ANADA DEPARTMENT OF TRADE AND COMMERCE
OMINION BUREAU OF STATISTICS
MINING, METALLURG AND CHEMICAL BRANCH

M. TAGURES THE NON-METALLIC MARKERALS IN CANADA

1925

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Minister of Trade and Commerce



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

NOTES ON STATISTICS OF PRODUCTION

In the collection of production data, the Dominion Bureau of Statistics unkes 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 optline of the scheme of classification in and for manufacturing industries is given below:

Manufactures of:

- (1) Vegetable Products, including—Coffee and Spices; Cocoa and Chocolate Products; Pickles, Vinegar and Cider; Flour and Carola Bread and other Bakery Products; Macaroni and Vermiceffi: Distilled and Brewed Liquors and Wines; Rubber Products; Starch and Glucose; Sugar; Tobacco Products; Linsed 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; Automobile Supplies; Bicycles; Railway Rolling Stock; Wire and Wire Goods; Sheet Metal Products; Hardware and Tools; Miscelianeous Iron and Steel Products.
- (6) Manufactures of Non-Ferrous Metal Products, including—Aluminium and Aluminium Ware; Brass and Copper Products; Lead, Tin and Zine Products; Precious Metal Products; Electrical Apparatus and Supplies; Miscellaneous Non-Ferrous Metal Products.
- (7) Manufactures of Non-Metallic Mineral Products, including—Aerated Waters; Asbested and Allied Products; Cement Products and Sand-Llme Brick; Coke and By-Products; Glass (blown, cut, ornamental, etc.); Illuminating and Fuel Gas; Products Made from Imported Clay; Monumental and Ornamental Stone; Petroleum Products; Miccellaneous Manufactured Non-Metallic Mineral Products, Including (a) Artificial Abrasives; (b) Abrasive Products; (c) Artificial Graphite and Electrodes; (d) Gypsum Products; (e) Mica Products; (f) Miscellaneous Non-Metallic Mineral Products in a light of the control of
- (8) Chemicals and Allied Products, including—Coal Tar and its Products; Acids, Alkalianal Salts and Compressed Gases; Explosives, Ammunition, Fireworks and Matcher Fertilizers; Medicinal and Pharmaceutical Preparations; Paints, Pigments and Varnishes; Soaps, Washing Compounds and Toilet Preparations; Inks, Dyes and Colours; Wood Distillates and Extracts; Miscellaneous Chemical Products including (a) Adhesives, (b) Baking Powder, (c) Boiler Compounds, (d) Celluloid Products, (e) Flavouring Extracts, (f) Insecticides, (g) Pollshes and Dressings, (h) Sweeping Compounds, (i) Chemical Products in e.s.
- (9) Miscellaneous Products, tactoding—Brooms and Brushas, Electric Lagat and Power: Musical Instruments, etc.

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

- Food, including—Breadstuffs; Pish; Nuts; Fruits and Vegetables; Meats; Milk Products; Oils and Fats; Sugar; Infusions; Miscellaneous.
- (2) Drink and Tobacco, including—Beverages, alcoholic; Beverages non-alcoholic; To-bacco.
- (3) Clothing, including—Boots and Shoes; Fur Goods; Garments and Personal Furnishings; Gloves and Mitts; Hats and Caps. Knitted Goods; Waterproofs; Miscellance.
- (4) Personal Utilities, including—Jewellery and Plane-Pieces; Recreational Supplies, Personal Utilities, n.c.s.
- (5) House Furnishings.
- (6) Books and Stationery
- (7) Vehicles and Vessels.
- (8) Producers' Materials, Including Parts Marchala, Marchala Materials, General Materials.
- (9) Industrial Equipment, including—Farming Equipment; Manufacturing Equipment; Trading Equipment: Service Equipment: Light, Heat and Power Equipment; General Equipment.
- (to) Miscellaneous.

PREFACE

The present report on the Manufactures of the Non-Metallic Minerals in Canada deals with coke making, the production of illuminating and fuel gas, the refining of petroleum, the manufacture of glass and several other industries of somewhat less importance, such as the manufacture of aerated waters, the production of sand-lime brick, concrete tile and blocks, the fabrication of brake linings and other commodities from asbestos and magnesia, and the manufacture of artificial abrasives and graphite electrodes by means of the electric furnace—all of which use non-metallic minerals as their raw materials. Data for certain other industries such as the clay products industry in all its phases (brick and tile, clay sewer pipe, fire brick, fire clay products, stoneware and pottery); the portland cement industry; the manufacture of lime; and the production of salt are also included in order to make the report comprehensive. These latter industries are often considered as primary rather than manufacturing and so they are included in the Bureau's reports on the mineral production of Canada.

As will be seen from the report, increased production was evident in nearly every industry in the group; the aggregate value of production showed an advance of 5.9 million dollars or about 5 per cent over the value of the output in 1924.

On the next preceding page there is a brief note on the Bureau's classification of industries for the collection of production statistics, which shows the place of the present report in the general scheme.

As in the previous issue, there has been included a list of the names and addresses of the reporting firms arranged by industries and by provinces.

The present report was prepared by Mr. H. McLeod, B.Sc., under the direction of Mr. S. J. Cook, B.A., A.I.C., F.C.I.C., Chief of the Mining, Metallurgical and Chemical Branch.

R. H. COATS,

Dominion Statistician.

DOMINION BUREAU OF STATISTICS, OTTAWA, JUNE 21, 1927.

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MANUFACTURES OF THE NON-METALLIC MINERALS IN CANADA, 1925

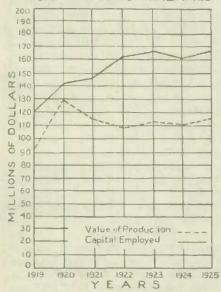
CHAPTER I

GENERAL REVIEW

(a) Summary

Manufacture of non-metallic mineral products in Canada in 1925 reached a value of \$115,873,848, an increase of nearly 5 million dollars over the total for 1924 and the highest value recorded since 1920 for this group of industries. The 915 operating plants in these industries in 1925 representing a capital investment of 166 million dollars used \$65,278,752 worth of raw materials to produce commodities valued at \$115,873,848, factory prices, creating thus an added wealth of \$50,595,096 by manufacturing processes. Employment was afforded to an average of 16,998 persons during the year and \$21,919,263 was paid out in salaries and wages.

MANUFACTURES OF THE NON-METALLIC MINERALS



Increased production was evident in nearly every industry in the group. Production of petroleum products such as gasoline, fuel oil and lubricants amounted in value to \$50,762,127, an increase of 1.3 million dollars over 1924; the manufacture of cement products and sand-lime brick, in terms of values, showed an increase of about a million dollars; the production of coke plants rose half a million dollars in value above 1924; gas works showed a small decrease in the value of output; asbestos and allied products gained three-quarters of a million dollars; the miscellaneous non-metallic products group showed a gain of a million dollars; the aerated waters industry and the monumental and ornamental stone industry each advanced half a million dollars in output value; manufactures from imported clays fell off slightly, and the total production value for the glass industry was down two-thirds of a million dollars. Over all, there was an increase of 4.7 million dollars or about 4 per cent above the value of the output in the next preceding year.

Of the 915 plants in Canada working up nonmetallic mineral products in 1925, the number located in Ontario was 501; production from

these plants had a sales value of \$57,965,060. Quebec came next with 203 plants and production valued at \$25,741,323. Nova Scotia ranked third with 36 plants having a total output worth \$8,439,599; British Columbia was next with a total output worth \$7,760,918 from 44 active plants; 28 establishments in Alberta made \$6,416,139 worth of non-metallic products; Manitoba's 37 plants had an output valued at \$2,579,788; Saskatchewan had 28 plants, and a production worth \$6,053,791; New Brunswick had 35 plants with an output valued at \$826,790, and Prince Edward Island's 3 plants had an output valued at \$90,440.

In 1924 there were 814 plants in operation in this industrial group.

Gains in the number of plants were as follows: Ontario, 65; Quebec, 20; British Columbia, 7; Manitoba, 4; New Brunswick, 4; Saskatchewan, 3; and Nova Scotia, 2, while Alberta showed a loss of 4 plants. Despite the general increase in the number of plants the provincial aggregates for the group showed higher values in only 5 cases: Ontario's output was higher by 3.5 million dollars; Quebec's output showed a gain of 3 millions; and Manitoba, New Brunswick and Prince Edward Island each showed small gains. British Columbia, Alberta, Saskatchewan and Nova Scotia each reported slightly lower total production values for these industries.

By industries, petroleum products led the list with a total production value of \$50,762,127, followed by the illuminating and fuel gas industry at \$17.874.479; coke and by-products, \$11,020,298; glass, \$10,117,604; miscellaneous non-metallic mineral products, \$7,978.183; aerated waters, \$6,877,524; monumental and ornamental stone, \$5,355,997; cement products and sand-lime brick, \$2,801,794; products from imported clays, \$1,741,745; and asbestos and allied products, \$1,344,097.

The total capital employed in the non-metallic mineral products industry showed an increase of nearly 5 million dollars to \$166.263.824, of which \$118,934,123 represented the value of lands, buildings, tools, etc.; \$32,024.344 the value of materials on hand and in process; and working capital amounted to \$15.305.357. Ontario plants reported a total investment of \$77,446,321, a gain of 5.6 million dollars over 1924; investment in plants in Nova Scotia was \$21,273.840; Quebec plants accounted for \$32,385.178 as against \$28,246,887 in the previous year; British Columbia was credited with \$14,260,911; Manitoba, \$7,634,485; Alberta, \$7,264.120; Saskatchewan, \$5,097,434; New Brunswick, \$804,221; and Prince Edward Island with \$97,314.

Comparison of data for capital employed and selling value of products shows that for the non-metallics group as a whole there was a production of commodities valued at \$70.50 for each \$100 of capital employed. By industries, the output per \$100 of capital employed was as follows: aerated waters, \$64; asbestos and allied products, \$51; cement products, \$78; sand-lime brick, \$81; coke and by-products, \$47; glass, \$80; illuminating and fuel gas, \$41; products from imported clays, \$63; monumental and ornamental stone, \$107; petroleum products, \$100; and miscellaneous non-metallic mineral products, \$96.

Including both salaried employees and wage-earners, 16,998 persons found employment in the manufacture of non-metallic mineral products in 1925 as against 16,938 in the preceding year. Salaries and wages amounted to \$21,919,263, about a quarter of a million dollars over 1924. The trend of employment as reflected by the monthly records of the number of wage-earners on the rolls on the fifteenth of each month showed 12,402 wage-earners (exclusive of salaried employees) on the rolls in January, from which point the number employed rose gradually to a maximum of 15,544 in July. Employment then gradually fell away until in October there were 14,631 persons enrolled and in December only 13,382.

Imports into Canada of non-metallic minerals and their products totalled \$138.171,331 in value during 1925 as compared with \$135,033,046 in the previous year. Imports of coal and its products were valued at \$65,747,709 and imports of petroleum, asphalt and their products were worth \$44,160,082. United States supplied \$111,880,844 worth or 81 per cent of Canada's imports in this class, while only 9 per cent came from the United Kingdom. Exports from Canada during 1925 were valued at \$24,343,120 as against \$20,949,947 in 1924. Shipments of asbestos and its products to foreign destinations were worth \$9,737,964; coal and its products were valued at \$5,205,778, and stone and its products at \$6,524,933. United States took 68 per cent of Canada's exports of non-metallic minerals and their products, the United Kingdom took 6 per cent, and the remaining 26 per cent went to other countries.

In studying the production of non-metallic mineral products in Canada it has been found convenient to arrange the industries under the following groups: acrated waters; asbestos and allied products; cement products; sand-lime brick; coke and by-products; glass; illuminating and fuel gas; products from imported clays; monumental and ornamental stone; petroleum products; and miscellaneous non-metallic mineral products. Brief reviews of each of these industries are given immediately below and, in the body of the report, a separate chapter is devoted to each industrial group.

Primary Products.—As a matter of general interest, a summary of the principal statistics relating to the manufacture of structural materials and clay products during the years 1921 to 1925 has been abstracted from the annual Report on the Mineral Production of Canada issued by the Bureau. Data in the report on the mineral production of Canada, show the production of primary raw materials but there are many products described therein which are produced by a manufacturing process though the cost of the raw materials used apart from the labour involved, is generally considered as negligible. These industries, on the border-line between mining and manufacturing, may be classified under either heading, so that, while the Bureau reports show them under "primary mineral production" for convenience, the inclusion herein of the principal data in regard thereto, may interest the general reader.

Under the heading "Clay Products" there are included the statistics for the brick and tile industry, the clay sewer pipe industry, the fire brick and fire clay products industry and the stoneware and pottery industry.

Brick and tile manufacturing represented a capital investment of 22.4 million dollars in 1925 when 173 plants were operating. These plants furnished employment to 3,403 people who received salaries and wages to the value of 3.2 million dollars. Fuel used cost about 1.6 million dollars, and the net value of the products made exceeded 7.3 million dollars. In 1924 there were 192 plants operating; the capital employed in operating plants was about 2 million dollars more than in 1925 and the value of products manufactured was less by about a quarter of a million dollars. In 1923, returns were received from 204 plants and the products were valued at about 8.2 million dollars.

The clay sewer pipe industry showed no great change in 1925. Five plants were in operation with a capital of about 3 million dollars. They employed an average of 382 people who received in the neighbourhood of half a million dollars in wages and salaries. Fuel cost about \$240,000 and the value of the products was almost 1.2 million dollars.

In the firebrick and fireclay products industry, 6 plants were in operation in 1925, as against 7 in 1924. About 2.1 million dollars was invested in the industry and, on the average, 220 hands were employed, to whom over a quarter of a million dollars was paid in salaries and wages. The cost of fuel amounted to nearly \$88,552, and the value of the products was \$702,707.

Four plants were engaged in the manufacture of stoneware and pottery, with a capitalization of almost \$424,894. This industry employed 131 people, and wages and salaries paid totalled about \$129,703. The amount of fuel used does not vary much from year to year, \$15,660 worth being used in 1925. The value of the products amounted to \$269,979.

Under the general heading of "Structural Materials," data for cement and lime are also included. The cement industry is naturally dependent on the amount of construction undertaken each year. There were 11 plants making cement in 1925 as against 10 in 1924. Capital employed amounted to 38 million dollars in 1925 as against 36.8 million dollars in 1924. In 1925, there were 1.926 people employed, and payments for salaries and wages amounted to 2.5 million dollars. Fuel cost 2.2 million dollars. The value of the products was \$14,046,784. In 1924 the value of the products was given at \$13,398,411.

In the manufacture of lime in 1925, reports were received from 56 plants; the total capital employed was \$5,154,546, and there were on the rolls 1,006 persons who received nearly one million dollars in salaries and wages. Lime to the value of \$3,387,652 was made in 1925.

In the chapters pertaining to the several different industries under review will be found further excerpts from the annual Report on the Mineral Production of Canada for 1924 and 1925, which it seemed advisable to add to this report as relative information. Throughout the data given, refer to the group of industries mentioned above as being included in the Bureau's classification of Manufacturers of the Non-Metallic Minerals; only in the Summary Tables are figures given for those "manufacturing" industries which are reviewed in detail in the annual Report on the Mineral Production of Canada, and which may as readily be classed either as "primary" or as "secondary" industries. References to these industries are mostly in the form of abstracts from other reports.

(b) By Industries

Aerated Waters.—The aerated waters industry in Canada showed considerable improvement during 1925. In that year the production of non-alcoholic carbonated beverages was valued at \$6,877,524 as compared with corresponding figures of \$6.354,358 in 1924 and \$6,408,832 in 1923. Capital employed was reported at 10.7 million dollars as against 9.4 million dollars in 1924, and the number of employees was 1,684 as compared with 1,543 in the previous year.

Plants in this industry are distributed fairly well over the Dominion; almost every town has a small soda water and soft drinks plant but, of course, the demand for these beverages is greatest in the more thickly-populated sections and so the industry is centered in Ontario and Quebec. In 1925, reports were received from 313 plants distributed by provinces as follows: 131 in Ontario, 88 in Quebec, 21 in Nova Scotia and Prince Edward Island, 17 in British Columbia, 16 in New Brunswick, 16 in Saskatchewan, 14 in Alberta, and 10 in Manitoba. Plants in Ontario and Quebec together accounted for 73 per cent of the entire Canadian production. In 1924 there were only 296 establishments in operation in this industry.

Asbestos and Allied Products.—The value of asbestos products manufactured in Canada in 1925 was 128 per cent above the corresponding figure for 1924. The opening of 2 new plants in Quebec was the outstanding event in this industry. In 1925 there were 12 plants in Canada engaged in the manufacture of asbestos and allied products; 6 were located in Ontario, 4 in Quebec and one in each of the provinces of Nova Scotia and British Columbia. These plants represented a capital investment of 2.6 million dollars, gave employment to 256 persons and used \$783,063 worth of raw materials to produce \$1,344,097 worth of commodities for sale. In 1924, the 9 plants in operation produced goods worth \$589,339. Main products of this industry included asbestos packing, brake linings, pipe covering, asbestos paper, shingles, lumber, etc.

Cement Products.—This group includes all firms who produce concrete blocks, tile, sewer pipe, sills, piles, posts and other manufactures of concrete and artificial stone with cement as a binding medium. In 1925, the 197 plants reporting in this industry had a combined output valued at \$2,020,239. Ontario's 148 plants had a production valued at nearly 1.5 million dollars; there were also 34 plants in Quebec; 5 in New Brunswick; 4 in British Columbia; 2 in Alberta; 2 in Saskatchewan; and 2 in Nova Scotia. These plants represented a capital investment of 2.6 million dollars and gave employment to 819 persons the year round. Records of the many small concerns operating in spare time only, are not included in this report.

Sand-Lime Brick.—Increased outputs characterized the operations of plants in the sand-lime brick industry in 1925. Although there were fewer plants in operation, the total production of sand-lime brick amounted to 63.869 M worth \$781,555 as compared with 55.875 M valued at \$619,946 in 1924. Reports were received from 7 plants in Ontario and 2 in Manitoba, whereas in the previous year there were 10 active plants in Ontario and 1 in each of the provinces of Manitoba and Saskatchewan.

Coke and By-Products.—The coke industry as herein reviewed includes only those plants in Canada engaged in the manufacture of metallurgical coke. Coke is also recovered as a by-product from the artificial gas plants and petroleum refineries but these latter industries are reviewed in separate chapters of this report.

In 1925, metallurgical coke was made by the following companies: Dominion Iron and Steel Company of Canada, Limited, at Sydney, N.S.; Steel Company of Canada, Limited, at Hamilton, Ont.; Algoma Steel Corporation, Limited, at Sault Ste. Marie, Ont.; Hamilton By-Product Coke Ovens, Limited, at Hamilton, Ont.; Crow's Nest Pass Coal Company at Fernie, B.C.; and Granby Consolidated Mining, Smelting and Power Company at Anyox, B.C. Of these 6 plants, the 3 in Ontario imported all their coal from the United States; the Nova Scotia plant, which ordinarily uses Canadian coal only, was forced to bring in coal from the United States during the strike of the coal miners in Nova Scotia, and 1 plant in British Columbia used only Canadian coal while the other plant in that province used both imported and domestic coal.

During 1925, a total of 930,738 tons of foreign coal and 598,280 tons of Canadian coal were charged to the ovens to produce 1,079,526 tons of coke for an average yield of 1,412 pounds of coke for every ton of coal charged to the ovens. By-products from this industry included 32 million pounds of ammonium sulphate worth \$807,814; about 12 million cubic feet of gas, part of which was sold and part used as fuel; and about 2 million gallons of light oils; and 11 million gallons of tar and tar products.

The total production of coke in Canada including gas-house coke but exclusive of petroleum coke was 1,546,739 tons valued at \$10,482,841; imports amounted to 852,427 tons worth \$5,553,494 and exports totalled 25,578 tons worth \$214,820. The apparent consumption of coke in Canada during 1925 was 2,373,588 tons valued at \$15,821,515.

Glass.—In the glass industry are included those plants making pressed and blown glass, and also those plants engaged principally in bevelling and cutting plate glass to make cut glass, plain or bevelled mirrors, etc., and in the bending of plate and sheet glass and assembling leaded and other art glass.

In 1925, pressed and blown glass was made by 10 plants in Canada while 42 different establishments were engaged in the bevelling, bending and cutting of glass. Production of pressed and blown glass was valued at \$7,444,246 as compared with a figure of \$8,799,420 in 1924, and other glass products were valued at \$2,673,358 as against \$1,977,396 in the previous year. There is no plate glass made in Canada and the entire supply, therefore, is imported and cut and bevelled as required.

Illuminating and Fuel Gas.—The illuminating and fuel gas industry in Canada is centred chiefly in the larger cities where domestic and industrial demand is greatest. In 1925 there were 44 gas plants in Canada and the production of gas and by-products was valued at \$17,874,479 as compared with \$18,101,724 in the previous year. Capital employed amounted to 46.1 million dollars, of which 38.9 million dollars was the value of fixed assets such as buildings, lands and plant equipment. Employment was afforded to 3,804 persons, and salaries and wages paid during the year totalled \$5,057,702.

Straight coal gas and carburetted water gas were the most important products. Pintsch gas was made at many divisional points along the railroads and was supplied in cylinders for railway-car lighting purposes. Acetylene gas was used in several prairie towns where the size of the municipality was not large enough to warrant a coal-gas plant or where the cost of coal for gas-making was prohibitive. By-products of this important industry included coke, tars, ammonia liquor and ammonium sulphate; the total value of by-products recovered in 1925 was \$3,827,173 as compared with a corresponding value of \$3,833,409 in the previous year.

Products from Imported Clays.—Under this classification are listed those firms that produce clay products such as pottery, sanitary ware, refractories, porcelain insulators, etc., from special clays imported for the purpose. In 1925 there were 12 plants in Canada engaged in this line of work. These plants, representing a capital investment of \$2.762.951 employed 552 persons during the year and produced commodities valued at \$1,741,745 from raw materials costing \$326,023. The same plants were in operation in 1924 and the value of production was given at \$1.879,769.

Monumental and Ornamental Stone.—This group includes all firms engaged only in the cutting and finishing of monumental and building stone; the primary industry or the quarrying of stone is covered in a separate report. In 1925 there were 214 plants in this group and production was valued at \$5,355,997 as compared with 210 establishments and an output worth \$4,730,572 in 1924. Many of the establishments are small and employ only 2 or 3 persons. Much of the stone used as raw material in this industry is imported; in 1925 the value of imports of all kinds of stone was \$787,347.

Petroleum Products.—The petroleum products industry recorded a substantial increase in production in 1925. This is by far the largest industry of the group under review and includes the refining of petroleum, both domestic and imported, and also the compounding of lubricating oils and greases consisting wholly or in part of mineral oils. In 1925 there were 21 plants operating in this industry, of which 13 refined petroleum and 8 compounded

lubricating oils and greases. Production from petroleum refineries was valued at \$49,802,615 an increase of more than a million dollars over 1924 and the output of plants making only oils and greases was worth \$959,512 as compared with a value of \$733,720 in 1924. Four oil refineries and 1 plant making greases went out of business during 1925, but 1 other plant in the latter industry commenced operations.

Miscellaneous Non-Metallic Mineral Products.—Many firms in Canada produce non-metallic mineral products that do not naturally fall in any of the groups previously considered. A miscellaneous group has accordingly been made and divided into the following classes; artificial abrasives and abrasive products; graphite products; gypsum products; mica trimming, and miscellaneous non-metallic mineral products.

The principal products of the 35 firms thus grouped were carborundum, alundum, grinding wheels, graphite electrodes, gypsum wall board, plaster of Paris models, trimmed and split mica and sundry foundry supplies as facings, sand, etc.

The abrasive products industry was the most important of this group with a production valued at 5.9 million dollars; gypsum products were worth over a million dollars; and the mica trimming shops produced \$352,147 worth of commodities for sale.

(c) By Provinces

Prince Edward Island.—Only 3 establishments in Prince Edward Island made non-metallic mineral products in 1925. Of these, 2 made aerated waters and 1 produced monumental stone; the total value of products made was \$90,440, and 22 persons were employed the year round; the same plants were in operation in 1924 when production totalled \$81,148 and 22 people were employed.

Nova Scotia.—In 1925, Nova Scotia had 19 plants producing aerated waters; 11 in the monumental and ornamental stone industry; 2 making cement products, and 1 plant in each of the asbestos and allied products, coke, gas, and petroleum refining industries. These 36 plants represented a capital investment of over 21 million dollars, afforded employment to 762 persons and had a combined production valued at \$8,439,599.

Comparison with the previous year shows that in 1925 there were 3 new plants in the aerated waters industry and 1 in the cement products group, while 2 concerns engaged in cutting and finishing stone, went out of business. Production value showed but little change; capital employed declined a million dollars, and the number of employees was nearly the same as in 1924; petroleum refining was the most important industry in this province with the coke industry next in line.

New Brunswick.—New Brunswick was represented in the non-metallic mineral products industry by 35 different firms which produced commodities valued in the aggregate at \$826,790. There were 16 concerns manufacturing aerated waters, 5 making cement products, 2 producing artificial gas, 9 in the monumental and ornamental stone group and 1 in each of the glass, imported-clay products and petroleum products industries. New plants in operation during 1925 included 1 making aerated waters, 2 making cement products and 1 for the blending of oils.

Quebec.—Quebec ranked next to Ontario as a producer of manufactures from non-metallic mineral products. In 1925 there were 203 plants operating in the following industries; aerated waters. 88 plants; monumental and ornamental stone, 41 concerns; cement products 34 establishments; miscellaneous non-metallic mineral products, 13 plants; glass 10 plants; imported-clay products, 5 plants; gas, 4 plants; petroleum products, 4 establishments; and the asbestos products industry, 4 concerns. The combined production of these plants amounted in value to \$25,741,323. of which the petroleum industry contributed \$8.667,838; the gas industry, \$6,441,871; the glass industry \$4.189,038; the aerated waters industry \$2.592,501; the asbestos and miscellaneous industries about a million dollars each; the imported-clay products and the stone industries about \$600,000 each and cement products over \$300,000. As compared with 1924 there were 8 additional plants making aerated waters, 2 making asbestos products and 16 manufacturing cement products, while apparently

4 concerns in the miscellaneous non-metallic products ind...., 1 making glass products and 1 making monumental and ornamental stone did not operate during the year. With the exception of the monumental and ornamental stone, illuminating and fuel gas, and miscellaneous non-metallic mineral products industries, substantial gains in production values were recorded in each industrial group.

Ontario.—Of the 915 plants in Canada engaged in the manufacture of non-metallic mineral products during 1925 over half or 501 were located in Ontario; and of a total production valued at \$115,873,848 for the industry, Ontario accounted for \$57,965,060.

By industries, petroleum products held first place with 7 operating plants, a capital investment of 17 million dollars and a production valued at 20.4 million dollars; the illuminating and fuel gas industry was second with 21 establishments and an output worth 8.7 million dollars; the coke industry held third place when the 3 plants produced nearly 7 million dollars' worth of commodities. The miscellaneous non-metallic mineral products had an output worth nearly 7 million dollars; glass products were worth over 5 million dollars; the products of the monumental and ornamental stone industry were worth 3.5 million dollars; the output of acrated waters approached the 2.4 million dollar mark; cement products and imported-clay products, sand-lime brick, and asbestos followed in the order named.

Including 1,334 salaried employees, the non-metallic minerals products industries in Ontario gave employment to 8,613 persons throughout the year, while expenditures in salaries and wages amounted in all to \$11,725,965. In 1924, there were only 436 plants in this group in Ontario. The additional plants in operation in 1925 were distributed by industries as follows: cement products, 56; monumental and ornamental stone, 5; glass products, 4; miscellaneous industries, 3; and asbestos products, 1; while 3 sand-lime brick factories and 1 plant making petroleum products did not operate during the year.

Manitoba.—Manitoba has 13 plants in the monumental and ornamental stone industry; 10 in the aerated waters industry; 8 in the gas industry; 3 in the glass group; 2 making sand-lime brick; and 1 petroleum refinery. These 37 establishments used 1.3 million dollars' worth of raw materials in the production of 2.6 million dollars' worth of non-metallic mineral products and afforded employment to 480 persons throughout the year. The gas industry was the most important in this province with monumental and ornamental stone, aerated waters, petroleum refining, glass and sand-lime brick following in order of importance.

Saskatchewan.—Manufactures of non-metallic mineral products in Saskatchewan were valued at \$6,053,791 in 1925. There were 28 plants in operation during the year; 16 made acrated waters; 7 produced finished stone products; 1 made acetylene gas and 1 made Pintsch gas; 2 made cement products; and 1 plant refined petroleum. There were 4 more plants in the acrated waters industry than in 1924, but the 1 plant making sand-lime brick did not operate during the year.

Alberta.—With 28 plants in this group Alberta contributed nearly 6.4 million dollars to the total value of non-metallic mineral products made in Canada. Alberta was represented by 14 firms manufacturing aerated waters; 3 oil refineries and 1 plant making lubricating oils, etc.; 5 concerns producing monumental and building stone; 1 plant making oil gas; 1 making pressed and blown giass; 1 cutting and bevelling plate glass to make mirrors, etc.; and 2 concerns making cement products. Compared with 1924 there was thus a loss of 4 plants in the petroleum products group, 2 in the aerated waters industry and 1 in the stone industry, and a gain of 2 concerns making cement products, and 1 making mirrors, etc., from plate glass. With the exception of the most important industry, petroleum refining, each industrial group showed a small gain in production value over that of the previous year.

British Columbia.—Plants in British Columbia engaged in the manufacture of non-metallic mineral products numbered 44, and the production was valued at \$7.760.918. Capital employed in the whole group amounted to over 14 million dollars and employment was given to an average of 911 people the year round. There were 17 plants manufacturing

carbonated beverages of all kinds and the output of these commodities was worth \$308,821; 5 establishments produced \$1,179,429 worth of gas and by-products for sale; 9 concerns produced finished monumental and ornamental stone worth \$148,892; 4 firms made leaded glass, mirrors, art glass, etc., valued at \$16,843; 4 firms made cement products; 2 made metallurgical coke; 2 refined petroleum; and 1 produced asbestos pipe covering and similar commodities.

In 1924, there were 37 plants in operation and the aggregate production was valued at slightly more than 8 million dollars. In 1925 there were 2 additional plants in the monumental and ornamental stone industry; 1 in the aerated waters industry; and 4 in the cement products industry.

(d) Prices

NON-METALLIC MINERALS AND THEIR PRODUCTS.—From 183.4 in 1924 the index for the commodities included in this group fell to 176.6 in 1925. This decline was due to lower prices for several commodities which more than offset increases for a few others,

Bricks.-Montreal quotations were unchanged in 1925.

Pottery-Printed dinner sets, at Toronto, rose from \$13.29 per set to \$15.25.

Coal.—Anthracite coal at Toronto, due to the strike at the mines, rose from \$12.25 per ton in 1924 to \$13.06 in 1925. B.C. run-of-mine coal was \$4.35 per ton at the mines as compared with \$5.45 in 1924.

Glass and Glassware.—Tank glass tumblers were slightly higher, being \$4.77 per gross as compared with \$4.70 in 1924. Window glass, however, in common with many building materials, was lower in price. Under 26 inches fell from \$4.98 per box in 1924 to \$4.11 in 1925.

Petroleum and its Products.—Coal Oil W.W., fell from 21½c, per gallon to 20c, and gasoline, at Toronto, from 25½c, to to 23¾c. The lower average was due to heavy clude oil production resulting in superabundant supplies of gasoline in spite of a heavy demand.

Lime and Cement.—Continued quietness in building was reputed to be the cause of lower prices for lime and cement. High calcium lime fell from \$8.83 per ton in 1924 to \$8.08 in 1925 and Portland cement from an average of \$2.12 per barrel to \$1.97 per barrel. The price of \$1.97 prevailed during the last half of 1924 and during 1925.

Salt.—The price of fine salt averaged \$1.43 per barrel in 1925 as compared with \$1.91 in 1924.

Sulphur.—This commodity was \$19.75 per gross ton ex vessel, there being no change from 1924 prices.

Table 1(a).—Summary Statistics Relating to the Manufacture of Non-Metallic Mineral Products Industries in Canada, 1921-1925

Year	Number of plants	Capital employed	Average number of employees	Salaries and wages	Cost of materials	Value of products	Value added by manufacturing
		1	ERATED '	WATERS			
1921 1922 1923 1923 1924 1925	320 283 295 296 313	\$,236,946 8,205,457 8,315,389 9,385,802 10,673,331	1,932 1,537 1,724 1,543 1,684	1,811,983 1,803,364 1,843,531 1,807,572 1,849,254	3,607,147 2,705,957 2,672,332 1,982,340 3,076,563	9,176,868 6,594,509 6,408,832 6,354,358 6,877,524	\$,569,721 3,888,552 3,736,500 4,372,018 3,800,961
		ASBESTO	8 AND AL	LIED PRODU	JCTS		
1921 1922 1923 1924 1925	11 11 9 9	1,351,278 1,610,700 1,486,580 1,468,728 2,624,260	132 156 145 120 256	273,522 189,059 176,986 169,979 282,382	385,810 271,749 260,281 267,201 783,063	801,603 615,160 583,013 589,339 1,344,097	418, 793 343, 411 322, 732 322, 138 561, 034
	CF	MENT PRO	DUCTS AN	D SAND-LIM	E BRICK		
1921 1922 1923 1924 1925	118 135 126 128 206	2,789,066 2,777,968 2,707,199 3,019,997 3,555,465	664 614 646 691 1.025	639,658 659,973 743,993 673,123 940,712	694,923 825,238 814,772 674,530 860,451	2,095,997 2,139,811 2,403,488 1,877,817 2,801,794	1,401,074 1,314,573 1,588,716 1,203,287 1,941,343
		СОК	E AND BY	-PRODUCTS			
1921 1922 1923 1924 1925	5 6 5 6 8	19,866,300 20,363,785 20,494,442 24,315,744 23,905,454	647 533 598 530 583	1,222,789 716,893 842,376 900,992 885,637	12,295,797 6,130,628 11,437,863 6,879,516 7,112,311	14,214,728 7,336,627 13,901,445 10,438,462 11,020,298	1,948,931 1,205,999 2,463,582 3,558,946 3,907,987
			GLA	SS			
1021	48 45 46 48 52	13,725,482 15,053,327 14,892,372 13,301,814 12,694,338	3,097 2,984 3,350 3,137 2,778	3,621,768 3,369,854 3,778,802 3,666,213 3,291,912	3,074,358 3,287,001 3,714,515 3,667,660 4,029,035	11,461,932 8,842,588 11,098,026 10,776,816 10,117,604	7,487,574 5,555,497 7,383,511 7,109,156 6,088,569
		HLLUM	HNATING	AND FUEL	GAS		
1921 1922 1923 1924 1925	50 48 45 44 44	37,097,280 39,615,765 45,526,495 42,813,276 48,129,651	2,818 3,107 3,021 3,648 3,804	3,984,976 3,974,705 3,801,832 4,835,351 5,057,702	9,279,697 8,580,208 9,024,084 6,772,576 6,178,609	18,772,285 19,089,170 19,605,340 18,101,724 17,874,479	9,492,588 10,508,962 10,581,256 11,329,118 11,695,870
		PRODUC	TS FROM	IMPORTED (CLAY		
1924 1925	12 12	1,677,533 2,762,951	489 552	567,143 653,211	535,793 326,023	1,879,769 1,741,745	1,343,976 1,415,722
2000				RNAMENTAI			
1921 1922 1923 1924 1925	173 208 210	3,971,172 5,027,935 5,073,618 4,941,269 5,015,729	1,207 1,273 1,278 1,344 1,262	1,652,837 1,809,444 1,842,963 1,887,462 1,811,512	1,478,097 1,844,548 1,683,126 1,441,753 1,964,817	4,540,028 4,968,487 5,025,003 4,730,572 5,355,997	3,061,931 3,123,939 3,341,877 3,288,810 3,391,180
		PET	ROLEUM I	PRODUCTS			
1921 1922 1023 1924 1025	16 19 20 25 21	57,564,588 62,054,029 61,027,704 53,795,794 50,580,549	4,014 3,555 4,257 3,669 3,738	6,182,514 5,492,683 5,648,320 5,749,705 5,775,046	36,629,576 38,433,191 36,816,696 37,092,711 38,261,024	52,932,415 57,935,563 46,280,534 49,411,067 50,762,127	16,302,839 18,622,372 9,463,838 12,318,356 12,501,103
	*MISCE	LLANEOUS	NON-META	LLIC MINE	RAL PRODUC	TS	
1921 1922 1923 1924 1925	26 38	2,253,322 6,354,115 7,262,403 6,659,059 8,322,096	902 1,371 2,917 1,767 1,316	411,044 722,080 1,492,846 1,328,976 1,371,895	553,517 1,318,652 2,879,015 2,427,145 2,686,856	1,256,938 3,015,539 8,147,331 6,991,901 7,878,183	703, 421 1,696,887 5,268,316 4,564,759 5,291,327
				ries Listed Al			
1 921 1922 1923 1924 1925	794	146, 855, 434 161, 063, 081 166, 786, 211 161, 390, 016 166, 263, 824	15,413 15,130 17,936 16,938 16,998	19,801,091 18,738,055 70,171,649 21,586,546 21,919,263	68,898,972 63,377,262 69,302,684 61,711,225 65,278,752	115, 255, 794 109, 637, 454 113, 153, 012 111, 151, 828 145, 873, 818	46,356,872 46,269,192 41,150,328 49,410,603 50,535,096

^{*}The Miscellaneous Non-Metallic Mineral Products group includes: The Abrasive Products Industry, the Artificial Graphite and Electrodes Industry, Gypsum Products Industry, Mica Trimming Industry, and, in 1922 to 1925, the Artificial Abrasives Industry.

Table 1(b).—Summary of Principal Statistics Relative to Certain Mineral Industries in Canada, 1921-1925

Note.—The foregoing list of industries includes all those shown in the Bureau classification under the heading "Manufactures of Non-Metallic Mineral Products." But there are several other groups classified by the Bureau as primary mineral industries which are ordinarily regarded as manufacturing enterprises. These industries have been described in the Annual Report on the Mineral Production of Canada to which the reader is referred for detailed information, but for convenience of reference and for the making of a grand total the principal statistics relating to them have been repeated below.

(From the annual Report on the Mineral Production of Canada.)

Year	Number of plants	Capital employed	Average number of employees	Salaries and wages	† Miscel- laneous expenses	† Cost of fuel	Net value of products
			CLAY PRO	DUCTS			
			BRICK AN				
1921 1922 1923 1923 1924 1925	202 216 204 192 175	\$ 21,138,115 23,821,180 24,866,834 24,423,104 22,410,450	3,597 3,904 3,954 3,332 3,403	2,780,204 3,782,341 4,045,487 3,071,379 3,167,926	1,206,828 2,112,790 1,410,051	1,393,297 1,644,463 2,254,445 1,508,573 1,565,341	\$ 6,526,440 8,911,539 8,220,269 7,046,355 7,374,551
			CLAY SEWE				
1921	5	3,177,036	465	566, 838	226.974	329,486	1.503.715
1922 1923 1924 1925	5 5 5	3,177,036 3,057,149 3,022,522 3,149,838 2,810,782	448 459 467 382	547,411 561,515 596,598 461,527	226,974 282,705 307,870	329,486 217,228 307,681 281,448 240,038	1,503,715 1,571,464 1,421,002 1,343,197 1,182,454
		Finebri	CK AND FIRE	CLAY PRODU	CTS		
1921 1922 1923 1924 1925	7 5 6 7	1,643,122 1,705,753 1,786,353 1,850,385 2,114,738	233 182 192 208 220	308,040 264,548 286,377 258,416 274,919	88,873 53,015 61,277	74,318 82,228 90,286 74,431 88,552	604, 921 683, 266 605, 968 584, 838 702, 707
THE RESERVE		Sı	PONEWARE AN	D POTTERY			
1921 1922 1923 1924 1925	4 4 4 6 4	275,265 280,467 314,862 387,667 424,894	104 112 119 113 131	112,800 124,575 117,221 114,925 129,703	127,396 22,010 88,233	15,065 12,652 14,607 14,642 15,660	216, 284 252, 889 230, 924 240, 687 269, 979
177			CEME	NT			
1921 1922 1923 1924 1925	14 11 10 10	49,160,180 41,573,737 38,284,494 36,766,574 38,081,583	2,751 1,753 1,842 1,837 1,926	3,443,884 2,315,240 2,551,784 2,531,622 2,511,400	2,602,029 2,976,152 2,947,242 1,524,158	2,788,820 2,457,456 2,809,414 2,872,711 2,848,904	14,195,143 15,438,481 15,064,661 13,398,411 14,046,704
			LIME				
1921 1922 1923 1924 1925	66 62 56 49 62	4,990,969 4,984,910 6,050,954 5,165,964 5,154,046	931 1,110 1,197 927 1,006	949,966 1,013,486 1,191,416 970,672 960,434	407,620 522,222 806,916 757,898	698,992 725,168 953,709 740,878 762,814	2,781,197 3,165,005 3,260,608 3,178,541 3,387,652
			SAL	r			
1921 1922 1923 1924 1925	13 11 12 12 12 13	2,267,708 2,205,184 2,406,902 2,479,563 2,563,508	330 371 368 364 402	411,832 432,261 412,597 431,618 467,487	381,126 407,105 401,046 424,578	527,013 369,000 356,794 342,118 315,368	1.673,685 1.628,323 1.713,516 1.374,780 1.410,697
		Total of M	ineral Indu	stries Listed	Above		
1921 1922 1923 1924 1925	311 314 297 281 276	82,652,395 77,628,386 76,733,011 74,223,095 73,560,001	8,411 7,886 8,131 7,248 7,470	8,573,564 8,479,862 9,166,397 7,975,230 7,973,396	5,040,546 6,375,999 6,025,635	5,826,991 5,508,195 6,786,936 5,831,801 5,836,677	27,501,385 31,650,967 30,522,948 27,166,809 28,371,744
			GRAND T	OTAL			
1921 1922 1923 1924 1925	1,075 1,095 1,091 1,095 1,191	229, 507, 829 238, 691, 461 243, 519, 222 235, 613, 111 239, 823, 825	23,824 23,010 26,067 24,186 24,468	28,374,655 27,217,917 29,338,046 29,561,746 29,892,669			142,757,179 141,288,421 143,975,960 138,318,637 144,248,592

[†]Cost of electricity used was included with miscellaneous expenses in 1921 and 1922; but from 1923 to 1925 this item was grouped with cost of fuel.

Table 2.—Principal Statistics Relative to the Manufacture of Non-Metallic Mineral Products in Canada, by Industries and by Provinces, 1924

Industry	Prince Edward Island and Nova Scotia	New Bruns- wiek	Quebec	Onturio	Mani- toba	Saskat- chewan	Alberta	British Columbia	*Canada
AERATED WATERS INDUSTRY Number of plants	18 203,202	15 245,723	80 2,213,585	131 4,294,015	916,529	12 462,867	16 693,766		296 9,385,802
Salaried employees— Male Female Wage-carners—	12 2	10 5	111 16	102 20	20 6	14	35 4		821 51
Female	38 6 58	46	417 21 565	412 32 566	66 2 94	31 2 47	42 4 85	3	1,097 70 1,543
Salaries and wages— Salaries	15,873 34,407 50,280	24,007 34,679 58,686	242.287 393,443 635,730	231.795 428.763 660,558	42,104 93,648 135,752	44,055	59,659 50,499 110,158	54,984	673,994 1,134,478 1,807,572
Cost of fuel and electricity	3,614 99,570	4,341 91,287 249,377	45,965 600,313 2,204,763	46,413 756,852	9,806 78,027 382,630	101,717	5,003 110,985 326,592	9,304 143,589	131,609 1,982,346 6,354,359
Aspestos and Allied Pro-	182,411	249,377	2,204,100	2,000,040	002,000	200,002	320,034	3004/01	0,071,00
Number of plants				519,650 16					1,468,72
Male Female Wage-earners— Male				6					71
Total employees				48					92,51
Scharies. Swages State Total School of fuel and electric				44,438 30,279 74,717					77, 46 169, 97
Cost of materials				7,890 184,019 370,362					19,945 267,26 589,33
CEMENT PRODUCTS INDUST-		3	1.0	92					11
Number of plants Capital employed\$ Salaried employees— Mule		43,211						1 2	1,673,75
Wago-carners— Male		9		7					39
Total employees Salaries and wages—		1,700							45 87,30
Salaries		6,540 8,240	62,310	268,385 339,793		* * * * * * * * * * * * * * * * * * * *	111111		337,77 425,67
Cost of materials.	,	714 7,848 18,855	106,300	377,667					26,41: 493,27: 1,257,87
Number of plants				10	1	1			1
Salaried employees— Male									1,346,23
Female				186					20
Total employees Salaries and wages— Salaries				208 42,985 195,110					48,78 199,26
Wages	-			238, 101 59,470					248,04 61,23
Cost of materials				174,077 604,275					181,26 619,94

^{*}Where fewer than three firms in one province were engaged in the same industry, the data for these companies are not shown by provinces but they are included in the Canada totals for each industry.

Table 2.—Principal Statistics Relative to the Manufacture of Non-Metallic Mineral Products in Canada, by Industries, and by Provinces, 1924—Continued.

Industry	Prince Edward Island and Nova Scotia	New Bruns- wick	Quebec	Ontario	Mani- toba	Saskat- chewan	Alberta	British Columbia	*Canada
CORE AND BY-PRODUCTS									
INDUSTRY—	1			3		*********		2	
Number of plants									24,315,744
MaleFemale	, ,			14					28
				251					501
Male Female Total employees				266					1
									539
Wages\$				45,078 461,009					84,854 816,138
Salaries and wages— Salaries				506,087				,	500,992
Cost of motoviole	,			665,613					1,125,067
Firms' own make\$ Purchased materials\$ Total\$				76,203 4,565,443					90,188 6,789,328
Total				4,641,646					6,879,516
Made for use in coke				700 941					4 101 421
Made for use in metal.						*******			1,101,481
lurgical works\$ Made for sale\$ Total\$				1,931,289					6,322,069 3,014,912
Total				6,823,309					10,438,462
GLASS INDUSTRY-									
Number of plants\$ Capital employed\$ Salaried employees—		1	5,443,807	6,829,634	106,041		1	44.546	48 13,304,814
Salaried employees— Male			61	115	7				
FemaleWage-carners—			12	34	3				50
Male			1,031					7	2,650 243
Total employees,			1,197		25			13	
Salaries and wages—			133,506		12,581			3,605	
Wages \$ Total \$				1,756,480 2,093,548	29,754			8,276 11,881	3,154,553 3,666,213
Cost of fuel and electric-			503,731	742,629	792			568	1,255,190
Cost of materials\$ Value of products\$			1,127,624 3,817,455	2,147,988 5,895,499	50,947 88,781			10,509 25,966	3,667,660 10,776,816
GAS INDUSTRY-									
Number of plants Capital employed\$	1	2	6,978,091	21 23,504,144	5.466.931	2	1	5 488 224	42,818,276
Salaried employees— Male			49	275	35			43	423
Female			153		22			6	369
Male	,	, , .	841	1,548				235	2,851
Total employees			1,043	2,009	199			284	3,618
Salaries and wages—			397,023	641,789	78,045			87,561	1,231,512
Wages\$			1,359,054	2,034,913 2,676,702	195,947 273,992			303,881 391,442	3,603,839 4,835,351
Cost of fuel and electric-			841,666	1,325,738	219,611		,	250,138	2,786,182
Cost of materials— Firms' own make\$			98,967	336,272	24,762			8,723	468,721
Purchased materials. \$ Total\$			2,385,158 2,484,125	3,042,410	441,067 465,829			301,110	6,383,852
Value of products— By-products made for									
use \$ By-products made for				724,831	126,133			139,131	1,005,291
sale \$ Income from gas sold.\$			1,359,008 5,153,954	969,461 7,188,245	257,338 792,854			160,973 856,268	2,828,118 14,268,315
Total\$			6,512,962	8,882,537				1,156,372	18, 101, 724

^{*}Where fewer than three firms in one province were engaged in the same industry, the data for these companies are not shown by provinces but they are included in the Canada totals for each industry,

Table 2.—Principal Statistics Relative to the Manufacture of Non-Metallic Mineral Products in Canada, by Industries and by Provinces, 1924—Continued

	المحال								
Industry	Prince Edward Island and Nova Scotia	New Bruns- wick	Quebec	Ontario	Mani- toba	Saskat- chewan	Alberta	British Columbia	*Canada
PRODUCTS FROM IMPORTED									
CLLY INDUSTRY-		1	5	6					12
Number of plants				994,662					1,677,533
MENCO				19					36
Female				8					
Male Female Total employees				293 16					421
Total employees Salaries and waget-				336					489
Salaries				63,157 332,011					101,277
Total				395, 168					567,143
city \$ Cost of materials\$				73,962 382,250					141,494 535,793
Value of products 8				1,472,713					1,879,769
W									
MONUMENTAL AND ORNA- MENTAL STONE IN-									
Number of plants	14	9	42	113	12		6	7	210
Capital employed\$ Salaried employees		132,078		2,674,090				88,826	
Male Female Wage-enraers—	1	1	31	95 12	21	14	8 3	7	184
Wage-enraers— Male	36	58		558	76	26	21	43	1,133
Female Total employees	37	67	347	667	101	43	32	50	1,344
Salaries and wages-		10,730		267,333	52,871	25, 208	16,277	14,322	409,084
Salaries	29,846	56,801	404,752	771,227	82,992	34,677	33,528	64,555	1,478,378
Wages 8 Total 8 Cost of fuel and electri-	31,046		485,895				49,805	78,877	1,887,462
Cost of materials 8 Value of products \$	2,451 55,113	2,012 33,041	36,008 271,790	899,300	6,807 91,029		1,734 31,088	3,580 26,373	95,791 1,441,753
Value of products\$	126,243	137,494	1, 137, 660	2,639.443	277,669	128,844	136,110	147, 109	4,730,572
PETHOLEUM PRODUCTS IN-									
Number of plants	1		4	8	I	1	8	2	25
Number of plants			8,712,950	15,044,260			9,908,910		53,795,791
Male	. 42 . 4		50 11	160 33			41 6		384 64
Wage-earners Male			512	1,439			368		3,195
Female Total employees	-12000000		5 587	18			416		26 3,669
Salaries and wages-				1,650					
Sularies\$ Wages\$			136,845 728,284	400,380 2,137,767			92,673 577,810		961,281 4,788,424
Wages			865,129				670,483		5,749,705
Cost of materials\$			636,420 5,011,900	1,444,713 14,506,930					3,586,532
Value of products			575,896	554,676			143,277	,	2,419,016
Made for sale \$			6,468,123	18,162,840 18,717,516			5,809,096 5,944,273		46,992,051
MISCRILANEOUS NON-ME- TAULIC MINERAL PRO-									
DUCTS INDUSTRY-			17	19					36
Number of plants			1,941,533	4,717,526					6,659,859
Males Fornale			21 11	89					110
Wage earners—				587			- 0 -		748
Male Female			161 767	99					586
Total employees			960	807	1				1,767

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Table 2.—Principal Statistics Relative to the Manufacture of Non-Metallic Mineral Products in Canada, by Industries and by Provinces, 1924—Concluded

									the state of the state of
Industry	Prince Edwar Island and No Scotia	l New Bruns- m wick	Quebec	Ontario	Mani- toba	Saskat- chewan	Alberta	British Columbia	*Сапада
24									
MISCELLABEOUS NON-ME- TALLIC MINERAL PRO-									
DUCTS INDUSTRY-Cen.									
Salaties and wages—- Salaries			53,795	208.778					262,573
Wages			279,382	787.02t					1,066,403
Cost of fuel and electri-			333, 177	995,788	.,.,				1,328,976
city\$			130,483						564,720
Cost of materials\$									2,427,145 6,991,904
Value of products\$			1,500,450	5,685,471					6,331,304
All Industries—									
Number of plants		37 31	183	436	33	25	32	37	814
Capital employed 8	22, 466, 1	77 460,485	28,246,887	71,813,426	7,411,954	5,811,964	11,751,574	13,447,551	161,390,016
Safaried employees— Male		71 31	377	934	88	60	91	133	1,785
Female		12		312	35				635
Wage-rarners Male		81 151	3,532	7.066	307	377	562	663	13, 279
Female		9: 1	891	313	4	2	15		1,239
Total employees	7	73 196	5,010	8,655	434	445	681	750	16,938
Safaries and wages—	168, 4	42 43.434	1,145,395	2,363,209	192,501	136,834	192,866	283,260	4,466,942
Wages §	872,8		4,200,755		397.934	545,775			17, 119, 574
Total \$ Cost of firel and electri-	1,011,2	781 357,463	5,346,150	11,006,156	590,435	682,609	1,032,931	1,199,363	21,586,516
elty	926,8	85 23, 126	2,277,432	4,863,871	251,077	470,019	316,168	581,809	9,713,687
Cost of materials - Firms' own make		NEW YORK	98,967	412, 475	21,762			22, 785	558,912
Purchased materials.	6,067,3		10,205,878	29,011,998	1,028,164	1,467,121	1,576,518	5,596,218	61, 182, 313
Total	6,067,3	75 199,035	16,404,845	29, 154, 473	1,052,926	1, 167, 124	1.576,518	5,618,926	61,741,225
Made for own use	2,256,4			6,171,527					10,847,857
Made for sale §									100, 303, 971 111, 151, 828
Total S.	9+10044	300,711	16440884888	131 329 961	e*001*499c	B-019-004	F.048,004	0,000,184	TIN' EGN 9 9 69

^{*}Where fewer than three firms in one province were engaged in the same industry, the data for these companies are not shown by provinces but they are included in the Canada totals for each industry.

Tabel 3.—Principal Statistics Relative to the Manufacture of Non-Metallic Mineral Products in Canada, by Industries and by Provinces, 1925

Industry	Prince Edward Island and Nova Scotia	New Bruns- wick	Quebec	Ontario	Mani- toba	Saskat- chewan	Alberta	British Columbia	*Canada
AERATED WATERS INDUSTRY									
Number of plants		240 965	3,049,711	4 311 131		553,592	693,469		313 10,673,331
Salaried employees-	18	6	136	93	20	16			325
Female Wage earners—		4	21	22		2	4		57
Male	39	48	467 24	430 33		52	43	52	1,229
Female	64	59		578		74	76		1,684
Salaries 8	19,008	16.031 43.583	269,183 460,700	173,098 432,262		24,633 59,570			599,041 1,250,213
Wages 1 Total 8 Cost of fuel and electri-	56,481	59,614	729,883			84,203			1,819,254
ity 1	4,595	4,700	49, 101	47,543		13,776 151,972			115.506 3,076,563
Cost of materials	93,651	88,479 246,472	1,156,235 2,592,501	1,041,432 2,425,68t					6,877,521
Assessos and Allied Pro-									
Number of plants	1		0.070 074	540.005				1	12
Capital employed			2,072,654	540,005					2,624,280
Male			30 5	17					13
Wage-earners Male			143	25					170
Female Total employees			21 199	53		1 / 1 - 2 + 1 /			26 256
Salaries and wages— Salaries			62,152	46,535					110,488
Total Cost of fuel and electric			140,762 202,915	28,517 75,052					171,894 292,392
itv			55,247	7,022					62,640
Cost of materials		, , , , , , , , ,	567,152 922,641	207, 240 403, 254					783,063 1,344,097
CEMENT PRODUCTS INDUST									
Number of plants	2		34	148			2		197
Capital employed		41,348						21,143	
Male Female		1	24	54					82 N
Wage-earners-		15	152	504	,	* 4 + 4) + 1 * * *		9	734
Total employees		16	179	3 568					5 819
Salaries and wages		900	24,126						125,567
Wages		4,482 5,382	120,479 150,605	411,836 511,704				2,575	572,149 697,716
Cost of fuel and electric		497	8,476	30,751				30	40,442
Cost of materials		6,077	151,033 398,192					2,537 7,448	730,296
Sand-Lime Brick Indust-									
HY				7	2		,		9
Number of plants									960,729
									16
Wage-earners— Male						********			189
Tenale Total employees			*******						206
Salaries and wages—									35,337
Wages Total									207,659
Cost of fuel and electric	-								62,844
Cost of materials				,					139, 155 781, 555
	1							1	

^{*}Where fewer than three firms in one province were engaged in the same industry, the data for these companies are not shown by provinces but they are included in the Canada totals for each industry.

Table 3.—Principal Statistics Relative to the Manufacture of Non-Metallic Mineral Products in Canada, by Industries and by Provinces, 1925—Continued

Industry	Prince Eldward Island and Nova Scotia	New Brans- wick	Quebec	Ontario	Mani- toba	Saskat- chewan	Alberta	British Columbia	*Canada
COKE AND BY-PRODUCTS									
Number of plants Capital employed \$	1			10.573.647				2	23,905,454
Industry — Number of plants Capital employed Salaried employees—									
Male Female Wage-carners—				14					27
Wage-carners-				925					555
Male Female Total employees				1					1
Total employees				250					583
Salaries and wages—				46.344					80,098 805,547
Wages & Total & Cost of fuel & \$				493, 165					885,637
Cost of fuel\$ Cost of materials—				648,039					1,213,677
Firm's own make\$				72,011					85,550
Firm's own make \$ Purchased materials . \$ Total \$				4,300,412					7,026,761
Value of products-									
Made for use in coke plant\$				664,667					1,000,991
Made for use in metal- lurgical works\$				3,619,670					5,799,093
Made for sale, \$				2,717,576					4,229,214
Total\$				7,001,913					11,020,298
			THE I						
GLASS INDUSTRY-									
Number of plants\$ Capital employed\$		1	5.845.085	5.844.224	105.554		2	15.518	52 12,694,338
Salarred employees-			85				-		218
Male			25					4	59
Wag s-carners— Male			1,109	1.074	17			5	2,291
remale			141	61				1	210
Total employees Salaries and weges—				1.278	25		,,,,,,,	11	2,778
Sularing 9			178.768 1.287,337					3,780 6,233	
Wag 's . \$ Total . \$ Cost of fuel . \$			1,466,105	1.650,890	52,052			10.013	3,291,912
Cost of fuel\$ Cost of materials\$			576.568 1,457.927		54,092			567 7.525	1,101,808
Value of products \$				5,352,344	97.316			16,843	10,117,601
ILLUMINATING AND FUEL									
GAS INDUSTRY-	4	9	4	21	8	2	1	5	44
CARRIAGI CHI PROPERTO CONTRACTOR			6,999,625	26,078,348	5,405,232			6,244,406	46, 129, 651
Male			168		37				377
Female			77	182	23			7	293
Male			879	1,591	119				2,93%
Total employees			1,124	2,076	179			303	3,804
Salaries and wages— Salaries					90,047			101.680	1,326,359
Wages			1,010,120	2.150,717	165,198			301,602	3,731,343
Total 8 Cost of fuel \$			1,425,271 256,229	2,892,024	200,240			403,282 85,125	1,128,846
Cost of materials—			72,946		75,630			18,118	
Purchased materials\$			2,088,408	2,819.532	394,860			317,251	5,740,208
Total			2,161,354	3,091,239	470,490			335,369	6, 178, 609
By-products made for			102,715	662,625	86,864		EL	91,824	978,446
By-products made for									
sale			1,300,413 5,038,743	7,024,535	269,306 757,759			156,584 931,021	2,848,727
Total\$		l		8,747,867	1,113,929	1		1, 179, 429	17,874,479
		1-11							

Where fewer than three firms in one province were engaged in the same industry, the data for these companies are not shown by provinces, but they are included in the Canada totals for each industry.

Table 3.—Principal Statistics Relative to the Manufacture of Non-Metallic Mineral Products in Canada, by Industries and by Provinces, 1925—Continued

Industry	Prince Edward Island and Nova Scotia	New Bruns- wick	Quebec	Ontario	Mani- toba	Saskat- chewan	Alberta	British Colum- bia	*Canada
IMPORTED—CLAY PRODUCTS									
INDUSTRY-									
Number of plants		1	1.235.135	1,527,816					2,762,951
Salaried employees-									
Male Female Wage carners—			27	27					54 11
Wage earners—			178	266					444
Male Female Total employees			3	40					43
			210	342					552
Saluries \$ Wages \$ Total \$			65,117 198,333	84,771 304,990					149,888 503,323
Total			263,450						653,211
			96,963	73,376					120,339
city \$ Cost of materials \$ Value of products \$			130, 183	195,840					326,023
value of productse			604,653	1,133.277					1.741,745
MONUMENTAL AND ORNA- MENTAL STONE INDUS-									
Number of plants	12	g	41	118	13		5	9	214
Number of plants	82,975	118,437	696,072	3,019,598	561,530	213,114	220,774	97,220	5,015,729
histe	5	5	24	110	23	9 2			159
Female									
Alale	27	50	207	573	106	23		39	1,946
Female	32	56	233	698	133	34	30	46	1,262
Salaries and wages—	4,100	9.060	60,128		57,345	17,980			422,239
Wagest \$ Total \$	24,132 28,232	46,507 55,567	225,451 285,579	853,894 1,097,055	122,577 179,922	26,377 44,357	40,170 54,395		1,389,273
Cost of fuel and electri-		2,296	18,739	52,805	12,892	2,586			98,929
Cost of materials\$	44,376	26,992	216.506	1,407,078	168,392	28,925	38,888		1,964,817
Value of products\$	126,632	122,503	687,440	3,485,505	523,258	108,999	152,768	148,890	5,355,997
PETEOLEUM PRODUCTS IN-									
DISTRY-		1	4	-	1	1		0	21
Number of plants Capital employed . \$ Saluried employees-			9,677,552	16.969,751					50,580,519
Salaried employees-			68	163			34		392
Male Female Wag-carners—			14				4		68
Male			589				187		8,250
Male Female Total employees			676				227		3,738
			166.280						1,014,540
Wages			813, 432	2.370,685			89,833 283,924		4,760,106
Salaries \$ Woges \$ Total \$ Cost of fuel and electri				2,797,730					5,775,046
city\$ Cost of reaterials\$			839,858	1,338,602 15,808,948			214,164		3,447,136
Vidue of products-									
Water for use			809,355 7,859,483	19,894,143			117,788 5,340,624		2,419,156 48,342,971
Tatal\$			8,667,838	20,425,854			5,458,412		50,762,127
V V.									
MISSULLANGOUS NON-ME-									
Number of plants			13	22					35
Number of plants			2,417,263	5,904,833					8,322,096
Mule			25						155
Winge-campers-			10	25					35
Male			149 369						765 391
Female Total employees			553 553						1,346
									- 10-

^{*} Where lewer than three firms in one province were irgaged in the same industry, the data for these companies are not shown by provinces but they are included in the Canada totals for each industry.

Table 3.—Principal Statistics Relative to the Manufacture of Non-Metallic Mineral Products in Canada, by Industries and by Provinces, 1925—Concluded

Industry	Prince Edward Island and Nova Scotia	New Bruns- wick	Quebec	Ontario	Mani- toba	Saskat- chewan	Alberta	British Columbia	'Canada
MISCELLANEOUS NON - ME- TALLIC MINERAL PRO- DUCTS INDUSTRY—COR.									
Salaries and wages— Salaries			53,608 280,939 334,547	243,959 793,389 1,037,348					287,567 1,074,328 1,371,895
Cost of fuel and electricity			143,391 519,692 1,237,149	448,936 2,167,164 6,741,034					592,327 2,686,856 7,978,183
All Industries— Number of plants Capital employed\$	39	35			7 694 405	28	28		915 166, 263, 824
Salarled employees— Male Female Wage-carners	87	25 10	587	1,003	91	53	71 13	137	2,054 568
Male Female Total employees	681 8 784	168 6 209	565	188	355 3 488	315 4 378	341 16 441	4	13,582 794 16,998
Salaries and wages Salaries \$ Wages \$ Total 8	182,358 829,757 1,012,115		4,543,550	2,381,061 9,344,904 11,725,965	202,309 422,477 621,786	122,612 416,963 539,575		295,924 1,042,793 1,339,717	4,692,290 17,226 973 21,919,263
Cost of fuel and electri- city \$ Cost of materials— Firm's own make \$	\$14,466		72,916		75,630	376,562		31,657	8,961,699 523,951
Purchased materials 8 Total 8 Value of products— Made for own use. 8	5,500,831 5,500,831 2,169,381		13,071,091	50,886,028 31,239,746 5,478,673	1,312,345	3,857,650	4, 109, 879	5,921,170 5,952,827 1,072,508	64,754,801 65,278,752 10,188,686
Made for sale 8 Total 8	6,398,658 8,538,939	808,290	24,830,253	52,486,387 57,965,980	2, 176,544	5,736,269	6,298,351	S.688,410	105,685,162 115,873,848

^{*} Where fewer than three firms in one province were engaged in the same industry, the data for these companies are not shown by provinces, but they are included in the Canada totals for each industry.

Table 4.—Capital Employed in the Manufacture of Non-Metallic Mineral Products in Canada, by Provinces, 1924-1925

		192			1925						
	Capi	tal employed	as represente	d by	Capital employed as represented by						
buildings, machinery		Materials on hand and stocks in process	on hand and and stocks operating		Lands, buildings, machinery and tools	Materials on hand and stocks in process	Cash, trading and operating accounts	Total			
Prince Edward	\$	\$	\$	3	8	8	8	\$			
Island	25,300	59,116	550	84,966	25,375	71,439	500	97,314			
Nova Scotia	17,901,931	4,421,330	57,950	22,381,211	17.615,418	3,575,200	53,222	21,273,840			
New Brunswick	226,378	131,555	102,550	460,483	375,818	151,393	277,010	801,221			
Quebec	18,219,817	6,521,937	3,505,133	28,246,887	20,771,343	7,758,416	3,855,419	32,385,128			
Ontario	51,554,907	12.575,377	7,683,142	71,813,126	53,861,219	14,109,077	9,476,025	77,146,321			
Manitoba	6,500,837	584,838	326,279	7,411,954	6,800,113	486,106	348,266	7,684,485			
Saskatchewan	3,450,476	2,197,025	164,463	5,811,964	3,501,116	1,440.535	155.783	5,097,434			
Alberta	8,932,689	2,302,819	496.066	11,731,571	4,750,045	2,150,113	361,962	7,261,120			
British Columbia	10,593,666	2,396,195	457,690	18,447,551	11,200,676	2, 282, 065	775,170	14,260,911			
Canada	117,466,001	31, 190, 192	12,793,823	161,390,016	118,931,123	32,024,344	15,305,357	166,263,824			

Table 5.—Capital Employed in the Manufacture of Non-Metallic Mineral Products in Canada, by Industries, 1924-1925

		1924				19:	25	
	Capit	al employed	ns represente	d by	Capit	al employed	as represente	d by
Industry	Lands, buildings, machinery and tools	Materials on hand and stocks in process	Cash, trading and operating accounts	Total	Lands, buildings, machinery and tools	Materials on hand and stocks in process	Cash, trailing and operating necounts	Total
		\$	8		\$	\$	s	
Aerated waters	5,379,841	1,899,193	2,106,768	9,385,802	6.528,558	1,767,372	2,377,401	10,673,331
Asbestos and allied	959,740	333,977	175,011	1,468,728	1,888,084	491,457	244,719	2,621,260
Coment products.	982,982	334,199	356,577	1,673,758	1.465,650	478,620	650,466	2,594,786
Sand-lime brick	1,192,579	39, 224	124,436	1,346,239	738,692	42,030	180,007	960,729
Coke and by-pro-	22,446,224	1,579,203	290,317	24,315,711	22,415,261	1,273,899	2,216,294	23,905,454
Glass	8,414,045	2,991,799	1,898,970	13,304,814	7,773,399	3,033,256	1,887,683	12,694,338
Illuminating and fact gas	36, 150, 594	2,476,032	4,191.650	42,818,276	38,924,759	2,258,957	4,945,935	46,129,651
Products from imported clay	961,927	415,535	300,071	1,677,533	1,516,143	699, 105	547,703	2,762,951
Monumental and ornamental stone	2,214,307	1,215,417	1.514,545	4,944,269	2,346,427	1,304,726	1,364,576	5,015,729
Petroleum pro- ducts	34,613,268	18, 264, 767	917,759	53,795,794	30,842,834	19,005,802	731,913	50,580,549
Miscellaneous non- metallic mineral								
products	4,100,494	1.640,846	917,719	6,639,939	4,494,016	1,669,120	2,158,660	8,372,096
Total	147, 406, 001	31,190,192	12,793,823	161,390,016	118,934,123	32,024,344	15,305,357	166,261,824

Table 6.—Number of Wage-Earners Employed in the Manufacture of Non-Metallic Mineral Products in Canada, by Months and by Provinces, 1924

Month	Prince Edward Island	Nova Scotia	New Bruns- wick	Quebec	Ontario	Mani- toba	Saskat- chewan	Alberta	British Colum- bia	Canada
January	12	702	78	3,976	6.745	227	314	684	624	13,362
February	15	658	85	4,263	6.576	236	320	587	598	13,338
March	18	751	142	3,795	6,828	256	320	529	611	13,248
April,,,	16	720	152	4,022	7,297	282	323	535	561	13,908
May	17	738	156	4,200	7,614	334	338	732	599	14,728
June	17	723	167	4,260	7,641	359	349	714	599	14,829
July	17	690	186	4.077	7,892	368	372	605	603	14,810
August	11	585	178	4,087	7.613	355	365	572	585	14,351
September	16	584	161	4,175	7,423	310	428	538	594	14,229
October	15	670	150	4,212	7,446	296	420	493	627	14,329
November	13	601	139	4,068	7,120	271	388	495	639	13,734
December	13	555	106	3,652	6,761	262	396	378	616	12,739
Average	15	67.5	152	4,423	7,379	311	379	577	607	14,518

Table 7.—Number of Wage-Earners Employed in the Manufacture of Non-Metallic Mineral Products in Canada, by Months and by Provinces, 1925

Month	Prince Edward Island	Nova Scotia	New Bruns- wick	Quebec	Ontario	Mani- tobu	Saskat- chewan	Alberta	British Colum- bia	Canada
January	11	663	100	3,855	6,141	270	378	300	684	12,402
February	14	641	128	4,050	5,932	286	324	263	698	12,336
March	15	688	153	4,206	6,128	305	303	293	675	12,766
April	16	634	176	4,453	6,744	308	309	320	651	13,611
May	16	681	186	4.887	7,276	349	366	364	639	14,764
June	16	679	183	4,972	7,721	369	376	331	663	15,310
July	16	712	181	4,973	7,792	403	381	373	713	15,544
August	10	720	177	4,693	7,865	396	365	488	803	15,517
September	15	712	169	4,348	7,612	356	224	429	790	14,685
October	14	678	154	4,315	7,683	332	201	400	854	14,631
November	12	583	137	3,949	7,485	289	181	335	921	13,892
December	11	590	117	3,771	7,195	290	183	320	905	13,382
Average	14	675	174	4, 438	7,279	358	319	357	762	14,376

Table 8.— Number of Wage-Earners Employed in the Manufacture of Non-Metallic Mineral Products in Canada, by Months and by Industries, 1924

Month	Aer- ated waters	As- bestos and allied pro- ducts	Cement pro- ducts	Sand- lime brick	Coke and by- pro- ducts	Glass	Illu- mina- ting and fuel gas	Pro- ducts from im- ported clays	Monumental and ornamental stone	Petro- leum pro- flucts	Mis- cel- lancous non- metal- lic mineral pro- ducts	Total
January	855	74	214	164	575	2,998	2,263	520	819	3,116	1,764	13,362
February	894	82	194	120	531	3,051	2,203	513	854	2,976	1,920	13,338
March	944	82	293	153	735	2,925	2,249	479	945	3,001	1,442	13,248
April	1,034	83	392	192	628	2,987	2,550	471	1,007	3, 186	1,378	13,908
May	1,266	84	466	228	446	3,044	3,065	414	1,089	3,316	1,280	14,728
June	1,372	110	452	190	477	2,924	3,180	411	1.170	3,284	1,259	14,829
July	1,512	109	414	212	456	2,743	3,220	410	1,238	3,302	1,194	14,810
August	1,405	105	400	178	349	2,433	3,236	416	1,252	3,395	1,183	14,351
September	1,175	65	385	177	349	2,614	3,329	422	1,234	3,348	1,131	14,229
October	1,013	45	357	192	459	3,032	3,223	420	1,196	3,247	1,145	14,329
November	948	- 44	270	219	393	3,065	3,039	440	1,079	3,142	1,095	13,734
December	915	43	191	229	361	2,866	2,745	364	978	3,023	1,024	12,739
Average	1,167	77	400	209	502	2,893	2,856	4/4	1,135	3,221	1,614	14,518

Table 9.—Number of Wage-Earners Employed in the Manufacture of Non-Metallic Mineral Products in Canada, by Months and by Industries, 1925

Month	Aer- ated waters	As- hestes and allied pro- ducts	Cement pro- ducts	Sand- lime brick	Coke and by- pro- ducts	Glass	Illu- trina- ting and fuel gus	Products from im- ported clays	Monu- mental and orna- mental stone	Petro- leum pro- ducts	Miscel- laneous non- metal- lic mineral pro- ducts	Total
January	993	177	261	143	558	2,416	2,339	465	801	3,159	1,090	12,402
Pobruary	1,006	174	262	139	563	2,399	2,374	467	780	3,060	1,112	12,336
March	1,059	187	371	150	596	2,388	2,390	481	823	3,192	1,120	12,766
April	1,167	185	551	185	877	2,393	2,791	486	881	3,233	1,162	13,611
May	1,349	198	811	195	583	2,438	3,220	402	986	3,302	1,190	14,764
June	1,543	206	787	205	545	2,660	3,293	478	1,058	3,375	1,160	15,310
July	1,554	212	730	199	541	2,354	3,575	483	1,141	3,466	1,283	15,541
August	1,495	221	724	196	526	2,376	3,602	458	1,159	3,565	1,195	15,517
September	1,309	200	692	192	512	2,204	3,402	499	1,145	3,393	1,138	14,685
October	1,132	186	586	191	576	2,849	3,065	507	1,113	3,262	1.164	11,631
November	1,052	199	510	166	542	2,858	2,671	509	1,054	3,150	1,181	13,892
December	1,045	184	413	164	554	2,866	2,467	509	985	3,098	1,097	13,382
Average.	1,302	196	729	189	556	2,501	2,935	487	1,048	3,274	1,159	14,376

Table 10.—Fuel and Electricity Used in the Manufacture of Non-Metallic Mineral Products in Canada, by Kinds and by Industries, 1924

Industry	Anthra- cite coal	Bitumi- nous coal	Coke	Fuel oil and gasoline	Gas	Wood	Other	Electricity	Total
	Ton	Ton	Ton	Gal.	M cu. ft.	Cord	8	K.W.H.	\$
Aerated waters—Quantity	1,406 19,139	4,244 36,055	77 911	83,967 24,422	13,568 6,012	1,472 6,632	3,197	1,442,326 35,241	131,609
Asbestos and allied pro- ducts— Quantity		893 5,232		38,791 3 654		3 25		405,143 11,038	19,919
Coment products-Quantity		1,651 10,048	57	16.049 4.208	566	95 481	68	87,362 7,085	
Sand-lime brick-Quantity		7,331 44,901		592 121		20		955,494 18,090	
Coke and by-products—Quantity		11,589	13,123		5,913,099			8,578,445	
Glass- Quantity		37,793 72,297	272	3,639,800		12	1,758	75, 981 14, 915, 018	1,125,967
Illuminating and fuel gas— Quantity		526,546 37,183	141.826		1,339,350			183,936 2,945,329	********
Products from imported clays— Quantity	3,643	261,436 11,294	201	48,191	1,509,327	262	42,384	847,732	2,706,183
Monumental and ornamental stone— Quantity	40,296	84,552 795	2, 156	3,353	489 638	1,499	130	9.016 4.202.106	
Petroleum products-	4,168 18,692	6.077	1,406	5,294 42,824,417	895 1,372,675	2,725	480	74,746 15,506,873	95,791
Miscellaneous non-metallic	100,225	877,851		1,931,130			86,677		3,586,532
Quantity Total—	295 4,122	6,587 44,231	3 31			158 578		86,112,355 513,366	
Quantity \$		343,435 1,934,722		16,675,137 2,306,565				135,998,193 1,147,800	9,713,687

Table 11.—Fuel and Electricity Used in the Manufacture of Non-Metallic Mineral Products, by Kinds and by Industries, 1925

Industry	Anthra- cite coal	Bitumi- nous coal	Coke	Fuel oil and gasoline	Gas	Wood	Other	Electricity	Total
A	Ton	Ton	Ton	Gal.	M eu. ft.	Cord	8	K.W.H.	8
Aerated waters— Quantity	1,187 18,253	4,544		106,485 29,973		1,342 6,877		1,486,104 39,353	
Asbestos and allied pro- ducts— Quantity Cement products—		4,599		36,900		5			
Quantity Sand-lime brick—	2,026	2,205 14,268	877		263	71 580	1,159		40,442
Quantity	,	7,451 47,388				27 158		817, 516 14, 498	
Coke and by-products—Quantity Glass—		7,399 28,820	46,711 224,787				882	11,342,996 96,261	
Quantity	1,776 12,046	41.513 276,213		5,245,654 516,908			604	14,873,797	
Illuminating and fuel gas—Quantity	4.888	30,264 188,163	139,261					13,907,432	
Products from imported clays— Quantity Monumental and ornamental	1,871 21,637	15,264 107,156	336 3,668		957 670	241 2,165	98	1,241,190 20,130	
stone— Quantity Petroleum products—	263 3,949	1,416 12,379	102 1,356		2,172 2,123		489		96,929
Quantity Miscellaneous non-metallic	19,543 102,660	179,873 759,055		36,232,051 1,874,195			136,054	15,605,121 183,418	
mineral products— Quantity \$	333 4,409	9,548 62,682						196,058,070 523,509	
Total— Quantity				41,896,600 2,454,202			141,662	260,430,735 1,156,472	

Table 12.—Fuel and Electricity Used in the Manufacture of Non-Metallic Mineral Products in Canada, by Kinds and by Provinces, 1924

Province	Anthra- cite coal	Bitumi- nous coal	Coke	Fuel oil and gasoline	Gas	Wood	Other	Electricity	Total
	Ton	Ton	Ton	Gal.	M cu. ft.	Cord		K.W.H.	\$
Prince Edward Island—Quant	ity	27 285	12 115					4, 143 290	1,25
Nova Scotia— Quant		11,146 34,973	1,748 183	12,069,441	3,320,916	6 51		0,067,532 81,962	925,63
New Brunswick-Quant	ity 27 \$ 380	590 4,559			420 434	102 773		23,072 1,841	23, 420
Quebec Quant	5,010 58,776			12,150,739 715,640			2,510	82,673,090 283,075	2,277,43
Ontario-Quant	20,696 \$ 123,283				3,426,202 1,583,647	720 4,726	73,626	40,715,329 680,451	4,863,87
Manitoba— Quant	ity 26 396		11.061 101,105	122,146 12,227	68,625 108,347	148 322	20	1,150,236 13,239	251,07
Saskatchewan— Quant	ity	1,318 8,958		7,286,062 375,355		63 443			470,01
	ity	32,863 122,659	1,766 10,260			44 90	4,413	1,403,697 23,993	316, 16
British Columbia Quant	ity 6			5,168,248 187,944		121 507	45,728		391,80
Canada— Quant	ity 25,786 \$ 183,171			46,675,137 2,306,565				135,998,193 1,147,800	9,713,68

Table 13.—Fuel and Electricity Used in the Manufacture of Non-Metallic Mineral Products in Canada by Kinds and by Provinces, 1925

Province	Anthra- cite coal	Bitumi- nous coal	Cake	Fuel oil and gasoline	Gas	Wood	Other	filectricity	Total
	Ton	Ton	Ton	Gal.	M cu. ft.	Cord	\$	K.W.H.	\$
Prince Edward Island — Quantity \$		27 285		100 35	600 680	3 20	118	4,143 290	1,428
Nova Scotia— Quantity	24 270	6,651 24,821	40,125 208,776	8,032,799 373,840	2,514,234 224,596	21 166		6,339,129 80,569	913, 038
New Brunswick-Quantity	30 534	432 3,144	20 220	141, H27 8, 350	889 915	74 529	66	67,995 2,176	15,934
Quebec- Quantity	4,843 44,814	38,171 262,050		15,074,913 1,082,070	188,886 96,195	1.144 6,604		102,170,403 317,366	2,011,572
Ontario— Quantity	21,145 121,325	221,402 1,136,137	84,759 508,468	6,256,274 429,713	2,606,988 930,380	663 4,530	124,316	146,670,198 666,757	3,921,626
Manitoba Quantity	69 992	2,196 20,867	6,585 49,344		6,657 8,864	379 1,541		618,562 13,661	112,241
Saskat chewan—Quantity	30 2,565	2,710 15,285				59 340		1,976,292 38,517	
Alberta— Quantity	1 10	30,843 90,092	3,962 24,294			12 63		966,498 17,566	
British Columbia— Quantity	5 90	1,643 11,212		4,970,529 217,831	652,663 114,342	139 294		1,617,515 19,570	
Canada— Quantity	26, 147 170, 690	304,075 1,563,893			6,273,854 1,459,335			260,430,735 1,156,472	8,061,688

Table 14.—Power Equipment in Use in the Manufacture of Non-Metallic Mineral Products in Canada, by Classes and by Industries, 1924

Industry	Steam engines and turbines	Internal com- bustion engines gas, oil and gasoline	Hydraulic turbines and water wheels	Total primary power	Electric motors driven by surclused power	Total power equir- ment employed	Electric motors driven by power generated by the primary power of the industry	Total electric power	Bollers installed
Aerated waters No.	13 194	27 83	7 14	47 291	516 1,620	563 1.911	9 45	525 1.665	46 1.092
Ashestos and allied	102	00	1.7	208	1,020	1.016	70	1,000	1,002
products No					36	36	8	44	5
H.P.				58	536	536	97	633	273
Cement products No.	8 253	50 351		604	57 542	115		57 542	19 580
Sand-lime brick No	7	991		7	35	42		35	8
H.P.	700			700	891	1,591		891	1,115
Coke and by-pro-	0.0			60.00					
duets.,	2,993			2,993	162 4,080	251 7.073	191 5,043	353 9.123	6.137
Glass No	2,000	3		3	391	394	48	439	25
H.P.		427		427	6,243	6.670	523	6,766	2,043
Illuminating and fuel									
gas No	54	17		71	136	207	12	148	166
Products from im-	808	963		1,771	2.153	3,924	196	2.349	8.875
ported elays No.	1			1	60	61		60	6
H.P.	35			35	402	437		402	360
Monumental and or-		0.1		20	054	0.70		222	
namental stone No.	46	24 164		25 210	354 4,998	379 5,208	122	361 5,120	130
Petroleum preducts No.	273	21		297	225	522	105	330	98
H.P.	9,072	2,010		11,082	5,859	16,941	2.542	8,401.	18,961
Miscellaneous Non-									
productsNo.	1			7	220	221	63	283	10
II.P	50			50	159, 166	159,216	401	159.567	10 820
Total No.	14, 151	145 3,988	7 14	599 18,163	186, 490	2,791 284,653	453 8,969	2,635 195,459	415 40,386

Table 15.—Power Equipment in Use in the Manufacture of Non-Metallic Mineral Products in Canada, by Classes and by Industries, 1925

fadustry	Steam engines and turbines	Internal com- bustion engines gas, pil and gasoline	Hydraulic turbines and water wheels	Total primary power	Electric motors driven by purchused power	Total power equip- ment employed	Electric motors driven by power generated by the primary power of the industry	Total electric power	Boilers installed
Aerated waters No. H.P	16 223	30 74	6 12	52 309	550 1.083	602 1,992	5 23	555 1.706	38 991
Asbestos and allied products					101 2.259	101 2.259	2 45	103 2.304	6 764
Cement products. No. H.P.	0 170	71 407		77 577	90 854	167 1,431		90 854	23 431
Sand-lime brick No. H.P.	475			475	26 719	30 1,194		26 719	10 915
dueta	98 3,831			98 188.6	183 4,481	281 8,312	173 4.753	356 9,234	6,137
Glass		300	3	303	3,061	3,364	274 3,606	468 6,667	14 824
fuel gas	53 729	21 958	1 3	75 1.690	1,587	202 3.277	14 201	141 1,788	170 10,231
Products from imported clays No. H.P.					27 384	27 384	108	135 865	13 955
Monumental and or- namental stone No. H.P.	2 44	16	1 3	19 198	400 5,209	419 5, 407		400 5,209	6 202
Petroleum products No.	274 9,170	1,036		283 10,200	299 7,300	582 17,506	64 1,628	393 8,928	94 20,235
Miscellaneous non- metallic mineral productsNo.	2			2	277	279	80	357	10
H.P.	150			150	158,936	159,086	442	159.378	965
Total No. H.P.	455 14,792	149 2,526	21	17,739	2,274 186,473	2,887	720 11,179	2,994 197,652	42,650

Table 16.—Power Equipment in Use in the Manufacture of Non-Metallic Mineral Products in Canada, by Classes and by Provinces, 1924

CANADA No.	447 14,151	145 3.998	7 14	599 18,163	2,192 186,490	2,791 284,653	443 8,969	2,635 195,459	415
British Columbia. No. 11.P.	50 706	137	1 2	55 845	131 2.483	186	1 5	132 2,488	2.164
AlbertaNo. H.P.	20 411	1.407		1.818	2,189	192 4.007	3	2,193	1.859
Saskatchewan No.	1,124	103		1,227	1.801	3,028		1,801	2,216
H.P.	136	127		263	1,247	1,510	10	1,257	242
Manitoba No.	4,193	835	6	5,034	173,906 85	178,940	1,132	175,038 86	19,822
Ontario No.	4,296 143	256 65	4 2	4,556 210	4.399	8,955 1,514	1.521	5.920 1.427	6,764 283
QuebecNo.	147 154	101 25	2 3	250 182	247 352	497 534	97	252 449	285 50
New Brunswick No.	5	15	1	21	51	72	1	52	5
Nova Scotia No. H.P	50 3,138	1.032		60 4,170	33 208	93 4.378	6,292	250 6,500	7,034
Prince Edward No. Island, H.P.					5 10	8 10		5 10	
Province	Steam engines and turbines	Internal com- bustion ergines gas, oil and gasoline	Hydraulic turbines and water wheels	Total primary power	Electric motors driven by purclassed power	Total power equip- ment employed	Electric motors driven by power generated by the primary power of the industry	Total electric power	Boilers installed

Table 17.—Power Equipment in Use in the Manufacture of Non-Metallic Mineral Products in Canada, by Classes and by Provinces, 1925

Province	Steam engines and turbines	Internal com- bustion engines gas, oil and gasoline	Hydraulic turbines and water wheels	Total primary power	Electric motors driven by purchased power	Total power equip- ment employed	Electric motors driven by power generated by the primary power of the industry	Total cluetric power	Boilets installed
Prince Edward No. Island H.P.	50 3,131 5 147 157 4,286 148 4,784 136 111 1,049 16 337 55 922	1 2 11 1.035 8 92 26 232 26 232 757 3 127 2 104 4 453 8 453 8	3 4 4 12 12 2 5	1 2 61 4,166 13 230 180 4,522 234 5,553 16 263 21 3 1,153 24 790 65 1,051	5 10 43 196 61 182 533 7.582 1.163 171,038 112 1,260 28 1,905 145 1,839 134 2,461	6 12 104 4,362 64 421 719 12,104 1,397 176,591 1,523 1,01 3,058 1,623 169 2,629 199 3,512	216 6,287 1 5 20 202 481 4,683	5 10 259 6,483 52 187 553 7,784 1,644 175,721 1,260 88 1,905 146 1,840 1,35 2,462	24 7,014 6 400 58 7,920 2,75 18,627 9 1,435 12 2,076 7 1,464 4 20 3,714
CANADA No. H.P.	455 14,782	149 2,936	9 21	613 17,739	2,274 186,473	2,887 204,215	720 11,179	2,594 197,652	411 42,650

Table 18.—Imports into Canada of Non-Metallic Minerals and Their Products, 1924 and 1925

	1	924	1925	
Commodity	Quantity	Value	Quantity	Value
Asbestos Asbestos packing Bib Magnesia pipe covering Total.	221,266	\$ 441,300 98,418 121,046 660,764	222,051	\$ 350,600 08,169 108,681 557,450
CLAY AND ITS PRODUCTS				
Bath brick. Building brick. MBuilding blocks. Cluys—	5,425	1,799 124,983 63,559	5,489	695 125,565 81,873
China ton Fire ton Pipe ton Pipe Other clays Drain tile, unglazed Drain and sewerpipe Earthen and chinaware Firebrick! Firebrick, chrome Firebrick, n.o.p Magnesite brick Silea brick Paving brick M	2,559	250, 113 186, 696, 847, 56, 590, 3, 014, 4, 124, 607, 835, 452, 284, 388, 91, 553, 154, 251, 69, 493,		195,032 166,733 1,668 64,498 8,622 66,960 4,558,104 858,809 35,277 194,080 93,840 185,356 39,901
Other clay manufactures		842,577 7,158,371		771,001 7,478,084
COAL AND ITS PRODUCTS				
Coal Anthracite coal and anthracite dust ² ton Bituminous round and run-of-ruine ² ton Bituminous slack such as will pass through ‡-in, screen ⁴ ton Bituminous coal and coal, n.o.pton	4,152,558 9,222,019 3,324,195	37, 280, 910 23, 120, 128 6, 508, 515	2,055,946 765,519 9,726,995	32,096,509 4,426,759 1,378,101 21,169,480
Lignite and lignite dustton Total coal	26,007	67,027,508		87,832 59,158,681
Coal Products		0.1.0371000	20,020,030	•
Coal tar, crude, in packages of not less than 16 gallons, and coal pitch. gal. Carbolic or heavy oil .gal. Coke ton. Coke, ground, when imported by manufacturers of electric batteries for use in their own factories in the manufacture	2,880,499 3,734,722 521,725	186,178 681,063 3,131,485	3,636,880 4,857,720 852,427	258,944 723,775 5,553,494
of such batteriescwt.	12,638	39,392	15,393	52,815
Total coal products		4,038,118	-	6,589,028
Total coal and its products		71,065,826		65,747,709
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		67,083 17,051 1,161,532		76,713 44,576 1,108,285
blown glass tableware, and other cut glassware. Incandescent lamp bulbs and glass tubing for use in the manufacture of incandescent lamps. Lamp chimneys, glass shades or globes.		047,197 383,745 230,704 159,922		688,801 378,219 330,182 149,825

¹ Duty free of a kind not made in Canada. 2 Coal anthrocite and anthracite coal dust, duty free. 4 Duty, 35 cents per ton. 4 Duty, 14 cents per ton.

Table 18.—Imports into Canada of Non-Metallic Minerals and Their Products, 1924 and 1925—Continued

Character Physics	19:	24	1925		
Commodity	Quantity	Value	Quantity	Value	
GLASS AND GLASSWARE—Concluded	H	\$		\$	
PLATE, SHEET AND WINDOW GLASS Common and colourless window glass. 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	23,092,455	1.042,570	35,586,388	1,248,712	
factories. Plate glass, not bevelled, in sheets or panes not exceeding 7 sq. ft. each, n.o.p. sq. ft. 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.		16,484 878,983 310,476		5,074 1,031,956	
Plate glass, n.o.p. sq. ft. Plate glass, n.o.p. sq. ft. Plate glass, bevelled, n.o.p. sq. ft. Glass in sheets and bent plate glass, n.o.p.	783,624 24,766	463, 866 14, 586 172, 150	898,016 19,552	293,912 492,709 10,431 187,924	
STAINED, ORNAMENTAL AND SILVERED GLASS					
Lenses, silvered, for automobile lamps. Ornamental, figured and enamelled coloured glass, and memorial or other ornamental window glass.		136		191 6,119	
Painted or vitrified, chipped, figured, enamelled and obscured white glass. Plain, coloured, oxioue, stained or tinted or muffled glass in sheets		18,607 11,176		25,186 6,973	
Stained or ornamental glass windows. Silvered glass, bevelled or not, framed or not framed	**********	9,810		20,551 192,098	
OTHER GLASS AND GLASSWARE					
Articles of glass, not plate or sheet, designed to be cut or mounted. Photographic dry plates. Spectacles, eye-glasses and ground or finished spectacle or eye-glass		182,001 25,194		185,886 21,416	
lenses		77,994 573,665		79,609 570,413	
Total glass and glassware		6,652,625		7,155,760	
GRAPHITE AND ITS PRODUCTS					
Crucibles, plumbago Plambago not ground or otherwise manufactured Plumbago ground and manufactures of , n.o.p.		42,740 2,651 50,924		49,730 772 91,767	
Total graphite		96,315		142.269	
PETROLEUM, ASPHALT AND THEIR PRODUCTS					
Asphalt and its Products	e de la constante de la consta				
	341,408	283,658 10,536 37,794		292,218 13,288 12,147	
Total asphalt and its products		331,988		317,653	
Petroleum Oils, Chude, Fuel and Gas					
Crude petroleum not in its natural state, .7900 specific gravity or					
heavier at 60 degrees temperature, when imported by oil re- finers, to be refined in their own factories	55,758	3,953	49,149	2,910	
refiners to be refined in their own factories gal. Crude petroleum, gas oils other than naphtha, benzine and gasoline lighter than :8235 but not less than .775 specific gravity at 60	465, 958, 509	20,260,488	436, 258, 650	23,414,837	
degrees gal. Petroleum (not including crude petroleum) imported to be refined.	139,745	10, 875	4.181,914	227,378	
or illuminating or lubricating oils, '8235 specific gravity or heavier at 60 degrees temperature gal. Petroleum, imported by miners or mining companies or concerns,	94,104,526	4,122,333	103,667,298	4,690,901	
for use in the concentration of ores of metals in their own con- centrating establishmentsgal.	139,473	35,880	129,665	26, 251	

Table 18.—Imports into Canada of Non-Metallic Minerals and Their Products, 1924 and 1925—Continued

	1	924	1925		
Commodity	Quantity	Value	Quantity	Value	
PETROLEUM, ASPHALT AND THEIR PRODUCTS-		\$		\$	
Concluded Petroleum Oils, Refined					
Coal oil and kerosene, distilled, purified or refined	5,410,973	444,646	4,760,876	391,538	
specific gravity and heavier but not heavier than ·770 specific gravity at 60 degrees lemperaturegsl Illaminating oils, composed wholly or in part of the products of	20,420	2,942	395,795	63,587	
petroleum, coal, shale or lignite, costing more than 30 cents per gallon. gal Lubricating oils, composed wholly or in part of petroleum, and	10,655	4,215	2,451	1.776	
Lubricating oils, composed wholly or in part of petroleum, and costing less than 25 cents per gallon	3,975,337 4,521,086 56,389,078 284,115	728.250 1,714,403 7,138,561 38,745	4,632,195 68,993,020	712.850 1.770.739 8,389,058 7,094	
gravity at 00 degrees temperature gal All other oils, n.o.p. gal	17,081.248 260,901	2,166,847 119,088	24,897,661 204,633	3,204,479 109,348	
OTHER PRODUCTS OF PETROLEUM					
Grease, axle lb. Paraffine wax lb. Paraffine wax candles lb. Vaseline and all similar preparations of petroleum for toilet, medi-	2,853,720 837,317 202,565	165,691 65,782 36,884	3.776.077 1.ii01.505 208.887	230,151 124,234 46,257	
cincl or other purposes. Petroleum products, of, n.o.p. gal.	1,298,590	195,457 242,996	1,243,176	216,464 213,577	
Total petroleum and its products		37,498,039	, . ,	43,812,429	
Total asphalt, petroleum and their products		37,830,027		44,160,082	
STONE AND ITS PRODUCTS		,			
ABRASIVES					
Grindstones Burrstones in blocks, etc. Diamond dust or bort and black diamonds for borers. Emery in bulk, crushed or ground Emery and carborundum wheels and manufactures. Pumice and putnice stone ground Iron sand or globules for polishing and sawing. Sandpaper, emery paper, etc. Artificial abrasives.	145		5	661, 352 523, 163 223, 598 258, 207 27, 581 11, 702 305, 042 123, 651	
Total		1,575,476		2.134.880	
BUILDING AND PAVING STONE	12/16				
Building stone. Grunite. Marble. Refuse atoneton	281,824	267,699 140,237 291,380 174,738	160,997	244,105 160,869 281,829 100,544	
Total building and paving stone		874,054		787,347	
LIME, PLASTER AND CEMENT					
Portland cernent bri Manufactures of	27,672	69,320 9,772	cwt. 76,472	63,067 13,753	
Total coment		79,092	, . , ,	76,820	
Limeton	4.418	46.578	4,700	47,639	
Gypsum					
Crude	3,252 102 3,969	63, 156 2, 174 62, 770	4,433 119 4,369	66,064 3,858 66,386	
Total gypsum		128,100		136,308	

Table 18.—Imports into Canada of Non-Metallic Minerals and Their Products, 1924 and 1925—Concluded

	19	24	1925		
Commodity	Quantity	Value	Quantity	Value	
STONE AND ITS PRODUCTS—Concluded		8			
	5,718	71,298	4,411	50.3	
chool-writing square		74.879 7.601		102,8	
encils It other		66,624		47.4	
Total slate		220,402		205,5	
OTHER STONE PRODUCTS					
halk, China or Cornwall stone, cliff stone and mica schist, ground					
or unground		17,595 94,355		25,1 107,8	
halk, prepared urling stones and handles therefor	855 1,921	17,703 37,845	842 1,570	107.8 17.7 31.1	
eldspar ton					
Silex ton	6,010	49,552 64,753	2,197 3,601	39,8	
Flint ton ydro-fluo-silicie acid lb luorspar ton	286 4,355	50,158	4,378 5,111	60.	
nuistrannister cwt. ithographic stones, not ergraved ton	6,095	2,211	3,777	1,4	
agnesite tones, not ergraved tones.	280	3,553 8,990	111	4,5	
agnesite ton houselphare rock ton had, silica for glass, etc. cwt	11.668 2.635,560	56,965 324,279	14,002 2,870,038	62.1 353.1	
and and gravelton	150,868	118,397	282, 203	184,0	
alc or scapstone, ground or unground	59,364 279,706	59,800 166,915	91,351 333,727	91,1 199,0	
and and gravel ton ale or scapsione, ground or unground cwt linting, gilder's whiting, and Paris white cwt anufactures of stone, n.o.p.		36,103		37,0	
Total other stone products	.,,,,,,,,,,,	1,109,204		1,257,	
Total stone and its products		4,032,906		4,646,	
OTHER NON-METALLICS					
BARIUM COMPOUNDS					
arium peroxideton	37	11,883	33	7.	
lanc fixeton	354 758	21,742 21,591	303 778	19,2	
aryteston		48,693	2,433	50,	
Total barium compounds		103,909		98,	
last furnace slag	,	25,665		829.	
arbons over 3 inches in circumference and not exceeding 35 inches arbon electrodes over 35 inches in circumference		14,483		28,	
arbons, electric light, and carbon points, of all kinds, n.o.p		35, 287 2, 166, 564		2,740.	
na ths, crude only	*******	1.002		3,	
oundry facings of all kinds uller's carth, in bulk only		12, 100 25, 142		8,	
us for cooking benting or illuminating imported by nine			63,614	40	
line M cu. ft. sulators, electric teerschaum, crude or raw lb.		631,987		527,	
leerschaum, crude or raw	9	130,598		115,	
Total		3,797,100		4,381,	
9					
SALT for	68 100	332,649	73,166	327.	
ine, in bulk¹ ton n bags, barrels² ton	68,190 43,508	462,184	21,007	420,	
di others ton	71, 179	339,557	80, 405	329,	
Total saltton	182,886	1,134,390	174,578	1,077,	
Brimstone or sulphur, crude, or in roll or flourton	131.547	1,776.978 724,035	137,709	1,982,743,	
fineral and bituminous substances, n.o.p		(27,000)		170,	

Duty 5 cents per 100 pounds.
 Duty 7½ cents per 100 pounds.
 Free—imported for use of seal or gulf fisheries.

Table 19.—Exports from Canada of Non-Metallic Minerals and Their Products, 1924 and 1925

	192	24	1925		
Commodity	Quantity	Value	Quantity	Value	
ASBESTOS Asbestos ton Sand and waste ton Manufactures	107,200 95,089	\$ 6,297,819 1,220,070 44,132	136,750 121,267	8,090,100 1,592,286 55,572	
Total		7,562,021		9,737,964	
CLAY AND ITS PRODUCTS Building brick	2,988	38, 105		22,027	
Umanufactured	1,346	1,127 109,295 72,839 322,206 543,572		8,496 85,383 16,876 88,033	
COAL AND ITS PRODUCTS	-	4,836,518	785,910	4,329,173	
Coal ton Cinders ton Coke ton Tar and pitch, coal gal	23,144 2,329,041	10,918 393,979 273,900	44,992 2,658,851	13,003 675,595 188,007	
Total		5,515,345		5,205,778	
GLASS AND GLASSWARE					
Glass for lighting Glass and glassware, n.o.p.		68.009 250,666		39,06- 268,751	
Total		318,675		307,81	
GRAPHITE AND ITS PRODUCTS Graphite or plumbage, crude or refinedton	1,148	59,992	2.484	135,89	
MICA AND ITS PRODUCTS	84	50 517	20	21 769	
Cobbed ton Splittings ton Scrap and waste ton Plate and manufactures.	285 4,510	52,527, 424,503, 63,610, 3,326	230 4.991	21,366 324,96 63,93 1,046	
Total		543,966		411,316	
PETROLEUM AND ITS PRODUCTS	18,263,236 1,525,427 1,403,716 627,671 33,171	529, 497 165, 520 256, 966 161, 259 147, 810	7,375,163 1,508,686 1,568,855 1,473,779 14,541	346,51; 155,78; 333,33; 287,46; 82,99;	
STONE AND ITS PRODUCTS		1,261.052		1,206,08	
BUILDING AND PAVING STONE. Crushed ton Ornamental, rough ¹ ton Building, rough ² ton Dressed	59,984 3,390 2,059	100,873 45,195 18,680 5,365	42,518 3,430 4,166	81,766 36,552 14,389 5,687	
Total		170,113		138,39	

Granite marble unwrought.
Freestone, limestone, etc., unwrought.

Table 19.—Exports from Canada of Non-Metallic Minerals and Their Products, 1924 and 1925—Concluded

	199	24	1925	
Commodity	Quantity	Value	Quantity	Value
		\$		
STONE AND ITS PRODUCTS-Concluded				
Abrasives				
Grindstones, manufactured. Stone for the manufacture of grindstones. ton Abrasives.	120	49,630 1,080	93	61,429
Natural, n.o.p. ewt. Artificial, ende, including carborundum. ewt. Artificial, made up into wheels, stones, etc.	5,756 791,863	10,321 2,591,310 13,264	464 955, 184	2,978,633 32,03
Counduin. ton	2	251		4.
Total		2,665,856		3,073,40
Lime, Plaster and Cement				
Lime ton	22.750	411, 122	16,286	312, 168
Cementbrt.	153,520	213,845		1,498,49
Gypsum—			0,102,103	2, 400, 100
Ground ton Ground ton	472,236 5,226	747.829 83,927	533,643 5,643	861,46 87,24
Total ton	477, 462	831,756	539, 289	948,710
Total lime, plaster and coment		1,456,723		2,759,37
OTHER STONE PRODUCTS				
Feldspat ton Magnesite calcined dead burned ton	37,869 293	274,681 8,520	28,659 834 25	209, 16- 21, 40- 50
Phosphate rock ton Sand and gravel ton Tale ton	1,036,029 7,876	219,496 98,571	864, 672 209, 218	198,48 124,21
Total other stone products		592,268		553,76
Total stone and its products		4,884,960		6,524,93
OTHER NON-METALLIC PRODUCTS				
larbon electrodes	219 19.304	168,369 1,081 10,795	13 46,470	155,34 15 20,67
Salt	18,304		90,470	410,33
Total		260,364		592,51
Grand total		20,948,947		24,343,12

Table 20—Alphabetical List of Materials Used in All the Industries Classified under Manufactures of the Non-Metallic Minerals in Canada, 1925

Commodity	Industry number (See list at end of table 21)	Unit of measure	Quantity	Total selling value
Abrasive, grains, artificial, such as alundum, corundum, aloxite and				5
silicon carbide	12			112,120
Abrasive grains, natural, such as corundum, silica sand, nint and garnets	12 2-8	1b.	68,089,119	39,512 623,281
Acid, sulphuric	4-12	10.	08,089,118	6,013
Acid, sulphuric. Acids, not elsewhere listed. Asidestus fibre and paper. Bauxite, silica sand, coke, iron borings, mill scale, electrodes, sawdust and salt, etc., used in the manufacture of abrasive products.	1			672,598
Bauxite, silica sand, coke, iron borings, mill scale, electrodes, sawdust				4 -480 800
and salt, etc., used in the manufacture of abrasive products	12		168	1,658,526 14,977
Calcium and magnetic chloride	3	ton lb.	94.521	5,063
Calcium carbide. Calcium and magnesium chloride Carborundum, emery and other abrasives.	4	117.	DE,021	7,968
Caustie soda. Cement	1-8	lb.	4,259,836	155,601
Cement	1-4-10			12,843
Clays, fire	14-17	ton	11.796 5,310	71,718 97,457
Cabalt subbate	1-14	604	0,070	2,015
Clays, fire Clays, other, including imported clays. Cobalt sulphate. Coal for gas making (a) Anthracite.	3	ton	15,323	183,050
(b) Bituminous. Coal, bituminous, for coke making (a) Canadian	3	ton	723,394	4,395,445
Coal, bituminous, for coke making (a) Canadian	2 2	ton	598,280	2,070,313 4,723,140
Coal, other, not for fuel. (b) Foreign.	6-17	ton	930,738 5,730	65,876
Coke for gas making	3	ton	80,600	544,653
Coke, other, not for fuel	6	ton	559	5,295
Colours	1-10	lb.	83,500	10,305
Compounding materials used in petroleum remerles. Containers, boxes, barrels, etc.	1-2-4-5-6-7-			510,735 3,163,397
Contrainers, roacs, our ross, cre	8-10-11-12-			0,100,001
	13-14-15-16-			
W1 1	17	4	071	17, 813
Feldspar Felt, burlap, jute, fibre, etc. Fint.	1-10	ton	831	5,037
Flint	14	ton	565	9,494
Fullers' earth. Gasoline, kerosene, benzol, alcohol, toluol, etc., for blending	8	lb.	1,281,190	14,433
Gasoline, kerosene, benzol, alcohol, toluol, etc., for blending	1-7			50.534 187.628
Glass, blanks for culting. Glass, figured, coloured and cathedral.	4	вq. ft.	309,897	71,067
(linco triata	4	sq. ft.	1,457.306	814, 436
Glass, sheet and window Glue Grease, cup, axle and soap. Hardware	4	sq. ft.	2,116,358	262,424
Cilue	4-10		00 400	33,358
Hardware	4-14	10.	60,496	8, 392 83, 795
Lead	4-7-14			26,930
Lime	2-3	lb.	3,095,780	17,795
Litharge. Lutaber.	8	lb.	549,450	59,825
Magnazita	4-16	ton	80	4.045
Magnesite Mica, knife-trimmed	16	lb,	401,715	94,428
Alica, thumb-trimmod	16	lb.	166,125	38,597
Muca, splittings, mica cut and uncut and manufactured plate	16	lh.	45,564	20,434
Oil crude (a) Canadian	8	gal. gal.	32,438 12,337,192 432,778,502	1,511,181
(b) Imported	8	gal.	432,778.502	33,344,004
Oil ("gas oil") for gas making.	3	gal.	[-10,498,336]	970.110
Oile Interesting	2 7	gal. gal.	1,142,826 30,000	85,550 10,500
Mina, splittings, much cut and uncut and manufactured plate. Oil, crude (a) Canadian. (b) Imported. Oil ("gas oil") for yas making. Oils, hight, to earlieh gas. Oils, brigheartag. Oils, mineral. Oils other not for fuel.	7	gal.	948, 110	209,803
Oils, other, not for fuel Oxide or purifying materials Paint, shellae, varnish and steneil ink Paper. Pitch	7-10			54.738
Unide or purilying materials	3 10	ton	5,942	54,056 1,946
Paper	4-10			117.037
Pitch	6-16	ton	1,161	14.762
Plaster	10-14			27,904
Plaster Plaster Plaster of Paris and putty Rubber Sawdust and shavings	4-10	1h	25.559	72,196 8,345
Sawdust and shavings	6-10	lb.	20,000	6,406
PHICH SHALL,,	1-4-6-14	(1).	[I,941,03U	7.632
Silver	4	lb.	400	3,153
Silver nitrate Sodium silicate	1-14	lb. lb.	1,323	10,222 9,247
Stands, frames, silks, fringes, etc	4	4179	1,000,000	8,390
Sulphur	8	lb.	141.265	3,988
Tallow	1-7		181.852	51,311
Water	4-10-14			12,341 23,148
Wire, brass, etc.	1			4,998
Wire, brass, etc. All other materials including silica, soda ash, stone, cement, sand,				20
lime, sugar, flavours, tale, lampblack, carbons, raw and scrap,	1-2-3-4-5-6-		1 1	7 050 044
gypsum and various other materials	7-8-9-10-11-			7,650.941
	12-13-14-15-			
	16-17			
Total				65,278,752
		1	1	

Table 21.—Alphabetical List of Products Made in All the Industries Classified under Manufactures of the Non-Metallic Minerals in Canada, 1924 and 1925

	Industry		192-		192	5
Commodity	number (See list at end of table)	Unit	Quantity	Total setling value	Quantity	Total selling value
				8		8
mmonia liquor	2-3	1b. NH.	1,756,054	113,793	1.580,704	104.6
mmonium sulphate. spludt sbestos (mings	2-3	Imp. gal.	34,685,134 20,173,934	865,538 1,817,060	36,502,275 19,942,310	909,0
sbestos tinings	1	Sq. ft.		188, 295	1,836,355	272, : 187, £
abes tos packing		lb.		128,037		187,1 465,1
sbestos sheathing and papersbestos shingles, millborad and building						
lumber abestos pipecoveriag and corrugated sheath-	1			97,364	**********	102.1
ings				83,373 53,066		179.7
ricks, centent ricks, sand-line arborandum crude and firesand aluminous abrusives such as aloxite, alundum, fuse	11	M	55,873	610,946		40,1 781,1
alumina, etc	12			4,990.441		5, 186,
ement blocks, hollow building				523, 326 186, 134		859,
ider oke	2-3	Ton	1,370,599	10,288,803	4 400 000	131,1
oke breeze	23	Ton Ton Ton Ton	1,370,599 66,313 11,223 28,102	144, 144	53.641	187.
oke, acidoke, petroleum	8 8	Ton	28, 102	42,118 270,403	34.018	248,
ustom work and repairs	1-4-7-16		7 7 4 7 1 3	73,698 53,989		31. 201.
ske, petroleum geton work und repairs ruin pipe, cement istillate	11 8	Imp. gal.	2,648,738	289, 543	687,413	130,
rectay blocks and snapes	14			140,016		157,
as from gas plants— (a) Acetylene gas	3	Meu.ft.	1,584		1.462	
(h) Straight coal gas. (c) Carburetted water gas.	3	M cu. ft. M cu. ft.	7,991,915		8,315,179 5,023,569	
(d) Mixed coal and water gas	3	M cu. ft.	3 1117 5 60 1 12 1		98,531	
(e) Pintsch gns	3 3	M cu. ft. M cu. ft.	69,621 11,879,111		68,745 12,064,863	14,042,
(3) Gas sold	3	M Cu. st.	81,0410,111	14,200,310	18,004,000	17,017,
(a) Gas sold	2	M cu. ft. M cu. ft.	935,602	421,021	1.124,237 5,008,235	492. 862.
(c) Clas otherwise used in plant or other-	2	M CG. IC.	5, 125, 920	879,682	0,000,200	
wise accounted for but not sold	2	M cu. ft.	2,375,792	578,593	5,991,969	674,
as from petroleum refineries— (a) Still gas	8	M eu. ft.	1,180,787	302,946	1,019.755	300,
(a) Still gas	8	Imp. gai.		25,799,219	104,670,072	27,589.
lass, buildinglass, cut				500,563		506.
lass, ornamental and art	4 5			34,809		71,
lass, pressed and blown	3	lt.	502,502	355,678		7,373, 648,:
lass and lights, leaded	4			169,578		179,
lass for glazing, bent glass and cut plates rinding wheels, abrasive wheels, razor	4			00,301		193,
hones and alundum tite	12			432,161		431,
poses	9			405.539		73.
poses rease, axie, cup and other ypsum wall board and wall coating.	7-8	1ь.	10, 427, 590	260.675 659,837		247. 864.
sulators, porcelain	14			1,332,679		973.
erosenc amp stands and shades	4-10	Imp. gul.	61,308,467	7,486,042 t6,906		5,966, 20.
intestone, for building purposes	9-10			1,041,485		1,909.
arble, for building purposes	9 9			632,356 46,530		573. 13.
urble chips and dust ica, thumb trimmed and knife trimmed	18	lb.	95,420	22,689	1,406,237	74.
ica, n.e.sica plate, amber commutator and flexible	16 16	lb. lb. lb.	95,420 40,318 13,270 388,548	43,561 24,063		12. 35.
ica splittings	16	115.	388,548			230,
ica splittings. ineral water, natural irrors and boyelled plates.	15	8q. ft.		178,715 699,805	736,377	220, 868,
onuments finished (lettered only)	g.			824.661	****	801.
onuments, granite, cut and polished	9			1,22a,417 298,482		1,387, 292,
onuments, marble, cut and polished onuments, and bases, limestone	9			42,577		154.
il, strid	8 8	Imp. gal.	1,568,094 177,123,232	71,672 9,076,746	1,395,470 172,407,242	64. 9,656.
ils, furl and gas	7-8	Imp. gul.	15,479,465	3,061,116	15,789,852	3,131,
ils, light	2-3	Imp. gal.	1,201,634	93.179	1,201,288	102,
ils, n.e.s. (absorption, core, ink, road and motor furl)	2-4-7-8	Imp. gal.	549,648	156,548	2,122,272	491,
etroleum spirits ottery, glazed and unglazed	8	Imp. gal.	788,571	132,093 53,678	1,137,787	199. 55,
instery, gaised and ungaized his last included and church			,,,,,,,			
supplies	10			102,040		113,

Table 21.-Alphabetical List of Products Made in All the Industries Classified under Manufactures of the Non-Metallic Minerals in Canada, 1924 and 1925-Concluded

	Industry		193	24	1925	5
Commodity	number (See list at end of table)	Unit	Quantity	Total selling value	Quantity	Total selling value
Sewer pipe and culvert tile, cement. Soap, liquid, soft and powder. Sods water and carbonated beverages. Stone, artificial. Syrups and fruit jaices. Tar and tar products. Wax and candles. Windows, church and memorial All other products, including ceramic wall tile, glased and unglazed, electrodes, foundry supulies, graphite, cement posts, poles, etc., pavement and window prisms, sanitary ware, and various other products	7 15 11 15 2-3-8 8 4	Imp. gal.		\$ 419.730 64.933 5,438,402 77.484 204,559 738.034 551,434 85,361	19,016,927 15,736,867	\$ 394,366 78,321 5,731,215 256,118 547,082 1,065,917 734,322 96,249
Total				111, 151, 828		115,873,848

KEY TO THE NUMBERED INDUSTRIES

- 1. Asbestos and Allied Products
 2. Coke and Its By-Products
 3. Illuminating and Fuel Gas
 4. Plate, Cut and Ornamental Glass
 5. Pressed and Blown Glass
 6. Graphite and its Products
 7. Lubineating Ora, Greases, etc.
 8. Preoleum Repining
 9. Monumental Chome
 17. Miscellaneous Non-Metallic Mineral Products
 18. Monumental Products
 19. Monumental Products

- 10. Plaster Castings and Models Gypsum Products 11. Cement Products
- 11. CEMENT PRODUCTS
 2. (ABRASIVE PRODUCTS
 ARTIFICIAL ABRASIVES
 13. SAND-LIME BRICK
 14. PRODUCTS FROM IMPORTED CLAYS
 15. AERZPEO WAPERS
 16. MICA TRIMMONG
 DERVINGEN

Table 22.—Wholesale Prices of Non-Metallic Minerals and Their Products, 1913-1925

BRICKS, FACE, PRESSED No. 1

Price per M. f.o.b. plant-Monthly quotations from National Brick Co. of Laprairie, Ltd.

Averages	1925
1914 15.50 1921 26.61 1915 15.50 1922 28.50 1916 16.50 1923 22.850 1917 16.50 1924 30.40	Jan \$30.40 July \$30.40 Feb 30.40 Aug 30.40 March 30.40 Sept 30.40 April 30.40 Oct 30.40 Muy 30.40 Nov 30.40 June 30.40 Dec 30.40

BRICKS, COMMON, PLASTIC

Price per M, f.o.b. plant-Monthly quotations from National Brick Co., of Laprairie, I.td.

Averages 1925	
1914 8-00 1921 15-62 1915 7-25 1922 15-20 1916 7-75 1923 15-68 1917 11-09 1924 16-63 1917 11-09 1924 16-63	Jan \$16.625 July \$16.625 Feb 16.625 Aug 16.625 March 10.625 Sept 16.625 April 16.625 Oct 16.625 May 16.625 Nov 10.625 June 16.625 Dec 16.625

POTTERY

CUPS AND SAUCERS, NO. 1 QUALITY, ENGLISH EARTHENWARE, FROM OPEN STOCK

Price per dozen-Monthly quotations from dealers. Toronto

Averages 1925	
1914 .75 1921 2-46 1915 .90 1922 1-90 1916 .10 1923 1-52 1917 1-25 1924 1-38	Jan. \$1.25 July. \$1.60 Feb. 1.25 Aug. 1.50 March. 1.25 Sept. 1.35 April 1.35 Oct. 1.35 May. 1.35 Nov. 1.35 June. 1.50 Dec. 1.35

Table 22.—Wholesale Prices of Non-Metallic Minerals and Their Products, 1913-1925—Continued

DINNER SETS, PRINTED

Price per set of 97 pieces-Monthly quotations from dealer, Toronto

Averages	1925
1913 \$ 4.75 1920 \$24.31 1914 4.75 1921 22.76 1915 5.75 1922 18.83 1916 0.00 1923 14.92 1917 11.00 1924 13.29 1918 12.00 1925 15.25 1919 16.50	Feb. 13 00 Aug. 16 00 March 13 00 Sopt. 16 00 April. 16 00 Oct. 16 00 May. 16 00 Nov. 16 00

COAL AND ITS PRODUCTS

COAL, ANTHRACITE, EGG

Price per ton, f.o.b. Toronto, carload lots-Monthly quotations from dealers

Averages	1925
1913. \$5.88 1930. \$11.54 1914. 5.76 1921. 12.66 1915. 5.76 1922. 11.73 1916. 5.97 1923. 11.90 1917. 6.36 1924. 12.25 1918. 7.67 1925. 13.06	March. 12 24 Sept. 13.52 April. 13.92 Oct. 13.52 May 13.12 Nov 13.52

COAL, DOMESTIC, RUN OF MINE

Price for small lots per ton net, f.o.b. mines, N.S.-Monthly quotations from owners

Ave	rages	19:	25
1914	1921 7.00 1922 6.08 1923 8.25 1924 6.25	Jan. \$6.25 Feb. 6.25 March 6.25 April 6.25 April 6.25 May 6.25 June. **	Aug. * Sept. 6.25 Oct. 6.25 Nov 6.25 Dee 6.25

^{*} Strike.

COAL, DOMESTIC, RUN OF MINE

Price per net ton, carload lots, f.o.b. mines, B.C.-Monthly quotations from dealers

Averages	1925
1916. 2 40 1923 5 69 1917. 3 12 1924 5 45	

COKE

Price per net ton, f.o.b. mines, B.C.-Monthly quotations from dealers

Averag	gos	102	25
1916	921	Feb. 9.40 March 9.40 April 9.40	

Table 22.—Wholesale Prices of Non-Metallic Minerals and Their Products, 1913-1925—Continued

GLASS AND ITS PRODUCTS

GLASS, WINDOW, STAR, UNDER 26 INCHES

Price per box-Monthly quotations from Hardware and Metal, Toronto

Averages	1925
1914 3.73 1921 1915 5 20 1922 1916 5 69 1923	\$16 25 Jan. \$4.00 July. \$4.5 6.56 Feb. 4.00 Aug. 4.5 5.74 March. 4.00 Sept. 4.5 5.94 April. 4.00 Oct. 3.8 4.98 May. 4.00 Nov. 3.8 4.11 June. 4.50 Dec. 3.8

TUMBLERS, TANK GLASS, OPEN STOCK

Price per gross-Monthly quotations from dealers, Toronto

Av	erages	1925	
1914 3 00 1915 3.25 1916 3.25 1917 4.00	1921 6 90 1922 5 82 1923 4 53 1924 4 70 1925 4 77		Aug. 4.80 Sept. 4.80 Oct. 4.80 Nov 4.80

PETROLEUM AND ITS PRODUCTS

COAL OIL, WATER WHITE

Price per gallon, f.o.b. Toronto-Quotations from Imperial Oil Company, Ltd.

Averages	1925
1913 \$0.1642 1920 \$0.2721 1814 1588 1921 2242 1915 1408 1122 206 1916 1013 1923 194 1917 1533 1924 2133 1918 1779 1925 20 1919 2034	Feb. 20 Aug 20 March. 20 Sept 20 April. 20 Oet 20 May 20 Nov 20

MOTOR GASOLINE

Price per gallon, f.o.b., Toronto-Monthly quotations from Imperial Oil Company, Ltd.

Averages	1925					
1914 203 1921 351 1915 27 1922 327 1916 27 1923 2575	Jan. \$0.205 July. \$0.245 Feb. 245 Aug. 245 March. 245 Sept. 235 April. 235 Oct. 235 May. 235 Nov. 235 June. 245 Dec. 235					

LIME AND CEMENT

LIME, HIGH CALCIUM, 95-97 PER CENT

Price per ton, net, f.o.b. works-Monthly quotations from manufacturer

Ave	rages	1925						
1914	1922 10.00 1923 9.17 1924 8.83 1925 8.08	Feb. 8.00 March 8.00 April 8.00 May. 8.50	July \$8.00 Aug 8.00 Sept 8.50 Oct 8.00 Nov 8.00 Dec. 8.00					

Table 22.—Wholesale Prices of Non-Metallic Minerals and Their Products, 1913-1925—Concluded

PORTLAND CEMENT

Price per barrel of 350 pounds at Montreal-Monthly quotations from dealer

Ave	rages	1925						
1914 1.40 1915 1.40 1916 1.80 1917 2.00	1921 2.68 1922 2.44 1923 2.20	Jan \$1.97 Feb 1.97 March 1.97 April 1.97 April 1.97 May 1.97 June 1.97	Aug 1.97 Sept 1.97 Oct 1.97					

MISCELLANEOUS

SALT, FINE

Price per barrel, 280 pounds net- Monthly quotations from manufacturer

Averages	1925
1914 1995 1921 2.77 1945 1.00 1922 2.45 1916 1.06 1923 2.16 1917 1.44 1924 1.91 1917 1.44 1924 1.91	Jnn \$1.55 July \$1.40 Feb 1.55 Aug 1.40 March 1.55 Sopt 1.40 April 1.40 Oct 1.40 May 1.40 Nov 1.40 June 1.40 Dec 1.40

SULPHUR (CRUDE BRIMSTONE)

Price per gross ton, ex vessel Three Rivers or Montreal-Monthly quotations from dealers

Averages	1925					
1915 22.50 1922 21.08 1916 22.50 1923 19.75 1917 22.50 1924 19.75 1927 1928 19.75 19.75	Feb. 19.75 Aug. 19.75 Murch 19.78 Sept. 19.75					

Table 23.—Index Numbers of Prices for Non-Metallic Minerals and their Products, 1914 and 1921-1925

(Average of 1913 Prices = 100)

Commodity	1914	1921	1922	1923	1924	1925
Tay products	83-4	156-4	157.0	160-5	170-5	170-1
1 Bricks, pressed No. 1	92-9	157-2	170.9	170.9	182-3	182-8
2 Bricks, plastic, rommon	80.0	158 - 2	152 - 0	156.7	166.3	165-3
Pottery	100-8	473.9	391-0	309 - 9	276-0	315-3
3 Cups and saucers, No. 1 quality	115-4	378-3	292-3	233 -8	212.8	209-6
4 Dinner sets, printed	100-0	479 - 3	396-6	314.0	279-8	321-1
Coal and its products	97-4	233 - 7	213-8	217-1	216.7	210-1
5 Coal, anthracife, egg	98-0	215.3	399-5	202-4	208-3	222
6 Coal, run of mine	100.0	254-5	221 · 1	227-3	227-3	227-
7 Coal, ran of mine	103 - 6	242-5	221-1	227-3		
8 Coal, run of mine	00.0	240.7	221-4	220-3	210.9	168
9 Coke	88.3	206 - 7	206.7	206-7	203-6	183 -
illnss and its products	102-9	181-5	158 - 7	163-8	137 - 7	114-
10 Glass, window, star	103-2	181-6	158-9	184-4	137-9	114.
11 Tumblers, tank glass	75-0	172-5	145.5	113-1	117.5	119.
Petrolcum and its products	85-9	130-2	129-2	107-6	109-8	102-
12 Coal oil, W.W	96-7	136-5	125 - 4	118-1	129.9	121-
13 Gascline	81-2	140-4	130-8	103.0	101.0	94.
ime, plaster and cement	100.0	198.0	176-7	159-6	153 - 5	142-
14 Lime, high calcium	100.0	257-5	198-0	181 - 6	175-0	160
15 Cement, portland	100.0	191-4	174-3	157-1	151-1	140-
discellaneous non-metallic minerals	302-7	208 - 7	188 - 2	168-3	153-1	124
16 Salt, fine	104-7	291-3	257-9	227-6	190-8	151 -
17 Sulphur, refined	100-0	96-7	93-7	87-8	87-8	87-
ndex numbers of non-metallic minerals and their						
products	94-5	265-4	188-4	183-8	183-4	176

CHAPTER TWO

AERATED WATERS

General.—Production from plants in Canada engaged primarily in the manufacture of non-alcoholic carbonated beverages amounted in value to \$6,877.524 in 1925 as compared with corresponding values of \$6,354,358 in 1924 and \$6,408,832 in 1923. Capital employed was reported at 10.7 million dollars and 1,684 people were employed throughout the year. Raw materials cost slightly more than 3 million dollars and as the completed products sold

 for 6.9 million dollars the value added by manufacturing stood at 3.8 million dollars; that is, the value of raw materials was more than doubled by the manufacturing processes,

The accusted waters industry in Canada is distributed fairly well over the whole Dominion. Demand for these beverages is, of course, greater in the more thickly populated districts, and so, naturally, the industry is centred in Ontario and Quebec. In 1925, there were 313 plants in Canada engaged in this line of production; they were distributed by provinces as follows: 431 in Ontario, 88 in Quebec, 21 in Nova Scotia and Prince Edward Island, 17 in British Columbia, 16 in New Brunswick, 16 in Saskatchewan, 14 in Alberta and 10 in Manitoba, Quebec and Ontario together accounted for 70 per cent of the operating plants and 73 per cent of the total production in Canada.

The manufacture of carbonated beverages is of such a nature as to permit of operations on a small scale with but limited equipment as is evidenced by the fact that during the year under review 126 plants in Canada each had a production valued at less than \$5,000, while the output values of 63 other concerns were each below

the \$10,000 mark. Many of these establishments worked part time only, while others employed only one or two persons, but, on the other hand, the firms manufacturing the more widely known and popular brands of soft drinks maintained extensive properties in several different cities. Only 2 plants reported outputs valued in excess of a half million dollars, 4 others each exceeded the quarter million dollar mark and 22 other establishments each produced beverages valued at more than 100 thousand dollars. A large number of the plants in this industry are really only bottling works; they purchase the flavours and extracts from manufacturers and then carbonate the water and add the flavouring.

Table 24.—Summary Statistics of the Aerated Waters Industry in Canada, 1921-1925

	Year	Number of plants	Capital em- ployed	Number of employees	Salaries	Wages	Cost of fuel	Cost of materials	Selling value of products	Value added by manufac- ruring
			8		8	8	\$	8	8	\$
1921		320	8,236,946	1,932	578,356	1,233,627	113,714	3,607,147	9,176,868	5,569,721
1922		283	8,205,457	1,537	775,182	1,028,182	88,707	2,705,957	6,594,509	3,888,552
1923		295	8,315,389	1,724	704,047	1,139,484	98,807	2,672,332	6,408,832	3,736,500
1924		296	9,385,802	1,543	673,094	1,134,478	*131,609	1,982,340	6,354,358	4,372,018
1925	• • • • • • • • • • • • • • • • • • • •	313	10,673,331	1,684	599,011	1,250,213	*145,506	3,076,563	6,877,524	3,800,961

^{*} Includes cost of electricity.

Table 25.--Principal Statistics of the Aerated Waters Industry in Canada, by Provinces, 1924 and 1925

Province	1924				1925			
	Number of plants	Number of em- ployees	Salaries and wages	Selling value of products	Number of plants	Number of em- ployees	Salaries and wages	Selling value of products
Nova Scotia and Prince Edward Island New Brunswick Quebec Ontario Manitoba Saskatchewan Alberta British Columbia	18 15 80 131 8 12 16	58 61 565 566 94 47 85 67		249,377 2,201,763 2,363,346 382,630 296,902	21 16 88 131 10 16 14 17	64 50 648 578 115 74 76		246, 47; 2, 592, 50; 2, 425, 68; 422, 53; 359, 290
Canada	296	1,543	1,807,572	6,351,358	313	1,684	1,849,254	6,877,52

Capital Employed.—In 1925, capital invested in the aerated waters industry in Canada reached the record sum of \$10,673,331, an increase of 1.3 million dollars over the corresponding figure for 1924 which in turn was a million dollars over 1923; lands, buildings, and plant equipment valued at \$6,528,558 made up about 61 per cent of the total investment. Plants in Ontario represented 40 per cent of the total investment, and the factories in Quebec accounted for about 48 per cent of the remainder.

Table 26.—Capital Employed in the Acrated Waters Industry in Canada, by Classes and by Provinces, 1924 and 1925

		192	14		1925			
	Capital employed as represented by				Capita	employed	as represen	ted by
I'roviace	Lands, buildings, fixtures, machinery and tools	Materials on hand and stocks in process	Cash, trading and operating accounts	Total	Lands, buildings, fixtures, machinery and tools	Materials on hand and stocks in process	Clash, trading and operating accounts	Total
Nova Scotia and Prince Edward Island New Brunswick Quebec Ontario Munitobu Saskatchewan Alberta British Columbia	101,926 99,178 1,271,743 2,497,505 597,668 228,416	\$ 68,000 69,401 386,423 506,403 287,900 190,114 286,537 104,316	77,141 555,419 1,290,101 30,871 41,337 37,937	1,291,015 916,529 462,867 693,766	106,320 1,922,284 2,557,469 790,490 337,536 423,626	64,369 408,963 509,611 180,626 146,881 231,405	79,276 718,464 1,244,051 40,180 69,175 38,438	219,963 3,049,713 4,311,131 1,020,296 553,593 693,468
Total	5,379,841	1,859,193	2,106,768	9,385,807	6,528,558	1,767,372	2,877,401	10,673,33

Employment.—Plants in Canada making aerated waters of all kinds during 1925 gave employment to 382 salaried workers and 1,302 wage-earners, a total of 1,684 employees as compared with a total of 1,543 in 1924. Payments in salaries and wages totalled \$1,849,254, an increase of only 2 per cent over the corresponding figure for the previous year.

Seasonal demand for carbonated beverages is reflected in the monthly records of employment obtained from the manufacturers. In January, 1925, there were only 993 wage-earners on the rolls of the various companies but by July the number had increased to 1,554, a gain of 56 per cent during the first seven months of the year. Then the number employed gradually fell away until in December only 1,045 names were carried on the various wage rolls. The average for the year stood at 1,302 as against 1,167 in the preceding year.

Some years ago the aerated waters industry was largely seasonal in nature and there was little production in the winter months, but persistent advertising has created a considerable demand the year round. Of course, consumption is greatest during the hot summer months and the summer season is the busy time for all bottling companies in Canada.

Table 27.—Average Number of Employees, Salaries and Wages Paid in the Aerated Waters Industry in Canada, by Provinces, 1924 and 1925

Province		Average nu	Salaries and wages					
	Salaried e	mployees	Wage-e	arners	Total	Salaries	Wages	Total
	Male	Female	Male	Female	Ittas	Cartaties	er algers	10641
1924						\$	\$	\$
Nova Scotia	5	2	32	1	46	8,128	26,752	34,880
New Brunswick	10	5	46		61	24,067	34,679	58,686
Quebec	111	16 20	417	21 32	365 566	242, 287 231, 795	393,443	635,730 680,558
Ontario	201	8	66	2	94	42, 104	428,768 93,648	135,752
Saskatchewan	14	- "	31	2	47	25,177	44.055	69, 232
Alberta	35	4	42	A	85	59,659	50, 499	
British Columbia	19		45	3	67	32, 192	54,984	87,176
*Canada	323	53	1,097	76	1,543	673,094	1, 134, 478	1,807,572
1925								
Nova Scotia	10		34	2	-16	10,223	30,858	41,091
New Brunswick	6	4	48	1	59	16,631	43,583	
Quebec	136	21	467	24	648	269,183	460,700	
Ontario	D3	22	430	33	578	173,098	432,267	605,360
Manitoba	20	3	89	3	115	32,807	99,475	
Saskutchewan	16 22	2	51 43	7	74 76	24,633 39,892	59,570 51,589	84, 2#3 91, 481
Alberta British Columbia	14	1	52	3	70	24,389	65,658	89,947
*Canada	325	57	1,220	82	1,684	599, 041	1,250,213	1,849,254

^{*}Includes also data for 2 plants in Prince Edward Island.

Table 28.—Number of Wage-Earners Employed in the Aerated Waters Industry in Canada, by Months, 1924 and 1925

Month		1924		1925		
модел	Male	Female	Total	Male	Female	Total
anuary	806	49	855	938	55	99
ebruary	842	52	894	945	61	1,00
Iarch	888	56	944	908	61	1,05
pril	976	58	1,034	1,102	65	1.16
lay	1,198	68	1,266	1,269	80	1,34
me	1,297	75	1,373	1,453	90	1,54
lly	1,434		1.512	1,473	81	1,55
ugust	1,337	68	1,495	1,419	70	1,49
eptember	1,113	62	1,175	1,223	75	1,36
ctober	986	57	1.013	1,069	63]	1,13
vovember	892	56	948	991	61	1,50
December	859	56	9[5]	982	63	1,04
Average	1.697	70	1.167	1,720	82	1.30

Table 29.—Hours of Labour (in Month of Greatest Employment) in the Aerated Waters Industry in Canada, by Provinces, 1925

Province	Num	ber of wage	-earners wo	orking	Average number of hours worked per man per week when working			
Flovarce	8 hours or less per day	9 hours	10 hours	Over 10 hours	8 hours or less per day	9 hours	10 hours	Over 10 hours
Prince Edward Island. Nova Scotia. New Brunswick Quebec. Ontario. Manitoba. Saskatchewan Alberta British Columbia.	12 20 11 85 121 1 19 40 38	14 40 47 249 73 31 21 25	8 9 436 256 34 22 11	8 11 2	48 48 48 44 45 45 46 48	54 54 54 54 54 54 54	58 00 60 60 58 60 60	66 68 66

Table 30.—Fuel and Electricity Used in the Aerated Waters Industry in Canada, 1924 and 1925

770-1	Unit	1924		1925		
Kind	measure	Quantity	Value	Quantity	Value	
		No.	\$	No.	\$	
Anthracite coal Bituminous coal. Lignite. Coke. Gasoline. Oil (fuel). Wood. Gas. Other fiel. Electric power.	Ton Ton Ton Ton Gal. Gel. Cord M. cu. ft.	1,406 4,244 502 77 80,357 3,610 1,472 13,588	19, 139 36, 055 2, 730 911, 23, 472 950, 6, 632; 6, 012; 453; 35, 241	13,454	18.253 39,239 1,307 2,022 27,60 2,372 6,877 7,513 960 39,353	
Total			131,609		145,50	

Table 31.—Power Equipment Employed in the Aerated Waters Industry in Canada, 1924 and 1925

	193	24	19:	25	
Description	Number of units	Total h.p. according to manufacturers' rating	Number of units	Total h.p. according to manu- facturers' rating	
		404		200	
Steam engines and turbines	13	194	16	223	
Gas engines	7	16	12	35	
Oil and gasoline engines	20	67	18	39	
Hydraulic turbines and water wheels	7	14	6	12	
Total primary power	47	291	52	309	
Electric motors driven by purchased power	516	1,620	550	1,683	
Total power equipment employed	563	1,911	692	1,993	
Electric motors driven by power generated by the primary power of the industry	ō	45	5	23	
Total electric motors	525	1,665	555	1,786	
Boilers installed	46	1,092	38	991	

Materials Used.—Sugar, carbon dioxide gas, syrup, fruit juices and flavouring extracts are the principal materials used in the manufacture of aerated waters. In 1925 the cost of all ingredients used in manufacturing was \$2.150,739 and containers of all kinds cost \$925,824, making a total expenditure of \$3,076,563 for all materials used during the year. In 1924, the cost of all materials used was \$1,982,340 and, in 1923, the corresponding figure was \$2,672,332.

Table 32.—Materials Used in the Aerated Waters Industry in Canada, 1924 and 1925

Item	1924 Cost at works	1925 Cost at works
	\$	
Manufacturing materials used	1,349,434	2,150,739
Boxes, barrels, bottles, packages, labels, casks, caps, etc., purchased during the year	632,906	925,824
Total	1,982,340	3,076,563

Products.—Soda water and other non-alcoholic carbonated beverages made up the bulk of production in this industry; in 1925 the value placed on the output was \$5,731,217 as against a corresponding figure of \$5,438,463 in 1924. Natural mineral water, cider, syrups and fruit juices were also sold in considerable quantities.

Table 33.—Products of the Aerated Waters Industry in Canada, 1924 and 1925

	1	
	1924	1925
Item	Selling value	Selling value
		\$
Cider	186, 134	131,236
Natural mineral water (fortified or not)	178,715	220,820
Soda water and other carbonated beverages (non-alcoholie)	5,438,462	5,731,217
Syrups and fruit juices.	264.559	547,082
All other products.	286,488	247,169
Total.	6,351,358	6,877,524

Primary Production of Mineral Waters.—(From the Annual Report on the Mineral Production of Canada, 1925.)—Mineral waters produced in Canada during 1925 amounted to 190,134 imperial gallons valued at \$28,413 as compared with 209,353 gallons valued at \$15,421 in the previous year. Mineral springs in Ontario and Quebec contributed the whole of the Canadian production. In the present compilation there has been included a record of all natural mineral waters sold to the general public for medicinal purposes. No record has been kept of the shipments made of ordinary spring waters. The values given do not take into account any mineral waters used at the springs for drinking or bathing purposes but include only the shipments from the springs in bottles or other containers.

Table 34.—Production in Canada, Imports and Exports of Mineral Waters, 1924 and 1925

74	1924		1925		
Iten	Imp. gals.	Value	Imp. gals.	Value	
		8		\$	
Production, by provinces— Quebec	7,683	2,288	7,122	2.961	
Ontario	201.670	13,133	183,012	25, 452	
Total	209,353	15, 421	190,134	28,413	
IMPORTS—Mineral and aerated waters		181,107		186,543	
Exports—Mineral and negated waters.		109,735		12,402	

CHAPTER THREE

ASBESTOS AND ALLIED PRODUCTS

General.—Manufactures of asbestos and allied products in Canada during 1925 amounted in value to \$1,344.097, an increase of 128 per cent over the corresponding value for 1924 due chiefly to returns received from new plants in Quebec. Products of this industry include

ASBESTOS AND ALLIED PRODUCTS INDUSTRY Value of Production Capital Employed MILLIONS OF DOLLARS

1922

1923 EARS

1919

1920

asbestos packing, brake linings, pipe covering, paper sheathings, shingles and lumber, and magnesite stucco and flooring.

Although Canada produces annually about 85 per cent of the world's supply of crude asbestos, the fabrication of asbestos products for commercial uses is yet in the early stages of development. During 1925, exports of asbestos from Canada amounted in value to \$9,737,-964 of which only \$55.572 was in the form of manufactures. Imports of asbestos products in the same year totalled \$448,769 and as production in Canada was valued at \$1,344,097, the apparent consumption of manufactured asbestos products in Canada during 1925 reached a value of \$1,737,294.

In 1925, there were 12 plants in Canada engaged in the manufacture of products from asbestos or allied materials. These plants represented a capital investment of 2.6 million dollars, gave employment to 256 persons to whom \$282,382 were paid in salaries and wages, and used \$783,063 worth of raw materials in 1925 the manufacture of finished commodities for There were 6 plants in Ontario, 4 in Quebee, 1 in Nova Scotia and 1 in British

Columbia. In 1924, only 9 plants were in operation, of which 5 were in Outario, 2 in Quebec and I in each of the provinces of Nova Scotia and British Columbia. During 1925 there was in operation 1 new plant in Ontario and 2 new factories in Quebec.

1924

Many of the Canadian plants making asbestos products are subsidiary companies making only a limited number of commodities and marketing all lines produced by the parent company. The close relation between the manufacturing and jobbing divisions of such concerns makes it difficult in some instances to separate the data relating to manufacturing only. The present report, however, shows only data pertaining to the manufacturing operations.

Table 35.—Summary Statistics of the Asbestos and Allied Products Industry in Canada, 1921-1925

Year	Number of plants	Capital em- ployed	Number of em- ployees	Salaries	Wages	C'ost of fuel*	Cost of materials	Selling value of products	Value added by manu- facturing
1921. 1922. 1923. 1924. 1925.	9	\$ 1,351,278 1,610,700 1,486,589 1,468,728 2,624,260	132 156 145 120 258	\$7,609 91,798 83,518 92,514 110,488	\$ 185,913 97,261 93,468 77,465 171,894	\$ 12,765 10,682 12,292 19,949 62,640	271,749 260,281 267,201		343,411

Includes cost of electricity in 1924 and 1925.

Table 36.—Principal Statistics of the Asbestos and Allied Products Industry in Canada, by Provinces, 1924 and 1925

	1924				1925			
Province	Number of plants	Number of employees	Salaries and wages	Selling value of products	Number of plants	Number of employees	Salaries and wages	Selling value of products
			\$	\$			8	\$
Quebec Ontario	2 5	48	74,717	370,362	4 6	199 53	202,915 75,052	
Canada*	9	120	169,979	589,339	12	256	282,382	1,344,09

[&]quot;Includes also data for 1 plant in each of the provinces of Nova Scotia and British Columbia in 1924 and 1925, also data for 2 plants in Quebec in 1924.

Capital Employed.—Capital employed in the asbestos products industry in Canada in 1925 amounted to \$2,624,260, an increase of almost 79 per cent over the corresponding figure for 1924, and the highest on record for the industry. Lands, building and plant equipment were valued at \$1,888,084 as compared with \$959,740 in 1924; the value of materials on hand and stocks in process rose to \$491,457 from \$333,977, and the cash, trading and operating accounts and bills receivable was reported at \$244,719 as against \$175,011 in the previous year. Quebec's 4 plants reported a capital investment of \$2,072,654 which was about 79 per cent of the total for the industry.

Table 37.—Capital Employed in the Asbestos and Allied Products Industry in Canada, by Classes and by Provinces, 1924 and 1925

		19:	24		1925 Capital employed as represented by					
	Capit	al employed	as represente	d by						
Province	Lands, buildings, machinery and tools	Materials on haud and stocks in process	Cash, trading and operating accounts and bills receivable	Total	Lands, buildings, machinery and tools	Materials on hand and stocks in process	Total			
	\$	8	8	8	\$	S	8	\$		
Quebec Ontario	296,207	152,267	71,176	519,650	1, 5 98,521 298,863	341,754 142,887	142,379 98,315	2,072,65 519,06		
Canada*	959,740	333,977	175,011	1,468,728	1,888,084	491,457	244,719	2,624,266		

^{*}Includes data for 1 plant in each of the provinces of Nova Scotia, and British Columbia in 1934 and 1935, also data for 2 plants in Quebec in 1924.

Employment.—Plants engaged in the manufacture of asbestos products in 1925 employed 60 salaried employees and an average of 196 wage-carners, a total of 256 persons as compared with 43 salaried employees and 77 wage-earners or a total of 120 in 1924. Payments in salaries and wages amounted to \$282,382 in 1925 and \$169,979 in 1924.

Employment returns show a distinct seasonal trend in the industry due probably to the greater demand for asbestos building materials in the summer months. In January, there were 177 wage-earners employed in all plants; by May the number had risen to 198 and in August reached the maximum of 221, an increase of 25 per cent over the January figure. Thereafter activity was not so great and by the end of the year the number of names carried on the rolls had declined to 184. In the previous year, 1924, the maximum of employment was attained in June when there were 110 names on the wage-rolls, and the minimum was reached in December when only 43 wage-earners were employed.

On the average, plants in this industry operated on 265 days during the year. All the larger plants operated the year round but two of the smaller factories worked only part of the year.

Table 38.—Average Number of Employees, Salaries and Wages Paid in the Asbestos and Allied Products Industry in Canada, by Provinces, 1924 and 1925

Province		Average n		Salaries and wages				
	Salaried en	ployees	Wage-earners		Total	Salaries	Wages	Total
	Male	Female	Male	Female	Total	17264461 100	mages	K COME
1924						\$	\$	\$
Ontario	16	6	22	4	48	44,438	30,279	74,713
*Canada	33	10	71	6	120	92,514	77,465	169,979
Quebec	30	5 7	143 25	21	199 53	62.153 46,535	140,762 28,517	202,913 75,05
*Canada	48	12	170	26	256	110,488	171,854	282,383

^{*}Includes also data for 2 plants in Quebec in 1924 and 1 in each of the provinces of Nova Scotia and British Columbia in 1924 and 1925.

Table 39—Number of Wage-Earners Employed in the Asbestos and Allied Products Industry in Canada, by Months, 1924 and 1925

		1924		1925		
Month	Male	Female	Total	Male	Female	Total
anuary	68	6	74	152	25	177
ebruary	76	-6	82	148	26	124
farch	77	5	82	161	26	187
pril	76	7	83	159	26	185
fay	78	6	84	172	26	195
une.	104	6	110	180	26	206
aly.	103	6	109	186	26	213
ugusi	99	6	105	191	27	221
leptember	59	6	65	175	25	200
Detober	39	6	45	161	25	181
ovember	39	5	44	172	27	199
December	39	4	43	158	26	184
Average	71	6	77	170	26	191

Table 40—Hours of Labour (in Month of Greatest Employment) in the Asbestos and Allied Products Industry in Canada, by Provinces, 1925

Province*	Numl	per of wage	-earners w	orking	Average number of homs worked per man per week when working			
	8 hours or less per day	9 hours	10 hours	Over 10 heurs	8 hours or less per day	9 hours	10 hours	Over 10 hours
Quebec	1		179	25	45		56	60
Ontario	21	21			44	50		

[&]quot;There was also I plant in each of the provinces of Nova Scotia and British Columbia.

Table 41—Fuel and Electricity Used in the Asbestos and Allied Products Industry In Canada, 1924 and 1925

Kind	Unit of	19:	24	1925	
Kiliti	measure		Value	Quantity	Value
		No.	8	No.	\$
Anthracite coal. Bituminous coal. Fuel oil Wood. Electric power.	Short ton Short ton Imp. gal. Cord K.W.H.	893 38,791 3 405,143	5.232 3.651 25 11,038	36,900	732 28,530 3,822 35 26,721
Total			19,349		62,640

Table 42—Power Equipment Employed in the Asbestos and Allied Products Industry in Canada, 1924 and 1925

	19.	24	19:	25
Description	Number of units	Total h.p. according to manu- nacturers' nating	Number of units	Total h.p. according to manu- facturers' rating
Electric motors driven by purchased power	36	536	101	2,259
Total power equipment employed	36	536	191	2,259
Electric motors driven by power generated by the primary power of the industry	8	97	2	45
Total electric motors	44	633	103	2,364
Boilers installed	5	273	6.	764

Materials Used.—Asbestos fibre, asbestos cloth and yarn, asbestos paper, and bonding materials such as clays and silicates were the principal materials used in manufacturing in this industry. In 1925, the total cost of materials used was reported at \$783,063 as compared with a cost of \$267,201 in 1924.

Table 43.—Materials Used in the Asbestos and Allied Products Industry in Canada, 1924 and 1925

	Unit of	19:	24	1925	
Material	measure	Quantity	Cost at works	Quantity	Costs at works
Asbestos cloth and yarn Asbestos crude and libre Asbestos paper, corrugated and plain Clay. Cotton cloth and yarn. Fett. Rubber. Silicate of soda. Gasoline, benzol toluol, alcohol, etc. Talc. Colours. Containers, boxes, etc. All other materials.			3,630 8,424 5,172 6,697	2,500 19,096 2,059 25,559 10,659 18,744 115 52,300	6,825 2,900 8,345
Total			267, 201		783,063

Products.—Products of the asbestos industry included asbestos lining, asbestos packing, asbestos building materials and various other products valued in the aggregate at \$1.344,097, an increase of 128 per cent over the output value for 1924. Increases were noted in the outputs of all classes of asbestos products, but particularly in the output of asbestos paper, shingles and lumber; as these latter commodities were only made in 2 establishments in Canada no separate details can be given in this report.

Table 44.—Products of the Asbestos and Allied Products Industry in Canada, 1924 and 1925

	Unit of	19:	24	19:	25
Product	measure	Quantity	Selling value	Quantity	Selling value
Asbestos lining Asbestos packing of all kinds	Ft.			1,636,355	\$ 272,217 187,916
Asbestos pipe and boiler covering. All other products* Amount received for custom work and repairs.			12,622		179,717 702,748 1,499
Total			589,339		1,344,097

^{*}Includes composition flooring, furnace cement, silicate, boiler cleaners, asbestos shingles, millboard, corrugated sheathing, paper, asbestos huilding lumber and magnesite stucco.

Primary Production of Asbestos.—(From the annual Report on the Mineral Production of Canada, 1925.)—A new high record was established in the Canadian production of asbestos in 1925. Total shipments for the year were 290,389 short tons valued at \$8,988,360, as compared with 225,744 tons at \$6,710,830 in 1924. The average price per ton received by the operators was \$30.95, while in 1924 receipts averaged \$29.73.

Asbestos rock mined and raised during the year amounted to 4,121,258 tons. In the same period the mills handled 3,386,752 tons or 82 per cent of the tonnage raised; the remainder consisted of waste rock and was sent directly to the dumps,

Exports of asbestos (including sand and waste) in 1925, totalled 258,017 tons, or 42,515 tons in excess of the quantity exported in 1924. Shipments to Great Britain amounted to 8,709 tons, to United States 209,879 tons, and to Germany, 11,120 tons. Exports of asbestos to Australia, Belgium, France, Italy and the Netherlands increased materially.

Sales of Rhodesian and South African asbestos in 1925 were considerably greater than in the previous year. The Russian output also increased, while the Cyprus production remained at the same level as in 1924. Canada produces about 85 per cent of the world's total supply of asbestos.

Table 45.—Output and Sales of Asbestos in Canada, 1924 and 1925

Marie Land	1924				1925			
Classification	Sold or shipped				Sold or shipped			ood
Cissification	Total output	Quantity	Total sales value at mill	Average value per ton	Total output	Quantity	Total sales value at mill	Average value per ton
	Ton	Ton	8	\$	Ton	Ton	8	8
Crude No. 1. Crude No. 2. Other crude. Spinning stocks. Shingle stocks. Mill board and paper stocks. Fillers, floats and other short fibres. Sand, gravel and crushed rock.		121,001	762, 166 12,080 1,112,796 903,775 2,208,698 1,308,011	411-54 200-15 170-14 109-04 46-85 31-38' 10-81	806 2,701 280 13,509 25,301 94,350 128,382 16,409		1,523,980 2,915,046 1,618,290	365 · 13 206 · 22 140 · 90 106 · 43 50 · 78 31 · 03 12 · 61 0 · 64
Total	226, 469	225,744	6,710,830	29 - 73	281,718	290,389	8,288,360	30-9

Table 46.—World's Production of Asbestos, 1913 and 1921-1925

(Long tons)

Country	1913	1921	1922	1923	1924	1925
Canada ¹ Southern Rhodesia ² Union of South Africa ² Australia ² Zyprus ² India ² China ²	(a) 1,168	82.822 17.437 4.810 1.182 (a) 897 316	146,166 12,722 3,919 741 2,285 242 (a) 194	206,680 18,182 7,312 217 2,151 247 (a) 126	201.557 23,340 6,459 74 3,903 125	259,27 30,66 9,07 5 3,22
taly ⁴ Russig ²	172 17,218	750 413 7,080	772 492 5,065	774 1,513 4,801	1,207 2,125 (a) 8,197	1,70 2,07 10,00
spain ^z nited States ^z rance ^z span	982	742 500	50 60 600 919	202 653 369	(4) 268 277	1, 12
Total	139,019	116,981	174, 182	243,227	247,657	317,40

^{*} Data not available,

Dominion Bureau of Statistics, Canada.

Imperial Mineral Resources Bureau (to 1921). Later figures from official reports of the different countries.
Mineral Resources of United States 1923.

⁴ Ashestos • The Mineral Industry, 1924.

⁽a) Exports.

⁴⁴²⁹⁰⁻⁴³

Table 47.—Imports into Canada and Exports of Asbestos, 1924 and 1925

	192-	1	1925		
	Tons	Value	Tons	Value	
MFORTS— Asbestos in any form other than crude, and all manufactures of		8		8	
n.o.p. Asbestos packing.	111	441,300 98,418	111	350,600 98,169	
Total	-	539,718	-	448,761	
Exports— Asbestos Asbestos sand and waste Asbestos manufactures	109,730 95,019	6,297,819 1,219,270 44,132	136,750 121,267	8,090,106 1,592,286 55,572	
Total	-	7,561,221	-	9,787,96	

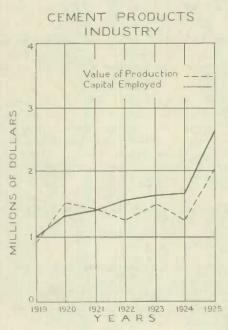
Table 48.—Exports of Canadian Asbestos by Countries of Destination, 1924 and 1925

Commodity and Destination	192	4	192	5
Commonly and Destination	Tons	Value	Tons	Value
			100	\$
Assessos— Great Britain, United States. Australia Austria.	6,614 72,233 473	374,680 3,904,161 24,130	6,846 94,292 1,360	608,774 4,979,303 94,272
Belgium France Germany Italy Japan Netherlands Spain Other countries	2,798 5,640 9,133 2,439 9,222 1,068	150,065 452,151 785,703 151,778 358,596 88,580	6,002 5,484 8,947 3,730 7,127 2,707 130 125	370,530 438,195 737,802 260,263 373,312 212,855 7,800 7,000
Total	100,730	6,297,819	136,750	8,090,106
SAND AND WASTE— Great Britain United States. Other countries.	3,100 89,652 2,337	53,983 1,124,031 42,056	1,863 115,587 3,817	34,490 1,490,341 67,455
Total	95,089	1,220,970	121,267	1,592,286
Assestos Manufactures including Assestos Roofing— Great Britain. United States. British South Africa.				272 32,443 5,855
France. New Zealand Other countries.		32 125 12,696		205 31 16,766
Total		44, 132		55,572

CHAPTER FOUR

CEMENT PRODUCTS

General.—During 1925, the production in Canada of cement blocks, sewer pipe, drain pipe and similar commodities amounted in value to \$2,020,239, an increase of 61 per cent over the \$1,257,871 produced in the previous year and 34 per cent above the corresponding figure of \$1,505,528 reported for 1923. The industry as reviewed in this chapter covers the



operations of 197 different establishments distributed as follows: 148 in Ontario, 34 in Quebec, 5 in New Brunswick, 4 in British Columbia, 2 in Alberta and 2 each in Nova Scotia and Saskatchewan. Many of these plants were very small and employed only 1 or 2 persons; only 11 concerns each had a production valued at more than \$50,000; 2 other concerns each made more than \$25,000 worth of commodities for sale; 21 more establishments each had outputs above \$10,000 in value; 26 others each exceeded the \$5,000 mark; the outputs of 91 other plants were each valued at between \$1,000 and \$5,000, while 46 of the reporting firms made less than a thousand dollars' worth of commodities during the year. Many individuals made a few cement blocks in spare time only but no record of these minor operations has been included in this report.

Plants in this industry in 1925 represented a capital investment of \$2,594,736, and gave employment throughout the year to an average of 819 people to whom \$697,716 were paid in salaries and wages. Purchased materials used during the year cost \$730,296 so the value added by the manufacturing processes, being

the difference between the cost of raw materials and the selling value of the products, was \$1,289.943.

Table 49—Summary Statistics of the Cement Products Industry in Canada, 1921-1925

Year	Number of plants	Capital em- ployed	Number of em- ployees	Salaries	Wages	Cost of fuel*	Cost of materials	Selling value of products	Value added by manufac- turing
		\$		\$	8	\$	\$	8	\$
1921	108	1.416,813	441	74,125	332,620	26,991	555,915	1,433.253	877.338
1922	124	1,553,160	391	81,965	290,303	21,794	533,335	1,281,004	747,669
1923	118	1,664,580	421	97,987	360,758	25,242	596,654	1,505,528	908, 874
1924	116	1,673,758	455	87,308	337,770	26,419	493,270	1,257,871	764,601
1925	197	2,594,736	819	125,567	572,149	40,442	730, 296	2,020,239	1,289,943

^{*} Includes cost of electricity in 1924 and 1925.

Table 50.—Principal Statistics of the Cement Products Industry in Canada, by Provinces, 1924 and 1925

		19	24		1925				
Province	Number of plants	Number of em- ployees	Salaries and wages	Selling value of products	Number of plants	Number of em- ployees	Salaries and wages	Selling value of products	
			\$	8			\$	\$	
New Brunswick	3	11	8,240	18,855	5	16	5,382	24,077	
Quebec	18	90	75,910	235,617	34	179	150,605	398, 192	
Ontario	92	345	339,793	1,001,036	148	568	511,704	1,499,938	
British Columbia					4	9	2,575	7,448	
Canada*	116	455	425,078	1,257,871	197	819	697,716	2,020,239	

^{*} In 1924 total for Canada includes data for 1 plant in Nova Scotia and 2 in Saskatchewan: in 1925 the total includes data for 2 plants in Nova Scotia, 2 in Saskatchewan and 2 in Alberta.

Capital Employed.—Capital employed in the cement products industry in Canada totalled \$2,594,736 in 1925 as compared with \$1.673,758 in the previous year. The increase of 55 per cent in output value was due to the collection of more complete returns for this industry and a gain of 81 in the number of reporting plants. Lands, buildings, machinery and tools valued at \$1,465,650 represented about 56 per cent of the total investment in the industry. Ontario led the provinces with a capital investment of \$2,068,497 or about 80 per cent of the total capital employed in the industry.

Table 51.—Capital Employed in the Cement Products Industry in Canada, by Classes and by Provinces, 1924 and 1925

		19	24			1925			
	Capital	employed	as represer	ited by	Capital employed as represented by				
Province	Lands, buildings, fixtures, machinery and tools	and	Cash, trading and operating accounts and bills receivable	Total	Lands, buildings, fixtures, machinery and tools	and	Cash, trading and operating accounts and bills receivable	Total	
	\$	\$	\$	s	\$	8	\$	\$	
New Brunswick	36,853	3,208	3,150	43,211	37,354	3,994		41,348	
Quebec	169,289	43,797	60,264	273,350	227,963	61,089	103,029	392,081	
Ontario	770,325	286,017	291,904	1,348,246	1,126,400	401.875	540,222	2,068,497	
British Columbia					19,500	143	1,500	21,143	
Canada*	982,982	334, 199	356,577	1,673,758	1,465,650	478,620	650,466	2,594,736	

^{*} In 1924 total for Canada includes data for 1 plant in Nova Scotia and 2 plants in Saskatchewan; in 1925 the total includes data for 2 plants in Nova Scotia, 2 in Saskatchewan and 2 in Alberta.

Employment.—In 1925, the cement products industry gave employment to 819 persons of whom 90 were salaried employees and 729 were wage-earners. Payments in salaries reached the sum of \$125,567 and wages amounted to \$572,149, a total expenditure for this purpose of \$697,716 as compared with \$425,078 to a total of 455 employees in 1924.

As in other industries that supply materials to the building trade, the manufacture of cement products shows a distinct seasonal trend. In January, 1925, there were only 261 wage-earners employed but this number gradually increased to 551 in April and a maximum of 811 in May after which there was a decline to 724 in August, 586 in October and 413 in December, making an average of 729 wage-earners for the year. A similar trend was shown in 1924, the peak number of 466 being reached in May and the minimum of 191 in December.

Table 52.—Average Number of Employees, Salaries and Wages Paid in the Cement Products Industry in Canada, by Provinces, 1924 and 1925

The state of the s		Average nu	imber of e	mployees		Salaries and wages			
Province	Salaried e	mployees	Wage-e	arners	Total	Salaries	Wages	Total	
	Male	Female	Male	Female	Lotai	Cristias 103	11 agon		
						\$	8	8	
1924									
New Brunswick	2		9 78		11	1.700 13,600	62,310	8,240 75,910	
Quebec Ontario	12 32	7	305	i	345	71,408	268,385	339,793	
*Canada	48	7	399	1	455	87,308	337,770	425,078	
1925									
New Brunswick	1		15		16	900	4,482	5,383	
Quebec Ontario	24 54	1 7	152 504	2 3	179 568	24,126 99,868	126,479 411,836	150,600 511,70	
British Columbia			9		9		2,575	2,578	
*Canada	82	8	724	5	819	125,567	572,149	697,710	

^{*} Includes also data for 1 plant in Nova Scotia and 2 in Saskatchewan in 1924 and for 2 plants in Nova Scotia, and 2 in each of the provinces of Saskatchewan and Alberta in 1925.

Table 53.—Number of Wage-Earners Employed in the Cement Products Industry in Canada, by Months, 1924 and 1925

4		1924		1925		
Month	Male	Female	Total	Mnle	Female	Total
anuaryebruary.	213 193	1	214 194	257 258	4 4	261 262
farch. pril. fay	292 391 465	1	293 392 466	366 546 806	5 5 5	371 551 811
nne	451 413	1	452 414 400	783 732 719	4 4 6	787 736 724
ugust eptember etober	398 384 356	1 1	385 357	687 581	5 5	692 586
Vovember	269 190	1	270 191	506 409	4 4	510 413
Average	399	1	400	724	5	729

Table 54.—Hours of Labour (in Month of Greatest Employment) in the Cement Products Industry in Canada, by Provinces, 1924 and 1925

Province	Numl	er of wage	-eurners we	orking	hour	worked p	number of er man per working	week
Province	8 hours or less per day	9 hours	10 hours	Over 10 hours	8 hours or less per day	9 hours	10 hours	Over 10 hours
Nova Scotia New Brunawick Quebee. Ontario Saskatchewan Alberta British Columbia.	3 62 135	5 19 105 223	98 374 37	1 12 2	45 48 48 48 45	54 54 54 54 54	60 60 60 58 60	66 66 22

Table 55.—Fuel and Electricity Used in the Cement Products Industry in Canada, 1924 and 1925

Kind	Unit	1924		1925		
Kinu	measure	Quantity	Value	Quantity	Value	
A = (1 = 1/4 1		400	\$	100	\$	
Anthracite coal	ton	487	3,656	132	2,020	
Bituminous coal	ton	1,657	10,048	2,205	14,268	
Lignite	ton	3	36	P. C		
Oke	ton	57	532	75	877	
lasoline	imp. gal.	10,624	2,925	30,804	8,16	
fuel oil	imp. gal.	5,425	1,283	3,049	641	
Wood	COTUS	95	481	71	586	
*A9	M cu. ft.	566	341	380	263	
Other fuel			32		1,159	
Electric power	k. w. h.	87,362	7,085	460,112	12,45	
Total			26, 419		40.44	

Table 56.—Power Equipment Employed in the Cement Products Industry in Canada, 1924 and 1925

	19	24	193	25
Description	Number of units	Total h.p. according to manu- facturers rating	Number of units	Total h.p. according to manu- facturers' rating
Steam engines and turbines. Gas engines Oil and gasoline engines.	8 23 27	253 148 203	6 34 37	170 218 189
Total primary power	58	604	77	572
Electric motors driven by purchased power	57	542	90	854
Total power equipment employed	115	1,146	167	1,431
Total electric motors	57	542	90	854
Boilers installed	19	580	23	431

Materials Used.—The principal materials used in the manufacture of cement products are Portland cement, sand, gravel and crushed stone. In 1925, the cost of these and other raw materials, amounted to \$704.484 which together with \$25.812 paid for boxes, crates, etc.. made a total expenditure of \$730,296 as compared with \$493,270 in the previous year.

Table 57.—Materials used in the Cement Products Industry in Canada, 1924 and 1925

Material	Total cost a	at works	
Material	1924	1925	
	8	\$	
Portland cement, sand, gravel, etc. Boxes, crates and lumber.	470,361 22,909	704, 484 25, 812	
Total	493,270	730, 296	

Products.—In 1925, the value of production in this industry stood at \$2,020,239 as compared with the corresponding figure of \$1,257,871 shown for 1924. Hollow building blocks produced were worth \$859,706 as against \$523,326 in 1924; the output of drain pipe valued at \$201,890 was almost four times the value reported in the previous year; artificial stone made during the year was valued at \$256,118 as compared with \$77,484 in 1924, while the output of general bricks and sewer pipe were slightly below the figures shown for last year. Quantity production of cement bricks, building blocks, drain pipe, etc., have not been shown because of the different sizes made; in many cases, too, only the value was reported.

Table 58.—Products of the Cement Products Industry in Canada, 1924 and 1925

The day of	Total selli	ng value
Product	1924	1925
	\$	- \$
Cement bricks Hollow building blocks, etc. Drain pipe Sewer pipe Artificial stone Jement posts, poles, etc.	53,066 523,326 53,989 419,730 77,484 13,444 116,832	40,251 859,700 201,890 304,360 256,113 5,760 262,123
Total	1,257,871	2,020,23

Primary Production of Cement.—(From the annual Report of the Mineral Production of Canada, 1925.)—In 1925, shipments of cement from Canadian mills showed an appreciable advance over the total recorded for the previous twelve months. Sales during 1925 totalled 8,116,597 barrels valued at \$14,046,704 as compared with 7,498,624 barrels at \$13,398,411 shipped in 1924.

Cement is produced in Quebec, Ontario, Manitoba, Alberta and British Columbia. There was formerly a production of puzzolan cement from blast furnace slag in Nova Scotia, but this has been discontinued in recent years. In 1925, Ontario was the leading producer, sales in that province amounting to 3,462,358 barrels valued at \$5,253,911. While slightly below the total quantity for Ontario, sales from Quebec mills amounted to 3,365,802 barrels. British Columbia mills sold 485,185 barrels for \$1,151,344, and Manitoba came next with 407,395 barrels worth \$1,037,929. Alberta sales totalled 395,857 barrels at \$913,529.

By provinces, the average selling price per barrel, f.o.b. plant, was as follows: Quebec; \$1.69; Ontario, \$1.52; Manitoba, \$2.55; Alberta, \$2.31; and British Columbia, \$2.37.

Importations during 1925 amounted to 21.849 barrels averaging \$2.89 per barrel as against an average price of \$2.50 in 1924. Exports of Portland cement totalled 997,915 barrels invoiced at \$1,498,495.

Cement consumption in Canada during the year was considerably lower than in 1924. In comparison with 1913, the 1925 consumption showed a decrease of 3 per cent.

Table 59.—Production, Imports, Exports and Apparent Consumption of Cement in Canada, 1924 and 1925

	19	24	19	25
grammed)	Barrels	Value	Barrels	Value
		\$		8
Output Sold or used. Stocks, December 31.	7,768,652 7,498,624 1,521,574	13,398,411	7,869,946 8,116,597 1,274,923	
Imports Portland cement Manufactures Exports	27,672 153,520	9.772		13,753
Consumption.	7,372,776		7,140,351	

Table 60.—Sales of Cement in Canada by Provinces, 1924 and 1925

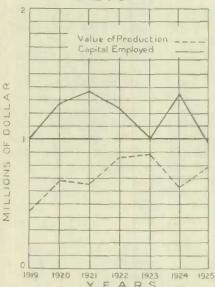
Province	192	4	192	5
Province	Barrels	Value	Barrels	Value
Quebec. Ontario Manitoba Alberta British Columbia.	2,758,316 3,504,499 28d,948 416,534 472,327	\$ 4.796,959 5.068,671 746,750 945,700 1,240,331	407,395	\$ 5,689,991 5,253,911 1,037,929 913,529 1,151,344
Canada	7,498,624	13,398,411	8,116,597	14,046,704

CHAPTER FIVE

SAND-LIME BRICK

General.—Sand-lime brick is used extensively in the building trude. By the addition of hydrated lime to sand in the proper proportions, a mixture can be made from which it is possible to produce durable bricks. Methods of manufacture were described in the review of the industry for 1923. In general the essentials to the production of high-grade brick are: thorough hydration of the lime before being made into the brick form; the

SAND-LIME BRICK pre
INDUSTRY of 1



proper percentage of lime and sand; the highest pressure to form the brick, and the elimination of manual labour to attain consistent results.

Increased outputs characterized the operations of the plants reporting in 1925. In spite of the fact that there were fewer plants in operation, production of sand-lime brick in Canada in 1925 totalled 63,869 M valued at \$781,555 as compared with 55,873 M worth \$619,946 in 1924. This was an increase of 14 per cent in quantity and 26 per cent in value. Nine plants were in operation in 1925 of which 7 were in Ontario and 2 in Manitoba; in 1924 there were 10 factories in Ontario, 1 in Manitoba and 1 in Saskatchewan. Three of the smaller establishments in Ontario and 1 small plant in Saskatchewan did not operate during 1925, but one other plant in Manitoba again commenced to produce during the year.

Capital employed in the sand-lime brick industry in 1925 amounted to \$930,729 as against \$1,346,239 in the previous year; employees numbered 206 as against 236 in 1924 and materials used in manufacture cost \$130,155 in 1925 as compared with a corresponding figure of \$181,260 in 1924.

Table 61.—Summary Statistics of the Sand-Lime Brick Industry in Canada, 1921-1925

Year	Number of plants	Capital em- ployed	Number of employees	Salaries	Wages	Cost of fuel*	Cost of materials	Selling value of products	Value added by manufac- turing
1921	10	\$ 1,372,253	223	\$ 52,917	\$ 179,996	\$ 43,320	\$ 139,008	\$ 662,744	\$ 523,736
1922	11	1,224,808	223	54,418	233,287	58,258	291,903	858,807	566,904
1923	8	1,042,619	225	49,257	235,991	50,810	218,118	897,960	679,842
1924	12	1,346,239	236	48,785	199,260	61,237	181,260	619,946	438,686
1925	8	960,729	206	35,337	207.659	62,044	130, 155	781,555	651,400

^{*} Includes cost of electricity in 1924 and 1925.

Capital Employed.—Capital employed in the sand-lime brick industry in 1925 was reported at \$960,729, a decline of 30 per cent from the figure given for 1924 and the lowest on record for the industry. Lands, plants and equipments valued at \$738,692 represented 77 per cent of the total capital employed in 1925 and compares with a value of \$1,182,579 placed on fixed assets in the previous year. Plants in Ontario accounted for approximately two-thirds of the total capital employed in the industry.

Table 62.—Capital Employed in the Sand-Lime Brick Industry in Canada, by Classes and by Provinces, 1924 and 1925

	1924				1925			
Province	Lands, buildings, fixtures, machinery and tools	Materials on hand and atook in process	Cash, trading and operating accounts and hills receivable	Total	Lands, buildings, fixtures, machinery and tools	Materials on hand and stock in process	Cash, trading and operating accounts and bilis receivable	Total
	\$	\$	8	\$	5	\$:	\$
Ontario	835,995	34,368	91,072	961,435	395,808	39,576	175,027	610,411
Canada*	1,182,579	39,224	124,436	1,346,239	738, 692	42,036	180,007	960,725

Includes data for 1 plant in each of the provinces of Manitoba and Saskatohowan for 1924, and for 2 plants in Manitoba for 1925.

Employment.—In 1925, there were 17 salaried employees and 189 wage-carners, a total of 206 people, employed in the manufacture of sand-lime brick in Canada and payments in salaries and wages amounted to \$242,996; in the previous year there were 236 persons employed and expenditures in salaries and wages totalled \$248,045.

Employment showed a seasonal trend as some of the plants did not operate during the winter months when building activities were curtailed. In January, there were 143 wage-earners employed; in June the number reached a maximum for the year with 205 names on the rolls, and then declined to 191 in October and 164 in December, making an average of 189 for the year as compared with an average of 209 in 1924.

Table 63.—Average number of Employees, Salaries and Wages Paid, in the Sand-Lime Brick Industry in Canada, 1924 and 1925

		Average number of employees					Salaries and wages		
	Salaried e	mployees	Wage-e	Wage-earners		Salaries	Wages	Total	
	Male	Female	Male	Female	Total	SHIRINGS	AAREGOS	A OUNT	
1924						\$	\$	\$	
Canada	22	5	209		236	48,785	199,260	248,04	
1925									
('anada	16	1	189		206	35,337	207,659	242,99	

Table 64.—Number of Wage-Earners Employed in the Sand-Lime Brick Industry in Canada, by Months, 1924 and 1925

34 43		1924		1925		
Month -	Maie	Female	Total	Male	Fornale	Total
anuary	164		164	143		143
ebruary	120		120	139		131
farch	153		153	150		15
pril	192		192	185		18
fay	228		228	195		19
une	190		199	205		20:
dy	212		212	199		19
ugust	178		178	196		19
eptember	177		177	192		19
etober	192		192	191		19
ovember	219		219	166		16
December	229		229	164		16
Average	209		200	189		18

Table 65.—Hours of Labour (in Month of Greatest Employment) in the Sand-Lime Brick Industry in Canada, 1925

	Numl	per of wage	-earners wo	orking	Average hours worked per man per week when working			
	8 hours or less per day	9 hours	10 hours	Over 10 hours	8 hours or less per day	9 hours	10 hours	Over 10 hours
Canada	15	67	156	2	44	54	58	66

Table 66.—Fuel and Electricity Used in the Sand-Lime Brick Industry in Canada, 1924 and 1925

Kind	Unit	192	4	1925		
MIRG	measure	Quantity	Value	Quantity	Value	
		No.	\$	No.	\$	
Bituminous coal. Gasoline	Ton lmp. gal.	7,331 592	44,901 121	7,451	47,388	
Wood. Other fuel.	Cord	20	105 20	27	158	
Electric power	1C,W.H.	955,494	16,090	817,516	14,498	
Total			61,237		62,044	

Table 67.—Power Equipment Employed in the Sand-Lime Brick Industry in Canada, 1924 and 1925

	19	24	193	25
Description	Number of units	Total h.p. according to manufacturers' rating	Number of units	Total h.p. according to manu- facturers' rating
Steam engines and turbines	7	700	4	475
Total primary power	7	799	4	475
Electric motors driven by purchased power	35	891	26	719
Total power equipment employed	42	1,591	39	1,194
Total electric power	35	891	26	719
Boilers installed	8	1,115	10	915

Materials Used.—Quicklime and sand are the principal materials used in the manufacture of sand-lime brick. In 1925 manufacturing materials cost \$105,022 delivered at the works and boxes, crates, etc., cost \$25,133 making a total of \$130,155 as compared with \$181,260 in the previous year.

Table 68. Materials Used in the Sand-Lime Brick Industry in Canada, 1924 and 1925

	-1	
	1924	1925
Material	Cost at works	Cost at works
	\$	\$
Manufacturing materials used.	159,907	105,022
Boxes, crates and lumber.	21,353	25,133
Total	181,260	130,155

Products.—Sand-lime brick was the only product of the plants in this industry. Production in 1925 amounted to 63,869 M valued at \$781,555 as compared with 55,873 M with a total selling value of \$619,946 m 1924. The value of output in 1925 was thus 26 per cent above the figure for 1924 but was 13 per cent below the total for 1923 when the record for the industry was attained.

Table 69.—Products of the Sand-Lime Brick Industry in Canada, 1924 and 1925

Product	19	24	19	25
k.Louinef	Quantity	Selling value	Quantity	Selling value
Sand-lime brick	55,873	619,946	63,869	781,555
Total	55,873	619,946	63,869	781,555

Primary Production of Brick, Lime and Sand.—(From the annual Report on the Mineral Production of Canada, 1925.)

Brick.—The total Canadian production in 1925 was valued at \$5,944,163 as compared with a value of \$5,722,997 in the previous year. Ontario leads all other provinces in Canada in the production of building brick. In 1925, this province's production had a selling value of \$3,196,335; Quebec followed with a total value of \$2,018,008; and Alberta came next with a valuation of \$224,569. British Columbia, Manitoba, Nova Scotia, Saskatchewan, New Brunswick and Prince Edward Island followed in the order named.

Table 70.—Production of Building Brick in Canada, by Provinces, 1924 and 1925

		Nova Scotia	New Bruns- wick	Quebec	Ontario	Manitoba	Saskat- chewan	Alberta	British Columbia	°Canada
1	1924									
	Face	М			10,605		226			10,83
Soft mud	0	3		4 000	182,385	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	2,863	4 840	TAR PAR	185,24
process	Common.	M 440		4,802 48,865	31,041 488,742	5,722 93,698	1,603	1,446 19,195		746.04
Stiff mud	Face	M 675		14.611	63,353	165	1.200	213	348	80.56
process	A BY COLLEGE	\$ 13,581		381.549	1.385.131	4.911	32,210	5.730	19.106	1.842.22
	Common.	M 4,161		93,343	22,563	127	227	3,502	633	121,55
cut) (\$ 50,322		1,351,657	424,536	1,270	3,570	38,823	10,453	1,880,63
	Face	M		1.817	30.597		173	1,486	1,130	35,26
Dry	0	8		53,006	636,101		6,064	25,824	40,577	761,57
press	Common.	M			2,433 34,093		128 2,018	7,510 96,533	2,723 35,399	168,04
Fancy or	ornamental				01,000		2,010	30,000	00,000	10179 01
		M		223	532					75
		\$		9,603	88,857					98,40
Sewer bric	k	M.,,,,,,,			2,656				34	2,6
		**********			39,446		100000		1,329	40,77
Total.		M 5,276 8 69,785		114,796 1,844,680	163,780 3,279,291	6,014 99,879	3,557 67,198	14, 157 186, 111		317.47
1	1925									
	(Face	M			24,479	3,219				27.70
Soft mud		8		35	476,638	45,000				521,7
process	Common.	M 830		7,740	30,799	6,014	602		3, 169	51,2
S14289	l vo	8 10.760		80,114	474,114	96,632	9,951	050	52,390	753,9
Stiff mud	Face	M 1,434		21,224 506,113	68,975	324 8,404	560 17,104		16,716	93,9 1,883,8
(wire	Common	M 3.65		93,827	12.642	29		5,036	208	116.1
cut)	Committee	8 45.47		1.328,403	195, 202	283		52,645	4,198	1,635,2
	Face	M]	2,919	32.016		77	922	1,267	37,3
Dry		3		91,551	638,812		2,634	16,525		800,5
11688	Common.	M	250	800	4.587			11,930	4,486	22,0
Canor or	ornamental	\$	2,800	7,200	64,377			137,436	58,322	270,1
	ornamenta	M		98	426					5
		8		4.592	21.728					26,3
Common build	k	M			2,125				360	2,4
sewer blic		\$			37,082				15,300	52,3
sewer Dric										
	otal	M 5.92	2,250	126,611	176,048	9.586	1,764	18,740	10.0%3	351.1

^{*} Includes record of small production in Prince Edward Island.

Lime.—Production of lime in Canada during 1925, increased 12 per cent in quantity over the previous year's shipments. The year's production amounted to 10,256,542 bushels, consisting of 8,529,399 bushels of quicklime, and 60,450 tons of hydrated lime, having a total value of \$3,387,652. In 1924, the total production was 9,136,952 bushels valued at \$3,178,541. The average price throughout Canada for quicklime in 1925 was 32 cents per bushel, while hydrated lime sold for \$11.30 per ton.

Importations of lime in the year under review were recorded at 4,700 tons appraised at \$47,639. Exports, according to Customs' records, were 16,286 tons, worth \$312,168.

Quicklime is used extensively in Canada in chemical works, pulp and paper mills and in the building trades. Hydrated lime is sold mainly to the building trades and dealers, although appreciable quantities are also consumed in the chemical industry, pulp and paper mills, etc.

Ontario is the chief Canadian source of lime; this province produced 5,115.974 bushels of quicklime and 41,610 tons of hydrated lime in 1925, having a total selling value at the kiln of \$2,044,125. There was no production of lime in Prince Edward Island nor Saskatchewan during 1925.

Table 71.—Production of Lime in Canada, 1924 and 1925, Showing Purpose for which Sold or Used

		192	4		1925			
Purpose for which sold or used	Quick	lime	Hydrat	ed lime	Quickli	me	. Hydrate	ed lime
	Bushels	Value*	Tons	Value*	Bushels	Value*	Tons	Value*
Building trades Chemical works Glass works Smelters Pulp and paper mills Sugar refineries Tanneries Agricultural uses (fertilizers) Dealers (uses unspecified) Other consumers	1.056, 281 2.653, 362 94, 602 56, 518 1.806, 907 315, 323 63, 141 743, 816 940, 259	\$ 430,624 843,111 20,567 35,689 406,189 94,383 21,411 287,362 424,002	22,772 1,953 25 3,535 111 399 13,073 4,218	13,835 287 33,915 1,166 3,374	1,003,084 3,145,399 78,653 181,749 2,028,002 314,786 98,414 13,667 868,658 796,987		5,500 177 611 16,992	\$ 358,178 18,576 37,565 1,272 5,119 198,436 63,750
Total sold or used	7,820,209		46,086		8,529,399		5,118	682,88

^{*} Total selling value at kiln.

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

Yana	19:	24	1925	
Item	Tons	Value	Tons	Value
Imports. Exports.	4,418 22,750			\$ 47,639 312,168

Table 73.—Production in Canada, Imports and Exports of Sand and Gravel, 1924 and 1925

Kind	19	24	19	25
Kind	Tons	Value	Tons	Value
Production— Moulding sand. Building sand and sand for concrete roadwork, etc. Other sand (including blast, core and engine sands). Sand and gravel for railway ballast. Sand and gravel for concrete, road building, etc. Crushed gravel.	46,515 5,076,511 3,086,663 612,800	911,173 22,346 696,966 1,293,259 267,267	2,557,623 47,538 3,950,328 3,955,166 450,336	755, 289 17, 770 570, 235 1, 626, 834 201, 402
Total Imports— Sand, silica for glass and carborundum manufacture, etc Sand and gravet, n.o.p. Total. Exports	131.778 150.868 282,646 1,036,029	324,279 118,397 442,676 210,496	282,203 425,794	353,327 184,000 537,237

CHAPTER SIX

COKE AND ITS BY-PRODUCTS

General.—Coke is produced in Canada in three different industries. Besides that produced in the familiar beehive and by-product ovens, coke is obtained as a by-product in the manufacture of illuminating and fuel gas and in the refining of petroleum. Petroleum coke is of little importance as the production is comparatively small and it is not commonly sold in competition with gas-house or by-product coke; it is used in the manufacture

Value of Production Capital Employed

Value of Production Capital Employed

Value of Production Capital Employed

of electrodes and as a fuel in the refineries. Gas coke is used extensively as a domestic fuel but is too soft for metallurgical or foundry purposes, the use which consumes the great bulk of all the coke produced in Canada.

Production of coke in Canada during 1925 totalled 1,589,927 tons, of which 1,079,526 tons were made in plants producing metallurgical coke as the chief product; 467,213 tons were obtained as a by-product from gas plants; and 43,188 tons of petroleum coke were recovered from oil refineries. In 1924, the total production of coke in Canada amounted to 1,486,237 tons.

The largest part of the output of coke is used in the metallurgical industry where it is employed as a blast furnace fuel, but it also is used extensively in foundries and in other metallurgical operations. The primary coke-producing plants, therefore, are usually operated as adjuncts to metallurgical works, especially iron blast furnaces, and the output of coke parallels closely the output of pig-iron which in turn is controlled by the condition of general business. Even the growing demand for coke as a domestic fuel has not destroyed this parallelism; blast furnaces and

other metallurgical industries remain the principal customers of the coke-maker.

Two general factors influenced the quantity output of metallurgical coke in Canada during 1925—the production of pig-iron and the strike of the coal miners in Nova Scotia during the summer months. Production of coke was highest in the months of March and October, due to increased pig-iron production in those months, while during June, July and August the output was considerably curtailed, especially in Nova Scotia, because of the strike, which was followed by a scarcity of Canadian-mined coal such as is used for cokemaking in that province.

Coke is produced by the destructive distillation of bituminous coal and is made in two kinds of ovens, the by-product and the beehive types. From the by-product oven, as the name implies, are recovered coke, breeze, gas, ammonia liquor which may be made into ammonium sulphate, and light oils, such as toluol, benzol, motor oil, etc. The bechive type is designed to produce coke only and no provision is made for the recovery of the by-products.

Metallurgical coke was made in Canada by (a) Dominion Iron and Steel Company Limited at Sydney, N.S., (b) Steel Company of Canada Limited at Hamilton, Ont., (c) Algoma Steel Corporation, Limited, at Sault Ste. Marie, Out., (d) Hamilton By-Product Coke Ovens, Limited at Hamilton, Ont., (e) Crow's Nest Pass Coal Company at Fernie,

B.C., (f) Granby Consolidated Mining. Smelting and Power Company at Anyox, B.C. The by-product type of oven is operated by all these companies with the exception of the Crow's Nest Pass Coal Company who, as yet, have not deemed it advisable to install the newer type of oven.

Of the 6 plants in this industry, the 3 in Ontario procured bituminous coal for cokemaking from the United States; the 1 plant in Nova Scotia used Canadian coal almost entirely but during the strike of the coal miners in that area in 1925 this concern was forced to bring in some coal from United States; and 1 plant in British Columbia used domestic coal only while the other coke plant in that province used about 1 ton of American coal to every 6 tons of Canadian coal used.

Statistics given in this chapter (excepting tables 74 and 85-92) cover only those plants making coke as the primary product; that is, only those plants making metallurgical coke are included in this review. Separate chapters are devoted to the artificial gas and petroleum-refining industries.

The 6 plants in the coke industry represented a capital investment of nearly 24 million dollars, employed 583 persons during the year, paid out \$885,637 in salaries and wages, and converted materials worth \$7,112,311 into products having a selling value of \$11,020,298. In 1924, the same plants had an output valued at \$10,438,462. Of the 6 plants in operation, 3 were located in Ontario, 2 in British Columbia, and 1 in Nava Scotia.

Table 74.—Total Production of Coke in Canada, by Industries, 1924 and 1925

	19	24	1925		
Industry	Quantity	Selling value	Quantity	Selling value	
	Short tons	\$	Short tons	8	
Coke and by products industry	451.607	3, 164, 234	1,079,526 467,213 43,188	3,040,738	
Total	1,486,237	10,745,468	1,589,927	10,764,546	

Table 75.—Summary Statistics of the Coke and By-Products Industry in Canada, 1921-1925

Year	Number of plants	Capital employed	Number of em- ployees	Salaries	Wages	Cost of fuel and elec- tricity	Cost of materials*	Selling value of products	Value added by manufac- turing
		\$		\$	8	\$	\$	\$	8
1921 1922 1923 1924 1924	5 6 5 6	19,866,300 20,363,785 20,494,442 24,315,744 23,905,454	533 598 530	283,554 99,865 86,979 84,854 80,090		291,225 211,515 1,125,067	11,437,863 6,879,516	7,336,627 13,901,445 10,438,462	2,463,582

^{*} Includes materials used as fuel in 1921, 1922 and 1923.

Table 76.—Principal Statistics of the Coke and By-Products Industry in Canada, by Provinces, 1924 and 1925

		192	24		1925			
Province	Number of plants	Number of employees	Salaries and wages	Selling value of products	Number of plants	Number of employees	Salaries and wages	Selling value of products
Ontario	3	266	506,087	6,823,309	3	250	493,16	57,001,91
Canada*,	6	530	900,992	10,438,462	6	583	885,637	11,020,29

^{*} Includes also data for I plant in Nova Scotia and 2 plants in British Columbia.

Capital Employed.—Capital employed in the coke and by-products industry in Canada in 1925 amounted to \$23,905.454, a decline of nearly a half-million dollars from the figure reported in 1924. About 95 per cent of the total output employed was tied up in lands and extensive buildings, and plant equipment. Ontario's plants accounted for 45 per cent of the total investment for the industry.

Table 77.—Capital Employed in the Coke and By-Products Industry in Canada, by Classes and by Provinces, 1924 and 1925

		192	4		1925				
	Capital	al employed as represented by Capital employed as represented by					ted by		
Province	Lands, buildings, fixtures, machinery and tools		and operating	Total	fixtures, on hand, operating unchinery and stock accounts and tools in process and bills		trading		
	\$	\$	\$	8	8		s	\$	
Ontario	9,090,384	1,565,063	270,317	10,025,764	9, 159, 137	1,260,798	153,712	10,573,647	
Canada'	22, 146, 224	1,579,203	290,317	24,315,744	22, 415, 261	1,273,899	216, 294	23,905,454	

Includes also data for I plant in Nova Scotia and 2 in British Columbia.

Employment.—During 1925, plants in the coke industry gave work to 27 salaried employees and an average of 556 wage-earners, a total of 583 persons to whom \$885.637 were paid in salaries and wages as compared with 530 employees and an expenditure of \$900,992 in salaries and wages in 1924. According to monthly figures, employment was greatest in the forepart of the year and reached a maximum in March when there were 596 wage-carners employed; this number did not vary much until June when the strike in Nova Scotia affected the industry and the number of employees dropped off a little. By September only 512 names were on the wage-rolls of the various companies but settlement of the strike and a number of rail orders for the steel plant led to increased activity in October and 576 wage-earners were employed in that month. By December the number had dropped again to 554. The coke industry is closely related to the pig iron industry and conditions generally follow the same trend.

Table 78.—Average Number of Employees, Salaries and Wages Paid in the Coke and Its By-Products Industry in Canada, by Provinces, 1924 and 1925

		Average n	umber of e	mployees		Salaries and wages			
Province	Salaried employees Wage-earners Total		Salacioe	Wages	Total				
	Male	Female	Male	Female	E 0.6300	125ffilf.hoa		a Orean	
1924						-	\$	\$	
Ontario	14		251	1	266	45,078	461,009	506,087	
*Canada	28		501.	1	530	84,854	816,138	200,993	
1925			8.6						
Ontario	14		235	1	250	46,344	446,821	493,165	
*Canada	27	******	555	1	583	80,000	805,547	885,637	

Includes data for 2 plants in British Columbia and 1 in Nova Scotia.

Table 79.—Number of Wage-Earners Employed in the Coke and Its By-Products Industry in Canada, by Months, 1924 and 1925

Month		1924		1925		
Writti	Male	Fernale	Total	Male	Female	Total
anuary	575		575	557	1	558
chruary	531		531	562	1 1	563
farch	735		735	595	1 1	596
pril	628		625	576	i	571
fay	446		446	582	1	580
ine	477		477	544	1	543
lly	456		456	540	i	541
ugust	349		349	525	1	520
eptember	349		349	511	i i	513
ctober	458	1	459	575	1	576
Vovember	392	1	393	541	1	541
December	360	1	361	553	1	554
Average	501	1	502	555	1	554

Table 80.—Hours of Labour (in Month of Greatest Employment) in the Coke and Its By-Products Industry in Canada, by Provinces, 1925

	Numl	ber of wage	-earners wo	rking	Average number of hours worked per man per week when working				
Province	8 hours or less per day	9 hours	10 hours	Over 10 hours	8 hours or less per day	9 hours	10 hours	Over 10 hours	
Ontario				284				76	
*Canada	141			478	48			80	

^{*} Includes also data for 2 plants in British Columbia and 1 in Nova Scotia.

Table 81.—Fuel and Electricity Used in the Coke and Its By-Products Industry in Canada, 1924 and 1925

Kind	Unit	192-	4	1925	
	of measure	Quantity	Value	Quantity	Value
Bituminous coal Coke Gas. Other fuel Electric power	Short ton Short ton M cu. ft. k.w.h.	11,589 13,123 5,913,099 8,578,445	\$ 37,793 66,879 942,656 1,758 75,981	7,308 46,711 5,008,238 11,342,996	28, 820 224, 787 862, 927 882 96, 261
Total		4	1,125,067		1,213,677

Table 82.—Power Equipment Employed in the Coke and Its By-Products Industry in Canada, 1924 and 1925

	19.	24	1925	
Description	Number of units	Total h.p. according to manu- facturers' rating	Number of units	Total h.p. according to manu- facturers' rating
Steam engines and turbines.	89	2,993	98	3,831
Total primary power	89	2,993	98	3,831
Electric motors driven by purchased power	162	4.080	183	4,481
Total power equipment employed	251	7,073	281	8,312
Electric motors driven by power generated by the primary power of the industry	191	5.043	173	4.753
Total electric motors	853	9,123	356	9,234
Boilers installed	27	8,137	27	6.137

Materials Used.—Both imported and domestic coal are used in the coke-making industry in Canada. In 1925, the cost of foreign coal used for making metallurgical coke was \$4,723,140; Canadian coal used cost \$2,070,313. During the year, 930,738 tons of foreign coal and 598,280 tons of Canadian coal were converted into 1,079,526 tons of coke giving thus an average yield of 1,412 pounds of coke for every ton of coal charged to the ovens. Sulphuric acid was used to convert the ammonia recovered to ammonium sulphate which finds an extensive market as a fertilizer.

Table 83.—Materials Used in the Coke and Its By-Products Industry in Canada, 1924 and 1925

		192	4	1925	
Material	Unit of measure Quantity		Cost of works	Quantity	Cost of works
			8		\$
BITUMINOUS COAL, FOR COKE MAKING: Canadian. Foreign.	Short ton Short ton	584,304 826,613	2,110,064 4,415,142		2,070,313 4,723,140
Total coal	Short ton	1,410,917	8,525,206	1,529,018	6,793,453
OTHER MATERIALS: Sulphur. Sulphuric acid, 68° B6 All other materials.	Ton Ton	7,390 9,860	74.340 149,885 39,897	12,623	175,753 57,555
Total other materials			264, 122		233,308
Total purchased materials			6,789,328		7,026,761
Intermediate products used as materials			90,188		85,550
Total value of materials used			6,879,516		7,112,311

Products.—The amount of coke manufactured in this industry in 1925 was 1,079,526 tons valued at \$7,442,103; this was 13 per cent in quantity and 5 per cent in value above the production of 1924. The increase is accounted for by greater demand in the metallurgical industries. In 1925, Ontario's ovens produced 640,161 tons of coke or 59 per cent of the total production in this industry.

Disposition of coke by the producing plants showed that 15,527 tons were used in the coking plants for heating and power development; 764,120 tons were used in the associated metallurgical works; and 299,879 tons were sold during the year.

The percentage of yield of coke obtained from any coal is dependent primarily upon the quantity of volatile matter present in the coal. Practically all the volatile matter is eliminated during coking, the fixed carbon and ash with only a low percentage of volatile matter being left to form the coke. The yield of coke from any particular coal is lower in the bechive than in the by-product oven because in the former a small part of the coke is burned in order to produce the heat required for the coking operations. In 1925—1,529,018 tons of bituminous coal were treated to produce 1,079,526 tons of coke, an average yield of 70 per cent.

Most of the gas from the by-product ovens was used either to heat the ovens or in the associated steel plants; some gas was sold for domestic and industrial uses.

The ammonia liquor recovered in the plant was nearly all made into ammonium sulphate and marketed as such. Tar and tar products and light oils were also recovered.

Table 84.—Products of the Coke and Its By-Products Industry in Canada, 1924 and 1925

	Unit	19	24	10	25
	of measure	Quantity	Selling value	Quantity	Selling value
			\$		1
MADE FOR USE IN COKE FLANT: Coke Coke breeze Gas used in heating ovens or retorts. Gas otherwise used in plant. That and tar products.	Short ton Short ton M cu, ft. Mcu, ft. Imp. gal.	9,573 3,550 5,125,920 787,179 47,481	3,550 879,682 62,974	10,813 5,008,236	23,348 862,927
Light oils (toluol, benzol, drip oil, holder oil, motor fuel and road oil, etc.)	Imp. gal.	1,184,064		1,142,826	85,550 882
Total			1,101,481		1,000,991
MADE FOR USE IN METALLURGICAL WORKS: Coke Coke breeze Gas othorwise used in plant. Tur and tar products. All other products. Total.		724,322 57,123 1,588,613 2,956,064	107,894 515,619	37,283 5,991,969 3,314,142	128,606 674,744
MADE FOR SALE: Coke Coke breeze Gas sold Tar and tar products. Ammonium sulphate Light oils (benzol, toluol, drip oil, holder oil, etc.). All other products.	Short ton Short ton M cu. ft. Imp. gal. Ib. Imp. gal.	185,097 5,640 935,602 7,825,068 30,037,134	421,021	5,009 1,124,237 7,769,134 31,808,275 898,994	33, 899 492, 458 240, 644 807, 814 173, 227
Total			3,014,912		4,229,214
Total value of products for use and for sale			10, 438, 462		11,020,298

Table 85. - Production of Metallurgical and Gas-House Coke in Canada, 1919-1925

Yoar	Metallurg	Metallurgical coke		se coke	Total	
1 oar	Quantity	Selling value	Quantity	Selling value	Quantity	Selling value
	Short tons	8	Short tons	8	Short tons	8
1919	1,276,443	9,821,998	398,589	2,251.744	1,675,032	12,073,743
1920	1,270,322	11,524,091	431,352	3,835,305	1,701,674	15,359,39
1921	974.526	11,049,369	452,152	3,061,814	1,426,678	14,111,18
1922	700,098	5,560,183	532,548	3,492,700	1,232,646	9,052,88
1923	1,169,989	10,236,524	498,313	3,695,960	1,668,302	13,932,48
1924	985,305	7,268,713	451,607	3,164,234	1,436,912	10,432,94
1925	1,079,526	7,442,103	467,213	3,040.738	1,546,739	10,482,84

Imports and Exports.—Imports of coke during the year totalled 852,427 tons of which 739,104 tons were brought in through Ontario ports of entry; 52,329 tons through the eastern provinces and 60,994 tons into the western provinces. Imports were greatest in December when 131,276 tons were brought into Canada. This was due in some measure to the difficulty in obtaining anthracite coal because of the strike in the United States. Imports totalled 71,186 tons in January, 67,034 tons in March, 45,954 tons in May, 70,000 tons in August, 94,213 tons in October and 131,276 tons in December.

Exports of coke exclusive of petroleum coke during the twelve months ended December totalled 25,578 tons, of which 23,929 tons were exported from the western provinces, 24 tons from Ontario and 1,625 tons from the eastern provinces. Exports totalled 4,038 tons in January, 5,453 tons in March, 1,683 tons in July, 4,149 tons in October and 4,401 tons in December.

By adding the imports of coke to the production in Canada and deducting the exports the apparent consumption of coke in Canada during 1925, totalled 2.373,588 tons. Ontario's consumption for the year totalled 1,569,919 tons; the eastern provinces used 555,660 tons, and the western provinces, 248,009 tons.

Domestic Consumption of Coke in Canada.—Production of coke (including breeze) from gas plants and by-product coke plants in Canada during 1925 totalled 1,546,739 tons and as imports in the same year amounted to 852,427 tons there was thus an available supply of 2,399,166 tons. Exports, however, amounted to 25,578 tons, leaving 2,373,588 tons as the amount which was apparently consumed in Canada during the year.

An analysis of returns to the Bureau shows that during the year, 996,662 tops of coke were used as blast furnace and cupola charges, 194,403 tons were used as raw materials in manufacturing, and 345,803 tons were used as industrial fuel. Thus, a total of 1.536,868 tons of coke can be accounted for and it is assumed that the balance, or 836,720 tons, were used as domestic fuel during the year. By districts, the consumption of coke for domestic use was as follows: Maritime, 10.859 tons; Quebec, 90,207 tons; Ontario, 644.113 tons, and the western provinces, 91,541 tons. Taking an average of 8 tons as the requirements per home per year, if coke were used entirely as fuel, it follows that about 100,000 homes in Camada were using coke for domestic heating purposes in 1925.

Blast furnace charges of coke during 1925 totalled 996,662 tons of which 636,390 tons were charged to iron blast furnaces, 5,394 to steel furnaces, 97,352 tons to foundry cupolas and 257,506 tons to non-ferrous metal blast furnaces. By districts the consumption for this purpose was as follows: Maritimes, 256,210 tons; Quebec, 26,985 tons; Ontario, 602,265 tons; and the western provinces, 111,202 tons.

Consumption of coke as a raw material in manufacturing in 1925 amounted to 194,347 tons of which 89,886 tons were used in the manufacture of calcium carbide and carbon dioxide, 80,600 tons in the manufacture of water gas and 23,861 were used in making graphite electrodes and foundry facings. Plants in Ontario used 132,558 tons for these purposes; in Quebec, 51,338; in the Maritime, 202 tons and in the western provinces, 10,249 tons.

Coke was also used in considerable quantity as an industrial fuel; in 1925 about 345,859 tons were used for fuel purposes in industrial plants. The iron and steel industries used 57,801 tons; chemical industries, 14,436 tons; non-ferrous metal products 8,352 tons; non-metallic mineral products, 192,055; metal mining, 1,623; non-metallic mining 4,940 tons; structural materials and clay products, 8,438 tons; paper-using industries, 829 tons; wood using industries, 1,118; vegetable products, 36,641 tons; textile products, 6,282 tons; animal product industries, 10,036 tons; and other industries, 3,308 tons. Industrial plants in the Maritime used 42,988 tons of coke for fuel purposes; in Quebec, 76,871 tons; in Ontario, 190,927 tons; and the western provinces, 35,017 tons.

Table 86,-Apparent Consumption of Coke in Canada, by Provinces, 1925

THE REAL PROPERTY.	Maritime Provinces	Quebec	Ontario	Western Provinces	Canada
ProductionToo		197,703 1,087,360	830,839 5,967,333		1,516,739 10,482,841
Imports		48,494 376,942	739, 104 4,571,928		852,427 3,553,494
Total supply Total supply		246,197 1,464,308	1,569,943 10,539,261		2,399,166 16,036,335
Exports* Tor		796 5,395	24 200	23,929 202,572	25,578 214,820
Apparent consumption To		245,401 1,458,913	1,569,919 10,539,061		2,373,588 15,821,515

^{*} Exclusive of petroleum coke.

Table 87—Consumption of Coke in Canada, by Principal Uses, and by Provinces, 1925.

Use		Maritime Provinces	Quebec	Ontario	Western Provinces	Canada
Furnace charges	Fons	256,210 1,386,701	26,985 368,727	602,265 4,670,653	111,202 1,253,460	996,662 7,679,541
Manufacturing material	rons	202 4,323	51,338 471,089	132,614 1,114,821	10,249 98,480	194,403 1,688,713
Industrial fuel	l'ons	42,988 245,333	76,871 512,230	190,927 1,400,123	35,017 271,034	345,803 2,428,728
Domestic fuel	Fons	10,859 57,051	90,207 106,867	044,113 3,353,464	91,541 507,159	836,729 4,024,541
Total	Fons	310,259 1,693,408	245, 401 1, 458, 913	1,569,919 10,539,061	249,609 2,130,183	2,373,588 15,821,515

Table 88—Consumption of Coke in Canada as Furnace Charges, by Industries and by Provinces, 1925

Industry		Maritime Provinces	Quebec	Ontario	Western Provinces	Canada
Pig iron and ferro-alloys.	. Tons					636,390 3,811,667
Steel and rolled products	. Tons	3,898 46,776	381 5,042	534 6,745	581 10,100	5,394 68,672
Castings and forgings	. Tons	1,341 21,557	12,347 155,116	35, 840 368, 684		52,091 587,924
Boilers, tanks and engines	. Tons	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		420 1,370		438 1,432
Agricultural implements	. Tons	,,,,,,,,,,,,	129 1,669			9,626 95,683
Machinery	. Tons		5,202 62,236	4,448 46,953		9,972 114,302
Railway rolling stock	. Tons	999 15,520	8,926 144,664	10,031 98,581	5,297 76,855	25,253 335,620
Metallurgical works	. Tons			155,077 1,545,487	102,429 1,118,754	257, 506 2, 664, 241
Total	Tons	256,216 1,386,701	26,985 368,727	602,265 4,670,653	111,202 1,253,460	996,662 7,679,541

Table 89—Consumption of Coke in Canada as a Manufacturing Material, by Industries and by Provinces, 1925

Industry	Maritime Provinces	Quebec	Ontario	Western Provinces	Canada
Acids, alkalies, salts and compressed gases Tons	202 4,323	24,749 186,638	64,634 563,698		89,886 759,391
Illuminating and fuel gas Tons		17,390 115,244	53,262 335,661		80,600 544,653
Miscellaneous non-metallic mineral products Tons		9,199 169,207	14,662 214,790		23,861 383,997
TotalTom	8 202 4,323	51,338 471,089	132,558 1,114,149		194,347 1,688,041

Table 90.—Consumption of Coke in Canada as Industrial Fuel, by Industries and by Provinces, 1925

Industry		Maritime Provinces	Quebec	Ontario	Western Provinces	Canada
Chamberla and allied anadoms.	Ton	68	E 450	0.50	ne.	44 100
Chemicals and allied products	. I ORS	758	5,453 42,190	8,659 61,829	256	14,436
Iron and steel and their products	Tona	1,262	11,502	43,372	2,966 1,665	107.743 57,801
The and steel and then products	3	18,240	50.548	366, 695	25.766	461,249
Manufactures of the non-ferrous metals	Tons	48	2.745	4,961	598	8,352
3,500,000,000,000,000,000,000,000,000,00	\$	547	34.033	31,652	8,334	74.566
Manufactures of the non-metallic minerals	Tons	40, 145	41,202	84,759	25,949	192,055
	8 (208,996	230,336	508,468	153,637	1,101,437
Metal mining	Tons		180	1,305)	138	1,633
	. 5		1,809	15,271	1,685	18,765
Non-metallic mining	Tons		4,267	610	63	4,910
	5		41,897	5,785	381	48,063
Clay products and structural materials	. Tons	10	608	7,540	280	8,435
Paper-using industries	3.000	75 20	6,333	63,521	2,329	72,235
ruper-using industries	1 003	221	1,152	5,968	255 2.564	979
Wood-using industries	Tone	941	379	704	2,004	1,118
Workertoting intertestrices	\$ 0110	25	4.666	7,208	402	12,301
*Vegetable products	Tons	1.312	7,602	22,372	5.355	36,641
- Chromos formations and a second sec	\$	14.634	76,819	249,853	67, 620	408,936
*Textiles and textile products	Tons		940	5, 177	165	6.252
	5		11,703	30,903	1,458	41.061
*Animal products industries	Tons	71	1,448	8,487	30	10,036
	\$	756	4,953	36,583	402	12,694
*Miscellaneous industries	Tons	50	468	2,560	230	3,308
	\$	1,081	5,791	17,059	3,490	27,421
Total	Tons	47,988	76,871	150,9%3	35,017	345,859
	8	245,333	512,230	1,480.795	271,034	2,429,392

^{*} Data for 1924: later data not available at this time.

Table 91—Production in Canada, Imports and Exports of Ammonium Sulphate during the Calendar Year 1919-1925

Year	Quantity	Value
PRODUCTION-	Pounds	5
1919.	38,644,152	1,423,54
1920	38,912,723	1.475.54
1921	34,680,248	1,183,77
1922	27, 201, 332	667.93
1923	43,037,002	1,268,14
1924	34, 685, 134	865,53
1925	36.502.275	909.00
MPORTS—		0.00,00
1919	203,408	12.12
1920	624,659	31,45
1921	313, 354	11.51
1922.	826,000	24,68
1923	517,629	18.5
1924	776,643	27.1
1925	795,792	27.5
XPORTS-		
1919	38, 331, 200	1.846.7
1920	36.658.500	1,896,60
1921	29, 296, 100	784.63
1922	20,570,000	532.9
1923	34,640,000	1,044,6
1924.	26, 714, 100	081.70
1925	25, 120, 700	637.3

Table 92.-Imports into Canada and Exports of Coal Products, 1924 and 1925

Item	1924		1925	
rem	Quantity	Value	Quantity	Value
IMPOUTS— Coal lar crude in packages of not less than 16 gallons and coal pitch	2,880,499 3,734,722 521,725	\$ 186,178 681,063 3,131,485 39,392 4,038,118		\$ 258,944 723,775 5,553,494 52,815 6,589,628
EXPORTS— Coke. Tons Coul tur and pitch. Gal. Total.	23,144 2,339,041	393,979 273,900 667,879	44,992 2,658,851	675,595 188,007 863,662

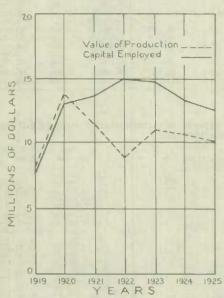
CHAPTER SEVEN

GLASS

General.—The present review on the glass industry in Canada covers the operations of all plants engaged in (a) the manufacture of pressed and blown glass, and (b) the bevelling, cutting and bending of imported glass—there being no plate glass manufactured in Canada—to produce leaded glass, ornamental glass, memorial windows, mirror plate, show cases, etc.

In the pressed and blown glass industry there were 10 plants in operation during 1925 including 6 in Ontario, 3 in Quebec and 1 in Alberta.

GLASS INDUSTRY



A large plant in Ontario did not operate in 1925, but another plant in that province renewed operations during the year. Production from this industry in 1925 amounted in value to \$7.444,246 as compared with a figure of \$8,799,420 in the previous year. The industry is dominated by one large company which operates 7 different plants located at various points across the Dominion.

Plants in Canada engaged in the cutting, bevelling and working of glass in 1925 to produce such commodities as cut glass, memorial windows, leaded glass, mirrors, art glass, show cases, windshields, etc., numbered 42 distributed as follows: 7 in Quebec, 26 in Ontario, 4 in British Columbia, 3 in Manitoba and 1 each in New Brunswick and Alberta. In 1924, only 38 plants reported to the Bureau; returns were received from 5 new plants in Ontario and 1 in each of Alberta and British Columbia but 1 plant in each of the provinces of Quebec, Ontario and British Columbia did not operate during the year. Of the plants in this industry only 2 had individual outputs valued at more than a quarter million dollars; 6 other plants each produced more than 100,000 dollars' worth of glass products; 9 others

each exceeded the \$50,000 mark; 6 more each had outputs over \$25,000 in value; 13 others each had outputs valued at more than \$10,000, while only 6 were below the latter figure. Only 3 factories, employed more than 50 workers in each; 4 other establishments each had 25 or more names on their pay-rolls; 13 others each gave work to more than 10 people the year round, while 22 different plants employed fewer than 10 workers in each. Production from plants in this industry amounted in value to \$2.673,358 in 1925 as compared with a figure of \$1,977,396 in 1924.

Production from the glass industry as a whole amounted in value to \$10,117,604, a decline of more than half a million dollars from the total for 1924. Capital employed dropped to \$12,694,338 from \$13,304,814 in 1924; the number of employees was 2,778 as against 3,137 in the previous year and salaries and wages totalled \$3,291,912 as compared with \$3,666,213 in 1924. Raw materials used in 1925 cost \$4,029,035 and, as the products made during the year sold for \$10,117,604, the value added by manufacturing was \$6,088,569.

Table 93.—Summary Statistics of the Glass Industry in Canada, 1921-1925

Year	Number of plants	Capital employed	Number of em- ployees	Salaries	Wages	Cost of fuel*	Cost of materials	Selling value of products	Value added by manu- facturing
		\$		8	\$	\$	5	5	8
1921	48	13,725,482	3,097	548,012	3,073,756	1,485,165	3,974,358	11,461,932	7,487,574
1922	45	15,053,327	2,984	569, 961	2,799,893	1,064,974	3, 287, 091	8,842,588	5, 555, 497
1923	46	14,892,372	3,350	559,403	3,219,399	1,365,903	3,714,515	11,098,026	7,383,511
1924	48	13,304,814	3,137	511,660	3, 154, 553	1,255,190	3,667,660	10,776,816	7,109,156
1925	52	12,694,338	2,778	530,774	2,761,138	1,101,808	4,029,035	10,117,604	6,088,569

^{*} Includes cost of electricity in 1924 and 1925.

Table 94.—Principal Statistics of the Glass Industry in Canada by Provinces 1924 and

		19:	24		1925				
Province	Number of plants	Number of employees	Salaries and wages	Selling value of products	Number of plants	Number of employees	Salaries and wages	Selling value of products	
			8	8			8	8	
Queboc	11	1,197	1,328,746	3,817,455	10	1,360	1,466,105	4,189,038	
Ontario	28	1,753	2,093,548	5,895,499	32	1,278	1,659,896	5,352,34	
Manitoha	3	25	29,754	88,781	3	25	32,532	97,316	
British Columbia	4	13	11,881	25,966	4	11	10,013	16,843	
Canada*	48	3,137	3,666,213	10,776,816	52	2,778	3,291,912	10,117,60	

^{*} Totals for 1924 also include data for 1 plant in New Brunswick and 1 in Alberta; totals for 1925 include data for 1 plant in New Brunswick and 2 in Alberta.

Capital Employed.—Although there were 52 plants reporting in 1925 as compared with 48 in the previous year, capital employed in the glass industry as a whole in 1925 was less by about a half million dollars and amounted to \$12,694,338. This decline was almost entirely accounted for by a decrease in the value of lands, buildings and plant equipment which fell to \$7,778,399 from \$8,414,045 in 1924, due to the closing of one large glass factory in Ontario. The glass industry is centered in the provinces of Ontario and Quebec which together accounted for about 92 per cent of the total capital invested in the industry; each of these provinces reported a total investment of over 5.8 million dollars.

Table 95.—Capital Employed in the Glass Industry in Canada, by Classes and by Provinces, 1924 and 1925

		19	24		1925 Capital employed as represented by				
	Capital	employed	as represen	ted by					
Province	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	and	Cash, trading and operating accounts and bills receivable	Total	
	\$	\$	\$	\$	8	\$	\$	8	
Quebec	3,622,018	1, 204, 162	617, 627	5, 443, 807	3,784,212	1,520,943	539, 930	5,845,085	
Ontario	4,181,174	1,541,107	1,107,353	6,829,634	3,378,014	1.354,646	1,111,564	5,844,224	
Manitoba	59,365	34,070	12,606	106,041	56,700	37,403	11,451	165,554	
British Columbia	11,137	23,152	10,257	44,546	10,000	3,218	2,300	15,518	
Canada*	8, 414, 045	2, 991, 799	1,898,970	13, 304, 814	7, 773, 399	3, 633, 256	1,887,683	12, 694, 338	

^{*} Totals for 1924 also include data for 1 plant in New Brunswick and 1 in Alberta. Totals for 1925 include data for 1 plant in New Brunswick and 2 in Alberta.

Employment.—Plants in Canada engaged in the manufacture and working of glass in 1925 afforded employment to 277 salaried workers and an average of 2,501 wage-earners, a total of 2,778 persons as compared with a total of 3,137 in 1924; this was a decline of 11 per cent in number. Payments for salaries and wages showed a corresponding decline, the total expenditure for this purpose amounting to \$3,291,912 in 1925 as against \$3,666,213 in 1924. Each wage-earner received an average yearly wage of \$1,105. Operating plants in this industry worked on the average 300 days during the year.

Table 96.—Average Number of Employees, Salaries and Wages Paid, in the Glass Industry in Canada, by Provinces, 1924 and 1925

		Average m	imber of e		Salaries and wages			
Province	Salaried employees		Wage-earners		Total	17 1	Wagen	TT - 4 - 8
	Male	Female	Male	Female	Total	Salaries	4430KGB	Total
1924						\$	8	\$
Quebec Öntario Manitoba British Columbia	61 115 7 5	12 34 3	1,031 1,465 15 7	03 139	1,197 1,753 25 13	133,506 337,068 12,581 3,605	1,750,480 17,173	2,093,54 29,75
*Canada	194	50	2,650	248	3,137	511,660	3,154,553	3,666,21
Quebec	85 114 7 4	25 29 1	1,109 1,074 17 3	14t 61 1	1,360 1,278 25 11	178,768 307,333 11,510 3,780	1,352,557	
*Canada	218	59	2,291	210	2,778	530,774	2,761,138	3,291,91

^{*} Includes also data for 1 plant in Alberta and 1 in New Brunswick for 1924, and for 2 in Alberta and 1 in New Brunswick for 1925.

Table 97.—Number of Wage-Earners Employed in the Glass Industry in Canada, by Months, 1924 and 1925

Month		1924		1925			
Mouth	Male	Female	Total	Male	Female	Total	
anuary	2,800	198	2,998	2.241	175	2,416	
ebruary	2.826	225	3, #51	2,202	197	2,399	
larch	2,687	238	2,925	2.188	200	2.385	
pril	2,736	251	2.987	2.191	202	2,390	
ву	2.739	305	3,944	2,227	211	2,438	
ine	2.665	259	2,924	2,439	221	2,686	
dy	2.504	239	2,743	2,179	175	2.35	
ugust	2,241	192	2,433	2.185	191	2.370	
eptember	2,383	231	2,614	2.039	165	2.204	
ctober	2.776	256	3,932	2.622	227	2.849	
oveniber	2.815	250	3,065	2.618	240	2,853	
ecember,	2,635	231	2,866	2.655	211	2,866	
Average	2,650	243	2,893	2,291	210	2.501	

Table 98.—Hours of Labour (in Month of Greatest Employment) in the Glass Industry in Canada, by Provinces, 1925

Province	Numil	ber of wage	-carners wo	rking	Average number of hours worked per man per week when working				
1 rovince	8 hours or less per day	9 hours	10 hours	Over 10 hours	8 hours or less per day	9 hours	10 hours	Over 10 hours	
New Brunswick. Quebec Outario. Manitoba. Alberta. British Columbia	807 421 11 148	3 118 405 2	599 389 50	81 441	48 45 44 45 45	54 54 50 50	60 60 60	80 72	

Table 99-Fuel and Electricity Used in the Glass Industry in Canada, 1924 and 1925

y)	Unit	192-	1	1925	
Kind	of measure	Quantity	Value	Quantity	Value
		No.	8	No.	\$
Anthracite coal	Short ton	689	7,932	1,776	12,046
Bituminous coal	Short ton	72,297	526,546	41,513	276, 213
Coke	Short ton	272	2,639	198	2,353
Gasoline	Gallon	29,032	8,347	66,386	8,385
Fuel oil	Gallon	3,810,708	325,671	5,179,268	508,523
Gna	M eu. ft.	280,114	199,973	188,306	165,810
Wood	Cord	12	156	11	142
Other fuel					604
Electric power	k.w.h.	14,915,018	183,936	14,873,797	127,733
Total			1,255,190		1,101,888

Table 100.—Power Employed in the Glass Industry in Canada, 1924 and 1925

	19	24	193	28
Description	Number of units	Total h.p. according to manu- facturers' rating	Number of units	Total h.p. according to manufacturers' rating
Gas engines	3	427	2	300
Total primary power	3	427	3	303
Electric motors driven by purchased power	391	6,243	335	4,155
Total power equipment employed	394	6,670	338	4,458
Electric motors driven by power generated by the primary power of the industry	48	523	133	2,512
Total electric power	439	6,768	468	6,667
Boilers installed	25	2,043	14	824

Materials Used.—Materials used in the manufacture of pressed and blown glass include silica sand, soda ash, nitrate of soda, burnt lime, litharge, white arsenic and various other materials. A large amount of sand is imported for this purpose; in 1925 the imports of sand silica for glass and corborundum manufacture, etc., amounted to 143,501 tons valued at \$353,237; the chief sources of supply are the United States and Belgium, sand from the latter country being brought in as ballast by returning vessels. No details of materials used in this industry were asked for on the schedule for 1924 and 1925 so only the total cost is shown in the accompanying table.

In the plate, cut and ornamental glass industry the materials used include glass blanks, plate glass, sheet and window glass, figured, coloured and cathedral glass, and such materials as lead, solder, zinc, copper, silver, silver nitrate and carborundum. The cost of all such materials used in 1925 was \$1,447,917 as compared with a total cost of \$957,438 in 1924.

Table 101.—Materials Used in the Glass Industry in Canada, 1924 and 1925

	1924	1925
Material	Cost at works	Cost at works
Plate, Cut and Ornamental Glass Industry— Carborondum, emery and other abrasives Glass blunks. Glass, figured, coloured and cathedral. Glass, phote and window Glass, plate. Lead, solder, putty, zinc and copper. Silks, fringes, etc. Silver. Silver nitrate. Stands and frames. Containers, loxes, etc. All other materials	\$ 2.168 161,688 36,340 274,455 368,882 20,977 7,023 2,877 5,878 4,581 4,453 68,116	\$ 7,968 187,1278 71,067 262,474 814,436 26,978 6,274 3,153 10,222 2,116 10,389 45,262
Total	957,438	1,447,917
Pressed and Blown Glass Industry— Manufacturing materials used. Boxes, cases, humber, etc.	2,150,417 559,805	2.026,735 554,383
Total	2,710,222	2,581,118
Total	3,667,660	4,029,035

Products.—Glass produced in Canada in its various forms was valued at \$10,117,604 in 1925 as compared with \$10,776,816 in the previous year. The value of pressed and blown glass at \$7,373,733 was over a million dollars below the value shown for 1924; cut glass and leaded glass showed little change; the output of mirrors and bevelled plates was up 18 per cent in value to \$868,155, and show cases and windshield glass at \$648,025 was nearly double the value shown for 1924.

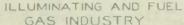
Table 102—Products of the Glass Industry in Canada, 1924 and 1925

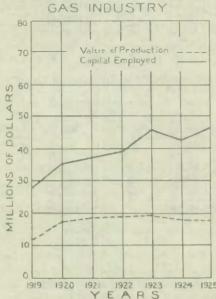
	77 14 -8	192	24	193	25	
Product	Unit of measure	Quantity	Selling value	Quantity	Selling value	
PLATE, CUT AND ORNAMENTAL GLASS INDUSTRY—			\$		\$	
Bent glass		5,002		247,050	192,280 508,475	
Cut plates Church and memorial windows	sq.ft.	29,750	32,947			
Leaded glass and lended lights. Mirrors and bevelled plates. Ornamental and art glass.	sq. ft.		189,578 699,805	736,377	179.686 868.155 71.568	
Window, showcase and windshield glass	sq.ft.	502,502	11,974		648,025 11,280 99,640	
Total			1,977,396		2,673,358	
Pressed and Blown Glass Industry— Building glass Pressed and blown glass. All other products.	,,,,,,,,,,,,		8,467,875		7,373,733	
Total			8,799,420		7,444,240	
Total			10,776,816		10,117,604	

CHAPTER EIGHT

ILLUMINATING AND FUEL GAS

General.—Production of artificial gas in Canada in 1925 totalled 26,651,684 M cubic feet of which 13,507,487 M cubic feet was produced in the various gas plants, 12,124,442 M cubic feet in establishments engaged primarily in the production of metallurgical coke and 1,019,755 M cubic feet of still gas was recovered from petroleum refineries. Sales of artificial gas during the year totalled 13,189,100 M cubic feet; the remainder of the output was used in the reporting plants.





Statistics given in the present chapter (excepting table 113) refer only to the illuminating and fuel gas industry which embraces those plants producing coal gas, water gas, Pintsch oil gas and acetylene gas as the major products. Gas was also recovered as a by-product in the manufacture of coke and the refining of petroleum, but these industries are reviewed in separate chapters of this report. The 44 gas plants in operation in Canada in 1925 represented a capital investment of 46 million dollars, gave employment to 3.804 persons throughout the year and paid out over 5 million dollars in salaries and wages. Sales of gas in this industry totalled 12,064,863 M cubic feet worth \$14,047,306, and the value of by-products was \$3.827,173, as compared with sales worth \$14,268,315 and by-produets valued at \$3,833,409 in 1924.

Of the producing plants, 12 made straight coal gas only; 10 produced carburetted water gas only; 9 others made Pintsch oil gas and 6 others made acetylene gas from calcium earbide.

1924 1925 The plants were distributed as follows: 1 in Nova Scotia; 2 in New Brunswick; 4 in Quebec; 21

in Ontario; 8 in Manitoba; 2 in Saskatchewan; 1 in Alberta; and 5 in British Columbia.

Coal gas is prepared by the destructive distillation of hitnminous coal, and water gas is made by the action of steam on incandescent coke or anthracite coal. Straight water gas, being non-luminous, is mixed or rather carburetted with gases derived from oils which are rich in hydrocarbons. This enhances both the heating values and lighting properties of the gas. Many straight coal gas plants are also equipped to make carburetted water gas, in which process the by-product coke from the coal gas process can be utilized.

In 1925, gas rates in the different towns and cities were as follows: Montreal, \$1.10 per M; Halifax, \$2 per M less 5 per cent; St. John, \$2.25 per M plus meter rental; Brandon, \$2.10 per M; Winnipeg, \$1.30 gross per M; Westminsler, \$2.75 per M less 10 per cent; Nelson, B.C., \$2.25 per M less 10 per cent; Vancouver, \$1.50 less 10 cents per M; Belleville, \$1.30 per M; Guelph \$1.20 per M less 15 cents per M; London, \$1.10 net per M; Toronto, \$0.85 per M plus 50 cents service charge; Peterborough, \$2.15 per M with 25 cents discount per M; Cobourg, \$2.50 per M; Owen Sound, \$1.50 per M less 10 per cent; Port Hope, \$2.50 per M with \$6 per year service charge; Ottawa, \$1.60 per M less 10 cents per M with 18 cents per month service charge; Kitchener, \$1.40 per M with 10 cents per month meter rent; Stratford, \$2 per M plus 25 cents meter rent; Cornwall, \$2.20 per M less 20 cents per M; Waterloo,

\$2 per M; Oshawa, \$1.90 net per M; St. Thomas, \$1.70 per M less 10 cents per M for prompt payment; Kingston, \$1.70 per M plus 17 cents per month meter rent with 10 per cent discount for prompt payment; Brockville, \$1.80 per M; Barrie, \$2 per M plus 75 cents service charge; Quebec, \$2 per M less 25 per cent; and Sherbrooke, P.Q., \$1.75 per M less 15 per cent. Acetylene gas was worth about \$2 per C cubic feet, and Pintsch gas cost \$1.50 per receiver of 167 cubic feet.

Table 103.—Summary Statistics of the Illuminating and Fuel Gas Industry in Canada, 1921-1925

Year	Number of plants		Number of em- ployees	Salaries	Wages	Cost of fuel and electricity			
1921 1922 1923 1924 1925	48 45 44	\$ 37,097,280 39,615,765 45,526,495 42,818,276 46,129,651	3,107 3,021 3,648	943,434 1,094,241 1,231,512	3,031,271 2,707,591 3,603,839	2,706,182	8,580,208 9,021,084 6,772,576	19,089,170 19,605,340 18,101,724	\$ 9,402,588 10,508,962 10,581,256 11,329,148 11,695,870

[•] Includes materials used as fuel in 1921, 1922 and 1923.

Table 104.—Principal Statistics of the Illuminating and Fuel Gas Industry in Canada, by Provinces, 1924 and 1925

		192	4		1925				
Province	Number of plants	Number of employees	Salaries and wages	Value of products sold	Number of plants	Number of em- ployees	Salaries and wages	Value of products sold	
Quebec Ontario Manitoba British Columbia	4 21 8 5		2,676,702 273,992	8 6,512,962 8,882,537 1,176,325 1,156,372	21 8				
Canada*	44	3,648	4,835,351	18, 101, 724	44	3,804	5,057,702	17,874,479	

^{*}Includes also data for 1 plant in Nova Scotia, 2 in New Brunswick, 2 in Saskatchewan and 1 in Alberta.

Capital Employed.—Capital employed in the illuminating and fuel gas industry in Canada during 1925 amounted to \$46,129,651 an increase of 3.3 million dollars over 1924 and over a half million dollars above the former record figure of \$45,526,495 in 1923. The value of fixed assets such as lands, plants and equipment was given at \$38,924,759 as against \$36,150,594 in 1924; materials on hand and in process were valued at \$2,258,957 and the value of cash, trading and operating accounts and bills receivable was placed at \$4,945,935. Plants in Ontario represented a capital investment of 26.1 million dollars or about 57 per cent of the total for Canada.

Table 105.—Capital Employed in the Illuminating and Fuel Gas Industry in Canada, by Classes and by Provinces, 1924 and 1925

		192	4			1925			
	Capital	employed as	represented	by	Capital employed as represented by				
Province	Lands, buildings, fixtures, muchinery and tools	Materials on hand and stock in process	Cash, trading and operating accounts and bills receivable	Total	Lands, buildings, fixtures, machinery and tools	Materials on hand and stock in process	Cash, trading and operating accounts and bills receivable	Total	
Quebec	\$ 4,839,859 19,920,7415,229,141 4,758,657	\$ 716,246 1,284,480 124,895 350,016	\$ 1,421,986 2,298,923 112,895 357,551	\$ 6,978,091 23,504,144 5,466,931 5,466,224	\$ 5,015,796 21,952,945 5,223,069 5,329,412	\$ 669,878 1,109,047 74,840 405,078	3,014,356 107,328	8 6,999,625 26,076,348 5,405,232 6,244,496	
Canada*	36,159,594	2,476,032	4,191,650	42,818,276	38,924,759	2,258,957	4,945,935	46,129,651	

^{*}Includes also data for 1 plant in Nova Scotia, 2 in New Brunswick, 2 in Saskatchewan and 1 in Alberta.

Employment.—The number of persons employed in the gas plants in Canada during 1925 was 3.804 of whom 869 were on salaries and 2.935 were wage-earners. Payments in salaries during the year amounted to \$1,326,359 and wages reached the sum of \$3,731,343, an average income of \$1,271 to each wage-earner employed. In 1924 the industry gave work to 792 salaried employees and 2,856 wage-earners and paid out \$1,231,512 in salaries and \$3,603,839 in wages during the year.

In January, 1925, there were 2,339 wage-earners employed by the various companies; by May the number had increased to 3,220 and in August reached a maximum of 3,602 after which there was a gradual decline to 2,467 in December making a monthly average of 2,935 for the year.

Table 106—Average Number of Employees, Salaries and Wages Paid, in the Illuminating and Fuel Gas Industry in Canada, by Provinces, 1924 and 1925

		Average n	imber of e	mployees		Salaries and wages		
Province	Salaried employees		Wage-earners		Total	Salaries	Wages	Total
	Male	Female	Male	Female	10001	CHISH NOS	11 agos	rotat
1924						\$	\$	\$
QuebecOntorio	49 275 35 43	153 185 22 6	841 1,548 140 235	1 2	1,043 2,009 199 284	397,023 641,789 78,045 87,561	2,034,913	1,359,054 2,676,702 273,992 391,442
Canada*	423	369	2,853	3	3,648	1,231,512	3,603,839	4,835,351
1925								
Quebec Ontario Manitoba British Columbia	168 301 37 51	77 182 23 7	879 1,591 119 245	4	1,124 2,076 179 303			
Canada*	577	292	2,928	7	3,804	1,326,359	3,731,343	5,057,702

^{*}Includes also data for I plant in Nova Scotia, 2 in New Brunswick, 2 in Saskatchewan and 1 in Alberta.

Table 107.—Number of Wage-Earners Employed in the Illuminating and Fuel Gas Industry in Canada, by Months, 1924 and 1925

		1924		1925		
Month	Mule	Female	Total	Male	Female	Total
January	2,260	3	2,263	2,332	7	2,339
February	2,200	3	2,203	2,367	7	2,371
March	2,246	3	2,219	2,383	7	3,390
April	2.517	3	2,550	2.784	7	2,791
Мау	3,062	3	3,065	3.213	7	3,226
	3,177	3	3.150	3,286	74	3,293
UBO	3,217	31	3,220	3,568	2	3.575
August	3,233	3	3,236	3,595	-	3,60%
August	3,326		3.329	3,395	-	3,403
October	3,226	3	3,223	3.058	7	3,063
	3.036	3	3,639	2.064	7	2,671
November December	2,742	3	2,715	2,460	7	2,467
Average	2,853	8	2,836	2,928	7	2,935

Table 108—Hours of Labour (in Month of Greatest Employment) in the Illuminating and Fuel Gas Industry in Canada, by Provinces, 1924 and 1925

	Numb	er of wage	-earners wo	rking	Average number of hours worked per per man per week when working				
Province	8 hours or less per day	9 hours	10 hours	Over 10 hours	8 hours or less per day	9 hours	10 hours	Over 10 hours	
Nova Scotia				60				7	
New Brunswick	6	32	1	6	48	54	70	8	
Juenec	426	19	699	17	48.	0.4	00	0	
Ontario	476	1,396	43	6	48	54	60	8	
Manitoba	99	41			48	54			
Saskatchewan	4	1			48	54			
liberta	5				48				
British Columbia	75	250		3	48	54			

Table 109.—Fuel and Electricity Used in the Illuminating and Fuel Gas Industry in Canada, 1924 and 1925

Kind	Unit of	192	4	1925	
Kinti	measure	measure Quantity		Quantity \	Value
Anthracite coal Bitumiaous coal Coke Gus Other fuel Electric power	Short ton M cu. ft.	No. 759 37,183 141,826 1,339,350 2,945,329	\$ 3,643 261,436 841,224 1,509,327 42,384 48,168	No. 959 30,264 139,261 38,957	\$ 4,888 188,163 835,355 58,508 41,932
Total			2,786,182		1,128,846

Table 110.—Power Equipment Employed in the Illuminating and Fuel Gas Industry Canada, 1924 and 1925

	19	24	19:	25	
Description	Number of units	Total h.p. according to manufacturers rating	Number of units	Total h.p. according to manu- facturors' rating	
Steam engines and turbines. Internal combustion engines. Water wheels and turbines.	54 17	808 963	53 21 1	729 958 3	
Total primary power	71	1,771	75	1,690	
Electric motors driven by purchased power	136	2,153	127	1,587	
Total power equipment employed	207	3,924	292	3,277	
Electric motors driven by power generated by the primary power of the industry	12	196	14	201	
Total electric motors	148	2,349	141	1.788	
Boilers installed	166	8,875	170	10,231	

Materials Used.—Bituminous coal having good gas-making qualities is the principal raw material used in this industry. In 1925, nearly 4.4 million dollars was paid for 723.394 tons of bituminous coal for this purpose, as compared with 681.480 tons worth \$4,723.734 used in 1924. Also, 15.323 tons of anthracite coal, 80.600 tons of coke, 168 tons of calcium carbide and 10.5 million gallons of gas oil were used in gas-making. The total cost of materials used in manufacturing during 1925 was \$6,178,609 and in 1924 the cost was \$6,772,576. Materials that were used as fuel for retorts or boilers are shown in the fuel consumption table.

Table 111.—Materials Used in the Illuminating and Fuel Gas Industry in Canada, 1924 and 1925

Material	Unit	192	4	192	5
with the state of	measure	Quantity	Value	Quantity	Value
Purchased materials: Biturainous coal for gas making (not for fuel). Anthracite coal for gas making (not for fuel). Coke for gas making (not for fuel). Oit (gas oil) for gas making (not for iuel). Calcium carbide. Lime Water Oxide or purifying materials (state kind). All other materials used.	Short ton Short ton Short ton Imp. gal. Ib. Ib.	681, 480 20, 664 27, 530 10, 429, 533 245, 195 921, 157	\$ 4,723,734 251,899 130,960 1,137,683 16,454 4,544 8,630 29,374 574	15,323 10,623 10,498,336 336,000	\$ 4,395,445 183,050 106,252 970,110 14,977 3,484 12,341 54,056 493
Total purchased materials			6,303,852		5,740,208
Intermediates used as materials; Coke Oil (gas oil) for gas making.	Short ton Imp. gal.	73, 997 85, 645		69,977	438,401
Total intermediates			468.724		438,401
Total			6,772,576		6,178,609

Products.—The output of the gas industry includes (a) primary products made for sale, such as coal gas, water gas, etc., and (b) by-products such as coke, tar, ammonium sulphate, etc., part of which are sold and part used as fuel in the gas-producing plants.

In 1925, production from this industry included 8.315,179 M cubic feet of straight coal gas; 5,023,569 M cubic feet of carburetted water gas; 98,531 M cubic feet of mixed coal and water gas; 68,745 M cubic feet of oil gas; and 1,463 M cubic feet of acetylene gas. The total gas made available for distribution during the year was 13,507,487 M cubic feet, of which 1,442,624 M cubic feet were used in the gas plants and 12,064,863 M cubic feet were sold for industrial or domestic purposes to bring a gross revenue of \$14,047,306. In addition, the by-products recovered were worth \$3,827,173 thus bringing the total value of products to \$17,874,479 in 1925 as compared with \$18,101,724 in the previous year. Coke, tar, ammonia sulphate and anhydrous ammonia were the main by-products recovered and sold during the year.

Table 112.—Products of the Illuminating and Fuel Gas Industry in Canada, 1924 and 1925

	Unit	19:	24	1925		
Product	of measure	Quantity	Value of products sold	Quantity	Value of products sold	
			8			
Gas Production— Straight coal gas	M cu. ft.	7,991,915		8,315,179		
Straight water gas (blue gas)	M cu. ft.	33,733		W man Wan		
Carburetted water gas	M cu. ft.	5,027,331		5,023,569		
above .	M cu. ft.	103,218		98,531		
Oil gas by vapourizing distillate	M eu. ft.	69,621		68,745		
Acctylene gas	M cu. ft.	1,584		1,403		
Total gas made	M cu. ft.	13, 227, 402		13,507,487		
GAN DISTRIBUTION:						
Gas used in heating ovens or retorts	M cu. ft.	10,926		38,957		
Gas otherwise used in plant or otherwise accounted for but not sold	M cu. ft.	99,884		89,211		
Gas not accounted for.	M eu, ft,	1,237,481		1,314,456		
Gas cold	M cu. ft.	11,879,111	14,268,315	12,064,863	14,047,30	
By-Products:						
Made for use—	Short ton	181.028	931,128	178,325	965.35	
Coke Tar and tar products	lmp. gal.	467,573	42,384	186,876	12.90	
Other products			31,779		17	
Made for sale—	Short ton	270,579	2,233,106	288.888	2.075.33	
Coke	THINK LOW					
(a) from coal gas	Imp. gal.	6,774,914	324,460	6,671,989		
(b) from water or oil gas	Imp. gal. lbs. NH ³	936,422 1,547,493	42,158 100,701	927, 973 1, 542, 827	57,68 102,51	
Light oils	Imp. gal.	8.465	2,116		1,86	
All other by-products			125,577		101,52	
Total by-products			3,833,409		3,827,17	
Total value of gas sold and by-products made		Ten	18,101,724		17.871.47	

Table 113.—Total Production of Artificial Gas in Canada, 1924 and 1925

	1924	1925
	Quantity	Quantity
	M cu. ft.	M cu. fta
Illuminating and fuel gas industry	18, 327, 402	13,507,487
Coke industry: Gas used in heating ovens or reforts Gas otherwise used in plant but not cold Gas sold	5,125,920 2,375,792 935,602	
Total coke industry Petroleum refining industry	8,437,314 1,186,787	12.124.412 1.010.755
Total	22,851,503	26,651,684

Primary Production of Natural Gas.—(From the Annual Report on the Mineral Production in Canada, 1925.)—Natural gas production in Canada during 1925 totalled 16,902,897 thousand cubic feet valued at \$6,833,005. While the quantity of natural gas produced in 1925 has been exceeded in previous years the value recorded for 1925 was considerable in excess of the total for any preceding year. In 1924, the total production was 14,881,336 thousand cubic feet with a valuation of \$5,708,636. For the first time in the history of Canada, the gas fields of the province of Ontario were superseded as the leading producer, by the more recently developed fields of Alberta. The Alberta production amounted to 9.119,500 thousand cubic feet; Ontario's production was 7,143,962 thousand cubic feet. New Brunswick's output was recorded at 639,235 thousand cubic feet.

No new developments in the natural gas industry in Ontario were reported during 1925. In New Brunswick the bringing in of six productive wells in the Stony Creek field indicated considerable activity. The continued record production by the Royalite No. 4 well (wet gas producer) was the principal feature of the industry in Alberta. There was also increased drilling activity throughout the Turner Valley field.

Imports of mixed gas, natural and artificial, into Canada from the United States during 1925 totalled 63,614 thousand cubic feet valued at \$40,542.

Capital employed by the 161 operating firms in Canada during 1925 was \$48,895,802. Employment was furnished 1.059 employees whose total earnings were \$1,206,875.

There were 2,236 natural gas wells in operation in Canada during 1925; the number in New Brunswick was 32; in Ontario 2,117; in Manitoba 1; and in Alberta 86.

Table 114.—Production of Natural Gas in Canada, 1924 and 1925

Province	192	4	1925		
Trovince	M cu. ft.	Value	M cu. ft.	Value	
The second of the second	-51	\$		\$	
New Brunswick	599,972 7,150,078	113,577 3,798,381	639,235 7,143,962	122.39 3,958.00	
MDeria	7,131,086	1,796,618	9,119,500	2,752,54	
vianitooa,	200	00	200	101	

CHAPTER NINE

IMPORTED-CLAY PRODUCTS

General.—This industry includes all plants in Canada that manufacture clay products such as porcelain insulators, fireclay goods, pottery and earthenware from special clays imported for the purpose. Most of this clay comes from the United States but considerable quantities are also obtained from the United Kingdom.

In 1925, the production of imported-clay products in Canada amounted in value to \$1,741,745. Only 12 plants were engaged in this line of work; 5 were located in Quebec, 6 were in Ontario and 1 factory in New Brunswick manufactured commodities from domestic clays as the main business but also produced small quantities of goods from specially imported clays. Porcelain insulators were made in 3 different plants, pottery in 3 establishments, refractory materials in 4 different plants, building tile in only 1 factory, sewer pipe in 1 plant, sanitary ware in 1 plant and earthenware in 1 plant.

Capital employed in this industry in 1925 was reported at \$2,762,951; employment was given to 552 persons to whom \$653,211 were paid in salaries and wages, and \$326,023 worth of raw materials were used in manufacturing. In 1924, when the same plants were in operation, capital employed amounted to \$1,677,533, employees numbered 489, and the total value of output for the industry was \$1,879,769. Except for the value of products made from imported clays, data for the New Brunswick plant have not been included in this report; the value of products made from imported clays in this plant was comparatively small and so the general data have been included in the review on the "Domestic-Clay Products Industry."

Table 115.—Summary Statistics of the Imported-Clay Products Industry in Canada, 1924 and 1925

Year	Number of plants	Capital em- ployed*	Number of employees	Salaries"	Wages*		Cost of unaterials*		Value added by manu- facturing
		8		8	\$	\$	8	8	8
1924	12	1,677,533	489	104,277	462,866	141,491	535,793	1,879,769	1,343,976
1925	12	2,762,951	552	149,888	503,323	170,339	326,023	1,741,745	1,415,722

^{*} Figures on capital, curployees, salaries and wages and materials used do not include data for I plant in New Brunswick.

Capital Employed.—Plants in Canada engaged in the manufacture of products from imported clays during 1925 represented a capital investment of \$2,762,951, of which \$1,516,143 or 55 per cent was tied up in lands, plants, machinery and tools. Ontario's factories accounted for \$1,527,816 or 55 per cent of the total capital employed in the industry; Quebec accounted for the remainder.

Table 116.—Capital Employed in the Imported-Clay Products Industry in Canada, by Classes and by Provinces, 1924 and 1925

	1924				1925				
	Capital	employed	as represen	ited by	Capital employed as represented by				
Province	Lands, buildings, fixtures, machinery and tools	Materials on hand, and stocks in process	Cash, trading and operating accounts and bills receivable	Total	fixtures,	Materials on hand, and stocks in process	Cash, trading and operating accounts and bills receivable	Total	
Quebec	\$ 353,484	\$ 300,512	\$ 28,875	\$ 682,871	\$ 625,215	\$ 396,598	\$ 213,322	1,235,135	
Ontario	608,443	115,023	271, 196	994,662	890,928	302,507	334,381	1,527,816	
Canada	961,927	415,535	300, 971	1,677,533	1,516,143	699,105	547,703	2,762,951	

83

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Employment.—The number of employees in this industry in 1925 was 552 of whom 65 were salaried employees and 487 were wage-earners. Salaries and wages totalled \$653,211. In the previous year, 45 salaried employees and 444 wage-earners were paid \$567,143 in salaries and wages. Fach wage-earner received an average yearly wage of \$912 in 1925 as compared with \$1 043 in 1924.

Plants engaged in this line of production operated on an average of 302 days during the year.

Table 117.—Average Number of Employees, Salaries and Wages Paid in the Imported-Clay Products Industry in Canada, by Provinces, 1924 and 1925

		Average nu	mber of e	mployees		Salaries and wages			
Province	Salaried e	mployees	Wage-e	arners	Total	Salaries	Wages	Total	
	Male	Female	Male	Female	Autai	osiarios	wages	1000	
1924			TEIT			s	\$	\$	
Quebec Ontario	17 19	1 8	131 293	4 16	153 336	41,120 63,157	130,855 332,011	171,975 395,168	
Canada	36	9	424	20	489	104,277	462,866	567,143	
1925		-							
Quebec Ontario	27 27	2 9	178 266	3 40	210 342	65,117 84,771	198,333 304,990	263,450 389,761	
Canada	54	11	444	43	552	149,888	503,323	653,211	

Table 118.—Number of Wage-Earners Employed in the Imported-Clay Products Industry in Canada, by Months, 1924 and 1925

Month		1924		1925		
	Male	Female	Total	Male	Female	Total
anuary	499	21	523	424	41	463
ebruary	491	22	513	427	40	467
farch	456	23	479	439	42	483
pril	449	23	471	438	48	480
ny	424	20	444	443	49	49
ine	390	21	411	431	47	421
ıły	390	20	410	443	40	48
ugust	399	16	415	417	41	45
eptember	407	15	422	458	41	49
etober	404	16	420	464	43	50
ovember	425	15	440	469	40	50
December	344	20	364	469	40	50
Average	424	20	444	444	43	48

Table 119.—Hours of Labour (in Month of Greatest Employment) in the Imported-Clay Products Industry in Canada, by Provinces, 1925

	Numl	Number of wage-carners working			Average nu hours worked per when wo		er man per	week
Province	8 hours or less per day	9 hours	10 hours	Over 10 hours	8 hours or less per day	9 hours	10 hours	Over 10 hours
Quebec	30	163	6	2	44	54	58	66
Ontario	29	139	10	2	45	50	55	84

Table 120.—Fuel and Electricity Used in the Imported-Clay Products Industry in Canada, 1924 and 1925

Kind	Unit	1924		1925	
ANIM	measure	Quantity	Selling value	Quantity	Selling value
		No.	\$	No.	
Anthracite coal	Short ton	3.167	40,296	1,871	21,63
Bituminous coal	Short ton	11,294	84,552 2,156		107, 15 3,66
Guel oil	Gallon	48.191	3,353	213, 885	14,81
ias	M cu. ft.	699	489	957	67
Vood	Cord	262	1,499	241	2,16
Electric power	K.W.H.	847,732	9,016	1,241,190	20,130
Total			141, 491		170, 33

Table 121.—Power Employed in the Imported-Clay Products Industry in Canada, 1924 and 1925

	19	24	1925		
Description	Number of units	Total h.p. according to manufacturers' rating	Number of units	Total h.p. necording to manu- facturers' rating	
Steam engines	- 1	35			
Total primary power	1	35			
Electric motors driven by purchased power	60	402	27	384	
Total power equipment employed	61	437	27	384	
Electric motors driven by power generated by the primary power of the industry.			108	481	
Total electric power	60	402	135	865	
Boilers installed.	8	360	13	955	

Materials Used.—Fire clays, china clays, ball clay, sagger clay, flint, feldspar and glazing materials such as sodium silicate, zinc oxide, tin oxide, white lead, etc., were the principal materials used in this industry. In 1925, the cost of manufacturing materials was \$291,682, and containers of various kinds were worth \$34,341 bringing the total cost of materials used during the year to \$326,023 as compared with a total sum of \$535,793 paid for materials in 1924.

Table 122.—Materials Used in the Imported-Clay Products Industry in Canada, 1924 and 1925

	Unit	1924	1925	
Material	of measure	Coet at works	Quantity	Cost at works
		1		\$
Fireclay. Clay, all other. Giazing materials (including white lead, oxide of tin, oxide of zinc, sodium	Tons Tons	91,306 228,522		71.611 88,754
silicate, boracic acid, etc. Flint Foldspar	Tons Tons	5,980	565 831	7,885 9,494 17,813
Containers, boxes, bags, etc		36,749		34,341 96,125
Total		535,793	7 * * * * * * * * * * * * * * * * * * *	326,023

Products.—Products made from imported clays during 1925 were valued at \$1,741,745 as compared with a corresponding figure of \$1,879,769 in 1924. Porcelain insulators were the main product of the industry but the output value of \$973,328 in 1925 was about 27 per cent below the output value in 1924. Fireclay shapes were worth \$157,911 and pottery of various kinds sold for \$55,305. Floor tile, sewer pipe, and sanitary ware were the other main products of the industry.

Table 123.—Products of the Imported-Clay Products Industry in Canada, 1924 and 1925

	1924	1925
Product	Solling value at works	Selling value at works
Fireclay blocks and shapes. Porcelain insulators. Pottery, glazed and unglazed. All other products (includes, floor and wall tile, sewer pipe, sanitary ware, etc.).	1,332,679	973,328 55,305
Total	1,879,769	1,741,745

Primary Production of Clay and Clay Products.—(From the Annual Report on the Mineral Production of Canada, 1925.)—Clay and Clay Products.—Under Clay and Clay Products there have been included statistics relating to production in Canada from domestic clays, of (a) fireclay, (b) fireclay blocks and shapes, (c) fire brick, (d) brick made by the different processes such as the soft mud process, stiff mud process and dry press, (e) structural tile, such as hollow blocks, roofing tile, floor tile (quarries), ceramic or glazed floor and wall tile, (f) drain tile, (g) sewer pipe, including copings, flue linings, etc., and (h) pottery.

The total value of clay products produced in Canada from domestic raw materials during 1925 was \$9,529.691, an increase of 3.4 per cent over the 1924 total of \$9,215,077. Sales in the province of Ontario reached a value of \$5,195,084 as against \$5,089,299 in the preceding year.

Nova Scotia, Manitoba, Alberta and British Columbia producers all reported increased productions, but there was a slight falling-off in each of the other provinces.

The schedule designed in 1924 as the result of a conference of the Dominion Bureau of Statistics' officials and the members of the Canadian National Clay Products Association, has been found very satisfactory both to producers and to the compilers of data for the industry.

Statistics on production in Canada from imported clays are given in Table 123.

Table 124.—Production of Clay Products in Canada from Domestic Clays, 1924 and 1925

	19	24	19	25
Product	Quantity	Total selling value	Quantity	Total selling value
Brick soft mud process—{Face		1, 880, 631 761, 572 168, 043 98, 460 40, 775 209, 256 26, 258 51, 273 926, 777 917 35, 608 409, 369 1, 594, 280 238, 342	51, 214 03, 903 116, 105 37, 201 22, 053 524 2, 485 6, 197 623 115, 576 78, 479 140, 927 14, 552	6,323 28,338 401,503 1,440,269 267,255

Table 125.—Production of Clay Products in Canada, from Domestic Clays, by Provinces, 1924 and 1925

	19	24	1925	
Province		Per cent of total value	Sold or used	Per cent of total value
	8		\$	
Prince Edward Island Nova Scotia Now Brunswick Quebec. Ontario Manitoba Saskatchewan Alberta British Columbia	355,948 74,994 2,435,695 5,089,299	26 · 44 55 · 24 1 · 27	422,690 69,473 2,426,887 5,195,084 173,794 95,952 618,860	0.03 4.43 0.72 25.46 54.51 1.82 1.06 6.49
Canada	9,215,077	100-00	9,529,691	100 - 00

Table 126.—Value of Clay Products Produced in Canada from Domestic and Imported Clays, 1924 and 1925

Item	From domestic clays From imp			rted clays	Total	
1fatti	1924	1925	1924	1925	1924	1925
	\$	- 8		8	8	\$
Fireclay blocks and shapes	51,273	36,567				
Sanitary ware Ceramic or glazed floor and wall tile Pottery, glazed and unglazed		28,338	254,752 91,759	240,501 110,059		
Pottery, glazed and unglazed	238,342	267,255				
Electrical porcelain insulators			1,332,679		1,332,679	
Other clay products (brick, tile, sewer pipe, etc.)	8,925,462	9,197,531	885	204,641	8,926,347	9,402,17
Total	9,215,077	9,529,691	1,879,769	1,741,745	11.094.846	11,271,430

Table 127.—Imports into Canada and Exports of Clay and Clay Products, 1924 and 1925

	19	24	19	25
	Quantity	Value	Quantity	Value
IMPORTS—		\$		\$
Beth brick		1,799		695
Building brick	5,425	124,983 63,559	5,489	125,565 81,873
Clays— .	390,613	250.113		195,032
China	886,091	186,696		166,733
PipeOther clays.		847 56,590	, ,	1,668 61,498
Drain tile, unglazed		3,014		8,622
Drain and sewer pipe. Earthenware and chinaware.				86,960 4,558,194
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, etc		23,413	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	27,113
Brick, fire, n.o.p., for use exclusively in the construction or repair of a furnace, kiln or other equipment of a manufacturing establishment		812 029		861.698
Fire brick, n.o.p.		284,388		194,060
Fire brick, chrame Magnesite brick		91,553		35,277 93,840
Silica brick. Paying brick. M		154,251 89,493	1.563	185,356 39,901
Other clay manufactures			A,000	771,001
Total		7,158,371		7,478,084
Exports-				
Building brick	2,988	38, 105	1,758	22,027
Clay— Unmanufacturedcwt.		1,127		8,496
Manufactures. Earthenware				85,383 16,879
*Porcelain insulators.				88,033
Total		543,572		220,818

^{*} Prior to April, 1924, porcelain insulators included with earthenware.

STRUCTURAL TILE.—Records of the production of structural tile in Canada include such items as hollow blocks (fire-proofing and load-bearing tile), roofing tile, and floor tile; sales of these products amounted in value to \$1,128,058 in 1925 as compared with \$963,302 in 1924. Hollow blocks were manufactured in every province except New Brunswick and Prince Edward Island. Roofing and floor tile were made in Ontario during 1925. In the preceding year a small quantity of floor tile was produced in British Columbia.

Table 128.—Production of Structural Tile in Canada, by Provinces, 1924 and 1925

Province	Hollow blocks (including fire proofing and loud-bearing tile)		Roofin	Roofing tile		(quarries)
AT HEADER THE	Tons	Value	No.	Value	Sq. It.	Value
1024		\$		8		\$
Nova Seotia. Quebec. Ontario. Manitoba. Saskatchewan. Alberta. British Columbia.	4,695 29,366 48,134 969 1,795 5,511 6,348	54,410 277,940 428,894 11,726 35,892 51,518 66,397			441,301	35,211
Canada	96,818	926,777	7,377	917	444,601	35,608
1925						
Nova Scotia. Quebec. Ontario. Manitoba. Saskatchewan. Alberta. British Columbia.	6,706 31,842 62,926 610 2,700 5,166 5,626	67,863 302,272 577,477 9,329 27,052 49,831 59,573	78,479			
Canada	115,576	1,093,397	78,479	6,323	140,927	28,338

DRAIN THE AND SEWER PIPE.—The Canadian production of sewer pipe during 1925 totalled 73,791 tons valued at \$1,440,269 as compared with 76,355 tons worth \$1,594,280 produced in 1924. Sales of drain tile, during the period under review were recorded at 14,552 thousand valued at \$401,503 as against a total of 15,137 thousand at \$409,369 sold in 1924. Ontario accounted for 92.8 per cent of the total production of drain tile and 66 per cent of the sewer pipe produced.

Table 129.—Production of Drain Tile and Sewer Pipe, in Canada, by Provinces, 1924 and 1925

	1924				1925				
Province	Drain tile		Sewer pipe		Drain tile		Sewer pipe		
	M	\$	Tons	\$	М	\$	Tons	s	
Prince Edward Island	76	1.750			22	500			
Nova Scotia	71 65	2,515 2,550	12,910 12,939		44 50	1,520 1,906	11,483 4,251	195,787 104,701	
Quebec	14,096	373,979	42,449		13,496	360,710	49.334	893, 442	
Ontario	167	5,845	,	010,000	278	14.080	201007		
Saskatchewan	200	8,000			20	1,000			
Alberta	38	1,831	6,345		84	3,373	6,985	191,257	
British Columbia	424	12,899	1,712	52,558	558	18,414	1,738	55,082	
Canada	15,137	409,369	76,355	1,594,280	14.552	401,503	73,791	1,440,269	

Refractories—Fireclay.—Sales of fire clay or refractory clay sold as such, in Canada, during 1925 amounted to 623 tons valued at \$6.544. Shipments of this commodity were made from deposits in the provinces of British Columbia, Saskatchewan, New Brunswick and Nova Scotia.

Firebrick.—Firebrick produced from domestic clays totalled 6,197 thousand valued at \$305,332, as against 4,327 thousand valued at \$209,256 in the previous year. British Columbia was the principal producer accounting for 57 per cent of the total sales of this commodity in the whole of Canada.

Imports of firebrick into Canada during 1925 consisting of magnesite brick, silicia brick, chrome brick, firebrick of a kind not made in Canada, and firebrick n.o.p., were appraised at \$1.397,342.

Large deposits of magnesite from which a good grade of basic high temperature brick may be made, occur in the province of Quebec.

Table 130.—Production of Refractories, in Canada, from Domestic Clays, by Provinces, 1924 and 1925

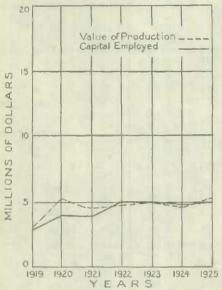
	Fire c	ay	Fire br	ick	Fire clay blocks and shapes	
Province	Sold or	used	Sold or	0.11		
	Quantity	Value	Quantity	Value	Sold or used	
1924	Tons		M	\$	8	
Nova Scotia New Brunswick	1,967 50	5,258 2,005	176 23 718	8,269 640 38,509		
Onterio Suskatchewan Alberta	315	2,436	436	19.936		
British Columbia	1,313	16,559	2,974	141,902		
Canada	3,645	26,258	4,327	209,256	51,273	
1925					H. T.	
Nova Scotia	48 49	489 1,956	1,221 30 904	71,336 768 46,459		
Saskatchewan Alberta	319	2,895	447 58	21,672 2,524	7,113	
British Columbia	207	1,204	3,537	162,573	29,174	
Canada	623	6,544	6,197	305,332	36,567	

CHAPTER TEN

MONUMENTAL AND ORNAMENTAL STONE

General.—The monumental and ornamental stone industry as reviewed hereunder includes only those plants in Canada engaged primarily in cutting and finishing stone for building or monumental purposes; the primary production or quarrying of stone is not included in this industry. Many concerns engaged in the quarrying of stone also cut and

STONE INDUSTRY



finish it for the market; the operations of these MONUMENTAL & ORNAMENTAL establishments have been covered in the primary stone industry as it is impossible to get separate data for the finishing operations. An extract from the Report on the Mineral Production of Canada, which deals with the primary stone industry, has been added as a supplement to the present chapter so a perspective of the industry as a whole may be obtained by the reader. The main statistics shown below refer only to cutting and finishing plants.

The monumental and ornamental stone industry is well distributed across the Dominion. In 1925, reports were received from 214 plants located as follows: 1 in Prince Edward Island, 11 in Nova Scotia, 9 in New Brunswick, 41 in Quebec, 118 in Ontario, 13 in Manitoba, 7 in Saskatchewan, 5 in Alberta and 9 in British Columbia. These plants represented an investment of \$5,015,729 and employed 1,262 people throughout the year to whom \$1.811.512 was paid in salaries and wages. The cost of all stone used was \$1,964,817 and the selling value of products was \$5,355,997, giving thus \$3,391,180 as the value added by the cutting and finishing processes.

Many of the plants in this industry are small concerns employing only 2 or 3 men, but there were also a number of plants operating on a large scale with productions in excess of \$100,000. Statistics for 1925 show that 147 plants employed less than 5 persons in each; 34 establishments gave work to between 5 and 10 persons in each; 25 plants employed between 10 and 25 persons while only 8 plants employed more than 8 people in each. Only 9 plants each reported a production valued at more than 100,000 dollars; 14 others each exceeded \$50,000; 24 more each reported a production value above \$25,000; 57 others exceeded the \$10,000 mark; 106 more each were above \$1,000 and only 4 were below the latter figure.

Table 131.—Summary Statistics of the Monumental and Ornamental Stone Industry in Canada, 1921-1925

Year	Number of plants	Capital em- ployed	Number of employees	Salaries	Wages	Coet of fuel*	Cost of materials	Selling value of products	Value added by manu- facturing
		8		\$	\$	8	8	S	\$
1921	173	3,971,172	1,207	369,190	1,283,647	15,857	1,478,097	4,540,028	3,061,931
1922	208	5,027,935	1,273	459,896	1,349,548	19,532	1,844.548	4,968,487	3,123,939
1923	210	5,073,618	1,278	464,823	1,378,140	20,170	1,683,126	5,025,003	3,341,877
1924	210	4.944,269	1,344	409,084	1,478,378	95,791	1,441,753	4,730,572	3.288,819
1925	214	5,015,729	1,262	422,239	1,389,273	96,929	1,964,817	5,355,997	3,391,180

^{*}Includes electricity for 1924 and 1925.

Table 132.—Principal Statistics of the Monumental and Ornamental Stone Industry in Canada, by Provinces, 1924 and 1925

		19	24		1925				
Province	Number of plants	Number of employees	Salaries and wages	Selling value of products	Number of plants	Number of employees	Salaries and wages	Selling value of products	
			8	8			8	\$	
Nova Scotia and Prince Edward Island	14	37	31,046	126,243	12	32	28,232	126,632	
New Brunswick	9	67	67,531	137,494	9	56	55,567	122,503	
Quebec	42	347	485,895	1,137,660	41	233	285,579	687,440	
Ontario	113	667	978,560	2,639,443	118	698	1,097,055	3,485,508	
Manitoba	12	101	135,863	277.669	13	133	179,922	523,258	
Saskatchewan	7	43	59, 885	128,844	7	34	44,357	108.999	
Alberta	8	32	49,805	136, 110	5	30	54,395	152,768	
British Columbia	77	50	78,877	147,109	9	46	66,405	148,892	
Canada	210	1,344	1,887,462	4,730,572	214	1,262	1.811.512	5,355,997	

Capital Employed.—Capital employed in this industry in 1925 amounted to \$5,015,729, only slightly above the corresponding figure for 1924. Lands, buildings, machinery and tools were valued at \$2,346,427 or 47 per cent of the total investment. Ontario led with \$3,019,598 or 60 per cent of the total, while Quebec accounted for \$696,072 or 14 per cent of the total capital employed in the industry.

Table 133.—Capital Employed in the Monumental and Ornamental Stone Industry in Canada, by Classes and by Provinces, 1924 and 1925

		19	24		1925 Capital employed as represented by				
	Capital	employed	as represen	ted by					
Province	Lands, huildings, fixtures, muchinery 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	
	\$	8	\$	\$	8	\$	\$	\$	
Nova Scotia and Prince Edward Island	27,540	37,664	11,515	76,719	25,540	46,160	11,275	82,975	
New Brunswick	60,876	48,943	22,259	132,078	53,673	42,030	22,734	118,437	
Quebec	468,977	201,133	410,405	1,080,515	349,400	189,831	156,841	696,972	
Ontario	1,311,907	639,545	722,638	2,674,090	1,491,438	700,345	827,815	3,019,598	
Manitoba	188,037	100,946	154,301	449,284	233,225	143,973	184,332	561,530	
Saskatchewan	56,984	65,845	94,116	216,945	83,387	61,339	68,388	213,114	
Alberta	48,633	101,166	76,013	225,812	50,449	100,433	75,892	226,774	
British Columbia	51,353	14,175	23,298	88,826	59,315	20,615	17,299	97,220	
Canada	2,214,307	1,215,417	1,514,545	4,944,269	2,346,427	1,384,726	1,364,576	5,015,720	

Employment.—In 1925, this industry afforded employment to 214 salaried employees and 1,048 wage-earners, a total of 1,262 persons to whom \$1,811,512 was paid in salaries and wages. There is a slight seasonal trend to the industry as indicated by the monthly employment records. Employment drops off during the winter months when there is less activity in the building trade. In January, there were S01 wage-earners on the rolls and this number gradually increased until a maximum of 1,159 was reached in August. By the end of the year the number had declined to 985, making an average for the year of 1,048 wage-earners as against 1,135 in 1924.

Table 134.—Average Number of Employees, Salaries and Wages Paid in the Monumental and Ornamental Stone Industry in Canada, by Provinces, 1924 and 1925

		Average no	amber of e	mployees		Sala	ries and w	ages
Province	Salaried e	inployees	Wage-	arners	Total	Salaries	137	Total
	Male	Female	Male	Female	Total	Samries	Wages	Iotal
1924						8	8	\$
Nova Scotia and Prince Edward Island	1		36		37	1,200	29.846	31.046
New Brunswick	7 31	1	58 314	1	67	10,730	56,801	67,531
Quebee	95	12	558	2	347 667	81,143 207,333	404,752 771,227	485,898 978,568
Manitoba	21	4	76		101	52,871	82,992	135,863
Saskatchewan	14	3	26 21		43 32	25,208 16,277	34,677 33,528	59,888 49,808
British Columbia	7		43		50	14,322	64,555	78,877
Canada	184	25	1,132	3	1,344	409,084	1,478,378	1,887,462
1925								
Nova Scotia and Prince Edward								
Island	5		27 50		32 56	4,100 0.060	24,132 46,507	28,233 55,567
Quebec	24	2	207		233	60,128	225,451	285,579
Ontario	110	13	573 106	2	698 133	243.361	853,694	1,097,053
ManitobaSaskatchewan	9	2	23		34	57,345 17,980	122,577 26,377	179,923
Alberta	6	3	21		30	14.225	40,170	54,395
British Columbia	/		39		46	16,040	50.365	66,405
Canada	189	25	1,046	2	1,262	422,239	1,389,273	1,811,512

Table 135.—Number of Wage-Earners Employed in the Monumental and Ornamental Stone Industry in Canada, by Months, 1924 and 1925

Month		1924		1925		
Month	Male	Female	Total	Male	Female	Total
anuary	816	3	819	800	3	801
ebruary	851	3	854	779		780
Inrch	942	3	945	822	1	821
pril	1,004	3	1,007	880	1	881
11	1,086	3	1,089	985	1 :	986
ne	1,167	3	1,170	1.056	2	1.055
dy	1.235	3	1.238	1.139	0	1.14
ugust	1,249	3	1.252	1.157	2	1,159
ptember	1,231	3	1,234	1.143	2	1.143
etober	1.193	3	1,196	1.111	2	1,113
ovember	1,076	3	1,079	1.052	2	1,05
ecember,	975	3	978	983	2	98
Average	1.132	3	1,135	1.046	2	1.049

Table 136.—Hours of Labour (in Month of Greatest Employment) in the Monumental and Ornamental Stone Industry in Canada, by Provinces, 1925

Possing	Number of wage-earners working				Average number of hours worked per man per week when working			
Province	8 hours or less per day	9 hours	10 hours	Over 10 hours	8 hours or less per day	9 hours	10 hours	Over 10 hours
Nova Scotia and Prince Edward Island. New Brunswick Quebec. Ontario Manitoba. Saskutchewan Alberta. British Columbia.	17 56 174 483 66 15 31 70	10 52 129 14 10	1 2 32 128 37 9	48 15	48 48 45 45 45 44 44	54 54 54 54 54 54	60 60 60 60 60 55	68 72

Table 137.—Fuel and Electricity Used in the Monumental and Ornamental Stone Industry in Canada, 1924 and 1925

	Unit	192	4	1925	
Kind	ol measure	Quantity	Value	Quantity	Value
			8		8
Anthracite coal Bituninous coal Lignite coal Coke Gasoline Fuel oil Wood Gas	Ton Ton Imp. gal.	291 795 36 119 14, 824 4, 309 372 638	4,168 6,077, 299 1,406 4,159 1,135 2,725 895	1,416 29 102 15,903 3,256 669	3,949 12,379 316 1,350 4,647 3,658 2,123
Other fuel	K.W.H.	4,202,106	74,746	2,997,122	07,46
Total			95,791		96,92

Table 138.—Power Equipment Employed in the Monumental and Ornamental Stone Industry in Canada, 1924 and 1925

	19	24	19	25
Deceription	Number of units	Total h.p. according to manu- facturers' rating	Number of units	Total h.p. according to manu- facturers' rating
Steam engines and turbines	1 4 20	46 68 96	2 3 13	44 60 91 3
Total primary power	25	210	19	198
Electric motors driven by purchased power	354	4,998	400	5,209
Total power equipment employed	379	5,208	419	5,407
Electric motors driven by power generated by the primary power of the industry	7	122		
Total electric power	361	5,120	490	5,201
Boilers installed		130	6	202

Materials Used.—The total cost of materials used amounted to \$1.964.817 as against \$1.441.753 in 1924. This included the cost of imported stone as well as domestic marble and granite, limestone and other materials.

Table 139.—Materials Used in the Monumental and Ornamental Stone Industry in Canada, 1924 and 1925

	1924	1925
Material	Cost at works	Cost at works
	*	8
Cost of all stone used		1,984,817
Total	1,441,751	1,964,817

Products.—The products of this industry find their market either as monuments or stone for building purposes. More limestone was used for building purposes than in 1924 but the use of granite and marble for the same purpose fell off slightly. The total production in 1925 was valued at \$5,355,997 as compared with \$4,730,572 in the previous year.

Table 140.—Products of the Monumental and Ornamental Stone Industry in Canada, 1924 and 1925

	1924	1925
Product	Total selling value at works	Total selling value at works
Granite cut and polished—(a) Monuments (b) For building purposes Marble cut and polished—(a) Monuments (b) For building purposes Marble chips and dust Limestone—(a) Monuments and bases (b) For building purposes Finished monuments, lettered only Other products	465,539 298,482 633,356 46,530 42,577 1,041,485 822,661	292,621 573,602 13,849
Total	4,730,572	5,355,997

Primary Production of Stone.—(From the Annual Report on the Mineral Production of Canada, 1925.)—Production of stone in Canada during 1925 totalled 5,706,119 tons valued at \$7,464,777. In 1924, the shipments amounted to 4,768,014 tons worth \$6,407,757. With the exception of the record production of 1920, the 1925 value exceeds that of all other years. Ontario was the leading producer, accounting for 53 per cent of the total quantity; Quebec followed with 39.3 per cent. The other provinces in order of tonnage produced were: British Columbia, Nova Scotia, Manitoba, and New Brunswick.

The kinds of stone quarried included granite (trap-rock, syenite, and other igneous rock), limestone, sandstone and marble.

The quantities of limestone quarried and used in the manufacture of lime by the operator have not been included under this industry; only the quantity and value of lime are recorded in order to avoid duplication of entries.

Table 141.—Production of Stone in Canada, by Provinces, Showing Purposes for Which Used, 1925

Product	Nova Scotia	New Bruns- wiek	Quebec	Ontario	Manitoba	Alberta	British Columbia	Canada
Building-	POP		20 200	10 100	0.001		2 020	
RoughTon	3.827	461	28,389 233,523 28,441	16,166 163,755 1,327	39,702		2,026 10,775	56,337 451,583 32,726
Monumental and ornamental—		10,334	704, 252	33,112			13,840	856,791
RoughTon	29 1,000	613 10,026	10,171	657 6,068			135 15,433	11,605
Dressed	429 28,021	508 45,166	1,503 59,584	63			1,260 53,000	3,763 189,267
Flagstone Ton			200 250	666 5,325				866 5,575
Curbstone Ton			24.989 75.132	4,347 28,042			100 1,500	29,436 104,674
Paving blocks	04 000	3, 1 5 3	16.385	9,191 72,849				25,712
Limestone, for flux	84.239 70.742	14,000	6,500 6,390 107,655	223,410 197,479			49,543 37,138 7,299	363,693 311,749 182,911
chemical works, etc \$ Rubble and riprap		25,800	79,469 319,778	39,306 81,820			15,259 36,801	159,834 455,524
Crushed Ton	24,618 4,203	9,673	573,455 1,698,905	69,963 2,632,008	7,362 36,814		31,019 158,865	706,417
	6, 478	21,264	1,883,175	2,197,938	55,171		159, 232	4,330,120
TotalTon	102, 125 134, 686	25,381 124,743	2,242,916 3,855,455		52,770 188,496	3,979 6,868	256,226 337,196	

Table 142.—Production in Canada, by Kinds and by Provinces, and Imports and Exports of Stone, 1924 and 1925

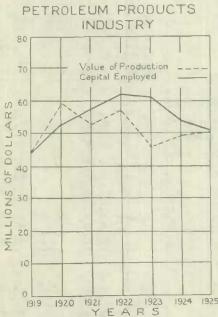
	Tons			
		Value	Tons	Value
		\$		\$
Production, by Kinds-		4	o but man	0 014 808
Grunite. Limestone.	419,971	1,013,345		2,014,535 5,049,563
Marble	4,379 94,603	322,455 240,273	3,046 87,502	254,922 145,757
Sandstone	4,768,014		5,706,119	
Total	9,700,012	0,701,101	3,100,113	1,202,110
PRODUCTION, BY PROVINCES-				.04 404
Nova Scotia.	67,535 19,229	111,824	102, 125, 25, 391	134,686 124,743
New Brunswick. Quebec	1,592,089	2,925.520	2,242,916	3,855,458
Ontario	2,840,173	2,789,308		2.817,333 188,496
Manitoba	54,065 16,698	93,876 19,317		6,868
British Columbia	178,225	353,741		337,196
Canada	4,768,014	6,407,757	5,706,119	7,464,777
IMPORTS—				
Building stone, other than marble or granite, sawn on more than two sides, but not sawn on more than four sides.	240	3,619	285	4, 143
Building stone, other than marble or granite, planed, turned, cut or further	0.70	10 000	231	7.917
manufactured than sawn on four sides. Flagstone, granite, rough sandstone, and all building stone, not hammered.	276	10,886	401	1,911
sawn or chiselled		170,555		134.17
Flagstone, and building stone, other than marble or granite, sawn on not		00 020		97.87
more than two sides		82,639 2,226		2,25
Granite, manufactures of, n.o.p.		138,011		158.61
Marble rough not hammered or chiselled		60,544 192,181		67,50 174,02
Murble, sawn or eand rubbed, not polished. Marble, manufactures of, n.o.p.		38,655		40, 29
Paving blocks.		3,168		
Refuse stone	281,824	174,738		100,54 37,64
Manufactures of stone, n.o.p		39, 103		91,01
Total		913,325		824,99
EXPORTS				10.0
Crushed	59,984			
Ornamental, rough*	3,390			
Building, rought. Dressed.	2,059		4,100	5,68
Total		170, 113		138,39

^{*} Granite, marble, etc., unwrought. † Freestone, limestone, etc., unwrought.

CHAPTER ELEVEN

PETROLEUM PRODUCTS

General.—The petroleum products industry in Canada includes all plants engaged in (a) the refining of crude oil for the production of gasoline, kerosene, lubricating oils, waxes and petroleum coke; (b) the compounding of lubricating oils and greases, core oil, cutting compounds, etc. Output of petroleum products in Canada during 1925 amounted in value to \$50,762,127. This was the highest value shown for the industry since 1922 and compares with output values of \$49,411,067 in 1924 and \$46,280,554 in 1923.



Oil refineries in operation during 1925 numbered 13 located as follows: 1 in Nova Scotia, 2 in Quebec, 3 in Ontario, 1 in Manitoba, 1 in Saskatchewan, 3 in Alberta, and 2 in British Columbia. The industry is dominated by one company which operates 6 large refineries at advantageous points across the Dominion. For the most part these refineries import the crude oil for refining. but 2 small plants in Alberta refined only oil from Canadian fields and the refineries located in western Ontario used considerable quantities of Canadian petroleum as well as oil imported from United States; the output of naphtha from the Royalite well in Alberta was delivered to the refineries at Regina, Sask., Calgary, Alberta, and Ioco, British Columbia, where it was prepared for market. In the present report the crude naphtha is shown as crude oil used for refining. The 13 refining plants represented a capital investment of 49.5 million dollars, gave employment to 3.655 persons and produced commodities having a total selling value of \$49,802,615. As 1925 compared with 1924, production was higher by over a million dollars in spite of the fact that 3 of the smaller plants in Alberta did not operate

during the year. The total capacity of the refineries in Canada is about 60,000,000 gallons of crude oil per month; during 1925 the consumption of crude oil averaged about 37,000,000 gallons per month so all plants operated at nearly two-thirds capacity during the year.

Eight other plantes reporting to the Bureau made inbricating oils, greases and similar products; 1 of these was located in Quebec, 5 were in Ontario, 1 in Alberta and 1 in New Brunswick. The same number of plants were in operation in 1924; one plant in Quebec went out of business during the year, but one plant in New Brunswick reported to the Bureau for the first time. Active plants in 1925 employed a capital of \$1,118,649, gave work to 83 persons the year round and made \$959,512 worth of commodities for sale.

In comparing the general data for the refining groups, it should be noted that all data for the Royalite Oil Co.. Ltd., was included in 1924, whereas in 1925 the general data has been omitted; the naphtha from this well which was sent to the various refineries has been shown with the materials entering the refineries and the sales have been included in the value of products.

Table 143.—Summary Statistics of the Petroleum Products Industry in Canada, 1921-1925

Year	Number of plants	Capital em- ployed	Number of em- ployees	Salaries	Wages	Cost of fuel and electricity	Cost of materials	Selling value of products	Value added by manufac- turing
Petroleum refining: 1921 1922 1922 1923 1924 1925	13 14 17	\$ 55,630,864 61,253,400 60,288,861 53,095,784 49,461,900	3,911 3,498 4,195 3,603 3,655		4,637,451 4,714,818 4,757,004	4,227,615 4,054,846 3,580,032	38,129,880 36,435,306 36,669,292	56,495,821 45,571,506 48,677,347	\$ 15,714,750 18,365,941 9,130,200 12,008,055 11,988,312
Lubricating oils and greases: 1921	5 6 6. 8 8		103 57 62 66 83	112,825 70,101 93,628 94,307 101,252	22,297 23,123 31,420	4,172 6,236 6,500	283,311 381,390 423,419	539,742 700,028 733,720	256, 431 327, 638 310, 301
Total: 1921. 1922. 1923. 1924.	19 20 25	57,564,588 62,054,029 64,027,704 53,795,794 50,580,519	4,014 3,555 4,257 3,669 3,738	836,870 832,935 910,379 961,281 1,014,948	4,659,718 4,737,941 4,784,424	4,231,787 4,061,082 3,586,532	38, 113, 191 36, 816, 696 37, 092, 711	57,035,563 16,280,531 19,411,067	16,302,839 18,632,372 9,163,838 12,318,356 12,501,103

Table 144.—Principal Statistics of the Petroleum Products Industry in Canada, by Provinces, 1924 and 1925

		19	24		1925			
Province	Number of plants	Number of employees	Salaries and wages	Selling value of products	Number of plants	Number of employees	Salaries and wages	Selling value of products
			\$	\$			8	8
Petroleum refining: Ontario	3	1,603 414		18,181,162 5,934,678		1,779 225		19,945,508 5,454,068
Canada ¹	17	3,603	5,623,978	48,677,347	13	3,655	5,621,898	49,802,615
Lubricating oils and greases: Ontario	5	47	94,065	536,354	4	45	95,696	480,346
Canada ²	8	66	125, 727	733,720	8	83	153, 148	959,512
Total: Quebec Outario	4 8	587 1,650		7,814,819 IS,717,516	4 2	676 1,824		8,667,838 20,425,854
Canada	25	3.669	5,719,705	49,411,067	21	3,738	5,775,046	50.762,127

Includes also data for 2 plants in Quebec, 2 in British Columbia, and 1 in each of the provinces of Nova Scotia, Manjtoba and Saskatchewan.

Includes also data for 2 plants in Quebec and 1 in each of the provinces of New Brunswick and Alberta.

Capital Employed.—The total capital employed in petroleum refining in 1925 amounted to \$49,461,900. This value was about 3.5 million dollars below the corresponding figure for 1924, but the decline can be more than accounted for by the fact that 3 refineries in Alberta did not operate for any length of time during the year and to the fact that data for the Royalite Company in Alberta has not been included in 1925. Lands, buildings and plant equipment were valued at \$30,306,107 as compared with a value of \$34,289,450 reported for 1924. In the lubricating oils and greases industry the capital employed amounted to \$1,118,649 as compared with \$700,010 in 1924; the investment in plants and equipment in this industry was only \$536,727 in 1925 and \$323,818 in the previous year.

Table 145.—Capital Employed in the Petroleum Products Industry in Canada, by Classes and by Provinces, 1924 and 1925

		192	4			1925		
	Capital	employed	as represen	ted by	Capital	employed	as represer	ted by
Province	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	and stocks	Cash, trading and operating accounts and hills receivable	Total
	\$	8	8	8	8	8	8	8
Petroleum refinery: Ontario		5,179,470 1,731,461			9,132,257 3,691,697			16,372,962 5,424,320
Canada ¹	34,289,450				20, 304, 107			49, 461, 900
Lubricating oils and greases: Ontario	231,575	109,440	181,341	522,356	292.242	114,100	190,437	596,789
Canada ²	323,818	138,668	237,524	700,010	536,727	165,684	416,238	1,118,649
Total: Quebec Ontario		3,015,262 5,288,910			5,949,354 9,424,499			9,677,552 16,969,751
	34,613,268	18,261,767	917,759	53,795,791	30,842,834	19,005,802	731,913	50,550,549

Includes also data for 2 plants in Quebee, I in British Columbia, and I in each of the provinces of Nora Scotia, Mantoba and Saskatchewan.

* Includes also data for 2 plants in Quebec and 1 in each of the provinces of New Brunswick and Alberta.

Employment.—Oil refineries in Canada in 1925 employed 425 salaried employees and 3,230 wage-earners as compared with 412 salaried employees and 3,191 wage-earners in 1924. Salaries amounted to \$913,688 and wages totalled \$4,708,210, a total of \$5,621,898 as compared with \$5,623,978 in 1924. There is evidence of a slight seasonal trend to the industry, employment being greater in the summer months. In January, there were 3,119 wage-earners employed and a steady increase was recorded until in August 3,519 names were on the rolls of the various refineries; then the number of workers gradually declined until in December only 3,055 persons were employed.

In the compounding and blending of oils only 83 people were employed, of whom 39 were on salaries and 44 on wages. Payments in wages and salaries totalled \$153,148. In the previous year, 1924, only 66 people were employed and payments in salaries and wages totalled \$125,727.

The larger refineries operated continuously during the year but some of the smaller establishments worked only part of the time; the average number of working days for oil refineries was 304, and for the lubricating oils and greases industry the average number was 280.

Table 146.—Average Number of Employees, Salaries and Wages Paid in the Petroleum Products Industry in Canada, by Provinces, 1924 and 1925

		Average n	umber of a	mployees		Salaries and wages			
Province	Salaried e	mployees	Wage-earners		Minda!	0.1	347	Total	
	Male	Female	Male	Female	Total	Salaries Wages			
1924						8	8	8	
Petroleum refining: Ontario	134 41	30	1,421 366	18	1,693		2,118,207		
Canada ¹	352	60	3,168	23	3,603	866,974	4,752,004	5,624,97	
Lubricating oils and greuses: Ontario	26	3	18		47	74,505	19,560	94,06	
Canada ²	32	4	27	3	66	94,307	31,420	125,72	
Petroleum refining: Ontario	140 32	34	1,589	16	1,779		2,347,458 283,924		
Canada!	364	61	3,210	20	3,655	913,688	4,708,210	5,621,89	
Lubricating oils and greases: Ontario	23	2	19	1	45	72, 464	28, 282	95,69	
Canada ²	33	7	40	4	83	101,252	51, N96	153,14	

¹ Includes also data for 2 plants in Quebec, 2 in British Columbia, and 1 in each of the provinces of Nova Scotia, Manitoba and Saskatchewan.
² Includes also data for 2 plants in Quebec and 1 in each of the provinces of New Branswick and Alberta.

Table 147.—Number of Wage-Earners Employed in the Petroleum Products Industry in Canada, by Months, 1924 and 1925

		192	4		1925				
Month	Petroleum refining		Lubri-		Petroleun	refining	Lubri-		
	Male	Female	oils and greases	Total	Male	Femule	oils and greases	Total	
ununry	3.073	20	23	3,116	3,103	16	40	3,159	
February	2,930	19	27	2,976	3,001	20	39	3,060	
Inrch	2,953	28	25	3,001	3,133	19	40	3,19	
April	3,136 3,265	22 22	28	3,186	8,172	19	42	3, 23	
fay	3,234	23	29 27	3,284	3,238	18 17	46	3,30	
une	3,257	18	27	3,302	3,403	18	43 45	3,37	
uly	3,348	19	28	3.392	3,497	22	46	3.56	
entember	3,300	20	28	3,348	3,328	22	43	3,39	
letober	3, 194	27	26	3,247	3, 193	23	46	3,26	
November.	3,091	26	25	3,142	3,081	23	46	3,15	
December	2,973	26	24	3,023	3,031	24	43	3,09	
Average	3,168	23	30	3,221	3,210	20	44	3.27	

Fuel.—Fuel used in this industry cost \$3,447,130 in 1925 and \$3,586,532 in the previous year. A large amount of heat is required for distillation purposes and the location of the plant determines the type of fuel used. In 1925, more money was spent for fuel oil than for coal; over 33 million gallons of fuel oil worth \$1,873,426 and 179,873 tons of bituminous coal and 19,543 tons of authracite at a total cost of \$861,715 were used during 1925. Considerable gas and coke were also used.

Table 148.—Fuel and Electricity Used in the Petroleum Products Industry in Canada, 1924 and 1925

Kind	Unit	19:	24	1925		
King	n easure	Quantity	Value	Quantity	Value	
			\$		\$	
ituminous coal	Short ton Short ton Short ton Gallon Gallon M eu. ft Cord	18,692 189,571 18,760 42,181,592 642,825 1,372,675 35	30,002	179,873 5,192 36,227,328 4,723 1,020,044 6	102, 660 759, 055 30, 771 1, 873, 426 769 360, 917 60 136, 054	
lectric power	K.W.H.	15,506,873	173,133	15,605,121	183,41	

Table 149.—Power Equipment Employed in the Petroleum Products Industry in Canada, 1924 and 1925

	19	24	19	25
Description	Number of units	Total h.p. according to manu- facturers' rating	Number of units	Total b.p according 10 manu- facturers' rating
Steam engines and turbines. Gas engines Oil and gasoline engines.	273 15 9	9,072 970 1,040	274 2 7	9,170 8 1,028
Total primary power.	297	11,082	283	10,206
Electric motors driven by purchased power	225	5,859	295	7,294
Total power equipment employed	522	16,941	528	17,500
Electric motors driven by power generated by the primary power of the industry \dots	105	2,542	68	1,634
Total electric motors	330	8,401	363	8,928
Boilers installed	98	18,961	94	20,235

Materials Used.—In 1925, the total amount of money spent for materials used in oil refineries was \$37.814,303 as compared with \$36,669,292 in 1924. Most of the oil refined in Canada is imported; in 1925, a total of 433 million gallons of crude imported oil was used in the various refineries and of this total 317.831,156 gallons came from United States, 43,806,061 gallons from Mexico and 71,141,285 gallons from Peru. Only 12,337,192 gallons of Canadian oil, which also includes naphtha from the Royalite well in Alberta, entered the gefineries in 1925. The establishments located in British Columbia, Nova Scotia and Quebec obtained oil from United States, Mexico and Peru; the plants in Ontario brought in oil from the fields in the United States and also used considerable of the domestic production of petroloum; 2 plants in the prairie provinces used Canadian oil only and 3 imported oil from United States. Of a total of almost 38 million dollars paid out for materials, over 92 per cent or \$34,855,185 was paid for crude oil. Caustic soda, sulphuric acid, litharge and compounding materials of all kinds were among the other materials used. Containers of all kinds reached a total cost of \$1,516,384.

In the manufacture of lubricating oils and greases purchased, materials cost \$446,721 as against a figure of \$423,419 in 1924. Mineral and animal oils, gasoline and kerosene were the principal items on the list.

Table 150.—Materials Used in the Petroleum Products Industry in Canada, 1924 and 1925

	Unit	19	24	192	5
Material	of measure	Quantity	Cost at works	Quantity	Cost at works
Petroleum refining: Crude oil (Canadiun). Crude oil (imported). Sulphuric acid, 60° Bé. Sulphur (not used in acid manufacture). Caustic soda. Lithargo. Fullers' carth. Soda ash Compounding material. All other materials. Shipping containers (boxes, barrels, cuns, etc.).		,	\$ 403,099 33,018,299 605,383 2,635 146,812 30,197 13,495 10,993 736,516 224,770 1,477,073	42, 843, 604 141, 265 4, 220, 371 549, 450 1, 281, 190 287, 648	\$ 1,511,181 33,344,004 447,528 3,988 154,150 59,825 14,433 5,610 510,735 240,456 1,516,384
Total			36,669,292		37,814,303
Lubricating oils and greases: Animal oils Mineral oils Lubricating oil Other oils Tallow Soap grease Gasoline and kerosene Red lead Containers, boxes, etc. All other materials Total		26, 183 1, 048, 826 36, 900 208, 831 32, 876 225, 415 69, 600	43.975 7.678 16.229 22.077	948, 110 30,000 180, 852 56, 496 210,600 64,800	30,656 209,803 10,560 54,459 50,490 8,192 41,078 7,704 19,055 14,282
Total			37,092,711		38,261,024

Products.—Refinery production in Canada in 1925 reached a value of \$49.802,615 an increase of more than a million dollars over 1924, and the output of lubricating oils, greases, etc., was valued at \$959,512 as compared with \$733,720 in the previous year. The total production for the industry was valued at \$50,762,127 as against \$49.411,067 in 1924, and of this amount 2.4 million dollars represented the value of intermediate products used chiefly as a fuel in the different refineries.

Production of gasoline was about 5 million gallons above the output for 1924; kerosene at 45 million gallons showed a decline of 36 per cent from the previous year. Other products made in 1925 included 172 million gallons of fuel and gas oils, 15 million gallons of lubricating oils, 9 million pounds of greases, 20 million pounds of asphalt and 16 million pounds of wax and candles.

Table 151.- Products of the Petroleum Products Industry in Canada, 1924 and 1925

	Unit	io	24	19	25
Product	of measure	Quantity	Selling value at plant	Quantity	Selling value at plant
Petroleum refining; (a) Made for sale—					
Gisoline Petroleum spirits Kernsene Fuel and gas oils Lubricating oils Grease Tar Asphalt Petroleum coke Wax and can illus Other products	Imp. gal. Imp. gal. Imp. gal. Imp. gal. Pound Imp. gal. Imp. gal. Short ton- Pound	160,022,541 788,529 61,276,285 134,941,640 14,329,530 10,016,621 16,690 20,170,503 30,566 9,112,041	25,796,047 132,097 7,483,097 7,169,187 2,582,800 184,571 1,847,772 221,668 551,422 318,773	1,177,656 44,992,568 135,954,156 14,787,788 9,073,821 108,504 19,940,729 28,855 15,736,670	27,585,651 110,596 5,962,898 7,771,405 2,694,736 183,895 7,790 1,845,402 218,105 734,308 179,573
Total			46, 258, 331		47,383,459
(b) Intermediates made for use (chiefly as fuel)— (iasoline	Imp. gal. Imp. gal. Imp. gal Imp. gal. Short ton Short ton Imp. gal. M cu. it.	23,198 32,182 42,181.592 12,384 7,536 11,223 1,568,094 1,186,787	3, 172 2, 985 1, 307, 559 2, 917 48, 735 42, 118 71, 672 302, 946 36, 912	14, 198 5, 163 9, 170 1, 395, 470 1, 019, 755	3,386 4,015 1,880,850 2,406 30,586 33,014 64,030 360,646 40,223
Total			2,419.016		2,410,156
Total, made for sale and for use			48.677,347		49,802,615
LUBRICATING OILS AND GREAGES: Lubricating oil. Core oil. Soaps Greages Other products Receipts from custom work and repairs.			475, 399 22, 250 64, 033 76, 020 64, 570 30, 548	14,997	434,492 12,056 76,725 63,914 372,325
Totul			733,720		959, 512
Total			49,411,067		50,762,127

Primary Production of Crude Petroleum.—(From the annual Report on the Mineral Production of Canada, 1925.)—Production of crude petroleum in Canada in 1925 amounted to 332,001 barrels valued at \$1,250,705 as compared with 160,773 barrels valued at \$467,400 in 1924, an increase of approximately 100 per cent.

Encouraging results met the efforts of producers in the Alberta fields during 1925. In the Turner Valley field the Royalite Well No. 4, a wet-gas producer, averaged 500 barrels of crude naphtha per day. A pipe line was constructed during the year to convey this product to the Imperial Oil Refinery at Calgary.

The Royalite Company is drilling two other wells in the Turner Valley field, viz.: Royalite Nos. 5 and 6. Properties formerly controlled by the Southern Alberta Oils, Limited, have been taken over by the Imperial Oil Company through its subsidiary, the Dalhousie Oils, Ltd. The McLeod Oil Company, Indian-Alberta Oil Co., Canada Southern Oil and Refining Co., and British Petroleums, Ltd., were also producers during the year under review. Activities in the Wainwright field were centred chiefly around the operations of British Petroleums, Ltd. Drilling is still being carried on by a number of companies in the Coutts-Sweetgrass field. The Fort Norman drilling operations have been discontinued for the present. There is a possibility of a small refinery being erected at Fort Norman to supply the oil requirements of the Hudson Bay Company in the North. The capacity of the productive well in this district is estimated at 100 harrels per day.

Col. R. B. Harkness, commissioner of gas for Ontario, reports that exploring for oil was carried on in the province during 1925 to a considerable extent. Wells were drilled in the following localities: near Mitchell in Logan township, Perth county; four miles east of Brantford, near Sixty Nine Corners, Tuscarora Township, Brant county; Thamesville, Zone township; Vaughan township, northwest of Toronto; and at Bond Lake, 20 miles north of Toronto.

Table 152.—Imports into Canada and Exports of Petroleum and its Products, 1924 and 1925

	192	24	192	5
	Quantity	Value	Quantity	Value
				\$
IMPORTS— Crude petroleum in the natural state, '7900 specific gravity or heavier at 60 degrees temperature, when imported by oil refiners to be refined in their own factories. Crude petroleum, gas oils other than maphtha, benziae and	465,958,509	20,260,488	436, 258, 650	23,414,837
gasoline lighter than -8235 but not less than -775 specific gravity at 60 degrees Petroleum (not including crude petroleum imported to be refined	139,745	10,875	4,181,914	227,378
or illuminating or lubricating oils) -8235 specific gravity or heavier at 60 degrees temperature. Gala. Petroleum, imported by miners or mining companies or con-	94, 104, 526	4,122,333	103,867,295	4,690,901
cerns, for use in the concentration of ores or metals in their own concentrating eshablishments. Petroleum, grade not in its matural state, '7900 specific gravity	139,473	35,880	129,665	26,251
or honvier at 60 degrees temperature when imported by oil refiners to be refined in their own factories	55.758	3,953	49,149	2,910
Kerosene and Illuminating Oils				
Coal oil and kerosene, distilled, purified or refined, n.o.p Gals. Illuminating oils, couposed wholly or in part of the preducts of petroleum, coal, shale or lignite, existing more than 30 cents	5,410,973	444, 646	4,860,876	391,538
per gallon Coal oil and kerosene, distilled, known as "engine distillates", 725 specific gravity and heavier, but not heavier than 770	10,655	4,215	2,451	1,778
specific gravity at 60 degrees temperature	20,420	2,942	395,785	63,587
LUBRICATING OILS				
Lubricating ails, composed wholly or in part of petroleum, and costing less than 25 cents per gallon. Gals. Lubricating oils, n.o.p. Gals.	3, 975, 337 4, 521, 086	728, 250 1,714, 403		712,850 1,770,739
Other Oils				
Gasoline under -725 specific gravity at 60 degrees temperature. Gals. Gasoline -725 specific gravity but not heavier than -770 specific	56,389.078	7,138,561	58,993,020	8,388,057
Gasoline -725 specific gravity but not beavier than -770 specific gravity at 60 degrees temperature Gals. Gals. Gasoline, n.o.p. Gals. All other oils, n.o.p. Gals.	17, 094, 248 284, 115 260, 901	2, 166, 847 38, 745 119, 088		3,204,479 7,033 109,348
OTHER PRODUCTS OF PETROLEUM				
Grease, axle Lb. Paraffine wax Lb. Paraffine wax candles Lb.	2,853,720 837,317 202,565	165,694 65,782 36,884	3,776.077 1,601,505 208,887	230,151 124,234 46,257
Vaseline and all similar preparations of petroleum for toilet, medicinal or other purposes. Petroleum products of, n.a.p	1,298,590	195, 457 242, 996	1.243.176	21d.464 213,577
Total		37,498,039	Printer of T	43,842,427
Exports— Gals Oil, coal and kerosene, crude Gals Oil, coal and kerosene, refined Gals Oil, gasoline and naphtha Gals Oil, mineral, n.o.p Gals Wax, mineral Cwt	18,263,236 1,525,427 1,403,716 627,671 33,171	529, 497 165, 520 256, 966 161, 259 147, 810	1.508.686 1.568.855 1.473.779	346,512 155,783 533,330 287,463 82,999
Total	,	1, 261, 052		1,206,087

Table 153.—Production, Imports, Exports and Apparent Consumption of Certain Petroleum Products in Canada, 1920-1925

				1		
	Production	Imports	Exports	Re-Exports	Apparent con- sumption	
Fuel and Gas One—						
1920	96,462,792 10,341,946	122,929,391 7,819,006	2,684,427 293,325		216,707,65 17,867,62	
1921	129,716,045 6,611,261	61,398,671 3,805,714	5,384,751 375,820		185,729,96 10,011,15	
1922	106,975,976 6,142,927	72,805,012 3,091,290		, , , , , , , , , , , , , , , , , , , ,	172,744,36 8,945,38	
1923	139.68°,570 7,973,766	108,982,780 4,245,101	2,384,899 138,381		246,280,45 12,080,48	
1924	177,123,232 9,076,746	94, 244, 271 4, 133, 208	18, 263, 236 529, 497		253,104,26 12,680,45	
1925	172,387,242 9,652,255	107,849,209 4,918,279	7,375,163 346,512		272,861,28 14,224,03	
dasoline—		27070,010	0.01			
1920Imp. gals.	86,193,664 28,272,903	8,515,545 2,404,488		214.634 83,778	94,334,13 30,534,18	
1921	119,887,613 31,026,136	40,264,707 7,161,458	762,080 212,638		159,379,74 38,421,03	
1922	143,959,893 34,428,189	42,112,248 8,700,924	1,976,244 510,037	27,620 6,706	184,068,23 42,672,33	
1923	124, 156, 380 22, 153, 254	49,950,660 7,160,632	1,217,298 263,326		172,889,7- 29,050,50	
1924	160,045,739 25,799,219	73,757,441 9,344,153	1,403,716	75, 223 20, 715	232,324,24 34,865,69	
1925	164,670,072 27,589,037	83,927,751 11,599,629	1,568,855 333,330	42,594 11,788	246,986.3° 38,843.5	
UBRICATING OLS-						
1920	25,099,798 6,327,134	4.464,294 2,443,089			29,564,0 8,770,2	
1921	24,246,320 5,221,487	5,040,456 1,934,561			29,286,7 7,156,0	
1922	18,051,600 3,551,478	7,110,054 2,132,695			25,161,63 5,684,13	
1923	17,121,896 3,237,526	8,196,682 2,310,950			25,318,5 5,548,4	
1924	15,479.405 3.061.116	8,494,423 2,442,653	.,		23,975,88 5,503,76	
1925Imp, gals.	15.789,852 3,131,634	8,445,738 2,483,589			24,295,58 5,615,22	
EROSENE—	* + * * * * * * * * * * * * * * * * * *					
1920	54, 155, 655 10, 887, 972	14,971,509 2,359,621	205,999		67,883,85 13,041,59	
1921	59,082,790 7,537,479	10,544,281 790,468	1,466,422 209,282		68,160,64 8,118,65	
1922	76,521,560 9,628,804	3,473,234 314,514	1,471,947 136,834		78,722,84 9,806,48	
1923	67,396,674 8,774,371	4,127,146 323,396	1,450,051 139,924		70,073,76 8,957,84	
1924	61,308,467 7,486,042	5,431,393 447,588	1,525,427 165,520	* 1 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	65, 214, 43 7, 768, 11	
1925	45,026,459 5,966,913	5,256,661 455,125	1,508,686 155,783		48,774,43 6,266,25	

Table 154.—Production of Crude Petroleum in Canada, 1924 and 1925

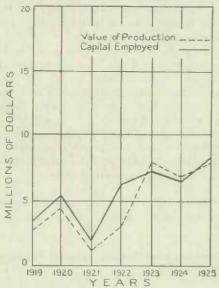
		19:	24		1925				
Province	Barrels	Value less bounty	Bounty paid	Total value	Barrels	Value less bounty	Bounty paid	Total value	
		8	\$	8		8	8	\$	
New Brunswick	5,561	18,520	2,793	21,313	5,376	16,805	1,951	18,756	
Ontario— Petrolia and Enniskillen. Oil Springs. Moore Township. Sarnia Township. Plympton Township. Bothwell. Tilbury East. West Dover. Raleigh Township. Dutton. Onondaga. Moza Township Euphemia. Elgin Township. Romney Township. Dunwich. Thamesville.	456 8,862	7,074	1,740 299 213 3,605	173,754 121,066 13,066 6,106 1,522 76,383 11,325 2,346 1,322 24,679		3,617 66,657 4,766 2,253 381 210 21,328 106	379 184 3,680 399 156 38 9 1,181	141,224 107,775 21,391 5,218 3,801 70,337 5,165 2,400 419 22,509 106 3,076 2,172 734	
Total for Ontario	154,368	380,888	61,064	441,952	143,134	366,403	20,152	386,555	
Alberta	844	4,135		4,135	183,491	845,394		845,394	
Total for Canada	160,773	403,543	63,857	467,400	332,001	1,228,602	22,103	1,250,705	

CHAPTER TWELVE

MISCELLANEOUS NON-METALLIC MINERAL PRODUCTS

General.—Under this beading are included the industries making (a) artificial abrasives and abrasive products; (b)graphite products such as carbon electrodes; (c) gypsum products including wall board, plaster eastings and models, etc.; (d) products of the micatrimming shops; (c) miscellaneous products such as foundry supplies, facings, etc. In 1925 this group included 35 plants, gave employment to 1,316 persons and had a combined production valued at \$7,978,183. The abrasive industry is by far the most important of this

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group with a production worth \$5,909,318; gyp-MISCELLANEOUS NON-METALLIC sum products were worth \$1,001,509; graphite products, mica products and miscellaneous nonmetallic mineral products followed in order of importance. Short reviews of each industry have been included before the general tables relating to the group as a whole.

> (a) ARTIFICIAL ABRASIVES AND ABRASIVE PRO-DUCTS.—Production of artificial abrasives such as crude carborundum, firesand and fused alumina was valued at \$5,186,802 during 1925, and the output of abrasive products, ferrosilicon and other products were sold for \$722,516, making a total production value for the industry of \$5,909,318 as compared with a corresponding figure of \$5,628,653 in 1924. Capital employed in the industry amounted to \$6,160,392, of which 3.7 million dollars represented the value of lands, buildings and plant equipment. Employment was given the year round to 81 salaried employees and 517 wage-earners and payments in salaries and wages during the year amounted to \$853,458. The total cost of materials was \$2,006,618 and, as the products sold for \$5,909,318, the value added by manufacturing processes amounted to \$3,902,700.

In 1925, there were 13 plants in Canada making artificial abrasives or abrasive products. Artificial abrasives were made in 5 different plants of which 4 were in Ontario and 1 in Quebec, while 8 plants in Ontario manufactured grinding wheels, sandpaper and similar products. In the previous year, 1924, only 12 plants were included in the industry; the additional report received in 1925 covered the operations of the sandpaper department of a large concern engaged in the manufacture of glue, sandpaper and other products.

- (b) Graphite Products.—Graphite electrodes were made in Canada at Niagara Falls, Ontario, and at Welland, Ontario. As there were only 2 plants in operation in this industry, no separate data can be given in this review.
- (c) Gypsum Products.—The gypsum products industry in Canada includes those firms engaged in the manufacture of gypsum wallboard, wall coating and plaster of Paris models and statues. Complete figures on this industry have been somewhat difficult to obtain as some companies who quarry the gypsum also calcine their product and operate plants for the production of wall plaster, wallboard, and similar gypsum products; where these latter plants are distinct from the quarrying plants, separate data have been obtained, but in one or two cases no separation could be made. The directory on page 127 shows the firms included under this review.

In 1925, there were 6 plants in Ontario and 2 plants in Quebec included in this industry. Capital invested amounted to \$640,486, employees numbered 213, and salaries and wages totalled \$271,429. The cost of materials was given at \$348,046, and the value of products amounted to \$1,001,509. Wall coating, gypsum board and gypsum blocks were made in 3 different plants in this industry and the output was valued at \$864,483; in addition hardwall plaster, tile, wallboard, etc., to the value of \$1,429,019 were made in plants from which no separation of other data was obtained. Staff plaster castings and ornamental plaster works were made in 3 small plants while the 2 other plants included in this review made small quantities of stucco materials and cement tile.

(d) Mica Trimming.—The mica industry is centred in the provinces of Ontario and Quebec. The industry as reviewed herein includes only those concerns that buy the rough-cobbed or knife-trimmed mica and are engaged only in trimming or splitting of same for the market. Many of the mica mining companies operate their own trimming shops, but no separation of data has been obtained from these operators and their output is included with the primary production of mica as shown in the annual Report on the Mineral Production of Canada. An extract from this latter review has been appended to this chapter so statistics for the whole industry may be readily available to the reader. The directory of firms on page 128 shows the firms included in the present review.

In 1925, there were 10 plants in Quebec and 1 m Ontario, a total of 11 plants in Canada engaged only in the trimming or splitting of mica, as compared with a total of 16 plants in the previous year. Five plants in Quebec did not operate during 1925. Of the reporting plants 7 were engaged only in the splitting of knife-trimmed mica, 2 other plants produced trimmed mica and mica splittings, 1 other plant reported a production of mica plate, tubes and splittings, and 1 plant produced ground mica and trimmed mica.

Capital employed in the 11 active plants in 1925 amounted to \$521,570; salaries amounting to \$29,116 were paid to 26 employees, and \$114,800 were paid in wages to an average of 20 male and 376 female wage-earners; materials used cost \$156,818, and the value of products was given at \$352,147, making thus a value of \$195,329 being added by the trimming and splitting processes.

(e) MISCELLANEOUS NON-METALLIC MINERAL PRODUCTS.—In 1925, there was only 1 firm in Canada included under this classification. Foundry supplies such as facings sand, etc., were among the main products of this firm.

Table 155.—Summary Statistics of the Miscellaneous Non-Metallic Mineral Products Industry in Canada, 1921-1925

Year	Number of plants	Capital em- ployed	Number of em- ployees	Salaries	Wages	Cost of fuel*	Cost of materials	Selling value of products	Value added by manu- facturing
		\$		8	8	\$	8	8	\$
1921 1922 1923 1924 1925	26 38 36	2,253,322 6,354,115 7,262,403 6,659,059 8,322,096	1,371 2,917 1,767	262,573	1,242,628	90.596 564,220	1,318,652 2,879,015 2,427,145	8,147,331 6,991,904	

^{*} Includes electricity in 1924 and 1925.

Table 156.—Principal Statistics of the Miscellaneous Non-Metallic Mineral Products Industry in Canada, 1924 and 1925

Province	1924				1925			
	Number of plants	Number of employees	Salaries and wages	Seiling value of products	Number of plants	Number of employees	Sularies and wages	Selling values of products
			\$	\$			\$	\$
Quebec	17	960	333,177	1,306,433	13	553	334,547	1,237,149
Ontario	19	807	995,799	5,685,471	22	763	1,037,348	6,741,034
Canada	36	1,767	1,328,976	6,991,904	35	1,316	1,371,895	7,978,183

Table 157—Capital Employed in the Miscellaneous Non-Metallic Mineral Products Industry in Canada, by Classes and by Provinces, 1924 and 1925

	1924 Capital employed as represented by				1925					
					Capita	employed	as represen	ted by		
Province	Lands, buildings, fixtures, machinery and tools	and stocks in process	Cash, trading and operating accounts and bills receivable	Total		Materials on hand, and stocks in process	Cash, trading and operating accounts and hills receivable	Total		
	\$	8	\$	\$	8	\$	\$	\$		
Quebec	1,246,191	478,658	216,684	1,941,533	1,308,598	503,340	605,325	2,417,263		
Ontario	2,854,303	1,162,188	701,035	4,717,526	3,185,718	1,165,780	1,553,335	5,901,833		
Canada	4, 100, 494	1,640,846	917,719	€, 659, 059	1,491,316	1,669,120	2,158,660	8,322,096		

Table 158.—Number of Employees, Salaries and Wages Paid in the Miscellaneous Non-Metallic Mineral Products Industry in Canada, 1924 and 1925

		1924		1925			
	Male	Female	Total	Male	Female	Total	
NUMBER OF EMPLOYEES: Salaries employees	110	43	153	122	35	155	
Wage-earners, by months:							
January	789	975	1,764	730	360	1.09	
February	764	1.156	1,920	746	366	1,11	
March	768	674	1.442		370	1.12	
April	782	596	1.328		384	1.16	
May	795	4851	1,280		422	1.19	
June	756	503	1,259		400	1.16	
July	747	447	1,191	787	496	1.25	
August	727	456	1.183			1.15	
	712	419	1,131	747	391	1.13	
September		446	1,145		413	1.10	
October	699					1.15	
November	677	418	1,095				
December.	670	354	1.024	766	331	1,09	
Average	748	866	1,614	765	394	1,15	
Total employees	858	909	1.767	887	429	1,31	
b) Salaries and Wages;							
Salaries			262,573			297,56	
"ages			1.000,400				
Total8			1,328,976	ii		1,371,89	
				8 hours	0 100	Over	
. 17				or less	9 10		
e) Hours of Labour:				per day	hours hou	rs hours	
(In month of greatest employment).				W-0	400		
Number of wage earners working.				500		56 5	
Average hours worked per man per week				48	51	58 7	

Table 159.—Fuel and Electricity Used in the Miscellaneous Non-Metallic Mineral Products Industry in Canada, 1924 and 1925

Kind	Unit	19:	24	1925	
Kilid	measure	Quantity	Value	Quantity	Value
		No.	8	No.	8
Anthrucite coal. ifuminous coal. 'oke sacoline 'uel oil. ins Vood Clectric power	M cu. ft. Cord K.W.H.	295 6,587 3 4,197 1,896 158 186,112,355		333 9,548 25 90 8,523 1,348 122 196,058,070	4,40 62,68 24 1 34 60 41 523,50
Total			564,220		592,3

Table 160.—Power Employed in the Miscellaneous Non-Metallic Mineral Products Industry in Canada, 1924 and 1925

	19	124	1925		
Description	Number of units	Total h.p. according to manu- facturers' rating	Number of units	Total h.p. according to manu- facturers' rating	
Steam engines and turbines	1	50	2	150	
Total primary power	1	50	2	150	
Electric motors driven by purchased power	220	159,166	277	158,936	
Total power equipment employed	221	159,216	279	159,086	
Electric motors driven by power generated by the primary power of the industry.	63	401	80	442	
Total electric power	283	159,567	357	159,378	
Boilers installed	10	820	10	965	

Table 161.—Materials Used in the Miscellaneous Non-Metallic Mineral Products Industries in Canada, 1924 and 1925

	TTuta	19:	24	192	5
Material	Unit of measure	Quantity	Cost at works	Quantity	Cost at works
ARTIFICIAL ABRASIVES AND ABRASIVE PRODUCTS— Bauxite, silica sand, coke, iron borings, mill scale, and electrodes Artificial abrasive grains, such as alundum, aloxite and silicon carbide. Natural abrasive grains, such as corundum, silica sand, flint and garnet. Clays Containers, boxes, etc Ail other materials including unfinished wheels and specialities, lead for bushings, etc. Total			63,446 28,976 6,503 17,523 252,741		\$ 1,658,526 112,120 39,512 361 17,689 178,410 2,006,648
Gypsum Products: Materials used including glue, gypsum, clay, whiting, colours, plaster of Paris.					348,046
Mica Trimming: Knife trimmed mica. No. 5 and 6 Madagascar block mica. Thumb trimmed mica. India splittings. India and amber cut and uncut mica. Manufactured plate from U.S.A. Mica. Rough mica. Thumb trimmed amber mica. Containers, boxes, etc. All other materials.		458, 833 16, 237 79, 879 9,077 3, 357 7, 400 62, 860 36, 182 40, 243	3,647 8,774 577 4,069	27, 583 104, 832 7, 931 2, 723 7, 327 61, 293	16,549 695 2,664
Total			181,463		156, 818
OTHER MISCEILANEOUS INDUSTRIES: Materials used in the manufacture of artificial graphite, carbon electrodes, foundry facings and supplies, etc					175,374

Table 162.—Products of the Miscellaneous Non-Metallic Mineral Products Industries in Canada, 1924 and 1925

Product	Unit of	193	24	192	5
r roduct	meneure cuit of	Quantity	Selling value	Quantity	Selling value
ARTIFICIAL ABRASIVES AND ABRASIVE PRODUCTS			8	7	5
Crude carborundum, fire sand, and aluminous abra- sives such as aloxite, alundum, fused alumina, etc.			4,990,441		5,186,802
Grinding wheels, abrasive wheels, razor hones and alumium tiles		,	432,161		431,550
paper, abrasive cloth, etc			206,051	. 107.000	290,966
Тотль			5,628,653		5,909,318
PLASTER CASTINGS AND MODELS: Products made including wall-coating, gypsum board, wall-board, plaster castings, statues, etc	•		791,363		1,001,509
Mica Trimming: Mica, knife trimmed and thumb-trimmed. Mica splittings. Mica plate, flexible, amber and commutator. Mica n.e.s. All other products. Amount received for custom work or repairs.	Lb.	1	22,689 298,318 24,063 47,584 6,326 20,897	308,654 21,102	74,321 230,227 35,280 9,193 3,126
TOTAL			419,877		352, 147
OTHER MISCELLANEOUS INDUSTRIES: Products made including artificial graphite, carbon electrodes, foundry facings and supplies			152,011		715,209
Total			6,991,994		7,978,183

Imports and Exports of Abrasives.—Imports into Canada of grindstones, burrstones, emery and other abrasive materials amounted in value to \$2,306,122 in 1925. Exports during the same year were valued at \$3,073,356; the greater part of this sum represented sales of artificial abrasive carborundum. Grindstones and stone for the manufacture of grindstones exported were valued at \$62,223; natural abrasives, \$464; and artificial abrasives, made up into wheels, stones, etc., totalled \$32,030 in value.

Table 163.- Imports into Canada and Exports of Abrasives, 1924 and 1925

	1924		1925	
	Quantity	Value	Quantity	Value
		8		8
MPORTS -		240 nma		
Grindstones Burrstones in blocks, etc. No.	148			661.35
Emery in bulk, crushed or ground	140	791 52 ang		002 #0
Emery and carborundum wheels and manufactures.		76 071		223,59 258,20
Pumice and pumice stone, ground				27.58
Iron sand or globules for polishing and sawing				11.70
Sandpaper, emery paper, etc				305.04
Artificial abrasives		125,303		123.05
Diamond dust or bort and black diamonds for borers		399,735		694,40
Total		1,575,376		2,306,12
XPORTS—				
Grindstones, manufactured		40, 620		416 441
Stone for the manufacture of grindstones	120	1.080	93	61,42
Abrasives-	320	1,000	D-O	
Natural, n.o.p	5.756	10,321	464	46
Artificial, crude, including carborundum	791,863	2.501.310	955, 184	2,978,63
Artificial, made up into wheels, stones, etc		13,264		32,03
Total		2 665 645		3,073,35

Primary Production of Natural Abrasives.—(From the annual Report on the Mineral Production of Canada, 1925.) 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.

Garnets.—A deposit of garnets in Ashby township. Ontario, was operated during 1923 and 1,250 tons of garnet concentrates and crude garnets were shipped to Niagara Falls, New York, for use as an abrasive material. In 1924, a shipment of 360 tons of garnets was made but there was no production of this commodity in 1925.

GRINDING PERRIES—Production of grinding pebbles in Canada during 1925 totalled 105 tons valued at \$945. These pebbles were gathered along the shore of Luke Superior near Jackfish, Ontario.

Grindstones, Pulpstones and Scythestone.—Shipments of grindstones, pulpstones and scythestones from Canadian deposits amounted to 2,562 tons, valued at \$124,165, consisting of 439 tons from Neva Scotia; 1,642 tons from New Brunswick and 481 tons from British Columbia.

Table 164.—Production of Grindstones, Pulpstones and Scythestones, in Canada, 1924 and 1925

	192-	1	1925	
Province	Tons	Value	Tons	Value
		8		8
Nova Scotia	338	12,525	439	16,723
New Brunswick	2,113	99.299	1,642	79.661
British Columbia	240	19,000	481	27,781
Total	2,691	130,824	2,562	124, 165

THIPOLITE—There was no production of tripolite in Canada during 1925. In the previous year 33 tons valued at \$838 were shipped from a deposit at Silica Lake, Colchester county, Nova Scotia.

Volcanic Ash.—A deposit of volcanic ash near Waldeck, Saskatchewan, was operated in 1925 and 160 tons worth \$1,380 were shipped. In 1924, the Canadian production was only 245 tons valued at \$1,103. This material is used as a base in the manufacture of cleansers.

Primary Production of Graphite.—(From the Annual Report on the Mineral Production of Canada, 1925.)—

The year under review marked a considerable advance in the production of graphite in Canada. The 1925 shipments totalling in all 2,569 tons, have been exceeded only by the production during the war years. In 1924 the sales amounted to 1,334 tons at \$76,117. The Black Donald Graphite Company; the Canadian Graphite Corporation; North American Graphite Company; Quebec Graphite Corporation; and the Timmins Graphite Company all reported shipments during 1925. The Graphite Refining Company reopened the old Globe mine, near Port Elmsley, Ontario.

Prices in the United States market are summed up in the Engineering and Mining Journal as follows:—

[&]quot;With practically no graphite to be sold at sacrifice prices, as in former years, the prices for all grades of graphite increased during 1925. New York prices for Ceylon material averaged about as follows: No. 1 lump, 9½ to 9½c.: No. 2 lump, 8 to 8½c.: No. 1 chip, 7½ to 8c.: No. 2 chip, 7 to 7tc.: No. I dust, 5 to 6c.: No. 2 dust, 4 to 5c. per pound.

"Flake graphite from Madaguscar, after paying a duty of ½c. per lb., sold in New York at 6 to 8c. per lb. The Canadian and domestic flake graphites seem to have commanded approximately the same prices."

Table 165.--Production, Imports and Exports of Graphite, 1924 and 1925

	1924		1928	1925	
	Tons	Value	Tons	Value	
				\$	
Production	1,334	76,117	2,569	158,763	
Imports— Crucibles, plumbago Plumbago not ground or otherwise manufactured Plumbago ground and manufactures of, n.o.p		2,651		49,730 772 91,767	
Exports— Graphite or plumbago, crude or refined	1,148	59,992	2,483	135,897	

Primary Production of Gypsum.—(From the annual Report on the Mineral Production of Canada, 1925.)—Increased production of gypsum in Nova Scotia was mainly responsible for the establishment of a new high record for this industry in 1925. The total output for Canada in 1925 was 740,323 tons with a valuation of \$2,389,891 as compared with 646,016 tons at \$2,208,108 in 1924. Production included lump, crushed, fine ground and calcined gypsum, the last-named item comprising sales and also the calcined gypsum used in the calcining plants for the production of wall plaster board, alabastine, and other gypsum products. The average values received by the operators were as follows: lump, \$1.51; crushed, \$1.83; fine ground, \$5.98; and calcined, \$8.62 per ton. The total gypsum mined during 1925 was 705,852 tons, of which quantity 162,820 tons or 23 per cent was calcined.

For statistical purposes, as neted above, the production of gypsum is considered to be the sum of the quantities disposed of in the different marketable forms, care being taken to avoid duplication; the values used are those at point of shipments.

Imports of gypsum into Canada were recorded at 8.921 with a valuation of \$136,308 as compared with a total of 7,323 tons at \$128,100 imported in 1924.

Exports of Canadian crude gypsum principally to the United States totalled 533,646 tons. Ground gypsum and prepared wall plaster exported during the year amounted to 5,643 tons; United States, Newfoundland, Australia and New Zealand were the principal importers of these materials.

Table 166.—Production of Gypsum in Canada, 1924 and 1925

	1924		192	5
	Tons	Value	Tons	Value
		8		- 8
Crude gypsum mined			705,852 162,820	
PRODUCTION— BY GRADES—				
Lump. Crushed Fine grouad Calcined.	139,618 381,262 5,478 119,658	253, 191 693, 785 31, 882 1, 229, 250	131,612 447,766 5,493 154,952	198,806 820,141 35,843 1,335,101
Total	646,016	2,208,108	740,323	2,389,891
PRODUCTION BY PROVINCES—				
Nova Scotia.	441,752	915, 845	551,230	1,070,408
New Brunswick Ontario	86,738 88,121	476,804	71.745	408,917
Manitoba	29,375	467,097 348,212	82,020 35,088	491,833
British Columbia	30	150	240	417,868 865
Total	646,016	2,208,108	740,323	2,389,891

Table 167.—Imports into Canada and Exports of Gypsum, 1924 and 1925

	1924		1925	
	Tons	Value	Tons	Value
Y		8		8
IMPORTS— Gypsum, crude (sulphate of lime). Plaster of Paris or gypsum ground not calcined. Plaster of Paris, calcined and prepared wall plaster.	3,252 102 3,969	63,156 2,174 62,770	4,433 119 4,369	66,064 3,858 66,386
Total	7,323	128,100	8,921	136,308
Exports— Gypsum or plaster, crude Plaster of Paris ground, and prepared wall plaster	472,236 5,226	747.829 83,927	533,646 5,643	861,468 87,242
Total	477,462	831,756	539,289	948,710

Primary Production of Mica.—(From the annual Report on the Mineral Production of Canada, 1925.)—The total production of mica in Canada during 1925 amounted to 4,020 tons valued at \$261,463, as against 4,091 tons valued at \$357,272 in 1924.

Shipments of rough-cobbed grades were over 20 per cent lower in 1925 than in the previous year. Thumb-trimmed production was also less by approximately 300,000 pounds while splittings were higher by about 25,000 pounds. Scrap material, which includes mica that is too small and irregular for splitting, and the refuse from the trimming shops, is ground and bolted into various sizes, grading from 20-mesh to 200-mesh. Grades ranging from 20 to 80-mesh are used in the manufacture of prepared roofings, the 40-mesh grade, if free from grit, is used as a lubricant in some axle greases, and the 200-mesh grade is used as a filler in rubber manufacture.

The deposits of phlogopite mica in the Lièvre-Gatineau district, Quebec, and in Frontenac county, Ontario, continued to be the source of practically the entire Canadian production. It will be noted that the stated value of the exports of Canadian mica exceeded by a considerable amount the value placed on shipments reported by operators. An explanation of this lies in the fact that the exportation consisted principally of mica splittings shipped from large trimming shops situated in Ontario and Quebec.

Under the United States "New Tariff Act" the duties on the different grades of mica are as follows: Mica, unmanufactured, valued at not above 15 cents per pound—4 cents per pound; mica unmanufactured valued at above 15 cents per pound—25 per centum ad valorem; mica, cut or trimmed and mica splittings—30 per centum ad valorem; mica plates, and built-up mica, and all manufactures of mica, of which mica is the component material of chief value—40 per centum ad valorem; ground mica—20 per centum ad valorem.

Table 168.—Production of Mica in Canada, by Grades, 1924 and 1925

		1924			1925	
Grade	Quantity	Value f.o.b. shipping point	Price per pound	Quantity	Value f.o.b. shipping point	Price per pound
Rough cobbed	662.709	142,405 137,248	0·21 0·83	Lb. 413,500 357,943 188,265 7,080,331	73,443 129,454	0.69
Total	8,182,374	357,272	8.04	8,040,039	261,463	0.03

Table 169.—Exports of Mica from Canada, 1924 and 1925

	1924		1925	
	Tons	Value	Tons	Value
Rough cobbed and thumb trimmed	88 285 4,519	\$ 52,527 424,503 63,610 3,326	28 230 4,991	\$ 21,366 324,967 63,931 1,046
Total		543,966		411,310

DIRECTORY OF FIRMS IN THE INDUSTRIES CLASSIFIED UNDER THE MANUFACTURES OF NON-METALLIC MINERAL PRODUCTS

Aerated Waters

Aciat	ed waters	
Name of Firm	Head Office Address	Location of Plant
Prince Edward Island— Morris, J. & T. Simmons, G. H.	75 Water St., Charlottetown	Charlottetown. Charlottetown.
Nova Scotia— Acadia Reverage Co. Antigonish Aerated Waters. Bridgewater Bottling Works. Chambers, James. Crystal Spring Mfg. Co. Daveno, Alfred N. Donovan, W. H.	Margaretville. Main St., Antigonish Box 366, Bridgewater. Main St., Trenton. 284 Agricola St., Halifax 184 Agryle St., Halifax 41-45 Granville St., Halifax	Margaretville. Antigonish. Bridgewater. Trenton. Halifax. Halifax.
Fraser, James E. Home Bottling Co., Ltd. Kempton, T. S. McAllister Mineral Water Works.	Springhill. Drawer 814, Commercial St., North	Milton.
McAllister Mineral Water Works McKinley & Sons Meteglian Fruit Supply Co. New Glasgow Mineral Springs. North Sydney Bottling Works, Ltd Pink, Joseph Sterling Beverage Co. Whelan & Ferguson, Ltd Yarmouth Fruit Co.	Milton 322 Esplanade, Sydney. McKay's Corners, C.B. Mcteghan Station. Now Glasgow. Regent St. North Sydney. Main St., Yarmouth. Collins St., Yarmouth. 675-677 Barrington St., Halifax. Brown St., Yarmouth.	Sydney, McKny's Corners, C.B, Meteghan Station. New Glasgow. North Sydney. Yarmouth, Yarmouth, Halifax. Yarmouth.
New Brunswick— Batharst Ginger Ale Works, Ltd. Blue Ribbon Beverago Co. Bosca & Burgalia. Campbellton Ginger-Ale Works. Capitol Bottling Co. Cassidy, Charles. Crown Beverages, Ltd. Dolan, Ada H. Driscoll, John J. Havelock Mineral Spring Co., Ltd. International Drug Co., The. Moneton Bottling Works. Holzoki, R. E. Smith, Frank C. Sussex Beverage Co. Sussex Mineral Springs Co., Ltd. Terris, J. J. Vital, H. Albert.	Bathurst. 80-82 Elm St., St. John. Box 281, Bathurst. Camphellton. 313 Queen St., Fredericton. Chatham 562 Main St., St. John St. John 124 Prince Edward St., St. John. 240 Botsford St., Moncton. King St., St. Stephen. 423 Main St., Moncton. 85 King St., Woodstock. St. Leonard Station. Court St., Sussex. Pleasant Ave., Sussex. 51 City Rd., St. John. Church St., Edmundston.	Bathurst. St. John. Bathurst. Campbellton. Fredericton. Chatham. St. John. St. John. St. John. St. John. Moncton. St. Stephen. Moneton. Woodstock. St. Leonard Station. Sussex. Sussex. St. John. Edmunston.
QueBec— Allan's Ltd Archambault & Frère	86 Dorrhester St. west, Montreal Baut de l'Isle, Montreal 295 Carrière St., Montreal. 7 Rue St. Etienne, Montinagny 17 First Ave., Coteau St. Louis, Three	Montreal. Bout de l'Isle, Montreal. Montreal. Montragny.
Bélinger, Arthur. Bélisle, O. Błackburn, Henry. Brissette, J. L.	Rivers. Papineauville Asbestos. 80 Papineau St., Hull. 17 rue St. Antoine, Ste. Agathe des Monts	Three Rivers. Papinesuville. Ashestos. Hull. Ste. Agathe des Monts.
Brochu, Edouard Brodeur, Arthur. Brunelle & Metivier. Cnisso, C. O. Caledonia Springs Co., Ltd. Cheerio Bottling Works. Chevalier & Larose. Christin, J. & Cie, Ltd. Coca-Cola Co., Coca-Cola Co., The.	60 Mercier St., Shawinigan Falls 21 Ste. Julie St., Montreal 90 Broadview Ave., Toronto, Out	Garthby Station. Montreal. Victoriaville. Sorel. Montread. Montread. Montread. Shawinigan Falls. Montreal. 35 Vallée St., Montreal.
Côté, Roch Cossineau, Avila. Crystal Sodia Water Co. Crystal Spring Bottling Works, The De La Boissière. Desjardins, Léon.	Waterloo Box 325, Roberval	bec, Pierreville. Vaudreuil Station. Montreal. Waterloo. Roberval. Ste. Thérèse de Blain-
Désormeaux & Frères Désormeaux, S Dominion Soda Water Co., Ltd Dorville, Harvey	502 Cadieux St., Montreal	St. Jérôme. Montreal.

Aerated Waters—Continued

Name of Firm	Head Office Address	Location of Plant
DEBEC—Concluded		
Dufresne & Frère	. 120 Bonaventure St., Three Rivers. . 23 rue St. Laurent, Valleyfield. . 65 Des Prairies, Quebec.	Three Rivers.
Ferland, J. II	. 23 rue St. Laurent, Valleyfield	Valleyfield.
Fluet, F. A	. 65 Des Prairies, Quebec	Quebec.
Forand, Hormisdas Fortier, Elzear, Ltée	Eastern Ave., Waterloo	Waterloo.
Fortier J E	10 rue Niverville Three Rivers	Theo Rivers
Fortier, J. E	1514 Clarke St., Montreal	Montreal.
Gagnon, L. J.	Beauce Junction	Beauce Junction.
Girouard, Ltd	. 77 Quesnel St., Montreal	Montreal.
Goulet, Culixte	2035 Goulet ave., Montreal	Montroal.
Grenier, Arthur	St. George, Beauce 1016 Bleury St., Montreal	St. George, Beauce.
Gurd, Chas. & Co., Ltd	1016 Bleury St., Montreal 229 Panet St., Montreal	Montreal.
Hamel & Fils	La Sarra	La Sarre.
Houde, J. L. H Ideal Soda Water Co., Ltd	Nicolet	Nicolet.
Ideal Soda Water Co., Ltd	Nicolet 135 Lafrance St., Montreal	Nicolet. Montreal.
Janelle, J. E. & Co. Kel-Ola Co. Regd.	Richmond. 496 Chateaubriand Ave., Montreal	Richmond.
Kel-Ols Co. Regd	. 496 Chateaubriand Ave., Montreal	Montreal.
Lachapelle, Pierre La Cie d'Elau Minérale	St. Barthélémi 148 Concorde St., St. Hyacinthe	St. Barthélémi.
La Cae d' Eau Mineraie	St. Laurent Louiseville	St. Hyacinthe.
Lafontaine, DonatLaframboise, Victor	St. Laurent, Louiseville	Louiseville. St. Clet.
Laurance, Noël	3 St. Germain St., St. Hyacinthe	St. Hyacinthe.
Lanciault & Frère	Hoy 704 Savol	Sorel.
Langlois, Alex Laniel, Théophile	Verchères Ellice St., Valleyfield Jonquières St. Evariste Station 76-1 rue, Shawinigan Falls	Verclières.
Lamiel, Théophile	Ellice St., Valleyfield	Valleyfield.
Leclere & Houde	Jonquières	Jonquières.
Leclere, Joseph	St. Evariste Station	St. Evariste Station.
Levasseur, Victor	Culture	Shawinigan Falls. Cabana,
Lévesque, Jos. MacKimmie, J. P. & Son. Maple Leaf Mineral Waters Reg.	Cubana Foundry St., Lachute 165 rue De la Couronne, Quebec	Lachute.
Maple Leaf Mineral Waters Reg.	165 rue De la Couronne, Quebec	Quebec.
Massiculte, J. 15	151 116	St. Tite.
Man-rel Eclonord	Box 101 St Icon	St. Jean. Montroal.
Milloy, P. A.	121 and 123 St. André, Montreal	Montroal.
Morrissette, Adelard	25 rue Baby, Joliette	Joliette, Montreal.
Milloy, P. A Marrissette, Adélard National Bottling Works Orange Crush Bottling Co., Ltd.	330 Clarke St., Montreal 110 Claremont ave., Toronto, Ont.	6540 Park ave., Mont-
orange crush botting Co., Etd	The Charemont ave., Toronto, Ont	Paris I
Parent, Léonard	3 nve. Guevremont, Sorel	Sorel.
Paquet, Wilfrid	3 nve. Guevremont, Sorel. 397 St. Catherine, Grand'Mère. Rue de l'église, St. Barnabé-Nord.	Crond Mara
Pelleria, Albert	Rue de l'église, St. Barnabé-Nord	St. Barnabé-Nord. St. Jérôme, Coaticook.
Pelletier, Z. Péloquin, J. H. & Cie	St. Jérôme, Box 182	St. Jerome,
Poulin, P.	Coaticook	St Comilla
Pve M	St. Camille. Windsor Mills.	St. Camille. Windsor Mills.
Regal Bottling Works	La Prairie	Later France.
Pye, M Regal Bottling Works Reina Mineral Water Co., Ltd	101 Duvernay St., Montreal	Montreal.
Robillard & Cie, Ltee	La Prairie 101 Duvernay St., Montreal 9 Robillard Ave., Montreal St. Germain de Kamouraska	Montreal.
Roy, Cyprien	St. Germain de Kamouraska	St. Germain de Kame
Sherbrooke Bottling Works	Charlesoles	raska. Sherbrooke.
761 (1 7 72) 181 1	Sherbrooke 65 Dépôt St., Sherbrooke	Sherbrooke,
Silver Spring Bottling Works. Simon's Ginger Ale & Soda Water Works Rgd.	Il Rivard St., Montreal	Montreal.
Soda Water Works Reg'd	11 Rivard St., Montreal	Montreal. Montreal.
St. Pierre, Ernest	Rue Yamaska, Farnham	Farnham.
St. Pierre, Ernest Stewart Bottling Co., Ltd. Phéberge and Langlois	297 William St., Montreal	Montreal.
Philippit I A	65 Depot St., Sherbrooke 11 Rivard St., Montreal. 11 Rivard St., Montreal. 11 Rivard St., Montreal. 297 William St., Montreal. Armagh. 24-26 rue Fraser, Rivière-du-Loup. 92 Côte d'Abraham, Quebec. Buckingham. St. Casmir	Armagh, Rivière-du-Loup,
Phibault, J. A. Finamons, M. & Son. Fourangeau & Champagne.	92 Côte d'Abraham, Quebee	Quebec.
Fourangeau & Champagne	Buckingham	Buckingham.
Prottier & Cie	St. Casmir 272 Wellington St., Sherbrooke 424 Cadieux St. W., Montreal Ste. Geneviève de Batiscan	St. Cusimir.
Furmell, A. Irenee	272 Wellington St., Sherbrooke	Sherbrooke. Montreal.
Union Soda Water Co	424 Cadieux St. W., Montreal	Montreal.
remet D. & Co	Ste. Geneviève de Batiscan	Ste. Geneviève de Bat
Whistle Co. of Eastern Canada	750 St. Paul St. W., Montreal	can, Montreal,
White, The Robt, Co., Ltd.	750 St. Paul St. W., Montreal. 638 Craig St. E., Montreal.	Montreal.
TARIO-		674
Aquazone Co., Ltd	4 Yorkville Ave., Toronto 5	Toronto 5.
Rottum W. H. & Son	4 Yorkville Ave., Toronto 5. Rear 500 Concord Ave., Toronto. 354 l'innacle St., Belleville.	Toronto.
Brighton Bottling Works	Main St Brighton	Belloville, Brighton,
Brown, John D.	394 Pinnacle St., Belleville. Main St., Brighton. 5 Bay St., Gravenhurst. 19 Colborne St., Brantford. Sharpe St., New Liskeard. 201 Besserer St., Ottawa. 2716 St. Urhain St., Montreal, Quebec. 31 Terauley St., Toronto. 233 St. Catherine St. N., Hamilton. 58 Biddell St. Woodstock.	Gravenhurst.
Burke Mineral Water Co	19 Colborne St., Brantford	Brantford.
Burkholder, D. C.	Sharpe St., New Liskeard	New Liskeard.
British Bottling Co	201 Besserer St., Ottawa	Ottawa.
aledonia Springs Co	2716 St. Urbain St., Montreal, Quebec	Caledonia Springs.
anadian Beverages Ltd	31 Terauley St., Toronto	Toronto.
anadian Soda Water Mfg. Co,	233 St. Catherine St. N., Hamilton	Hamilton.
mrigan, Charles,	58 Riddell St., Woodstock Killarly St., Humberstone	Woodstock.
Thombore F S		
Chambers, F. S	South Porcupine. 45 Presley St., Cobait.	South Porcuring

Aerated Waters-Continued

Name of Firm	Head Office Address	Location of Plant
Ontario—Continued		
Coca-Cola Co	. 90 Broadview Ave., Toronto	118 Secord St., Port Arthur.
Coca-Cola Co	90 Broadview Ave., Toronto	65-67 Beltwoods Ave., Toronto.
Coca-Cols Co	. 90 Broadview Ave., Toronto	327-329 Church St.,
Coea-Cola Co	90 Broadview Ave., Toronto	Belleville. 338 Queen St., Ottawa.
Coen-Cola Co	90 Broadview Ave., Toronto. 90 Broadview Ave., Toronto.	55 Vine St., Hamilton, 430 McDougal St.,
Chen-Cola Co		Windsor.
Coca-Cola Co	. 90 Broadview Ave., Toronto	66 Rideau St., Kingston. 649 Colborne St., Lon-
Coca-Cola Co		don. 190 George St., Peter-
		borough,
Coca-Cola Bottling Works	P.O. Box 239, Cochrane	Oshawa. Cochrane,
Collingwood Ginger-Ale Works	. Hox 1946 Robinson St., Collingwood	Collingwood. Simcoe,
Conlin, F.	65 McCill St Smith Falls.	Smiths Falls.
Conlin, F. Cooke, Thos, & Son Cornwall Bottling Works.	Box 251, Port Perry	Port Perry. Cornwall.
Crown Bottling Works	76 Fraser St., Port Colborne	Port Colborne.
Crown Bottling Works Cunningham, D. K.	Port Hope	Port Hope.
Denault, Ferrier	Bourget	Arnprior, Bourget.
Day, Hellry D	Bourget 32 McAimany St., Bolleville	Belleville.
Dominion Soda Water Co. Dominion Soda Water Mfg. Co.	105 Manning Ave., Toronto 58 Rodman St., St. Catharines	Toronto, St. Catharines.
Dominion Soda Water Mfg. Co	58 Rodman St., St. Catharines	Hamilton.
Dunfield, Samuel Empire Bottling Works	Bridge St., Carleten Place	Carleton Place. Espanola.
Essex Soria Water Works	Espanola Talbot St., Essex 126 Bloor St., Sault Ste. Mario.	Essex.
Finnish Bottling Works Ford City Bottling Works	126 Bloor St., Sault Ste. Marie	Sault Ste, Marie, Ford,
Fort William Bottling Works	223 Drouillard Road, Ford 134 N. Archibald St., Fort William	Fort William,
Gauvreau, A Goderich Mineral Water Co	Mattawa West St., Goderich	Madtawa. Goderick.
Grady Patrick J	583 Water St., Peterboro	Peterboru.
Gray, W. J Halleybury Bottling Works		Collingwood. Haileybury.
Hanlon & Hicks	Collingwood Box 100, Haileybury. 905 Tecutusch Road, Windsor. 10 Park St., Welland 223 Dronillard Rd., Ford. 20 Front St. S., Orillia. 308 King St., Midland.	Windsor.
Harris, Geo. & Papareni	10 Park St., Welland	Welland.
Hinds, F. P. & Son.	20 Front St. S., Orillia,	Ford, Orillia,
Heller & Witts Hinds, F. P. & Son Hinds, Matthew C. Hires, Charles E. Co., Ltd.	308 King St., Midland	Midland.
Hoar, Smith A	308 Kng St., Midland. 47 Davies Ave., Toronto. 774 Ferry St., Niagara Falls. 43 Park St., Chatham. 148 Ontario St., Kingston. Palleser St., Campbellford. 266 Mitchell St., Port Colborne. 16 McDonald St., Barrie. King St. E., Ingersoll.	Toronto. Ningara Falls.
Hoag, Smith A. Hoon's Bottling Works.	43 Park St., Chatham	Chatham
Horne, S. V. Horsman, Chas. L. Ideal Bottling Works Imperial Leverages Co. Ingersoll Bottling Works. International Bottling Works. International Bottling Works. International Bottling Works, The	Pallosar St. Compballford	Kingston. Campbellford.
Ideal Bottling Works	266 Mitchell St., Port Colborne	Port Colborne.
Imperial Reverages Co	16 McDonald St., Barrie.	Barrie. Ingersoll.
Imperial Bottling Works	King St. E., Ingersoll 185 King St. W., Dundas. 157 Machar Ave., Port Arthur.	Dundas.
International Bottling Works	157 Machar Ave., Port Arthur.	Port Arthur. North Cobalt.
Jersey Crène Co	5-9 Van Horne St., Toronto.	Toronto.
Jersey Crèn e Co Kenora Bottling Works	North Cobalt 5-9 Van Horne St., Toronto. Box 385, Kenora. 103 Duchess St., Toronto. 266 Princess St., Toronto. 1003 King St. E., Kitchener. 384 Owen St. Peterboro.	Ixenora.
King & Dulton Kingston Bottling Works	266 Princess St., Toronto	Toronto.
Batchener Carbonating Co	1003 King St. F., Kitchener	Kitchener.
Knox Soda Water Co Latlamme Bottling Works, Ltd.	Boy 234 Cochespe	Peterboro, Cochrane.
La-Wola Co Lankin, A. C. & Co	22 Magaulay St., Hamilton	Hamilton.
Lindsay Soda Water Works	77½ Wright St., Toronto	Toronto.
Mack Mineral Springs Co	111 Welland Ave., St. Catharines	St. Catharines.
Martin Bottling Works	148 Ontario St., Oshawa	Oshawa. North Bay.
McDonald & Son Melaughlia, J. J., Ltd. Midland Bottling Works.	North Bay 145-155 Sherbourne St., Toronto	Toronto.
Midland Bottling Works	308 King St., Midland	Midland,
Mirault, Eugene Montgomery Mineral Water Co	257 Colborne St., Ottawa.	Ottawa. Brantford.
Murray Bottling Works	257 Colborne St., Brantford. 139 Market Sq., Windsor. 176 Minto St., Sudbury	Windsor.
New Ontario Bottling Works, Ltd Ningara Falls Bottling Works		Subdury. Niugara Falls.
Nipigon Bottling Works	Box 35. Ninigon	Nipigon.
Nipigon Bottling Works. Northern Springs Oakville Aerated Beverage Co.	Ridgeway Kerr & Colbourne Sts., Oakville	Ridgeway. Dakville.
O'Dair Bevernges Ontario Soda Water Mfg. Co.	Cornwall	Cornwall.
Ontario Soda Water Mfg. Co	10 Park St., Welland	Welland. Toronto.
One was County Duttlem Ttd	229 Manning Ave., Toronto	982 Princess St., London,

Aerated Waters-Continued

Name of Firm	Head Office Address	Location of Plant
ONTARIO—Concluded Orango Crush Battlers Ltd	. 100 Claremont St., Toronto	Toronto.
Orange Crush Bottlers, Ltd	100 Claremont St., Toronto	217 Cannon St. E. Hamilton.
Orange Dandy Co., Ltd	. 183 Elm St., Toronto. Church St., Orangeville.	Terento.
Parisian Refreshment Co	. 15 Sandwich St., Sandwich	Orangeville. Samlwich.
Penetag Bottling Co	. 22 Robert St., Penetanguishene	Penetanguishene. Perth.
Porth Bottling Works. Pure Springs Co. Reid, Henry W. Renfrew Bottling Works. Riverdale Bottling Works.	Perth. 102 Baldwin St., Ottawa.	Ottawa.
Reid, Heary W	Parry Sound Renfrow	Parry Sound
Riverdale Bottling Works	Renfrew 34 Eaton Ave., Toronto	Toronto.
DODEFTSON, ATEX.	. I CLOBBE WOOD A Ve., MOURE FOREST	Mount Forest, St. Catharines.
Rosenberg, H. Royal Bottling Works, The	. 130 First St., Fort Frances.	Fort Frances.
Royal City Mineral Water Works	. 219 Talbot St., St. Thomas	Guelph. St. Thomas.
Sanitaris Limited Sarnin Soda Water Works Ltd	Corner John and William Sts., Arnprior	Arnprior.
Seal Bottling Works	1820 Mercer St. Windsor	Sarnja. Windsor.
Starne & Kirkpatrick	1118 Victoria St. Sarnia	Sarnia, Sudbury,
Silver Foam Bottling Works	Sioux Lookout. 186 Edinboro Road, Guelph.	Sioux Lookout.
Sleeman, Geo. Smile Syrup Co. of Ontario, Ltd. Spring Water Bottling Works.	. 186 Edinboro Road, Guelph	Guelph. Toron(o,
Spring Water Bottling Works	. 1730 Ferry St., Ningara Falls,	Niagara Falls, Toronto.
Star Beverage Co., The Star Bettling Works	11 Federal St., Toronto	Toronto, Sudbury,
Stinson, E. H. & Co St. Kitts Bottling Works	180 Edinboro Road, Gueiph. 29-31 Terauley St., Toronto. 1730 Ferry St., Ningara Falls,. 11 Federal St., Toronto. 256 Regent St., Sulbury. St. Paul St., Alexandria. 29 Vine St., St. Catharines. 34 Eaton Ave., Toronto. 235 William St., Stratford.	Alexandria, St. Catharines. Toronto Stratford.
St. Kitts Bottling Works	34 Eaton Ave., Toronto	St. Catharines.
St. Kitts Bottling Works. Stratford Soda Waiter Works. Stratton & Monenger	235 William St., Stratford	Stratford.
Sutherland Limited Tally-Ho Pure Water Co	12 and 14 Jarvis St. Hamilton	Hamilton.
Tally-Ho Pure Water Co		Ottawa. Owen Sound.
Taylor, Wm. & Son, Ltd. Thomas Bros. of Galt, Ltd.	45 Dickson St., Galt	Galt.
Thompson & Wilson	45 Dickson St., Galt. 294 Princess St., Kingston. Box 391, Glen Williams	Kingston. Glen Williams,
Thompson & Wilson 1000 Islands Mineral Water Co.	JAS ISEOCK NE. ISTOCKVIII.e	Brockville.
Timbins Bottling Works	Timmins 649 Colbourne St., London 819 Minnesota St., Ft. William	Timmins, London.
Tune's Co., Ltd. Twin City Bottling Works. Union Soda Water Co., Ltd. United Bottling Co. Vitality Aerated Water Co. Walker & Co.	819 Minnesota St., Ft. William	Ft. William.
United Bottling Co	30 St. Patrick St., Toronto	Toronto.
Vitality Aerated Water Co	Church St. Orangerilla	Petawawa, Orangeville.
Walker & Co. Wallaceburg Bottling Works.	Church St., Orangeville Box 376, Wallaceburg Box 296, Barrie Reur 542 Main St. E., Hamilton	Wallaceburg.
Walan, G. Ji	Box 296, Barrie Reur 542 Main St. E. Hamilton	Barrie. Ifamilton,
Wentworth Mineral Water Co., Ltd., The Whislie Bottling Works Whistle Co. of Eastern Canada, Ltd		Sarnin.
Whistle Co. of Eastern Canada, Etd	132 Pears Ave., Toronto. 517-519 Sherbourne St., Toronto	Toronto.
Wilson Charles, Limited Wise, C. W. Wright & Biggar	66 Avon St., Welland. 819 Arthur St., Windsor	Welland.
right of Diggal	of Arthur et., Windsor	Windsor.
IANITOBA— Roll Rottling Co.	1087 Selkirk Ave., Winnipeg	387:
Bennett, H. E.	The Pas.	Winnipeg. The Prs.
	The Pas. 90 Broadview Ave., Toronto, Ont.	Bannatyne & Dagmar
Coca-Cola Co	90 Broadview Ave., Toronto, Ont	Winnipeg. 20—13th St., Brandon.
Douglas & King, Ltd	90 Broadview Ave., Toronto, Ont	Dauphin, Winnipeg.
Orango Crush Dolling Co	100 Claremont St., Poronto, Ont.,	191 Fort St., Winnipeg.
Orange Crush Co	100 Claremont St., Toronto, Ont	120-124 Ninth St., Bran
Portage Soda Water Works. Whistle Bottling Co. of Winnipeg	60 Tupper St., Portage la Prairie	Portage la Prairie.
white bottom co. of whiting.,,	201 Vol. Vib. A. Ve., Willingeg	Winnipeg.
SABKATCHEWAN—		
Chippewa Water Co	Fifth St., Estevan. 90 Broadview Ave., Toronto, Ont	Estevan. 265 Third Ave. N.
		Saskatoon.
Coca-Cola Co	90 Broadview Ave., Toronto, Ont	1736 Cornwall St., Regina.
Currie & Hassett	415 Ave. "B", Saskatoon	0.1.
Jeffs Products, Ltd.	Ilth Ave. & Montreal St., Regina.	Saskatoon. Regina
Jitney Pop, The	Cor. Ave. C and 19 St., Saskatoon. 11th Ave. & Montreal St., Regina. 78-80 Betts Ave., Yorkton. 100 Claremont St., Toronto, Ont.	Yorkton.
Orange Crash Co	100 Claremont St., I oronto, Unt	311 ave "B" S., Saska

Aerated Waters-Concluded

Name of Firm	Head Office Address	Location of Plant
8askatchewan—Concluded Pachal Bottling Works. Prince Albert Mineral Water Co., Ltd Regina Bottlers, Ltd. Staudard Mineral Water Works. Swift Current Bottling Works. Thotapson Bottling Co. Watt, G. & J. Weyburn Bottling Works.	Agricultural Ave., Yorkton	Yorkton. Prince Albert. Regina. North Battleford. Swift Current. Meese Juw. Regina. Weyburn.
Alberta Aerated Water, Alberta Aerated Water, Blue Label Bottling Co Dominion Bottling Works. Cocu-Coln Co		Wetaskiwin, Calgary, Edmonton, 126-4th Ave. W., Cal- gary,
		10345—102nd St., Ed- monton. 314—8th St. S., Leth-
		bridge. 9641-102a Ave., Ed- monton.
Orange Crush Bottling Co., Ltd Orange Crush Bottling Co., Ltd	100 Claremont St., Toronto, Ont	Fourth Ave. South, Calgary. 10015—102nd Ave., Ed.
Purity Bottling Works	9539—106 Ave., Edmonton. 518—5th St. S., Lethbridge	monton. Culgary. Edmonton. Lethbridge. Medicine Hat. Culgary.
British Columbia— Beaver Bottling Works. Bowness Export Co., Ltd. Cocs-Cola Co	Van Horn, Cranbrook	Prince Ruport. Cranbrook. 898 Richard St., Van-
Crystal Spring Water Supply Fairall's Limited. Gold Star Bottling Works. Hurper, James. Henley, Joseph. Kelowan Bottling Works.	38 Fourth Ave., F., Vancouver. 1244 Richardson St., Victoria. 420-422 William St., Victoria. 420-422 William St., Victoria. Courtenay Columbin Ave., Rossland. 717 Princess St., New Westminster. Hox 69 Kelowna. 201 Coldstream St., Vernon. Mill St., Nanaimo.	couver. Vincouver. Victoria. Victoria. Courtenay. Rossland. New Westminster. Redwan. Vernon. Nannimo. 138 Water St., Van.
Rumming, William E Salmon Arm Aerated Water Co		couver. Nelson, Nanuimo, Salmon Arm, Vancouver,

Asbestos and Allied Products

Nova Scotla— Guilford and Sons	649 Barrington St., Halifax	Halifax
Ashestos Manufacturing Co., Ltd., The Athas Ashestos Co., Ltd	East Broughton Station. 17 St. James St., Quebec. 142 St. Peter St., Montreal. Toronto, Ont	Lachine.
Heal, T. Sanitary Floor Co. of Toronto Sterne, G. F. & Sons Turner, C. B.		Toronto, Brantford, Toronto,
Baillie, Hugh	144 Alexandor St., Vancouver	Vancouver.

Cement Products

Name of Firm	Head Office Address	Location of Plan
JOVA SCOTIA—		
La Have Concrete Co., Ltd	West La Have	West La Have. Middleton.
Kew Brunswick—	Box 641, Fredericton	Fradariator
Hanson, E. B.	Main St., St. Stephen	St. Stephen
Hartland Cement Block Co	Hartland	Hartland.
Moncton Cement Product Works Scott Concrete Works	Main St., St. Stephen Hartland Robinson St., Moneton York St., Fredericton	Moneton. Fredericton.
UEBEC-		
Archambault I	St. Ours 144 Ave. Renaud, Quebec	St. Ours.
Bilodeau, Ign	1144 Ave. Renaud, Quebec	. Québec.
Bilodeau, Ign Brenner, Alex, Ltd. Castongay, Aldérie. Cloutier, Adélard. Concrete Construction Ltd.	100 Bleury St., Montreal Des Frables, Montreal	Montreal.
Cloutier, Adélard	Ste Rose de Laval. 58 Boulevard Décario, Montreal.	Ste Rose de Laval.
Concrete Construction Ltd	58 Boulevard Décarie, Montreal	Montreal.
Desrosiers, A	4949 Papineau Ave , Montreal. 12 St. Laurent St., Longucuil. 500 Hamilton St., Ville Emard, Montreal	. Montreal. Longueuil.
Duchesne, L.	. 500 Hamilton St., Ville Emard, Montreal	Montreal.
Dugas, Isale	H63 Raby St. Montreal	Montreel
Dupont, O. & Milard, E	. 962 Des Carrières, Montreal	Montreal.
Dutrisac, Alfred	FEO F 11 4 12 4 8F4 1	. Montreal. . Montreal.
Faille, G. A Fournier, Frères Ltée	137 Victoria, Lachine	Lachine.
Genest, Emile Guilleault Frères & Cie Inc	St. Basile	St. Basile.
	Ste. Phrabeth	Ste. Elizabeth. Montreal.
Giguére & Paioneat Groulx, I. Hodoghan, J. Jacques, Pierre I aflaurre, C. E. In Cie du Produit Ciment Lurivère, Alex In Société de Construction L'Heureux, J. A	1273 Crawford St., Verdun	Verdun,
Hocdoghan, J	233 Melrose St., Montreal	Montrent.
Jacques, Pierre	Rue St. Jacques, Grand' Mère	Grand' Mère.
Laflancice, C. E.	St. Jerôme. St. Jerôme. St. Jerôme. 37 St. RAmi, St. St. Penri, Montreal. 10 Catheart St. Montreal. Ste. Geneviève de Batiscan.	St. Jérôme.
In the our Produit Cament,	37 St RAmi St St Henri Montreal	St. Jérôme. Montreal.
la Société de Construction	10 Catheart St., Montroal.	Montreal.
L'Heureux, J. A	Ste. Geneviève de Batiscan	Ste. Geneviève de
MaArthur Concrete Pile and Foundation Co.	Cttrut	Batiscan,
Melançon, J. T. H. Monette, G.	Grand Mère	Grand'Mère.
Monette, G	. 33#0 rue Notre-Dame E., Montreal	Montreal.
O'Connor, Bres Pharand, J. A Pitt, Hornee Pizzagalli, Terruzzo Co	Grand' Mère 3300 rue Notre-Dame E., Montreal Huntington 2 York, St., Montreal 17 St. Charles St., Montreal 61 Bnby St., Montreal 96 St. Joseph, Farnham 120 St. Jumes St., Montreal	Huntington.
Piet Horne	17 St Churles St. Montreal	Montreal.
Pizzagalli, Terrazzo Co	61 Bnby St., Montreal	Nontreal.
Rainville, George Raymond Cement Products Ltd	96 St. Joseph, Farnham	Farnham.
Raymond Cement Products Ltd	120 St. James St., Montreal	Montreal.
St. I ouis, Nop. Taillefer, Filie.		
Trahan & Cie	St. Polycarpe 5244—4th Ave., Rosemont, Montreal	Montreal.
NTARIO		
Alvinston Cement Tile Co	Alvinston. 819 St. Clarens Ave., Toronto.	Alvinston,
Angotti, Frank	155 Albert St. Thorold	Thorold,
Andrews, S. J. Anthiste, W. J. Art Granite Co.	Queen St., Clinton 309 Cromwell St., London	Clinton.
Anthiste, W. J.	309 Cromwell St., London	London
Achmon T. J	Box 3t1, Essex. 520 Grosvenor St., London	Essex. London.
Ashman T. J. Babcock, L. W.	Tupperville	Tupperville.
Banks, John	1755 Ouechs Ave., London	London,
Durtonville Book Stope I tel	38 Kane Ave., Toronto	Toronto.
Barton Hie Roderick W. Bell & Mottulu. Bierwagen, Bros. Bodium, C. J.	Bartonville, Langhall St., Exeter. 1757 Stanley St. Niagara Falls. 88 Edward St., Kitchener. 37 Bowie Ave., Pairbank	Bartonville.
Bell & Mottala	1757 Stanley St. Niagara Falls	Niagara Falls.
Bierwagen, Bros	88 Edward St., Kitchener	Kitchener.
Bond, R.	Streetsville	Vairbank.
Border Builders Supply Co., Ltd	1436 Howard Ave., Windsor	Windsor.
Bosman, L. II Bowers, E. G Bowman's Builders Supplies	Bluevale	Rluevale.
Rowman's Buildon Sumbles	Cottam East Main St., Welland	Cottam. Welland.
Boyd Bros	Osgoode	Osgoode.
Bray, Messrs. & Co	Osgoode 605 Moy Ave., Windsor	Windsor.
Brigden, Henry	Port Elgin	Port Elgin.
Brown, A. E	197 Codar St., Sudbury.	Sudbury. Sudbury.
Brown, A. F. Brown, D. L. Burger, J. F	Chippewa	Chippewn.
Burger, Harold	Box 47. Tillsonburg	Tillsonburg.
Burkholder, Geo	Whitevale Tillsonburg	Whitevale.
Burwell, C. A. Calder, James		Tillsonburg. Fergus.
Calder, James Canadian Concrete Products Co., Ltd	192 South Michigan Assa Chianga III I'S A	Chathan
		110 0.00
Campbell, D. S. Campbell & May. Canada Ite-inforced Concrete Pipe Works	St. Marys	St. Marys.

Cement Products-Continued

Name of Firm	Head Office Address	Location of Plant
ONTARIO-Continued		95 17 41
Canadian Concrete Products Co., Ltd	122 Sq. Michigan Ave., Chicago, III	Belleville, Bridgeburg,
Cast Stone Blocks Co	Richmond St. Chatham	Chatham.
Chick Contracting Co., Ltd.,,,,,	Richmond St., Chatham	Windsor,
Christie Concrete Products	26 Queen St., Toronto	Lindsay.
Clark, Geo. E	Metcalfe Ave., Dresden	Dresden. Clarkson.
Clarens & Miller	Clarkson	Welland.
Clemens & Miller Corinthian Stone Co	Welland 20 Durham St., Guelph Talbot St., W., Learnington	Guelph.
Corlett, A. S	Talbot St., W., Leamington	Learnington.
Corlett, A. S Cross Builders Supply Co., Ltd	924 Windsor Ave., Windsor 580 Ontario St., Stratford	Windsor.
Crystal Stone Works	Brooklin	Stratford. Brooklin.
Devitt, W. J. Dewar, James S.	Paisley	Paisley.
Dillon, John	Seeley's Bay	Seeley's Bay.
Doidge, J. A. Dominion Concrete Co	Seeley's Bay 261 Ottawa St., Hamilton.	Hamilton.
Dominion Concrete Co	Kemptville	Kemptville, Breatwood,
Dumoud, J. J. Edwards, Arthur J.	Brentwood	Dundas,
Fldridge Gen	Dundas 326 Durand St., Samia	Sarnin.
Elliott, J. A	R. R. 1, Dunsford	Dunsford.
Elliott, J. A. Evendon Bros. & Baker. Excelsior Concrete Products Co	14 Kingdom St., Westmount	Westmount,
Excelsior Concrete Products Co	R. R. 1, Dunsford 14 Kingdon St., Westmount Barrie 619 Vaughan Road, Toronto	Barrie. Toronto.
Fairbank Block & Supply Co	R. R. I, Ridgeville	Ridgeville.
Flowers, Will	Box 175, Caledonia	Caledonia,
Flatcher, J. H. & Sons Flowers, Wm Frost, Reybon	Conforth	Seaforth.
Fulton, John Garnett, Thos. & Sons	Pakenham	Pakenham.
Garnett, Thos. & Sons	Pakerhum Barrett St., Port Hope. 935 Pierre Ave., Windsor.	Port Hope. Windsor.
Gendreau, W. Gillis, Alfred	Respeler Rd., Galt Queen St., Tilbury. 291 S. Christina St., Sarnia 832 Weston Rd., Toronto. 677 Water St., Peterborough.	Galt,
Gircux, J. H	Queen St., Tilbury	Tilbury
Giroux, J. H. Grace, Thomas Grante Concrete Block Co., Ltd	291 S. Christina St., Sarnia	Sarnia.
Grante Concrete Block Co., Ltd	832 Weston Rd., Toronto	Toronto.
Hall, John, Warren Hare, John Hayley, Harry	Markham	Peterborough. Markham,
Hayley, Harry	Markham 171 Waller St., Ottawa 405 Gorge Rd., Victoria	Oltawa,
Hayley, Harry Henson & Co. Hewitt, A. B. & Son. Holbeck, B. A. Howard, W. H. Howe, H. & Nott, J. H. Hoyles, Arthur Hubbell, Charles. Hundey Wood Co. Hyatt, Brathers	405 Gorge Rd., Victoria	Victoria.
Hewitt, A. B. & Son	Princeton	Princeton.
Holbeck, B. A	Kingsville	Kingsville, Aldershot,
Howe H & Nott J H	Aldershot Niagara Falls South St. George St., Dresden	Ridgeway,
Hoyles, Arthur	St. George St., Dresden	Dresden.
Hubbell, Charles	Thaties ville 354 Giles St., Windsor. 200 Eggron St., London	Thamesville,
Hundey Wood Co	354 Giles St., Windsor	Windsor, London.
Hyatt Brothers Hunt, J. W. & Sons	Manual Pairest	Mount Forest.
Hyndman, John	Gorrie 198 Riddell et., Woodstock	Gorrie.
Hyndman, John Independent Concrete Pipe Co., Ltd	198 Riddell st., Woodstock	Woodstock,
Ingroville, Stephen	Metcalle St., Strathroy. 570 Goyeau St., Windsor. New Toronto	Strathroy. Windsor.
Jacques Cement Block Factory, Fre	Now Toronto	Naw Toronto
Jones-Lockhart Ltd	St Catharines	New Toronto. St. Catharines.
Kilbourne II & Son	1454 Wharncliffe Road, London	London.
King, Charles J. Kingsborough, Jas. C. Kingston Cement Products.	St. Gatharines 1454 Wharnciffe Road, London Campbellville 51 Mallourne St. W., Lindsay	Campbellville.
Kingsborough, Jas. C.	69 Patrick St., Kingston	Lindsay.
Kingston Cement Products		Kingston. Preston.
Lawrence Bros	Box 322, Preston Stoney Creek 710 Pierre Ave., Windsor 184 Albert Road, Ford City.	Stoney Creek.
Lofebyre, Jos.	710 Pierre Ave., Windsor	Windsor.
Lesperance, Poter J.	184 Albert Road, Ford City	Ford City.
Lisgman, W. H. Lindley, E.	Box 100, Cnynga 11 Hillary Ave., Toronto	Cayuga. Toronto.
Lindley, E. Lyons Fuel & Supply Co., Ltd.	ISault Ste Marie	Snult Ste. Marie.
McAllister, Robt	R.R. 2, Goderich	Cioderich,
McClelland, R. J	R.R. 2, Goderich Ontario & William Sts., Kingston	Kingston.
McLaughlin, Wm	Paris	Paris. Moorefield.
McQueen, Alex	Mooretield. 44 Prince Edward Ave., Niagara Falls	Niagara Falls.
Mathews, S.	Islington	
Miller, Albert	1slington 50 Harvey St., Chatham	Chatham,
Miller, Thomas	343 Peter St., Sandwich. 1859 Lombard Ave., Niagara Falls	Sandwich.
Mitchell, Ralph R	Box 275, Beamsville	Niagara Falls, Beamsville.
Moore, T. L	144 Bouillie St., London.	London.
Mould, Arthur Nicholson, J. B., Ltd.	44 Bouillie St., London	Toronto.
Onkes, Sain Oil Springs Tile and Cement Co	Box 30%, Burlington	Burlington.
Oil Springs Tile and Cement Co	Oil Springs	Oil Springs.
Oliver, Wm	Grand Bend 67a Glaucoster St., Toronto Room 203 Exchange Building, Windsor	Grand Bend. Torouto.
Osterhout, Peter	Room 203 Exchange Building Windsor	Windsor.
Osterhout, Peter. Pago, George Leslie. Page Concrete Block Marble & Granite	R. R. 3. Lucknow	Lucknow.
Page Concrete Block Marble & Granite	Grand Bend	Grand Bond.
Palm, Jacob. Peorless Artificial Stone Ltd	Mildmay. 510 Rhodes Ave., Toronto.	Mildunay,
reeriess Artificial Stone Ltd	1310 Ithodes Ave., foronto	Loronto.

Cement Products-Concluded

Name of Firm	Head Office Address	Location of Plant
0		
Ontario—Concluded Pettypiece, Limited	Amherstburg	Amherstburg.
Pfaff, W. E.	Queen St., Hensall.	Hensall.
Plante, E. F	Queen St., Hensall 901 Cataraqui St., Windsor	Windsor.
Poug, Geo Rateliffe, E. B., Ltd. Richings Sons & Faulkner	Albert Ave., Ridgetown	Ridgetown,
Ratcliffe, E. B., Ltd	Kenilworth Ave. and G.T.R., Hamilton	Hamilton. Toronto 9.
Ridgeville, Concrete Works	540 Jane St., Toronto 9	Ridgeville.
Robidoux, Henry	Box 323 Amherstburg	Amherstburg.
Robidoux, Henry Robinson, Edward	Mitchell	Mitchell.
Ross, Charles & Son	Dunnville	Dunnville.
Russello, Howard	Box S. Learnington	Learnington. Point Edward.
St. Ongo, Hormidas	Point Edward. 157 Hall Ave., Windsor	Windson
Sebringville Coment Brick Tile & Block Co.	Sebringville	Sebringville.
Schude, John Schmidt, J. T. Shoemaker, Allen	West Monkton	West Monkton.
Schmidt, J. T	R. H. I, Waterloo	Waterloo.
Shoemaker, Allen	R. R. 4, Kitchener. R. R. 6, Owen Sound.	Kitchener. Owen Sound.
Showel Bros. Smith, Allan G. C	Box 197. Acton	Acton
Smithson, F	Pirie St. N., Leanungton	Leanington.
Smithson, F Somerville, W. G. & Son	Division St., Welland	Welland.
Stanley, J.	Stanley's Corners	Stanley's Corners.
Stanley, J. Swatman, G. W. Sydenhum Block and Tile Co.	1064 Lillian St., Windsor. Box 438, Wallaceburg.	Windsor. Wallaceburg.
Tumbling, A. L	Dunnville	Dunnville,
Taylor, Fred	Fort Eric	Fort Erie.
Telford, Peter	Holland Centre	Holland Centre.
Theaker, William	Bartonville	
Thomas, Chas	Kingsville. Port Albert.	Codoriel
Tooke. Thos	Barria	Burrie
Tooke, Thos. Turney, G. F.	Burrie 503 Masson St., Oshawa 149 Simcoe St. E., Hamilton	4th St., Cornwall.
Ward, John Watterworth, Chas. W. Wather, E. E. Wells, Jas. Wessels, D. S., Co. White, Homer & Co.	149 Simcoe St. E., Hamilton	Hamilton.
Watterworth, Chas. W	Beamsvillo 127 Nelson St., Kingston 449 Philip St., London 1625 Euclid Ave., Detroit, Michigan	Beamsville. Kingston.
Wather Is. E.	1449 Philip St. London	London
Wessels, D. S., Co	1625 Euclid Ave., Detroit, Michigan	Walkerville.
White, Homer & Co	Spring St., Fiction	LICTOR.
White, Fromer & Co White, Sydney Williams, Goo. C Wilson Cement Brick Co., Ltd Wi.chester Coment Block and Tile Mig. Co.	R. R. J. St. Catharines	Homer. Wheatley.
Williams, Geo. C	Whentley 1592 Eglinton Ave., Toronto 9. Winchester. R. R. No. 3, Niugara Falls. York Mills.	Wheatley. Mount Dennis.
Wi charter Coment Block and Tile Mfg Co	Windowstor	Winchester.
Woolnough, Verne	R. R. No. 3, Ningara Falls	Ningara Fulls
Woolnough, Verne. Yurk Mills Builders Supplies Co., Ltd	York Mills	York Mills.
Young, John & Son	Ridgeway	Ridgeway.
SABRATCHEWAN-		
Saskatchewan Concrete Culvert & Pipe Co	Banner Block, Regina. 127 Ave. C. N. Saskatoon.	Regina.
Saskatoon Cement Block Works	127 Ave. C. N. Saskatoon	Saskatoon.
Alberta-		
ALBERTA Concrete Works	9612-109a Ave. Edmonton	Edmonton.
Bennett, L. A	Box 716, Drumheller	Drumheller.
BRITISH COLUMBIA—	2014 Darle Dare Arm Vistoria	Vistoria
Grav Elmar H	2814 Rock Bay Ave., Victoria	Victoria. Prince George.
Hall, William	Prince George Plensant Valley Road, Vernon	Vernon
		Kelowns.
Henson, & Co	405 Gorge Road, Victoria	Victoria.
Spokane Concrete Pipe Co	405 Gorge Road, Victoria. Grand Forks 323 Alexander St., Vancouver	Grand Forks.
Star Cement Laundry Tray Co	323 Aleiander St., Vancouver	Vancouver.
	Cand Lines Priol-	
	Sand-Lime Brick	
ONTARIO-		
Canada Sand-Lime Pressed Brick Co	28 Symes Rd., Toronto W	Toronto.
Don Valley Brick Works, Ltd	Lumsden Bldg., Toronto	Toronto. Bathurst St. Dock.
Harbour Brick Co., Ltd	Lumauen Diag., 10101110	Toronto.
Hinde Bros	134 Northlands Ave., West Toronto	Toronto.
Hinde Bros. Leaside Brick & Sand Co	Luquida	Leaside.
Shephard, J. G. & Co	Wellington	Wellington.
Toronto Brick Co., Ltd	Wellington. 60 Victoria St., Toronto. 60 Victoria St., Toronto. Richmond Hill. 447 Victoria Park Ave., Toronto 13	Scarboro. Swansea.
Toronto Brick Co., Ltd. Willeox Lake Brick Co., Ltd. York Sandstone Brick Co., Ltd.	Richmond Hill	Richmond Hill.
York Sandstone Brick Co., Ltd.	447 Victoria Park Ave., Toronto 13.	Toronto 13.
MANITOBA-		
Winnipeg Brick Co., Ltd	Osborne St., Winnipeg	Winnipeg.
Wood & Sons, Ltd	904 Ross Ave., Winnipeg	Winnipeg.
Sabkatchewan—		
Saskatoon Brick and Supply Co., Ltd., The.	18th St., Saskatoon	Saskatoon.

Coke and By-Products

Name of Firm	Head Office Address	Location of Plant
Nova Scotia— Dominion Iron and Steel Co	Sydney	Sydney.
Ontario— Algoma Steel Corporation, Ltd Hamilton By-Product Coke Ovens Ltd Steel Company of Canada, Ltd	Sault Ste. Marie	Sault Ste. Marie. Hamilton. Hamilton.
BRITISH COLUMBIA— Crow's Nest Pass Coal Co., Ltd Granby Cossolidated Mining, Smelting and	Fernie	Fernie.
Power Co	Anyox	Anyox.

Glass Products (including the bevelling, bending and cutting of plate and window glass, and the manufacture of mirrors, art glass and cut glass)

New Brunswick— Murray & Gregory, Ltd	Douglas Ave., St. John	St. John.
OUENEC-		
La Cie Ceramo-Vitrail Inc	1488c Blvd, St. Laurent, Montreal	Montreal.
Consolidated Plate Glass Co	241 Spadina Ave., Toronto, Ont	30 St. Sulpice, Montreal.
Grimson, Geo	336 Craig St. W., Montreal	Montreal.
Hobbs Mfg. Co., Ltd	London Ontario	Montreal.
Montreal Art Glass Works		Montreal.
O'Shea, J.P. & Co	15 Perrault Lane, Montreal	Montreal.
Phillips, Geo. & Co., Ltd	585 St. Timothée St., Montreal	Montreal.
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Ontario— Advance Glass Co	175 King St. Towards	140 Fuelid Ave Ton
Advance Glass Co	175 King St., Toronto	140 Euclid Ave., Tor-
Dallas I Class Ca	trial	onto.
Bulias, J., Glass Co	Kitchener 124 Adelaide St., Toronto	Kitchener.
Canadian Flood Lighting Co	124 Adelaide St., Toronto	Toronto.
Canadian Tumbler Co	83-85 King St. E., Toronto	Toronto,
Central Ornamental Glass Co	83 McCaul St., Toronto	Toronto.
Clappertons, Ltd.	Deseronto	
Colonial Art Glass Co	586 Bank St., Ottawa	Ottawa.
Consolidated Plate Glass Co. of Canada, Ltd	241 Spadina Ave., Toronto	Torento.
Dominion Stained Glass Co	380 Adelaide St., Toronto	
Dundas Plate Glass Co., Ltd.		Dundas.
Excelsior Plate Glass Co., Ltd	189 Queen St. E., Toronto	Toronto.
Glass and Mirrors, Ltd.	175 King St., Stratford	Stratford.
Hill, Arthur E. & Co		Toronto.
Hobbs Manufacturing Co., Ltd		304 Ridout St., London.
Hobbs Manufacturing Co., Ltd		121 Liberty St., Toronto.
Horwood Glass Mfg. Co , Ltd		Ottawa.
London Art Glass & Mirror Works, Ltd		London.
Luxfer Prism Co., Ltd	162 Parliament St., Toronto	Toronto.
Lyon, N. T. Glass Co., Ltd	141 Church St., Toronto	Toronto,
McCausland Robt., Ltd	141-143 Spadina Ave., Toronto	Turonto.
Ontario Plate Glass	146 King St. W., Hamilton	Hamilton.
Phillips, W. E., & Co	Oshawa	Oshawa.
Pringle & London	Oshawa 146 Jarvis St., Toronto	Toronto.
Sovereign Cut Glass Co	143 Adelaide St. E., Toronto	Toronto.
Tait Plate Glass Co	Victoria and Edward Sts., Kitchener	Kitchener.
Toronto Plate Glass Imp'g. Co., Ltd	91 Don Roadway, Toronto.	Toronto.
Walinceburg Cut Glass Works	Wallaceburg.	Wallaceburg.
Worral, H. & Son		Waterford.
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MANITOBA-	The second secon	
Canadian Cut Glass, Ltd	183 James St., Winnipeg	Winnipeg.
Consolidated Plate Glass Co	241 Spadina Ave., Toronto	375 Balmeral St.,
		Winnipeg.
Hobbs Mfg. Co., Ltd., The	London, Oat	360 Princess St.,
		Winnipeg.
ALBERTA-		
Capital Glass Works	9812 Jasper Ave., Edmonton	Edmonton.
Compression CECIOCO FF CAS MAD-1221-22111111111111111111111111111111	TOTAL BENEVICE TEVEL, LIGHT ON THE PROPERTY OF THE PERSON	LONG THE POWER
BRITISH COLUMBIA-		
Bogardus Wickens, Ltd		Vancouver.
Fraser J. Glass Works	2120 Granville, Vancouver	Vancouver.
Kingsway Glass Co	2120 Granville, Vancouver	Vancouver.
Regal Art Glass Co	1471 Broadway, Vancouver	Vancouver.
Westera Glass Co., Ltd.	158 Cerdova St. W., Vancouver	Vancouver.
Kingsway Glass Co Regal Art Glass Co Westera Glass Co., Ltd	1471 Broadway, Vancouver	Vancouver.

Glass (Pressed and Blown)

Name of Firm	Heud Office Address	Location of Plant
QUEBEC—Consumers Glass Co., Ltd.	2nd Ave., Ville St. Pierre, Montreal	Ville St. Pierre, Mont-
	285 Beaver Hall Hill, Montreal	real. Pointe St. Charles, Montreal. Delorimier Ave., Mont- real.
Dominion Glass Co., Ltd.	285 Beaver Hall Hill, Montreal, Que	Toronto. Chapelle St., Hamilton. Toronto. Wallaceburg. 388 Carlaw Ave., Toronto. Thoroid. Toronto.
Alberta— Dominion Glass Co., Ltd	285 Beaver Hall Hill, Montreal, Que	Redeliffe.

Illuminating and Fuel Gas

37 0		
Nova Scotia— Nova Scotia Tramways & Power Co., Ltd.,		
	Tramway B'dg., Box 770, Halifax	LI-1:for
1.110	transway D og., Dox 170, Damax	riantal.
New Brunswick-		
New Brunswick Power Co)	St. John	St. John.
Pintsch Compressing Co	New Haven, Conn., U.S.A	McAdam Jet.
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Curporation of Sherbrooke	Sherbrooke	Charlanala
Montroel Light Heat & Power Concolidated	Power Bldg., Montreal	Montroul
	New Haven, Conn., Y.S.A	
2 moon compressing contraction of the contraction o	and the country and the country of t	reul.
Quebec Railway Light Heat and Power Co.,		
Ltd	Quebec Railway Bldg., Quebec	Quebec.
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ONTARIO—	10 O St. D	73 7.
	16 Owen St., Barrie	Barrie.
	GuelphBrockville	Brockville.
City Gas Co.	215 Dumias St., London	London.
City of St. Thomas Gas Dept.	St. Thomas	St. Thomas.
Consumers Gas Co. of Toronto	19 Toronto St., Toronto	Toronto.
Corporation of the City of Belleville	Belleville	
Hydro-Electric Power Commission of Ontario	100 University Ave., Toronto, 2	Collourg.
Hydro-Electric Fower Commission of Culario	190 University Ave., Toronto, 2	Oshawa.
Hydro-Electric Power Commission of Ontario	190 University Ave., Toronto, 2	Peterborough.
Ottawa Gas Co Pintseli Compressing Co		Ottawa. Fort William,
Pintsch Compressing Co	New Haven, Conn., U.S.A.	North Bay.
Pintsch Compressing Co.	New Haven, Conn., U.S.A	John St., Toronto.
Port Hope Gas Co	John St., Port Hope	
Public Utility Commission	19 Queen St. Kingston	Kingston.
Public Utilities Commission of Kitchener	189 King St. W., Kitchener	
Public Utilities Commission of Owen Sound.	1146-1st Ave., E., Owen Sound	
Public Utility Commission		Stratford.
Stormont Electric and Power Co	Cornwall	Cornwall.
	Waterloo	Waterloo.
		.,
MANITOBA-		
Canada Carbide Co	611 Power Bldg., Montreal, Que	
Canada Gas and Electric Corporation	27-29-10th St., Brandon	Brandon.
Canada Carbide Co	611 Power Bldg., Montreal, Que	Hernieta
Canada Curbide Co	611 Power Bldg., Montreal, Que	
	New Haven, Conn., U.S.A.	
		neg.
Souris Consumers Gas Co., Ltd	Souris.	Souris.
Winnipeg Electric Railway Co	Electric Railway Chambers, Winnipeg	Winnipeg.

Illuminating and Fuel Gas-Concluded

Name of Firm	Head Office Address	Location of Plant
SAMKATCHEWAN— Canada Carbide Co Pintsch Compressing Co	611 Power Bldg., Montreal, Que New Haven, Conn., U.S.A.	
Alberta— Pintsch Compressing Co	New Haven, Conn., U.S.A	10354-108th St., Ed- monton.
British Columbia— City of Nelson. New Westminster Gas Co., Ltd. Pintsch Compressing Co. Vancouver Gas Co., Ltd. Victoria Gas Co.	New Haven, Conn., U.S.A	Nelson. New Westminster. Vancouver. Vancouver. Victoria.

Imported-Clay Products

New Brunswick— Foley Pottery Ltd., The	Marsh Bridge, St. John	St. John.
Canadian Potteries Ltd	399 St. Ambroise St., Montreal	St. Johns.
Campbells Sons, R. Hamilton Pottery	Tatatonia a salati i i i i i i i i i i i i i i i i i i	Toronto. Hamilton. Peterborough. Hamilton. Niagara Falls Kingston.

Monumental and Ornamental Stone

PRINCE EDWARD ISLAND— Chandler & Bell	180 Kent St., Charlottetown	Charlottetown.
Nova Scotta— Colonial Granite Co., Ltd Dauphinee, A. T		New Glasgow, Shelburne, Yarmouth,
Goudey, Robt. H. Hoyt, C. M. Kelly, George J. McKay, H. D.	Middleton Bridgewater Main St., River John	Middleton. Bridgewater. River John.
Myatt, Albert H. Purvis, James. Rottler, Albert A. Steele, John D.	Windsor Kentville Commercial St. N., Sydney	Kentville North Sydney.
Tingley Granite and Marble Works Truro Granite and Marble Works New Brunswick—		Amherst. Truro.
Kinsella, P. & Son. Lawlor & Williams Meating Epps Co., Ltd. Milne Coutts & Co., Ltd.	Chathan	St. John. Chathain. St. George. St. George.
Nelson Bros. Oldham Marble & Granite Works Pelletier, Alfred B. Price, Alfred, Estate (St. Stephens Granite	Frederiction. St. Basile	Lawer Cape.
Works)	Queen St., St. Stephen	St. Stephen. Moneton.
QUEBEC — Anglin-Norcross, Ltd	Beche	Montreal. Montreal. Beebe. Granby.
Brault, Z Brodies, Ltd Brunet, J. Ltd	1 Champlain St., Valleyfield	Valleyfield. Montreal. Ormstown. Montreal.
Chaussé, Edouard Coté, Victor Courtemanche Bros	66 Cascades St., St. Hyacinthe	Quebec.

Monumental and Ornamental Stone-Continued

Name of Firm	Head Office Address	Location of Plant
QUEBEC—Concluded		
Dalceggio, François	726 Chemin Côte-des-Neiges, Montreal	Montreal.
Deaudelin & Baron	726 Chemin Côte-des-Neiges, Montreal. 92 St. Antoine St., St. Hyacinthe Chicoutimi. 41 Notre-Dame, Victoriaville. Mount Laurier, Quebec. St. Alban. Ste. Foy. Beauceville Est. St. Philippe De Néri. Combrank	St. Hyacinthe.
Delwarde & Goffin	Al Notro Demo Victoriaville	Chicoutimi.
Dussault, Theo & Cie.	Mount Laurier Ouebec	Quebec.
Gignac, Azarias	St. Alban	St. Alban.
Gingras, Roch	Ste. Foy	Ste. Foy.
Gosselin et Fils	Beauceville Est	Beauceville Est.
Guerrette, Joseph	St. Philippe De Neri	St. Pluhphe.
Hambly, Richard Hazelton, Wm	Beebe	
Hill Clayton J	Richmond	Richmond.
Hill, Clayton J	Richmond. 97 Stevenson St., Iberville.	Iberville.
Jacques, Olivier	18 File Shaw, Levis	Levis.
Jenn, Xavier	St. Fabien. 3084 St. Joseph St., Québec	St. Fabien.
Laforce & Freres	78-3rd St., Limoilou, Québec	Quenec,
Lemov Airida	Deschaillons	Deschailtons
McKenney V B	Bedford	Redford
Perron, Godfroy	Coaticook St. Murc des Carrières. 721 Chainplain St., St. John. 69 Blvd., Langelier, Québec.	Coaticook.
Perusse, Aloide	St. Marc des Carrières	St. Marc des Carrières.
Politin, P. A	1724 Champian St., St. John	Outhor
Robertson Fred	Recha Junction	Roohe Junction
Rolland, J. A.	1285 Rue St. Valier, Québec.	Québec.
Savard, J. Bte	69 Blvd., Langelier, Québec Beebe Junction. 1285 Rue St. Valier, Québec. Stc. Anne de la Pérade. Box 182 Shawville. 2116 Bleury St., Montreal. 145 Van Horne Ave. Montreal. Beebe. Sutton. 270 Wellington St., S. Sherbrooke.	Ste. Anne de la Pérade.
Shawville Marble & Granite Co	Box 182 Shawville	Shawville.
Smith Bros., of Montreal, Ltd	2116 Bleury St., Montreal	Montreal.
Smith Marble and Construction Co., Ltd	145 Van Horne Ave., Montreal	Montreal.
Sutton Muchle & Granite Co., Ltd	Sutton	Sutton
Thompson, T. C.	270 Wellington St., S. Sherbrooke	Sherbrooke.
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ONTARIO-	Set Set Dunden St Woodstank	Wandstook
Allan Was	Brannton	Bratinton
Almaugh, J	St. Andrews St. Fergus	Fergus.
Ambroise, J. L. & Son	Guelph	Guelph.
Arnprior Marble and Granite Works	Arnprior	Arnprior.
Austin, P. O.	44 Colbourae St., Simcoe,	Simcoe.
Rool I R & Son	Pembroka	Pombroke
Border Builders Supply Co., Ltd	1436 Howard Ave., Windsor.	Windsor.
Bounsall, E. R	Division St., Bowmanville	Bowmanville.
Boyer, H. & Son	Box 28, Bracebridge	Bracebridge.
Bracebridge Murble & Grante Works	Box 28, Bracebridge	Bracebridge.
Branciora Monument Works	205 King St. W. Kitchener	Kitchener
Brown & Nottleship	R. R. 4. St. Catharines	St. Catharines.
Brown, Robert	376 Sparks St., Ottawa	Ottawa.
Cater & Worth	135 Main St., E. Galt	Galt.
Central Canada Stone Co., Ltd	278 Booth Ave., Toronto	Point Edward.
Chapman Was E.	561-563 Dundas St., Woodstock Brairpton. St. Andrews St., Fergus Guelph. Arnprior 44 Colbourne St., Sincoe. Kemptville. Pembroke. 1436 Howard Ave. Windsor Division St., Bowmanville. Box 28, Bracebridge. Box 28, Bracebridge. Box 28, Bracebridge. Box 18, Bowmanville. 295 King St., W Kitchener. R. R. 4, St. Catharines. 376 Sparks St., Ottawi. 135 Main St., E. Cail. 278 Booth Ave., Toronto. 1283 Dundas St., W. Toronto. 1283 Dundas St., W. Toronto. 1283 California. St. W. Toronto. 1284 Seaforth. 35 Market Square, Chatham Chatham. Chatham. Collingwood. Main St., Mt. Forest. Main St., Mt. Forest. Main St., Brighton. 216 Ringston Road, Toronto. 204 Kingston Road, Toronto.	Senforth
Coeker, John	35 Market Square, Chatham	Chatham.
Colby, C. H	Chatham	Chatham.
Collingwood Granite & Marble Works	Collingwood	Collingwood.
Corbett, A. J.	Main St., Mt. Forest	Mt. Forest,
Coughlin John	216 Hunter St. Puterborough	Poterhorough
Coughlin, Michael	303 Erskine Ave., Toronto	Toronto.
Creber Bros	303 Frskine Ave., Toronto. 204 Kingston Road, Toronto. 1333 St. Clair Ave., W. Toronto.	Toronto.
Creber Son & Company	1333 St. Clair Ave., W. Toronto	Toronto.
Cunningham & Pryde	Exeter	Exeler.
de Carly Chee W and Victor	Paistey R. R. 3, Brockville Cohourg	Paisley. Brockville.
Delanty, Patrick E.	Cabourg	Cobourg.
Dillon, Joseph	Gananoque	Gananoque.
Doan & Pauher	20 Elgin St., St. Thomas	St. Thomas.
Doyle, Jno F	269-8th St. East Owen Sound	Owen Sound.
Durward, John	Box 312, Kincardine	Almondine.
Bracking Marble and Cranita Works	37 Pite St. E. Windsor	Windsor
Fullon Bros.	389-393 Princess St., Kingston	Kingston.
Froats, Geo. H. & Co	Renirew	Renfrew.
George, John J	Pt. Elgin	Pt. Elgin.
Gibson, J. G. Marble and Granite Co., Ltd	94 Winchester St., Toronto	Turonto.
Gibson, John F.	Row 274 Ulwheiden	Winchester.
Holladay R S	Cheeley	Chosley
Hamilton & Sons	228 Woolwich St., Guelph	Guelph.
Hayes Bros. Co	Sudbury	Sudbury.
Herbert, T. H.	60 Wentworth St., Hamilton	Hamilton.
Hibberd, Arthur	Cohoury Gananoque 20 Elgin St., St. Thomas 269-8th St. East Owen Sound Box 312, Kincardine Man St., Alexandria 37 Pitt St., E. Windsor 389-393 Princess St., Kingston Renfrew Pt. Elgin 94 Winchester St., Toronto. Winchester Box 274, Uxbridge. Chesley 228 Woolwich St., Guelph Suddury 60 Wentworth St., Hamilton	Toronto.

Monumental and Ornamental Stone-Continued

Name of Firm	Head Office Address	Location of Plant
ONTARIO—Concluded Houdge Marble Co. Ltd.	34 Price St., Toronto	Toronto.
Hurst & Rogers	34 Price St., Toronto 1181-1189 Queen St., W. Toronto 30 Dupont St., Toronto South Shaftsburg Ave. and C. P. R. tracks,	Toronto. Toronto.
Isnac, Jas. & Son	South Shaftsburg Ave. and C. P. R. tracks.	1 oronto.
	Toronto	Toronto,
Johnston, T. & Son	Paisley 277 Rideau St., Ottawa Listowel Main St., W. Pictou 1357 St. Clair Ave. W., Toronto 111 Wellington St. W. Sault Ste. Marie	Paisley. Ottawa.
Jones & Stevens	Listowel.	Listowel.
Jones, W. A	Main St., W. Pictou	Pictou.
Kilvington Bros. Lake Superior Granite & Marble Works	1357 St. Clair Ave. W., Toronto	Toronto. Sault Ste. Marie.
Laurington Granite & Marble Works		Learnington.
Leeder, W. J. Limlsay Monumental Works. Lipper, F. & Sons. Lloyd, T. London Marble and Granite Co.	Gananoque 11 Cambridge St., N. Lindsay	Gananoque.
Lindsay Monumental Works	Durham St., Walkerton	Lindsay. Walterton.
Lloyd, T.	Main St., Prescott	Prescott.
London Marble and Granite Co	493 Richmond St., London	London. Newmarket.
Lucsby, George W	Vanklaak Hill	Vankleek Hill.
Mntheson, John T. McCallum Granite Co., Ltd.	Whitby 307 Princess St., Kingston 154 Woodwich St., Guelph 1623 Yonge St., Toronto.	Whitby.
McCallum Granite Co., Ltd	397 Princess St., Kingston	Kingston. Guelph.
McElroy, H. J	1623 Yonge St., Toronto	Toronto.
McNay, Alexander McMillan Granite Co., Ltd. Middleton Marble and Granite Co., Ltd		Toronto, Sarnia.
McMillan Granite Co., Ltd	105 Ontario St., Sarnia 122 Main St., E., Hamilton Box 35 B., Wardsville	Hamilton.
linna ('harlas	Box 35 B., Wardsville	Wardsville.
Moore Bros	404 Front St., Belleville	Belleville. Newmarket.
Moors, Ino. O. Napanee Marble and Granite Works	Napanee.	Napanee.
Nicholson, T. G. Nobbs, A. & E. North Bay Marble Works	Napanee 1117 Yonge St., Toronto Cor. William and C.P.R., London	Napanee. Toronto.
Nobbs, A. & E.	Cor. William and C.P.R., London	London. North Bay.
Onkley, Geo & Son, Ltd	278 Booth Ave., Toronto	Toronto.
Oakley, Geo. & Son, Ltd. Ontario Marble Co., Ltd. Ontario Marble & Granite Works.	278 Booth Ave., Toronto	Peterborough.
	187 Kent St. W., Lindsay	Lindsay. Ottawn
Ottawa Cut Stone Co	Alliston	Alliston
Perrott, Joseph. Pollard, James Porterfield & Colquioun.	Alliston. 715 Queen St., Sault Ste, Marie	Sault Ste. Marie. Mitchell.
Porterfield & Colquboun	Mitchell Cayugu	Cavuga.
Richardson, Robt, Harvey	Hanover 51 Catharine St., Ottawa 191 Grant Ave., Hamilton	Hanover.
Ritchie, Jas Ritchie Cut Stone Co., Ltd Ruch, T. J. & Son.	51 Catharine St., Ottawa	Ottawa. Hamilton.
Ritchie Cut Stone Co., Ltd.,	Wellington St. St. Marva	St. Marys.
Rutledge, S. II	Orangeville. Ontario St., Port Hope	Orangeville.
Rutter, Wm	Ontario St., Port Hope,	Port Hope. Orillia.
Rutter, Wn	33 Peter St., Orillia 156 Victoria St., Sarnia	Sarnia.
Scott, John F	176 E. Main St., Galt 38 McGee St., Toronto 551 Bethune St., Peterborough	Calt. Toronto.
Scott Bros. Sherwood, J. H.	551 Bethune St., Peterborough	Peterborough.
Simcoe Marble Works		Barrie.
Skelton, E. J. & Son	Walkerton St., Natrie 1764 Yonge St. W., Toronto Merrickville. 344 Wellington St., London.	Waikerton. Toronto.
Smith Monument Co	Merrickville	Merrickville.
Smith, R. B. Smyth, Frank W.	344 Wellington St., London	London.
Snider, L. R. Stead, Arthur	Humberstone. 148 Central Ave., Hamilton. 409 Plundas St., Toronto.	Humberstone. Hamilton,
Steiner, J	409 Plundas St., Toronto	Toronto.
Steiner, J Thake, H W	Westport 39 Market Square, Chatham	Westport. Chatham.
Thatcher & Co. Thomson, Monument Co., Ltd. Twin City Marble and Granite Co.	862 Dupont St., Toronto	Toronto.
Twin City Marble and Granite Co	862 Dupont St., Toronto	Fort William.
Vokes, John	884 Dupont St., Toronto	Toronto.
Wardell Monumental Works	1448 Summerhill Ave., Toronto	Tonronto.
Wildiennike Regintrin	5 Bond St., St. Catharines	St. Catharines.
Wideman, L. C. & Son. Williamson, W. A. & Son. Williamson, W. A. & Son. Williamson, W. A. & Son. Standard Stone Co., Ltd.	Stouffville	Stouffville. Cananoque.
Williamoct, B. S.	Gananoque 868-3rd Ave E., Owen Sound	Owen Sound.
Standard Stone Co., Ltd	1440 Howard Ave., Windsor	Windsor. Forran's Point.
Stubbs, C. E. Trenton Marble & Granite Works	Morrisburg Front & Ford Sts., Trenton	Trenton.
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Manumona		
Manitoba— Allen & Grant	401 Bertrand St., St. Boniface	St. Boniface.
Brook, J. H. & Sons	266 Main St., Winnipeg	Winnipeg.
Campbell, R. M.	266 Main St., Winnipeg. 90 Hespeler St., Winnipeg. Spruce and Richard Sts., Winnipeg.	Winnipeg. Winnipeg.
Gillis, Aug. & Son Guinn & Simpson Co., Ltd. Hooper Marble and Granite Co., Ltd.	Box 511, Portage la Prairie	Portage la Prairie.
Hooper Marble and Granite Co., Ltd	537 Portage Ave., Winnipeg	Winnipeg. Winnipeg.
Memorial Marble & Tile Co., Ltd.,	525 Cordyon Ave., Winnipeg	Winnipeg.

Monumental and Ornamental Stone-Concluded

Name of Firm	Head Office Address	Location of Plant	
Mantroba—Concluded Pierson, C. H. Pirotton, N. Somerville & Co. Western Stone Co. Wheeldon & Sons.	St. Boniface	Brandon. St. Romiface. Brandon. St. Boniface. Winnipeg.	
Saskatchewan— Moose Jaw Marble and Granite Works, Ltd. Regina Marble and Tile Ltd. Sask. Marble & Construction Co., Ltd. Saskatoon Granite & Marble Co., Ltd. Western Granite Marble & Stone Co., Ltd. Yorkton Monumental Works. Young, Alex. Ltd.	826 Dewdney Ave., Regins. 117 Eighth St. F., Prince Albert. 113 Ave. A. North, Saskatoon. 714-716—2nd Ave. N. Saskatoon.	Moose Jaw. Regina. Prince Albert. Saskatoon. Saskatoon. Yorkton. Regina.	
Capital Stone Works, Ltd. Hart, Albert J. Lethbridge Monumental Works.	325-8th St. S., Lethbridge	Edmonton. Edmonton, Calgary. Lethbridge. Edmonton. Calgary.	
Mortimer, John & Son. Newall, Jno. B	995—20th Ave. E., Vancouver. 880 Beach Ave., Vancouver. Nanaimo. 720 Courtenay St., Victoria.	Victoria. Vancouver.	
	Petroleum Products (a) Lubricating Oils		
New Brunswick— Canadian Independent Oil Ltd	East St. John	East St. John.	
QUEBEC— Economic Products ,Ltd	1040 Durocher St., Montreal	Montreal. 2nd Ave. and C.P.R. Tracks, Ville St. Pierre, Montreal.	
ONTARIO— Cataract Refining Co., Ltd. Dominion Cil Co., Ltd. Galena-Signal Oil Co. Ontario Lubricating Co., Ltd. Peterson Core Cil & Mfg. Co. of Canada, Ltd.	1 Sherbourne St., Toronto 263 Wallace Ave., Toronto 134 Royce Ave., Toronto 120 Chailiam St., Hamilton 718 S. Kolinor Ave., Chicago, Ill., U.S.A	Toronto. Owen Sound. Toronto. Hamilton. Harmony Ave., Hamilton.	
Alberta— Canadian Lubricants, Ltd	10589—95th St., Edmonton,	Edmonton	
	(b) Petroleum Refining		
Neva Scotta— Imperial Oil Refineries, Ltd	445 S. Christina St., Sarnia, Cnt	Dartmouth.	
Queecc— Prontenac Oil Refineries Ltd. Imperial Oil Refineries, Ltd.	721 Canada Cemest Bldg., Montreal	Montreal. 5250 Notice Dame St. E., Montreal.	
ONTAURO— British American Oil Co., Ltd., Canadian Oil Refineries, Ltd., Imperial Oil Refineries, Ltd., McColl Bros.,	1306 Royal Bank Bldg., Toronto	Toronto. Petrolin. Sarnia. Toronto.	

Petroleum Products-Concluded

(b) Petroleum Refining-Concluded

Name of Firm	Head Office Address	Location of Plant
Manitoba— North Star Oil & Refining Co	705-710 Notre Dame Investment Bldg., Winnipeg	St. Boniface.
Saskatchewan- Imperial Oil Refineries, Ltd	445 S. Christina St., Sarnia, Ont	Regina.
Alberta Refining Co., Ltd. Alberta Refineries Ltd. Arctic Refineries Ltd. Canada Southern Oil & Refining Co., Ltd. Dalhousie Oil Imperial Oil Refineries, Ltd. Jennings Refining Co., The. Royalite Oil Co., Ltd.	Coults Edmonton Lethbridge Alberta Corners, Black Diamond 407 Grain Exchange, Calgury 445 S. Christina St., Sarnia, Out 207—8th Ave. West, Calgary 239—6th Ave., W. Calgary	Coults. Edmonton. Lethbridge. Black Diamond. Okotoks. Calgary. Calgary. Black Diamond.
British Coll visty — Imperial Cil Refineries, Ltd. Union Oil Co. of Canada, Ltd.	145 S. Christina St., Sarnia, Ont. 817 W. 7th St., Los Angeles, Cah., U.S.A	Ioco. Port Moody,
Miscellaneous	Non-Metallic Mineral Products (a) Artificial Abrasives	
Quebec— Canadian Carborandum Co., Ltd	P. O. Box 536, Niagara Falls, N.Y	Shawinigan Falls.
ONTARIO— Abrusive Co. of Canada, Ltd Canadian Carborundum Co., Ltd. Delaney & Petit. Exolon Co. Norton Company.	Burlington St. and Harvey Lane, Hamilton. P. O. Box 536, Ningara Falls, N.Y. 133 Jefferson Ave., Toronto. Blasdell, New York. New Bond St., Worcester, Mass., U.S.A	Hamilton. Ningara Falls, Ont, Toronto. Thorold. Chippewa.
	(b) Abrasive Products	
Ontario— Abrasives Ltd. Brantford Grinding Wheel Co. of Canada, Ltd Canadian Hart Wheels, Ltd. Dominion Abrasive Wheel Co., Ltd. Lion Grinding Wheel Co Norton Company of Canada, Ltd. Ontario Abrasive Wheels Ltd. Prescott Emery Wheel Co Pilot Manufacturing Co., Ltd.	Canal Road, Brantford. 188 Peurl St., Brantford. 300 Burlington St. E., Hamilton. 49 Main St., Miorico Brockville 3 Bench Road, Hamilton. Water St., Prescott. Prescott. 126 Samuelson St., Galt.	Brantford. Brantford. Hamilton, Mimico. Brockville, Hamilton, Prescott. Gnlt.
(c) Art	dificial Graphite and Electrodes	
ONTARIO— Acheson Graphite Co	Niagara Falls, N.Y., U.S.A.	Cor. Buttrey Ave .and Swinyard St., Niagan
Electro-Metallurgical Co. of Canada	46 King St. W., Toronto	Fidls. Welland.
	(d) Gypsum Preducts	
Quebec— Alluisi, Arthur Petrucci, T. Carli.	21t5 rue St-Laurent, Montreal 316-320 Notre Dame E., Montreal	Montreal, Montreal.
Ontario— Alabastine Co., Etd Crystalite Stole Products, Ltd. Elsary Gypson Co., Ltd. Hynes, Il. J., Ltd Nu-Art Kera Tile Co., Ltd. Ontario Gypsom Co.	Paris Hillyard St., Hamilton, Rox 1295, Scottswille, N.Y., U.S.A., 888 Dupont St., Toronto, 7 Hunter St. E., Peterborough, Paris.	Paris ifamilton, Caledonia, Toronto, Puterborough, Paris.

Miscellaneous Non-Metallic Mineral Products-Concluded

(e) Mica Trimming

Name of Firm	Head Office Address	Location of Plan
\$£xbec-		
Loughborough Mining Co., Ltd		Yamaska.
Loughborough Mining Co., Ltd Loughborough Mining Co., Ltd		
Loughborough Mining Co., Ltd.		
Loughborough Mining Co., Ltd.		
Loughborough Mining Co., Ltd.		
Loughborough Mining Co., Etd		
Mica Co. of Canada, Ltd.	2 Lois St., Hull	Hull.
Mica Insulator Co	Victoriaville	Manseau.
Mica Insulator Co		Lyster.
Mica Insulator Co	Victoriaville	Plessisville.
Mica Insulator Co		
Mica Insulator Co.		Deschaillons
Mica Insulator Co		
Mica Insulator Co		Daveluyville.
Mineral Products Co	8 Wellington St. E., Toronto, Ont	Hull.
Annua and		
Filion, S. O.	95-97 Duke St., Ottawa	Ottawa.
Laurentide Mica Co., Ltd.	Box 911, Pittsburgh, Pa., U.S.A.	Rockland.
	Dua bit, i ittoimign, i a., U.D.A	INOCKIBILL.

