	660,191	397,416	3,064,161	2,070,960	649,296	229,456	2,949,712

*See footnote to Table 60.

Table 64.—Employees, Salaries and Wages, by Provinces, 1928 and 1929

Provinces	Average number of employees					Salaries and wages		
	Salaried employees		Wage-earners		Total	Salaries	Wages	Total
	Male	Female	Male	Female				
					\$	\$	\$	
1928								
Quebec	32	7	200	25	264	79,475	228,650	308,125
Ontario	15	6	29	3	53	43,038	40,053	83,093
Canada*	53	13	350	29	345	131,034	287,364	421,418
1929								
Quebec	30	11	211	18	270	79,593	167,736	247,329
Ontario	15	6	48	2	71	48,594	51,542	100,136
Canada*	48	17	264	22	351	132,287	227,146	359,433

*See footnote to Table 60.

MANUFACTURES OF NON-METALLIC MINERALS

Table 65.—Wage-Earners by Months, 1928 and 1929

Months	1928			1929		
	Male	Female	Total	Male	Female	Total
January.....	213	28	241	248	19	267
February.....	230	28	258	257	25	282
March.....	228	27	255	236	18	254
April.....	253	28	281	262	19	281
May.....	266	28	294	267	20	287
June.....	271	29	300	278	17	295
July.....	276	28	304	272	18	290
August.....	269	27	296	248	22	270
September.....	251	28	279	247	24	271
October.....	244	28	272	270	23	292
November.....	238	20	258	255	24	279
December.....	223	20	243	243	25	268
Average*	250	29	279	261	22	286

*See note on page 24.

Table 66.—Total of Wage-Earners in Months of Highest Employment, by Hours Worked per Day or Shift and by Provinces, 1929

Provinces	Number of wage-earners in month of highest employment working per day or shift of				
	8 hours or less	9 hours	10 hours	Over 10 hours	Total
Quebec.....		3	260		263
Ontario.....	18	43			61
Nova Scotia and British Columbia.....	11				11
Canada	29	46	260		335

Table 67.—Average Wage-Earners Subdivided according to Hours usually Worked per Day or Shift, by Provinces, 1929

Provinces	Number of wage-earners usually working per day or shift of				
	8 hours or less	9 hours	10 hours	Over 10 hours	Total
Quebec.....		1	228		229
Ontario.....	13	37			50
Nova Scotia and British Columbia.....	7				7
Canada	20	38	228		286

Table 68.—Average Hours Worked by Wage-Earners per Day or Shift and per Week, by Provinces, 1929

Provinces	Total number of wage-earners	Total man-hours worked by wage-earners per day	Average hours per day per wage-earner	Total man-hours worked by wage-earners per week	Average hours per week per wage-earner
Quebec.....	229	2,289	9.95	13,435	58.67
Ontario.....	50	437	8.74	2,424	48.48
Nova Scotia and British Columbia.....	7	56	8.00	312	44.57
Canada	286	2,782	9.73	16,171	56.54

Table 69.—Fuel and Electricity, 1928 and 1929

Kinds	Unit of measure	1928		1929	
		Quantity	Cost at works	Quantity	Cost at works
			\$		\$
Bituminous coal—Canadian	Short ton	401	3,027	4,660	28,630
Imported	Short ton	3,574	22,004	636	4,123
Anthracite coal	Short ton	118	1,030	207	1,324
Gasoline	Imp. gal.	66	23	3,480	748
Fuel oil	Imp. gal.	185,100	16,910	225,326	19,314
Wood	Cord			7	56
Gas—Manufactured	M cu. ft.	600	576	677	426
Electricity purchased	K. W. H.	1,676,260	28,839	1,548,853	20,281
Total			72,421		80,902

Table 70.—Power Employed, 1928 and 1929

Description	1928		1929	
	Number of units	Total h. p. according to manufacturers' rating	Number of units	Total h. p. according to manufacturers' rating
Electric motors run by purchased power	109	2,059	112	1,969
Total power employed	109	2,059	112	1,969
<i>Total electric motors</i>	<i>109</i>	<i>2,059</i>	<i>112</i>	<i>1,969</i>
Boilers	7	716	7	716

Table 71.—Materials Used in Manufacturing, 1928 and 1929

Materials	Unit of measure	1928		1929	
		Quantity	Cost at works	Quantity	Cost at works
			\$		\$
Asbestos, crude	lb.	12,182,147	169,100	16,497,403	240,052
Asbestos cloth	lb.	13,254	5,221	48,724	22,919
Asbestos paper, corrugated and plain	lb.	8,814,782	229,868	11,474,070	365,041
Asbestos yarn	lb.	187,053	72,430	364,825	157,804
Adhesives	lb.	2,301,604	32,868	1,092,968	55,011
Asphalt	lb.	6,120,185	91,673	9,803,653	96,378
Cement	lb.	5,931,514	26,883	4,257,583	25,739
Cotton cloth and yarn	lb.	204,805	30,721	826,734	51,418
Felt	lb.	85,338	8,089	121,336	8,003
Hair	lb.	492,972	28,845	804,009	77,830
Magnesite	lb.	587,840	19,489	60,000	1,800
Rubber	lb.	23,318	7,694	28,748	5,458
Silica sand	lb.	890,000	1,843	758,709	2,623
Paint	gal.	7,792	23,214	8,307	24,923
Containers, boxes, etc.			24,045		24,897
All other materials			152,778		188,564
Total			925,661		1,348,460

Table 72.—Products Made, 1928 and 1929

Products	Unit of measure	1928		1929	
		Quantity	Selling value at works	Quantity	Selling value at works
			\$		\$
Asbestos brake linings.....	ft.	2,178,278	439,431	2,921,242	555,739
Asbestos boiler and pipe covering.....	ft.	3,674,092	376,399	3,593,131	406,365
Asbestos packings.....	lb.	383,837	218,904	506,787	234,595
Magnesite stucco and flooring.....			103,225		
*All other products.....			912,473		1,089,909
Total.....			2,650,432		2,286,638

*Includes the following asbestos goods which were reported by only 1 or 2 concerns and so cannot be shown separately: paper, shingles, lumber, wallboard, millboard, tile, gaskets, corrugated sheathings and clutch facings.

Table 73.—Production of Asbestos Brake Linings, Pipe Covering and Packings in Canada, 1925-1929

Years	Asbestos brake linings	Asbestos boiler and pipe covering	Asbestos packings
	\$	\$	\$
1925.....	272,217	179,717	187,916
1926.....	279,783	232,963	184,515
1927.....	326,072	277,339	204,376
1928.....	439,431	376,399	218,904
1929.....	555,739	406,395	234,595

Table 74.—Imports into Canada and Exports of Asbestos, 1929

	Tons	Value
		\$
IMPORTS—		
Asbestos packing.....	114	116,207
Asbestos in any form other than crude, and all manufactures of, n.o.p.....		897,229
Total.....		1,013,436
EXPORTS—		
Asbestos.....	143,725	10,127,208
Asbestos sand and waste.....	148,305	2,507,474
Asbestos manufactures, including asbestos roofing.....		113,952
Total.....		12,748,634

Table 75.—Exports of Canadian Asbestos by Countries of Destination, 1928 and 1929

Commodity and Destination	1928		1929	
	Tons	\$	Tons	\$
Asbestos—				
United Kingdom.....	6,886	547,250	3,508	350,410
United States.....	80,765	5,157,955	91,876	6,033,946
Australia.....	1,390	104,275	1,463	137,087
Belgium.....	3,841	309,149	14,291	987,896
France.....	7,012	505,825	6,583	504,539
Germany.....	13,589	1,153,177	11,329	1,189,580
Italy.....	3,451	296,145	2,424	234,971
Japan.....	9,165	507,758	10,557	597,800
Netherlands.....	2,464	168,289	1,240	87,210
Other countries.....	649	52,732	454	33,769
Total.....	129,192	8,802,558	143,725	10,127,208
Sand and waste—				
United Kingdom.....	1,964	40,727	2,335	55,850
United States.....	126,417	1,900,491	140,589	2,320,084
Germany.....	3,460	84,950	2,667	66,625
Netherlands.....	1,988	48,900	1,201	30,025
Other countries.....	1,900	42,652	1,514	34,890
Total.....	135,729	2,177,720	148,305	2,567,474
Asbestos manufactures, including asbestos roofing—				
United Kingdom.....		7,738		58,769
United States.....		22,711		21,556
Newfoundland.....		5,765		4,707
Other countries.....		26,681		28,920
Total.....		63,895		113,952

Primary Production of Asbestos (From the Annual Report on the *Mineral Production of Canada, 1929.*)—

Asbestos production in Canada during 1929 set up a new high record when shipments amounted to 306,055 tons valued at \$13,172,581, an increase of 12.1 per cent in quantity and 17.2 per cent in value as compared with the production of 273,033 tons worth \$11,238,360 in the previous year. The average value received by the operators was \$43.04 per ton; in 1928 the average was \$41.16 per ton. Asbestos rock mined during the year totalled 6,208,970 tons of which quantity 4,384,120 tons were milled.

Table 76.—Principal Statistics of the Asbestos Industry in Canada, 1928 and 1929

	1928	1929
Number of firms.....	7	7
Capital employed..... \$	35,705,212	33,248,057
Number of employees:—		
On salary.....	147	197
On wages.....	3,023	3,194
Total.....	3,170	3,391
Salaries and wages:—		
Salaries..... \$	372,070	419,799
Wages..... \$	3,617,574	3,990,736
Total..... \$	3,989,644	4,410,535
Cost of fuel and electricity..... \$	1,177,715	1,335,610
Selling value of products..... \$	11,251,829	13,179,884

Table 77.—Output and Shipments of Canadian Asbestos, 1929

Classification	Sold or Shipped			
	Total output	Quantity	Total sales value at mill	Average value per ton
	tons	tons	\$	\$
Crude No. 1.....	883	802	447,259	557.68
Crude No. 2.....	2,864	2,625	870,888	331.77
Other crudes.....	1,053	931	168,226	180.69
Spinning stocks.....	19,615	17,545	3,110,848	177.31
Shingle stocks.....	34,038	34,177	2,572,216	75.26
Mill board and paper stocks.....	91,892	91,157	3,515,200	38.50
Fillers, floats and other short fibres.....	160,859	158,818	2,487,935	15.66
Total.....	311,264	306,655	13,172,581	43.04
Sand and gravel (*).....	18,976	18,976	7,303	0.38

(*) This production is included under the Sand and Gravel Industry.

CHAPTER FIVE

THE CEMENT INDUSTRY

Canadian cement production set up a new high record in 1929, when shipments totalled 12,284,081 barrels valued at \$19,337,235 as compared with 11,023,928 barrels worth \$16,739,163 produced in 1928.

Plants in Quebec, Ontario, Manitoba, Alberta and British Columbia were active during the year. Mills in Quebec produced 42.1 per cent of the total Canadian shipments; in Ontario, 37.7 per cent; in Manitoba, 8.1 per cent; in Alberta, 6.6 per cent, and in British Columbia, 5.5 per cent.

Imports of Portland cement into Canada during 1929 totalled 55,980 barrels averaging \$3.38 per barrel; in 1928 the average value was \$4.29 per barrel. Portland cement exports were recorded at 234,111 barrels valued at \$252,955. The supply of cement made available for consumption in Canada in 1929 was the greatest on record and amounted to 12,105,950 barrels.

Capital employed by the 5 firms operating in the cement industry in Canada in 1928 was \$50,881,818. Employment was furnished 124 salaried employees and 2,422 wage-earners; their combined earnings totalled \$3,523,595. Fuel and electricity costs amounted to \$4,347,219 of which \$1,641,534 was expended for 319,916 tons of Canadian coal; \$1,750,170 for imported coal; \$945,469 for purchased electric power; and minor sums for coke, gasoline, kerosene and fuel oil. Plant equipment included 1,141 electric motors with a total rating of 68,769 h.p. Fifty-seven rotary kilns were in operation during the year with a total rated capacity of 44,022 barrels per day.

The names of the producers and the plant locations are given on page 146.

Table 78—Principal Statistics, 1925-1929

Years	Number of plants	Capital employed	Average number of employees	Salaries and wages	Cost of fuel and electricity	Selling value of products at works
		\$		\$	\$	\$
1925.....	11	38,081,583	1,926	2,511,406	2,848,904	14,046,704
1926.....	12	41,380,000	2,340	3,052,562	3,424,156	13,013,283
1927.....	12	40,509,319	2,270	3,143,932	3,546,000	14,391,937
1928.....	11	47,678,841	2,407	3,405,385	3,872,108	16,739,163
1929.....	11	50,881,818	2,546	3,523,595	4,347,219	19,337,235

Table 79.—Capital Employed by Classes, 1925-1929

Years	Cost of lands, buildings, fixtures, machinery and tools	Cost of supplies and stocks on hand	Cash, trading and operating accounts and bills receivable	Total
	\$	\$	\$	\$
1925.....	33,545,100	2,857,507	1,678,976	38,081,583
1926.....	35,368,100	3,235,136	2,776,764	41,380,000
1927.....	34,495,477	3,114,415	2,899,427	40,509,319
1928.....	35,365,970	4,020,658	8,292,213	47,678,841
1929.....	39,007,891	3,968,456	7,905,471	50,881,818

Table 80.—Employees, Salaries and Wages, 1925-1929

Years	Average number of employees					Salaries and wages		
	Salaried employees		Wage-earners		Total	Salaries	Wages	Total
	Male	Female	Male	Female				
					\$	\$	\$	
1925.....	97	8	1,782	38	1,926	213,666	2,297,734	2,511,400
1926.....	114	10	2,216		2,310	272,770	2,779,802	3,052,662
1927.....	113	12	2,145		2,270	270,328	2,873,604	3,143,932
1928.....	113	9	2,285		2,407	256,867	3,148,518	3,405,385
1929.....	114	10	2,422		2,546	260,579	3,263,016	3,523,595

Table 81.—Wage-Earners, by Months, 1928-1929

Months	1928	1929	Months	1928	1929
January.....	1,867	2,190	July.....	2,433	2,619
February.....	1,941	2,087	August.....	2,423	2,613
March.....	2,030	2,220	September.....	2,383	2,447
April.....	2,156	2,239	October.....	2,311	2,435
May.....	2,412	2,432	November.....	2,356	2,428
June.....	2,468	2,555	December.....	2,263	2,250
			Average*	2,285	2,422

*See note on page 24.

Table 82.—Average Hours Worked by Wage-Earners per Day or Shift, 1929

Day or shift	Total of wage-earners in months of highest employment	Average wage-earners according to hours usually worked	Total man-hours worked by wage-earners per day	Average hours worked by wage-earners per day	Total man-hours worked by wage-earners per week	Average hours worked by wage-earners per week
8 hours or less.....	943	322	2,576	8-00	16,464	51-13
9 hours.....	551	1,451	13,059	9-00	84,173	58-01
10 hours.....	845	368	3,680	10-00	24,936	67-76
Over 10 hours.....	482	281	3,214	11-44	22,498	80-07
Total.....	2,821	2,422	22,529	9-30	148,071	61-13

Table 83.—Fuel and Electricity Used, 1928 and 1929

Kinds	Unit of measure	1928		1929	
		Quantity	Cost at works	Quantity	Cost at works
			\$		\$
Bituminous coal—Canadian.....	short ton	276,724	1,473,885	308,090	1,507,808
Imported.....	short ton	282,914	1,551,324	298,960	1,750,170
Lignite coal (Canadian).....	short ton	20,358	61,126	11,826	43,726
Coke.....	short ton	84	781	130	1,362
Gasoline.....	imp. gal.	7,486	1,695	18,689	4,501
Kerosene.....	imp. gal.	803	108	2,798	612
Fuel oil.....	imp. gal.			27,471	3,571
Electricity purchased.....	k.w.h.	179,771,381	783,129	200,133,083	945,469
Total.....			3,872,168		4,347,219

Table 84.—Power Employed in the Cement Industry in Canada, 1928 and 1929

Description	1928		1929	
	Number of units	Total h.p. according to manufacturers' rating	Number of units	Total h.p. according to manufacturers' rating
Steam engines and turbines.....	3	2,151	2	2,000
Gasoline, gas and oil engines.....	9	290	8	278
Hydraulic turbines or water wheels.....	10	4,400	9	4,000
<i>Total primary power.....</i>	<i>22</i>	<i>6,841</i>	<i>19</i>	<i>6,278</i>
Electric motors run by purchased power.....	1,125	66,768	1,194	72,454
Total power employed.....	1,147	73,609	1,213	78,732
Electric motors run by primary power in same plant.....	157	8,040	70	2,800
<i>Total electric motors.....</i>	<i>1,282</i>	<i>75,408</i>	<i>1,264</i>	<i>76,964</i>
Boilers.....	15	3,427	10	3,647

Table 85.—Production in Canada, Imports, Exports and Apparent Consumption of Cement, 1928 and 1929

	1928		1929	
	Barrels	Value \$	Barrels	Value \$
Output.....	11,076,659		12,252,203	
Sold or used.....	11,023,928	16,739,163	12,284,081	19,337,235
Stocks, December 31.....	1,520,583		1,520,629	
Imports—				
Portland.....	34,047	146,164	55,980	189,169
Manufactures.....		31,594		64,942
Exports.....	267,325	340,624	234,111	252,955
Apparent consumption.....	10,690,650		12,105,950	

Table 86.—Imports into Canada and Exports of Cement, by Principal Countries, 1928 and 1929

	Principal countries	1928		1929	
		Quantity cwt.	Value \$	Quantity cwt.	Value \$
IMPORTS—	Total.....	119,166	116,161	195,929	189,169
Cement, Portland, and hydraulic or water lime.....	United Kingdom.....	80	162	607	803
	United States.....	115,156	141,693	148,129	173,155
EXPORTS—	Total.....	935,638	340,624	819,389	252,955
Cement, Portland.....	United Kingdom.....				
	United States.....	123,562	83,025	4,342	3,532
	Bermuda.....	14,852	6,552	19,368	8,842
	British Guiana.....	92,120	42,809	1,316	589
	Jamaica.....	34,790	8,174	18,988	4,912
	Trinidad and Tobago.....	43,001	14,212	53,065	18,450
	Other British West Indies.....	60,670	24,376	67,380	23,063
	Newfoundland.....	57,588	16,996	120,098	33,695
	Colombia.....	256,797	72,250	253,545	77,466
	French West Indies.....	38,916	10,348	68,620	16,835
	St. Pierre and Miquelon.....	22,530	10,407	10,538	5,006
	Mexico.....	50,826	15,695	4,888	1,338
	Panama.....	12,465	3,493	46,419	13,258
	Peru.....	54,974	15,178	53,190	16,378

Table 87.—Sales of Cement in Canada, by Provinces, 1928 and 1929

Province	1928		1929	
	Barrels	Value	Barrels	Value
		\$		\$
Quebec.....	4,913,820	6,305,396	5,169,408	7,120,374
Ontario.....	3,911,795	5,520,897	4,624,712	6,608,246
Manitoba.....	693,450	1,685,084	1,000,258	2,350,606
Alberta.....	834,067	1,732,582	808,796	1,770,786
British Columbia.....	670,796	1,495,204	680,907	1,487,223
Canada.....	11,023,928	16,739,163	12,284,081	19,337,235

Table 88.—Production of Cement in Canada, 1887-1929

Year	Barrels	Value	Year	Barrels	Value	Year	Barrels	Value
		\$			\$			\$
1887.....	69,843	81,909	1902.....	722,525	1,127,550	1917.....	4,768,488	7,724,246
1888.....	50,668	35,593	1903.....	719,993	1,225,247	1918.....	3,591,481	7,076,503
1889.....	90,474	69,790	1904.....	967,172	1,338,239	1919.....	4,995,257	9,802,433
1890.....	102,216	92,405	1905.....	1,360,732	1,924,014	1920.....	6,651,980	14,798,070
1891.....	93,479	108,561	1906.....	2,128,374	3,170,859	1921.....	5,752,885	14,195,143
1892.....	117,408	147,663	1907.....	2,441,868	3,781,371	1922.....	6,943,972	15,438,481
1893.....	158,597	194,015	1908.....	2,606,343	3,709,954	1923.....	7,543,589	15,061,661
1894.....	108,142	144,637	1909.....	4,067,709	5,345,892	1924.....	7,498,624	13,398,411
1895.....	128,294	173,675	1910.....	4,753,975	6,412,215	1925.....	8,116,507	14,046,704
1896.....	149,090	201,651	1911.....	5,692,915	7,644,937	1926.....	8,707,021	13,013,283
1897.....	205,213	275,273	1912.....	7,132,732	9,106,556	1927.....	10,065,865	14,391,937
1898.....	250,209	397,580	1913.....	8,658,835	11,019,418	1928.....	11,023,928	16,739,163
1899.....	396,753	633,291	1914.....	7,172,480	9,187,924	1929.....	12,284,081	19,337,235
1900.....	417,552	662,910	1915.....	5,081,032	6,977,024			
1901.....	450,394	660,030	1916.....	5,369,560	6,547,728			

CHAPTER SIX
THE CEMENT PRODUCTS INDUSTRY

Manufactures of cement products in Canada reached a new high level during 1929 at \$4,419,417. Records, which are available since 1919, show that the production of cement products started at \$921,478 in 1919, advanced to \$1,527,590 in 1920, then dropped slightly for a few years to again start upward in 1925 to \$2,020,239. Thereafter a new record was established each year until the present high of \$4,419,417 was attained in 1929.

Ontario with 106 plants accounted for 63 per cent of the total business; Quebec with 30 plants had 26 per cent, Saskatchewan with 3 plants had 5 per cent, British Columbia's 5 plants made 4 per cent and the remaining 2 per cent was produced by 3 plants in Nova Scotia, 3 in New Brunswick, 2 in Alberta and 1 in Manitoba.

These 153 plants had a working capital of \$5,024,497, afforded employment to an average of 1,347 people who received \$1,608,238 as salaries and wages, and by manufacturing processes they added \$2,916,465 to the value of purchased materials which cost \$1,502,952.

Statistics regarding the manufacture of Portland cement in Canada are given in Chapter Five of this report.

Table 89.—Principal Statistics, by Provinces, 1928 and 1929

Provinces	Number of plants	Capital employed	Average number of employees	Salaries and wages	Cost of fuel and electricity	Cost of materials at works	Selling value of products at works	Value added by manufacturing
		\$		\$	\$	\$	\$	\$
1928								
Nova Scotia.....	3	11,024	13	6,700	103	3,238	9,116	5,878
New Brunswick.....	3	19,447	11	3,713	370	8,431	13,934	5,503
Quebec.....	34	1,415,941	483	590,456	29,912	370,753	1,324,561	947,808
Ontario.....	105	2,501,018	675	763,917	39,669	730,641	2,431,717	1,705,076
Saskatchewan and Alberta.....	3	67,186	44	56,113	912	84,566	290,755	116,189
British Columbia.....	3	125,027	36	45,519	2,859	52,024	146,872	94,848
Canada	151	4,140,543	1,262	1,466,508	73,825	1,261,653	4,136,955	2,875,392
1929								
Nova Scotia.....	3	11,920	10	8,320	130	3,830	10,365	6,535
New Brunswick.....	3	24,556	12	6,537	544	9,917	29,851	19,934
Quebec.....	30	1,362,009	413	523,325	29,879	346,845	1,145,674	798,829
Ontario.....	106	3,297,927	796	934,066	49,974	968,586	2,790,439	1,821,853
Manitoba and Alberta.....	3	46,752	21	15,404	488	30,542	51,120	20,584
Saskatchewan.....	3	141,370	43	60,271	1,290	89,827	231,061	142,134
British Columbia.....	5	139,963	52	60,315	1,915	53,405	160,001	106,596
Canada	153	5,021,497	1,347	1,608,238	84,130	1,502,952	4,419,417	2,916,465

Table 90.—Principal Statistics by Groups of Production Values, 1929

Production values	Number of plants	Capital employed	Number of employees	Production
\$		\$		\$
Under 5,000.....	73	280,759	113	151,180
5,000 to 10,000.....	19	374,916	67	137,032
10,000 to 25,000.....	30	660,897	172	464,375
25,000 to 50,000.....	8	346,225	115	281,061
50,000 to 100,000.....	5	238,512	111	337,001
Over 100,000.....	18	3,123,188	769	3,048,768
Total	153	5,024,497	1,347	4,419,417

Table 91.—Principal Statistics by Groups of Employees, 1929

Employees	Number of plants	Capital employed	Number of employees	Production
		\$		\$
1 or 2.....	75	305,503	99	228,688
3 to 10.....	46	691,581	227	553,760
11 to 20.....	14	1,005,959	226	621,044
21 to 50.....	13	1,772,262	422	1,759,265
51 to 100.....	5	1,249,192	373	1,256,660
Total.....	153	5,024,497	1,347	4,419,417

Table 92.—Capital Employed, by Classes and by Provinces, 1928 and 1929

Provinces	1928				1929			
	Capital employed as represented by				Capital employed as represented by			
	Lands, buildings, fixtures, machinery and tools	Materials on hand and stocks in process	Cash, trading and operating accounts and bills receivable	Total	Lands, buildings, fixtures, machinery and tools	Materials on hand and stocks in process	Cash, trading and operating accounts and bills receivable	Total
	\$	\$	\$	\$	\$	\$	\$	\$
Nova Scotia.....	10,294	1,300	330	11,924	9,450	1,920	550	11,920
New Brunswick.....	13,537	4,435	1,475	19,447	15,300	8,400	856	24,556
Quebec.....	717,879	236,535	461,527	1,415,941	759,906	257,152	344,951	1,362,009
Ontario.....	1,277,623	477,368	746,027	2,501,018	1,877,869	464,163	955,895	3,297,927
Manitoba.....					28,522	10,829	7,401	46,752
Alberta.....	31,414	8,112	27,660	67,186				
Saskatchewan.....					99,023	20,620	21,727	141,370
British Columbia.....	79,884	12,368	32,775	125,027	99,725	15,695	27,543	139,961
Canada.....	2,130,631	740,118	1,269,794	4,140,543	2,886,795	778,779	1,358,923	5,024,497

Table 93.—Employees, Salaries and Wages, by Provinces, 1928 and 1929

Provinces	Average number of employees					Salaries and wages		
	Salaried employees		Wage-earners		Total	Salaries	Wages	Total
	Male	Female	Male	Female				
					\$	\$	\$	
1928								
Nova Scotia.....	5		8		13	4,498	2,202	6,790
New Brunswick.....	2		9		11	1,550	2,163	3,713
Quebec.....	55	4	423	1	483	114,500	475,956	590,456
Ontario.....	77	8	588	2	675	146,414	617,503	763,917
Saskatchewan and Alberta.....	5		39		44	12,383	43,730	56,113
British Columbia.....	2		34		36	4,200	41,319	45,519
Total.....	146	12	1,101	3	1,262	283,545	1,182,963	1,466,508
1929								
Nova Scotia.....	2		8		10	2,400	5,920	8,320
New Brunswick.....	2		10		12	1,074	5,463	6,537
Quebec.....	63	4	345	1	413	122,406	400,919	523,325
Ontario.....	93	12	689	2	796	180,119	753,947	934,066
Manitoba and Alberta.....	3	1	17		21	3,924	11,480	15,404
Saskatchewan.....	6	1	36		43	15,291	44,080	60,271
British Columbia.....	7		45		52	10,692	49,623	60,315
Total.....	176	18	1,159	3	1,347	335,906	1,272,332	1,608,238

Table 94.—Wage-Earners, by Months, 1928 and 1929

Months	1928			1929		
	Male	Female	Total	Male	Female	Total
January.....	606	3	609	775	3	778
February.....	612	3	615	726	3	729
March.....	708	3	711	719	3	722
April.....	853	3	856	862	3	865
May.....	1,058	3	1,061	1,102	3	1,105
June.....	1,214	3	1,217	1,228	3	1,231
July.....	1,249	3	1,252	1,356	3	1,359
August.....	1,266	3	1,269	1,337	3	1,340
September.....	1,178	3	1,181	1,307	3	1,310
October.....	1,207	3	1,210	1,274	3	1,277
November.....	1,073	3	1,076	1,107	3	1,110
December.....	960	3	963	944	3	947
Average*	1,101	3	1,104	1,150	3	1,153

*See note on page 24.

Table 95.—Total of Wage-Earners in Months of Highest Employment, by Provinces and by Hours Worked per Day or Shift, 1929

Provinces	No. of wage-earners in months of highest employment working per day or shift of				
	8 hours or less	9 hours	10 hours	Over 10 hours	Total
Nova Scotia.....	8	3	3		11
New Brunswick.....	5	10			15
Quebec.....	39	128	381	3	551
Ontario.....	117	415	462	93	1,087
Manitoba and Alberta.....	4	24			28
Saskatchewan.....	1	1	54	14	70
British Columbia.....	55	17	4	2	78
Canada	229	598	864	112	1,843

Table 96.—Average Wage-Earners Subdivided according to Hours usually Worked per Day or Shift, by Provinces, 1929

Provinces	No. of wage-earners normally working per day or shift of				
	8 hours or less	9 hours	10 hours	Over 10 hours	Total
Nova Scotia.....	5		3		8
New Brunswick.....	2	6	2		10
Quebec.....	13	85	248		346
Ontario.....	40	310	341		691
Manitoba and Alberta.....	3	14			17
Saskatchewan.....	1		35		36
British Columbia.....	44	1			45
Canada	108	416	629		1,153

Table 97.—Average Hours Worked by Wage-Earners per Day or Shift and per Week, 1929

Provinces	No. of wage-earners	Total man-hours worked by wage-earners per day or shift	Average hours worked by wage-earners per day or shift	Total man-hours worked by wage-earners per week	Average hours worked by wage-earners per week
Nova Scotia.....	8	70	8.75	420	52.50
New Brunswick.....	10	90	9.00	538	53.80
Quebec.....	346	3,349	9.68	19,383	56.02
Ontario.....	691	6,520	9.44	37,756	54.64
Manitoba and Alberta.....	17	150	8.82	891	51.82
Saskatchewan.....	36	358	9.94	2,087	58.00
British Columbia.....	45	361	8.02	2,008	46.62
Canada.....	1,153	10,898	9.45	63,173	54.79

Table 98.—Average Number of Days Worked by Wage-Earners, 1929

	No. of plants	Total No. of wage-earners	Total man-days worked by wage-earners			Average days worked per year by wage-earners		
			Full time	Part time	Idle	Full time	Part time	Idle
On full time for entire year.....	38	559	169,936			304		
On part time for entire year.....	4	3		912			304	
On full time for part of year and idle the rest.....	74	250	45,623		30,377	183		121
On part time for part of year and idle the rest.....	8	3		445	467		148	156
On full time for part of year and on part time the rest.....	5	13	3,218	734		248	56	
On full time for part of year, part time for part of year and idle the rest.....	24	325	65,599	14,670	18,531	202	45	57
Total.....	153	1,153	284,376	16,761	49,375	247	15	42

Table 99.—Fuel and Electricity Used, 1928 and 1929

Kind	Unit of measure	1928		1929	
		Quantity	Cost at works	Quantity	Cost at works
Bituminous coal—Canadian.....	short ton	583	3,936	802	6,154
Imported.....	short ton	4,822	31,165	5,112	33,359
Anthracite coal.....	short ton	252	2,278	330	4,764
Lignite coal—Canadian.....	short ton	4	30		
Imported.....	short ton	9	150		
Coke.....	short ton	114	1,190	94	973
Gasoline.....	imp. gal.	12,475	4,545	10,102	2,615
Kerosene or coal oil.....	imp. gal.	1,354	270	1,237	278
Wood.....	cord	122	799	133	978
Gas—Natural.....	M cu. ft.	460	295	258	171
Other fuel.....			175		615
Electricity purchased.....	k.w.h.	1,339,721	28,992	1,594,761	34,223
Total.....			73,825		84,130

Table 100.—Power Employed, 1928 and 1929

Kind	1928		1929	
	Number of units	Total h.p. according to manufacturers' rating	Number of units	Total h.p. according to manufacturers' rating
Steam engines and turbines.....	6	84	10	154
Gasoline, gas and oil engines.....	62	312	58	278
<i>Total primary power.....</i>	<i>68</i>	<i>396</i>	<i>68</i>	<i>432</i>
Electric motors run by purchased power.....	158	1,862	200	2,383
Total power employed.....	226	2,258	268	2,815
<i>Total electric motors.....</i>	<i>158</i>	<i>1,862</i>	<i>200</i>	<i>2,583</i>
Boilers.....	15	376	15	691

Table 101.—Materials Used in Manufacturing, 1928 and 1929

Materials	Unit of measure	1928		1929	
		Quantity	Cost at works	Quantity	Cost at works
			\$		\$
Portland cement.....	brl.	313,808	643,139	443,094	726,876
Quicklime.....	bush.	841	600	10,901	5,499
Sand.....	cu. yd.	76,515	123,010	95,344	167,207
Gravel.....	cu. yd.	81,180	137,651	190,045	145,116
Crushed stone.....	cu. yd.	49,306	151,293	32,928	106,377
Cinders.....			23,643		43,766
Other materials.....			149,101		275,314
Boxes, crates, lumber, etc.....			33,156		32,777
Total.....			1,261,653		1,567,952

Table 102.—Products Made, 1928 and 1929

Products	Total selling value at works	
	1928	1929
	\$	\$
Cement bricks.....	40,007	178,257
Hollow building blocks, etc.....	1,158,508	902,413
Drain pipe.....	145,908	95,711
Sewer pipe and culvert tile.....	1,148,168	1,450,665
Artificial stone.....	1,173,645	1,134,328
Cement posts, poles, piles, etc.....	17,748	19,843
Cinder blocks.....	192,358	306,228
Other products*.....	209,613	331,972
Total.....	4,136,955	4,419,417

*Includes laundry tubs, sidewalks, cement laundry trays, concrete piles, etc.

Table 103.—Production by Provinces, 1929

Products	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba and Alberta	Saskatchewan	British Columbia	Canada
	\$	\$	\$	\$	\$	\$	\$	\$
Cement bricks.....	10			178,247				178,257
Hollow building blocks.....	2,680	21,702	263,298	560,022	175	38,251	16,285	902,413
Drain pipe.....			37,706	51,878		5,698	429	95,711
Sewer pipe and culvert tile.....	1,800	7,583	171,394	957,325	44,651	168,767	99,145	1,450,665
Artificial stone.....	5,250		598,450	497,539	1,275	16,586	15,228	1,134,328
Cement posts, poles, etc.....	30		944	4,975			13,804	19,843
Cinder blocks.....				305,893		335		306,228
Other products.....	595	566	73,882	234,560	5,025	2,324	15,020	331,972
Total.....	10,365	29,851	1,145,674	2,790,439	51,126	231,961	160,901	4,419,417

Table 104.—Output of Principal Cement Products, 1920-1929

	Hollow building blocks	Drain pipe	Sewer pipe and culvert tile	Cement bricks	Artificial stone	Cinder blocks
	\$	\$	\$	\$	\$	\$
1920	852,304		457,312		69,382	
1921	511,283	76,218	386,873	11,375	71,741	
1922	596,063	50,873	327,945	75,742	27,725	
1923	652,420	67,437	365,165	70,502	53,326	
1924	523,326	53,989	419,730	53,066	77,484	
1925	859,706	201,990	394,366	40,261	256,118	
1926	1,066,001	138,928	508,870	53,412	470,287	
1927	941,194	207,433	558,836	94,302	473,051	69,145
1928	1,158,508	145,908	1,148,168	40,007	1,173,645	192,358
1929	902,413	95,711	1,450,665	178,257	1,134,328	306,228

CHAPTER SEVEN

THE COKE AND GAS INDUSTRY

The coke and gas industry covers the operations of the coke and artificial gas plants. In 1929 there were 43 such establishments in operation in Canada including 8 by-product or metallurgical coke plants and 35 gas works; of these, 21 were in Ontario, 4 in Quebec, 6 in Manitoba, 6 in British Columbia, 2 in each of New Brunswick and Nova Scotia, and 1 in each of Saskatchewan and Alberta. The total capital employed was \$94,749,062, the average number of workers was 3,902, payments for salaries and wages totalled \$5,938,814, and the cost of manufacturing materials was \$18,517,214.

Output of gas-house and by-product coke in Canada during 1929 totalled 2,677,581 tons, an increase of 363,454 tons over the total for the previous year. This tonnage established a new record, being 16 per cent greater than the previous high mark of 2,314,127 tons in 1928 which in turn was 14 per cent over the 2,027,058 tons of 1926, the third best year. By-product coke plants produced 2,372,229 tons in 1929 while only 305,352 tons were obtained from artificial gas plants. In addition, 109,516 tons of petroleum coke were recovered as a by-product of petroleum refining.

The 8 concerns which made metallurgical coke were as follows: Dominion Iron and Steel Co. Ltd., Sydney, N.S.; Steel Company of Canada, Ltd., Hamilton, Ont.; Algoma Steel Corporation, Sault Ste. Marie, Ont.; Hamilton By-Product Coke Ovens Ltd., Hamilton, Ont.; the Montreal Coke and Manufacturing Co. Ltd., Montreal, P.Q.; the Winnipeg Electric Co., Winnipeg Man.; Crow's Nest Pass Coal Co., Fernie, B.C.; and Granby Consolidated Mining, Smelting and Power Co., Anyox, B.C. A total of 2,378,507 tons of imported coal and 872,884 tons of Canadian coal were charged to the ovens in these works to produce 2,372,229 tons of coke. The 5 plants in Ontario, Quebec and Manitoba procured their coal entirely from the United States; the Nova Scotia works and 1 in British Columbia used only Canadian coal; and the other establishment in British Columbia used both Canadian and imported coal. Five of these works produced coke chiefly for use in associated smelters and 3 produced chiefly for sale.

Imports of coke into the Dominion increased to a total of 1,226,853 tons in 1929 from 1,060,029 tons in 1928. Exports of by-product and gas coke totalled 25,208 tons as compared with the 1928 figure of 25,058 tons. In addition petroleum coke amounting to 27,922 tons was exported during 1929 as against 19,857 tons in 1928.

Production of gas totalled 38,925,086 M cu. ft., of which 9,913,999 M cu. ft. were produced in gas plants and 29,011,087 M cu. ft. in by-product coke ovens. Sales of gas reached 17,649,371 M cu. ft. worth \$13,316,684; most of the remaining gas was used for fuel in the reporting plants or associated metallurgical works. In addition to the output shown above, 3,140,187 M cu. ft. of still gas were made in petroleum refineries for their own use.

Most of the gas from the by-product coke plants was used to heat the ovens in the producing works or was delivered to the associated iron and steel plants for use as a fuel. Only 4 of these 8 coke plants reported gas made for sale and total sales from these works amounted to 8,654,100 M cu. ft. in 1929; four of these made straight coal gas only, 3 made both coal and water gas, and one using the beehive type of oven did not recover gas.

In addition to the by-product plants there were 35 establishments which produced artificial gas as their main product. Of these, 8 reported straight coal gas only, 6 made carburetted water gas only, 7 made both coal and water gas, 3 produced mixed coal and water gas, 8 made Pintsch oil gas, and 3 others made acetylene gas for small town lighting plants. These plants used 460,894 tons of bituminous coal and produced 9,913,999 M cu. ft. of gas, 305,352 tons of coke and other products.

Table 105.—Principal Statistics, 1925-1929

Year	Number of plants	Capital employed	Average number of employees	Salaries and wages	Fuel and electricity	Cost of materials at works	Selling value of products at works	Value added by manufacturing
		\$		\$	\$	\$	\$	\$
Coke—								
1925	6	23,905,454	583	885,637	1,213,677	7,112,311	11,020,298	3,907,987
1926	6	24,769,899	615	1,013,752	1,063,122	9,744,081	15,261,474	5,517,393
1927	6	29,879,157	652	1,118,538	1,156,344	10,436,112	15,318,880	4,882,768
1928	8	48,018,594	1,227	1,982,361	1,388,326	13,386,880	22,483,615	9,096,735
1929	8	47,640,170	1,186	2,149,826	2,030,814	14,662,616	25,909,638	11,247,022
Gas—								
1925	44	46,129,651	3,804	5,057,702	1,128,846	6,178,609	17,874,479	11,695,870
1926	44	49,573,267	3,678	4,883,521	589,476	6,226,100	18,264,860	12,038,760
1927	42	54,131,873	3,494	4,750,581	815,778	6,178,791	18,725,869	12,547,078
1928	37	44,126,596	2,687	3,626,418	685,410	3,777,366	12,224,832	8,447,466
1929	35	47,108,892	2,716	3,788,988	597,900	3,854,598	14,000,805	10,146,207
Total Coke and Gas								
1925	50	70,035,105	4,387	5,943,339	2,342,523	13,290,920	28,894,777	15,603,857
1926	50	74,343,166	4,293	5,897,273	1,652,598	15,970,181	33,526,334	17,566,153
1927	48	81,011,030	4,146	5,869,119	1,972,122	16,614,903	34,044,749	17,129,846
1928	45	92,145,190	3,914	3,698,779	2,073,736	17,164,246	34,708,447	17,544,201
1929	43	94,749,062	3,902	5,938,814	2,628,714	18,517,214	39,910,443	21,393,229

Table 106.—Principal Statistics by Provinces, 1928 and 1929

Provinces	Number of plants	Capital employed	Average number of employees	Salaries and wages	Cost of fuel and electricity	Cost of materials at works	Selling value of products at works	Value added by manufacturing
		\$		\$	\$	\$	\$	\$
1928								
Quebec	4	9,692,184	440	661,925	105,977	2,410,049	5,766,749	3,356,700
Ontario	22	46,629,491	2,463	3,524,693	1,666,886	10,849,063	21,459,356	10,610,293
Manitoba	7	5,597,184	176	256,001	30,640	462,065	1,218,170	750,105
British Columbia	6	12,602,896	500	680,899	191,482	1,009,010	2,338,628	1,329,618
Canada	45	92,145,190	3,914	5,608,779	2,073,736	17,164,246	34,708,447	17,544,201
1929								
Quebec	4	10,688,314	345	606,771	211,232	3,196,551	5,581,405	2,384,854
Ontario	21	49,142,427	2,512	3,816,994	1,994,542	11,035,209	25,294,463	14,259,254
Manitoba	6	5,577,007	176	256,627	82,523	628,035	1,887,382	1,202,347
British Columbia	6	15,026,718	525	735,750	96,630	1,121,389	2,846,217	1,724,928
Canada*	43	94,749,062	3,902	5,938,814	2,628,714	18,517,214	39,910,443	21,393,229

*Includes also data for 2 plants in Nova Scotia, 2 in New Brunswick, 1 in Saskatchewan and 1 in Alberta.

Table 107.—Principal Statistics by Groups of Production Values, 1929

Production values	Number of plants	Capital employed	Number of employees	Production
		\$		\$
Under 10,000	5	39,422	8	21,964
10,000 to 25,000	4	144,792	22	64,916
25,000 to 50,000	6	917,430	61	211,580
50,000 to 100,000	4	1,378,030	63	304,552
100,000 to 250,000	10	4,161,016	291	1,652,247
250,000 to 1,000,000	6	13,205,702	550	3,353,215
Over 1,000,000	8	74,902,670	2,907	34,301,969
Total	43	94,749,062	3,902	39,910,443

Table 108.—Principal Statistics by Groups of Employees, 1929

Employees	Number of plants	Capital employed	Number of employees	Production
		\$		\$
1 or 2 employees.....	5	39,422	8	21,864
3 to 10.....	9	745,431	59	380,065
11 to 20.....	7	1,695,765	104	667,010
21 to 50.....	9	8,941,994	295	1,588,188
51 to 100.....	3	3,539,026	196	1,327,588
Over 100.....	10	79,787,424	3,240	35,925,728
Total.....	43	84,749,662	3,902	39,910,443

Table 109.—Capital Employed, by Classes and by Provinces, 1928 and 1929

Provinces	1928				1929			
	Capital employed as represented by				Capital employed as represented by			
	Lands, buildings, fixtures, machinery and tools	Materials on hand, and stocks in process	Cash, trading and operating accounts and bills receivable	Total	Lands, buildings, fixtures, machinery and tools	Materials on hand, and stocks in process	Cash, trading and operating accounts and bills receivable	Total
\$	\$	\$	\$	\$	\$	\$	\$	\$
Quebec.....	7,272,040	1,970,667	449,477	9,692,184	7,559,898	2,601,013	467,403	10,628,314
Ontario.....	37,842,681	3,647,467	5,139,343	46,629,491	39,264,854	4,052,467	5,825,106	49,142,427
Manitoba.....	5,326,705	184,030	86,449	5,597,184	5,309,910	113,388	153,709	5,577,007
British Columbia.....	10,872,556	584,336	1,146,004	12,602,896	11,478,965	506,579	3,041,174	15,026,718
Canada*.....	73,072,415	8,540,278	10,532,497	92,145,190	75,572,969	8,648,599	10,527,494	94,749,062

*See footnote to Table 106.

Table 110.—Employees, Salaries and Wages, by Provinces, 1928 and 1929

Provinces	Average number of employees				Salaries and wages			
	Salaried employees		Wage-earners		Total	Salaries	Wages	Total
	Male	Female	Male	Female				
1928								
Quebec.....	77	4	356	3	410	86,905	575,020	661,925
Ontario.....	418	189	1,854	2	2,463	911,131	2,013,562	3,524,693
Manitoba.....	34	23	117	2	176	86,492	170,169	256,661
British Columbia.....	77	9	414	.....	500	152,146	534,753	686,899
Canada*.....	653	230	3,024	7	3,914	1,403,534	4,304,245	5,608,779
1929								
Quebec.....	74	4	266	1	345	170,410	430,361	606,771
Ontario.....	422	194	1,893	3	2,512	959,990	2,857,094	3,816,984
Manitoba.....	35	25	118	.....	176	97,676	158,951	256,627
British Columbia.....	81	10	434	.....	525	171,667	504,083	735,750
Canada*.....	652	237	3,000	4	3,902	1,469,347	4,469,467	5,938,814

*See footnote to Table 106.

Table 111.—Wage-Earners, by Months, 1928 and 1929

Months	1928			1929		
	Male	Female	Total	Male	Female	Total
January	2,885	4	2,889	2,792	3	2,795
February	2,785	4	2,789	2,832	3	2,835
March	2,796	4	2,800	2,891	3	2,894
April	2,925	4	2,929	2,939	3	2,942
May	3,252	4	3,256	3,050	3	3,053
June	3,089	6	3,095	3,243	3	3,246
July	3,241	6	3,247	3,238	4	3,242
August	3,100	7	3,107	3,061	4	3,065
September	3,042	7	3,049	3,042	4	3,046
October	3,099	7	3,106	3,047	4	3,051
November	3,126	7	3,133	2,979	4	2,983
December	2,942	7	2,949	2,966	5	2,971
Average*	3,024	7	3,031	3,009	4	3,013

*See note on page 24.

Table 112.—Total of Wage-Earners in Months of Highest Employment, by Hours Worked per Day or Shift and by Provinces, 1929

Provinces	Number of wage-earners in months of highest employment working per day of				
	8 hours or less	9 hours	10 hours	Over 10 hours	Total
Nova Scotia and New Brunswick	67	22	4	220	313
Quebec	138	40	86	40	304
Ontario	527	1,154	60	382	2,123
Manitoba	87	41			128
Saskatchewan and Alberta	9				9
British Columbia	487				487
Canada	1,315	1,257	159	642	3,373

Table 113.—Average Wage-Earners Subdivided according to Hours usually Worked per Day or Shift, 1929

Provinces	Number of wage-earners usually working per day of				
	8 hours or less	9 hours	10 hours	Over 10 hours	Total
Nova Scotia and New Brunswick	65	23		205	293
Quebec	219			48	267
Ontario	219	1,213	183	281	1,896
Manitoba	116				116
Saskatchewan and Alberta	7				7
British Columbia	434				434
Canada	1,060	1,236	183	534	3,013

Table 114.—Average Hours Worked by Wage-Earners per Day or Shift and per Week, by Provinces, 1929

Provinces	Total No. of wage-earners	Total man-hours worked by wage-earners per day	Average hours worked by wage-earners per day	Total man-hours worked by wage-earners per week	Average hours worked by wage-earners per week
Nova Scotia and New Brunswick	293	3,187	10.90	21,326	72.78
Quebec	267	2,380	8.54	14,072	52.70
Ontario	1,896	17,871	9.43	107,179	56.53
Manitoba	116	928	8.00	5,600	48.28
Saskatchewan and Alberta	7	56	8.00	336	48.00
British Columbia	434	3,472	8.00	20,984	48.35
Canada	3,013	27,794	9.22	169,497	56.25

Table 115.—Fuel and Electricity Used, 1928 and 1929

Kinds	Unit of measure	1928		1929	
		Quantity	Cost at works	Quantity	Cost at works
			\$		\$
Bituminous coal—Canadian	short ton	16,967	105,221	9,923	43,827
Imported	short ton	37,469	228,653	34,573	207,143
Lignite coal—Canadian	short ton	5	73		
Coke	short ton	56,264	331,204	93,936	512,908
Gasoline	imp. gal.			2,789	683
Fuel oil	imp. gal.	237,083	21,317		
Gas—Manufactured	M cu. ft.	5,319,390	1,221,630	6,635,272	1,587,172
Other fuel			4,171		27,826
Electricity purchased	k.w.h.	28,564,710	161,670	40,191,480	249,155
Total			2,073,736		2,628,714

Table 116.—Power Employed, 1928 and 1929

Description	1928		1929	
	Number of units	Total h.p. according to manufacturers' rating	Number of units	Total h.p. according to manufacturers' rating
Steam engines and turbines	186	6,066	203	6,413
Gasoline, gas and oil engines	3	116	6	268
Hydraulic turbines or water wheels	1	3	1	3
<i>Total primary power</i>	<i>190</i>	<i>6,185</i>	<i>210</i>	<i>6,674</i>
Electric motors run by purchased power	640	14,772	704	17,982
Total power employed	830	20,957	914	24,656
Electric motors run by primary power in the same plant	153	4,660	191	6,447
<i>Total electric motors</i>	<i>783</i>	<i>19,432</i>	<i>895</i>	<i>24,429</i>
Boilers	211	17,095	202	18,606

Table 117.—Materials Used in Manufacturing, 1928 and 1929

Materials	Unit of measure	1928		1929	
		Quantity	Cost at works	Quantity	Cost at works
			\$		\$
Bituminous coal—Canadian	short ton	909,530	3,144,963	961,391	3,308,849
Imported	short ton	2,289,820	11,674,045	2,750,894	12,676,139
Anthracite coal for gas-making	short ton	1,317	15,362		
Coke for gas-making—Purchased	short ton	9,630	102,462	7,728	73,080
Companies' own make	short ton	96,476	637,083	140,078	1,006,941
Oil (gas oil) for gas-making	imp. gal.	11,898,419	1,008,236	9,364,684	787,855
Calcium carbide	lb.	118,410	6,272	82,740	3,398
Lime	ton	2,527	20,508	2,302	21,709
Water			14,734		34,222
Oxide or purifying materials	ton	2,753	21,882	4,959	49,775
Sulphuric acid, 66° Bé.	lb.	41,366,147	325,067	54,314,786	408,462
All other materials			193,642		148,724
Total			17,164,246		18,517,214

MANUFACTURES OF NON-METALLIC MINERALS

Table 118.—Products, 1928 and 1929

Products	Unit of measure	1928		1929	
		Quantity	Selling value at works	Quantity	Selling value at works
		\$		\$	
Gas—					
Straight coal gas including coke oven gas.....	M cu. ft.	29,470,003		34,381,044	
Straight water gas.....	M cu. ft.			327,233	
Carburized water gas.....	M cu. ft.	5,247,013		3,763,697	
Mixed coal and water gas.....	M cu. ft.	270,701		373,256	
Oil gas.....	M cu. ft.	70,586		69,653	
Acetylene gas.....	M cu. ft.	617		213	
Total Gas Made.....	M cu. ft.	35,058,920		38,925,086	
Gas sold.....	M cu. ft.	15,606,609	13,933,537	17,049,371	13,316,684
Gas used in own plants.....	M cu. ft.	7,004,731	1,369,655	7,493,291	1,573,146
Gas used in associated metallurgical works.....	M cu. ft.	11,237,155	1,295,664	12,870,553	1,411,670
Gas otherwise accounted for, but not sold.....	M cu. ft.	54,250		178,092	185,595
Gas not accounted for.....	M cu. ft.	1,156,175	211,327	733,779	888,122
Coke—					
Gas-house coke—					
For makers' own use.....	short ton	183,517	1,038,702	159,905	901,717
For sale.....	short ton	150,019	1,143,421	145,387	1,107,475
By-product coke—					
For makers' own use in coke plant.....	short ton	32,303	250,857	143,670	822,346
For use in associated metallurgical works.....	short ton	1,146,906	6,216,023	1,234,143	7,580,578
For sale.....	short ton	80,382	5,886,708	264,416	7,535,542
Total Coke Made.....	short ton	2,314,127	14,535,711	2,677,581	17,947,658
Other Products—					
Tar and tar products.....	imp. gal.	27,141,332	1,721,432	30,119,470	1,963,746
Ammonia liquor.....	lb. N.H. ³	1,644,516	25,867	1,694,538	25,631
Ammonium sulphate.....	lb.	56,179,417	1,108,714	68,280,403	1,296,952
Light oils.....	imp. gal.	4,052,859	500,365	6,058,061	874,012
All other products.....			6,145		427,227
Grand Total.....			34,708,447		39,910,443

Table 119.—Production* of By-Product and Gas-House Coke in Canada, 1919-1929

Years	By-product coke		Gas-house coke		Total	
	Quantity	Selling value at plants	Quantity	Selling value at plants	Quantity	Selling value at plants
	Short tons	\$	Short tons	\$	Short tons	\$
1919.....	1,274,443	9,821,998	398,589	2,251,714	1,673,032	12,073,712
1920.....	1,270,322	11,624,091	437,881	3,875,093	1,708,203	15,499,184
1921.....	1,011,847	11,049,369	452,152	3,061,914	1,463,999	14,111,183
1922.....	700,098	5,560,183	532,548	3,492,307	1,232,646	9,052,190
1923.....	1,169,989	10,236,524	498,309	3,695,990	1,668,298	13,931,484
1924.....	955,305	7,268,713	451,607	3,164,234	1,406,912	10,432,947
1925.....	1,079,526	7,442,102	467,213	3,040,738	1,546,739	10,482,841
1926.....	1,555,962	10,232,775	471,096	3,073,150	2,027,058	13,305,925
1927.....	1,582,662	10,165,035	443,776	2,799,177	2,026,438	12,961,212
1928.....	1,980,591	12,353,588	333,536	2,182,123	2,314,127	14,535,711
1929.....	2,372,229	15,938,466	305,352	2,009,192	2,677,581	17,947,658

*Includes coke breeze.

Table 120.—Production of Coke in Canada, according to Purpose, 1924-1929

Years	By-product coke				Gas-house coke			Total coke
	For makers own use in coke plant	For use in associated metallurgical works	For sale	Total by-product	For makers' own use	For sale	Total gas-house	
	tons	tons	tons	tons	tons	tons	tons	
1924.....	13,123	781,445	190,737	985,305	181,028	270,579	451,607	1,436,912
1925.....	15,527	764,120	299,879	1,079,526	178,325	288,888	467,213	1,546,739
1926.....	7,622	967,747	580,593	1,555,962	217,802	253,294	471,096	2,027,058
1927.....	6,770	956,907	618,985	1,582,662	234,173	209,603	443,776	2,026,438
1928.....	32,303	1,146,906	801,382	1,980,591	183,517	150,019	333,536	2,314,127
1929.....	143,670	1,234,143	994,416	2,372,229	159,965	145,387	305,352	2,677,581

Table 121.—Production of By-Product and Gas-House Coke in Canada, by Provinces, 1919-1929

Years	Nova Scotia, New Brunswick and Quebec		Ontario		Manitoba, Saskatchewan, Alberta and British Columbia		Canada	
	Quantity	Selling value at plants	Quantity	Selling value at plants	Quantity	Selling value at plants	Quantity	Selling value at plants
	Short tons	\$	Short tons	\$	Short tons	\$	Short tons	\$
1919	667,778	4,700,079	986,833	6,301,068	120,421	1,072,595	1,675,032	12,073,742
1920	604,642	6,053,226	882,257	6,834,357	221,304	2,511,601	1,708,203	15,399,184
1921	413,420	3,005,746	858,951	9,166,758	191,628	1,938,679	1,463,999	14,111,183
1922	454,678	2,439,591	603,219	4,893,672	174,749	1,719,227	1,232,646	9,052,490
1923	599,458	4,905,506	882,341	7,189,810	186,499	1,837,162	1,668,298	13,932,484
1924	420,535	2,753,384	857,528	6,161,144	158,849	1,518,419	1,436,912	10,432,947
1925	504,956	2,755,147	830,839	5,967,333	210,944	1,760,361	1,546,739	10,482,841
1926	646,929	3,265,348	1,144,493	8,208,124	235,636	1,832,453	2,027,058	13,365,025
1927	561,918	2,815,912	1,260,355	8,542,988	204,165	1,605,312	2,026,438	12,964,212
1928	793,297	3,926,491	1,443,512	9,332,929	167,318	1,276,294	2,311,127	11,535,711
1929	850,432	5,259,446	1,624,884	11,112,809	202,245	1,575,403	2,677,581	17,947,658

Table 122.—Bituminous Coal Used in the Production of Metallurgical and Gas-House Coke in Canada, 1919-1929

Years	Bituminous coal used in manufacture of				Total	
	By-product coke		Gas-house coke			
	Quantity	Cost at works	Quantity	Cost at works	Quantity	Cost at works
	Short tons	\$	Short tons	\$	Short tons	\$
1919	1,866,101	9,028,737	581,750	3,532,044	2,447,851	12,560,781
1920	1,937,512	10,863,634	648,618	5,493,387	2,586,130	16,357,021
1921	1,497,030	10,657,350	655,789	5,887,380	2,152,819	16,541,730
1922	1,053,403	5,105,763	641,875	5,459,269	1,695,278	10,565,032
1923	1,707,024	9,191,864	728,011	5,660,184	2,435,035	11,852,048
1924	1,410,917	6,525,206	681,480	4,723,734	2,092,397	11,248,940
1925	1,529,018	6,793,453	723,394	4,305,445	2,252,412	11,098,898
1926	2,193,000	9,421,517	701,283	4,274,183	2,894,283	13,695,700
1927	2,240,480	10,124,533	624,820	3,768,539	2,865,309	13,893,072
1928	2,705,659	11,901,660	493,500	2,917,348	3,199,159	14,819,008
1929	3,251,391	13,378,294	460,894	2,006,694	3,712,285	15,384,988

Table 123.—Production of Metallurgical Coke in Canada, 1886-1929

Years	Short tons	Year	Short tons	Year	Short tons
1886	35,396	1901	365,531	1916	1,409,741
1887	40,428	1902	502,043	1917	1,245,862
1888	45,373	1903	561,318	1918	1,250,744
1889	54,539	1904	554,083	1919	1,276,443
1890	56,450	1905	709,488	1920	1,270,322
1891	57,084	1906	782,055	1921	1,011,847
1892	56,135	1907	842,003	1922	700,098
1893	61,078	1908	858,257	1923	1,109,989
1894	58,044	1909	802,011	1924	985,305
1895	53,356	1910	902,715	1925	1,079,526
1896	49,610	1911	935,651	1926	1,555,962
1897	60,686	1912	1,411,229	1927	1,582,662
1898	87,600	1913	1,530,499	1928	1,980,591
1899	109,829	1914	1,023,860	1929	2,372,229
1900	157,134	1915	1,170,473		

Table 124.—Production of Petroleum Coke in Canada, 1924-1929

Years	Made for own use		Made for sale		Total	
	Tons	Value at plants	Tons	Value at plants	Tons	Value at plants
		\$		\$		\$
1924	18,759	90,853	30,566	221,668	49,325	312,521
1925	14,333	63,600	28,855	218,105	43,188	281,705
1926	13,075	50,326	49,672	297,021	62,747	347,347
1927	6,850	45,663	69,379	403,555	76,229	449,218
1928	15,547	93,882	80,361	467,548	95,908	561,430
1929	25,408	140,230	84,108	465,753	109,516	605,983

Table 125.—Production in Canada, Imports, Exports and Apparent Consumption of Coke* by Provinces, 1928 and 1929

	Nova Scotia, New Brunswick and Quebec		Ontario	Manitoba, Saskatchewan, Alberta and British Columbia	Canada
	1928	1929			
Production.....	703,297	850,452	1,443,512	167,318	2,314,127
			1,624,884	202,245	2,677,581
Imports.....	128,616	79,422	914,064	17,349	1,060,029
			1,123,761	23,670	1,726,853
Exports.....	1,006	834	7,447	16,605	25,058
			2,010	22,364	25,208
Apparent consumption.....	830,907	929,040	2,350,129	168,062	3,349,098
			2,746,635	203,551	3,879,226

*Exclusive of petroleum coke.

Ammonium Sulphate, 1929.—Production of ammonium sulphate in Canada during 1929 amounted to 34,141 tons valued at \$1,293,953 as compared with 28,090 tons worth \$1,108,744 in 1928. All of the ammonium sulphate made in Canada is produced as a by-product of the coke and artificial gas industries.

A large part of the Canadian production is exported to foreign countries for use as a fertilizer. In 1929 exports totalled, 24,489 tons worth \$909,510 as compared with 13,632 tons valued at \$591,696 in 1928. The principal countries of destination with the quantities and values of Canadian export to each were as follows:—Japan, 10,095 tons worth \$375,020; United States, 6,857 tons worth \$220,734; Hong Kong, 2,155 tons at \$93,783; Barbados, 1,909 tons at \$81,460; China, 1,304 tons at \$50,434; Other British West Indies, 822 tons at \$33,871; British Guiana, 546 tons at \$23,158; and Porto Rico, 302 tons at \$13,025.

Some ammonium sulphate is imported into Canada. During 1929 about 1,723 tons worth \$80,019 were brought into Canada; the bulk of this came from the United States. In 1928 the imports were 3,510 tons worth \$174,899.

Seven factories in Canada made ammonium sulphate during 1929. The producing plants were located as follows:—

- Algoma Steel Corporation, Sault Ste. Marie, Ontario.
- Steel Company of Canada, Limited, Hamilton, Ontario.
- Hamilton By-Product Coke Ovens, Limited, 15 Main St., Hamilton, Ontario.
- Dominion Iron and Steel Co., Limited, Sydney, N.S.
- Montreal Coke and Manufacturing Co., Montreal, P.Q.
- Ottawa Gas Company, Ottawa, Ontario.
- British Columbia Electric Power & Gas Co. Ltd., Vancouver, B.C.

Table 126.—Production in Canada, Imports and Exports of Sulphate of Ammonia, 1919-1929

Year	Production		Imports		Exports	
	Pounds	\$	Pounds	\$	Pounds	\$
1919.....	38,844,152	1,423,545	203,408	12,128	37,331,200	1,846,713
1920.....	39,912,723	1,475,542	624,659	31,495	36,658,500	1,896,660
1921.....	34,680,248	1,183,776	313,354	11,513	29,296,100	784,628
1922.....	27,201,332	667,934	825,326	24,659	20,570,000	532,983
1923.....	43,037,062	1,268,146	517,629	18,577	40,940,000	1,254,681
1924.....	34,685,134	865,538	1,370,643	27,111	26,714,100	681,809
1925.....	36,502,275	990,097	795,792	27,544	25,120,700	637,310
1926.....	47,310,666	1,015,578	4,596,953	135,455	32,764,400	813,115
1927.....	49,416,617	1,030,991	6,361,100	160,150	33,893,500	730,815
1928.....	56,179,417	1,108,744	7,019,800	174,899	27,263,700	561,696
1929.....	68,282,003	1,293,953	3,445,200	80,019	48,978,200	909,510

Table 127.—Production and Sales of Artificial Gas in Canada, 1924-1929

	From by-product and gas plants			Production of still gas from petroleum refineries
	Production	Sales		
		Quantity	Income from sales	
	M cu. ft.	M cu. ft.	\$	M cu. ft.
1924	21,664,717	12,814,713	14,089,336	1,186,787
1925	25,631,929	13,189,100	14,539,764	1,019,755
1926	31,058,822	13,799,093	14,936,071	1,532,430
1927	32,856,169	11,658,495	15,653,591	1,719,394
1928	35,058,920	15,906,609	13,933,537	2,489,346
1929	38,925,086	17,649,371	13,316,684	3,140,187

Table 128.—Production of Coal Tar in Canada, by Provinces, 1927-1929

Provinces	1927	1928	1929
	Imp. gals.	Imp. gals.	Imp. gals.
Nova Scotia and New Brunswick	5,977,022	6,753,690	7,019,335
Quebec	3,417,566	2,906,248	3,204,004
Ontario	14,936,346	16,204,263	18,212,216
Manitoba	480,387	485,523	665,074
Br.ish Columbia	805,988	791,659	988,847
Total	25,647,309	27,141,332	30,119,476

Primary Production.—*Natural Gas, 1929.*—Natural gas production in Canada continues to increase and during 1929 a new high mark was set up for the industry. Production during that year amounted to 28,378,462 M cubic feet valued at \$9,977,124, an increase of 25.7 per cent in quantity and 15.8 per cent in value over the production in 1928 of 22,582,586 M cubic feet at \$8,614,182. Alberta was the leading producing province with a production of 19,112,931 M cubic feet; Ontario came next with 8,586,475 M cubic feet; and New Brunswick followed with 678,456 M cubic feet. There was also a small production from several private wells in Manitoba. Average prices per M cubic feet were as follows: New Brunswick, 49.1 cents; Ontario, 57.8 cents; and Alberta, 24.5 cents.

Imports of mixed gas (natural and artificial) into Canada from the United States in 1929 totalled 132,942 M cubic feet valued at \$85,338; in the preceding year 128,004 M cubic feet with a value of \$82,681 were imported.

The 145 firms operating in Canada during 1929 reported fixed and current assets amounting to \$68,592,709. This industry provided employment to 1,953 salaried employees and wage-earners, who received a total remuneration of \$2,275,147. The cost of fuel and electricity used during the year amounted to \$41,590. Primary power employed in 1929 consisted of 147 units with a total manufacturers' rating of 2,555 h.p.

Table 129.—Principal Statistics of the Natural Gas Industry in Canada, 1928 and 1929

	1928	1929
Number of firms	155	145
Capital employed	\$ 62,073,384	68,592,709
Number of employees—On salary	646	612
On wages	1,414	1,341
Total	1,660	1,953
Salaries and wages—Salaries	\$ 818,919	881,525
Wages	\$ 1,286,729	1,393,622
Total	\$ 2,105,648	2,275,147
Cost of fuel and electricity	\$ 34,306	41,590
Selling value of products	\$ 8,614,182	9,977,124

Table 130.—Production of Natural Gas in Canada, 1929

Provinces	M cu. ft.	Value
New Brunswick	678,456	\$ 333,002
Ontario	8,586,475	4,950,695
Manitoba	600	180
Alberta	19,112,931	4,684,247
Total	28,378,462	9,977,124

CHAPTER EIGHT

THE GLASS INDUSTRY

Production of the glass industry in Canada during 1929 was valued at \$15,507,442. This output was the highest on record being nearly 10 per cent over the previous high of \$14,164,086 in 1927 and 12 per cent greater than the \$13,795,690 of 1920, the third best year. The 60 plants engaged in the manufacture of glass or glass products during 1929 reported a working capital of \$16,289,364 and afforded employment to a monthly average of 3,948 people who received \$4,740,676 as salaries or wages. Purchased materials for manufacturing cost \$5,355,156 and the value added by manufacturing was \$10,152,286.

In the pressed and blown glass industry there were 3 different companies which operated 6 plants. The Dominion Glass Co. Ltd. operated factories at Montreal, P.Q., Hamilton, Ont., Wallaceburg, Ont., and Redcliffe, Alberta. The Consumers Glass Co. Ltd. had works at Lachine, P.Q., and the Mid-West Glass Co. Ltd. manufactured at Winnipeg, Man. These concerns made bottles, jars, etc.; sheet or plate glass is not manufactured in Canada. This branch of the industry accounted for most of the increase over previous years' production, the value of output being \$11,197,338 as against \$9,466,382 in 1928 and \$10,232,634 in 1927.

In the plate, cut or ornamental glass section which includes all plants engaged in bevelling, cutting or working glass to produce leaded glass, mirrors, lenses, vials, cut glass, etc., the number of operating concerns totalled 54, distributed by provinces, as follows: 33 in Ontario, 9 in Quebec, 5 in British Columbia, 3 in Manitoba, and 1 in each of New Brunswick, Nova Scotia, Saskatchewan and Alberta. Production from these factories was valued at \$4,310,104 in 1929 as compared with \$4,098,972 in 1928 and \$3,931,452 in 1927.

Imports of glass and glassware into Canada during the calendar year 1929 reached a value of \$10,569,457. Exports of Canadian glass and glassware were appraised at \$100,507 in 1929 and \$150,265 in 1928. Re-exports of foreign produce amounted to \$35,422 in 1929 and \$64,892 in 1928. Details are given on page 46.

Table 131.—Principal Statistics, by Provinces, 1928 and 1929

Provinces	Number of plants	Capital employed	Average number of employees	Salaries and wages	Cost of fuel and electricity	Cost of materials at works	Selling value of products at works	Value added by manufacturing
		\$		\$	\$	\$	\$	\$
1928								
Quebec.....	11	5,387,096	1,235	1,424,331	530,479	1,682,029	5,535,815	3,873,786
Ontario.....	36	6,102,509	1,767	2,205,308	515,725	2,760,202	7,129,381	4,309,179
Manitoba.....	3	115,112	26	36,100	1,041	64,743	127,059	62,316
British Columbia.....	5	92,374	33	34,671	984	28,421	73,762	45,341
Canada*	59	12,694,882	3,219	3,878,165	1,061,341	4,791,486	13,565,354	8,773,868
1929								
Quebec.....	11	6,603,986	1,344	1,619,798	553,436	1,650,952	5,621,270	3,970,318
Ontario.....	35	7,291,187	2,231	2,716,227	688,623	3,153,474	8,493,026	5,339,552
Manitoba.....	4	834,477	135	117,368	63,359	127,089	411,081	283,975
British Columbia.....	5	86,681	32	36,132	1,281	30,735	89,995	59,260
Canada*	60	16,289,364	3,948	4,740,676	1,323,150	5,355,156	15,507,442	10,152,286

*Includes also data for 1 plant in Nova Scotia, 1 in New Brunswick and 2 in Alberta in 1928; and for 1 plant in Nova Scotia, 1 in New Brunswick, 1 in Saskatchewan and 2 in Alberta in 1929.

Table 132.—Principal Statistics, by Groups of Production Values, 1929

Production values	Number of plants	Capital employed	Number of employees	Production
\$		\$		\$
5,000 to 10,000.....	7	100,124	41	49,460
10,000 to 25,000.....	13	171,212	88	224,671
25,000 to 50,000.....	13	663,917	152	441,282
50,000 to 100,000.....	6	422,332	160	445,107
100,000 to 250,000.....	12	1,537,732	521	1,897,177
Over 250,000.....	9	13,394,047	2,986	12,449,745
Total	60	16,289,364	3,948	15,507,442

Table 133.—Principal Statistics, by Groups of Employees, 1929

Employees	Number of plants	Capital employed	Number of employees	Production
Under 10 employees.....	24	\$ 445,195	145	\$ 474,033
11 to 20.....	11	601,504	158	447,818
21 to 50.....	11	974,274	330	1,399,752
51 to 100.....	5	874,344	329	736,004
Over 100.....	9	13,394,047	2,986	12,449,735
Total.....	60	16,289,364	3,948	15,507,442

Table 134.—Capital Employed, by Classes and by Provinces, 1928 and 1929

Provinces	1928				1929			
	Capital employed as represented by				Capital employed as represented by			
	Lands, buildings, fixtures, machinery and tools	Materials on hand and stocks in process	Cash, trading and operating accounts and bills receivable	Total	Lands, buildings, fixtures, machinery and tools	Materials on hand and stocks in process	Cash, trading and operating accounts and bills receivable	Total
	\$	\$	\$	\$	\$	\$	\$	\$
Quebec.....	3,384,036	1,164,274	839,786	5,387,096	4,248,060	1,568,504	787,402	6,603,966
Ontario.....	3,213,524	1,602,010	1,286,975	6,102,509	3,861,346	1,906,133	1,523,708	7,291,187
Manitoba.....	56,700	42,430	15,982	115,112	522,827	268,147	43,503	834,477
British Columbia.....	21,921	35,002	35,451	92,374	22,941	32,542	31,198	86,681
Canada*.....	7,438,608	2,956,776	2,299,498	12,694,882	9,684,273	4,082,877	2,512,214	16,289,364

*See footnote to table 131.

Table 135.—Employees, Salaries and Wages, by Provinces, 1928 and 1929

Provinces	Average number of employees				Salaries and wages			
	Salaried employees		Wage-earners		Total	Salaries	Wages	Total
	Male	Female	Male	Female				
					\$	\$	\$	
1928								
Quebec.....	79	26	975	155	1,235	198,112	1,226,219	1,424,331
Ontario.....	120	32	1,470	145	1,767	318,887	1,886,421	2,265,308
Manitoba.....	7	2	14	3	26	14,850	21,250	36,100
British Columbia.....	6	3	22	2	33	11,844	22,827	34,671
Canada*.....	221	66	2,607	325	3,219	574,442	3,363,723	3,878,165
1929								
Quebec.....	102	28	1,044	170	1,344	261,457	1,358,341	1,619,798
Ontario.....	150	50	1,865	160	2,231	425,681	2,290,546	2,716,227
Manitoba.....	12	3	91	29	133	22,592	94,776	117,368
British Columbia.....	6	2	23	1	32	11,270	24,862	36,132
Canada*.....	290	91	3,182	385	3,948	782,026	3,958,650	4,740,676

*See footnote to table 131.

Table 136.—Wage-Earners, by Months, 1928 and 1929

Months	1928			1929		
	Male	Female	Total	Male	Female	Total
January.....	2,425	329	2,754	2,993	345	3,338
February.....	2,510	348	2,858	3,047	347	3,394
March.....	2,486	278	2,764	3,162	308	3,470
April.....	2,501	254	2,755	3,227	341	3,568
May.....	2,599	300	2,908	3,198	354	3,552
June.....	2,601	330	2,931	3,204	400	3,604
July.....	2,555	334	2,889	3,262	388	3,650
August.....	2,623	343	2,966	3,282	392	3,674
September.....	2,627	338	2,965	3,285	380	3,665
October.....	2,684	329	3,013	3,295	382	3,677
November.....	2,825	349	3,174	3,041	395	3,436
December.....	2,700	342	3,042	2,986	305	3,381
Average*.....	2,607	325	2,932	3,182	385	3,567

*See note on page

Table 137.—Total of Wage-Earners in Months of Highest Employment, by Hours Worked per Day or Shift and by Provinces, 1929

Provinces	Number of wage-earners in months of highest employment working per day of				
	8 hours or less	9 hours	10 hours	Over 10 hours	Total
Quebec.....	496	231	447	208	1,382
Ontario.....	972	550	269	528	2,319
Manitoba.....	119	13	13	8	153
British Columbia.....	23	14			37
Canada*	1,785	894	729	744	4,142

Table 138.—Average Wage-Earners Subdivided according to Hours usually Worked per Day or Shift, by Provinces, 1929

Provinces	Number of wage-earners usually working per day of				
	8 hours or less	9 hours	10 hours	Over 10 hours	Total
Quebec.....	561	637	16		1,214
Ontario.....	1,018	312	701		2,031
Manitoba.....	116	4			120
British Columbia.....	24				24
Canada*	1,750	1,100	717		3,567

Table 139.—Average Hours Worked by Wage-Earners per Day or Shift and per Week, by Provinces, 1929

Provinces	Average number of wage-earners	Total man-hours worked by wage-earners per day	Average hours worked by wage-earners per day	Total man-hours worked by wage-earners per week	Average hours worked by wage-earners per week
Quebec.....	1,214	10,381	8.55	61,556	50.70
Ontario.....	2,031	17,962	8.84	106,014	52.20
Manitoba.....	120	958	8.00	5,708	47.57
British Columbia.....	24	192	8.00	1,072	44.70
Canada*	3,567	31,064	8.71	183,664	51.50

*See note on page

Table 140.—Fuel and Electricity Used, 1928 and 1929

Kinds	Unit of measure	1928		1929	
		Quantity	Cost at works	Quantity	Cost at works
			\$		\$
Anthracite coal.....	short ton	1,511	8,639	1,851	7,478
Bituminous coal—Canadian.....	short ton	17,313	109,257	10,766	68,369
Imported.....	short ton	52,203	352,455	76,606	491,920
Lignite coal—Canadian.....	short ton	20	224	85	759
Coke.....	short ton	95	1,633	180	1,740
Kerosene.....	imp. gal.	360	60		
Fuel oil.....	imp. gal.	1,776,919	153,152	2,046,537	171,061
Wood.....	cord	12	86	8	37
Gns—Manufactured.....	M cu. ft.	29,431	25,327	165,706	83,011
Natural.....	M cu. ft.	339,091	278,294	721,820	322,325
Other fuel.....			240		9,433
Electricity purchased.....	k.w.h.	16,500,298	132,574	20,747,673	167,017
Total			1,061,341		1,323,150

Table 141.—Power Employed, 1928 and 1929

Description	1928		1929	
	Number of units	Total h.p. according to manufacturers' rating	Number of units	Total h.p. according to manufacturers' rating
Steam engines and turbines.....	2	130	2	120
Gasoline, gas and oil engines.....	2	300		
<i>Total primary power.....</i>	<i>4</i>	<i>430</i>	<i>2</i>	<i>120</i>
Electric motors run by purchased power.....	515	7,060	623	7,205
Total power employed.....	519	7,490	625	7,325
Electric motors run by primary power in same plant.....				
<i>Total electric power.....</i>	<i>515</i>	<i>7,060</i>	<i>623</i>	<i>7,205</i>
Boilers.....	24	1,259	20	1,495

Table 142.—Materials Used in Manufacturing, 1928 and 1929

Materials	Unit of measure	1928		1929	
		Quantity	Cost at works	Quantity	Cost at works
			\$		\$
Plate, Cut and Ornamental Glass—					
Figured and cathedral glass.....	sq. ft.	518,796	88,731	327,683	69,049
Glass blanks.....			164,516		211,964
Plate glass for bevelling, silvering, etc. (not plate cut to size only)	sq. ft.	4,191,427	1,156,382	3,100,726	1,094,504
Sheet and window glass for bevelling, silvering, etc. (not sheet cut to size only)	sq. ft.	3,534,000	186,305	1,171,959	154,463
Grinding and polishing materials.....			55,705		44,570
Lead, zinc and copper.....	lb.	266,630	31,378	255,259	32,592
Solder.....	lb.	16,882	5,520	15,747	4,726
Silver nitrate.....	lb.	2,538	17,651	2,912	19,660
Containers, boxes, packages, etc.....			7,467		24,902
All other materials.....			260,316		331,543
Total.....			1,973,971		1,987,973
Pressed and Blown Glass—					
Silica sand.....	ton	78,915	371,220	97,298	459,563
Soda ash.....	lb.	59,311,825	982,576	73,022,521	1,154,709
Feldspar.....	ton	Not available	Not available	3,609	68,692
Lime.....	ton	available	available	10,013	109,083
Other manufacturing materials used.....			905,959		807,829
Boxes, cases, lumber, etc.....			557,760		767,307
Total.....			2,817,515		3,367,183
Total.....			4,791,486		5,355,156

Table 143.—Products, 1928

Products	Total selling value at works
	\$
Plate, Cut and Ornamental Glass—	
Bent glass	16,299
Bevelled and ground edge plates	1,159,806
Silvered mirror plate	664,783
Cut glass	342,648
Glass signs	4,580
Leaded glass	235,233
Leaded lights and domes	4,080
Memorial windows	126,365
Ornamental glass	69,760
Show cases	218,146
Store fronts	325,124
All other products*	910,459
Amount received from custom work and repairs	21,719
Total	4,098,972
Pressed and Blown Glass—	
Pressed and blown glass	9,323,968
All other products	142,414
Total	9,466,382
Total	13,565,354

Table 144.—Products, 1929

Products	Total selling value at works
	\$
Plate, Cut and Ornamental Glass—	
Bent plate glass	28,346
Bevelled or polished edge plates	1,114,329
Chipped or etched plate glass	112,254
Plate glass signs	1,473
Plate glass mirrors	810,201
Bent sheet glass	14,952
Bevelled or polished edge sheet glass	99,306
Chipped or etched sheet glass	32,230
Sheet glass signs	595
Sheet glass mirrors	28,073
Leaded glass, including memorial windows	403,592
Non-shatterable glass	269,108
All other products*	1,373,050
Amount received from custom work and repairs	22,504
Total	4,310,104
Pressed and Blown Glass—	
Pressed and blown glass	11,069,373
All other products	127,965
Total	11,197,338
Total	15,507,442

*Includes lenses, reflectors, store fronts, soda fountains and other similar products which were reported by only 1 or firms.

CHAPTER NINE

THE LIME INDUSTRY

Lime production in Canada during 1929 reached a new high level amounting to 674,087 tons valued at \$5,908,610, or 32.5 per cent greater in quantity and 30.3 per cent greater in value than the 1928 production of 508,889 tons worth \$4,534,568. Canadian producers received an average of \$12.84 per ton for hydrated lime and \$8.11 per ton for quicklime.

Of the total amount of lime produced, chemical works used nearly 45 per cent or 298,364 tons; pulp and paper mills consumed 103,171 tons or about 15 per cent, and a slightly smaller quantity went to the building trades; smelters used somewhat more than 7 per cent; and of the remaining 18 per cent, small quantities were used in sugar refineries and tanneries and for agricultural purposes, while about 15 per cent was sold for unspecified uses.

Considerably more than half the Canadian lime output during 1929 was produced in the province of Ontario and almost 25 per cent was produced in Quebec. In the order named the following provinces produced the remainder: Nova Scotia, British Columbia, Manitoba, New Brunswick and Alberta.

Imports of lime into Canada during 1929 were recorded at 4,448 tons appraised at \$49,395. Exports of Canadian lime amounted to 24,238 tons valued at \$428,209.

Capital employed in the 53 plants operating in the lime industry in 1929 was reported at \$7,404,677. Employment was furnished 109 salaried employees and 1,273 wage-earners; their total earnings were \$1,393,092.

Table 145.—Principal Statistics, by Provinces, 1928 and 1929

Provinces	Number of plants	Capital employed	Average number of employees	Salaries and wages	Cost of fuel and electricity	Selling value of products
		\$		\$	\$	\$
1928						
Nova Scotia and New Brunswick.....	6	209,745	119	123,213	74,199	306,660
Quebec.....	13	1,760,192	319	310,030	278,879	896,782
Ontario.....	25	2,662,238	484	550,252	438,848	2,467,843
Manitoba.....	4	536,337	119	95,652	68,858	319,699
Alberta and British Columbia.....	6	1,777,567	177	236,968	51,611	543,584
Canada.....	54	6,952,079	1,218	1,316,115	912,395	4,534,568
1929						
Nova Scotia and New Brunswick.....	6	235,250	138	124,252	85,297	328,740
Quebec.....	14	2,012,423	407	381,519	416,286	1,264,194
Ontario.....	23	2,810,784	463	494,586	543,518	3,364,411
Manitoba.....	4	595,008	146	112,151	71,021	361,104
Alberta and British Columbia.....	6	1,750,000	228	280,584	67,151	590,101
Canada.....	53	7,404,677	1,382	1,393,092	1,183,313	5,908,610

Table 146.—Principal Statistics, by Groups of Production Values, 1929

Production values	Number of plants	Capital employed	Number of employees	Production
\$		\$		\$
Under 5,000.....	10	5,800	19	13,103
5,000 to 10,000.....	2	32,050	14	12,432
10,000 to 25,000.....	12	458,243	140	190,862
25,000 to 50,000.....	6	283,221	93	216,717
50,000 to 100,000.....	8	1,157,028	241	585,324
100,000 to 250,000.....	8	1,175,988	347	1,199,969
Over 250,000.....	7	4,292,347	528	3,690,203
Total.....	53	7,404,677	1,382	5,908,610

Table 147.—Principal Statistics, by Groups of Employees, 1929

Employees	Number of plants	Capital employed	Number of employees	Production
				\$
1 or 2.....	8	192,743	7	63,295
3 to 10.....	16	360,763	109	849,334
11 to 20.....	9	358,892	121	293,632
21 to 50.....	9	1,889,992	303	2,106,499
Over 50.....	11	4,602,287	842	2,505,850
Total	53	7,404,677	1,382	5,908,610

Table 148.—Capital Employed, by Provinces, 1928 and 1929

Provinces	1928				1929			
	Lands, buildings, fixtures, machinery and tools	Materials on hand and stocks in process	Cash, trading and operating accounts and bills receivable	Total	Lands, buildings, fixtures, machinery and tools	Materials on hand and stocks in process	Cash, trading and operating accounts and bills receivable	Total
	\$	\$	\$	\$	\$	\$	\$	\$
Nova Scotia and New Brunswick.....	163,995	31,050	14,700	209,745	170,015	30,444	34,797	235,256
Quebec.....	1,279,684	179,843	306,665	1,766,192	1,612,404	174,574	225,445	2,012,423
Ontario.....	2,177,855	240,340	244,043	2,662,238	2,466,818	230,258	113,708	2,810,784
Manitoba.....	487,061	46,046	3,230	536,337	548,563	44,062	3,043	595,608
Alberta and British Columbia.....	1,482,581	123,383	171,603	1,777,567	1,527,283	103,571	119,752	1,750,606
Canada	5,591,176	620,662	740,241	6,952,079	6,325,683	582,849	496,745	7,404,677

Table 149.—Employees, Salaries and Wages, by Provinces, 1928 and 1929

Provinces	Average number of employees				Total	Salaries and wages		
	Salaried employees		Wage-earners			Salaries	Wages	Total
	Male	Female	Male	Female				
					\$	\$	\$	
1928								
Nova Scotia and New Brunswick.....	8	2	109		119	18,340	104,873	123,213
Quebec.....	22		297		319	37,810	272,220	310,030
Ontario.....	32	9	443		484	81,830	468,422	550,252
Manitoba.....	7		112		119	12,968	82,684	95,652
Alberta and British Columbia.....	15	5	157		177	33,784	203,184	236,968
Canada	84	16	1,118		1,218	181,732	1,131,383	1,316,115
1929								
Nova Scotia and New Brunswick.....	8	2	128		138	16,740	107,512	124,252
Quebec.....	13		394		407	19,357	362,162	381,519
Ontario.....	44	9	410		463	67,352	427,234	494,586
Manitoba.....	9		137		146	13,579	98,572	112,151
Alberta and British Columbia.....	17	7	204		228	41,576	239,008	280,584
Canada	91	18	1,273		1,382	158,604	1,234,488	1,393,092

Table 150.—Wage-Earners, by Months, 1928 and 1929

Months	Total		Months	Total	
	1928	1929		1928	1929
	Male	Male		Male	Male
January.....	913	1,186	July.....	1,180	1,329
February.....	898	1,145	August.....	1,197	1,253
March.....	909	1,072	September.....	1,168	1,271
April.....	997	1,174	October.....	1,227	1,288
May.....	1,121	1,288	November.....	1,201	1,167
June.....	1,174	1,341	December.....	1,017	1,049
			Average*	1,118	1,273

*See note on page 24.

Table 151.—Total of Wage-Earners in Months of Highest Employment, by Provinces and by Hours Worked per Day or Shift, 1929

Provinces	Number of wage-earners in months of highest employment working per day or shift of				
	8 hours or less	9 hours	10 hours	Over 10 hours	Total
Nova Scotia and New Brunswick.....	10	69	27	34	140
Quebec.....	48	130	269	17	464
Ontario.....	43	96	357	95	591
Manitoba.....	3	.....	93	80	176
Alberta and British Columbia.....	206	.....	34	.....	240
Canada.....	310	295	780	226	1,611

Table 152.—Average Wage-Earners Subdivided according to Hours usually Worked per Day or Shift, by Provinces, 1929

Provinces	Number of wage-earners usually working per day or shift of				
	8 hours or less	9 hours	10 hours	Over 10 hours	Total
Nova Scotia and New Brunswick.....	10	71	.....	47	128
Quebec.....	98	7	289	.....	394
Ontario.....	38	47	246	79	410
Manitoba.....	.....	.....	137	.....	137
Alberta and British Columbia.....	175	.....	29	.....	204
Canada.....	321	125	701	126	1,273

Table 153.—Average Hours Worked by Wage-Earners, per Day or Shift and per Week, by Provinces, 1929

Provinces	Average number of wage-earners	Total man-hours worked by wage-earners per day	Average hours worked by wage-earners per day	Total man-hours worked by wage-earners per week	Average hours worked by wage-earners per week
Nova Scotia.....	54	627	11.61	4,326	80.11
New Brunswick.....	74	656	8.86	3,036	53.19
Quebec.....	394	3,737	9.48	23,118	58.68
Ontario.....	410	4,133	10.09	25,419	62.00
Manitoba.....	137	1,370	10.00	8,210	59.93
Alberta.....	29	290	10.00	1,596	55.03
British Columbia.....	175	1,400	8.00	8,736	49.92
Canada.....	1,273	12,215	9.60	75,341	59.11

Table 154.—Fuel and Electricity Used, 1928 and 1929

Kinds	Unit of measure	1928		1929	
		Quantity	Cost at works	Quantity	Cost at works
			\$		\$
Anthracite coal.....	short ton	1,642	7,383	1,225	5,156
Bituminous coal—Canadian.....	short ton	18,409	125,620	39,948	254,344
.....Imported.....	short ton	57,782	285,337	90,014	421,968
Lignite coal—Canadian.....	short ton	90	450	.....	.....
Coke.....	short ton	10,949	73,143	11,780	79,607
Gasoline.....	imp. gal.	1,465	338	3,706	967
Kerosene.....	imp. gal.	245	61	310	76
Fuel oil.....	imp. gal.	385,525	15,746	343,245	11,330
Wood.....	cord	71,561	324,943	73,104	310,792
Gas—Manufactured.....	M cu. ft.	217,108	17,368	268,688	21,487
.....Natural.....	M cu. ft.	13,000	8,500	17,549	8,537
Electricity purchased.....	k.w.h.	4,864,482	55,505	9,443,592	69,049
Total.....			912,395		1,183,313
Electricity generated for own use.....	k.w.h.	343,658	.....	.....	387,286

MANUFACTURES OF NON-METALLIC MINERALS

Table 155.—Power Employed, 1928 and 1929

Description	1928		1929	
	Number of units	Total h.p. according to manufacturers' rating	Number of units	Total h.p. according to manufacturers' rating
Steam engines and turbines.....	9	448	12	570
Gasoline, gas and oil engines.....	5	92	6	130
Hydraulic turbines and water wheels.....	1	20	1	20
<i>Total primary power.....</i>	<i>15</i>	<i>560</i>	<i>19</i>	<i>720</i>
Electric motors run by purchased power.....	181	3,806	237	11,477
Total power employed.....	196	4,426	256	12,197
Electric motors run by primary power in same plant.....	28	615	31	575
<i>Total electric power.....</i>	<i>209</i>	<i>4,481</i>	<i>268</i>	<i>12,052</i>
Boilers.....	33	1,815	10	898

Table 156.—Production of Lime in Canada, by Provinces, 1928 and 1929

Provinces	Quicklime sold or used		Hydrated lime sold or used		Total	
	Quantity	Selling value at kiln	Quantity	Selling value at kiln	Quantity	Selling value at kiln
1928	Tons	\$	Tons	\$	Tons	\$
Nova Scotia.....	35,534	167,386	620	8,490	36,154	175,876
New Brunswick.....	11,236	130,481	25	300	11,261	130,781
Quebec.....	102,859	795,989	11,271	100,783	114,130	896,782
Ontario.....	228,101	1,870,476	49,085	597,367	277,186	2,467,843
Manitoba.....	20,006	173,127	8,331	146,572	28,337	319,699
Alberta.....	6,672	69,588	.....	.....	6,672	69,588
British Columbia.....	24,512	345,131	10,637	128,865	35,149	473,996
Canada.....	428,920	3,552,191	79,969	982,377	508,889	4,534,568
1929						
Nova Scotia.....	41,001	143,787	1,000	10,400	42,001	154,187
New Brunswick.....	11,766	135,981	3,752	38,572	15,518	174,553
Quebec.....	157,414	1,183,118	9,478	81,016	166,892	1,264,194
Ontario.....	314,243	2,624,281	55,915	749,127	370,158	3,363,411
Manitoba.....	22,178	186,377	10,068	171,727	32,246	368,104
Alberta.....	7,681	79,569	.....	.....	7,681	79,569
British Columbia.....	26,300	355,013	13,291	155,579	39,591	510,592
Canada.....	580,583	4,708,159	93,504	1,200,451	674,087	5,908,610

Table 157.—Production of Lime in Canada, 1928 and 1929, Showing Purposes for which Sold and Used

Purpose for which sold or used	1928				1929			
	Quicklime		Hydrated lime		Quicklime		Hydrated lime	
	Tons	Value	Tons	Value	Tons	Value	Tons	Value
		\$		\$		\$		\$
Building trades.....	46,573	478,406	43,620	572,571	45,904	469,742	53,025	694,669
Chemical works.....	153,334	1,282,493	1,187	14,596	297,855	2,397,989	509	5,799
Glass works.....	6,664	55,757	.....	.....	8,509	70,695	500	6,240
Smelters.....	38,033	191,540	108	1,230	48,689	209,861	.....	.....
Pulp and paper mills.....	100,788	718,534	4,375	39,966	97,071	691,849	6,100	56,754
Sugar refineries.....	10,086	80,572	.....	.....	8,279	70,707	.....	.....
Tanneries.....	3,463	28,949	366	3,342	1,963	16,398	110	1,171
Agricultural uses (fertilizers).....	700	4,657	2,168	18,057	365	2,440	2,396	21,274
Dealers (uses unspecified).....	34,193	292,007	17,808	204,917	44,651	433,883	17,951	261,066
Other consumers.....	35,080	419,186	10,337	127,698	27,297	344,595	12,913	153,478
Total sold or used.....	428,920	3,552,191	79,969	982,377	580,583	4,708,159	93,504	1,200,451

Table 158.—Production, Imports and Exports of Lime, 1928 and 1929

	1928		1929	
	Tons	Value	Tons	Value
Production.....	508,899	4,534,568	674,087	5,908,610
Imports.....	5,417	64,811	4,448	49,395
Exports.....	20,043	357,085	24,238	428,209

CHAPTER TEN

THE PETROLEUM PRODUCTS INDUSTRY

Output of petroleum products from Canadian plants in 1929 was valued at \$99,408,314 an increase of \$16.3 millions over 1928. This total included production valued at \$98,384,180 from 15 refineries and an output worth \$1,024,134 from 10 other concerns compounding lubricating oils and greases.

Four refineries were located in Ontario, 4 in Alberta, 2 in British Columbia, 2 in Quebec, and 1 in each of the provinces of Nova Scotia, Manitoba and Saskatchewan. Capital employed in the refining industry, represented by these 15 establishments, was placed at \$69,887,267, the number of employes averaged 4,883, and the cost of materials was reported at \$76,289,182. Gasoline production totalled 436,620,614 imperial gallons including 132,646,096 gallons made by the cracking process. Final sales of fuel and gas oils from the refineries amounted to 387,069,829 gallons; in addition to this the refiners used 61,629,931 gallons for fuel purposes. The quantity of fuel and gas oils made and used in the pressure cracking process was reported at 351,436,512 gallons.

Most of the oil treated in Canadian refineries was imported; in 1927 the consumption of Canadian oil, including the crude naphtha from the Royalite Oil Co. wells in Alberta, was 37,338,402 imperial gallons, and the quantity of imported oil used was 1,035,490,094 gallons. The latter figure included 786,549,217 gallons from the United States, 247,397,658 gallons from South America and 1,543,219 gallons from Mexico. Only 1 small refinery in Alberta operated entirely on crude oil from Canadian wells; 3 other plants in the Prairie Provinces used some Canadian crude but obtained their supplies chiefly from the United States; and 2 other refineries in that area operated entirely on United States crude. Refineries in British Columbia, Nova Scotia and Quebec obtained crude oil from South America, the United States and Mexico, and the plants in Ontario used crude from the United States as well as the small domestic production in the western section of the province. The crude naphtha from the Royalite wells in Alberta was delivered to the refineries of the Imperial Oil Co. in Regina and Calgary; in the present report this has been included as crude oil entering the refineries and as straight-run gasoline on the production side.

Considerable quantities of casinghead gasoline were imported into Canada during the year for use in blending with refinery gasoline; the amounts are shown in the import figures but are NOT included with the figures of refinery output.

The 10 firms chiefly engaged in making lubricating oils and greases were located as follows: 4 in Quebec, 5 in Ontario, and 1 in British Columbia. Capital invested in these plants was reported at \$1,373,192; the average number of employes was 95; cost of materials was reported at \$572,757; and the value added by manufacturing was \$451,377 to give the total sales value of \$1,024,134.

Imports of petroleum products of all kinds into Canada during 1929 were valued at \$76,886,930 as compared with a value of \$61,669,989 in 1928. Exports were appraised at \$2,728,872 in 1929 and at \$2,051,748 in 1928. Details are shown in Table 28.

An estimate of the apparent consumption of certain petroleum products in Canada is given in Table 172. By adding the imports to the production in Canada and deducting the exports and re-exports the apparent consumption of gasoline in 1929 was estimated at 606,934,668 gallons, fuel and gas oils at 516,271,783 gallons, kerosene at 52,516,909 gallons; and lubricating oils at 41,851,437 gallons. Increase or decline of the stocks on hand at the refineries have not been taken into account in the computation and there may be, therefore, a considerable error in the figure for any one year; over a period of years, however, the estimate should be approximately correct, and for 1929 in particular the figure checks fairly closely with the total of 601,225,227 gallons as compiled from gasoline tax returns.

Table 159.—Principal Statistics, 1925-1929

Year	Number of plants	Capital employed	Average number of employees	Salaries and wages	Cost of materials at works	Selling value of products at works
		\$		\$	\$	\$
Petroleum Refining—						
1925	13	49,461,000	3,655	5,621,898	37,814,303	49,802,615
1926	17	50,476,449	3,698	5,782,589	50,783,871	70,570,240
1927	16	55,442,193	3,802	6,078,226	52,733,530	63,079,849
1928	16	55,811,418	4,252	6,863,234	57,033,185	82,418,392
1929	15	69,887,267	4,883	7,984,786	76,289,182	98,384,180
Lubricating Oils and Greases—						
1925	8	1,118,649	83	153,148	446,721	959,812
1926	6	701,676	55	109,810	388,288	626,071
1927	7	693,371	54	110,000	316,391	548,971
1928	9	720,196	67	119,346	350,656	673,780
1929	10	1,373,192	95	168,839	572,757	1,024,134
Total—						
1925	21	59,580,549	3,738	5,775,046	38,261,624	59,762,427
1926	23	57,178,125	3,753	5,892,399	51,172,159	71,196,311
1927	23	56,135,564	3,856	6,188,226	53,059,921	64,528,829
1928	25	56,531,614	4,319	6,922,586	57,383,841	83,122,172
1929	25	71,260,459	4,978	8,153,625	76,861,939	99,498,314

Table 160.—Principal Statistics, by Provinces, 1928 and 1929

Provinces	Number of plants	Capital employed	Number of employees	Salaries and wages	Cost of fuel and electricity	Cost of materials	Selling value of products	Value added by manufacturing
		\$		\$	\$	\$	\$	
1928								
Petroleum Refining—								
Ontario	4	19,570,531	1,853	3,013,872	1,501,538	20,701,424	30,042,257	9,340,833
Alberta	4	5,614,806	439	629,107	242,177	7,114,196	11,231,742	4,087,546
British Columbia	3	5,398,305	343	627,886	227,732	6,031,846	6,951,695	919,849
Canada*	16	55,811,418	4,252	6,803,234	3,440,578	57,033,185	82,448,392	25,415,207
Lubricating Oils and Greases—								
Quebec	3	163,979	23	37,783	4,742	76,468	176,133	99,735
Ontario	5	495,217	41	79,653	2,330	261,620	473,647	212,127
Canada	9	720,196	67	119,346	7,204	350,656	673,780	323,124
Total Petroleum Products—								
Quebec	3	193,979	23	37,783	4,742	76,468	176,133	99,735
Ontario	9	20,065,748	1,894	3,093,525	1,506,868	9,967,941	30,515,904	9,552,960
Alberta	4	5,614,866	439	629,167	242,177	7,114,196	11,231,742	4,087,516
British Columbia	3	5,398,305	343	627,886	227,732	6,031,846	6,951,695	919,849
Canada*	25	56,531,614	4,319	6,922,586	3,447,782	57,383,841	83,122,172	25,738,331
1929								
Petroleum Refining—								
Ontario	4	26,784,547	2,301	3,057,619	1,523,847	26,644,764	35,676,432	9,031,608
Alberta	4	7,745,833	448	716,667	275,835	9,055,313	12,738,164	3,682,851
Canada*	15	69,887,267	4,883	7,984,786	3,745,956	76,289,182	98,384,180	22,094,998
Lubricating Oils and Greases—								
Quebec	4	255,636	27	44,404	2,215	112,228	246,991	134,763
Ontario	5	444,205	40	74,035	2,594	233,799	382,191	148,392
Canada	10	1,373,192	95	168,839	8,699	572,757	1,024,134	451,377
Total Petroleum Products—								
Quebec	4	255,636	27	44,404	2,215	112,228	246,991	134,763
Ontario	9	27,228,752	2,341	3,731,654	1,328,441	26,878,563	36,058,623	9,180,660
Alberta	4	7,745,833	448	716,667	275,835	9,055,313	12,738,164	3,682,851
Canada*	25	71,260,459	4,978	8,153,625	3,754,655	76,861,939	99,498,314	22,546,375

*Includes also data for 2 plants in Quebec and 1 in each, Nova Scotia, Manitoba, Saskatchewan in the Petroleum Refining and 1 plant in Alberta in the Lubricating Oils and Greases for 1928. And 2 plants in Quebec, 2 plants in British Columbia and 1 in each, Nova Scotia, Manitoba, Saskatchewan in the Petroleum Refining and 1 plant in British Columbia in the Lubricating Oils and Greases for 1929.

Table 161.—Capital Employed, by Provinces, 1928 and 1929

Provinces	1928 Capital employed as represented by				1929 Capital employed as represented by			
	Lands, buildings, fixtures, machinery and tools	Materials on hand and stocks in process	Cash, trading and operating accounts and bills receivable	Total	Lands, buildings, fixtures, machinery and tools	Materials on hand and stocks in process	Cash, trading and operating accounts and bills receivable	Total
	\$	\$	\$	\$	\$	\$	\$	\$
Petroleum Refining—								
Ontario.....	12,204,790	6,876,769	398,972	19,570,531	15,064,598	10,973,059	746,890	26,784,547
Alberta.....	3,343,435	2,107,347	164,081	5,614,866	3,675,880	3,755,928	314,025	7,745,833
British Columbia.....	3,600,467	1,638,568	149,270	5,388,305				
Canada*.....	35,606,198	19,264,864	940,356	55,811,418	38,467,264	30,107,203	1,312,800	69,887,267
Lubricating Oils and Greases—								
Quebec.....	119,949	34,403	39,627	193,979	131,729	58,404	65,503	255,636
Ontario.....	235,651	99,278	160,288	495,217	239,454	100,287	104,464	444,205
Canada*.....	377,600	142,681	199,915	720,196	687,308	515,917	169,967	1,373,192
Total—								
Quebec.....	119,949	34,403	39,627	193,979	131,729	58,404	65,503	255,636
Ontario.....	12,530,411	6,976,047	559,269	20,065,748	15,304,652	11,073,346	851,351	27,228,752
Alberta.....	3,343,435	2,107,347	164,081	5,614,866	3,675,880	3,755,928	314,025	7,745,833
British Columbia.....	3,600,467	1,638,568	149,270	5,388,305				
Canada*.....	35,883,798	19,407,545	1,140,271	56,531,614	39,154,572	30,623,120	1,482,767	71,260,459

*See footnote to Table 160.

Table 162.—Employees, Salaries and Wages, by Provinces, 1928 and 1929

Provinces	Average number of employees					Salaries and wages		
	Salaried employees		Wage-earners		Total	Salaries	Wages	Total
	Male	Female	Male	Female				
1928						\$	\$	\$
Petroleum Refining—								
Ontario.....	163	30	1,644	16	1,853	475,381	2,538,491	3,013,872
Alberta.....	41	6	389	3	439	118,439	510,728	629,167
British Columbia.....	55	3	285		343	144,307	483,579	627,886
Canada*.....	385	58	3,788	21	4,252	1,084,286	5,718,948	6,803,234
Lubricating Oils and Greases—								
Quebec.....	6	2	13	2	23	23,522	14,261	37,783
Ontario.....	20	2	17	2	41	90,124	19,529	79,653
Canada*.....	27	4	32	4	67	84,756	34,590	119,346
Total—								
Quebec.....	6	2	13	2	23	23,522	14,261	37,783
Ontario.....	183	32	1,661	18	1,894	535,505	2,558,620	3,093,325
Alberta.....	41	6	389	3	439	118,439	510,728	629,167
British Columbia.....	55	3	285		343	144,307	483,579	627,886
Canada*.....	412	62	3,820	25	4,319	1,169,042	5,753,538	6,922,580
1929								
Petroleum Refining—								
Ontario.....	182	33	2,070	16	2,301	523,681	3,133,938	3,657,619
Alberta.....	43	6	394	5	448	122,281	594,386	716,667
Canada*.....	404	59	4,397	23	4,883	1,147,056	6,837,730	7,984,786
Lubricating Oils and Greases—								
Quebec.....	11	4	12		27	28,696	15,708	44,404
Ontario.....	20	2	17	1	40	54,582	19,453	74,035
Canada.....	41	6	47	1	95	106,118	62,721	168,839
Total—								
Quebec.....	11	4	12		27	28,696	15,708	44,404
Ontario.....	202	35	2,087	17	2,341	578,263	3,153,391	3,731,654
Alberta.....	43	6	394	5	448	122,281	594,386	716,667
Canada*.....	445	65	4,444	24	4,978	1,253,174	6,900,451	8,153,625

*See footnote to Table 160.

Table 163.—Wage-Earners, by Months, 1928 and 1929

Months	1928					1929				
	Petroleum refining		Lubricating oils and greases		Total	Petroleum refining		Lubricating oils and greases		Total
	Male	Female	Male	Female		Male	Female	Male	Female	
January.....	3,391	21	22	4	3,438	3,551	22	44	1	3,618
February.....	3,604	20	22	4	3,650	3,575	22	46	1	3,644
March.....	3,708	21	22	4	3,755	3,839	22	45	1	3,907
April.....	3,785	22	22	4	3,833	4,351	21	45	1	4,418
May.....	3,712	22	26	4	3,764	4,443	22	49	1	4,515
June.....	3,712	18	31	4	3,765	4,743	22	47	1	4,813
July.....	3,830	18	30	4	3,882	4,753	22	48	1	4,824
August.....	3,968	19	32	4	4,023	4,733	22	48	1	4,804
September.....	4,077	20	34	4	4,135	4,792	27	47	1	4,867
October.....	4,003	22	37	4	4,066	4,643	27	49	1	4,726
November.....	3,961	20	37	4	4,022	4,668	26	47	1	4,740
December.....	3,703	22	57	4	3,786	4,645	25	46	1	4,717
Average*	3,788	21	32	4	3,845	4,397	23	47	1	4,468

*See note on page 24.

Table 164.—Total of Wage-Earners in Months of Highest Employment by Hours usually Worked per Day or Shift and by Provinces, 1929

Province	Number of wage-earners in months of highest employment working per day or shift of				
	8 hours or less	9 hours	10 hours	Over 10 hours	Total
Quebec.....	1,074	290	39	14	1,417
Ontario.....	2,283	169	.....	.....	2,452
Alberta.....	608	17	.....	.....	625
Canada*	4,840	476	39	14	5,372

Table 165.—Average Wage-Earners Subdivided according to Hours usually Worked per Day or Shift and by Provinces, 1929

Provinces	Number of wage-earners usually working per day or shift of				
	8 hours or less	9 hours	10 hours	Over 10 hours	Total
Quebec.....	767	8	156	.....	931
Ontario.....	1,842	262	.....	.....	2,104
Alberta.....	387	12	.....	.....	399
Canada*	4,028	284	156	.....	4,468

*See footnote to table 160.

Table 166.—Average Hours Worked by Wage-Earners per Day and per Week, by Provinces, 1929

Provinces	Average number of wage-earners	Total man-hours worked by wage-earners per day or shift	Average hours worked by wage-earners per day or shift	Total man-hours worked by wage-earners per week	Average hours worked by wage-earners per week
Quebec.....	931	7,768	8.34	46,563	50.01
Ontario.....	2,104	17,076	8.12	102,300	48.62
Alberta.....	399	3,204	8.03	19,744	49.48
Canada*	4,468	36,322	8.13	218,251	48.85

*See footnote to table 160.

Table 167.—Fuel and Electricity Used, 1928 and 1929

Kinds	Unit of measure	1928		1929	
		Quantity	Cost at works	Quantity	Cost at works
		\$		\$	
Anthracite coal.....	short ton	14	197	21	328
Bituminous coal—Canadian.....	short ton	5,607	10,464	3,218	13,945
Imported.....	short ton	112,966	539,691	89,633	357,798
Coke.....	short ton	24,550	111,370	24,069	119,530
Fuel oil.....	imp. gal.	53,188,828	1,843,517	61,750,806	2,085,556
Wood.....	cord	10	76	11	82
Gas—Manufactured.....	M cu. ft.	2,429,701	550,438	3,140,336	708,936
Natural.....	M cu. ft.	1,099,106	99,350	1,266,972	119,591
Other fuel.....			55,537		98,427
Electricity purchased.....	k.w.h.	20,470,188	228,143	27,709,769	250,453
Total.....			3,447,782		3,754,655

Table 168.—Power Employed, 1928 and 1929

Description	1928		1929	
	Number of units	Total h.p. according to manufacturers' rating	Number of units	Total h.p. according to manufacturers' rating
Steam engines and turbines.....	327	12,180	351	13,180
Gasoline, gas and oil engines.....	9	1,038	7	1,031
<i>Total primary power.....</i>	<i>336</i>	<i>13,218</i>	<i>358</i>	<i>14,211</i>
Electric motors run by purchased power.....	453	9,633	533	12,380
Total power employed.....	789	22,851	891	26,591
Electric motors run by primary power in same plant.....	54	1,683	54	1,683
<i>Total electric motors.....</i>	<i>507</i>	<i>11,316</i>	<i>587</i>	<i>14,063</i>
Boilers.....	96	21,367	102	23,088

Table 169.—Materials Used in Manufacturing, 1928 and 1929

Materials	Unit of measure	1928		1929	
		Quantity	Cost at works	Quantity	Cost at works
		\$		\$	
Petroleum refining—					
✓ Crude oil from Canadian wells*.....	imp. gal.	20,324,814	2,112,314	37,338,402	4,026,272
✓ Crude oil, imported.....	imp. gal.	829,608,956	50,952,144	1,035,490,094	68,082,715
✓ Imported fuel and gas oils for use in cracking process.....	imp. gal.			440,475	18,270
Sulphuric acid (66° Be.).....	lb.	51,828,643	408,905	49,610,612	425,853
Sulphur.....	lb.	161,044	5,105	201,032	6,770
Caustic soda.....	lb.	4,345,466	159,803	6,699,874	243,319
Soda ash.....	lb.	381,196	8,023	401,185	9,315
Litharge.....	lb.	659,882	57,527	799,464	69,698
Fullers' earth.....	lb.	11,707,839	109,221	18,513,820	207,931
Compounding materials.....			732,956		676,102
Other materials.....			127,099		82,144
Shipping containers.....			2,360,088		2,440,793
Total.....			57,033,185		76,289,182
Fuel and gas oils made and used in pressure cracking process.....	imp. gal.	284,510,884		351,436,512	
Lubricating oils and greases—					
Total.....			350,656		572,757
Total.....			57,383,841		76,861,939

*Includes naphtha from the Turner Valley fields in Alberta.

Table 170.—Products, 1928 and 1929

Products	Unit of measure	1928		1929	
		Quantity	Selling value at works	Quantity	Selling value at works
			\$		\$
PETROLEUM REFINING—					
Made for sale—					
Gasoline (a) straight run	imp. gal.	226,904,777	33,574,295	303,911,713	43,250,498
(b) by cracking process	imp. gal.	117,175,542	18,647,134	132,846,698	20,242,805
Fuel and gas oils	imp. gal.	304,185,187	12,543,505	387,069,829	15,546,290
V. M. & P. or solvent naphtha	imp. gal.	4,619,743	643,350	7,257,910	974,348
Kerosene	imp. gal.	55,939,530	7,335,353	49,297,417	6,870,711
Lubricating oils	imp. gal.	19,022,749	3,340,097	22,000,238	3,043,418
Grease	lb.	14,439,030	266,590	17,012,195	316,848
Tar	lb.			1,032,560	8,260
Asphalt	imp. gal.	22,326,606	2,016,630	35,233,317	2,688,579
Petroleum coke	ton	80,361	467,548	84,108	465,753
Wax and candles	lb.	15,872,946	599,335	10,776,352	537,886
Other products			398,915		258,113
Total for sale			79,802,752		95,143,509
Made for own use—					
Gasoline, straight run	imp. gal.	49,542	7,413	62,205	8,813
Fuel and gas oils (except for cracking)	imp. gal.	52,206,663	1,907,829	61,029,931	2,308,963
V. M. & P. or solvent naphtha	imp. gal.	4,728	376	14,371	1,490
Kerosene	imp. gal.	42,389	5,191	64,964	8,763
Lubricating oils	imp. gal.	25,297	3,884	24,060	4,191
Petroleum coke	ton	15,515	93,882	25,408	140,230
Sulphur gas	M cu. ft.	2,489,346	572,847	3,140,187	798,781
Acid sludge			53,218		53,900
Other products					5,531
Total for own use			2,645,640		3,240,671
Total Petroleum Refining			82,448,392		98,384,180
Fuel and gas oils made and used in pressure cracking process	imp. gal.	284,510,884		351,436,512	
LUBRICATING OILS AND GREASES—					
Lubricating oils	imp. gal.	1,244,350	464,613	1,522,045	745,876
Lubricating greases	lb.	657,708	82,269	688,384	92,004
Soaps	lb.		70,859	465,064	66,395
Other products			56,039		119,859
Total Lubricating Oils and Greases			673,780		1,024,134
Total			83,122,172		99,408,314

Table 171.—Consumption of Crude Oil in Petroleum Refineries in Canada, 1898-1929

Year	Imp. gal.	Year	Imp. gal.	Year	Imp. gal.
1898	26,978,977	1909	35,530,918	1920	295,576,527
1899	23,615,967	1910	36,171,032	1921	373,469,418
1900	23,331,783	1911	38,632,504	1922	394,130,055
1901	17,745,182	1912	46,270,701	1923	408,810,739
1902	15,630,582	1913	53,821,592	1924	467,144,634
1903	14,464,248	1914	73,239,403	1925	445,115,094
1904	22,805,100	1915	84,355,760	1926	585,468,329
1905	33,821,998	1916	139,670,200	1927	716,360,890
1906	36,134,349	1917	199,256,796	1928	849,933,770
1907	34,001,706	1918	260,209,899	1929	1,072,828,496
1908	34,675,120	1919	301,006,553		

Table 172.—Production, Imports, Exports and Apparent Consumption* of Certain Petroleum Products in Canada, 1920-1929

		Production	Imports	Exports	Re-exports	Apparent consumption
Fuel and Gas Oils—						
1920.	Imp. gal.	96,462,792	122,929,391	2,684,427		216,707,656
	\$	10,341,948	7,819,006	293,325		17,867,627
1921.	Imp. gal.	129,746,045	61,398,671	5,384,751		185,729,965
	\$	6,611,261	3,805,714	375,820		10,041,155
1922.	Imp. gal.	106,975,976	72,805,012	7,036,627		172,744,361
	\$	6,142,927	3,091,290	288,828		8,945,389
1923.	Imp. gal.	139,682,570	108,982,780	2,384,899		240,280,451
	\$	7,973,796	4,245,101	138,581		12,080,486
1924.	Imp. gal.	177,123,232	94,244,271	18,203,236		253,104,267
	\$	0,076,746	4,133,208	529,497		12,680,457
1925.	Imp. gal.	172,387,242	107,849,209	7,375,163		272,861,288
	\$	9,652,255	4,918,279	346,512		14,224,022
1926.	Imp. gal.	228,474,212	91,638,340	21,043,135		299,060,417
	\$	12,007,320	3,748,664	851,750		14,004,234
1927.	Imp. gal.	286,525,733	119,612,088	18,793,254		387,344,567
	\$	13,584,412	5,097,491	623,948		17,757,955
1928.	Imp. gal.	361,391,850	95,407,100	21,531,929		435,327,021
	\$	14,431,344	3,454,395	1,098,586		16,807,143
1929.	Imp. gal.	448,699,790	95,749,518	28,177,495		516,271,783
	\$	17,895,253	3,332,783	1,548,288		19,679,748
Gasoline—						
1920.	Imp. gal.	86,193,664	8,515,545	160,433	214,634	94,334,133
	\$	28,272,903	2,404,488	50,432	83,778	30,534,180
1921.	Imp. gal.	119,887,613	40,264,707	762,080	10,492	159,379,748
	\$	31,026,136	7,161,458	212,638	3,917	38,421,039
1922.	Imp. gal.	143,959,893	42,112,248	1,076,244	27,020	184,068,270
	\$	34,428,189	8,760,924	510,037	6,706	42,672,370
1923.	Imp. gal.	124,156,380	49,950,660	1,217,298		172,880,742
	\$	22,153,254	7,100,632	263,320		29,050,560
1924.	Imp. gal.	160,045,739	73,757,441	1,408,716	75,223	232,324,241
	\$	25,799,219	9,344,153	256,966	20,715	34,865,691
1925.	Imp. gal.	164,070,027	83,927,751	1,568,555	42,594	246,980,374
	\$	27,589,037	11,599,629	333,330	11,788	38,843,548
1926.	Imp. gal.	232,146,704	82,830,688	3,867,536	169,476	300,949,380
	\$	40,467,868	11,958,795	773,958	29,122	51,623,583
1927.	Imp. gal.	258,549,724	108,168,328	2,403,370	327,296	363,927,380
	\$	35,173,348	11,418,604	431,011	62,867	46,098,164
1928.	Imp. gal.	344,129,864	143,653,116	3,957,557	26,587	483,798,833
	\$	52,228,842	16,842,418	686,256	5,036	68,549,968
1929.	Imp. gal.	436,620,611	175,151,570	4,069,678	108,438	600,934,668
	\$	63,502,116	19,804,086	875,027	30,106	82,401,069
Lubricating Oils—						
1920.	Imp. gal.	25,099,798	4,464,294			29,564,092
	\$	6,327,124	2,143,089			8,770,223
1921.	Imp. gal.	24,246,320	5,040,456			29,286,776
	\$	5,221,487	1,934,561			7,156,048
1922.	Imp. gal.	18,051,690	7,110,054			25,161,654
	\$	3,551,478	2,132,695			5,684,173
1923.	Imp. gal.	17,121,896	8,106,682			25,228,578
	\$	3,237,526	2,310,950			5,548,476
1924.	Imp. gal.	15,479,466	8,494,423			23,973,888
	\$	3,061,116	2,442,653			5,503,769
1925.	Imp. gal.	15,789,852	8,445,738			24,235,590
	\$	3,131,634	2,483,589			5,615,223
1926.	Imp. gal.	17,922,853	10,250,878			28,182,731
	\$	4,114,247	2,968,552			7,082,802
1927.	Imp. gal.	19,591,297	11,873,647			31,464,944
	\$	3,810,283	3,655,914			7,466,197
1928.	Imp. gal.	20,293,396	15,487,945			35,781,341
	\$	3,808,561	4,592,463			8,311,057
1929.	Imp. gal.	24,487,243	17,404,194			41,851,437
	\$	4,693,485	5,444,947			10,138,432
Kerosene—						
1920.	Imp. gal.	54,155,655	14,971,509	1,243,335		67,883,829
	\$	10,887,972	2,359,621	205,999		13,041,594
1921.	Imp. gal.	59,082,790	10,544,281	1,466,422		68,160,849
	\$	7,557,470	700,468	209,282		8,118,656
1922.	Imp. gal.	70,521,560	3,073,234	1,471,947		78,722,847
	\$	9,628,804	314,514	136,834		9,806,484
1923.	Imp. gal.	67,396,674	4,327,146	1,450,051		70,673,769
	\$	8,774,571	323,396	139,924		8,957,843
1924.	Imp. gal.	61,308,467	5,431,393	1,525,427		65,214,433
	\$	7,485,042	447,588	165,520		7,768,110
1925.	Imp. gal.	45,026,459	5,256,661	1,508,686		48,774,434
	\$	5,960,913	455,125	155,783		6,266,255
1926.	Imp. gal.	58,502,190	4,842,452	1,581,645		61,759,997
	\$	9,402,396	346,374	192,988		9,755,782
1927.	Imp. gal.	54,316,079	4,028,966	1,759,838		57,585,207
	\$	6,621,413	349,371	191,533		6,779,251
1928.	Imp. gal.	55,981,919	3,964,692	1,297,081		58,649,530
	\$	7,340,544	354,927	127,391		7,568,080
1929.	Imp. gal.	49,362,381	4,523,347	1,367,241	1,578	52,516,909
	\$	6,879,474	399,724	137,160	521	7,141,517

*No allowance made for increases or decreases of stocks in storage at refineries or with dealers.

Table 173.—Consumption of Gasoline in Canada, by Provinces, 1929*

Province	Imperial gallons
Prince Edward Island.....	2 478,181
Nova Scotia.....	17 284,990
New Brunswick.....	10 469,682
Quebec.....	77 054,230
Ontario.....	292 191,523
Manitoba.....	34 765,203
Saskatchewan.....	78 456,744
Alberta.....	50 208,495
British Columbia.....	38 316,179
Canada.....	601,225,227

*The above figures were computed from data given in the reports of the provincial governments which show the total and net revenue received from gasoline taxes. The tax is collected on all gasoline sold and a rebate is given on purchases of gasoline for use in farm tractors, etc.

Primary Production.—Crude Petroleum.—Crude petroleum production in Canada advanced in 1929 to a new high record for the industry of 1,117,368 barrels valued at \$3,731,764. In 1928, the output was 624,184 barrels with a value of \$2,035,300. The 1929 production consisted of 7,499 barrels from New Brunswick, 121,194 barrels from Ontario, and 988,675 barrels from Alberta.

Production from Alberta wells was made up of 971,821 barrels from the Turner Valley field, 14,093 barrels from the Wainwright-Ribstone field and 2,761 barrels from the Red Coulee and Skiff fields. Fifty-four wells were in operation in Alberta at the close of the year and drilling was in progress on 108 other wells. Drilling operations were continued in the Turner Valley, Wainwright-Ribstone, Red Coulee and other fields in Alberta; the total footage drilled during the year was 312,251 feet. In addition to this footage, approximately 16,200 feet of drilling was done in structure testing. Twenty-four new wells were drilled into production in Alberta during 1929.

Petroleum production in Ontario declined in 1929 to the lowest point on record for the province. This falling-off in output was due principally to unfavourable weather conditions.

New Brunswick's production was obtained from wells in the Stoney Creek field.

Activities in the petroleum industry in Saskatchewan were centred around drilling operations in the Rosetown, Simpson, Pike Lake, and Unity Valley fields.

Capital actually employed in operating and drilling oil wells in Canada during 1929 was \$54,526,398. This industry furnished employment to 233 salaried employees and 1,988 wage-earners whose combined earnings were \$3,748,689. The cost of fuel and electricity used during the year was \$293,354. Primary power employed consisted of 174 units with a total rating of 8,072 h.p., in addition to which 96 electric motors rated at 1,048 h.p. were in use.

Table 174.—Principal Statistics of the Crude Petroleum Industry in Canada, 1928 and 1929

	1928	1929
Number of firms.....	190	231
Capital employed..... \$	31,182,352	54,526,398
Number of employees—On salary.....	95	233
On wages.....	1,023	1,988
Total.....	1,118	2,221
Salaries and wages—Salaries..... \$	156,600	383,490
Wages..... \$	1,760,025	3,365,199
Total..... \$	1,916,625	3,748,689
Cost of fuel and electricity..... \$	205,183	293,354
Selling value of products..... \$	2,035,300	3,731,764

Table 175.—Production of Crude Petroleum in Canada, 1929

Province	Barrels	Total value \$
New Brunswick.....	7,409	19,909
Ontario—		
Petrolia and Enniskillen.....	56,284	116,556
Oil Springs.....	30,789	65,915
Moore Township.....	1,230	2,547
Sarnia Township.....	749	1,551
Plympton Township.....	315	652
Bothwell.....	23,236	48,118
West Dover.....	715	1,481
Tilbury East.....	139	288
Onondaga.....	311	1,192
Moza Township.....	6,851	14,187
Dunwich.....	148	307
Thamesville.....	427	884
Total.....	121,194	253,678
Alberta.....	988,675	3,458,177
Canada.....	1,117,368	3,731,764

CHAPTER ELEVEN

THE DOMESTIC-CLAY PRODUCTS INDUSTRY

The manufacture of clay products in Canada falls into two divisions: (1) the production from domestic clays which includes refractories, brick, structural tile, floor tile, roofing tile, drain tile, sewer pipe and pottery made from clays produced in Canada; and (2) the production from imported clays which includes the manufacture of porcelain insulators, refractories, sanitary earthenware, pottery and floor tile. The industry as a whole covered the operations of 210 factories which represented a capital of \$38 millions and provided employment for an average of 6,402 people throughout the year. However the statistical information presented below pertains only to manufactures from domestic clays; data for the concerns using imported clays are given in the next following chapter.

The value of domestic-clay products sold by Canadian producers during 1929 advanced 13.6 per cent over the preceding year. Sales in 1929 reached a total value of \$13,904,643 as compared with \$12,381,718 in 1928. Ontario was the leading producing province and accounted for 49 per cent of the total sales during the year; Quebec followed with 23 per cent. The other provinces in order of production value were: Alberta, British Columbia, Nova Scotia, Saskatchewan, Manitoba, and New Brunswick.

Plants for the production of brick and tile were in operation during 1929 in every province in Canada except Prince Edward Island. In all there were 181 plants primarily engaged in the manufacture of various kinds of brick, structural tile and drain tile.

Five plants were engaged primarily in the production of sewer pipe during the year but, in addition to these, several brick and tile plants produced large quantities of sewer pipe. The total value of sewer pipe sold during 1929 was \$2,005,887.

Four firms produced coarse earthenware, stoneware and other pottery from domestic clays in 1929. Shipments by these companies were valued at \$323,194.

Firebrick, fireclay, and special fireclay blocks and shapes in Canada were produced in plants located in Nova Scotia, New Brunswick, Saskatchewan, and British Columbia. Firebrick was also produced in Alberta. Sales of these products reached a total value of \$416,680.

Capital employed by the 196 factories operating in this industry during 1929 was reported at \$34,190,056. Salaries and wages paid to the 5,530 employees amounted to \$5,727,014. Fuel consumed during the year consisted of 58,734 tons of Canadian coal, 269,596 tons of imported coal, 65,711 cords of wood, 915,979 thousand cubic feet of natural gas and minor quantities of coke, fuel oil, gasoline and kerosene; the total cost of fuel used was \$2,471,317. Electricity purchased by the operating companies cost \$449,067 for the year.

Canada's imports of clay and clay products during 1929 were valued at \$12,159,566 made up of importations from the United States valued at \$5,582,551; from the United Kingdom, \$4,360,754; from Germany, \$575,440; from France, \$496,960; from Japan, \$451,121; from Czechoslovakia, \$431,223; and minor amounts received from 20 other countries. Pottery and chinaware accounted for 45.14 per cent of the total clay and clay products importations; refractory brick, 21.09 per cent; clays, 6.43 per cent; sanitaryware, 5.25 per cent; porcelain insulators, 4.57 per cent; and building brick and blocks, 4.22 per cent.

Exports from Canada of clays, building bricks, porcelain insulators, earthenware and other clay manufactures were valued at \$375,506. The United Kingdom received 34 per cent of these exportations.

Table 176.—Principal Statistics, by Provinces, 1928 and 1929

Provinces	Number of plants	Capital employed	Average number of employees	Salaries and wages	Cost of fuel and electricity	Selling value at works
1928						
		\$		\$	\$	\$
Nova Scotia and New Brunswick	11	1,169,938	275	237,712	94,642	568,769
Quebec	20	11,394,206	1,221	1,156,937	605,547	3,097,295
Ontario	122	14,435,038	2,461	2,641,450	1,276,019	6,177,664
Manitoba	5	346,238	277	143,778	81,885	291,701
Saskatchewan	5	1,030,115	153	160,056	60,344	377,896
Alberta	11	2,870,493	474	512,285	66,344	1,162,204
British Columbia	12	1,227,175	334	329,200	109,569	706,039
Canada	186	32,473,203	5,195	5,181,398	2,294,350	12,381,718
1929						
Nova Scotia	9	1,026,057	263	229,387	65,691	653,157
New Brunswick	3	258,105	97	68,927	27,342	160,006
Quebec	20	12,476,300	1,259	1,262,803	621,991	3,187,702
Ontario	134	14,321,316	2,658	2,801,896	1,838,886	6,830,162
Manitoba	6	454,147	210	180,281	75,171	362,240
Saskatchewan	4	1,102,440	183	201,368	69,393	502,522
Alberta	10	3,148,756	469	552,562	74,565	1,342,427
British Columbia	10	1,402,935	391	439,790	145,435	866,427
Canada	196	31,190,656	5,530	5,727,014	2,920,384	13,904,643

Table 177.—Principal Statistics, by Groups of Production Values, 1929

Production values	Number of plants	Capital employed	Number of employees	Production
\$		\$		\$
Under 5,000	48	350,291	190	139,611
5,000 to 10,000	32	1,661,016	274	248,943
10,000 to 25,000	26	1,062,622	348	415,311
25,000 to 50,000	25	1,870,304	565	925,657
50,000 to 100,000	25	4,099,181	808	1,847,755
100,000 to 250,000	25	8,548,135	1,404	3,935,331
Over 250,000	15	17,898,507	1,941	6,392,035
Total	196	31,190,656	5,530	13,904,643

Table 178.—Principal Statistics, by Groups of Employees, 1929

Employees	Number of plants	Capital employed	Number of employees	Production
		\$		\$
1 or 2	19	25,353	10	65,321
3 to 10	66	1,009,210	383	532,868
11 to 20	28	1,832,344	446	766,923
21 to 50	53	6,772,444	1,684	3,930,725
51 to 100	22	10,003,755	1,595	4,552,619
101 to 200	5	11,567,699	680	2,017,742
Over 200	3	2,919,242	732	2,038,445
Total	196	31,190,656	5,530	13,904,643

Table 179.—Capital Employed, by Provinces, and by Classes, 1928 and 1929

Provinces	1928				1929			
	Capital employed as represented by				Capital employed as represented by			
	Lands, buildings, fixtures, machinery and tools	Cost of supplies and stocks on hand	Cash, trading and operating accounts and bills receivable	Total	Lands, buildings, fixtures, machinery and tools	Cost of supplies and stocks on hand	Cash, trading and operating accounts and bills receivable	Total
	\$	\$	\$	\$	\$	\$	\$	\$
Nova Scotia.....	926,723	157,087	86,128	1,169,938	791,818	149,547	84,692	1,026,057
New Brunswick.....					210,039	26,547	21,519	258,105
Quebec.....	9,644,445	961,729	788,032	11,394,206	10,512,410	1,007,893	895,997	12,416,300
Ontario.....	11,417,193	1,510,741	1,507,104	14,435,038	11,068,103	1,687,749	1,565,997	14,321,850
Manitoba.....	166,670	58,610	120,958	346,238	274,108	74,989	105,050	454,147
Saskatchewan.....	873,246	70,443	80,426	1,030,115	895,884	72,424	134,132	1,102,440
Alberta.....	2,005,553	339,726	525,214	2,870,493	2,249,900	299,277	599,579	3,148,756
British Columbia.....	905,604	187,098	133,873	1,227,175	1,054,290	181,846	166,793	1,402,935
Canada.....	25,939,434	3,292,934	3,241,735	32,473,203	27,056,558	3,560,272	3,573,226	34,190,056

Table 180.—Employees, Salaries and Wages, by Provinces, 1928 and 1929

Provinces	1928				1929			
	Salaried employees	Wage-earners	Salaries	Wages	Salaried employees	Wage-earners	Salaries	Wages
			\$	\$			\$	\$
Nova Scotia.....	15	260	49,583	188,129	18	245	30,953	198,434
New Brunswick.....					8	89	9,965	58,962
Quebec.....	81	1,140	153,694	1,003,243	91	1,168	195,371	1,057,432
Ontario.....	200	2,261	437,193	2,204,257	216	2,442	518,533	2,283,363
Manitoba.....	12	265	20,090	117,688	12	198	27,350	152,931
Saskatchewan.....	13	140	28,834	131,222	19	164	49,180	161,188
Alberta.....	29	445	68,941	443,124	26	443	67,505	485,057
British Columbia.....	19	315	41,874	287,326	25	366	51,589	388,202
Canada.....	369	4,826	806,200	4,375,189	415	5,115	941,445	4,785,569

Table 181.—Wage-Earners, by Months, 1928 and 1929

Months	1928	1929
	January.....	2,421	2,838
February.....	2,370	2,445
March.....	2,912	2,950
April.....	3,503	4,043
May.....	4,665	5,123
June.....	4,980	5,586
July.....	5,129	5,675
August.....	5,136	5,654
September.....	4,700	5,210
October.....	4,362	4,707
November.....	4,008	4,307
December.....	3,348	3,598
*Average.....	4,826	5,115

*See note on page 24.

Table 182.—Total of Wage-Earners in Months of Highest Employment, by Provinces and by Hours Worked per Day or Shift, 1929

Provinces	Number of wage-earners in months of highest employment working per day or shift of				
	8 hours or less	9 hours	10 hours	Over 10 hours	Total
	Nova Scotia.....		230	56		286
New Brunswick.....	37	74	32		143
Quebec.....	37	93	1,086	139	1,355
Ontario.....	280	1,197	1,096	265	2,838
Manitoba.....	14	20	347		381
Saskatchewan.....			221	29	250
Alberta.....	21	365	171		557
British Columbia.....	440	7	1	2	450
Canada.....	829	1,986	3,010	435	6,260

Table 183.—Average Wage-Earners Subdivided according to Hours usually Worked per Day or Shift, by Provinces, 1929

Provinces	Number of wage-earners usually working per day or shift of				Total
	8 hours or less	9 hours	10 hours	Over 10 hours	
Nova Scotia.....		211	34		245
New Brunswick.....		89			89
Quebec.....		73	1,051	44	1,168
Ontario.....	240	1,026	1,176		2,442
Manitoba.....		20	178		198
Saskatchewan.....		71	93		164
Alberta.....		356	87		443
British Columbia.....	366				366
Canada.....	606	1,846	2,619	44	5,115

Table 184.—Average Hours Worked by Wage-Earners, per Day or Shift and per Week, by Provinces, 1929

Provinces	Number of wage-earners	Total man-hours worked by wage-earners per day	Average hours worked by wage-earners per day	Total man-hours worked by wage-earners per week	Average hours worked by wage-earners per week
Nova Scotia.....	245	2,239	9-14	13,068	53-42
New Brunswick.....	89	801	9-00	4,686	52-43
Quebec.....	1,168	11,695	10-01	67,277	57-60
Ontario.....	2,442	22,914	9-39	134,780	59-29
Manitoba.....	198	1,960	9-89	11,700	59-09
Saskatchewan.....	164	1,569	9-56	9,983	60-87
Alberta.....	443	4,074	9-20	24,149	54-51
British Columbia.....	366	2,928	8-00	16,992	46-43
Canada.....	5,115	48,189	9-42	282,655	55-26

Table 185.—Fuel and Electricity Used, 1928 and 1929

Kinds	Unit of measure	1928		1929	
		Quantity	Cost at works	Quantity	Cost at works
Bituminous coal—Canadian.....	short ton	30,870	\$ 211,385	30,425	\$ 210,132
Imported.....	short ton	205,688	1,284,679	266,046	1,725,021
Anthracite coal.....	short ton	4,676	33,557	3,551	28,074
Lignite coal—Canadian.....	short ton	27,058	56,785	28,309	61,970
Coke.....	short ton	4,745	33,553	4,279	31,193
Gasoline.....	imp. gal.	34,174	7,981	57,352	13,360
Kerosene.....	imp. gal.	2,345	512	2,109	639
Fuel oil.....	imp. gal.	339,815	33,300	222,950	24,793
Wood.....	cord	55,237	306,344	65,711	339,282
Gas—Manufactured.....	M cu. ft.	629	50		
Natural.....	M cu. ft.	727,218	38,907	915,979	36,853
Electricity purchased.....	k.w.h.	15,640,454	289,297	30,008,402	449,067
Total.....			2,294,350		2,970,384

Table 186.—Power Employed, 1928 and 1929

	1928		1929	
	Number of units	Total h.p. according to manufacturers' rating	Number of units	Total h.p. according to manufacturers' rating
Steam engines and turbines.....	91	7,719	88	7,424
Gasoline, gas and oil engines.....	38	1,150	42	1,110
<i>Total primary power.....</i>	<i>129</i>	<i>8,869</i>	<i>130</i>	<i>8,534</i>
Electric motors run by purchased power.....	416	16,531	569	19,823
Total power employed.....	545	25,400	699	28,357
Electric motors run by primary power in same plant.....	10	234	21	497
<i>Total electric power.....</i>	<i>486</i>	<i>16,765</i>	<i>590</i>	<i>20,320</i>
Boilers.....	107	9,176	101	8,925

Table 187.—Production from Domestic Clays in Canada, by Provinces, 1928 and 1929

	1928	1929
	\$	\$
Nova Scotia.....	496,577	653,157
New Brunswick.....	72,192	160,006
Quebec.....	3,097,205	3,187,702
Ontario.....	6,177,664	6,830,162
Manitoba.....	291,791	362,240
Saskatchewan.....	377,896	502,522
Alberta.....	1,192,264	1,342,427
British Columbia.....	706,039	866,427
Canada.....	12,381,718	13,904,643

Table 188.—Production of Clay and Clay Products in Canada, 1929

	Quantity	Selling value at works	Quantity	Selling value at works
		\$		\$
Brick: Soft mud process—Face.....	M 17,532	349,847	20,624	538,096
Common.....	M 93,280	1,328,981	77,399	1,195,511
Stiff mud process (wire cut)—Face.....	M 101,717	2,247,472	114,093	2,469,417
Common.....	M 144,404	2,182,307	170,940	2,509,451
Dry press—Face.....	M 36,587	748,301	30,591	613,461
Common.....	M 24,294	337,096	26,131	368,039
Fancy or ornamental brick (including special shapes, embossed and enamelled brick).....	M 599	28,763	187	12,795
Sewer brick.....	M 2,888	59,010	4,765	96,588
Paving brick.....	M 338	4,464	97	3,844
Firebrick.....	M 4,940	234,460	5,196	251,043
Fireclay.....	tons 6,123	35,284	5,041	35,226
Fireclay blocks and shapes.....		106,091		130,411
Structural tile: Hollow blocks (including fireproofing and load-bearing tile).....	tons 205,257	1,930,152	221,800	2,214,384
Roofing tile.....	no 72,930	6,435	35,075	4,628
Floor tile (quarries).....	sq. ft 171,520	45,729	307,400	70,186
Drain tile.....	M 22,629	656,054	25,000	720,316
Sewer pipe (including copings, flue linings, etc.).....		1,723,644		2,005,887
Pottery, glazed or unglazed.....		356,093		323,194
Other products.....		2,535		142,166
Total.....		12,381,718		13,904,643

Table 189.—Value of Clay Products Produced in Canada from Domestic and from Imported Clays, 1928 and 1929

Products	From domestic clays		From imported clays		Total	
	1928	1929	1928	1929	1928	1929
	\$	\$	\$	\$	\$	\$
Fireclay blocks and shapes.....	105,091	130,411	313,637	302,366	418,728	492,771
Pottery, glazed and unglazed.....	356,093	323,194	38,144	69,140	394,237	392,334
Electrical porcelain insulators.....			1,321,556	2,065,404	1,321,556	2,065,404
Other clay products (brick, tile, sewer pipe, sanitaryware, etc.).....	11,920,534	13,451,038	785,464	876,134	12,705,998	14,327,172
Total	12,381,718	13,904,643	2,458,801	3,373,838	14,840,519	17,277,681

Table 190.—Production of Building Brick in Canada by Provinces, 1928 and 1929

		Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia
1928									
Soft mud process.	Face.....M	185	50	70	16,327			662	238
	\$	2,220	1,000	1,115	317,800			22,163	5,549
Common.....M	\$	1,016	1,951	18,576	45,793	13,253	100	8,121	4,470
	\$	13,262	30,678	169,307	727,323	209,575	1,700	106,610	70,526
Stiff mud process. (wire cut)	Face.....M	1,510		29,914	64,664	2,014	1,374	845	1,396
	\$	34,839		686,752	1,367,859	42,350	44,208	17,927	53,737
Common.....M	\$	6,137		99,014	23,711		9,981	3,479	2,082
	\$	77,193		1,542,576	383,687		114,106	33,352	31,393
Dry press	Face.....M			2,492	29,182			432	4,481
	\$			66,842	581,609		12,426	87,424	
Common.....M	\$			52	3,460	328		17,593	2,861
	\$			511	43,753	4,945		243,039	44,848
Fancy or ornamental brick.....M	\$			67	532				
Sewer brick.....M	\$			3,049	25,714				
	\$				2,621				
	\$				49,547				
Total.....M	\$	8,848	2,001	150,185	186,290	15,595	11,887	35,181	11,047
	\$	127,314	31,678	2,470,152	3,497,292	256,870	172,440	510,515	206,853
1929									
Soft mud process.	Face.....M	185	60	1,000	25,379				
	\$	2,405	1,500	12,000	522,191				
Common.....M	\$	757	3,471	7,468	38,055	14,409	473	3,390	9,376
	\$	10,020	55,120	76,963	606,714	234,481	7,031	45,932	159,250
Stiff mud process. (wire cut)	Face.....M	1,651	432	38,146	63,569	3,040		2,071	2,903
	\$	44,654	10,808	771,573	1,333,723	70,940		62,790	107,763
Common.....M	\$	12,818	2,124	99,818	31,525		10,573	13,896	86
	\$	160,906	31,860	1,529,751	505,958		121,833	157,250	1,893
Dry press	Face.....M			2,990	30,292			1,184	4,125
	\$			81,333	611,625		38,652	81,851	
Common.....M	\$				5,482			18,322	2,327
	\$				76,016			254,472	37,551
Fancy or ornamental brick.....M	\$			75	112				
Sewer brick.....M	\$			3,783	9,012				
	\$				4,631				134
	\$				92,316				4,272
Total.....M	\$	15,411	5,087	149,497	199,045	17,449	14,301	42,014	14,826
	\$	217,985	99,288	2,475,403	3,757,555	365,421	230,306	606,671	110,729

Table 191.—Production of Building Brick in Canada, 1924-1929

	Soft mud process		Stiff mud process (wire cut)		Dry Press		Fancy or ornamental brick	Sewer brick	Total
	Face	Common	Face	Common	Face	Common			
1924.....M	10,831	50,079	80,565	124,556	35,203	12,794	755	2,690	317,473
\$	185,248	746,044	1,842,224	1,880,631	761,572	168,043	98,460	40,775	5,722,997
1925.....M	27,701	51,214	93,903	116,105	37,201	22,053	524	2,485	351,186
\$	521,739	753,970	1,883,856	1,635,257	800,504	270,135	26,320	52,382	5,944,163
1926.....M	28,235	78,158	101,028	94,046	30,423	19,450	462	6,546	358,348
\$	556,573	1,145,490	2,146,362	1,624,055	651,236	260,598	24,057	117,194	6,525,565
1927.....M	16,196	70,554	95,480	150,222	39,753	14,617	620	10,997	398,439
\$	325,966	1,091,274	2,024,064	2,239,180	833,570	187,062	29,372	210,643	6,941,131
1928.....M	17,532	93,280	101,717	144,404	36,587	24,294	599	2,888	421,361
\$	349,847	1,328,981	2,247,472	2,182,307	748,301	337,096	28,763	59,010	7,281,777
1929.....M	26,624	77,399	114,093	170,840	38,591	26,131	187	4,765	458,630
\$	538,096	1,195,511	2,469,417	2,509,451	813,461	368,039	12,795	96,588	8,003,358

Table 192.—Production of Structural Tile in Canada, by Provinces, 1928 and 1929

Provinces	Hollow blocks (including fireproofing and load-bearing tile)		Roofing tile		Floor tile (quarries)	
	Tons	Value	No.	Value	Sq. ft.	Value
1928						
Nova Scotia.....	11,254	132,594				
Quebec.....	40,607	441,107			500	50
Ontario.....	112,887	983,005	72,930	6,435	171,020	45,679
Manitoba.....	2,100	25,710				
Saskatchewan.....	10,120	84,202				
Alberta.....	18,432	166,142				
British Columbia.....	9,857	100,392				
Canada.....	205,257	1,930,152	72,930	6,435	171,520	45,729
1929						
Nova Scotia.....	15,455	182,076				
New Brunswick.....	1,119	23,734				
Quebec.....	49,488	536,684				
Ontario.....	103,454	972,993	35,075	4,628	307,400	70,186
Manitoba.....	2,785	41,254				
Saskatchewan.....	13,257	111,072				
Alberta.....	20,812	195,503				
British Columbia.....	15,430	151,068				
Canada.....	221,800	2,214,384	35,075	4,628	307,400	70,186

Table 193.—Production of Drain Tile and Sewer Pipe, in Canada, by Provinces, 1928 and 1929

Provinces	1928				1929			
	Drain tile		Sewer pipe		Drain tile		Sewer pipe	
	M	\$	Tons	\$	M	\$	Tons	\$
Nova Scotia.....	89	3,282		211,833	131	5,284		225,128
Quebec.....	531	18,833		163,521	807	28,500		147,115
Ontario.....	20,276	572,577		974,157	22,535	629,322		1,167,463
Manitoba.....	149	9,211			392	15,565		
Saskatchewan.....	15	600			25	1,000		
Alberta.....	377	12,761		247,410	158	7,711		335,954
British Columbia.....	1,192	38,700		126,723	952	32,934		130,227
Canada.....	22,629	656,054		1,723,644	25,000	720,316		2,065,887

Table 194.—Production of Refractories, in Canada, from Domestic Clays, by Provinces, 1928 and 1929

Provinces	1928					1929				
	Fireclay		Firebrick		Fire-clay blocks and shapes	Fireclay		Firebrick		Fire-clay blocks and shapes
	Quantity	Value	Quantity	Value		Quantity	Value	Quantity	Value	
	Tons	\$	M	\$	\$	Tons	\$	M	\$	\$
Nova Scotia.....	2,615	9,705	138	10,799	1,050	2,972	10,669	154	11,340	675
New Brunswick.....	67	1,848			1,621	47	1,863			1,351
Saskatchewan.....	1,327	9,183	713	40,582	73,301	754	5,965	808	43,384	100,643
Alberta.....			84	4,507		48	624	59	2,934	
British Columbia.....	1,114	14,548	4,005	178,572	29,119	1,220	16,105	4,176	103,385	21,742
Canada.....	5,123	35,284	4,940	234,460	105,091	5,041	25,226	5,196	251,043	130,411

CHAPTER TWELVE

THE IMPORTED-CLAY PRODUCTS INDUSTRY

Production in Canada from clays imported especially for manufacturing amounted in value to \$3,373,038 in 1929. This output represented a gain of 37 per cent over the figures for 1928 and 61 per cent over the value for 1927. Factories were located in Ontario and Quebec; 10 plants in the former province employed an average of 591 persons to make commodities worth \$2,463,081 and 4 concerns in the latter province gave work to 281 people and produced goods valued at \$909,957.

Porcelain insulators were made by the Canadian Porcelain Co. Ltd., Hamilton, Ont., the Canadian General Electric Co. Ltd., Peterborough, Ont., the Canadian Ohio Brass Co. Ltd., Niagara Falls, Ont., and Smith and Stone Ltd., Georgetown, Ont. Porcelain sanitaryware was produced in the plants of the Canadian Potteries Ltd., and Dominion Sanitary Pottery Co. Ltd., both at St. John's, P.Q. Firebrick and stove linings were made by the Canada Firebrick Co. Ltd., Montreal, P.Q., National Refractories Ltd., at Toronto and Port Robinson, Ont. Bell Fire Brick Co., Toronto, Ont., Hamilton Potteries Ltd., Hamilton, Ont., and Standard Clay Products Ltd., St. John's, P.Q.; the last named company also made sewer pipe and flue linings. Pottery was manufactured by Hamilton Potteries Ltd., Hamilton, Ont., and the Smith Potteries, Oshawa, Ont. Floor tile was made by the Frontenac Floor and Wall Tile Co., Ltd., at Kingston, Ont. C.B. Turner & Co. Reg. Toronto, Ont., made plastic boiler linings.

In addition to the output in this industry, pottery valued at \$323,194, firebrick worth \$130,411, and tile valued at \$2,289,198 were produced in plants which used only domestic clays as raw materials. Statistics on the domestic clay products industry are given in Chapter eleven of this report.

Table 195.—Principal Statistics by Provinces, 1928 and 1929

Provinces	Number of plants	Capital employed	Average number of employees	Salaries and wages	Cost of fuel and electricity	Cost of materials at works	Selling value of products at works	Value added by manufacturing
		\$		\$	\$	\$	\$	\$
1928								
Quebec.....	5	1,136,310	274	366,255	110,254	231,829	900,366	668,537
Ontario.....	9	1,932,252	422	524,870	85,462	476,742	1,558,435	1,081,693
Canada.....	14	3,068,562	696	891,125	195,716	708,571	3,458,801	1,750,230
1929								
Quebec.....	4	1,180,554	281	367,389	104,043	237,393	909,957	672,564
Ontario.....	11	2,291,498	591	745,492	116,867	754,757	2,463,081	1,708,324
Canada.....	15	3,472,052	872	1,112,881	220,910	992,150	3,373,038	2,380,888

Table 196.—Capital Employed, by Classes and by Provinces, 1928 and 1929

Provinces	1928				1929			
	Capital employed as represented by				Capital employed as represented by			
	Lands, buildings, fixtures, machinery and tools	Materials on hand and stocks in process	Cash, trading and operating accounts and bills receivable	Total	Lands, buildings, fixtures, machinery and tools	Materials on hand and stocks in process	Cash, trading and operating accounts and bills receivable	Total
	\$	\$	\$	\$	\$	\$	\$	\$
Quebec.....	629,878	230,182	276,250	1,136,310	603,364	263,819	313,371	1,180,554
Ontario.....	1,157,271	412,737	362,244	1,932,252	1,249,518	357,546	684,434	2,291,498
Canada.....	1,787,149	642,919	638,494	3,068,562	1,852,882	621,365	997,805	3,472,052

Table 197.—Employees, Salaries and Wages, by Provinces, 1928 and 1929

Provinces	Average number of employees					Salaries and wages		
	Salaried employees		Wage-earners		Total	Salaries	Wages	Total
	Male	Female	Male	Female				
						\$	\$	\$
1928								
Quebec.....	27	4	237	6	274	73,431	292,824	366,255
Ontario.....	38	11	331	42	422	144,464	380,406	524,870
Canada.....	65	15	568	48	696	217,895	673,230	891,125
1929								
Quebec.....	22	4	249	6	281	62,038	305,351	367,389
Ontario.....	45	20	449	77	591	188,797	556,695	745,492
Canada.....	67	24	698	83	872	250,835	862,046	1,112,881

Table 198.—Wage-Earners, by Months, 1928 and 1929

Months	1928			1929		
	Male	Female	Total	Male	Female	Total
January.....	487	39	526	635	78	713
February.....	485	39	524	659	78	737
March.....	488	41	529	663	82	745
April.....	506	44	550	678	82	760
May.....	551	46	597	698	81	779
June.....	552	42	594	694	94	788
July.....	563	43	606	725	81	806
August.....	592	43	635	731	86	817
September.....	605	60	665	729	87	816
October.....	605	59	664	724	87	811
November.....	591	60	651	711	87	798
December.....	583	57	640	699	87	786
Average*.....	568	48	616	698	83	781

*See note on page 24.

Table 199.—Total of Wage-Earners in Months of Highest Employment, by Hours Worked per Day or Shift and by Provinces, 1929

Provinces	Number of wage-earners in months of highest employment working per day or shift of				
	8 hours or less	9 hours	10 hours	Over 10 hours	Total
Quebec.....		193	71	7	271
Ontario.....	32	340	208	5	585
Canada.....	32	533	279	12	856

Table 200.—Average Wage-Earners Subdivided according to Hours usually Worked per Day or Shift and by Provinces, 1929

Provinces	Number of wage-earners usually working per day or shift of				
	8 hours or less	9 hours	10 hours	Over 10 hours	Total
Quebec.....		195	60		255
Ontario.....	1	334	191		526
Canada.....	1	529	251		781

Table 201.—Average Hours Worked by Wage-Earners per Day and per Week, 1929

Provinces	Number of wage-earners	Total man-hours worked by wage-earners per day	Average hours worked by wage-earners per day	Total man-hours worked by wage-earners per week	Average hours worked by wage-earners per week
Quebec.....	255	2,355	9.24	13,142	51.54
Ontario.....	526	4,924	9.36	27,085	51.49
Canada.....	781	7,279	9.32	40,227	51.51

Table 202.—Fuel and Electricity Used, 1928 and 1929

Kinds	Unit of measure	1928		1929	
		Quantity	Cost at works	Quantity	Cost at works
			\$		\$
Bituminous coal—Canadian.....	short ton	2,750	18,233	2,700	17,955
Imported.....	short ton	19,882	148,187	25,476	171,773
Anthracite coal.....	short ton	17	249	24	355
Coke.....	short ton	304	2,526	447	3,895
Kerosene.....	imp. gal.	1,805	181	.....	.....
Fuel oil.....	imp. gal.	2,473	277	1,707	189
Wood.....	cord	233	1,462	82	783
Gas—Natural.....	M. cu ft.	22,333	10,349	15,728	7,655
Other fuel.....	.....	.....	.....	.....	188
Electricity purchased.....	k. w. h.	979,546	14,252	1,252,285	18,117
Total.....			195,716		320,910

Table 203.—Power Employed, 1928 and 1929

Description	1928		1929	
	Number of units	Total h.p. according to manufacturers' rating	Number of units	Total h.p. according to manufacturers' rating
Steam engines.....	1	35	2	85
Gasoline, gas and oil engines.....	.....	.....	1	4
<i>Total primary power.....</i>	<i>1</i>	<i>35</i>	<i>3</i>	<i>89</i>
Electric motors run by purchased power.....	94	731	101	771
Total power employed.....	95	766	104	860
Electric motors run by primary power in same plant.....	12	127	12	127
<i>Total electric power.....</i>	<i>106</i>	<i>858</i>	<i>113</i>	<i>898</i>
Boilers.....	12	756	14	940

Table 204.—Materials Used in Manufacturing, 1928 and 1929

Materials	Unit of measure	1928		1929	
		Quantity	Cost at works	Quantity	Cost at works
			\$		\$
Clay.....	ton	11,964	202,119	11,203	308,730
Flint.....	ton			4,591	45,321
Feldspar.....	ton	24,333	137,301	1,929	37,756
Fireclay.....	ton			9,492	63,091
Glazing materials.....			9,472		11,201
Hardware.....			246,754		332,019
Containers.....			52,721		63,443
All other materials (cost only).....			60,204		130,589
Total			708,571		992,150

Table 205.—Products, 1928 and 1929

Products	1928	1929
	Selling value at works	Selling value at works
	\$	\$
Firebrick and stove linings.....	313,637	382,360
Porcelain insulators.....	1,321,556	2,065,404
Pottery (glazed ware, butter crocks, artware, etc.).....	38,144	69,140
All other products (including floor and wall tile, sewer pipe, sanitaryware, etc.).....	785,464	876,134
Total	2,458,801	3,373,038

Handwritten calculations:

$$\begin{array}{r}
 2,065,404 \\
 69,140 \\
 \hline
 2,134,544 \\
 876,134 \\
 \hline
 3,010,678
 \end{array}$$

CHAPTER THIRTEEN

THE SALT INDUSTRY

Salt production in Canada established a new high mark in 1929 when output totalled 330,264 tons valued at \$1,578,086, an increase of 10.3 per cent in quantity and 5.5 per cent in value over the 1928 total of 299,445 tons at \$1,495,971. Shipments in 1929, exclusive of the salt content of brine used in the manufacture of chemicals, averaged \$8.70 per ton as compared with \$8.28 per ton in the previous year.

An increase of 8 per cent was recorded in Ontario's output; the total for 1929 was 302,445 tons or 91.6 per cent of the Canadian production. Output from the Malagash mine in Nova Scotia continued to advance and the 1929 production was 42 per cent higher than the total in the previous year.

Canadian imports of salt decreased 6.6 per cent to 176,566 tons with a value of \$936,820. Salt exported from Canada amounted to 9,359 tons evaluated at \$70,762 as compared with 2,930 tons worth \$36,399 exported last year.

Capital employed in the salt industry by the 8 firms operating in 1929 totalled \$4,576,543. Employment was furnished 53 salaried employees and 371 wage-earners; their combined earnings were \$516,453. The cost of fuel and electricity used during the year was \$249,664; this total included \$226,552 paid for 51,808 tons of bituminous coal.

Table 206.—Principal Statistics, 1925-1929

Years	Number of plants	Capital employed	Number of employees	Salaries and wages	Cost of fuel and electricity	Selling value of products
		\$		\$	\$	\$
1925	13	2,563,508	402	467,487	315,368	1,410,607
1926	12	2,782,728	384	482,651	324,612	1,480,149
1927	11	3,194,802	376	499,967	287,260	1,614,667
1928	10	4,422,622	455	539,775	252,468	1,495,971
1929	8	4,576,543	424	516,453	249,664	1,578,086

Table 207.—Capital Employed, 1925-1929

Years	Capital employed as represented by			
	Lands, buildings, fixtures, machinery and tools	Materials on hand and stocks in process	Cash, trading, and operating accounts and bills receivable	Total
	\$	\$	\$	\$
1925	1,787,023	262,831	513,654	2,563,508
1926	1,899,373	270,076	613,279	2,782,728
1927	2,330,112	321,007	543,683	3,194,802
1928	3,731,953	235,405	455,564	4,422,922
1929	3,865,994	334,338	376,211	4,576,543

Table 208.—Employees, Salaries and Wages, 1925-1929

Years	Average number of employees					Salaries and wages		
	Salaried employees		Wage-earners		Total	Salaries	Wages	Total
	Male	Female	Male	Female				
						\$	\$	\$
1925	45	12	310	35	402	114,900	352,527	467,427
1926	41	10	300	33	384	121,014	361,637	482,651
1927	40	14	285	37	376	121,100	378,867	499,967
1928	45	16	358	36	455	117,376	422,399	539,775
1929	41	12	329	42	424	102,502	413,961	516,453

Table 209.—Wage-Earners, by Months, 1928 and 1929

Months	1928			1929		
	Male	Female	Total	Male	Female	Total
January.....	316	30	346	263	39	302
February.....	342	31	373	313	39	352
March.....	346	34	380	340	41	381
April.....	366	37	403	365	39	404
May.....	401	34	435	361	40	401
June.....	377	37	414	344	42	386
July.....	380	35	415	339	43	382
August.....	377	34	411	335	47	382
September.....	347	40	387	335	45	380
October.....	340	39	379	350	46	396
November.....	351	39	390	303	44	347
December.....	330	37	367	290	43	333
Average*	358	36	394	320	42	371

*See note on page 24.

Table 210.—Average Hours Worked by Wage-Earners per Day or Shift, 1929

Day or shift	Total of wage-earners in months of highest employment	Average wage-earners according to hours usually worked	Total man-hours worked by wage-earners per day	Average hours worked by wage-earners per day	Total man-hours worked by wage-earners per week	Average hours worked by wage-earners per week
8 hours or less.....	43	18	144	8-00	864	48-00
9 hours.....	179	194	1,746	9-00	9,786	50-44
10 hours.....	158	114	1,140	10-00	6,840	60-00
Over 10 hours.....	20	45	540	12-00	3,276	72-80
Total	400	371	3,570	9-62	20,766	55-97

Table 211.—Fuel and Electricity Used, 1928 and 1929

Kinds	Unit of measure	1928		1929	
		Quantity	Cost at works	Quantity	Cost at works
			\$		\$
Bituminous coal—Canadian Imported.....	short ton	2,576	11,310	2,095	9,641
Fuel oil.....	short ton	47,481	213,416	49,713	216,911
Wood.....	imp. gal.	27,272	3,548	98,427	4,678
Other fuel.....	cord	2	8		
Electricity purchased.....	k.w.h.		6,472		5,898
Total		1,845,790	17,714	1,323,087	12,536
			252,468		219,664

Table 212.—Power Employed, 1928 and 1929

Description	1928		1929	
	Number of units	Total h.p. according to manufacturers' rating	Number of units	Total h.p. according to manufacturers' rating
Steam engines and turbines.....	25	642	8	185
Gasoline, gas and oil engines.....	3	350	2	330
<i>Total primary power</i>	<i>28</i>	<i>992</i>	<i>10</i>	<i>515</i>
Electric motors run by purchased power.....	73	928	32	422
Total power employed	101	1,920	42	937
Electric motors run by primary power in same plant.....	3	46	103	1,151
<i>Total electric power</i>	<i>76</i>	<i>974</i>	<i>135</i>	<i>1,573</i>
Boilers.....	31	6,480	13	3,260

Table 213.—Production of Salt in Canada, by Grades, 1928 and 1929

Grade	1928			1929		
	Manu- factured	Sold	Value of salt sold (not including packages)	Manu- factured	Sold	Value of salt sold (not including packages)
	Tons	Tons	\$	Tons	Tons	\$
Table and dairy.....	56,252	56,214	708,927	54,618	54,138	785,559
Common fine.....	52,112	51,055	258,781	49,538	49,869	235,335
Common coarse.....	47,328	46,146	311,301	50,399	50,383	322,600
Land salt.....	3,662	3,685	17,798	1,407	1,919	7,209
Other grades.....	7,019	7,207	63,874	5,875	5,628	58,607
Brine for chemical works (salt equivalent sold or used).....	135,138	135,138	135,280	168,327	168,327	168,776
Total	391,511	299,445	1,495,971	330,164	330,264	1,578,086
Value of packages.....			560,822			543,022
Grand total			2,056,793			2,121,108

Table 214.—Imports into Canada and Exports of Salt, 1928 and 1929

Item	Country	1928		1929	
		Tons	Value	Tons	Value
IMPORTS—					
Salt, table, made by an admixture of other ingredients when containing not less than ninety per cent of pure salt.....	Total	479	35,007	245	16,177
	United Kingdom.....	93	9,759	43	4,280
	United States.....	386	25,248	202	11,917
Salt for use of the sea or gulf fisheries.....	Total	74,192	417,594	82,529	370,211
	United Kingdom.....	129	1,059	314	2,809
	United States.....	34,609	304,551	23,739	205,013
	British West Indies.....	19,806	49,756	30,743	84,226
	Spain.....	14,184	35,474	20,089	45,475
Salt in bulk, not elsewhere specified.....	Total	69,765	254,218	54,996	268,130
	United Kingdom.....	290	3,255	143	1,875
	United States.....	62,535	227,156	50,173	190,186
Salt, not elsewhere specified, in bags, barrels and other coverings.....	Total	45,589	416,149	38,794	342,302
	United Kingdom.....	25,390	235,467	22,697	197,967
	United States.....	12,558	146,104	10,398	121,518
	Germany.....	7,641	34,578	5,257	21,600
Total		189,025	1,122,968	176,564	836,820
EXPORTS—					
	Total	2,930	36,399	9,359	70,762
	United States.....	26	317	677	6,015
	Newfoundland.....	1,772	14,361	6,027	35,322
	New Zealand.....	998	18,837	1,372	22,737
RE-EXPORTS—					
	Total	821	8,455	722	6,114
	United States.....	362	4,379	177	1,485
	Newfoundland.....	459	4,076	545	4,580

CHAPTER FOURTEEN
THE SAND-LIME BRICK INDUSTRY

Production of sand-lime brick in Canada during 1929 totalled 78,361,000 brick valued at \$953,726. This output value was 14 per cent below the record established in 1928 but was 15 per cent above the average reported for the industry for the five-year period, 1924-1928.

Only 12 plants were in operation in 1929; 7 were in Ontario, 2 in Quebec, 2 in Manitoba, and 1 in Alberta. These concerns employed a working capital of \$2,356,726, distributed \$341,005 in salaries and wages to a monthly average of 304 workers, paid out \$953,726 for manufacturing materials, and expended \$68,039 on fuel and electricity.

Statistics regarding the production of clay brick are given in Chapter Eleven.

Table 215.—Principal Statistics, by Provinces, 1928 and 1929

Provinces	Number of plants	Capital employed	Average number of employees	Salaries and wages	Cost of fuel and electricity	Cost of materials at works	Selling value of products at works	Value added by manufacturing
1928								
	\$	\$	\$	\$	\$	\$	\$	\$
Ontario.....	7	1,365,321	200	257,780	63,600	234,446	819,675	585,229
Canada*	11	1,916,060	281	352,311	92,749	322,027	1,112,466	790,439
1929								
Ontario.....	7	1,429,721	194	262,714	52,149	179,164	708,584	529,420
Canada*	12	2,356,726	304	341,005	68,039	264,465	953,726	689,261

*Includes also data for 2 plants in each of Quebec and Manitoba for 1928, and 2 plants in each of Quebec and Manitoba and 1 plant in Alberta for 1929.

Table 216.—Capital Employed, by Classes and by Provinces, 1928 and 1929

Provinces	1928				1929			
	Capital employed as represented by				Capital employed as represented by			
	Lands, buildings, fixtures, machinery and tools	Materials on hand and stocks in process	Cash, trading and operating accounts and bills receivable	Total	Lands, buildings, fixtures, machinery and tools	Materials on hand and stocks in process	Cash, trading and operating accounts and bills receivable	Total
	\$	\$	\$	\$	\$	\$	\$	\$
Ontario.....	1,119,348	61,094	184,879	1,365,321	969,517	119,021	340,283	1,429,721
Canada*	1,645,050	70,049	200,970	1,916,060	1,782,797	153,436	420,493	2,356,726

*See footnote to Table 215.

Table 217.—Employees, Salaries and Wages, by Provinces, 1928 and 1929

Provinces	Average number of employees				Salaries and wages			
	Salaried employees		Wage-earners		Total	Salaries	Wages	Total
	Male	Female	Male	Female				
1928								
					\$	\$	\$	
Ontario.....	14	3	183	200	52,283	205,497	257,780	
Canada*	20	3	258	281	65,343	286,968	352,311	
1929								
Ontario.....	19	1	174	194	55,772	206,942	262,714	
Canada*	23	2	278	304	61,691	279,314	341,005	

*See footnote to Table 215.

Table 218.—Wage-Earners, by Months, 1928 and 1929

Months	1928			1929		
	Male	Female	Total	Male	Female	Total
January	163		163	133		133
February	145		145	116		116
March	168		168	123		123
April	211		211	214	1	215
May	272		272	309	1	310
June	311		311	320	1	321
July	320		320	312	1	313
August	306		306	308	1	309
September	258		258	298	1	299
October	249		249	265	1	266
November	222		222	223	1	224
December	167		167	194	1	195
Average^a	258		258	278	1	279

See note on page 24.

Table 219.—Average Hours Worked by Wage-Earners per Day and per Week

Day or shift	Total of wage-earners in months of highest employment	Average wage-earners according to hours usually worked	Total man-hours worked by wage-earners per day	Average hours worked by wage-earners per day	Total man-hours worked by wage-earners per week	Average hours worked by wage-earners per week
8 hours or less	15					
9 hours	50	44	396	9.00	48.86	48.86
10 hours	324	235	2,350	10.00	13,358	50.84
Over 10 hours	8					
Total	397	279	2,746	9.84	15,508	55.58

Table 220.—Fuel and Electricity Used, 1928 and 1929

Kind	Unit of measure	1928		1929	
		Quantity	Cost at works	Quantity	Cost at works
			\$		\$
Bituminous coal—Canadian	short ton	2,300	16,236	1,308	5,531
Imported	short ton	6,404	43,577	6,679	40,513
Anthracite coal	short ton	1,356	7,981		
Lignite coal—Canadian	short ton	674	3,026		
Kerosene or coal oil	imp. gal	580	122		
Wood	cord	20	124	8	56
Electricity purchased	k.w.h.	1,100,593	21,653	1,228,821	21,939
Total			92,749		68,019

Table 221.—Power Employed, 1928 and 1929

Description	1928		1929	
	Number of units	Total h.p. according to manufacturers' rating	Number of units	Total h.p. according to manufacturers' rating
Steam engines and turbines	2	225	3	285
Gasoline, gas and oil engines	1	7		
<i>Total primary power</i>	3	232	3	285
Electric motors run by purchased power	50	1,242	51	1,255
Total power employed	53	1,474	54	1,540
<i>Total electric power</i>	50	1,242	51	1,255
Boilers	8	970	10	1,165

Table 222.—Materials Used in Manufacturing, 1928 and 1929

Materials	Unit of measure	1928		1929	
		Quantity	Cost at works	Quantity	Cost at works
			\$		\$
Portland cement.....	brl.	14,444	26,433		
Quicklime.....	bush.	467,011	160,263	412,974	140,784
Sand.....	cu. yd.	127,337	124,392	126,086	121,628
Other materials.....			10,939		2,053
Total.....			322,027		264,465

Table 223.—Products of the Sand-Lime Brick Industry in Canada, 1928 and 1929

Products	1928		1929	
	Quantity	Selling value	Quantity	Selling value
	M	\$	M	\$
Sand-lime brick.....	82,271	1,038,510	78,361	953,726
Other products*.....		73,956		
Total.....		1,112,466		953,726

*Includes cement drain pipe, hollow blocks, etc.

Table 224.—Production of Sand-Lime Brick in Canada, 1919-1929

Years	Production	
	Quantity	Value
	M	\$
1919.....	31,624	455,005
1920.....	39,264	693,641
1921.....	43,457	662,744
1922.....	52,749	851,007
1923.....	60,080	897,960
1924.....	55,873	618,946
1925.....	68,869	854,055
1926.....	50,282	606,409
1927.....	72,864	864,911
1928.....	82,271	1,038,510
1929.....	78,361	953,726

CHAPTER FIFTEEN

THE MONUMENTAL AND ORNAMENTAL STONE INDUSTRY

The stone industry in Canada comprises two main divisions: (a) *The Stone Quarrying Industry*, including quarries and dressing works operated in conjunction with quarries, and (b) *The Monumental and Ornamental Stone Industry*, comprising the operations of firms having no quarries, but who operate dressing works where stone for building and monumental purposes is cut, polished or otherwise finished. Statistics for the second of these divisions are given in detail herewith. Detailed data for the first division are included under the mining industry and do not come within the scope of this report; however, a number of tables relating to this phase of the industry have been appended to this chapter in order to round out the story.

Production from the 220 stone dressing works, included under the *Monumental and Ornamental Stone Industry* rose to a new high level of \$8,224,060 in 1929 as compared with a total of \$7,176,034 in 1928. These totals include cut and polished stone for ornamental, monumental and building purposes; the largest single item for 1929 was limestone for building which was valued at \$2,739,504. Distribution by provinces of the plants in operation during 1929 was as follows: Ontario, 116; Quebec, 45; Manitoba, 13; British Columbia, 11; New Brunswick, 11; Nova Scotia, 10; Saskatchewan, 7; Alberta, 5; and Prince Edward Island, 2. Stone used in these plants during 1929 cost \$2,788,934 at the works; capital employed amounted to \$7,107,162; employees numbered 1,863, and salaries and wages totalled \$3,048,084.

The Canadian stone industry as a whole, in 1929, included the operations of 467 firms with a total capital investment of \$27,696,920. Net production during the year was valued at \$17,501,658, which included the value of the quarry output and the value added by manufacturing in the secondary stone industry. Salaried employees and wage-earners employed in 1929 numbered 7,544 persons and their combined earnings amounted to \$8,507,845.

Imports of stone during 1929 were valued at \$2,068,453, an advance of 33.4 per cent over the 1928 importations of \$1,550,447. Exports of Canadian stone declined 5.2 per cent to a value of \$237,121 as compared with \$250,215 recorded for 1928. Details are given in Tables 28 and 29.

Table 225.—Principal Statistics, by Provinces, 1928 and 1929

Provinces	Number of plants	Capital employed	Average number of employees	Salaries and wages	Cost of fuel and electricity	Cost of materials at works	Selling value of products at works	Value added by manufacturing
		\$		\$	\$	\$	\$	\$
1928								
Prince Edward Island and Nova Scotia.....	12	100,343	45	49,611	2,515	64,502	162,066	97,564
New Brunswick.....	10	157,690	73	74,990	2,630	34,143	146,846	112,703
Quebec.....	45	887,544	324	481,395	25,077	282,578	1,081,091	798,513
Ontario.....	118	4,051,546	963	1,684,648	86,355	1,751,702	4,739,096	2,987,394
Manitoba.....	13	478,134	132	172,719	7,312	120,226	396,303	276,077
Saskatchewan.....	8	273,472	53	85,674	5,248	97,411	302,054	204,643
Alberta.....	5	214,048	53	64,184	3,427	75,395	201,808	126,473
British Columbia.....	11	142,742	43	65,486	3,269	34,943	146,711	111,768
Canada.....	222	6,365,519	1,686	2,578,767	165,833	3,460,900	7,176,035	4,715,135
1929								
Prince Edward Island and Nova Scotia.....	12	140,011	48	55,003	3,092	68,157	188,772	120,615
New Brunswick.....	11	159,648	74	85,718	4,720	55,061	180,850	125,789
Quebec.....	45	1,128,465	413	679,985	30,534	481,784	1,486,177	1,004,393
Ontario.....	116	4,496,124	1,002	1,737,746	75,360	1,794,935	5,064,697	3,260,762
Manitoba.....	13	589,046	143	201,863	11,435	157,219	547,779	390,560
Saskatchewan.....	7	225,947	62	95,088	6,118	88,787	280,263	191,476
Alberta.....	5	208,871	59	75,006	2,711	72,215	216,685	144,470
British Columbia.....	11	159,050	62	117,675	4,538	70,776	258,837	188,061
Canada.....	220	7,107,162	1,863	3,048,084	138,508	2,788,934	8,221,060	5,435,126

Table 226.—Principal Statistics, by Groups of Production Values, 1929

Production values	Number of plants	Capital employed	Number of employees	Production
\$		\$		\$
Under 5,000	35	147,467	44	113,137
5,000 to 10,000	57	441,804	105	415,170
10,000 to 25,000	63	1,032,376	205	952,857
25,000 to 50,000	30	1,033,674	233	988,840
50,000 to 100,000	14	819,137	230	971,163
100,000 to 250,000	15	1,880,872	514	2,128,066
Over 250,000	6	1,751,842	532	2,654,827
Total	220	7,107,162	1,863	8,224,060

Table 227.—Principal Statistics, by Groups of Employees, 1929

Employees	Number of plants	Capital employed	Number of employees	Production
		\$		\$
1 or 2	108	819,375	149	887,544
3 to 10	71	1,808,968	353	1,367,279
11 to 20	19	1,029,234	279	1,261,609
21 to 50	15	1,865,407	477	1,980,517
Over 50	7	1,784,178	605	2,717,111
Total	220	7,107,162	1,863	8,224,060

Table 228.—Capital Employed, by Classes and by Provinces, 1928 and 1929

Provinces	1928				1929			
	Capital employed as represented by				Capital employed as represented by			
	Lands, buildings, fixtures, machinery and tools	Materials on hand and stocks in process	Cash, trading and operating accounts and bills receivable	Total	Lands, buildings, fixtures, machinery and tools	Materials on hand and stocks in process	Cash, trading and operating accounts and bills receivable	Total
	\$	\$	\$	\$	\$	\$	\$	\$
Prince Edward Island and Nova Scotia	41,651	42,222	16,470	100,313	59,750	54,412	25,849	140,011
New Brunswick	73,809	62,378	21,503	157,690	68,909	61,160	29,579	159,648
Quebec	400,376	268,224	218,944	887,511	467,251	370,204	291,010	1,128,465
Ontario	2,039,075	854,662	1,157,809	4,051,546	2,327,903	853,978	1,314,243	4,496,124
Manitoba	205,403	88,583	184,148	478,134	193,631	190,794	204,621	589,046
Saskatchewan	71,528	83,267	118,677	273,472	71,628	71,082	83,237	225,947
Alberta	55,274	64,198	94,576	214,048	55,870	53,444	99,557	208,871
British Columbia	64,455	38,817	39,470	142,742	66,794	29,536	62,720	159,050
Canada	2,951,571	1,502,351	1,851,597	6,305,519	3,311,736	1,684,610	2,110,816	7,107,162

Table 229.—Employees, Salaries and Wages, by Provinces, 1928 and 1929

	Average number of employees					Salaries and wages		
	Salaried employees		Wage-earners		Total	Salaries	Wages	Total
	Male	Female	Male	Female				
						\$	\$	\$
1928								
Prince Edward Island and Nova Scotia.....	5		39	1	45	6,300	43,311	49,611
New Brunswick.....	11	2	58	2	73	16,735	58,255	74,990
Quebec.....	44	3	277		321	95,675	585,720	681,395
Ontario.....	148	19	794	3	964	317,728	1,266,920	1,584,648
Manitoba.....	21	5	106		132	46,881	125,838	172,719
Saskatchewan.....	13	3	36	1	53	28,222	57,452	85,674
Alberta.....	5	9	38	1	53	21,067	43,117	64,184
British Columbia.....	5		38		43	12,840	52,646	65,486
Canada.....	252	40	1,386	8	1,686	545,448	2,633,259	2,578,707
1929								
Prince Edward Island and Nova Scotia.....	7	1	39	1	48	9,629	45,383	55,003
New Brunswick.....	12	3	59		74	19,884	65,834	85,718
Quebec.....	49	3	361		413	109,575	570,410	679,985
Ontario.....	160	29	810	3	1,002	347,285	1,399,461	1,737,746
Manitoba.....	18	5	120		143	41,807	157,056	201,863
Saskatchewan.....	13	4	44	1	62	27,801	67,287	95,088
Alberta.....	5	9	44	1	59	22,090	52,916	75,006
British Columbia.....	5		57		62	15,413	102,262	117,675
Canada.....	269	54	1,534	6	1,863	596,475	2,451,609	3,048,084

Table 230.—Wage-Earners, by Months, 1928 and 1929

Months	1928			1929		
	Male	Female	Total	Male	Female	Total
January.....	872	5	877	1,137	4	1,141
February.....	899	6	905	1,208	5	1,213
March.....	1,024	7	1,031	1,315	5	1,320
April.....	1,181	6	1,187	1,509	5	1,514
May.....	1,336	7	1,343	1,560	5	1,565
June.....	1,478	7	1,485	1,596	5	1,601
July.....	1,587	7	1,594	1,611	5	1,616
August.....	1,682	7	1,689	1,594	5	1,599
September.....	1,663	6	1,669	1,600	5	1,605
October.....	1,623	6	1,629	1,646	5	1,651
November.....	1,516	6	1,522	1,566	4	1,570
December.....	1,268	6	1,274	1,449	4	1,453
Average*	1,386	8	1,394	1,534	6	1,540

*See note on page 24.

Table 231.—Total of Wage-Earners in Months of Highest Employment, by Provinces and by Hours Worked per Day or Shift, 1929

Provinces	Number of wage-earners in months of highest employment working per day or shift of				
	8 hours or less	9 hours	10 hours	Over 10 hours	Total
Prince Edward Island.....					
Nova Scotia.....	31	15	7		53
New Brunswick.....	67		2		69
Quebec.....	192	170	31	12	405
Ontario.....	562	132	157	134	985
Manitoba.....	39	7	4	105	155
Saskatchewan.....	17		35	9	61
Alberta.....	47				47
British Columbia.....	89				89
Canada.....	1,044	324	236	260	1,864

Table 232.—Average Wage-Earners Subdivided according to Hours usually Worked per Day or Shift, by Provinces, 1929

Provinces	Number of wage-earners usually working per day of shift of				Total
	8 hours or less	9 hours	10 hours	Over 10 hours	
Prince Edward Island.....					
Nova Scotia.....	27	11	2		40
New Brunswick.....	58		1		59
Quebec.....	68	237	56		361
Ontario.....	334	255	224		813
Manitoba.....	24	62	3	31	120
Saskatchewan.....	5	8	32		45
Alberta.....	45				45
British Columbia.....	57				57
Canada.....	618	573	318	31	1,540

Table 233.—Average Hours Worked by Wage-Earners, per Day or Shift and per Week, by Provinces, 1929

Provinces	Number of wage-earners	Total man-hours worked by wage-earners per day	Average hours worked by wage-earners per day	Total man-hours worked by wage-earners per week	Average hours worked by wage-earners per week
Prince Edward Island.....					
Nova Scotia.....	40	335	8.37	1,944	48.60
New Brunswick.....	59	474	8.03	2,813	47.68
Quebec.....	361	3,236	8.97	18,453	51.12
Ontario.....	813	7,200	8.86	40,118	49.35
Manitoba.....	120	1,121	9.34	6,404	53.37
Saskatchewan.....	45	432	9.60	2,430	54.00
Alberta.....	45	360	8.00	1,980	44.00
British Columbia.....	57	456	8.00	2,424	42.52
Canada.....	1,540	13,614	8.84	76,566	49.71

Table 234.—Fuel and Electricity Used, 1928 and 1929

Kinds	Unit of measure	1928		1929	
		Quantity	Cost at works	Quantity	Cost at works
			\$		\$
Anthracite coal.....	short ton	199	2,733	387	5,692
Bituminous coal—Canadian.....	short ton	433	1,831	132	1,425
Imported.....	short ton	7	77	56	529
Lignite coal.....	short ton	563	5,653	447	3,635
Coke.....	short ton	271	3,030	525	6,125
Gasoline.....	imp. gal.	7,283	2,221	7,130	2,141
Kerosene.....	imp. gal.	827	245	668	201
Fuel oil.....	imp. gal.	5,044	620	2,559	257
Wood.....	cord	332	2,261	276	1,759
Gas—Manufactured.....	M cu. ft.	7	7		
Natural.....	M cu. ft.	1,314	1,125	1,253	1,010
Other fuel.....			192		69
Electricity purchased.....	k.w.h.	4,331,311	85,838	6,573,963	115,665
Total.....			105,833		138,508

Table 235.—Power Employed, 1928 and 1929

Description	1928		1929	
	Number of units	Total h.p. according to manufacturers' rating	Number of units	Total h.p. according to manufacturers' rating
Steam engines and turbines.....	3	55		
Gasoline, gas and oil engines.....	14	137	12	138
<i>Total primary power.....</i>	<i>17</i>	<i>192</i>	<i>12</i>	<i>138</i>
Electric motors run by purchased power.....	427	5,865	551	8,745
Total power employed.....	444	6,057	563	8,883
<i>Total electric power.....</i>	<i>457</i>	<i>5,865</i>	<i>561</i>	<i>8,745</i>
Boilers.....	6	100	2	35

Table 236.—Materials Used in Manufacturing, 1928 and 1929

	Cost at works	
	1928	1929
	\$	\$
Cost of all stone used.....	2,460,900	2,788,934
Total.....	2,460,900	2,788,934

Table 237.—Products, 1928 and 1929

Product	Total selling value at works	
	1928	1929
	\$	\$
Granite cut and polished—(a) Monuments.....	1,718,988	1,815,463
(b) For building purposes.....	314,553	465,185
Marble cut and polished—(a) Monuments.....	404,058	391,947
(b) For building purposes.....	883,076	1,621,112
Marble chips and dust.....	24,677	23,802
Limestone—(a) Monuments and bases.....	132,406	325,876
(b) For building purposes.....	2,861,336	2,739,504
Finished monuments lettered only.....	773,975	785,748
Other products.....	62,966	55,423
Total.....	7,176,635	8,221,060

Primary Production.—*The Stone Quarrying Industry.*—Shipments of stone from Canadian quarries during 1929 amounted to 9,622,424 tons valued at \$12,066,532 as compared with 8,253,934 tons worth \$10,272,301 produced in 1928. The 1929 production consisted of 7,720,840 tons of limestone, 1,728,165 tons of granite, 159,407 tons of sandstone, and 14,012 tons of marble. Limestone was produced in all provinces except Prince Edward Island and Saskatchewan; granite in Nova Scotia, New Brunswick, Quebec, Ontario, and British Columbia; sandstone in Nova Scotia, New Brunswick, Quebec, Ontario, Alberta, and British Columbia; and marble in Nova Scotia, Quebec, Manitoba, and British Columbia. Ontario was the leading stone producing province accounting for 54.4 per cent of the total tonnage shipped; Quebec followed with 36.2 per cent; and the other provinces in order of tonnages produced were British Columbia, Nova Scotia, Manitoba, New Brunswick, and Alberta.

The 247 firms operating in the stone quarrying industry in Canada during 1929 reported a total capital investment of \$20,589,758. Employment was furnished 5,681 salaried employees and wage-earners whose earnings totalled \$5,459,761.

Table 238.—Principal Statistics of the Stone Quarrying Industry in Canada, 1928 and 1929

	1928	1929
Number of firms.....	254	247
Capital employed..... \$	16,027,547	20,589,758
Number of employees—On salary.....	258	316
On wages.....	4,871	5,365
Total.....	5,129	5,681
Salaries and wages—Salaries..... \$	527,634	587,111
Wages.....	4,278,880	4,872,650
Total..... \$	4,806,514	5,459,761
Cost of fuel and electricity..... \$	579,086	759,418
Selling value of products..... \$	10,272,301	12,066,532

Table 239.—Production of Stone in Canada, by Provinces, 1928 and 1929

Provinces	1928		1929	
	Tons	Value \$	Tons	Value \$
Nova Scotia.....	121,168	213,775	264,706	376,222
New Brunswick.....	46,332	142,981	27,352	204,974
Quebec.....	2,992,192	4,849,200	3,484,471	5,317,859
Ontario.....	4,581,929	4,041,508	5,239,672	4,738,263
Manitoba.....	235,864	608,217	102,109	895,017
Alberta.....	5,010	24,740	5,183	24,546
British Columbia.....	271,439	391,820	408,031	511,655
Canada.....	8,253,934	10,272,301	9,622,424	12,066,532

Table 240.—Production of Stone in Canada, by Kinds, Showing Purposes for Which Used, 1929

Purpose	Granite	Limestone	Marble	Sandstone	Total
Building stone—					
Rough..... Tons	15,082	93,766	914	12,965	122,727
\$	137,353	432,959	22,927	118,678	711,917
Dressed..... Tons	23,869	36,037	1,008	1,708	61,622
\$	746,537	944,494	347,256	92,500	2,130,784
Monumental and ornamental stone—					
Rough..... Tons	9,272	126	231		9,629
\$	121,053	955	5,732		127,740
Dressed..... Tons	3,153	699			3,852
\$	149,810	4,722			154,532
Flagstone..... Tons		129		1,630	1,759
\$		264		17,391	17,655
Curbstone..... Tons	35,745	39			35,784
\$	226,372	393			226,765
Paving blocks..... Tons	18,009				18,009
\$	159,327				159,327
Limestone for flux..... Tons		453,597			453,597
\$		376,799			376,799
Limestone for sugar factories, chemical works, carbide plants, etc..... Tons		311,688	7,350		319,036
\$		339,739	10,658		350,397
Poultry grit..... Tons	2	3,054			3,056
\$	10	12,512			12,522
Ground limestone for agricultural use..... Tons		28,744			28,744
\$		71,833			71,833
Rubble and riprap..... Tons	231,038	677,837		38,198	947,073
\$	204,287	591,385		45,732	841,404
Crushed stone..... Tons	1,391,995	6,115,126	3,609	104,906	7,615,636
\$	1,336,066	5,396,629	27,489	124,673	6,884,857
Total..... Tons	1,728,165	7,720,840	14,012	159,407	9,622,424
 \$	3,080,815	8,172,681	414,062	398,974	12,066,532

Table 241.—Production of Stone in Canada, by Kinds and by Provinces, 1929

Provinces	Granite	Limestone	Marble	Sandstone	Total
Nova Scotia.....	Tons 76,742	175,981	132	11,851	264,706
§	98,357	199,384	2,515	75,966	376,222
New Brunswick.....	Tons 5,142	20,710		1,500	27,352
§	91,610	33,360		80,000	204,970
Quebec.....	Tons 508,471	2,827,740	13,081	135,179	3,484,471
§	1,623,860	3,139,389	397,074	157,536	5,317,859
Ontario.....	Tons 850,927	4,380,706		8,039	5,239,672
§	926,977	3,759,357		49,920	4,736,263
Manitoba.....	Tons 191,506	191,506	603		192,109
§		885,826	9,191		895,017
Alberta.....	Tons 4,975	4,975		208	5,183
§		12,046		12,500	24,546
British Columbia.....	Tons 286,883	119,222	196	2,630	408,931
§	340,011	143,319	5,282	23,043	511,655
Canada.....	Tons 1,728,165	7,729,840	14,012	159,407	9,622,424
§	3,050,815	8,172,681	414,062	398,974	12,066,532

CHAPTER SIXTEEN

THE MISCELLANEOUS NON-METALLIC MINERAL PRODUCTS INDUSTRY

Production from a group of 23 plants in Canada making miscellaneous non-metallic mineral products was worth \$6,000,697 in 1929. In this group were included 5 plants making gypsum products, 3 factories making carbon electrodes and artificial graphite, 3 mica trimming shops, 1 concern milling electric slate, 3 firms which made magnesite stucco and flooring, and 8 other plants whose main product was foundry facings.

Of the 23 factories, 12 were located in Ontario, 6 in Quebec, 3 in British Columbia, and 2 in Manitoba. These plants employed a working capital of \$9,747,157 and afforded work to a monthly average of 982 people who received \$1,224,582 as salaries and wages. Purchased materials for manufacturing cost \$2,035,905, and by manufacturing processes a total of \$3,964,792 was added to the value of same.

Among the principal products made were included gypsum products valued at \$3,476,019; carbon electrodes and artificial graphite at \$1,778,556; foundry facings, etc., at \$456,236; magnesite flooring and stucco at \$177,432, and mica splitting and trimming at \$112,454.

Figures given for the gypsum products industry cover only those plants which manufacture wallboard, gypsum blocks, etc. Some firms quarried gypsum and calcined their crude product to make hard wall plaster, but in most of these cases the calcining operations could not be separated from the mining and so all data pertaining thereto have been included in the gypsum mining industry for which the main statistics are appended to this chapter.

Similarly the mica trimming industry as reviewed herein includes only those firms which bought knife-trimmed, thumb-trimmed, or block mica and were engaged only in the splitting or trimming of same for the market. Some mica mining companies operated their own trimming shops but, as it was not possible to obtain a separation of data, their entire output has been included under the mining industry; the main statistics for the mines are appended hereto for reference.

Table 242.—Principal Statistics, by Provinces and by Groups, 1928 and 1929

Province and Group	Number of plants	Capital employed	Average number of employees	Salaries and wages	Cost of fuel and electricity	Cost of materials at works	Value of products at works	Value added by manufacturing
(a) By PROVINCES		\$		\$	\$	\$	\$	\$
1928								
Quebec.....	5	5,498,908	554	529,882	210,475	923,847	2,040,057	1,116,210
Ontario.....	10	2,192,148	325	432,902	72,728	640,507	2,171,386	1,530,879
Canada*	17	8,331,500	985	1,117,773	315,887	1,790,404	4,799,640	3,009,236
1929								
Quebec.....	6	4,962,019	453	423,981	144,825	833,096	1,828,393	995,297
Ontario.....	12	3,132,224	400	607,405	77,765	795,531	3,043,695	2,248,164
British Columbia.....	3	649,641	84	123,587	20,682	223,472	461,150	237,678
Canada**	23	9,747,157	982	1,224,582	262,694	2,835,905	6,000,697	3,964,792
(b) By GROUPS								
1928								
Gypsum products.....	5	2,161,011	436	545,183	152,166	1,010,687	2,796,392	1,785,705
Artificial graphite and carbon electrodes.....	3	5,455,201	328	442,147	154,930	613,027	1,679,929	1,066,902
Miscellaneous non-metallic mineral products.....	7	457,248	58	89,355	7,030	125,908	251,302	125,394
Total	17	8,331,500	905	1,117,773	315,887	1,790,404	4,799,640	3,009,236
1929								
Gypsum products.....	5	3,695,124	459	689,081	159,401	1,204,024	3,476,019	2,271,995
Artificial graphite and carbon electrodes.....	3	5,092,072	218	326,310	90,848	471,840	1,778,556	1,306,716
Mica trimming.....	3	217,364	193	44,002	2,767	51,524	112,454	60,930
Magnesite products.....	3	180,710	24	34,916	651	51,914	177,432	125,518
Miscellaneous non-metallic mineral products.....	9	561,897	88	130,273	9,027	256,603	456,236	199,633
Total	23	9,747,157	982	1,224,582	262,694	2,835,905	6,000,697	3,964,792

* Includes also data for 1 plant in Manitoba and 1 plant in British Columbia for 1928.

** Includes also data for 2 plants in Manitoba for 1929.

† Includes also data for 2 plants in the Mica Trimming Industry in 1928.

Table 243.—Principal Statistics, by Groups of Production Values, 1929

Production values	Number of plants	Capital employed	Number of employees	Production
\$		\$		\$
Under 25,000	5	70,911	70	60,174
25,000 to 50,000	5	354,540	138	210,226
50,000 to 100,000	3	317,579	63	196,914
100,000 to 250,000	3	379,601	49	425,050
Over 250,000	7	8,624,526	602	5,108,333
Total	23	9,747,157	992	6,000,697

Table 244.—Principal Statistics, by Groups of Employees, 1929

Employees	Number of plants	Capital employed	Number of employees	Production
		\$		\$
3 to 10	7	203,287	34	179,951
11 to 20	6	701,980	93	599,959
Over 20	10	8,841,890	855	5,220,787
Total	23	9,747,157	982	6,000,697

Table 245.—Capital Employed, by Classes, 1928 and 1929

Province and Group	1928				1929			
	Capital employed as represented by				Capital employed as represented by			
	Lands, buildings, fixtures, machinery and tools	Cost of supplies and stocks on hand	Cash, trading and operating accounts and bills receivable	Total	Lands, buildings, fixtures, machinery and tools	Cost of supplies and stocks on hand	Cash, trading and operating accounts and bills receivable	Total
(a) BY PROVINCES	\$	\$	\$	\$	\$	\$	\$	\$
Quebec	4,011,378	1,274,944	212,586	5,498,968	4,061,596	721,385	179,038	4,962,019
Ontario	1,095,895	371,030	725,223	2,192,148	1,529,461	408,735	1,194,028	3,132,224
British Columbia					575,421	71,251	2,789	649,461
Canada*	5,617,895	1,755,870	957,735	8,331,500	6,948,282	1,300,021	1,408,851	9,747,157
(b) BY GROUPS								
Gypsum products	1,524,413	331,626	304,972	2,161,011	2,795,432	303,478	596,214	3,695,124
Artificial graphite and carbon electrodes	3,776,813	1,151,203	527,185	5,455,201	3,780,133	726,420	585,519	5,092,072
Mica trimming					72,910	133,707	10,747	217,364
Magnesite products					41,424	103,501	35,785	180,710
Miscellaneous non-metallic mineral products	247,119	95,232	114,897	457,248	258,383	122,918	180,586	561,887
Total*	5,617,895	1,755,870	957,735	8,331,500	6,948,282	1,300,021	1,408,851	9,747,157

*See footnote to Table 242.

Table 246.—Employees, Salaries and Wages, by Groups, 1928 and 1929

Industry	Average number of employees					Salaries and wages		
	Salaried employees		Wage-earners		Total	Salaries	Wages	Total
	Male	Female	Male	Female				
1928								
Gypsum products	35	8	383	10	436	97,530	447,653	545,183
Artificial graphite and carbon electrodes	44	7	275	2	328	96,690	345,457	442,147
Miscellaneous non-metallic mineral products	20	7	30	1	58	56,606	32,659	89,265
Total*	102	22	688	13	985	260,818	856,955	1,117,773
1929								
Gypsum products	45	27	324	63	459	214,555	474,526	689,081
Artificial graphite and carbon electrodes	30	4	180	4	218	76,566	249,744	326,310
Mica trimming	4	2	9	178	193	9,305	34,607	43,912
Magnesian products	5	2	16	1	24	13,716	21,200	34,916
Miscellaneous non-metallic mineral products	31	8	45	4	88	75,220	55,053	130,273
Total	115	43	574	250	982	389,362	835,220	1,224,582

*See footnote to Table 242.

Table 247.—Wage-Earners, by Months and by Groups, 1928 and 1929

Month	1928			1929				
	Gypsum products	Artificial graphite, carbon electrodes, foundry facings, etc.	Miscellaneous non-metallic mineral products	Gypsum products	Artificial graphite and carbon electrodes	Mica trimming	Magnesian products	Miscellaneous non-metallic mineral products
January	382	340	29	288	218	6	12	41
February	381	336	31	259	198	8	12	40
March	409	295	32	318	189	7	14	42
April	395	318	32	315	177	8	16	43
May	374	312	30	316	178	7	15	51
June	371	318	30	332	173	8	12	49
July	416	291	33	361	167	9	11	49
August	401	272	31	351	169	11	16	48
September	383	246	31	340	162	10	16	45
October	398	213	32	354	173	9	16	40
November	398	190	32	336	177	9	20	41
December	401	189	32	348	178	10	19	41
Average*—Male	383	275	30	324	180	9	16	45
Female	10	2	1	63	4	178	1	4
Total	393	277	31	387	184	187	17	49

*See note on page 24.

Table 248.—Total of Wage-Earners in Months of Highest Employment, by Hours Worked per Day or Shift and by Provinces, 1929

Provinces	Number of wage-earners working per day or shift of				
	8 hours or less	9 hours	10 hours	Over 10 hours	Total
Quebec	141	104	220	35	500
Ontario	19	76	206	32	333
Manitoba	3	12	14	14	43
British Columbia	87	9	1	4	101
Canada	250	201	441	85	977

Table 249.—Average Wage-Earners, Subdivided according to Hours usually Worked per Day or Shift, by Provinces, 1929

Provinces	Number of wage-earners usually working per day or shift of				
	8 hours or less	9 hours	10 hours	Over 10 hours	Total
Quebec.....	290	36		79	405
Ontario.....	31	56	218		305
Manitoba.....		12	29		41
British Columbia.....	73				73
Canada.....	394	104	247	79	824

Table 250.—Average Hours Worked by Wage-Earners per Day and per Week, by Provinces, 1929

Provinces	Number of wage-earners	Total man-hours worked by wage-earners per day or shift	Average hours worked by wage-earners per day or shift	Total man-hours worked by wage-earners per week	Average hours worked by wage-earners per week
Quebec.....	405	3,407	8.41	21,604	53.34
Ontario.....	305	2,932	9.61	16,777	55.01
Manitoba.....	41	398	9.71	2,340	57.07
British Columbia.....	73	584	8.00	3,348	45.86
Canada.....	824	7,321	8.88	44,069	53.48

Table 251.—Fuel and Electricity Used, 1928 and 1929

Kinds	Unit of measure	1928		1929	
		Quantity	Cost at works	Quantity	Cost at works
			\$		\$
Bituminous coal—Canadian.....	short ton	11	153	1	6
Imported.....	short ton	16,273	113,700	14,977	100,255
Anthracite.....	short ton	51	628	62	820
Coke.....	short ton	1,474	12,863	1,623	13,603
Gasoline.....	imp. gal.			774	332
Kerosene.....	imp. gal.	25	6	40	8
Fuel oil.....	imp. gal.	174,404	11,496	183,597	8,832
Wood.....	cord	560	3,351	603	3,616
Gas—Manufactured.....	M cu. ft.	158	162	747	721
Natural.....	M cu. ft.	2,082	1,362	448	359
Electricity purchased.....	k.w.h.	82,295,632	172,166	47,133,177	134,112
Total.....			315,887		262,694

Table 252.—Power Employed, 1928 and 1929

	1928		1929	
	Number of units	Total h.p. according to manufacturers' rating	Number of units	Total h.p. according to manufacturers' rating
Steam engines and turbines.....	3	150	6	150
Gasoline, gas and oil engines.....			1	25
<i>Total primary power.....</i>	<i>3</i>	<i>150</i>	<i>7</i>	<i>175</i>
Electric motors run by purchased power.....	373	6,143	529	9,180
Total power employed.....	376	6,293	536	9,355
Electric motors run by primary power in same plant.....	14	210	21	243
<i>Total electric power.....</i>	<i>387</i>	<i>6,503</i>	<i>550</i>	<i>9,428</i>
Boilers.....	8	1,986	11	2,411

Table 253.—Materials Used in Manufacturing, 1928 and 1929

Materials	Unit of measure	1928		1929	
		Quantity	Cost at works	Quantity	Cost at works
			\$		\$
GYPSUM PRODUCTS—					
Crude gypsum.....	lb.	538,502	2,423	48,559,280	97,710
Plaster of Paris.....	ton	91,747	330,696	110,251	330,694
Paper.....	lb.	11,464,000	323,138	8,158,165	217,845
✓ Sawdust and shavings.....	lb.	1,388,626	4,858	2,300,427	9,200
All other materials including whiting, clay, glue, starch, cement, re-inforcing, etc.....			235,513		461,300
Containers, boxes, packages, etc.....			114,059		87,275
Total.....			1,010,687		1,204,024
ARTIFICIAL GRAPHITE AND CARBON ELECTRODES—					
✓ Coke and coal.....	ton	22,047	339,905	15,801	249,063
Scrap carbon and electrodes.....	lb.	11,708,000	124,787	11,170,049	100,992
Tar.....	gal.	134,847	9,742	181,927	12,862
✓ Pitch.....	lb.	12,908,000	125,205	10,435,568	97,803
All other materials.....			13,388		10,520
Total.....			613,027		471,840
MICA TRIMMING—					
Mica, knife-trimmed and thumb-trimmed.....	lb.	118,812	25,319	151,540	28,234
Mica splittings.....	lb.	16,224	3,742	23,654	5,370
Mica plate, block mica and uncut mica.....	lb.	5,137	6,286	7,656	9,539
Other materials.....			4,913		7,547
Containers, boxes, packages, etc.....			522		834
Total.....			40,782		51,524
MAGNESITE PRODUCTS—					
Asbestos, crude.....	lb.			72,100	1,206
Magnesite.....	lb.			624,238	24,828
Containers, boxes, bags, packages, etc.....					2,396
All other.....					23,484
Total.....					51,914
MISCELLANEOUS NON-METALLIC MINERAL PRODUCTS—					
Anthracite coal.....	ton	882	4,051	1,105	5,331
Bituminous coal.....	ton	2,151	15,147	3,209	22,576
✓ Pitch.....	ton	1,040	19,804	788	12,104
Silica.....	ton	415	8,900	518	10,787
Graphite.....	ton	267	20,675	222	16,550
Paraffin oil.....	gal.	7,591	1,940	11,998	3,000
Linseed oil.....	gal.	20,219	14,902	40,539	30,401
All other materials.....			32,561		144,312
Containers, boxes, bags, packages, etc.....			7,928		11,512
Total.....			125,008		256,603
Total.....			1,790,404		2,035,905

Table 254.—Products, 1928 and 1929

Products	Unit of measure	1928		1929	
		Quantity	Selling value	Quantity	Selling value
Gypsum Products—					
Gypsum blocks, wall coating, wall board, wall plasters, fireproof tile, etc.			2,796,392		3,476,019
Total			2,796,392		3,476,019
Artificial Graphite and Carbon Electrodes—					
Carbon electrodes and artificial graphite			1,679,929		1,778,556
Total			1,679,929		1,778,556
Mica Trimming—					
Mica splittings	lb.	55,317	26,518	100,710	51,268
All other products including mica tubes, cut and uncut mica, mica plate, knife-trimmed mica, etc.			45,409		61,186
Total			72,017		112,454
Magnesite Products—					
Magnesite stucco and flooring			(Included with Asbestos products)		177,432
Total					177,432
Miscellaneous Non-Metallic Mineral Products—					
Foundry facings	ton	4,016	105,058	4,635	114,792
All other products including electrical slats, sanionyx counters, table tops, etc.			116,246		311,444
Total				251,302		456,236
Total			4,799,640		6,000,697

Primary Production: (From annual report on *The Mineral Production of Canada, 1929*)—

Mica.—Mica production in Canada during 1929 amounted to 4,053 tons valued at \$118,549 as compared with 3,600 tons at \$87,168 shipped in 1928. The Canadian production was obtained from deposits in Quebec and Ontario.

Imports of mica and manufactures of, into Canada were valued at \$169,018, an increase of 25 per cent over the 1928 total. Receipts from the United Kingdom advanced 87 per cent to a value of \$23,406; and imports from British India rose 100 per cent to \$55,497.

Exports of mica during 1929 consisted of 91 tons of splittings, 2 tons of rough cobbled and thumb-trimmed, and 4,789 tons of scrap. The total value of Canadian mica exported in 1929 was \$213,059, which included shipments worth \$209,300 to the United States and \$2,228 to the United Kingdom.

Capital employed by the fourteen firms operating in this industry was \$281,295. Eighty-three salaried employees and wage-earners were employed in 1929; their total earnings were \$47,362.

Table 255.—Production of Mica in Canada, by Grades, 1928 and 1929

Grade	1928		1929	
	Pounds	Value f.o.b. shipping point	Pounds	Value f.o.b. shipping point
		\$		
Thumb-trimmed	91,662	16,887	97,331	17,131
Splittings	25,367	13,974	22,750	13,732
Scrap	7,202,795	55,307	7,986,878	87,686
Total	7,319,824	87,168	8,106,959	118,549

Table 256.—Production in Canada, Imports and Exports of Mica, 1928 and 1929

	1928		1929	
	Tons	Value	Tons	Value
PRODUCTION—		\$		\$
Quebec.....	1,101	54,224	1,032	72,630
Ontario.....	2,559	32,944	2,991	45,919
Total	3,660	87,168	4,053	118,549
IMPORTS—				
Mica and manufactures of, n.o.p.....		135,301		169,018
EXPORTS—				
Rough-cobbed and thumb-trimmed.....	32	15,951	2	1,342
Splittings.....	84	80,902	91	96,726
Scrap and waste.....	4,346	78,262	4,789	112,905
Plate and manufactures (micanite).....		646		2,086
Total		175,761		213,659

Table 257.—Principal Statistics of the Mica Industry in Canada, 1928 and 1929

	1928	1929
Number of firms.....	16	14
Capital employed.....\$	200,074	281,265
Number of employees—		
On salary.....	6	5
On wages.....	88	78
Total	94	83
Salaries and wages—Salaries.....\$	6,480	11,116
Wages.....\$	35,679	36,246
Total\$	42,159	47,362
Cost of fuel and electricity.....\$	1,966	355
Selling value of products.....\$	87,168	118,549

Gypsum.—Production of gypsum from Canadian deposits during 1929 amounted to 1,211,689 tons valued at \$3,345,696 as compared with the high record for the industry of 1,246,368 tons worth \$3,743,648 set up in 1928. Gypsum quarried during 1929 totalled 1,225,728 tons of which quantity 248,000 tons or 20.2 per cent was calcined in Canada.

The Canadian production was obtained from quarries in Hants, Inverness, and Victoria counties, N.S.; Albert and Victoria counties, N.B.; near Paris, Ontario; Gypsumville, Manitoba; and in the Fort Steele, Kamloops and Clinton mining divisions, B.C.

Exports of crude gypsum during 1929 amounted to 893,445 tons; this tonnage was shipped to the United States. Ground gypsum and prepared wall plaster exported during the year totalled 7,938 tons and consisted of shipments principally to New Zealand, the United States, Newfoundland and Australia.

Capital employed by the 17 firms operating in the gypsum mining industry in 1929 was reported at \$7,438,605. Employment was furnished 71 salaried employees and 916 wage-earners; their combined earnings were \$1,054,213.

Table 258.—Production in Canada, Imports and Exports of Gypsum, 1929

	1928		1929	
	Quantity	Value	Quantity	Value
	Tons	\$	Tons	\$
SHIPMENTS BY GRADES—				
Crude—Lump or mine run.....	43,224	80,467	44,848	90,071
Crushed.....	1,018,172	1,770,077	964,875	1,147,289
Fine ground.....	9,576	55,170	2,201	17,271
Calced gypsum.....	175,396	1,837,934	199,765	2,091,065
Total.....	1,246,368	3,743,648	1,211,689	3,345,696
SHIPMENTS BY PROVINCES—				
Nova Scotia.....	1,013,257	1,850,243	948,895	1,152,160
New Brunswick.....	75,083	501,252	70,482	485,982
Ontario.....	85,811	553,271	100,347	832,689
Manitoba.....	51,285	609,039	67,269	631,051
British Columbia.....	20,982	229,843	24,696	243,814
Total.....	1,246,368	3,743,648	1,211,689	3,345,696
IMPORTS—				
Gypsum, crude (sulphate of lime).....	1,097	40,312	1,244	18,671
Plaster of Paris or gypsum ground, not calced.....	256	7,379	165	5,283
Plaster of Paris or gypsum calced, and prepared wall plaster.....	10,563	142,550	16,356	189,438
Total.....	11,916	190,241	17,765	213,392
EXPORTS—				
Gypsum or plaster, crude.....	824,536	1,240,987	893,445	1,086,939
Plaster of Paris, ground, and prepared wall plaster.....	8,232	140,946	7,938	137,046
Total.....	832,768	1,381,933	901,383	1,223,985

Table 259.—Principal Statistics of the Gypsum Mining Industry in Canada, 1928 and 1929

	1928	1929
Number of firms.....	16	17
Capital employed.....	\$ 8,035,319	7,438,606
Number of employees—On salary.....	75	71
On wages.....	1,084	916
Salaries and wages—Salaries.....	\$ 180,870	175,256
Wages.....	\$ 990,944	878,957
Cost of fuel and electricity.....	\$ 242,260	281,019
Selling value of products.....	\$ 3,743,648	3,345,696

DIRECTORY OF FIRMS IN THE INDUSTRIES CLASSIFIED UNDER MANUFACTURES OF THE NON-METALLIC MINERALS IN CANADA, 1929

Aerated Waters

NOTE.—In this directory no attempt is made to show all the products of the concerns listed; firms are classified only under the heading which most nearly describes the major part of their production.

Name of Firm	Head Office Address	Location of Plant
PRINCE EDWARD ISLAND		
Morris, J. & T., Ltd.	75-79 Water St., Charlottetown	Charlottetown.
Simons, G. H.	Spring Park Rd., Charlottetown.	Charlottetown.
NOVA SCOTIA—		
Antigonish Aerated Waters	Main St., Antigonish	Antigonish.
Acadia Beverage Co.	Margaretville	Margareteville.
Bishop Beverage Co.	50 Churrh St., Amherst.	Amherst.
Bridgewater Bottling Works	Box 366, Bridgewater	Bridgewater.
Chambers, James	Main St., Tronton	Tronton.
Crystal Spring Mfg. Co.	284 Agricola St., Halifax.	Halifax.
Daveno, Alfred N.	184 Argyle St., Halifax.	Halifax.
Donovan, W. H., Estate	45 Granville St., Halifax.	Halifax.
Fenton & Day	80 Gerrish St., Halifax.	Halifax.
Fort-Anne Beverage Co., Ltd., The	Annapolis Royal	Annapolis Royal.
Home Bottling Co. Ltd.	Brook St., North Sydney	North Sydney.
Iavers, John J.	Aire Terrace, Halifax	276 Maynard St., Halifax.
McKinley & Sons	McKay's Corner	McKay's Corner.
Meteghan Fruit Supply Co.	Meteghan Station	Meteghan Station.
Meteghan River	Meteghan River	Meteghan River.
National Mineral Water Co.	Prince St., Yarmouth	Yarmouth.
New Glasgow Mineral Springs	Brother St., New Glasgow	New Glasgow.
Orange Crush Co. of Truro, Ltd.	Truro	72 Yonge St., Truro.
Paul, Matthias	36 Lnzan Rd., Sydney	Sydney.
Pink, Joseph & Co.	Main St., Yarmouth	Yarmouth.
Springhill Mfg. Co., Ltd.	Springhill	Springhill.
Tonnants Ltd.	9 Havelock St., Amherst	Amherst.
Weymouth Spring Bottling Co., Ltd., The	Faulkner's Rd., (West Side), Weymouth	Weymouth.
Whelan & Ferguson, Ltd.	675-677 Barrington St., Halifax.	Halifax.
Yarmouth Fruit Co.	Brown St., Yarmouth	Yarmouth.
NEW BRUNSWICK—		
Albert, V. H.	Church St., Edmundston	Edmundston.
Atlantic Beverages Ltd.	434 Main St., Moncton	Moncton.
Bosca & Burgalia	Box 281, Bathurst	Bathurst.
Capital Bottling Co.	313 Queen St., Fredericton	Fredericton.
Chatham Ginger Ale Works (Estate Charles Cassidy).	Church St., Chatham	Chatham.
Commins, W. J.	St. Stephen	St. Stephen.
Crown Beverages, Ltd.	562 Main St., Saint John	Saint John.
Dolan Bros.	348 Haymarket Sq., Saint John	Saint John.
Driscoll, John J.	124 Prince Edward St., Saint John	Saint John.
Dubé Ginger Ale Works	Water St., Campbellton	Campbellton.
Evangelhne Beverages, Ltd.	240 Botsford St., Moncton	Moncton.
International Drug Co.	King St., St. Stephen	St. Stephen.
Gallivan, P. H.	Woodstock, R.R. No. 6	Deerville Co.
Gurd, Charles & Co., (Maritime), Ltd.	179-189 City Road, Saint John	Saint John.
Holyoke, R. E.	Main St., Woodstock	Woodstock.
Shediac Beverage Co.	Shediac	Shediac.
Sussex Ginger Ale, Ltd.	Pleasant Ave., Sussex	Sussex
Terris Beverage Co.	51 City Road, Saint John	Saint John.
QUEBEC—		
Alluns, Ltd.	124 Dorchester St., Montreal	Montreal.
Alleguany's Spring Co.	3400 St. Jacques St., Montreal	Montreal.
Archambault & Frère	200 rue Bureau, Bout de l'Isle, Montreal	Bout de l'Isle, Montreal.
Besulieu, L. & Co.	5309 Carrière, Montreal	Montreal.
Bezin, Alex J.	20 Mont Royal, Three Rivers	Three Rivers.
Blackburn, Henry	80 Papineau, Hull	Hull.
Bourassa Cie	Rue de l'Eglise, St. Barnabé Nord	St. Barnabé Nord.
Bowling Ball Drinks, Reg'd.	164 St. Roch, Three Rivers	Three Rivers.
Brissette, J. L.	17 rue St. Antoine, Ste. Agathe des Monts.	Ste. Agathe des Monts.
Brocher, Ed.	Garthby	Garthby.
Brudeur, Arthur	530 Harbour St., Montreal	Montreal.
Brunelle, W. L.	87 St. Jean Baptiste, Victoriaville	Victoriaville.
Bryant, John H., Ltd.	65 Depot St., Sherbrooke	Sherbrooke.
Canada Dry Ginger Ale, Ltd.	6380 St. Urbain St., Montreal	Montreal.
Canadian Aerated Waters, Ltd.	3181 St. James St., Montreal	Montreal.
C. O. Caisse	151 rue Roi, Sorel	Sorel.
Central Soda Water Co., The	4111 Colonial Ave., Montreal	Montreal.
Cheerin Bottling Works	4518 Papineau St., Montreal	Montreal.
Chevalier & Larose	60 rue Mercier, Shawinigan Falls	Shawinigan Falls.
Christine, J. & Cie, Limitée	21 Ste. Julie St., Montreal	Montreal.
Coca-Cola Co. of Canada, Ltd, The	90 Broadview, Toronto, Ont.	209 Valles St., Montreal.
Coca-Cola Co. of Canada, Ltd., The	90 Broadview Ave., Toronto, Ont.	38 Fifth St., Limoilou.

DIRECTORY OF FIRMS IN THE INDUSTRIES CLASSIFIED UNDER MANUFACTURES OF THE NON-METALLIC MINERALS IN CANADA, 1929—Continued

Aerated Waters—Continued

Name of Firm	Head Office Address	Location of Plant
QUEBEC—Continued		
Corriveau, J. L.	St. Louis de Courville	St. Louis de Courville.
Côté, Roch	Pierreville	Pierreville.
Coulombe, Alex.	50-56 rue Morin, Quebec	Quebec.
Crystal Soda Water Co.	4131 St. Dominique St., Montreal	Montreal.
Crystal Spring Bottling Works, The	Waterloo	Waterloo.
De La Bossière	Box 325, rue St. Joseph, Roberval	Roberval.
Demers, Oscar	70 Ste Catherine St., Grand Mère	Grand Mère.
Demers, O., Ltée	268 rue Racine, Chicoutimi	Chicoutimi.
Denis, Elie	6536 Christophe Colomb St., Montreal	6534a Christophe Colomb, Montreal.
Dorion, Adélar	138 St. Martin St., Sherbrooke	Sherbrooke.
Dorville, Harvey	La Malbaie	La Malbaie.
Desjardins, Léon	30 rue St. Charles, Ste. Thérèse de Blainville	Ste. Thérèse de Blainville.
Desormeaux & Frères	Box 100, 2 rue Richard, Joliette	Joliette.
Desormeaux	262 Devilleure, St. Jérôme	St. Jérôme.
Dufresne & Frère	129 Bonaventure, Trois-Rivières	Trois-Rivières.
Ferland, J. W.	23 rue St. Laurent, Valleyfield	Valleyfield.
Fluet, F. A., Ltée	75 rue des Prairies, Québec	65 Des Prairies, Québec.
Fontaine Claire, Ltd.	86-92 Côte d'Abraham, Québec	Québec.
Fontaine, Emile	122 Commerce, La Tuque	La Tuque.
Fortier, J. E.	10 rue Niverville, Trois-Rivières	Trois-Rivières.
Fortier, Elzéar, Ltée	123 St. Dominique, Québec	Québec.
Frisco Soda Water Co.	4398 Charle St., Montreal	Montreal.
Goudreault, D. J.	Victoria St., Bagotville	Bagotville.
Girouard, Ltd.	2349 Quesnel, Montreal	Montreal.
Goulet, Calixte	2035 Ave. Goulet, Montreal	Montreal.
Gregoire, Joseph	76-1re rue Shawinigan Falls	Shawinigan Falls.
Grenier, Arthur	St. George de Beauce	St. George de Beauce.
Gurd, Chas. & Co., Ltd.	1016 Bleury St., Montreal	Montreal.
Hauel & Fils, Ltée	La Sarre	La Sarre.
Houde, J. H.	Rue Notre Dame, Nicolet	Nicolet.
Ideal Soda, Reg'd	4150a Parthenais St., Montreal	Montreal.
Jacobi & Cliche, Engr	Valle Junction, Beauce	Beauce.
Jobidon & Languedoc	Amos	Amos.
Kel-lla Co. Reg'd	4266 Chateaubriand Ave., Montreal	Montreal.
La Compagnie de Liqueurs Corona	3159 Verdun Ave., Montreal	Montreal.
Laehapelle, Pierre	St. Barthélemi	St. Barthélemi.
La Cie d'Eau Minérale	148 rue Concorde, St. Hyacinthe	St. Hyacinthe.
Lafontaine, Armond	Yamachiche	Yamachiche.
Lafontaine, Donat	1 St. Laurent, Louisville	Louisville.
Lafontaine, Gustave M.	45 rue Ilerville, Berthierville	Berthierville.
Lafranchise, Victor	St. Clet	St. Clet.
Lafrance, Aurèle	9 St. Henri, La Prairie	La Prairie.
Lafrance, Noël	3 rue St. Germain, St. Hyacinthe	St. Hyacinthe.
Lamy, J. E.	266 rue Racine, Chicoutimi	Chicoutimi.
Langevin, Chas. & Fils	Marieville	Marieville.
La Mig. de Liqueurs douces de Matane, engr.	Matane	Matane.
Laniel, Théophile	45 Ellice St., Valleyfield	Valleyfield.
Lanonette, Albert	Ville Marie	Ville Marie.
La Victoire, Moise	Rigaud	Rigaud.
Leclerc & Houde, engr.	54 Avenue du Pont, Jonquières	Jonquières.
Leclerc, Joseph & Fils	St. Evariste Station	St. Evariste Station.
Leroux, Leopold	Vaudreuil	Vaudreuil.
Les Liqueurs Regal de St. Jean, Reg.	103 rue Champlain, St. John's	St. John's.
Levisque, Jas	Rue Principale, Cabano	Cabano.
MacKinzie, J. P. & Son	Foundry St., Lachute	Lachute.
Massicotte, J. E.	St. Tite	St. Tite.
Ménard, Edouard	Box 194, 136 Jacques-Cartier, St. Jean	St. Jean.
Milloy, P. A.	1029 St. André, Montreal	Montreal.
Monfette, J. B.	81 Laurier St., Asbestos	Asbestos.
National Bottling Works	1434 Clarke St., Montreal	Montreal.
Orange Bloom Co. of Canada, Reg'd	3817 Rivard St., Montreal	Montreal.
Orange Crush Bottling Co., Ltd.	100 Chrenmont Ave.	6340 Park Ave., Montreal.
Orange Flip Co.	1614 DeBillion St., Montreal	Montreal.
Paquet, Wilfrid	397 Ste. Catherine St., Grand Mère	Grand Mère.
Parent, Léonard	5-7 rue Dubuc, Sorel	Sorel.
Pauhus, Jean-Marie	Box 335, 54 Prince St., Sorel	Sorel.
Pelletier, Z.	Rue Labelle, Box 182, St. Jérôme	St. Jérôme.
Péloquin, J. H. & Cie.	Coaticook	Coaticook.
Picard, Nd.	66 rue Bennette, Thetford Mines	Thetford Mines.
Poulin & Fils	Rouyn, Lake Shore	Rouyn, Lake Shore.
Pye, M.	Maine St., Windsor Mills	Windsor Mills.
(La) Reine Mineral & Soda Water Co., Ltd	2373 Duvernay St., Montreal	Montreal.
Rivard, Alfred	Garthby Station	Garthby Station.
Robillard, C. & Cie, Ltée	925 Robillard Ave., Montreal	Montreal.
Royal Bottling Co.	Mont Joli	Mont Joli.
St. John Bottling Works	118 Boutillier St., St. John's	St. John's.
Select Aerated Waters	Maniwaki	Maniwaki.
Star Mineral Water Co., Ltd.	Ste. Geneviève de Batiscan	Ste. Geneviève de Batiscan.

DIRECTORY OF FIRMS IN THE INDUSTRIES CLASSIFIED UNDER MANUFACTURES OF THE NON-METALLIC MINERALS IN CANADA, 1929—Continued

Aerated Waters—Continued

Name of Firm	Head Office Address	Location of Plant
QUEBEC—Concluded		
Stewart Bottling Co., Ltd.	1265 William St., Montreal	Montreal.
Thibault, J. A.	24-26 rue Fraser, Rivière-du-Loup	Rivière-du-Loup.
Tourangeau & Champagne	Principale St., Buckingham	Buckingham.
Trottier & Cie.	St. Casimir	St. Casimir.
Turnell, Irénée A.	272 Wellington St., Sherbrooke	Sherbrooke.
Union Soda Water Co.	1462 DeBullion St., Montreal	Montreal.
Waterloo Bottling Works	Eastern Ave., Waterloo	Waterloo.
Whistle Co. of Eastern Canada, Ltd.	750 St. Paul St. W., Montreal	Montreal.
White, Robt. Co., Ltd., The	1210 Craig St., Montreal	Montreal.
ONTARIO—		
Algoma Bottling Works	146 South Algoma St., Port Arthur	Port Arthur.
Arnold's Ginger Ale Co.	102 Assumption St., Walkerville	Walkerville.
Ballin, Dan	266 Mitchell St., Port Colborne	Port Colborne.
Barker Bros.	63 Lombardy St., Smith's Falls	Smith's Falls.
Barrie Beverage Co.	16 McDonald St., Barrie	Barrie.
Best Bennett, Ltd.	1749 King St. E., Hamilton	Hamilton.
Boorman, J. W.	284 Queen St., Peterborough	Peterborough.
Brighton Bottling Works	Main St., Brighton	Brighton.
British Bottling Co.	201 Besserer St., Ottawa	Ottawa.
Brown's Beverages, Ltd.	5 Bay St., Gravenhurst	Gravenhurst.
Burke Mineral Water Co.	17-21 Colborne St., Brantford	Brantford.
Burkholder, D. C.	Slurpe St., New Liskeard	New Liskeard.
Canadian Soda Water Mfg., Co.	233 Ste. Catherine N., Hamilton	Hamilton.
Canada Dry Ginger Ale, Ltd.	153 Sherbourne St., Toronto	Toronto.
Carrigan Charles (Soda Water Works)	58 Riddell St., Woodstock	Woodstock.
Clurman, Jas.	South Porcupine	South Porcupine.
Cobalt Aerated Water Co.	45 Presley St., Cobalt	Cobalt.
Cobourg Bottling Works	Cobourg	Cobourg.
Coca-Cola Co., The	90 Broadview Ave., Toronto	430 McDougal, Windsor.
Coca-Cola Co., The	90 Broadview Ave., Toronto	1 Hamilton St., London.
Coca-Cola Co., The	90 Broadview Ave., Toronto	2081 Lundy's Lane, Niagara Falls.
Coca-Cola Co., The	90 Broadview Ave., Toronto	100 George St., Peterborough
Coca-Cola Co., The	90 Broadview Ave., Toronto	340 Queen St., Ottawa.
Coca-Cola Co., The	90 Broadview Ave., Toronto	66 Rideau St., Kingston.
Coca-Cola Co., The	90 Broadview Ave., Toronto	55 Vine St., Hamilton.
Coca-Cola Co., The	90 Broadview Ave., Toronto	327-329 Church St., Belleville.
Coca-Cola Co., The	90 Broadview Ave., Toronto	Toronto.
Coca-Cola Co., The	90 Broadview Ave., Toronto	118 Secord St., Port Arthur.
Colonial Bottling Works	19 Kout St., Simcoe	Simcoe.
Cornwall Bottling Works	113 Amelia St., Box 755, Cornwall	Cornwall.
Crescent Bottling Works	1007 River Rd., Niagara Falls	Niagara Falls.
Crommiller Ginger Ale, Co.	76 Fraser St., Port Colborne	Port Colborne.
Crown Soda Mfg. Co. (F. S. Chambers)	114 Kilalby St., Port Colborne	Port Colborne.
Crown Bottling Works	Walton St., Port Hope	Port Hope.
Crystal Water Works (A. Allard)	261 Isabella St., Pembroke	Pembroke.
Estate of D. K. Cunningham	Elgin St., Arnprior	Russell St., Arnprior.
Davie Bros.	320 Cassells St., North Bay	176 Minto St., Sudbury.
Day, Henry	20 Everett St., Belleville	Belleville.
Denaull, Ferrier	Bourget	Bourget.
Dominion Bottling Works	5 McAmies Ave., Kirkland Lake	Kirkland Lake.
Dominion Soda Water Mfg. Co.	308 John St. N., Hamilton	Hamilton.
Dunfield, Samuel	78-82 Bridge St., Carleton Place	Carleton Place.
Dominion Soda Water Co.	105 Manning Ave., Toronto 3	Toronto 3.
Dominion Soda Water Co.	58 Rodman St., St. Catharines	St. Catharines.
East Windsor Bottling Works	349 Albert Rd., East Windsor	East Windsor.
Elder Aerated Water Works	280 Princess, Kingston	671 Montreal St., Kingston.
Evans, J. B.	Rear of 900 Howard Ave., Windsor	Windsor.
Finnish Bottling Works, The	324 Bloor St., Sault Ste. Marie	Sault Ste. Marie.
Fort William Bottling Works	131 N. Archibald, Fort William	Fort William.
Foy & Irwin	354 Pinnacle St., Belleville	Belleville.
Gatineau Beverages, Ltd.	39 Vaughan St., Ottawa	Ottawa.
Gauvreau, A.	Mattawa	Mattawa.
Goderich Mineral Water Co.	West St., Goderich	Goderich.
Grady, Patrick J.	583 Water St., Peterborough	Peterborough.
Gray, W. J.	Market St., Collingwood	Collingwood.
Griesobrecht, F.	Petasawawa	Petasawawa.
Haileybury Bottling Works	Box 100, Marcella St., Haileybury	Haileybury.
Hambly's Carbonated Beverages	42 Oshawa Blvd., Oshawa	Oshawa.
Hicks, Roy R.	905 Tecumseh Rd., Windsor	Windsor.
MacNicol, Robt.	257 Colborne St., Brantford	Brantford.
Maple Leaf Aerated Waters Co.	10 Springfield Rd., Clarkstown	Clarkstown.
Marinucci, F.	Timmins	Timmins.
Mason Bros.	Kitchener	Kitchener.
McDonald & Son, Ltd.	198 First Ave. W., North Bay	North Bay.
McKeith, John	Kerr & Colbourne Sts., Oakville	Oakville.
Morrison, M. J.	42 King St. E., Ingersoll	Ingersoll.
Murray Bottling Works	139 Market Sq., Windsor	Windsor.

DIRECTORY OF FIRMS IN THE INDUSTRIES CLASSIFIED UNDER MANUFACTURES OF THE NON-METALLIC MINERALS IN CANADA, 1929—Continued

Aerated Waters—Continued

Name of Firm	Head Office Address	Location of Plant
ONTARIO—Concluded.		
Niagara Falls Bottling Works	1043 Centre St., Niagara Falls	165 Ellen Ave., Niagara Falls
Nichols, W.	110 Queen St., Lindsay	10 Caroline St., Lindsay
Nipigon Bottling Works	Box 35, Nipigon	Nipigon
Northern Springs, Brackhill & Co.	Ridgeway	Ridgeway
Ontario Soda Water Co.	63 Regent St., Welland	10 Park St., Welland
Ontario Soda Water Co.	229 Manning Ave., Toronto 3	Toronto 3
Orange Crush, Ltd.	100 Claremont St., Toronto	Toronto
Orange Crush, Ltd.	100 Claremont St., Toronto	217 Cannon St. E., Hamilton
Lane, Joseph S.	Water St., Prescott	Prescott
Hinds, F. P. & Son	20 Front St., Orillia	Orillia
Hires, Charles E., Co., Ltd.	47 Davies Ave., Toronto	Toronto
Hoon's Bottling Works	43 Park St., Chatham	Chatham
Horne, S. V.	148 Ontario St., Kingston	Kingston
Horsman, Chas. L.	Pallester St., Campbellford	Campbellford
International Bottling Works	157 Machar Ave., Port Arthur	Port Arthur
Jackson, P. A.	Robinson St., Collingwood	Collingwood
Jersey Crème Co., Ltd.	22 Manning Ave., Toronto 3	Toronto 3
Jones Soda Water Works	417 Sandwich E., Windsor	Windsor
Kenora Bottling Works	323-1st North, Kenora	Kenora
Kingston Bottling Works	266 Princess St., Kingston	Kingston
Kirkland Lake Bottling Works	Station Rd., Kirkland Lake	Kirkland Lake
Kiss Beverage Co.	126 Ahrens St. W., Kitchener	Kitchener
Kitchener Carbonating Co.	1003 East King St., Kitchener	Kitchener
Korrmann's Beverages, Ltd.	103 Duchess St., Toronto	Toronto
Laflamme Bottling Works, Ltd., The	Box 239, 2nd Ave. and Railway Sta., Cochrane	Cochrane
Lake Shore Bottling Works	4 Smith Ave., Leamington	Leamington
Ja-Kola Co.	22 Macnulty St. W., Hamilton	Hamilton
Mack Mineral Springs Co.	111 Welland Ave., St. Catharines	St. Catharines
Orange Crush Bottling Co.	253 Rideau St., Ottawa	Ottawa
Orange Crush, Ltd.	100 Claremont St., Toronto	992 Princess St., London
Orange Dandy Co., Ltd.	183 Elm St., Toronto	Toronto
Orange Juice (Toronto), Ltd.	157 Danforth Ave., Toronto	Toronto
Orange Sweet Bottling Co.	61 Oxford St., Toronto 2	Toronto 2
Oshawa Bottling Works	Cor. Court & Stacey Sts., Oshawa	Oshawa
National Beverages, Ltd.	774 Wright Ave., Toronto 3	Toronto 3
Parisian Refreshment Co.	15 Sandwich E., Sandwich	Sandwich
Penetang Bottling Co.	Main St., Penetanguishene	Penetanguishene
Perth Bottling Works	27 Cockburn St., Perth	Perth
Pilgrim, A. L.	58 Brock St., Brockville	Brockville
Pure Springs Co.	477 Wellington St., Ottawa	Ottawa
Reinhardt, Albert J. (Royal City Mineral Water Works)	239 Dundas Rd., Guelph	243 Dundas Rd., Guelph
Renfrew Bottling Works	Raglan St., Renfrew	Renfrew
Rideau Bottling Co.	73 Jasper Ave., Smith's Falls	Smith's Falls
Riverdale Bottling Works	34 Eaton Ave., Toronto	Mount Forest
Robertson, Alex. Co.	Hoinewood Ave., Mount Forest	Mount Forest
Royal Bottling Works	130 First Ave., Fort Frances	Fort Frances
St. Kitts Bottling Works	29 Vine St., St. Catharines	St. Catharines
St. Lawrence Bottling Co.	Cor. Sherwood and Ottawa Sts., Ottawa	Ottawa
Salerno, Bruno	Bay St., Parry Sound	Parry Sound
Sanitaris, Ltd.	Cor. John and William Sts., Arnprior	Arnprior
Seal Bottling Works	820 Mercer St., Windsor	Windsor
Sarnia Soda Water Works, Ltd.	118 N. Victoria, Sarnia	Sarnia
Spring Water Bottling Works, The	1730 Ferry St., Niagara Falls	Niagara Falls
Stimson, E. H. & Co.	St. Paul St., Alexandria	Alexandria
Sioux Lookout Bottling Works	Box 208, Sioux Lookout	Sioux Lookout
Star Beverage Co., The	11 Federal St., Toronto	Toronto
Star Bottling Works	252 Regent St., Sudbury	Sudbury
Stratford Soda Water Works	235 William St., Stratford	Stratford
Sugarman's Ginger Ale Mfg.	573 Grey St., London	London
Sutherlands, Ltd.	12 & 14 Jarvis St., Hamilton	Hamilton
Tally-Ho Pure Water Co., Ltd.	610 Cooper St., Ottawa	Bowesville
Taylor, Wm. & Son, Ltd.	057, 4th Ave. E., Owen Sound	Owen Sound
Thompson, George	294 Princess St., Kingston	Kingston
Timmins Bottling Works	61 Birch St. N., Timmins	Timmins
Tunes, Ltd.	90 Broadview Ave., Toronto	1 Hamilton Rd., London
Twin City Bottling Works	547 Prince Arthur Blvd., Fort William	Fort William
Union Soda Water Co., Ltd.	30 St. Patrick St., Toronto	Toronto
United Bottlers, Ltd.	270 William St., London	London
Walker & Co.	Mill St., Orangeville	Orangeville
Wallneburg Bottling Works	124 Forke St., Wallneburg	Wallneburg
Wentworth Mineral Water Co., Ltd.	Rear 542, Main St. E., Hamilton	Hamilton
Whistle Bottling Co. (C. E. Maedel)	Talbot St., Essex	Essex
Whistle Bottling Works	115 Davis St., rear Post Office, Sarnia	Sarnia
Whistle Co. of Eastern Canada, Ltd.	208 Victoria St., Toronto	Toronto
Willis Bottling Works	King St. E., Prescott	Prescott
Wilson, Charles, Ltd.	517-519 Sherbourne St., Toronto 5	Toronto 5

DIRECTORY OF FIRMS IN THE INDUSTRIES CLASSIFIED UNDER MANUFACTURES OF THE NON-METALLIC MINERALS IN CANADA, 1929—Continued

Aerated Waters—Concluded

Name of Firm	Head Office Address	Location at Plant
ONTARIO—Continued.		
Wilson, John T.	Box 728, John St., Thorold	Thorold
Wise, C. W.	117 Ross St., Welland	66 Evans St., Welland.
Wright, Al.	819 Arthur St., Windsor	Windsor.
MANITOBA—		
Artic Drink Mfg. Co.	862 Selkirk Ave., Winnipeg	Winnipeg.
Bell Bottling Co., Ltd.	1683-1687 Selkirk Ave., Winnipeg	Dauphin.
Coca-Cola Co., Ltd.	90 Broadview Ave., Toronto	29-12th St., Brandon.
Coca-Cola Co., Ltd.	90 Broadview Ave., Toronto	Bunnatyne and Ellen Sts.
Douglas & King, Ltd.	47 Higgins Ave., Winnipeg	Winnipeg.
Lee's Bottling Works	19 Martha St., Winnipeg	Winnipeg.
Northland Bottling Works	403 Fisher Ave., The Pas	The Pas.
Orange Crush Bottling Co.	100 Claremont St., Toronto	233 Stradbrook Ave., Winnipeg.
Portage Soda Water Works	60 Tupper St., Portage la Prairie	Portage la Prairie.
Whistle Bottling Co. of Winnipeg, Ltd.	251 Jarvis Ave., Winnipeg	Winnipeg.
Zero Bottling Works	90 Lorne Ave., Winnipeg	Winnipeg.
SASKATCHEWAN—		
Chippewa Water Co.	Fifth Street, Estevan	Estevan.
Coca Cola Co., Ltd.	90 Broadview Ave., Toronto	1736 Cornwall St., Regina.
Coca-Cola Co., Ltd.	90 Broadview Ave., Toronto	265 Third St., Saskatoon.
Currie & Hasset	415 Ave. B., Saskatoon	Saskatoon.
Jackson Bottling Co., Ltd.	561 Home St. W., Moose Jaw	Moose Jaw.
Jeffs Products, Ltd.	1505 Dewdney Ave., Regina	Regina.
Janey Pop Works	78-80 Hetts Ave., Yorkton	Yorkton.
Moose Jaw Bottling Works, Ltd.	413 Athabasca St. E., Moose Jaw	Moose Jaw.
Orange Crush Co.	100 Claremont St., Toronto	311 Ave. B., South Saska- toon.
Puchals.	Agricultural Ave., Yorkton	Yorkton.
Prince Albert Mineral Water Co., Ltd.	1125-3rd Ave. W., Prince Albert	Prince Albert.
Regina Bottlers, Ltd.	Montreal and 11th Ave., Regina	Regina.
Standard Mineral Water Works	1371 George St., North Battleford	North Battleford.
Swift Current Bottling Works	401 Railway St., Swift Current	Swift Current.
Watt, S. & J. Co., Ltd.	2023 Ottawa St., Regina	Regina.
Weyburn Bottling Works	Box 514 Railway Ave., Weyburn	Weyburn.
ALBERTA—		
Blue Label Bottling Co (Calgary), Ltd.	508-3rd Ave. W., Calgary	Calgary.
Canada Dry Ginger Ale, Ltd.	153 Sherbourne St., Toronto	9641-102nd Ave., Edmonton.
Coca-Cola Co.	90 Broadview Ave., Toronto	126-4th Ave., Calgary.
Dominion Bottling Works	10172-94th St., Edmonton	Edmonton.
Eamon, R. W., Ltd.	533-11th Ave. W., Calgary	Calgary.
Orange Crush Bottling Co., Ltd.	100 Claremont Ave., Toronto	10015-102nd Ave., Edmonton
Polar Aerated Water Works	129-3rd Ave. E., Calgary	Calgary.
Prairie Rose Mfg. Co., Ltd.	9611-104th Ave., Edmonton	Edmonton.
Purity Bottling Works	518-5th St. S., Lethbridge	Lethbridge.
Quality Bottlers	1264-4th Ave. S., Lethbridge	Lethbridge.
Red Deer Bottling Works	Box 202, Red Deer	Red Deer.
Shamrock Bottling Works	Park Drive, Medicine Hat	Medicine Hat.
BRITISH COLUMBIA—		
Beaver Bottling Works	708 Fraser St., Prince Rupert	Prince Rupert.
Boyness, A. C.	Van Horn St., Cranbrook	Cranbrook.
Chapman's Purity Bottling Works	714 Baker St., Nelson	Nelson.
Coca Cola Co.	90 Broadview Ave., Toronto	898 Richard St., Vancouver.
Columbia Bottling Works	Le Roi Ave., Box 306, Rossland	Rossland.
Cross Co., Ltd.	38 Fourth Ave. E., Vancouver	Vancouver.
Crystal Spring Soda Water Co., Ltd.	1244 Richardson St., Victoria	Victoria.
Gassano Factory	Rossland Ave., Trail	Trail.
Gold Star Bottling Works	Island Highway, Courtenay	Courtenay.
Kamloops Bottling Works	287 Victoria St. W., Kamloops	Kamloops.
McLour Bottling Co.	Drawer 1, 118 Hall St., Nelson	Nelson.
McCraith, Malcolm	717 Princess St., New Westminster	New Westminster.
McCulloch, A., Co.	201 Coldstream St., Vernon	Vernon.
Nanaimo Bottling Works	75 Mill St., Nanaimo	Nanaimo.
Old English Beverage Co., Ltd.	625 David St., Victoria	Victoria.
Orange Crush Bottling Co.	100 Claremont St., Toronto	1068 Mainland, Vancouver.
Rumming, William E.	199 Wallace St., Nanaimo	Nanaimo.
Salmon Arm Aerated Water Co.	Box 40, Salmon Arm	Salmon Arm.
Tilley, J. A. S.	Box 69, Causton Ave., Kelowna	Kelowna.
Van Bros., Ltd.	1055 Vernon Drive, Vancouver	Vancouver.

DIRECTORY OF FIRMS IN THE INDUSTRIES CLASSIFIED UNDER MANUFACTURES OF THE NON-METALLIC MINERALS IN CANADA, 1929—Continued

Asbestos and Allied Products

Name of Firm	Head Office Address	Location of Plant
NOVA SCOTIA—		
Guildford and Sons, Ltd.	649 Barrington St., Halifax	Halifax.
QUEBEC—		
Asbestos Co.	St. Lambert, Montreal	St. Lambert, Montreal.
Asbestos Mfg. Co., Ltd., The	17 St. James St., Quebec	Cor. Victoria and 20th St., Lachine.
Atlas Asbestos Co., Ltd.	142 St. Pater St., Montreal	Montreal.
Canadian Johns-Manville Co., Ltd.	Montreal	Asbestos.
ONTARIO—		
Asbestos Goods Co.	Rear of 360 Dufferin St., Toronto 3.	Toronto 3.
Canadian Raybestos Co., Ltd.	280 Perry St., Peterborough	Peterborough.
Garlock Packing Co., The	Palmyra, New York	200 Queen St. N., Hamilton.
Hachmiester Lind Chemical Co.	McKees Rocks, Penn.	Vidil St., Sarnia.
Insulation & Asbestos Co., Ltd.	142 Weston Rd., Toronto 9.	Toronto 9.
A. C. Wild & Co.	38 Hibern St., Toronto 9.	Toronto 9.
BRITISH COLUMBIA—		
Bullie H. & Co.	144 Alexander St., Vancouver	Vancouver.
Spicers Asbestos, Ltd.	140, 4th Ave. W., Vancouver	Vancouver.

Artificial Abrasives and Abrasive Products

(a) Abrasive Products

ONTARIO—		
Abrasives, Ltd.	Brantford	Brantford.
Brantford Grinding Wheel Co., Ltd.	183 Pearl St., Brantford	Brantford.
Canadian Hart Wheels, Ltd.	Galt	Galt.
Dominion Abrasive Wheel Co., Ltd.	196 Adelaide St. W., Toronto 2.	Mimico.
Lion Grinding Wheels, Ltd.	192 Pearl St. E., Brockville	Brockville.
Lionite Abrasive Co.	Niagara Falls	Niagara Falls.
Norton Co. of Canada, Ltd.	3 Beach Rd., Hamilton	Hamilton.
Ontario Abrasive Wheels, Ltd.	Water St., Prescott	Prescott.

(b) Artificial Abrasives

QUEBEC—		
Canadian Carborundum Co., Ltd.	P.O. Box 337, Niagara Falls, N.Y., U.S.A.	Shawinigan Falls.
ONTARIO—		
Abrasive Co. of Canada, Ltd., The	Burlington St. and Harvey Lane, Hamilton.	Hamilton.
Canadian Carborundum Co., Ltd.	P.O. Box 337, Niagara Falls, N.Y., U.S.A.	Stanley St., Niagara Falls.
Exolon Co., Inc., The	Blasdell, N.Y.	Thorold.
Norton Company	New Bond St., Worcester, Mass., U.S.A.	Chippawa.

Cement

QUEBEC—		
Canada Cement Co., Ltd.	Canada Cement Bldg., Montreal	Hull.
Canada Cement Co., Ltd.	Canada Cement Bldg., Montreal	Montreal East.
National Cement Co.	Box P.O. 2770, Montreal	Montreal E.
ONTARIO—		
Canada Cement Co., Ltd.	Canada Cement Bldg., Montreal	Belleville.
Canada Cement Co., Ltd.	Canada Cement Bldg., Montreal	Lakefield.
Canada Cement Co., Ltd.	Canada Cement Bldg., Montreal	Port Colborne.
St. Marys Cement Co., Ltd.	357 Bay St., Toronto	St. Marys.
MANITOBA—		
Canada Cement Co., Ltd.	Canada Cement Bldg., Montreal	Fort Whyte.
ALBERTA—		
Canada Cement Co., Ltd.	Canada Cement Bldg., Montreal	Exshaw.
Marlboro Cement Co.	Edmonton	Marlboro.
BRITISH COLUMBIA—		
British Columbia Cement Co., Ltd.	305 Belmont Bldg., Victoria	Bamberton.

DIRECTORY OF FIRMS IN THE INDUSTRIES CLASSIFIED UNDER MANUFACTURES OF THE NON-METALLIC MINERALS IN CANADA, 1929—Continued
Cement Products

Name of Firm	Head Office Address	Location of Plant
NOVA SCOTIA—		
Granolithic Products, Ltd.	McKay St., Stellarton	Stellarton.
Graves, Arch.	Commercial St., Aylesford	Aylesford.
Kentville Concrete Products Co.	Centerville, Kings	Meadin Rd., Kentville.
NEW BRUNSWICK—		
Eastern Cement Products, Ltd.	111 Princess St., East St. John	East St. John.
Hartland Cement Block Co., Ltd.	Hartland	Hartland.
Scott Concrete Works	Barker's Point, York County	York County.
QUEBEC—		
Archaubault, L.	St. Ours, Ville	Quebec.
Bilodeau, Ign. Ltée.	144 avenue Renaud, Quebec	Québec.
Canadian Benedict Stone, Ltd.	120 Lexington Ave., New York City, U.S.A.	Huig Ave., Longue Pointe, Montreal.
Castonguay, Aldéric	rua Des Erables, Montreal	Montreal.
Chicoine, J. E.	4860 Papineau St., Montreal	Montreal.
Cloutier, Adélaïde	Ste. Rose de Laval, Quebec	Quebec.
Consolidated Pipe Co., Ltd.	Clunramald Ave., Côte St. Luc, Montreal	Montreal.
Davies, T.	913 Galt St., Sherbrooke	Sherbrooke.
"Desco", Pierre, Ltée.	1075 Courtraï Ave., Côte des Neiges, Montreal	Montreal.
Duchesne, L.	6382 Hamilton St., Ville Emard, Montreal	Montreal.
Dugas, Isaïe	259 Jean Talon, W., Montreal	Montreal.
Duntile Co., Ltd.	734 Canada Cement Bldg., Montreal	Clunramald Ave., Côte St. Luc, Montreal.
Dutrisac, Alfred	305 Sir George Etienne Cartier, Montreal	593 Delinelle, Montreal.
Failla, G. A.	5131 Bourbonnière, Rosemount, Montreal	Montreal.
Florentine Art Co.	5701 De Normanville, Montreal	Montreal.
Fournier Frères	37 Victoria St., Lachine	Lachine.
Genest, Emile	St. Basile	St. Basile.
Gem Stone Co., The	1026 Des Carrières, Montreal	Montreal.
Giguère & Paquinot	1302 Renbucien, Montreal	Montreal.
Guilbault Frères & Cie., Inc.	Ste. Elizabeth, Joliette	Joliette.
Jacques, Pierre	Grand Mère	Grand Mère.
Lafontaine, C. E.	St. Jérôme	St. Jérôme.
La Cie de Produits de Ciment	St. Jérôme	St. Jérôme.
Larivière, Alex	586 St. Remi St., St. Henri, Montreal	Montreal.
La Société de Construction Modernes, Ltée.	Rivière du Moulin, Chicoutimi	Chicoutimi.
Leberling, Jean	97-11ème rue Limoilou, Quebec	Quebec.
Leduc, H. & Cie.	2136 ave. de l'Eglise, Côte St. Paul, Montreal	Montreal.
Monette, G.	5280 rue Notre Dame E., Montreal	Montreal.
Pitt, Horace, Esq.	2337 St. Charles, Montreal	Montreal.
Pizzigulli Terrazo Tile Mfg. Co.	105 Jean Talon St. W., Montreal	Montreal.
Raymond Cement Products, Ltd.	134 St. James St., Montreal	Montreal.
St. Louis, Nap	St. Ursule	St. Ursule.
Tailfein, Ellie	St. Polycarpe	St. Polycarpe.
Trahan & Cie	5244-4th Ave., Rosemount, Montreal	Montreal.
Tisserand, Félix	5936 Des Ecoles, Montreal	Montreal.
ONTARIO—		
Andrews, S. J.	Queen St., Clinton	Clinton.
Anthistle, W. J.	309 Cromwell St., London	London.
Aristocrat Manufacturing Co.	35 Fraser Ave., Toronto	Toronto.
Art Granite Co.	Box 311, Essex	Essex.
Artificial Stone	16 Albert St., Thorold	Thorold.
Ashman & Son, T. J.	520 Grosvenor St., London	London.
Burd's Parton Stone	225 Macpherson Ave., Toronto	Toronto.
Runcroft Cast Stone Co.	Duffarin St. and Rosemount Ave., Weston	Weston.
Banks, John	755 Queens Ave., London	623 Highbury Ave., London
Bartonville Rock Stone, Ltd.	King St., Bartonville	Bartonville.
Bauman, Thomas	Leamington	Leamington.
Bell & Mattala	657 Stanley St., Niagara Falls	Ferry St., Niagara Falls.
Bierwagen, Bros.	88 Edward St., Kitchener	217 Waterloo, Kitchener.
Border Builder's Supply Co., Ltd.	1436 Howard Ave., Windsor	Windsor.
Bosman, I. H.	Bluevale	Bluevale.
Boyd, Bros.	Osgoode	Osgoode.
Brigden, Wm.	Port Elgin	Port Elgin.
Brown, D. I.	Box 364, Sudbury	Industrial spur, C.P.R.
Brown, A. E.	216 Oak St., Sudbury	Spruce St., Sudbury.
Burkholder, Geo.	Whitevale	Whitevale.
Burwell, C. A.	Pine St., Tillsonburg	Tillsonburg.
Caldler, James	St. Andrews St., Fergus	Fergus.
Campbell, John	381 Emery St., London	London.
Canadian Concrete Products Co., Ltd.	122 S. Michigan Ave., Chicago, Ill., U.S.A.	111 Albion St., Belleville.
Cast Stone Block Co.	Robinson St., Bridgeburg	Bridgeburg.
Chatlam Cement, Tile and Block Brick Co., Ltd.	Richmond St., Chatham	Chatham.
Chick Fuel and Supply Co.	951 McDougall St., Windsor	Windsor.
Clemens & Miller	West Lincoln and Wilton Ave., Welland	Welland.
Cross Builders Supply Co., Ltd.	924 Windsor Ave., Windsor	Windsor.
Daniels & Guthrie	Cor. Logan and Gowan Ave., Toronto, 6	Toronto, 6.

DIRECTORY OF FIRMS IN THE INDUSTRIES CLASSIFIED UNDER MANUFACTURES OF THE NON-METALLIC MINERALS IN CANADA, 1929—Continued

Cement Products—Continued

Name of Firm	Head Office Address	Location of Plant
ONTARIO—Continued.		
Devitt, W. J.	Brooklin	Brooklin.
Dewar, James S.	Paisley	Paisley.
Dudge, J. A.	Dunbar Ave., Hamilton	Hamilton.
Dominion Concrete Co., The	Van Buren St., Kemptville	Kemptville.
Dominion Concrete Burial Vault & Specialties Co., Ltd.	Ridgeville	Ridgeville.
Dominion Lock Joint Pipe Co., Ltd.	198 Riddell St., Woodstock	Woodstock.
Fairbank Block & Supply Co.	318 Hopewell Ave., Toronto 10.	Toronto 10.
Fletcher & Sons, J. H.	R. M. D. I., Ridgeville	Fonthill.
Frazier Duntzle Co.	Westboro (Ottawa)	Westboro (Ottawa).
Garnett & Sons, Thos.	Barratt St., Port Hope	Port Hope.
Gendreau, W.	935 Pierre Ave., Windsor.	Windsor.
Gillis, Alfred	Hespeler Rd., Galt	Galt.
Grace, Thomas	291 S. Christina St., Sarnia	Sarnia
Granite Concrete Block Co., Ltd.	832 Weston Rd., Toronto.	Toronto.
Hall, John Warren	677 Water St., Peterborough.	Hilliard St., Peterborough.
Hayley, Harry	Hurdman Rd., Ottawa	Ottawa
Holbeck, B. A.	Mill St., Kingsville	Kingsville.
Hoyles, Arthur	St. George St., Dresden	Dresden
Hubbell	Railroad St., Thamesville	Thamesville.
Hunt, J. W.	Queen St., Mount Forest	Mount Forest.
Hyatt, Bros.	290 Egerton St., London	London.
Hynnuman, John	Gorrie	Gorrie.
Independent Concrete Pipe Co., Ltd.	198 Riddell St., Woodstock	400 Cheyne Ave., Toronto.
Independent Concrete Pipe Co., Ltd.	198 Riddell St., Woodstock	Woodstock.
Jago Concrete Products Co.	Summersville	Summersville.
Johnston, J. H.	124 Holborne Ave., London	London
Jones Lockhart, Ltd.	2 Albert St., St. Catharines	St. Catharines.
Kilbourne & Son, H.	145 Wharnclyffe Rd., London	London.
Kingsborough, Jas. C.	51 Melbourne St., Lindsay	Lindsay.
Lawrence Bros.	Stoney Creek	Stoney Creek.
Leaside Block & Tile Co., Ltd.	Industrial St., Leaside	Leaside.
Leaside Cast Stone Co.	Leaside	Leaside.
Legg, Stanley	712 Oxford St., London	London.
Lindley, E.	11 Hillary Ave., Toronto	Toronto.
Lishman, W. H.	Box 100, Cayuga	Cayuga.
Lumber and Cement Products Co., Ltd.	4181 Talbot St., London	St. Julien St., London.
McClelland, R. J.	378 Brock St., Kingston	Kingston.
Martyn, H. J.	50 Prince Edward Ave., Niagara Falls	Niagara Falls.
Miller, Albert	45 Harvey St., Chatham	Chatham.
Miller, Thomas	343 Peter St. W., Sandwich	Sandwich.
Mitchell, Ralph R.	1420 Ferry St., Niagara Falls	Niagara Falls.
Moore, Th.	Box 275, East Ave., Beamsville	Beamsville.
Mould, Arthur	81 Boullie, London	London.
Nicholson, J. B., Ltd.	36 Toronto St., Toronto	Toronto.
North Oshawa Cement Works	775 Albert St., North Oshawa	North Oshawa.
Nuttall, Wm.	Hamilton St., Preston	Preston.
Oil Springs Tile & Cement Co.	Oil Springs	Oil Springs.
Page, George Leslie	R. R. 3, Lucknow, Bruce	Bruce.
Peerless Artificial Stone, Ltd.	510 Rhodes Ave., Toronto	Toronto.
Pfaff, W. E.	Queen St., Hensall	Hensall.
Pinchin, J. H.	Clarkson	Clarkson.
Plante, E. F.	901 Catarqui St., Windsor	Windsor.
Posg, Geo.	Albert Ave., Ridgetown	Ridgetown.
Proulx, A. A.	1088 Somerset St., Ottawa	Ottawa
Ratcliffe, E. B., Ltd.	King St., Bartonville	Bartonville.
Reconstructed Stone Co., The	1777 Lillian St., Windsor	Windsor
Rolindoux, Henry	Box 323, Amherstburg	Amherstburg.
Robinson, Ernest E.	R. R. 3, Mitchell	Mitchell.
Ross, Chas. & Son	Mill St., Dunnville	Dunnville
Russells, Howard	Leamington	Leamington
Sarnia Cement Products, Ltd.	Point Edward	Point Edward.
St. Onge, Hormidas	157 Hull Ave., Windsor	420 Albert St., Windsor.
Schmidt, J. T.	R. R. 1, Waterloo	Waterloo.
Schultz, John	64 Cedar Grove, Kitchener	Kitchener.
Shoemaker, Allen	R. R. 4, Kitchener	Kitchener.
Sommerville & Son, W. G.	395 Division St., Welland	Welland.
Stanley & Son, J.	Stanley's Corner	Stanley's Corner.
Stucco Products, Ltd.	Leaside	Leaside.
Superior Stone, Ltd.	528 Victoria St., Kitchener	Kitchener.
Sydenham Block & Tile Co.	Box 661, Wallaceburg	Water St., Wallaceburg.
Tambling, A. L.	Mill St., Dunnville	Dunnville.
Tigert, John	R. R. 3, Goderich	Port Albert.
Toronto Brick Co., Ltd.	897 Bay St., Toronto	Windemere Ave., Toronto.
Toronto Ready Mix Concrete, Ltd.	Room 1017, 159 Bay St., Toronto 2.	Fleet St., Toronto.
Wattorworth, Chas. W.	Queen St., Beausville	Beausville.
Wells, Jas.	449 Phillips St., London	Trafalgar St., London.
White & Co., Homer	Spring St., Picton	Picton.
White, Sydney	R. R. No. 4, St. Catharines	St. Catharines.
Williams, Geo. C.	Wheatley	Wheatley.
Windsor Vault Works	133 Gladstone Ave., Windsor	314 Pierre St., Windsor.
Ward, John	149 Simcoe St. E., Hamilton	Hamilton.
Young, John & Sons	Ridgeway	Ridgeway.

DIRECTORY OF FIRMS IN THE INDUSTRIES CLASSIFIED UNDER MANUFACTURES OF THE NON-METALLIC MINERALS IN CANADA, 1929—Continued

Cement Products—Concluded

Name of Firm	Head Office Address	Location of Plant
MANITOBA— Monarch Concrete Products Co.....	1519 Main St., Winnipeg.....	Winnipeg.
SASKATCHEWAN— Saskatoon Concrete Products Concrete Products, Ltd.....	127 Ave. C, North Saskatoon..... 5 Banner Block, Regina.....	Saskatoon. Lauriston and 7th Ave., Saskatoon. 5th and St. John Sts., Regina.
ALBERTA— Alberta Concrete Products, Ltd..... Alberta Concrete Works..... Concrete Products, Ltd.....	104th Ave. and 111th St., Edmonton..... 10985-126th St., Edmonton..... 5 Banner Block, Regina, Sask.....	Edmonton. Edmonton. 12th Ave. and 7th St. E., Calgary.
BRITISH COLUMBIA— British Concrete Co., Ltd..... Hull, Win..... Sanderson, Warren..... Spokane Concrete Pipe Co..... Star Cement Laundry Tray Co..... Whiting, W. G.....	77th Ave. and Oak St., Vancouver..... Pleasant Valley Rd., Vernon..... 2080 Gravely, Vancouver..... Box 1033, Spokane, Wash., U.S.A..... 3895 Ontario St., Vancouver..... 8699 Hudson St., Vancouver.....	Creston. Vernon. Vancouver. Olive. Vancouver. Vancouver.

Coke and Gas

(a) By-Product Coke Plants

NOVA SCOTIA— Dominion Iron and Steel Co.....	Sydney.....	Sydney.
QUEBEC— Montreal Coke Manufacturing Co.....	Box 1660, Montreal.....	435 St. Patrick St., Laealle.
ONTARIO— Algoma Steel Corporation, Ltd..... Hamilton By-Product Coke Ovens, Ltd..... Steel Co. of Canada, Ltd.....	Sault Ste. Marie..... 15 Main St. E., Hamilton..... Hamilton.....	Sault Ste. Marie. Burlington and Depeu St., Hamilton. Harvey Lane, Hamilton.
MANITOBA— Winnipeg Electric Railway Co.....	Electric Railway Chambers, Winnipeg.....	Gladstone St., Winnipeg.
BRITISH COLUMBIA— Crow's Nest Pass Coal Co., Ltd., The Granby Consolidated Mining, Smelting and Power Co.....	Fernie..... Hall Bldg., Vancouver.....	Michel and Fernie. Anyox.

(b) Artificial Gas Plants

NOVA SCOTIA— Nova Scotia Light and Power Co., Ltd., The.....	603 Barrington St., Halifax.....	Box 770, 1-15 Lower Water St., Halifax.
NEW BRUNSWICK— New Brunswick Power Co..... Pintsch Compressing Co., The.....	1 Dock St., St. John..... New Haven, Conn.....	Camarathen St., St. John. McAdam Junction.
QUEBEC— City of Sherbrooke Electricity Dept..... Pintsch Compressing Co..... Quebec Power Co., Ltd.....	Wellington St. N., Sherbrooke..... New Haven, Conn..... 229 St. Joseph St., Quebec.....	Richelieu St., Sherbrooke. 635 Lussignan St., Montreal. St. Malo.
ONTARIO— Barrie Gas Dept..... Board of Light and Heat Commission..... Brockville Public Utilities Commission..... City Gas Co. of London..... City of Belleville Gas Dept..... Consumers Gas Co. of Toronto..... Hydro-Electric Power Commission of Ontario..... Oshawa Public Utilities Commission..... Ottawa Gas Co..... Peterborough Utilities Commission, Gas Dept.....	5 Bayfield St., Barrie..... Guelph..... Victoria Bldg., Brockville..... 215 Dundas St., London..... City Hall, Belleville..... 19 Toronto St., Toronto..... 190 University Ave., Toronto..... 190 University Ave., Toronto..... 56 Sparks St., Ottawa..... 135 Simcoe St., Peterborough.....	250 Dunlop St., Barrie. Guelph. St. Paul St., Brockville. Cor. Horton & Ridout Sts., London. South Church, Belleville. Front St. E. and East Ave., Toronto. Charles St., Cobourg. Prospect St., Oshawa. Lees Ave., Ottawa. 90 Simcoe St., Peterborough.

DIRECTORY OF FIRMS IN THE INDUSTRIES CLASSIFIED UNDER MANUFACTURES OF THE NON-METALLIC MINERALS IN CANADA, 1929—Continued

Coke and Gas—Concluded

Name of Firm	Head Office Address	Location of Plant
(b) Artificial Gas Plants		
ONTARIO—Concluded.		
Pintsch Compressing Co.	New Haven, Conn.	John St., Toronto.
Pintsch Compressing Co.	New Haven, Conn.	21 Stanley St., North Bay.
Port Hope Gas Co.	John St., Port Hope	Port Hope.
Public Utilities Commission.	19 Queen St., Kingston	Kingston.
Public Utilities Commission of Kitchener	189 King St. W., Kitchener	Gaukel St., Kitchener.
Public Utilities Commission of Owen Sound	Owen Sound	2nd Ave. E., Owen Sound.
Public Utility Commission.	7-9 Ontario St., Stratford	159 Wellington St., Stratford.
St. Thomas Gas Dept.	21 Mondamin St., St. Thomas	St. Thomas.
Stormont Electric Light & Power Co.	16 Second St. E., Cornwall	Water St. E., Cornwall.
MANITOBA—		
Canada Gas & Electric Corporation	235-10th St., Brandon	Park and Pacific Ave., Brandon.
Pintsch Compressing Co.	New Haven, Conn.	Sutherland Ave., Winnipeg.
Shawinigan Chemicals, Ltd.	611 Power Bldg., Montreal	Morris.
Shawinigan Chemicals, Ltd.	107 Craig St. W., Montreal	Hamiota.
Souris Consumers Gas Co., Ltd.	Souris	Souris.
SASKATCHEWAN—		
Pintsch Compressing Co.	New Haven, Conn.	Moose Jaw.
ALBERTA—		
Pintsch Compressing Co.	New Haven, Conn.	10354-108th St., Edmonton.
BRITISH COLUMBIA—		
British Columbia Electric Power & Gas Co., Ltd.	425 Corral St., Vancouver	Keefer St., Vancouver.
Corporation of the City of Nelson	Box 1028, Front St., Nelson	Railway St., Nelson, Box 136.
Pintsch Compressing Co.	New Haven, Conn.	Drake and False Creek Vancouver.

Glass

(a) Plate Cut and Ornamental Glass

NOVA SCOTIA—		
Roche, David	230-238 Argyle St., Halifax	Halifax.
NEW BRUNSWICK—		
Murray & Gregory, Ltd.	Falls View Ave., St. John	St. John.
QUEBEC—		
Bernard, Joseph	125 Grant St., Quebec	Quebec.
Canadian Plate Glass & Mirror Co.	149 St. Peter St., Montreal	Montreal.
Consolidated Plate Glass Co., of Canada, Ltd.	241 Spadina Ave., Toronto	414 St. Sulpice, Montreal.
Hobbs Mfg. Co., Ltd.	London, Ont.	891 St. James St., Montreal.
Montreal Art Glass Works, Reg'd.	5844 St. Lawrence Blvd., Montreal	Montreal.
O'Shea, J. P. & Co.	929 Perreault Lane, Montreal	Montreal.
Perfectioz Glass Co., Ltd.	91 Don Roadway, Toronto, Ont.	6061 Hutchison St., Montreal.
Phillips, Geo. & Co., Ltd.	2085 St. Timothée, Montreal	Montreal.
Verrerie De Luxe Glass	1935 Papineau St., Montreal	Montreal.
ONTARIO—		
Beaver Flint Glass Co., of Toronto, Ltd.	547 Parliament St., Toronto	Toronto.
Bullas, J. Glass Co., The	30 Joseph St., Kitchener	Kitchener.
Canadian Flood Lighting Co.	690 King St. W., Toronto	Toronto.
Cameo Art Glass Co., Ltd.	Magdalen and Ellen Sts., Niagara Falls	Niagara Falls.
Canadian Tumbler Co.	83-85 King St. E., Toronto	48 Colbourne St., Toronto.
Capital Glass & Paint Co.	433 Cooper St., Ottawa	Ottawa.
Central Ornamental Glass Co.	83 McCaul St., Toronto	Toronto.
Clapperton's Sons Co.	Deseronto	Deseronto.
Colonial Art Glass Co.	384 Bank St., Ottawa	Ottawa.
Consolidated Plate Glass Co. of Canada, Ltd.	241 Spadina Ave., Toronto	Toronto.
Consolidated Optical Co., Ltd.	Toronto	257 Coleman St., Belleville.
Dundas Plate Glass Co., Ltd.	Dundas	Dundas.
Duplicate Safety Glass Co. of Canada, Ltd.	Front and Prospect Sts., Oshawa	Oshawa.
Excelsior Plate Glass Co., Ltd.	189 Queen St. E., Toronto	Toronto.
Hill & Co., Arthur E.	168 Seaton St., Toronto	Toronto.
Hill Cut Glass Co.	133 Withrow, Toronto	Toronto.

DIRECTORY OF FIRMS IN THE INDUSTRIES CLASSIFIED UNDER MANUFACTURES OF THE NON-METALLIC MINERALS IN CANADA, 1929—Continued

Glass—Concluded

Name of Firm	Head Office Address	Location of Plant
(a) Plate Cut and Ornamental Glass—Concluded		
ONTARIO—Concluded.		
Hobbs Mfg. Co., Ltd.	London	121 Liberty St., Toronto.
Hobbs Mfg. Co., Ltd.	London	304 Ridout St., London.
Hobbs Mfg. Co., Ltd.	London	300 Lisgar St., Ottawa.
Hughes, W. J.	212 Wychwood Ave., Toronto.	Toronto.
Imperial Optical Co.	21 Dundas St., Toronto 2	Toronto 2.
John's, O. H. Glass Co., Ltd.	219 Broadview Ave., Toronto 8	Toronto 8.
Laminated Glass Mfg. Co. of Canada, Ltd.	Tecumseh Rd and Windsor Ave., Windsor	Windsor.
Luxfer Prism Co., Ltd.	162 Parliament St., Toronto.	Toronto.
Lyon, N. T. Glass Co., Ltd.	141 Church St., Toronto.	Toronto.
McClausland, Robt., Ltd.	317-321 Adelaide St. W., Toronto.	Toronto.
Ontario Plate Glass, Ltd.	London	13 Park St. N., Hamilton.
Perfection Glass Co., Ltd.	Atlantic at Hutchison St., Montreal.	91 Don Roadway, Toronto.
Phillips, W. E. & Co., Ltd.	Prospect and First Ave., Oshawa.	Oshawa.
Pringle & London	146 Jarvis St., Toronto.	Toronto.
Richards Glass Co., Ltd.	102 Atlantic Ave., Toronto.	Toronto.
Supreme Art Glass & Mirror Works	61 Vine St., Hamilton.	Hamilton.
Tait Plate Window Glass Co.	Edward and Victoria, Kitchener.	Kitchener.
Wallaceburg Glass, Ltd.	Duncan St., Wallaceburg	Wallaceburg.
MANITOBA—		
Canadian Cut Glass Co., Ltd.	183 James St., Winnipeg	Winnipeg.
Consolidated Plate Glass Co. of Can., Ltd.	241 Spadina Ave., Toronto	375 Balmoral, Winnipeg.
Hobbs Mfg. Co., Ltd.	London	360 Princess St., Winnipeg.
ALBERTA—		
Capital Glass & Beveling Works, Ltd.	9812 Jasper Ave., Edmonton	Edmonton.
SASKATCHEWAN—		
Phillips, W. E., Co.	Oshawa	8th Ave. and Toronto St., Regina.
BRITISH COLUMBIA—		
Bogardus Wickens, Ltd.	1000 Homer St., Vancouver	Vancouver.
Fraser, John, Glass Works	2120 Granville, Vancouver	Vancouver.
Holt, W. & Son	426-2nd Ave. W., Vancouver	400-436 Second Ave. W., Vancouver.
Kingswny Glass Co.	385 Kingsway, Vancouver	Vancouver.
Regal Art Glass Works	1471 Broadway W., Vancouver	Vancouver.
South Hill Glass Works	802-52nd Ave., South Vancouver	South Vancouver.

Glass (Pressed and Blown)

QUEBEC—		
Consumer's Glass Co., Ltd.	Second Ave., Ville St. Pierre, Montreal.	Montreal.
Dominion Glass Co., Ltd.	1111 Beaver Hall Hill, Montreal.	900 Wellington St., Montreal.
ONTARIO—		
Dominion Glass Co., Ltd.	1111 Beaver Hall Hill, Montreal.	Chapple St., Hamilton.
Dominion Glass Co., Ltd.	1111 Beaver Hall Hill, Montreal.	Wallaceburg.
Feldspar Glass, Ltd.	Oshawa.	Oshawa.
MANITOBA—		
Mid-Weet Glass Co., Ltd.	51 Sutherland Ave., Winnipeg	Winnipeg.
ALBERTA—		
Dominion Glass Co., Ltd.	1111 Beaver Hall Hill, Montreal.	Redcliffe.

Lime

NOVA SCOTIA—		
Dominion Iron and Steel Co.	Sydney	Sydney. (2 plants)
Eastern Lime Co., Ltd.	Windsor	Windsor.
NEW BRUNSWICK—		
Bathurst Power & Paper Co., Ltd.	Bathurst	Bathurst.
Peters, C. H. Sons, Ltd.	Torryburn	Torryburn.
Purdy & Green	323 Main St., St. John	St. John.
Snowflake Lime, Ltd.	3 Pokiok Rd., St. John	Stanley Ward, St. John.

DIRECTORY OF FIRMS IN THE INDUSTRIES CLASSIFIED UNDER MANUFACTURES OF THE NON-METALLIC MINERALS IN CANADA, 1929—Continued

Lime—Concluded

Name of Firm	Head Office Address	Location of Plant
QUEBEC—		
Armand & Beauvry	Joliette	Joliette.
Baron, A.	St. Dominique de Bagot	St. Dominique de Bagot.
Boivin, Arthur	Pont Rouge	Pont Rouge.
Canada Lime & Stone, Ltd.	St. Marc des Carrières	St. Marc des Carrières.
Dominion Lime Co., The	East Angus	Lime Ridge.
Duclarme, Colbert	Guigues	Guigues.
Héon, Octave	St. Louis de France	Ste. Marguerite.
Lalumière, Joseph	St. Dominique de Bagot	St. Dominique de Bagot.
Laurentian Stone Co., The	250 Catherine St., Ottawa	Hull.
Limoges, Fils & Cie	552 Poupert, Montreal	Montreal.
Shawinigan Chemicals, Ltd.	83 Craig St., Montreal	Shawinigan Falls.
Standard Lime Co., Ltd.	Joliette	St. Paul de Joliette.
Standard Lime Co., Ltd.	Joliette	St. Marc des Carrières.
Stinson-Reeb Builders Supply Co., Ltd.	360 Dorchester St. W., Montreal	Cor. Delormier and Dandurand Sts., Montreal.
ONTARIO—		
American Cyanamid Co.	535 Fifth Ave., New York City	Niagara Falls.
Beachville Lime and Stone, Ltd.	Paris	Beachville.
Biederman, Albert G.	Golden Lake, R.R. 1	Golden Lake.
Brunner, Mond (Canada), Ltd.	501 Dominion Bank Bldg., Toronto	Anderdon Tp.
Cameron, W. M.	Carleton Place	Carleton Place.
Canada Gypsum & Alabastine, Ltd.	Paris	Elora.
Canada Lime Co., Ltd.	Cobocook	Cobocook.
Chalmers Lime Works	689 Seventh St. W., Owen Sound	Owen Sound.
Dominion Rock Products, Ltd.	1017 New Birks Bldg., Montreal	Eganville.
Dominion Sugar Co., Ltd.	Chatham	Chatham.
Dominion Sugar Co., Ltd.	Chatham	Wallaceburg.
Gallagher Lime and Stone Co., Ltd.	Upper James St., Hamilton	Hamilton.
Gypsum Lime & Alabastine Co.	Paris	Hespeler.
Gypsum Lime & Alabastine Co.	Paris	Kelso.
Gypsum Lime & Alabastine Co.	Paris	Puslinch.
Gypsum Lime & Alabastine Co.	Paris	Milton.
Gypsum Lime & Alabastine Co.	Paris	Limehouse.
Jameson Lime Co.	Renfrew	Horton Tp.
Shene Lime Co., The	Eganville	Eganville.
Standard White Lime Co.	15 Douglas St., Guelph	Guelph.
Toronto Brick Co., Ltd.	897 Bay St., Toronto	Cobocook.
Weppler, Henry	R.R. No. 2, Privaville	Gleng Tp.
MANITOBA—		
Canada Gypsum and Alabastine, Ltd.	P.O. Box 3057, Winnipeg	Winnipeg.
Gillis Quarries, Ltd.	Spruce and Richard Ave., Winnipeg	Garson.
Moosehorn Lime Co., Ltd.	214 Avenue Block, Winnipeg	Moosehorn.
Winnipeg Supply & Fuel Co., Ltd.	214 Avenue Block, Winnipeg	Stonewall.
ALBERTA—		
Loder's Lime Co., Ltd.	Kananaskis	Kananaskis.
Summit Lime Works	Box 273, Lethbridge	14 Miles East of Crow's Nest.
BRITISH COLUMBIA—		
Hedley Gold Mining Co., Ltd. (F. Lyon)	Hedley	Hedley.
Pacific Mills, Ltd.	Standard Bank Bldg., Vancouver	Ocean Falls.
Pacific Lime Co., Ltd.	744 Hastings St. W., Vancouver	Lot 13, Texada Island.
Rosebank Lime Co.	744 Hastings St. W., Vancouver	Esquimalt.

Petroleum Products

(a) Lubricating Oils

QUEBEC—		
Economic Products, Ltd.	6508 Durocher Ave., Outremont, Montreal	Montreal.
Jaffe Co., Ltd.	6525 Waverley St., Montreal	Montreal.
Three in One Oil Co.	130 William St., New York, N.Y.	260-2nd Ave., Ville St. Pierre, Montreal.
Union Products	Conway and Riverside Sts., Montreal	Montreal.
ONTARIO—		
Campbell Grease & Oil Co.	414 Eastern Ave., Toronto	Toronto.
Galena Signal Oil Co.	134 Royce Ave., Toronto 9	Toronto 9.
Ontario Lubricating Co., Ltd.	120 Clutham St., Hamilton	Hamilton.
Peterson Core Oil & Mfg. of Can., Ltd.	704-724 S. Kolman Ave., Chicago, Ill.	Harmony Ave., Hamilton.
Warren Lubricant Co., Ltd.	2004 Dundas St. W., Toronto 4	Toronto 4.

DIRECTORY OF FIRMS IN THE INDUSTRIES CLASSIFIED UNDER MANUFACTURES OF THE NON-METALLIC MINERALS IN CANADA, 1929—Continued

Petroleum Products

Name of Firm	Head Office Address	Location of Plant
SASKATCHEWAN— Price Oil Development & Refining Co.....	401 Nakomis Bldg., Winnipeg, Man.....	Moose Jaw.
ALBERTA— Price Oil Development & Refining Co., Ltd.	401 Nakomis Bldg., Winnipeg, Man.....	Edmonton.
BRITISH COLUMBIA— Price Oil Development & Refining Co., Ltd. Union Oil Co. of Canada, Ltd.....	401 Nakomis Bldg., Winnipeg, Man..... 617 W. 7th St., Los Angeles, California.....	Vancouver. Port Moody.

(b) Petroleum Refining

NOVA SCOTIA— Imperial Oil Refineries, Ltd.....	445 S. Christina St., Sarnia, Ont.....	Imperial.
QUEBEC— Imperial Oil Refineries, Ltd..... McCall Frontenac Oil Co., Ltd.....	445 S. Christina St. Sarnia..... Royal Bank Bldg., Montreal E.....	10510 Notre Dame St., Montreal E. Montreal E.
ONTARIO— British American Oil Refineries, Ltd., The Canadian Oil Refineries, Ltd..... Imperial Oil Refineries, Ltd..... McColl Bros., Ltd.....	1312 Royal Bank Bldg., Toronto..... Toronto..... 445 S. Christina St., Sarnia..... Don Esplanade, Toronto.....	Cherry St., Toronto. Petrolia. Sarnia. Ft. of Cherry St., Toronto.
MANITOBA— North Star Oil Ltd.....	1 Scott Block, Winnipeg.....	St. Boniface.
SASKATCHEWAN— Imperial Oil Refineries, Ltd.....	445 S. Christina St., Sarnia.....	Winnipeg St., Regina.
ALBERTA— Alberta Refining Co., Ltd..... Associated Refineries, Ltd..... Canada Southern Oil and Refining Co., Ltd. Imperial Oil Refineries Ltd..... Maple Leaf Oil and Refining Co..... Regal Oil and Refining Co., Ltd..... Wainwell Refining Co., Ltd.....	Cor. 17th Ave. and 1st St. W. Calgary..... 636 Tegler Bldg., Edmonton..... 410 McLean Block, Calgary..... 445 S. Christina St., Sarnia..... Coutts..... 901 Lancaster Bldg., Calgary..... 114 Union Trust Bldg., Toronto.....	Coutt's. Wainright. Turner Valley. Ogden Road, Calgary. Coutts. Manchester Subdivision, Calgary. Wainwright.
BRITISH COLUMBIA— Imperial Oil Refineries Ltd..... Vancouver Oil Co., Ltd.....	445 S. Christina St., Sarnia..... 555 Burrard St., North Vancouver.....	Loco. 1st Street and Bewicke Ave., N. Vancouver.

Domestic-Clay Products

(a) Brick and Tile

NOVA SCOTIA— Brooks, Geo & Sons..... Brooks, Stephen & Sons..... Miller, Jas. B..... Nova Scotia Clay Works, Ltd..... Nova Scotia Clay Works, Ltd..... Shaw, L. E., Ltd.....	New Glasgow..... Box 359, New Glasgow..... Elmsdale..... Box 140, Halifax..... Box 140, Halifax..... Avonport.....	Plymouth. New Glasgow. Barney's Brook. Elmsdale. Pugwash. Avonport.
NEW BRUNSWICK— Ryan, M. & Son, Ltd..... Shaw, L. E., Ltd.....	Woodstock Rd., Fredericton..... Chipman.....	Woodstock Rd., Fredericton. Chipman.

DIRECTORY OF FIRMS IN THE INDUSTRIES CLASSIFIED UNDER MANUFACTURES OF THE NON-METALLIC MINERALS IN CANADA, 1929—Continued

Domestic-Clay Products—Continued

Name of Firm	Head Office Address	Location of Plant
QUEBEC—		
Ascot Tile & Brick Co., Ltd.	Ascot Corner	Ascot Corner.
Bell, W. and D.	1286 St. Valier St., Quebec	Little River Road.
Brique Frontenne, Limitée	140 rue St. Jean, Quebec	Beaufort Est.
Brique Citadelle, Limitée	14-16 rue St. Joseph, Quebec	L'Islet Station.
Chicoutimi Brick, Ltd.	Cor Cartier and Montcalm Sts., Chicoutimi.	St. Paul Road, Chicoutimi.
Citadel Brick, Ltd.	14 St. Joseph St., Quebec	Boischatel.
Cooksville Co., Ltd.	320 Canada Cement Bldg., Montreal	Delton
Eastern Townships Brick & Tile Co., Ltd.	East Angus	East Angus.
The		
Hodgins, David T.	Shawville	Box 114, Shawville.
La Brique Lotbinière, Ltée	Deschailions	Deschailions.
La Cie de Brique de L'Islet, Ltée	L'Islet	L'Islet.
Lennoxville Brick Tile Co., The	Lennoxville	Lennoxville.
L'Industrielle de St. Tite, Ltée	Ville St. Tite	St. Tite.
Longpré, Emile	St. Félix de Valois	St. Félix de Valois.
National Brick Co. of Laprairie, Ltd.	Canada Cement Bldg., Cathcart St., Montreal	Delton.
National Brick Co. of Laprairie, Ltd.	Canada Cement Bldg., Cathcart St., Montreal	Laprairie.
St. Lawrence Brick Co., Ltd.	29 rue St. Jacques ouest, Montreal	Laprairie.
Scott Brick Co., Ltd.	Scott Junction	St. Maxime, Dorchester.
ONTARIO—		
Baird, H. C. & Son	Parkhill	Parkhill.
Barnhardt, W. H.	Stratford	Stratford.
Bathelor, Samuel	Proton Station, R.R. 3	Proton Station.
Booth Brick & Lumber Co	Box 61, New Toronto	Etobicoke Tp.
Brampton Pressed Brick Co., Ltd.	Brampton	Brampton.
Bronwell, B. & Son	Kingsville	(Near) Kingsville.
Butwell, Richard	107 Lake Shore Rd., Humber Bay	Etobicoke.
Caledon Shale-Brick, Ltd.	1167 Bay St., Toronto	Forks of Credit, Caledon Tp.
Campbell, N. F. & Sons	West Lorne	West Lorne.
Canadian Fire Clay Products, Ltd.	60½ Adelaide St. East, Toronto	Horner Ave., New Toronto.
Canadian Pressed Brick Co., Ltd.	195 Ottawa St. S., Hamilton	Kendalworth Ave., S., Hamilton
Chapman, J.	No. 3, Napanee	North Fredericksburg.
Chapman, Jos	164 Dawes Rd., Toronto	East York Tp.
Cooksville Co., Ltd., The	120 St. James St., Montreal, Que.	Cooksville.
Cooper, W. H.	608-10 Lister Block, Hamilton	Paradise Rd., Hamilton.
Cornhill, James & Sons, Ltd.	Grand Ave. E., Chatham	Chatham.
Cutin, Frank	R. R. 4, Lindsay	Lindsay.
Curtis Bros	Box 809, Peterborough	Peterborough.
Dutton, Mark	Dresden, R. R. No. 3	Dawn Tp.
De Laplante, J. E. & Co.	Dawos Road, Coleman P.O., East York	Dawos Road, East York.
Deller Bros	R. R. No. 2, Norwich	North Norwich.
Deller, Albert & Son	Brownsville	Brownsville.
Deller, Wm. H.	Thorndale, R. R. No. 4	West Nissouri.
Denison Tile Co., Ltd.	24 Wyandotte St. E., Windsor	Tillbury East Tp.
Denison Tile Co., Ltd.	24 Wyandotte St. E., Windsor	Fletcher.
Denison Tile Co., Ltd.	24 Wyandotte St. E., Windsor	Rochester Tp.
Dechart Brick, Tile & Terra-Cotta-Works	Arnprior	Arnprior.
Dolan, John	R. R. No. 2, Watford	Warwick.
Donaldson, Thomas George	Greenock No. 1	Culrose Tp.
Donaldson, S. C. & Son	R. R. No. 4, Harriston	Minto.
Don Valley Brick Works, Ltd., The	324 Federal Bldg., Toronto	York Tp.
Douglas & Douglas	Wilkesport	Wilkesport.
Elliot, Charles	Bluevale	Bluevale.
Elliot, James, Jr.	519 Wellington St. W., Sault Ste. Marie	Korah Tp.
Elliot, Wm.	Glenannan, R.R. No. 1	Glenannan.
Frid Bros	Dundas Rd. and Macklin St., Hamilton	Hamilton.
Gaunage, C. R.	R. R. No. 2, Dresden	Camden Tp.
Gardiner, Wm.	Box 83, Blenheim	Harwick Tp.
Godfrey, Thomas & Co.	Carleton Place	Beekwith Tp.
Grimsby Brick & Tile, Ltd.	Grimsby	Grimsby.
Hallat, H. & Son	Comber	Comber.
Hallat, Wm.	4 Richards Block, Chatham	Merlin.
Halton Brick Co., Ltd.	28 Symes Rd., Toronto	Equeasing Tp.
Hamilton Pressed Brick Co., Ltd.	Kensington Ave. S., Hamilton	Hamilton.
Hill, A. W.	R. R. 1, Coatsworth	East Tilbury Tp.
Hill, Aaron	Arthur Ave., Box 217, Essex	Essex.
Hillman, Wm.	Staples	Staples.
Hitch, Thos.	First Ave., St. Thomas	St. Thomas.
Hitch, D. A.	Erie St., North Ridgetown.	Ridgetown.
Hodder, Mrs. J. H. & Sons	Dutton	Dutton.
Houston Co., Ltd., The	Box 130, Belleville	Tweed.
Howlett, Fred W. & Sons, Ltd.	Box 3, Petrolia	Sydenham Ave., Brigden.
Huntsville Brick Works	Huntsville	Huntsville.
Interprovincial Brick Co., Ltd.	26 Queen St. E., Toronto	Nassagaweya Tp.

DIRECTORY OF FIRMS IN THE INDUSTRIES CLASSIFIED UNDER MANUFACTURES OF THE NON-METALLIC MINERALS IN CANADA, 1929—Continued

Domestic-Clay Products—Continued

Name of Firm	Head Office Address	Location of Plant
ONTARIO—Continued.		
Interprovincial Brick Co., Ltd.	26 Queen St. E., Toronto	Chinguacousy.
Jackson, W. B.	290 Rawdon St., Brantford.	Brantford.
Jamieson Lime Co.	Renfrew	Renfrew.
Janes, D. A.	Mt. Brydges	Carleton Tp.
Jasperon Brick & Tile Co.	Box 586, Kingsville	Coatsworth.
Jervis, W. J.	R. R. 3, Dorchester	S. Dorchester.
Johnson, James, Sr.	R. R. 3, Pembroke	Stafford Tp.
Koebel Bros.	Box 54, St. Clements	Wellesley Tp.
Lindsay, Earl	R. R. No. 2, Wallaceburg	Wallaceburg.
Martin, Thos. E.	Thamesville	Howard Tp.
McComb, Chester	R. R. No. 2, London	Elginfield.
McCormick Bros.	R. R. No. 5, Watford	Watwick Tp.
McEachern, N. & Son		
McFarlane, W. J.	Box 143, Forest	Forest.
McFarren, F. B. Ltd. (Streetsville Brick Co.)	18 Toronto St., Toronto 2	Streetsville.
McMahon, Robert	R. R. No. 2, Kerwood	Metcalfe Tp.
Middleton, Chas.	Wyoming	Plympton Tp.
Milton Brick, Ltd.	1158 Bay St., Toronto 5	Streetsville.
Milton Brick, Ltd.	1158 Bay St., Toronto 5	Milton.
Minor, Manly F.	Kingsville	Kingsville.
Moulton, John	Holyrood No. 3	Granock Tp.
National Sewer Pipe Co., Ltd.	Aldershot	Aldershot.
New Liskeard Brick Works	Box 74, New Liskeard	New Liskeard.
Ollman Bros.	111 Macklin St., Hamilton	Hamilton.
Ontario Brick & Tile Plant	Provincial Secretary's Dept.	Mimico.
O'Reilly, T. E.	320 Bay St., Ottawa	Hog's Back, Prescott Highway.
Ottawa Brick & Terra-Cotta Co., Ltd.	Billing's Bridge	Gloucester Tp.
Ott Brick & Tile Mfg. Co., Ltd.	33 King St. E., Kitchener	Herman St., Kitchener.
Owen Sound Brick Co., Ltd.	928 Second Ave. E., Owen Sound	6th St. East., Owen Sound.
Parks, H. W.	R. R. No. 2, Dresden	Camden Tp.
Paxton, Fred R.	70 Herrick Ave., St. Catharines	St. Catharines.
Pembroke Brick Co., The	Pembroke	Pembroke.
Phinn, Geo. A.	238 Briscoe Ave., London	London.
Phinn Brick Co.	St. James Park, P. O., London	London.
Phippen & Field	Box 11, Coleman, P. 11, Toronto	Dawes Rd., East York Tp.
Piggot, Geo. & Co.	72 Guestville Ave., Toronto 9	Toronto.
Piper, Murphy & Piper	509 Victoria Ave., Fort William	Montreal St., Fort William.
Port Rowan Brick and Tile Co.	Port Rowan	Port Rowan.
Price & Cumming	Salisbury Ave., Humber Bay	Humber Bay.
Price & Smith	458 Greenwood Ave., Toronto	Toronto.
Richardson, J. & Son	Kerwood	Kerwood.
Russell Brick Co.	40 Blake St., Toronto	Toronto.
Sherman Clay Products, Ltd.	Kingsville	Rochester Tp.
Snelgrove, A.	Beaverton	Thorah Tp.
Sproat, Wm. M.	R. R. No. 4, Seaforth	Tuckersmith. Tp.
Standard Brick Co., Ltd., The	500 Greenwood Ave., Toronto	Toronto.
Stroh, M. C.	Conestogo	Woolwich Tp.
Steele, Edwin	Vankleek Hill	Vankleek Hill.
Sun Brick & Tile Co., Ltd., The	1104 Bay St., Toronto	Don Valley, Todmorden.
Superior Brick & Tile Co., Ltd.	426 Victoria Ave., Fort William	Paipouge Tp.
Sutherland, W. A.	Box 293, Parkhill	Parkhill.
Telford, John C.	Southwold Station	Southwold Station.
Tope, Richard, Estate	945 King St. W., Hamilton	Hamilton.
Toronto Brick Co., Ltd.	897 Bay St., Toronto	Milton.
Toronto Brick Co., Ltd.	897 Bay St., Toronto	395 Greenwood Ave., Toronto.
Toronto Brick Co., Ltd.	897 Bay St., Toronto	York Tp.
Voakes, D. & Son	Box 20, Ruscomb	Ruscomb.
Wingstaff, A. H., Brick Works	348 Greenwood Ave., Toronto	Toronto.
Wingstaff, Charles	R. R. No. 4, Lindsay	Lindsay St. South, Lindsay.
White, John E.	Forrester's Falls	Ross Tp.
Wallace, R. & Son	34 Main St. W., North Bay	Widfield Tp.
Ward, J. C.	Alviston	Brooke, Village of Alviston.
Watson, W. S.	Therford	Bosunquill Tp.
Wein, Aaron	Crediton	Stephen Tp.
Winch, Stuart A.	P. O. Box 220, Paisley	Blinc Elderstie.
Windsor Brick & Tile Co.	Windsor	Division Rd., 4 miles W. of Kingsville.
Wright, Geo. & Sons	Box 56, Comber	Tillbury W. Tp.
MANITOBA—		
Aslip Brick & Tile and Lumber Co., Ltd.	537 Portage Ave., Winnipeg	Winnipeg.
Marion, J. A. (Marion Brick Co.)	P. O. Box 30, St. Boniface	St. Boniface.
National Clay Products	915 Somerset Block, Winnipeg	Edraus.
Roliance Brick Co.	Whitemouth	Whitemouth.
Snyder, M. & Sons	Gilbert Plains	Gilbert Plains.
Snyder, A. & Co., Ltd.	Portage la Prairie	Portage la Prairie.

DIRECTORY OF FIRMS IN THE INDUSTRIES CLASSIFIED UNDER MANUFACTURES OF THE NON-METALLIC MINERALS IN CANADA, 1929—Continued

Domestic-Clay Products—Continued

Name of Firm	Head Office Address	Location of Plant
SASKATCHEWAN—		
Bruno Clay Works, Ltd.	Bruno	3 miles West of Bruno.
Dominion Fire Brick & Clay Products, Ltd.	106-7 Kern Bldg., Moose Jaw	Claybank.
International Clay Products, Ltd.	Box 399, Estevan	Estevan and Prince Albert.
Shand Coal & Brick Co.	Shand	Shand.
ALBERTA—		
Acme Brick Co., Ltd., The	125 Albert Block, Edmonton	Cannell Siding.
Crandell, E. H., Pressed Brick & Sandstone Co.	607 McLean Block, Calgary	Brickburn.
Johansen, Knut	Box 1722, Grande Prairie	Grande Prairie.
Little, J. B. & Sons, Ltd.	9120-100th Ave., Edmonton	Riverdale.
Medicine Hat Brick & Tile Co., Ltd.	Medicine Hat	Medicine Hat.
Redcliff Brick & Coal Co., Ltd.	Redcliff	Redcliff.
Redcliff Premier Brick Co., Ltd.	Redcliff	Redcliff.
Redcliff Pressed Brick Co., Ltd.	Redcliff	Redcliff.
BRITISH COLUMBIA—		
Baker Brick & Tile Co., Ltd.	Cor. Douglas St. and Tolmie Ave., Victoria	Victoria.
Clayburn Co., Ltd.	302-850 West Hastings St., Vancouver	Kilgard.
Clayburn Co., Ltd.	302-850 West Hastings St., Vancouver	Clayburn.
Gabriola Shale Products, Ltd.	Moody Block, Victoria	Gabriola Island.
Harg, Wm. & Son	Box 166, Kelowna	Ethel St. N., Kelowna.
Pacific Brick, Ltd.	801 Stock Exchange Bldg., Vancouver	New Westminster.
Port Haney Brick Co., Ltd., The	846 Howe St., Vancouver	Port Haney.
Smithers Brick Yard	Smithers	Omineca, Smithers.
Vancouver Brick & Tile Co.	2521 Maple St., Vancouver	Sullivan.
Victoria Brick Co., Ltd., The	3001 Douglas St., Victoria	Victoria.

(b) Clay Sewer Pipe

NOVA SCOTIA—		
Standard Clay Products, Ltd.	St. John's, Que.	New Glasgow.
QUEBEC—		
Standard Clay Products, Ltd.	St. John's	St. John's.
ONTARIO—		
National Sewer Pipe Co., Ltd.	Aldershot	Swansea.
National Sewer Pipe Co., Ltd.	Aldershot	Wentworth St., N. Hamilton.
National Sewer Pipe Co., Ltd.	Aldershot	Minnico.
ALBERTA—		
Alberta Clay Products Co., Ltd.	Box 672, Medicine Hat	Medicine Hat.
BRITISH COLUMBIA—		
Clayburn Co., Ltd.	302-850 West Hastings St., Vancouver	Kilgard.

(c) Firebrick, Fireclay and Fireclay Products

NOVA SCOTIA—		
Dominion Iron & Steel Co., Ltd.	Sydney	Sydney. (Shubenacadie.)
NEW BRUNSWICK—		
Foley Pottery, Ltd.	Saint John	Saint John.
QUEBEC—		
Montreal Terra Cotta Co., Ltd.	"Edifice Drummond", Peel and Ste. Catherine Sts., Montreal	Lakeside.
ONTARIO—		
Algoma Steel Corp., Ltd.	Sault Ste. Marie	Sault Ste. Marie.
National Fire Proofing Co. of Canada, Ltd.	601 Dominion Bank Bldg., Toronto	Aldershot.
SASKATCHEWAN—		
Dominion Fire Brick & Clay Products	106-7 Kern Bldg., Moose Jaw	Claybank.

DIRECTORY OF FIRMS IN THE INDUSTRIES CLASSIFIED UNDER MANUFACTURES OF THE NON-METALLIC MINERALS IN CANADA, 1929—Continued

Domestic-Clay Products—Concluded

Name of Firm	Head Office Address	Location of Plant
(c) Firebrick, Fireclay, and Fireclay Products—Concluded		
ALBERTA— Alberta Clay Products, Ltd.	Box 672, Medicine Hat	Medicine Hat.
BRITISH COLUMBIA— British Columbia Refractories, Ltd. Clayburn Co., Ltd.	Below Georgia Viaduct, Vancouver 302-850 West Hastings St., Vancouver	Vancouver. Clayburn.

(d) Stoneware and Pottery

NEW BRUNSWICK— Foley Pottery, Ltd.	Saint John	Saint John.
ONTARIO— Davis, John & Son, Ltd. Foster Pottery Co.	601 Merton St., Toronto Main St. W., Hamilton	Toronto. Hamilton.
ALBERTA— Medalto Potteries, Ltd.	Box 120, Medicine Hat	Medicine Hat.

Products from Imported Clay

ONTARIO— Bell Firebrick Co. Canadian General Electric Co., Ltd. Canadian Ohio Brass Co. Canadian Porcelain, Ltd. Frontenac Floor and Wall Tile Co., Ltd. National Refractories, Ltd. Ontario Refractories Smith Potteries Smith and Stone Turner, C. B. & Co., Reg'd	1347 Dufferin St., Toronto 212 King St. W., Toronto Mansfield, Ohio, U.S.A. Box 729, Hamilton Box 178, Kingston 997 Aqueeduct St., Montreal 321 Albany Ave., Toronto 399 Ambroise St., Montreal Oshawa Georgetown 894 Bathurst St., Toronto	Toronto. Townsend St., Peterborough Niagara Falls Paradise Rd., Hamilton. Kingston Junction. 321 Albany Ave., Toronto. Port Robinson, Ont. Bridgeburg. 353 King St. W., Oshawa. Georgetown. 261 Wellington St. W., Toronto.
QUEBEC— Canada Fire Brick Co., Ltd. Canadian Potteries, Ltd. Dominion Sanitary Pottery Co. Standard Clay Products, Ltd.	399 Ambroise St., Montreal St. John's 347 St. James St., St. John's St. John's	Montreal. 140 Longueuil St., St. John's. St. John's. St. John's.

Salt

NOVA SCOTIA— Malagash Salt Co., Ltd.	204 Provost St., New Glasgow	Malagash, Cumberland Co.
ONTARIO— Brunner-Mond, Canada, Ltd. Canadian Industries, Ltd. (Canadian Salt Co.) Dominion Salt Co., Ltd., The Goderich Salt Co., Ltd. Kincardine Salt Co., Ltd. Western Canada Flour Mills Co., Ltd. Western Salt Co., Ltd.	501 Dominion Bank Bldg., Toronto Post Office Box, 1260 Montreal Sarnia Goderich Kincardine 287 MacPherson Ave., Toronto Toronto	Amherstburg. Riverfront, Sandwich. Sarnia. Goderich. Kincardine. Goderich. Courtright.

DIRECTORY OF FIRMS IN THE INDUSTRIES CLASSIFIED UNDER MANUFACTURES OF THE NON-METALLIC MINERALS IN CANADA, 1929—Continued

Sand-Lime Brick

Name of Firm	Head Office Address	Location of Plant
QUEBEC—		
Canadian Carborundum Co., Ltd., The	Box 337, Niagara Falls, N. Y.	St. Canut.
Standard Lime Products	Joliette	1595 St. Gregory St., Montreal.
ONTARIO—		
Canada Sand Lime Pressed Brick Co., The	28 Symes Rd., Toronto 9, W.	Toronto 9, W.
Harbour Brick Co., Ltd., The	Toronto	Fleet St. at Bathurst St., Toronto.
Hinde Bros.	134 Northlands Ave., Mount Dennis.	Mount Dennis.
Leaside Brick & Sand Co.	Leaside	Leaside.
River Sand Brick Co., Ltd.	30-34 Sandwich St., East Windsor.	East Windsor.
Shepard, J. G. & Co.	Wellington	Wellington.
Toronto Brick Co., Ltd.	897 Bay St., Toronto.	Victoria Park Ave., Toronto.
Willcox Lake Brick Co., Ltd.	Richmond Hill	Richmond Hill.
York Sandstone Brick Co., Ltd.	447 Victoria Park Ave., Toronto 13.	Toronto E.
MANITOBA—		
Winnipeg Brick Co., Ltd.	320 Osborne St., Winnipeg	Winnipeg.
Woods, D. D. & Sons, Ltd.	1038 Arlington St., Winnipeg	1034 Arlington St., Winnipeg.

Monumental and Ornamental Stone

PRINCE EDWARD ISLAND—		
Beck, Vere & Son	Morris St., Montague	Montague.
Chandler & Bell	160 Kent St., Charlottetown	Charlottetown.
NOVA SCOTIA—		
Colonial Granite Co., Ltd.	New Glasgow	New Glasgow.
Dauphine, A. T.	Shelburne	Shelburne.
Goudey, Robt. H.	Horton St., Yarmouth	Yarmouth.
Hoyt, C. M.	Middleton	Middleton.
Kelly, George J.	Bridgewater	Bridgewater.
Keltie, Robt. & Son	687 Barrington, Halifax	Halifax.
Maritime Monument Works	173 Kempt Rd., Halifax	Halifax.
Purvis, James	Windsor	Windsor.
Ruttler, Albert A.	Kentville	Kentville.
Steele, John D. and Sons	Commercial St., North Sydney	North Sydney.
Tingley Granite Works	Amherst	Amherst.
Truro Granite and Marble Works	907 Prince St., Truro	Truro.
NEW BRUNSWICK—		
Kane, S. & Co., Ltd.	Westmoreland Rd., St. John	St. John.
Kinsella, P. & Son	Kanes Corner, St. John	St. John.
Lawlor & Williams	Chatham	Chatham.
Meating Epps Co., Ltd.	St. George	St. George.
Milne Cotts & Co., Ltd.	St. George	St. George.
Moore, John & Sons	130 Carleton, Fredericton	Fredericton.
Nelson Bros.	Lower Cape	Lower Cape.
Pelletier, Alfred B.	St. Basile	St. Basile.
St. Stephen Granite Works	Queen St., St. Stephen	St. Stephen.
Sherrard, Thos. F. and Son	Moncton	135 Victoria St., Moncton.
Shields, J. A.	Water St., St. Stephen	St. Stephen.
QUEBEC—		
Anglin-Norcross, Ltd.	2063 Victoria St., Montreal	Iberville.
Beaubin, Elzéar	Ste. Hélène de Kamouraska	Ste. Hélène de Kamouraska.
Beebe Monumental Co.	Beebe	Beebe.
Bradford, John	10 Drummond St., Granby	Granby.
Braut, J.	3 Champlain St., Valleyfield	Valleyfield.
Brodies, Ltd.	1070 Bleury St., Montreal	Iberville.
Brunet, A.	Ornstown	Ornstown.
Brunet, J., Ltd.	675 Chemin de Côte des Neiges, Montreal	Montreal.
Chabot, Mde Vve Alfred	Scotts Jct., Beauce	Beauce.
Chaussé, Edouard	3 rue Brodeur, St. Hyacinthe	St. Hyacinthe.
Côté, Victor & Frère	187-1st Ave., Quebec	Quebec.
Daleggio, François	726 Chemin Côte-des-Neiges, Montreal	Montreal.
Desautels, Nap.	St. Hyacinthe	St. Hyacinthe.
Delvaide & Goffin	Chicoutimi	16 rue du Havre, Chicoutimi.
Desroches, Charles	162 rue Delannaudière, Joliette	Joliette.
Ducharme, Z.	Victoriaville	43 rue Notre Dame, Victoriaville.
Duhamel, L. P.	2221 rue Chambly, Montreal	Montreal.
Dussault, Théo. & Cie	Mount Laurin	Mount Laurin.
Gignac, Azarius	St. Alban	St. Alban.

DIRECTORY OF FIRMS IN THE INDUSTRIES CLASSIFIED UNDER MANUFACTURES OF THE NON-METALLIC MINERALS IN CANADA, 1929—Continued

Monumental and Ornamental Stone—Continued

Name of Firm	Head Office Address	Location of Plant
QUEBEC—Concluded.		
Gingras, Roch	Ste. Foy	Ste. Foy
Gosselin et Fils	Beauceville Est	Beauceville Est.
Hansford, Frank (successor to Hambly, R.)	14 Baldwin St., Coaticook	Coaticook.
Hawkins, F.	1116 Bleury St., Montreal	Montreal.
Hazelton, Wm.	Beche	Beche.
Herbert, O.	Ville Marie	Ville Marie.
Hill, Clayton J.	Richmond	Richmond.
Jacques, Olivier	18 rue Shaw, Lévis	Lévis
Jean, Xavier	St. Fabien	St. Fabien.
Labrecque, Ernest	1345 St. Valier St., Quebec	Quebec.
La Cie de Marbre et de Pierre de Québec	117 Côte d'Abraham, Quebec	Quebec.
Lefebvre, J. A.	78-3rd St., Limoilou	Limoilou.
L'Heureux, J. A.	Ste. Geneviève de Batiscan	Ste. Geneviève de Batiscan.
Les Tailleurs de Granite	Roberval	Roberval.
Paquin, Laurent	185 rue Lejeune, Trois-Rivières	Trois-Rivières.
Perusse, Alcide	St. Marc des Carrières	St. Marc des Carrières.
Polycurpe, Moreau	Roberval	Roberval.
Poulin, P. A.	222 Champlain St., St. John's	St. John's.
Roberge, T.	69 Boulevard Langelier	Quebec.
Robertson, Fred	Beche Jet	Beche Jet.
Rochon, T. & Fils	4577 St. Lawrence Blvd., Montreal	Montreal.
Rolland, J. A.	1285 rue St. Valier, Quebec	Quebec.
Savard, J. Bte	Ste. Anne de la Pérade	Ste. Anne de la Pérade.
Shawville Marble and Granite Works	Shawville	Main St., Shawville.
Smith Marble Construction Co.	207 Vin Horn Ave., Montreal	Montreal.
Smith Bros. Memorial Art Co.	2116 Bleury St., Montreal	Montreal.
Smith, George	Beche	Beche.
Sutton Marble & Granite Co.	Sutton	Sutton.
Thompson, T. C.	270 Wellington St. S., Sherbrooke	Sherbrooke.
Tremblay, Geo.	113-9th Ave., Iberville	Iberville.
Wingender, G. E.	St. Guillaume	St. Guillaume.
ONTARIO—		
Adams, Geo.	561-563 Dundas St., Woodstock	Woodstock.
Allan Bros.	11 Cambridge St. N., Lindsay	Lindsay.
Allan, Wm. C.	Queen St. W., Brampton	Brampton.
Alpaugh, J. & Sons	St. Andrew St., Fergus	Fergus.
Ambroise, J. L. & Son	58 Alma St., Guelph	Guelph.
Austin, P. O.	Box 174, Simcoe	Colborne and Young, Simcoe.
Bayne, Daniel	Kenytville	Kenytville.
Bawden, D. W.	782-2nd Ave. E., Owen Sound	Owen Sound.
Beal, J. R. & Son	156 Pembroke St., Pembroke	Pembroke.
Benzie, W. E.	949 York St., Hamilton	Hamilton.
Bounsaill, A. H.	Division St., Bowmanville	Bowmanville.
Boyer, H. & Son	Box 28, Bracebridge	Bracebridge.
Brantford Monument Works	Cor. Gray and Market Sts., Brantford	Brantford.
Braun, Casper	16 St. Andrew St., Kitchener	Kitchener.
Brockville Cemetery Memorial Works	No. 3, Brockville	1 1/2 miles west of Brockville.
Brown, Robert	376 Sparks St., Ottawa	381 Queen St., Ottawa.
Brown, W. H.	R. R. 4, St. Catharines	St. Catharines.
Chapman, Wm. E.	Main St., Seaforth	Seaforth.
Charbonneau, A.	95 Elgin St., Arnprior	Arnprior.
Central Canada Stone Co., Ltd.	278 Booth Ave., Toronto	Sarnia.
Cocker, John	39 Market Sq., Chatham	Chatham.
Colby, C. W.	235 King St., Chatham	Chatham.
Collingwood Granite & Marble Works	Cor. Simcoe & St. Paul Sts., Collingwood	Collingwood.
Corbett, A. J.	Main St., Mount Forest	Mount Forest.
Corley, A. C.	Main St., Brighton	Brighton.
Coughlin Monumental Works	216 Hunter St., Peterborough	Peterborough.
Coughlin, Michael	303 Erskine Ave., Toronto	Toronto.
Creber, Son & Co.	1333 St. Clair Ave. W., Toronto 10	Toronto.
Cresswell, W. H.	187 Kent St., Lindsay	Lindsay.
Cunningham & Pryde	Main St., Exeter	Exter.
Davison, Geo. J.	Paisley	Paisley.
Delanty, Patrick E. & Sons	King St., Cobourg	Cobourg.
Dillon, Joseph	Stone St., Gananoque	Gananoque.
Down & Panther	20 Elgin St., St. Thomas	St. Thomas.
Doyle, Jas. E.	269-8th St. E., Box 952, Owen Sound	Owen Sound.
Edwards, W. R.	1283 Dundas St. W., Toronto	W. Toronto.
Excelsior Granite & Marble Works	123 Pitt St. E., Windsor	Windsor.
Fallon Bros.	393 Princess St., Kingston	Kingston.
Farnworth, G. H., Marble & Granite Works	Elora Rd., opp. Woodland cemetery, Guelph	Guelph.
Frauts, Geo. H. & Co.	Renfrew	Renfrew.
Gladstone & Ross	386 Brock St. E., Fort William	Fort William.
George, John, J.	Port Elgin	Port Elgin.
Gilson, John F.	Box 395, Winchester	Winchester.
Gilson, J. G. Marble & Granite Co., Ltd	547 Parliament St., Toronto	Toronto.
Gould, A. J. (Beaver Marble Works)	Box 274, Uxbridge	Brock St. W., Uxbridge.
Gullet, R. M.	1650 Yonge St., Toronto 5	Toronto 5.
Hayes, Bros., Co.	Lorne St., Sudbury	Sudbury.

DIRECTORY OF FIRMS IN THE INDUSTRIES CLASSIFIED UNDER MANUFACTURES OF THE NON-METALLIC MINERALS IN CANADA, 1929—Continued

Monumental and Ornamental Stone—Continued

Name of Firm	Head Office Address	Location of Plant
ONTARIO—Concluded.		
Herbert, T. H.	995 Barton St. E., Hamilton	Hamilton.
Hilberd, Arthur	195 Melita St., Toronto	Toronto.
Hoidge Marble Co., Ltd.	34 Price St., Toronto	Toronto.
Hunter Granite Works	Argyle St., Simcoe	Simcoe.
Hurst, S. H.	C. N. R. Florence St., Toronto 3	Florence St.
Hutchinson & Peckham	Talbot St., Aylmer	Aylmer
Isaac, Jas & Son	30 Dupont St., Toronto	Toronto.
Jackson, J. H.	83 Woodlawn Ave., Toronto	Toronto.
Johnston & Cranston	1849 Yonge St., Toronto	Toronto.
Jones, Thomas C.	1849 Yonge St., Toronto	Listowel.
Jones, W. A.	Main St. W., Picton	Picton.
Jones & Stevens	277 Rideau St., Ottawa	Ottawa.
Kilvington Bros	1357 St. Clair Ave. W., Toronto	Toronto.
Lake Superior Granite & Marble Works	111 Wellington St. W., Sault Ste. Marie	Sault Ste. Marie.
Leamington Granite & Marble Works	Eric St. N., Leamington	Leamington.
Lippert, F. & Son	Durham St., Walkerton	Walkerton.
Lloyd, T.	Main St., Prescott	Prescott.
London Marble & Granite Co.	493 Richmond St., London	London.
Low, John	330 King St., Midland	Midland.
Luesby, Geo., W.	Main St., New Market	New Market.
Marini Monumental Art Co.	2168 Dundas W., Toronto	Toronto.
Martel & Sons	Main St., Vankleek Hill	Vankleek Hill.
McCallum Granite Co., Ltd.	395-397 Princess St., Kingston	Kingston.
McIntosh Granite Co., Ltd. of Toronto	1623 Yonge St., Toronto 5	Toronto 5.
McKay, Alexander Co., Ltd.	2 Browns Ave., Toronto	Toronto, Janet Ave.
McMillan Granite Co., Ltd.	105 Ontario St., Sarnia	Sarnia.
Memorial Co. of Toronto	2299 Bloor St. W., Toronto	Toronto.
Middleton Marble & Granite Co., Ltd.	122 Main St. E., Hamilton	Hamilton.
Moore Bros.	404 Front St., Belleville	Belleville.
Morris Bros., Ltd.	156 Victoria St., Sarnia	Sarnia.
Moss, Jas. O. (North York Marble & Granite Works)	Huron St., New Market	New Market.
Napanee Marble & Granite Works	Dundas St., Napanee	Napanee
Niagara Cut Stone Co., Ltd.	Huttrey St., Niagara Falls	Niagara Falls.
Nobbs, A. and E.	Cor. William St. and C.P.R.	London.
North Bay Marble Works	Klock Ave., North Bay	North Bay.
Oakley, Geo. & Son, Ltd.	278 Booth Ave., Toronto	355 Logan Ave., Toronto.
Ontario Marble Co., Ltd.	Maria St., Peterborough	Peterborough.
Ottawa Cut Stone Co.	7-9 Isabella St., Ottawa	Ottawa.
Pollard & Miller	715 Queen St. E., Sault Ste. Marie	Sault Ste. Marie.
Pollock & Ingham	153 Main St., Galt	Galt.
Porterfield & Colquhoun	Mitchell	Mitchell.
Port Hope Monumental Works	Ontario St., Port Hope	Port Hope.
Rhodes Memorial, Ltd.	Box 61, Cayuga	Cayuga.
Richardson, Robt. Harvey	Victoria St., Hanover	Hanover.
Ritchie Cut Stone Co., Ltd.	159 Bay St., Toronto	191 Grant Ave., Hamilton.
Ritchie Cut Stone Co., Ltd.	159 Bay St., Toronto	New Toronto St., New Toronto.
Ritchie, Jas.	51 Catherine St., Ottawa	Ottawa.
Rutledge, S. H.	Orangeville	Orangeville.
Rueh, T. J. & Son	Wellington St., St. Mary's	St. Mary's.
Sanderson, R. J. Marble Co.	33 Peter St., Orillia	Orillia.
Scott Bros.	36-38 McGee St., Toronto	Toronto.
Select Cut Stone Co., Ltd.	Windsor	Windsor.
Sherwood, J. H.	551 Bethune St., Peterborough	Peterborough.
Simcoe Marble Works	20 Owen St., Barrie	Barrie.
Skelton, E. J. & Son	Durlain St., Walkerton	Walkerton
Smith, R. B.	Merrickville	Merrickville.
Smith Monument Co.	357 Weston Rd., Toronto	Toronto.
Smyth & Son (Frank W. Smyth)	344 Wellington St., London	London.
Sneider, L. R.	106 Main E., Humberstone	Humberstone.
Standard Stone Co., Ltd.	1440 Howard Ave., Windsor	Windsor.
Arthur Stead	Fred St., Hamilton	148 Central Ave., Hamilton.
Steiner, J.	409 Dundas St. W., Toronto	Toronto.
Stubbs, C. C.	Morrisburg at Furrin's Point	Morrisburg.
Thake, H. W.	Box 151, Cor. George and Spring St., Westport	Westport.
Thomson Monument Co., Ltd.	862 Dupont St., Toronto	Toronto.
Trenton Marble & Granite Works	Front and Ford Sts., Trenton	Trenton.
Vokes, John & Son, Ltd.	884 Dupont St., Toronto	Toronto.
Wardell Monumental Works	2694 Dundas St. W., Toronto	Toronto.
Webb, George	448 Sumner Hill Ave., Toronto	Toronto.
Whitby Granite Co.	Whitby	Whitby.
Wildcombe, Benjamin	5 Bond St., St. Catharines	St. Catharines.
Wileman, L. C. & Son	Stauffville	Stauffville.
Wilcox Granite Co.	Opp. Woodland Cemetery, Hamilton	Hamilton.
Williamson, W. A. & Sons	William St., Gananoque	Gananoque.
Willescroft, B. A.	868-3rd Ave. E., Owen Sound	Owen Sound.

DIRECTORY OF FIRMS IN THE INDUSTRIES CLASSIFIED UNDER MANUFACTURES OF THE NON-METALLIC MINERALS IN CANADA, 1929—Continued

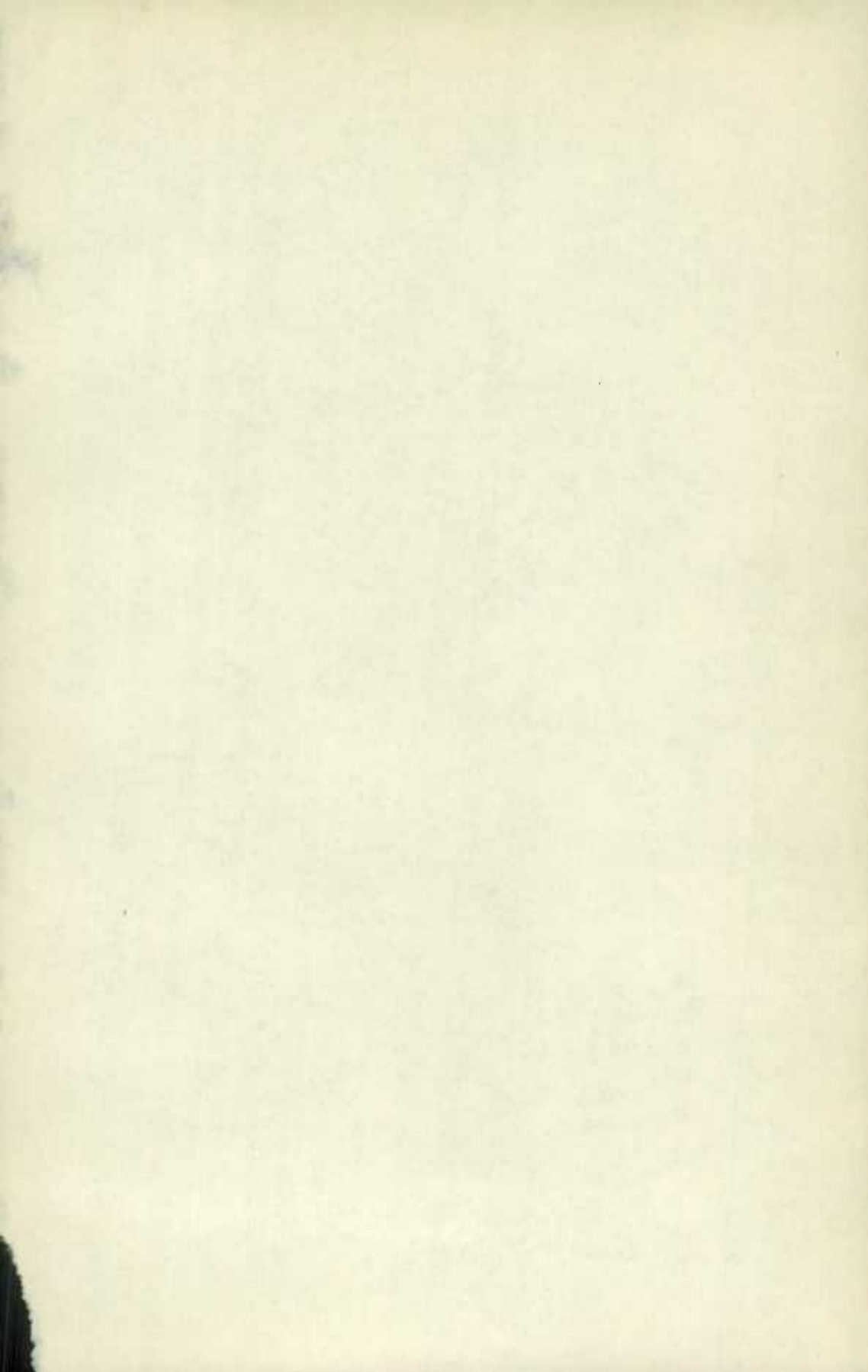
Monumental and Ornamental Stone—Concluded

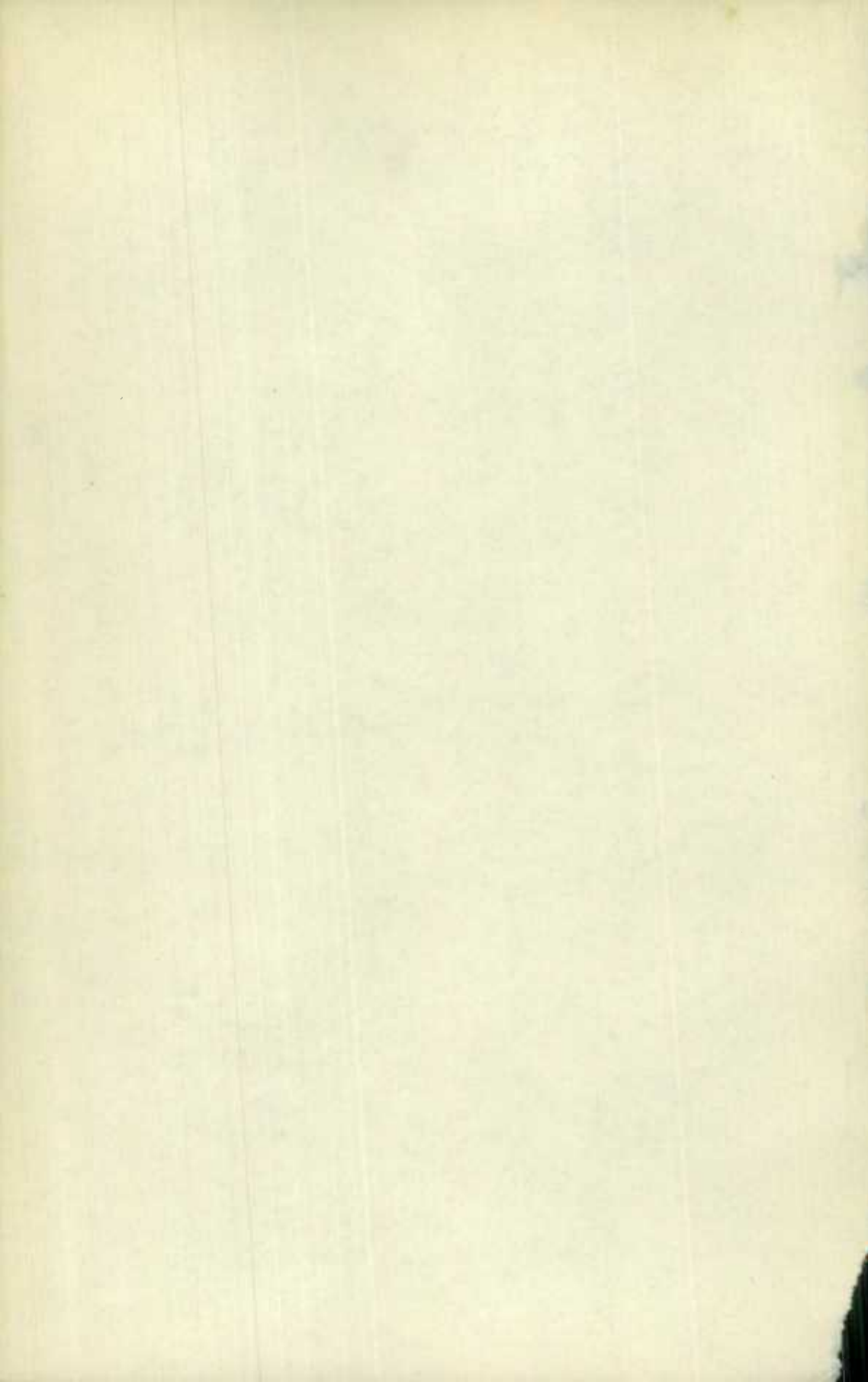
Name of Firm	Head Office Address	Location of Plant
MANITOBA—		
Allen and Grant.....	401 Youville St., St. Boniface.....	St. Boniface.
Billing, J.....	Carman.....	Carman.
Brook, J. H. & Sons.....	266 Main St., Winnipeg.....	Winnipeg.
Campbell Bros.....	90 Hespeler St., Winnipeg.....	Winnipeg.
Gillies Quarries, Ltd.....	Spruce and Richard Sts., Winnipeg.....	Winnipeg.
Guinn & Simpson Co., Ltd.....	Tupper St. N., Portage la Prairie.....	Portage la Prairie.
Hooper Marble & Granite Co., Ltd.....	304 Spence St., Winnipeg.....	Winnipeg.
Johnston, James J.....	525 Corydon Ave., Winnipeg.....	Winnipeg.
Memorial Marble & Tile Co., Ltd.....	1180 Wall St., Winnipeg.....	Winnipeg.
Pearson, C. H.....	201-Sixth St., Brandon.....	Brandon.
Piratton.....	385 rue Dubuc, St. Boniface.....	St. Boniface.
Somerville & Co.....	1417 Rosser Ave., Brandon.....	Brandon.
Wheeldon & Son.....	1055 Main St., Winnipeg.....	Winnipeg.
SASKATCHEWAN—		
Moose Jaw Marble & Granite Works, Ltd.....	706 Athabasca St. W., Moose Jaw.....	Moose Jaw.
Regina Monumental Co.....	South Rly. and Albert Sts., Regina.....	Regina.
Saskatoon Granite & Marble, Ltd.....	137 Ave. A North, Saskatoon.....	Saskatoon.
Saskatoon Marble & Construction Co., Ltd.....	110 Eighth St. E., Prince Albert.....	Prince Albert.
Western Granite Marble & Stone Co., Ltd.....	714-716-2nd Ave. N., Saskatoon.....	Saskatoon.
Yorkton Monumental Works.....	60 Agricultural Ave., Yorkton.....	Yorkton.
Young, Alex., Ltd.....	Corner of Fourth Ave. and Scarth St., Regina.....	Regina.
ALBERTA—		
Alberta Granite, Marble & Stone Co., Ltd.....	10702-101st. St., Edmonton.....	Edmonton.
Hart, Albert J.....	1821-2nd St. E., Calgary.....	Calgary.
Lethbridge Monumental & Cut Stone Works.....	325-8th St. S., Lethbridge.....	Lethbridge.
McDonald Granite Co., Ltd., The.....	2313-2nd St. E., Calgary.....	Calgary.
North West Granite & Marble Co.....	8537-109th St., Edmonton.....	Edmonton.
BRITISH COLUMBIA—		
Allan, A. S. & Co.....	880 Beach Ave., Vancouver.....	Vancouver.
Art Monument Co., Ltd.....	602 Kingsway, Vancouver.....	Vancouver.
Burnaby Monumental Works.....	2655 Patterson Ave., Burnaby.....	Burnaby.
Continental Marble Co., Ltd.....	1404 Dominion Bldg., Vancouver.....	1002-8 Georgia St. E., Van- couver.
Forster, John.....	5528 Fraser, Vancouver.....	Vancouver.
Millins, C. E. J.....	Cor. Comox Rd. and Pine St., Nanaimo.....	Nanaimo.
Mortimer, John & Son.....	720 Courtney St., Victoria.....	Victoria.
Nelson Granite & Monumental Co., The.....	Box 865, Nelson.....	507 Front St., Nelson.
Newall, John Brodie.....	5000 Fraser and 36th Ave., Vancouver.....	Vancouver.
Stewart Monumental Works, Ltd.....	1401 May St., Victoria.....	Victoria.
Vernon Granite & Marble Co.....	Box 285, Okanagan Landing.....	Okanagan Landing.

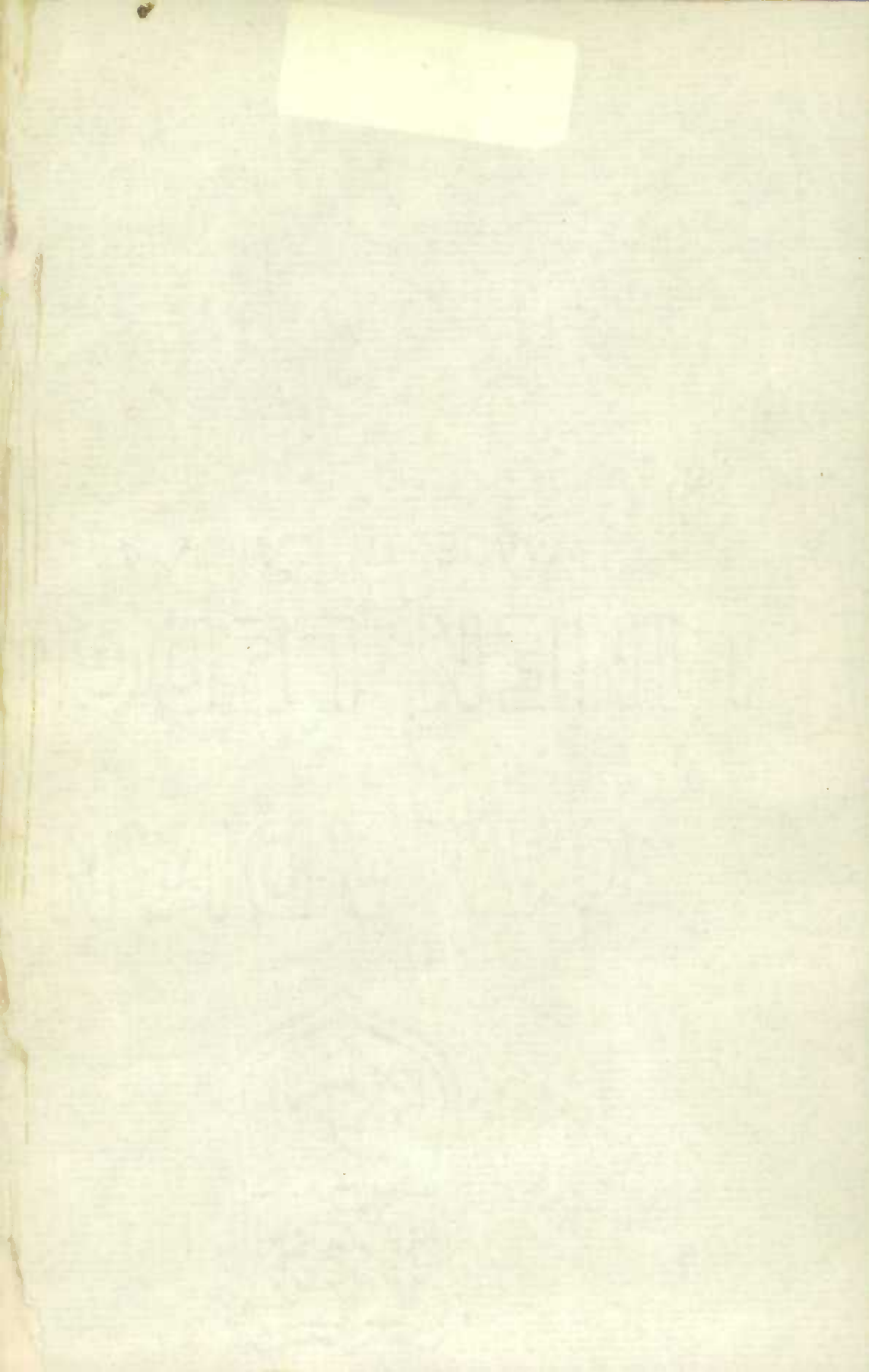
DIRECTORY OF FIRMS IN THE INDUSTRIES CLASSIFIED UNDER MANUFACTURES OF THE NON-METALLIC MINERALS IN CANADA, 1929—Concluded

Miscellaneous Non-Metallic Mineral Products

Name of Firm	Head Office Address	Location of Plant
(a) Artificial Graphite and Electrodes		
QUEBEC— Aluminum Co. of Canada, Ltd.	46 King St. W., Canada Life Bldg., Toronto 2.	Arveda.
ONTARIO— Electro Metallurgical Co. of Canada Acheson Graphite Co.	46 King St. W., Toronto Niagara Falls, N.Y.	Welland, Ont. Cor. Buttrey Ave. and Swinyard St., Niagara Falls.
(b) Gypsum Products		
QUEBEC— Gypsum Lime and Alabastine Canada, Ltd.	Paris.	Lakefield Ave., Montreal E.
ONTARIO— Canada Gypsum and Alabastine, Ltd. Gypsum Lime and Alabastine Canada, Ltd.	Willow St., Paris. Paris.	Paris. Caledonia.
MANITOBA— Gypsum Lime and Alabastine Canada, Ltd.	Paris.	Cor. St. James and Sargent Sts., Winnipeg.
ALBERTA— Canada Gypsum & Alabastine Co.	Paris.	East Calgary.
BRITISH COLUMBIA— Canada Gypsum and Alabastine Co.	Paris.	Box 59, New Westminster.
(c) Mica Trimming		
QUEBEC— Loughborough Mining Co., Ltd. Loughborough Mining Co., Ltd. Mica Company of Canada, Ltd.	Sydenham Sydenham 2 Lois St., Hull.	Sorel. Pierreville. Hull.
ONTARIO— Fillion, S. O.	95-97 Duke St.	Ottawa.
(d) Magnesite Products		
MANITOBA— Dominion Stucco Co., Ltd.	264 Berry St., St. Boniface.	St. Boniface.
BRITISH COLUMBIA— B.C. Magnesite Flooring Co. Canadian Stucco Products.	3805 Adanac St. (Union), Vancouver Granville Island.	Vancouver. Granville Island.
(e) Miscellaneous Non-Metallic Mineral Products		
QUEBEC— Canadian Foundry Supplies and Equipment, Ltd.	983 Wellington St., Montreal.	Montreal.
ONTARIO— Canada Crsylon, Ltd. Canadian Foundry Supplies and Equipment Co. Davis Slate & Mfg. Co. of Canada, Ltd. Ferro-Enamelling Co. of Canada Hamilton Facing Mill Co., Ltd. Maybank Foundry Supplies, Ltd. Sani Products Co., Ltd. Stevens Frederic, B., of Canada, Ltd. Wilkinson Foundry Facing & Supply Co., Ltd.	383 George St. S., Peterborough. 37 Niagara St., Toronto. 131 Shaftesbury Ave., Toronto. 629 Wellington St. Hess St. North, Hamilton. 858 Dupont St., Toronto. 155-7 Richmond St. W., Toronto. 926 McDougall St., Windsor. 81 Florence St., Toronto 2.	Peterborough. Toronto. Toronto. Ottawa. Hamilton. Toronto. Toronto. Toronto. Windsor. Toronto.







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