

44-D-22

3

293

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

JUL 1 1939

Now see
44-201

MANUFACTURES OF THE NON-METALLIC MINERALS IN CANADA

1938 and 1939

LIBRARY
DEPT. OF TRADE AND COMMERCE
OTTAWA

Published by Authority of the Hon. James A. MacKinnon, M.P.,
Minister of Trade and Commerce



OTTAWA
EDMOND CLOUTIER
PRINTER TO THE KING'S MOST EXCELLENT MAJESTY
1941

Price, 50 cents

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

MANUFACTURES OF THE NON-METALLIC MINERALS IN CANADA

1938 and 1939

Published by Authority of the Hon. James A. MacKinnon, M.P.,
Minister of Trade and Commerce



OTTAWA
EDMOND CLOUTIER
PRINTER TO THE KING'S MOST EXCELLENT MAJESTY
1941

NOTES ON STATISTICS OF PRODUCTION

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

In the second are included (a) **Manufacturing** and (b) **Construction**.

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

Manufactures of:

- (1) **Vegetable Products**, including—Coffee, Tea and Spices; Fruit and Vegetable Preparations, including Preserving, Canning, Pickles, Vinegar and Cider; Flour and Grist Mill Products; Bread and other Bakery Products; Biscuits and Confectionery; Macaroni and Vermicelli; Distilled and Brewed Liquors and Wines; Rubber Products; Prepared Breakfast Foods; Starch and Glucose; Sugar; Tobacco Products; Linseed Oil and Oil Cake.
- (2) **Animal Products**, including—Fish and Fish Products; Dairy Factory Products; Slaughtering and Meat Packing; Leather and Leather Products; Furs and Fur Products.
- (3) **Textiles and Textile Products**, including—Cotton Textiles (Cloth, Yarn, Thread and Waste) Woolen Textiles (Cloth, Yarn, Blankets, Felt and Waste); Silk Products; Factory-Made Clothing; Carpets, Rugs and Mats; Cordage, Rope and Twine; Hats and Caps; Hosiery and Knitted Goods; Cotton and Jute Bags; Dyeing, Cleaning and Laundry Work; Dyeing and Finishing of Textiles, Awnings, Tents and Sails.
- (4) **Wood and Paper**, including—Pulp and Paper; Paper Goods; Printing, Publishing and Lithographing; Furniture; Carriages, Wagons and Sleighs; Boxes, Baskets and Crates; Cooperage; Woodenware; Lumber; Planing Mills; Sash and Door Factories; Hardwood Flooring; Coffins and Caskets; Trees and Shoe Findings; Handles; Spools and Wood Turning; Boatbuilding.
- (5) **Iron and Steel and Their Products**, including—Primary Iron and Steel (Pig Iron, Ferro-Alloys, Steel and Rolled Products); Iron Castings; Heating and Cooking Apparatus; Boilers, Tanks and Platework; Farm Implements; Machinery; Automobiles; Auto Parts; Aircraft; Shipbuilding; Bicycles; Railway Rolling Stock; Wire and Wire Goods; Sheet Metal Products; Hardware, Cutlery and Tools; Miscellaneous Iron and Steel Products; Bridge Building and Structural Steel Work.
- (6) **Manufactures of the Non-Ferrous Metals**, including—Aluminium Products; Brass and Copper Products; White Metal Alloys; Jewellery and Silverware; Electrical Apparatus and Supplies; Miscellaneous Non-Ferrous Metal Products; Non-Ferrous Smelting and Refining.
- (7) **Manufactures of the Non-Metallic Minerals**, including—Asbestos Products; Cement; Cement Products; Coke and Gas; Glass (blown, cut, ornamental, etc.); Lime; Petroleum Products; Products from Domestic Clays; Products from Imported Clays; Salt; Sand-Lime Brick; Stone Products; Artificial Abrasives and Abrasive Products; Gypsum Products; Miscellaneous Non-Metallic Mineral Products.
- (8) **Chemicals and Allied Products**, including—Coal Tar Distillation; Acids, Alkalies and Salts; Compressed Gases; Fertilizers; Medicinal and Pharmaceutical Preparations; Faints, Pigments and Varnishes; Soaps, Washing Compounds and Cleaning Preparations; Toilet Preparations; Inks; Adhesives; Polishes and Dressings; Hardwood Distillation; Miscellaneous Chemical Products, including: (a) Boiler Compounds, (b) Cellulose Products, (c) Insecticides, (d) Sweeping Compounds, (e) Disinfectants, (f) Matches, (g) Explosives, Ammunition and Fireworks; (h) Miscellaneous Chemical Products, n.e.s.
- (9) **Miscellaneous Products**, including—Brooms and Brushes; Electric Light and Power; Musical Instruments, etc.

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

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

EXPLANATORY NOTES

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

Scope of Present Report.—The present report presents statistics for the Manufactures of the Non-Metallic Minerals, one of the nine major groups, and covers all manufacturing plants that use non-metallic minerals as their principal materials. This group in turn is subdivided into fifteen industries, as follows: (1) Asbestos products; (2) Cement; (3) Cement products; (4) Coke and gas; (5) Glass; (6) Lime; (7) Petroleum products; (8) Products from domestic clays; (9) Products from imported clays; (10) Sand-lime brick; (11) Salt; (12) Stone dressing; (13) Artificial abrasives; (14) Gypsum products; (15) Miscellaneous. A separate chapter is devoted to a review of each of these industries.

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

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

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

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

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

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

Wage-earners and Wages.—All manual workers whether skilled or unskilled who were engaged in the production or delivery of manufactured products were classed as wage-earners. Foremen and overseers who performed work similar to the other employees under their supervision were also included under this category. Wage-earners employed on new construction were excluded. Firms were asked to give the number of workers on the pay-roll on the last work-day of each month. The average for the year in a single establishment was calculated by adding the monthly figures and dividing by 12. The average for an industry was obtained by adding the averages for individual establishments. No distinction was made between full-time and part-time workers.

EXPLANATORY NOTES—Continued

Wages covered the actual amounts paid during the year to the wage-earners as defined on page 3. Owing to the inclusion of part time workers the figure obtained by dividing total wages by the average of employees does not represent the average wages received by full-time wage-earners.

Fuel and Electricity.—All fuel and electricity for heating or power purposes was included under this heading. Coke, gas and fuel oil made for the makers' own use were included. Any coal or coke charged directly to melting furnaces or used as raw material in making manufactured goods was excluded. The value represents the cost delivered at the works.

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

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

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

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

Net Value of Products.—The gross value of products is not a satisfactory measure of the importance of a given industry because only a part of the value is actually created within the industry, another, and often a larger part being contributed by the value of the materials used. Again the finished products of one industry become the raw materials of another, thus leading to a multiplication in values as the materials go through the different manufacturing processes. This duplication is eliminated and a truer measure of the importance of an industry indicated by the "net value of products" which is obtained by deducting the cost of materials, fuel and electricity, from the gross selling value of products.

Imports and Exports.—The quantities and values are based upon the declarations of importers (import entries) and of exporters (export entries) as subsequently checked by Customs' officials. The weight is the net weight of the goods; that is, it excludes the weight of the covers or receptacles, except for certain goods as definitely provided in the Customs' tariff.

Imports represent "Imports entered for Consumption" which means that the goods have passed into the custody of the importer and that duty has been paid on the dutiable portion. The value of merchandise imported is, under the provisions of the law, the fair market value or price thereof when sold for home consumption in the principal markets of the country, from which, and at the same time when, the said merchandise was exported directly to Canada.

The value of exports of Canadian merchandise is the actual cost or the value at the time of exportation at the points in Canada whence consigned for export.

Re-exports include only exports of foreign merchandise which has been imported. The value of such commodities is the actual cost of such goods.

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

Units of Measure.—The "ton" used throughout this report is the "short ton (2,000 pounds)" unless otherwise specified. The "gallon" is the "Imperial gallon."

PREFACE

This report presents statistics of production, capital, employment, etc., for the manufacturing plants in Canada which use non-metallic minerals as their principal materials. Petroleum refining, coke and gas making, cement manufacturing and other such important industries fall in this category and are covered by this review.

Statistics given herein give details for the years 1938 and 1939 and bring up to date, in printed form, the yearly records which were started in 1919.

The importance of this group of industries is indicated by the gross production value in 1939 of \$208,166,781 and the average employment of 23,026 workers. The increase in production over 1938 amounted to 5.3 per cent.

Attention is directed to the notes on the preceding pages which outline the Bureau's classification of industries for the presentation of production statistics. The various terms used in this report are defined on pages 3 and 4.

The alphabetical list of materials (Table 8) and of products (Table 9) provide convenient summaries for the several industries in this group. A similar list of products for all manufacturing industries is published annually by the Bureau and is available for a small charge.

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

R. H. COATS,
Dominion Statistician.

DOMINION BUREAU OF STATISTICS,
OTTAWA, MARCH 26, 1941.

TABLE OF CONTENTS

	PAGE
Notes on Statistics of Production.....	2
Preface.....	5
CHAPTER 1—General Review.....	7
CHAPTER 2—The Artificial Abrasives and Abrasive Products Industry.....	22
CHAPTER 3—The Asbestos Products Industry.....	27
CHAPTER 4—The Cement Industry.....	32
CHAPTER 5—The Cement Products Industry.....	36
CHAPTER 6—The Coke and Gas Industry.....	42
CHAPTER 7—The Glass Industry.....	61
CHAPTER 8—The Gypsum Products Industry.....	67
CHAPTER 9—The Lime Industry.....	71
CHAPTER 10—The Petroleum Products Industry.....	78
CHAPTER 11—The Domestic Clay Products Industry.....	100
CHAPTER 12—The Imported Clay Products Industry.....	110
CHAPTER 13—The Salt Industry.....	114
CHAPTER 14—The Sand-Lime Brick Industry.....	119
CHAPTER 15—The Stone Products Industry.....	122
CHAPTER 16—The Miscellaneous Non-Metallic Mineral Products Industry.....	134

DOMINION BUREAU OF STATISTICS

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

W. H. LOSEE, B.Sc., Chief of the Mining, Metallurgical and Chemical Branch

H. McLEOD, B.Sc., Statistician, Metal and Chemical Products

MANUFACTURES OF THE NON-METALLIC MINERALS IN CANADA, 1939

CHAPTER ONE

GENERAL REVIEW

Production in 1939 by the manufacturing industries in Canada which used non-metallic minerals as their principal materials amounted to \$208,166,781 at factory prices, an increase of 5.3 per cent over the corresponding 1938 value of \$197,620,490.

In 1939 the number of operating factories in this group was 809, distributed by provinces as follows:—Ontario, 412; Quebec, 172; British Columbia, 59; Alberta, 46; Manitoba, 39; Saskatchewan, 33; Nova Scotia, 25; Prince Edward Island, 2; New Brunswick, 20; and the Northwest Territories, 1. Capital employed rose to \$290,865,285 from \$283,268,960 in 1938; the average number of employees increased to 23,026 from 22,799 in the previous year, and payments for salaries and wages amounted to \$31,067,934, as against \$29,774,927.

Petroleum products gained 7½ millions over the 1938 output, and increases were also made in the following groups:—asbestos products, cement products, cement, gypsum products, lime domestic clay, salt, sand-lime brick, and miscellaneous non-metallics.

About 51 per cent of the factories, or 412, were located in Ontario and their production, amounting to \$89,405,845, accounted for 43 per cent of the Dominion total. Quebec with 172 factories and output worth \$62,400,851 accounted for 30 per cent of the grand total. British Columbia had 59 plants and production valued at \$13,684,146; Saskatchewan, 33 works and an output of \$10,590,238; Manitoba, 39 establishments and \$4,723,051; Alberta, 46 plants and \$13,541,250; Nova Scotia and Prince Edward Island, 27 works and \$12,619,544; and New Brunswick, 20 plants and output worth \$1,096,175.

Capital employed in 1939 totalled \$290,865,285 of which \$207,207,477 represented the value of land, buildings, machinery and equipment; \$56,738,301 was the value of inventories, and \$26,919,507 was the amount of cash, accounts receivable, etc.

The coke and gas industry, with \$94,925,764 accounted for 33 per cent of the total capital; petroleum products with \$66,381,189 accounted for 23 per cent; and the cement manufacturing industry, with \$51,251,358 for almost 18 per cent. Of the total capital investment, 44 per cent was in Ontario, and 29 per cent in Quebec.

Of the 23,026 workers in these industries in 1939, salaried employees accounted for 3,634 males and 823 females, or a total of 4,457 who were paid \$8,356,148 during the year. Wage-earners accounted for 18,569 people, including 17,924 males and 645 females, and their yearly earnings amounted to \$21,711,786.

From the standpoint of employment, the petroleum products industry topped all others with 4,766 employees. Next in order came coke and gas, 4,063; glass works, 3,372; domestic clays, 2,165; stone products, 1,257; abrasives, 1,099; imported clays, 1,097; cement, 1,001; miscellaneous, 975; lime, 937; cement products, 951; salt, 547; asbestos, 415; and sand-lime brick, 74.

The cost of fuel and electricity in 1939 was \$14,675,858, of which \$6,901,148 was expended in Ontario, and \$4,885,677 in Quebec.

Imports of non-metallic minerals and their products amounted to \$132,823,892 in 1939, against \$121,721,363 in 1938, the United States supplying \$106,095,420, and the United Kingdom \$12,020,001. Imports of petroleum, asphalt and their products were valued at \$55,913,177, coal and its products at \$45,826,821, and glass and glassware at \$7,915,113.

Exports of non-metallic minerals were valued at \$29,332,099 as against \$25,013,087 in 1938. The United States took \$16,161,233 and the United Kingdom \$3,430,123. Exports of asbestos and its products were worth \$15,844,703; coal and its products, \$2,641,048; stone and its products \$6,918,945; and petroleum and its products \$848,558.

Table 1.—Principal Statistics for the Manufactures of the Non-Metallic Minerals, by Industries, 1935-1939

Years	Number of plants	Capital employed \$	Average number of employees	Salaries and wages \$	Cost of fuel and electricity at works \$	Cost of materials at works \$	Gross selling value of products at works \$	Net value of production \$
ARTIFICIAL ABRAISIVES AND ABRASIVE PRODUCTS								
1935	15	5,281,916	976	1,314,272	782,553	2,684,406	8,643,930	5,176,971
1936	15	6,241,502	1,149	1,528,194	967,236	3,164,252	10,631,533	6,500,045
1937	16	7,151,369	1,288	1,995,589	1,222,529	4,351,554	14,174,351	8,599,988
1938	16	6,754,670	1,141	1,602,771	830,833	2,657,393	8,579,705	6,091,499
1939	16	7,179,801	1,099	1,630,889	777,654	2,971,056	9,273,143	5,526,433
ASBESTOS PRODUCTS								
1935	13	1,703,301	327	323,854	66,783	518,994	1,130,282	544,495
1936	13	1,955,676	372	376,574	79,290	622,530	1,293,909	592,089
1937	13	2,003,659	451	464,882	91,252	812,639	1,896,677	992,736
1938	13	1,701,202	403	433,864	107,436	614,207	1,531,118	809,475
1939	14	2,003,516	415	497,324	99,711	724,424	1,783,993	959,858
CEMENT PRODUCTS								
1935	94	3,024,286	519	451,625	37,086	459,296	1,154,138	657,756
1936	97	3,053,745	602	569,209	50,036	763,021	1,713,347	900,290
1937	109	3,695,565	840	804,024	57,511	1,566,870	3,299,331	1,674,950
1938	118	3,476,390	834	796,902	97,023	1,452,169	3,200,419	1,651,227
1939	122	3,731,652	951	961,143	115,038	1,698,179	3,716,692	1,903,475
COKE AND GAS								
1935	44	98,939,160	4,107	5,027,861	2,432,111	15,233,519	38,474,789	20,809,159
1936	42	93,088,722	4,116	5,714,483	2,781,045	10,585,571	39,871,898	20,505,282
1937	33	91,911,250	4,027	5,709,569	2,906,092	17,217,957	41,702,929	21,578,880
1938	33	93,337,572	3,930	5,799,502	2,842,320	16,603,643	39,721,530	20,275,567
1939	33	94,925,764	4,063	5,851,614	3,430,393	16,726,445	39,029,570	18,872,732
GLASS								
1935	68	14,168,575	3,135	3,291,074	837,025	3,618,176	9,933,348	5,478,148
1936	68	14,687,098	3,323	3,522,157	851,774	4,208,706	11,094,762	6,034,282
1937	77	15,750,801	3,799	4,289,031	1,030,893	5,768,738	14,437,250	7,637,519
1938	77	15,333,941	3,429	3,987,826	898,006	4,648,477	12,649,957	7,103,474
1939	73	16,534,181	3,372	3,948,603	888,316	4,559,732	12,629,050	7,081,002
GYPSUM PRODUCTS								
1935	8	2,685,222	173	136,297	60,968	581,945	1,418,793	836,848
1936	9	2,766,619	217	219,495	77,415	798,799	1,970,882	1,172,083
1937	9	2,756,165	243	232,244	109,770	1,002,568	2,525,607	1,522,939
1938	9	2,823,184	245	289,583	118,936	1,123,950	2,715,894	1,473,008
1939	9	3,660,233	307	321,596	129,889	1,240,763	3,174,137	1,803,485
PETROLEUM PRODUCTS								
1935	58	64,707,454	4,856	7,153,224	3,847,049	58,869,814	79,950,525	17,233,662
1936	63	61,883,926	5,019	7,309,955	3,932,634	66,555,885	85,802,363	15,313,844
1937	57	64,280,266	5,137	8,246,843	4,450,005	80,401,880	98,545,014	13,602,129
1938	59	62,620,908	4,675	7,873,040	4,683,217	76,419,516	97,003,347	15,900,614
1939	53	66,381,189	4,766	7,890,247	4,578,699	74,465,600	104,578,517	25,534,218
PRODUCTS FROM IMPORTED CLAYS								
1935	20	4,449,314	895	864,212	187,190	530,735	2,174,977	1,457,062
1936	20	4,216,334	1,079	1,001,047	214,762	708,576	2,906,432	1,983,094
1937	19	4,457,109	1,218	1,265,913	286,499	971,497	3,599,181	2,341,185
1938	21	4,690,308	1,163	1,194,509	229,517	795,956	3,048,888	2,023,415
1939	20	4,661,821	1,097	1,150,712	237,718	792,767	2,971,979	1,941,494
SAND-LIME BRICK								
1935	6	608,899	71	58,700	17,048	43,083	154,950	94,819
1936	5	598,510	75	71,021	17,838	55,998	189,668	115,832
1937	5	547,691	81	72,219	20,095	63,285	197,921	114,541
1938	6	542,648	68	62,425	16,004	52,876	153,763	84,883
1939	5	382,745	74	73,885	19,587	66,187	212,223	126,449
STONE PRODUCTS								
1935	222	5,180,887	1,066	1,174,229	107,836	1,010,999	3,079,118	1,960,283
1936	227	5,766,308	1,245	1,357,808	127,151	1,070,902	3,099,811	2,111,858
1937	229	5,213,431	1,159	1,352,666	122,209	1,142,885	3,371,242	2,106,148
1938	234	5,172,014	1,261	1,560,931	138,259	1,271,650	3,902,774	2,482,865
1939	190	4,991,636	1,257	1,458,780	139,438	1,259,547	3,805,989	2,407,004
MISCELLANEOUS NON-METALLIC MINERAL PRODUCTS								
1935	27	4,771,581	466	554,131	123,962	903,490	2,818,707	1,730,287
1936	29	5,167,585	645	756,689	234,114	1,208,185	3,498,659	1,878,845
1937	38	6,194,933	808	1,054,432	310,969	1,750,148	5,309,637	3,138,750
1938	48	7,296,524	945	1,175,122	309,257	2,146,288	5,880,096	3,424,551
1939	49	7,970,460	975	1,232,707	333,982	2,217,698	6,465,545	3,913,865
Total for all Industries Listed Above								
1935	575	265,329,595	16,591	29,919,479	8,499,611	84,454,456	148,933,557	55,979,490
1936	588	199,426,025	17,842	22,426,632	9,333,295	95,742,421	162,283,264	57,267,544
1937	685	263,962,239	19,052	25,487,312	10,667,924	115,050,321	188,968,010	63,369,795
1938	634	263,719,359	18,094	24,776,575	10,276,788	107,786,125	179,387,491	61,330,578
1939	584	212,422,998	18,376	25,017,500	10,750,425	106,722,394	187,542,838	70,070,015

MANUFACTURES OF NON-METALLIC MINERALS

Table 1.—Principal Statistics for the Manufactures of the Non-Metallic Minerals, by Industries, 1935-1939—Concluded

Years	Number of plants	Capital employed \$	Average number of employees	Salaries and wages \$	Cost of fuel and electricity at works \$	Cost of materials at works \$	Gross selling value of products at works \$	Net value of production \$
PRODUCTS FROM DOMESTIC CLAYS								
1935	139	20,502,006	1,728	1,387,924	618,995	60,583	3,012,563	2,332,985
1936	140	19,863,431	1,775	1,498,148	695,001	71,353	3,471,027	2,704,673
1937	143	20,427,252	2,287	2,094,792	1,032,755	103,568	4,516,859	3,380,536
1938	152	18,068,542	2,242	2,110,233	939,190	114,659	4,536,084	3,482,235
1939	149	17,940,742	2,165	2,161,688	998,683	108,815	5,151,236	4,043,738
CEMENT								
1935	9	52,454,004	924	1,027,416	1,227,410	394,264	5,580,043	3,958,369
1936	9	53,343,991	1,052	1,196,664	1,576,142	592,929	6,908,192	4,739,121
1937	9	54,150,672	1,083	1,373,444	1,904,418	540,915	9,095,867	6,650,534
1938	8	52,299,046	1,034	1,306,331	1,704,427	529,157	8,241,350	5,947,766
1939	8	51,251,358	1,001	1,297,542	1,705,981	532,058	8,511,211	6,273,172
LIME								
1935	54	5,707,391	756	556,049	686,186	124,251	2,925,791	2,115,354
1936	57	6,106,901	799	640,322	743,663	96,316	3,335,970	2,495,991
1937	57	4,931,831	872	781,274	871,131	167,827	3,824,917	2,785,959
1938	53	4,881,214	867	795,068	826,230	113,759	3,542,652	2,602,663
1939	59	4,802,983	937	849,468	944,502	107,310	4,003,514	2,951,502
SALT								
1935	10	3,776,333	473	597,785	175,240	38,700	1,880,978	1,667,038
1936	9	3,856,187	506	640,644	181,502	31,195	1,773,144	1,560,447
1937	9	4,001,568	543	653,136	183,117	75,947	1,799,465	1,540,401
1938	9	4,270,799	562	780,720	278,711	30,369	1,912,913	1,603,833
1939	9	4,447,204	547	741,736	276,207	*508,511	2,957,982	2,173,204
Total for Industries Listed Above								
1935	212	82,439,771	3,881	3,569,174	2,707,831	617,798	13,399,375	10,073,716
1936	215	83,176,510	4,132	3,975,778	3,196,308	791,793	15,188,333	11,590,232
1937	218	83,511,303	4,785	4,902,616	3,991,421	888,357	19,237,108	14,357,430
1938	222	79,519,601	4,705	4,998,352	3,808,558	787,914	18,232,999	13,636,497
1939	225	78,442,287	4,650	5,050,431	3,925,433	1,256,891	20,623,941	15,441,616
GRAND TOTAL OF MANUFACTURES OF NON-METALLIC MINERALS								
1935	787	287,960,329	30,472	24,518,651	11,207,142	85,072,254	162,412,332	66,053,236
1936	803	282,596,535	31,971	26,402,110	12,529,603	96,331,218	177,771,397	68,707,776
1937	823	287,433,542	34,837	30,389,958	14,599,345	115,938,578	208,305,148	77,667,225
1938	856	283,268,960	32,790	29,274,927	14,679,316	108,574,069	192,620,190	74,967,075
1939	809	290,865,285	33,026	30,067,931	14,675,858	107,979,292	208,166,781	85,511,631

Note.—Data for cement, lime, salt and products from domestic clays are also included in the figures for the mining industry.

Profits or losses cannot be calculated from above figures as data are not available for general expense items, such as, interest, rent, depreciation, taxes, insurance, advertising, etc.

* Includes containers to a value of \$471,350, this item was not included prior to 1939.

Table 2.—Principal Statistics for the Manufactures of the Non-Metallic Minerals, by Provinces, 1935-1939

Years	Number of plants	Capital employed \$	Average number of employees	Salaries and wages \$	Cost of fuel and electricity at works \$	Cost of materials at works \$	Gross selling value of products at works \$	Net value of production \$
PRINCE EDWARD ISLAND AND NOVA SCOTIA								
1935	25	15,303,962	996	1,259,864	806,063	6,774,705	11,322,797	3,742,029
1936	26	13,750,705	1,125	1,320,063	833,279	7,358,279	11,030,985	2,839,427
1937	28	15,930,703	1,257	1,543,096	929,813	10,140,832	12,788,915	1,713,270
1938	27	15,614,141	1,078	1,441,954	732,455	7,896,069	11,093,931	2,465,407
1939	27	15,806,344	1,108	1,512,652	735,957	7,811,740	12,619,544	4,071,847
NEW BRUNSWICK								
1935	22	1,215,860	182	144,211	58,424	104,057	554,741	392,260
1936	22	1,527,633	247	189,970	74,219	199,560	784,175	510,396
1937	24	1,584,338	264	229,170	87,390	243,148	947,490	616,952
1938	23	1,478,693	231	205,839	78,476	251,515	936,147	606,156
1939	20	1,859,339	244	220,336	86,658	288,507	1,096,175	721,010
QUEBEC								
1935	170	82,408,019	4,937	5,885,360	3,393,275	23,062,601	44,205,812	17,749,036
1936	162	80,494,994	5,236	6,279,598	4,112,188	26,927,064	50,108,988	19,069,736
1937	172	82,836,298	5,900	7,530,714	4,599,848	34,336,797	61,309,188	22,372,543
1938	175	84,647,581	5,589	7,283,265	4,767,056	32,811,271	58,883,761	21,305,434
1939	172	85,557,172	5,706	7,230,590	4,885,677	31,638,660	62,400,851	25,876,514
ONTARIO								
1935	416	128,385,218	11,132	13,411,703	5,530,405	35,551,221	74,272,897	33,191,271
1936	431	128,881,326	11,894	14,320,997	5,829,572	40,477,428	81,878,508	35,571,508
1937	435	132,441,820	12,857	16,571,648	7,162,365	47,251,189	94,994,715	40,581,161
1938	452	126,189,638	12,221	16,133,593	6,435,771	42,798,485	86,290,368	37,056,112
1939	412	128,353,668	12,120	16,181,931	6,901,148	42,594,462	89,405,845	39,910,235
MANITOBA								
1935	37	14,193,378	609	589,093	297,809	1,675,983	3,803,305	1,829,513
1936	37	14,861,080	590	610,835	309,494	1,658,103	4,202,693	2,235,096
1937	37	12,790,659	651	675,599	323,649	1,671,818	4,370,924	2,375,457
1938	41	13,880,066	693	723,099	375,397	1,874,314	4,540,339	2,290,628
1939	39	13,764,765	707	751,577	343,090	2,251,126	4,723,051	2,128,829
SASKATCHEWAN								
1935	30	6,255,176	514	614,598	273,062	4,215,286	5,917,537	1,429,189
1936	33	6,025,394	554	703,023	315,804	5,304,924	6,915,357	1,294,629
1937	37	6,359,907	608	805,302	396,128	6,058,079	8,029,403	1,574,596
1938	33	5,755,230	537	765,077	474,568	6,839,473	9,917,792	2,603,751
1939	33	6,290,769	589	810,572	495,730	6,818,732	10,590,238	3,275,776
ALBERTA								
1935	33	14,487,218	996	1,230,222	362,751	6,733,552	9,937,291	2,840,988
1936	37	13,817,679	1,084	1,345,204	415,601	6,375,004	9,516,834	2,720,229
1937	34	12,061,358	1,056	1,327,645	382,897	6,614,045	10,867,020	3,870,078
1938	45	12,704,229	1,142	1,451,555	513,980	7,018,083	11,973,190	4,441,127
1939	46	16,002,876	1,233	1,608,469	620,098	7,350,835	13,541,250	5,570,317
BRITISH COLUMBIA AND NORTHWEST TERRITORIES								
1935	54	25,711,498	1,106	1,383,602	485,653	6,654,849	12,318,552	4,878,050
1936	55	23,537,718	1,238	1,632,714	639,446	8,233,856	13,334,057	4,460,755
1937	56	23,468,459	1,244	1,706,724	717,255	9,622,070	14,902,493	4,563,168
1938	63	22,989,382	1,308	1,770,545	701,643	9,084,859	13,984,992	4,198,460
1939	60	23,230,352	1,319	1,751,807	607,494	9,225,230	13,789,827	3,957,103
CANADA								
1935	787	287,960,329	20,472	24,518,653	11,207,442	85,072,254	162,332,932	66,653,236
1936	803	282,496,535	21,971	26,402,410	12,529,603	96,331,218	177,751,597	68,707,776
1937	823	287,473,542	23,837	30,389,958	14,589,315	115,838,578	208,205,148	77,662,725
1938	856	283,268,960	22,799	29,774,927	14,079,346	108,571,069	197,620,490	71,967,075
1939	809	296,865,285	23,626	30,067,934	14,675,858	107,979,292	208,166,781	85,511,631

MANUFACTURES OF NON-METALLIC MINERALS

Table 2a.—Historical Summary of the Manufactures of the Non-Metallic Minerals, 1919 and 1939

Years	Number of plants	Capital employed	Average number of employees	Salaries and wages	Cost of fuel and electricity at works	Cost of materials at works	Gross selling value of products at works	Net value of production
		\$		\$	\$	\$	\$	\$
1919	630	185,105,024	19,436	21,710,204	7,860,780	49,670,040	107,303,444	49,872,624
1920	773	213,773,172	26,021	31,819,558	14,035,120	71,502,291	150,465,813	64,928,402
1921	755	221,270,883	21,892	20,562,672	11,936,173	65,291,775	133,580,311	56,352,363
1922	812	230,486,004	21,473	25,414,553	11,280,407	60,671,305	134,693,912	62,742,200
1923	796	235,203,833	24,343	27,494,515	12,460,736	66,630,352	137,567,128	58,476,040
1924	799	226,227,309	22,843	27,752,174	15,416,879	59,758,885	132,219,445	57,043,681
1925	878	229,150,494	22,784	28,043,405	13,752,859	62,202,189	137,371,068	61,416,020
1926	893	251,028,657	24,354	30,107,628	14,215,608	79,239,842	166,750,419	73,294,971
1927	849	268,367,971	24,860	31,905,498	15,116,972	82,851,218	167,033,638	69,065,448
1928	831	237,042,184	26,683	34,728,590	15,415,168	88,978,217	195,404,310	91,010,925
1929	843	316,692,818	29,257	38,958,390	18,135,350	112,573,103	229,774,300	99,065,847
1930	849	321,084,124	27,428	36,196,714	15,971,448	103,539,472	203,262,420	83,751,500
1931	870	314,950,411	22,455	29,211,421	13,082,311	75,644,990	168,367,553	79,640,252
1932	784	299,928,971	18,040	21,797,578	10,361,463	71,597,611	136,697,732	54,738,658
1933	770	295,139,543	16,975	19,282,401	9,430,927	69,077,701	131,325,706	52,817,078
1934	778	295,755,140	19,605	22,414,966	10,770,070	81,508,547	155,196,712	62,918,095
1935	787	287,960,329	20,472	24,518,653	11,207,442	85,072,254	162,332,932	66,053,236
1936	803	282,596,535	21,074	26,402,410	12,529,603	96,534,218	177,771,597	68,707,776
1937	823	287,473,542	23,837	30,389,958	14,599,345	115,938,578	208,205,148	77,967,225
1938	856	283,268,990	22,799	29,774,927	14,079,346	108,574,069	197,620,490	74,967,075
1939	809	290,865,285	23,026	31,067,934	14,675,858	107,979,292	208,166,781	85,511,631

Data for 1919 to 1936 have been revised to exclude the aerated waters industry.

Table 3.—Principal Statistics for the Manufactures of the Non-Metallic Minerals, by Industries and by Provinces, 1939

NOTE.—According to the Statistics Act, the Bureau is not authorized to publish statistics which will, in any way, reveal the operations of individual concerns. Consequently, in the following table the number of plants is shown by provinces and by industries, but other data have been omitted in cases where only 1 or 2 concerns are involved. The total for each province, however, includes data for the industries in which there were only 1 or 2 plants in operation.

Provinces and industries	Number of plants	Capital employed	Average number of employees	Salaries and wages	Cost of fuel and electricity at works	Cost of materials at works	Gross selling value of products at works	Net value of production
		\$		\$	\$	\$	\$	\$
PRINCE EDWARD ISLAND AND NOVA SCOTIA—								
Asbestos products	1							
Cement products	1							
Coke and gas	2							
Gypsum products	1							
Lime	2							
Petroleum products	1							
Products from domestic clays	6	933,708	142	129,870	62,994	3,270	339,952	273,688
Salt	1							
Stone products	11	153,723	48	47,736	3,137	55,366	152,869	94,366
Miscellaneous	1							
Total	27	1,087,431	1,108	1,512,652	735,957	7,811,740	12,619,544	4,071,847
NEW BRUNSWICK—								
Cement products	3	18,661	6	2,080	132	2,451	7,869	5,286
Coke and gas	1							
Glass	1							
Gypsum products	1							
Lime	4	175,700	75	72,637	35,598	4,107	151,898	112,193
Petroleum products	1							
Products from domestic clays	3	245,928	64	46,356	29,906	2,069	129,985	98,010
Stone products	5	74,022	24	26,215	2,054	14,586	52,785	36,145
Miscellaneous	1							
Total	20	1,459,339	244	220,338	86,658	288,507	1,096,175	721,010

Table 3.—Principal Statistics for the Manufactures of the Non-Metallic Minerals, by Industries and by Provinces, 1939—Continued

Provinces and industries	Number of plants	Capital employed	Average number of employees	Salaries and wages	Cost of fuel and electricity at works	Cost of materials at works	Gross selling value of products at works	Net value of production
		\$		\$	\$	\$	\$	\$
QUEBEC—								
Abrasive products	2							
Asbestos products	7	1,262,489	288	333,852	77,020	422,501	995,193	495,672
Cement products	27	1,219,138	291	257,996	54,478	559,647	1,248,416	634,291
Cement	2							
Coke and gas	5	11,640,038	646	1,011,091	924,065	3,257,010	10,042,883	5,861,808
Glass	17	6,784,377	1,106	1,302,682	336,286	1,305,868	4,105,576	2,463,422
Gypsum products	1							
Lime	21	1,056,338	346	278,523	358,612	33,324	983,072	590,936
Petroleum products	7	25,633,897	990	1,680,886	1,595,415	23,350,561	33,329,907	8,383,931
Products from domestic clays	20	4,307,186	498	503,490	293,610	43,686	1,274,776	937,480
Products from imported clays	4	1,639,760	238	270,374	69,674	166,832	738,093	501,587
Sand-lime brick	1							
Stone products	44	1,386,105	379	404,286	38,363	401,249	1,031,819	592,007
Miscellaneous	14	4,272,395	327	428,672	122,646	1,289,021	3,203,888	1,791,721
Total	172	85,557,172	5,766	7,230,590	4,885,677	31,638,660	62,400,851	25,876,514
ONTARIO—								
Abrasive products	14							
Asbestos products	6	708,027	114	149,278	22,359	291,973	751,157	436,825
Cement products	72	2,068,306	496	630,973	52,130	839,400	1,882,835	991,305
Cement	3	13,946,306	336	425,828	542,886	152,675	2,437,777	1,742,216
Coke and gas	18	54,320,463	2,463	3,553,487	1,992,649	9,647,794	21,033,396	9,392,953
Glass	44	8,085,764	2,019	2,329,079	484,063	2,668,809	7,258,579	4,105,707
Gypsum products	2							
Lime	22	2,457,491	254	276,077	466,048	17,380	2,236,952	1,753,524
Petroleum products	12	19,111,045	2,031	3,408,743	1,523,567	23,268,811	32,087,996	7,297,618
Products from domestic clays	87	8,303,580	884	930,217	497,052	49,936	2,346,638	1,799,650
Products from imported clays	15	2,997,261	857	877,938	168,044	624,077	2,222,108	1,429,987
Salt	6	3,151,301	394	610,555	214,257	466,104	2,648,984	1,968,623
Sand-lime brick	4							
Stone products	87	2,619,038	613	765,813	81,541	640,926	2,044,382	1,321,915
Miscellaneous	20	2,741,259	488	639,671	184,594	716,321	2,585,769	1,684,854
Total	412	128,353,668	12,120	16,181,831	6,901,148	42,594,462	89,465,845	39,910,235
MANITOBA—								
Cement products	1							
Cement	1							
Coke and gas	2							
Glass	4	104,110	30	25,432	761	29,326	75,790	45,703
Gypsum products	2							
Lime	4	527,924	85	67,509	37,326	34,825	196,190	124,039
Petroleum products	5	1,231,709	134	151,271	54,572	1,453,756	1,884,691	376,563
Products from domestic clays	5	265,876	63	46,780	13,337	390	78,892	65,165
Salt	1							
Stone products	13	172,770	53	41,346	4,038	33,785	102,638	64,816
Miscellaneous	1							
Total	39	13,764,765	707	751,577	343,096	2,251,126	4,723,651	2,128,829
SASKATCHEWAN—								
Products from imported clays	1							
Cement products	2							
Petroleum products	11	4,659,859	452	655,759	467,015	6,669,761	10,074,461	2,937,695
Products from domestic clays	7	818,889	41	55,774	11,536	1,282	148,774	135,956
Stone products	10	163,860	39	43,184	3,211	27,113	95,075	64,751
Miscellaneous	2							
Total	33	6,290,763	589	810,572	495,739	6,818,732	10,596,238	3,275,776
ALBERTA—								
Cement products	7	128,322	65	74,080	3,029	144,372	238,433	91,032
Cement	1							
Coke and gas	1							
Glass	1							
Gypsum products	1							
Lime	3	171,859	25	20,031	10,559	10,000	108,632	88,073
Petroleum products	11	6,849,617	481	719,616	331,079	6,277,687	10,291,323	3,682,557
Products from domestic clays	10	2,153,477	263	249,081	32,077	1,725	461,079	427,277
Salt	1							
Stone products	7	260,621	46	51,561	3,272	48,223	154,802	103,307
Miscellaneous	3	48,550	17	17,791	1,499	13,305	50,551	35,747
Total	46	16,067,876	1,233	1,668,469	629,098	7,350,835	13,641,250	5,570,317

MANUFACTURES OF NON-METALLIC MINERALS

Table 3.—Principal Statistics for the Manufactures of the Non-Metallic Minerals, by Industries and by Provinces, 1939—Concluded

Provinces and industries	Number of plants	Capital employed	Average number of employees	Salaries and wages	Cost of fuel and electricity at works	Cost of materials at works	Gross selling value of products at works	Net value of production
		\$		\$	\$	\$	\$	\$
BRITISH COLUMBIA.—								
Cement products.....	9	211,248	71	73,337	3,420	139,968	285,197	141,800
Cement.....	1							
Coke and gas.....	4	13,030,622	390	515,926	165,898	773,955	2,461,926	1,522,073
Glass.....	6	121,328	30	24,737	1,404	59,845	89,167	36,918
Gypsum products.....	1							
Lime.....	3	393,771	118	88,403	16,905	3,405	197,259	176,949
Petroleum products.....	5	4,516,020	285	551,060	247,171	8,032,552	9,249,754	970,031
Products from domestic clays.....	11	912,128	210	200,130	58,171	6,457	371,140	306,512
Stone products.....	13	171,497	55	78,639	3,822	38,299	171,819	129,698
Miscellaneous.....	7	280,015	90	90,077	8,743	50,245	201,920	144,932
Total.....	60	23,230,332	1,319	1,751,807	607,494	9,225,230	13,789,827	3,957,103
Canada, 1939—								
Abrasive products.....	16	7,179,801	1,009	1,630,889	777,651	2,971,056	9,275,113	5,326,433
Asbestos products.....	14	2,063,516	415	497,321	99,711	721,424	1,783,983	959,858
Cement products.....	122	3,731,632	951	961,143	115,038	1,698,179	3,716,692	1,903,425
Cement.....	8	51,251,358	1,001	1,297,512	1,795,981	532,058	8,511,211	6,273,172
Coke and gas.....	33	94,925,764	4,063	5,851,611	3,430,393	16,726,115	39,929,570	18,872,732
Glass.....	73	16,534,181	3,372	3,918,603	888,316	4,559,732	12,529,050	7,081,602
Gypsum products.....	9	3,660,233	307	321,596	129,889	1,210,763	3,174,137	1,803,185
Lime.....	59	4,802,983	937	819,168	914,502	107,510	4,001,514	2,951,592
Petroleum products.....	53	66,381,189	4,766	7,890,217	4,328,699	24,165,700	101,578,517	25,534,218
Products from domestic clays.....	149	17,940,742	2,165	2,161,688	998,683	108,815	5,151,236	4,043,738
Products from imported clays.....	20	4,061,821	1,097	1,150,712	237,218	792,767	2,971,979	1,941,494
Salt.....	9	4,417,201	517	741,736	276,267	508,511	2,957,982	2,173,281
Sand-lime brick.....	5	392,745	71	73,885	19,587	66,187	212,223	126,449
Stone products.....	190	4,991,636	1,257	3,458,780	139,438	1,259,547	3,805,989	2,107,001
Miscellaneous.....	49	7,970,160	975	1,232,707	333,982	2,217,698	6,165,515	3,913,865
Total.....	809	290,865,285	23,026	30,067,934	14,675,858	107,979,292	208,166,781	85,511,631

*Includes one petroleum refinery in the Northwest Territories.

Table 4.—Capital Employed in the Manufactures of the Non-Metallic Minerals in Canada, by Industries, 1938 and 1939

Industries	Present value of lands, buildings, machinery, tools and other equipment	Inventory value of materials on hand, finished products and stocks in process	Cash, bills, and accounts receivable, prepaid expenses, etc.	Total
	\$	\$	\$	\$
1938				
Abrasive products.....	3,368,646	2,585,000	801,024	6,754,670
Asbestos products.....	884,528	440,348	376,326	1,701,202
Cement products.....	2,233,712	498,266	744,412	3,476,390
Cement.....	46,201,932	2,179,483	3,917,631	52,299,016
Coke and gas.....	76,943,966	10,275,885	6,117,721	93,337,572
Glass.....	9,316,671	2,068,645	3,048,025	15,333,941
Gypsum products.....	1,740,014	327,892	749,278	2,817,184
Lime.....	4,089,450	470,443	321,321	4,881,214
Petroleum products.....	33,652,891	27,037,024	1,930,903	62,620,808
Products from domestic clays.....	13,797,957	2,181,587	2,088,998	18,068,542
Products from imported clays.....	2,789,768	1,029,155	871,383	4,690,306
Salt.....	3,350,453	380,952	539,394	4,270,799
Sand-lime brick.....	406,929	36,214	39,505	512,648
Stone products.....	2,998,061	1,053,071	1,120,882	5,172,014
Miscellaneous.....	4,303,891	1,912,488	1,080,145	7,296,524
Total*.....	206,141,869	53,376,453	23,747,638	283,268,960
1939				
Abrasive products.....	3,259,831	2,532,791	1,387,179	7,179,801
Asbestos products.....	921,453	544,576	537,487	2,003,516
Cement products.....	2,325,212	585,357	821,083	3,731,652
Cement.....	45,132,186	2,189,804	3,929,368	51,251,358
Coke and gas.....	77,631,343	11,090,379	6,195,048	94,925,764
Glass.....	9,126,910	3,117,858	4,289,413	16,534,181
Gypsum products.....	2,237,978	435,180	957,075	3,660,233
Lime.....	3,899,047	538,664	395,272	4,802,983
Petroleum products.....	35,443,821	29,322,783	1,614,585	66,381,189
Products from domestic clays.....	13,647,693	2,027,391	2,265,658	17,940,742
Products from imported clays.....	2,791,411	906,039	963,769	4,661,821
Salt.....	3,359,350	399,454	689,400	4,447,201
Sand-lime brick.....	302,323	35,556	44,500	382,715
Stone products.....	2,975,029	965,482	1,050,525	4,991,636
Miscellaneous.....	4,183,288	2,037,093	1,750,079	7,970,460
Total*.....	207,207,477	56,738,304	26,919,567	290,865,285

*Includes one petroleum refinery in the Northwest Territories.

Table 5.—Employees, Salaries and Wages in the Manufactures of the Non-Metallic Minerals, by Industries, 1938 and 1939

Industries	Average number of employees				Total employees	Salaries	Wages	Total salaries and wages
	On salaries		On wages					
	Male	Female	Male	Female				
						\$	\$	\$
1938								
Abrasive products.....	211	61	808	1	1,111	549,628	1,053,143	1,602,771
Asbestos products.....	73	14	292	24	403	163,528	270,436	433,964
Cement products.....	173	19	635	7	834	262,326	534,576	796,902
Cement.....	95	5	934	.....	1,034	218,445	1,087,886	1,306,331
Coke and gas.....	850	252	2,827	1	3,930	1,734,227	4,065,275	5,799,502
Glass.....	328	112	2,674	315	3,429	800,010	3,187,816	3,987,826
Gypsum products.....	30	3	212	.....	245	58,798	230,785	289,583
Lime.....	68	9	790	.....	867	112,998	682,070	795,068
Petroleum products.....	785	136	3,743	11	4,675	2,188,437	5,684,603	7,873,040
Products from domestic clays.....	252	26	1,964	.....	2,212	525,502	1,584,731	2,110,233
Products from imported clays.....	117	45	825	176	1,163	303,119	981,390	1,194,509
Salt.....	78	37	415	32	562	278,478	508,242	786,720
Sand-lime brick.....	13	1	54	.....	68	19,861	42,564	62,425
Stone products.....	369	36	846	10	1,261	588,976	971,955	1,560,931
Miscellaneous.....	151	29	736	29	945	354,129	820,993	1,175,122
Total.....	3,593	785	17,815	606	22,799	8,158,462	21,616,465	29,774,927
1939								
Abrasive products.....	185	60	853	1	1,099	567,432	1,003,457	1,630,889
Asbestos products.....	72	15	301	27	415	170,044	327,280	497,324
Cement products.....	185	20	738	8	951	321,905	639,238	961,143
Cement.....	87	4	910	.....	1,001	198,141	1,090,401	1,297,542
Coke and gas.....	885	278	2,898	2	4,063	1,703,455	4,148,159	5,851,614
Glass.....	366	115	2,836	355	3,372	870,245	3,078,358	3,948,603
Gypsum products.....	30	3	274	.....	307	60,227	261,309	321,536
Lime.....	75	10	852	.....	937	128,067	721,401	849,468
Petroleum products.....	820	140	3,792	14	4,766	2,282,581	5,607,699	7,890,247
Products from domestic clays.....	234	27	1,904	.....	2,165	526,960	1,634,728	2,161,688
Products from imported clays.....	115	43	770	169	1,097	295,990	854,722	1,150,712
Salt.....	79	35	404	30	547	285,023	456,713	741,736
Sand-lime brick.....	13	1	60	.....	71	22,582	51,303	73,885
Stone products.....	320	39	887	11	1,257	515,577	943,203	1,458,780
Miscellaneous.....	169	33	745	28	975	407,919	824,788	1,232,707
Total.....	3,634	823	17,924	645	23,026	8,356,148	21,711,786	30,067,934

Table 6.—Fuel and Electricity Used in the Manufactures of the Non-Metallic Minerals, 1938 and 1939

NOTE.—Figures for coke, fuel oil and manufactured gas include amounts used in producing companies' own works for fuel or for heating stills, ovens and retorts.

Kinds	Unit of measure	1938		1939	
		Quantity	Cost at works	Quantity	Cost at works
			\$		\$
Bituminous coal—Canadian.....	short ton	228,444	1,212,952	304,342	1,670,622
Imported.....	short ton	322,415	1,818,894	244,452	1,385,824
Anthracite coal.....	short ton	8,758	53,282	7,521	44,386
Lignite coal.....	short ton	8,033	27,628	8,543	28,006
Coke.....	short ton	166,131	881,279	173,960	1,263,809
Gasoline.....	imp. gal.	386,901	82,363	492,644	97,786
Kerosene.....	imp. gal.	7,281	1,360	19,644	4,061
Fuel oil.....	imp. gal.	65,137,002	2,540,663	70,106,791	2,482,546
Wood.....	cord	92,876	323,590	86,206	300,477
Gas—Manufactured.....	M cu. ft.	20,646,916	3,427,297	23,633,636	3,638,758
Natural.....	M cu. ft.	3,475,113	556,218	3,622,708	657,618
Other fuel.....	\$	.....	280,220	.....	219,546
Electricity purchased.....	k. w. h.	585,202,088	2,873,588	615,803,622	2,904,419
Total.....	\$	.....	14,079,346	.....	14,675,858

Table 7.—Power Equipment Used in the Manufactures of Non-Metallic Minerals, 1938 and 1939

Kinds	Ordinarily in use		In reserve or idle	
	Number of units	Total rated horse power	Number of units	Total rated horse power
1938				
Steam engines and steam turbines.....	719	34,073	125	8,239
Diesel engines.....	21	3,108	11	964
Gasoline, gas and oil engines, other than Diesel.....	160	5,044	33	1,165
Hydraulic turbines or water wheels.....	1	25	1	6
Electric motors run by purchased power.....	9,049	188,078	737	17,980
Total	9,950	230,328	907	28,354
Electric motors run by above primary units.....	404	6,463	6	220
Stationary boilers.....	423	66,673	79	17,784
1939				
Steam engines and steam turbines.....	772	36,582	141	7,295
Diesel engines.....	27	3,436	8	855
Gasoline, gas and oil engines, other than Diesel.....	228	7,730	29	912
Hydraulic turbines or water wheels.....	1	3	1	3
Electric motors run by purchased power.....	9,268	173,244	945	25,669
Total	10,295	220,992	1,124	34,734
Electric motors run by above primary units.....	527	8,053	2	20
Stationary boilers.....	415	65,067	85	17,749

Table 8.—Alphabetical List of Materials Used in All Industries classified under the Manufactures of Non-Metallic Minerals, 1938 and 1939

Item No.	Materials	Industry number (See page 21)	Unit of measure	1938		1939	
				Quantity	Cost at work	Quantity	Cost at work
1	Abrasive grains, artificial (fused alumina and silicon carbide).....	1	lb.	5,068,348	281,475	5,991,323	370,482
2	Abrasive grains, natural (corundum, silica, flint, garnet, etc.).....	1	lb.	689,204	28,768	711,991	40,786
3	Acid, sulphuric, 66° Be.....	5-11	lb.	63,588,000	511,241	66,106,999	539,203
4	Arsenic.....	7	ton	162	10,678	136	8,152
5	Asbestos cloth, strips and tape.....	2	lb.	85,556	32,257	122,360	44,617
6	Asbestos fibre, crude.....	2	lb.	5,841,692	110,077	6,895,578	144,864
7	Asbestos millboard and lumber.....	2	.....	.....	9,349	.....	15,640
8	Asbestos paper, corrugated and plain.....	2	lb.	149,626	6,734	232,992	10,570
9	Asbestos yarn.....	2	lb.	230,777	66,859	427,445	121,227
10	Asphalt.....	2-17	ton	11,907	202,834	.....	121,707
11	Bakelite, (except item 17).....	2-13	.....	.....	32,774	.....	35,492
12	Bauxite and pure alumina.....	1	ton	57,120	1,267,712	60,441	1,440,406
13	Benzol for blending.....	11	gal.	2,061,032	327,468	2,087,800	328,321
Bonding and bushing materials for abrasive wheels—							
14	Clay bonds.....	1	lb.	436,380	13,015	611,069	16,890
15	Elastic mixtures.....	1	lb.	15,150	3,654	17,227	4,493
16	Silicate (quantity in equivalent solid form).....	1	lb.	6,781	340	10,898	426
17	Bakelite and synthetic resins.....	1	lb.	108,591	37,426	80,387	34,119
18	Lead for bushings.....	1	lb.	35,150	1,814	36,380	1,811
19	Brass wire.....	2	.....	.....	12,253	.....	13,140
20	Borax.....	7	ton	1,524	102,280	1,501	98,265
21	Carbon scrap for electrodes.....	17	ton	7,211	117,203	6,607	99,967
22	Celluloid and other plastics.....	6	.....	.....	46,747	.....	62,700
23	Cement, Portland.....	4-15	brl.	380,286	771,893	446,238	895,671
24	Cinders.....	4-15	cu. yd.	34,938	27,720	48,881	45,907
25	Clay used in gypsum wallboard.....	8	ton	63	725	5	332
26	Clay, Canadian, all kinds.....	13-17	.....	.....	12,584	.....	11,991
27	Clay, fire, imported.....	13-17	ton	20,717	118,875	21,721	127,663
28	Clays, other, imported.....	11-13	ton	11,813	272,833	16,030	391,477
Coal (not for fuel)							
29	For fused alumina.....	1	ton	308	1,603	244	1,398
30	For silicon carbide.....	1	ton	5,855	35,241	5,029	31,442
31	Anthracite for foundry facings.....	17	ton	6,997	67,008	9,003	86,698
32	Lignite for foundry facings.....	17	ton	65,000	68,933	50,540	52,056
33	Bituminous for foundry facings.....	17	ton	12,743	54,611	10,954	62,600

Table 8.—Alphabetical List of Materials Used in All Industries classified under the Manufactures of Non-Metallic Minerals, 1938 and 1939—Continued

Item No	Materials	Industry number (See page 21)	Unit of measure	1938		1939	
				Quantity	Cost at works	Quantity	Cost at works
	Coal, bituminous for coke and gas making (not for fuel)—						\$
34	Canadian.....	5	ton	1,008,895	4,256,564	1,076,978	4,592,536
35	Imported.....	5	ton	2,219,119	10,811,684	2,197,230	10,694,312
36	Coke for the manufacture of mineral wool.	2-16	ton	1,405	16,884		44,095
	Coke for gas making (not for fuel)—						
37	Purchased.....	5	ton	4,150	39,351	6,339	53,483
38	Companies' own make.....	5	ton	87,923	606,880	79,953	530,179
	Coke (not for fuel)—						
39	For fused alumina.....	1	ton	3,723	20,391	3,685	21,496
40	For silicon carbide.....	1	ton	17,647	230,963	18,123	217,434
41	Coke, petroleum.....	17	ton	50,478	690,353	46,540	680,452
42	Compounding materials used in petroleum refineries.....	11			482,055		507,992
43	Cotton, cloth, yarn and waste.....	2			43,578		56,607
44	Cotton cloth for abrasive paper.....	1			71,390		45,166
45	Cullet.....	7	ton	24,943	221,524	21,683	207,500
46	Electrodes used in making artificial abrasives.....	1	ton	929	111,746	986	119,845
47	Electrodes, scrap, used in making new electrodes.....	17	ton	631	34,517	1,028	50,804
48	Feldspar.....	1-7-13	ton	3,274	57,896	2,675	49,935
49	Flint.....	13	ton				
50	Fluorspar.....	7	ton	112	4,507	131	5,330
51	Fuller's earth and clays.....	11	lb.	9,833,299	120,421	2,796,163	30,067
52	Glass, bevelled or polished edge plates.....	6			48,004		36,075
53	Glass, bevelled or polished edge sheets.....	6			21,139		15,975
54	Glass blanks for cut glass.....	6			130,194		144,489
55	Glass, figured and cathedral.....	6			23,394		26,116
56	Glass, plate, for bevelling, silvering, laminating, etc.....	6			721,378		671,004
57	Glass, sheet and window, for bevelling, silvering, laminating, etc.....	6			118,245		234,100
58	Glass tubing.....	6			25,992		31,097
59	Glazing materials, n.e.s.....	13			15,793		25,796
60	Glue.....	1-8	lb.		46,356	504,271	76,391
61	Graphite.....	17	ton	177	8,387		4,653
62	Gravel.....	4-15	cu. yd.	61,376	53,992	90,333	96,395
63	Gypsum, crude.....	8	ton	18,528	69,598	19,946	75,000
64	Hair.....	8	ton	110	19,641	418	35,636
65	Hardware for insulators.....	13			219,367		206,221
66	Iron borings for the manufacture of artificial abrasives.....	1	ton	5,651	51,155	5,993	47,996
67	Lead, zinc and copper.....	6			12,336		13,393
68	Lenses, rough and semi-finished.....	6			121,392		133,091
69	Lime.....	4-5-7-16	ton	15,597	141,364	15,017	144,718
70	Litharge.....	11	lb.	499,921	36,240	267,923	23,027
71	Mica.....	17	lb.	56,630	13,416		17,079
72	Mineral slag.....	2	ton	3,189	24,457		
73	Naphtha, absorption gasoline, etc.....	11	Imp. gal.	19,387,075	1,242,982	8,234,642	498,806
74	Nepheline syenite.....	7			41,678		58,629
75	Oil, crude, in its natural state, imported for refining.....	11	Imp. gal.	1,182,161,267	58,829,457	1,305,361,406	55,603,058
76	Oil, crude, in its natural state, from Canadian wells, for refining.....	11	Imp. gal.	217,105,125	10,807,043	253,964,242	11,813,665
77	Oil used for enriching water gas.....	5	Imp. gal.	4,358,714	327,027	4,028,892	299,033
78	Oil used for making oil gas.....	17	Imp. gal.	639,766	55,488	608,280	49,922
79	Oil, wash and absorbing.....	5	Imp. gal.	243,089	26,956	201,662	21,777
80	Oil, linseed.....	10-17	Imp. gal.	15,610	9,970	19,385	11,424
81	Oil, mineral and other, n.e.s.....	10-17	Imp. gal.		259,885	1,243,114	362,899
82	Oxide, iron.....	5			41,013		35,417
83	Paper.....	8	ton	5,143	253,175	5,601	265,187
84	Paper, kraft, for abrasive paper.....	1			10,353		7,370
85	Pitch.....	17	ton	14,665	257,705	13,712	267,955
86	Plaster of Paris.....	8	ton	99,441	505,693	105,397	552,527
87	Polishing and grinding materials.....	6			41,885		44,151
88	Phenol.....	11			26,690		41,674
89	Resin.....	17			8,321		5,920
90	Repair and renewal materials.....	7			752,309		734,808
91	Retarder.....	8	ton	367	15,772	271	16,238
92	Rubber and rubber sheets.....	2	lb.	89,278	14,943	109,174	21,463
93	Salt cake.....	7			3,509		3,028
94	Salt.....	1	ton	203	1,784	260	2,265
95	Sand (except silica sand).....	4-15	cu. yd.	194,302	204,159	215,131	232,207
96	Sawdust and shavings.....	1-8	ton	7,501	22,169	6,931	21,500

Table 8.—Alphabetical List of Materials Used in All Industries classified under the Manufactures of Non-Metallic Minerals, 1938 and 1939—Concluded

Item No.	Materials	Industry number (See page 21)	Unit of measure	1938		1939	
				Quantity	Cost at works	Quantity	Cost at works
				\$	\$		
97	Silica sand	1-7-13-16		419,560	508,936		
98	Silver nitrate	6		24,311	29,985		
99	Sodium carbonate (soda ash)	5-7-11	ton	27,546	757,283	27,722	697,277
100	Selenium	7		5,711	5,851		
101	Sodium hydroxide (caustic soda)	5-11-17	lb.	5,055,026	142,649	4,902,914	141,032
102	Solulur	6		2,750	4,101		
103	Starch and paste	2-8	lb.	516,145	37,201	392,710	18,157
104	Steel for reinforcing	4		57,118	69,859		
105	Steel, other	4-11-13		24,192	57,658		
106	Stone for cutting and dressing	10		907,579	829,902		
107	Stone monuments (for lettering only)	10		189,357	106,275		
108	Stone, crushed	4	ton	122,537	140,805	155,878	166,358
109	Sulphur	11	lb.	280,060	8,128	175,727	4,161
110	Talc	13		2,119	2,502		
111	Tallow and grease	10	lb.	231,506	16,886	218,200	17,857
112	Tur for making electrodes	17	Imp. gal.	102,174	7,133	131,516	9,497
113	Tetramethyl fluid	11		2,677,961	3,023,903		
114	Tripoli	17	ton	55	1,385	63	1,609
115	Water used in coke and gas plants	5		17,341	14,848		
116	Wax	17	lb.	110,485	12,088		12,176
117	Process supplies used in domestic clays, cement, lime, and salt industries			787,944	785,544		
118	Containers	All industries		1,953,244	2,399,191		
119	All other materials	All industries		2,223,920	2,782,606		
	Total			168,571,069	167,979,293		

Table 9.—Alphabetical List of Products made in All Industries classified under the Manufactures of Non-Metallic Minerals in Canada, 1938 and 1939

NOTE.—The asterisks** indicate that the commodity was reported by only 1 or 2 concerns and that the figures, therefore, cannot be shown separately in accordance with the provisions of the Statistics Act. The figure (1) indicates that the statistics given in this table do not represent the total Canadian output as there was also a production in other industrial groups. The letters "n.e.s." mean "not elsewhere specified."

Item No.	Products	Industry number (See key on page 21)	Unit of measure	1938		1939	
				Quantity	Gross selling value at works	Quantity	Gross selling value at works
				\$	\$		
1	Abrasive cloth, coated	1		..	..
2	Abrasive paper, coated	1		..	..
3	Abrasive wheels and segments	1		916,695	1,117,689		
4	Adhesive tape (1)	1		..	..
5	Alumina, fused, crude	1	ton	50,515	5,106,920	51,118	4,565,509
6	Ammonia liquor	5		..	..
7	Ammonium sulphate (1)	5	lb.	56,255,120	671,762	57,327,569	683,977
8	Asbestos boiler and pipe covering	2	ft.	1,619,599	145,621	1,769,485	156,578
9	Asbestos brake linings, moulded and woven	2	ft.	3,056,830	478,834	3,342,136	639,584
10	Asbestos clutch facings	2	no.	529,766	117,082	638,498	147,249
11	Asbestos gaskets and tape	2	lb.	33,733	21,900	38,185	19,669
12	Asbestos packings of all kinds	2	lb.	253,475	91,689	283,358	112,649
13	Asbestos paper	2		..	..
14	Asbestos products, n.e.s., including shingles, yarn, blackboards, dryer felts, etc.	2		270,810	348,299		
15	Asphalt, petroleum	11	Imp. gal.	54,979,927	3,984,967	56,615,038	4,422,522
16	Asphalt road emulsions	17	Imp. gal.	3,028,084	352,622	2,844,682	338,875
17	Benzol (motor fuel)	5	Imp. gal.	3,292,058	511,276	2,813,014	417,146
18	Boiler compounds (1)	10	lb.	149,982	10,547	160,720	11,325
19	Boron carbide	1		..	..
	Brick, clay—						
20	Soft mud process—face	12	M	10,838	208,610	10,927	182,376
21	Soft mud process—common	12	M	24,104	313,082	26,651	372,116
22	Stiff mud process (wirecut)—face	12	M	34,179	671,471	45,993	941,696
23	Stiff mud process (wirecut)—common	12	M	50,734	681,744	51,114	692,224
24	Dry press—face	12	M	13,125	266,639	12,263	242,518
25	Dry press—common	12	M	15,536	192,741	17,790	236,597
26	Fancy or ornamental, including special shapes, embossed and enamelled brick	12	M	63	4,175	68	4,601
27	Sewer brick	12	M	228	3,581	217	4,506
28	Paving brick	12	M	1	34	157	6,089

Table 9.—Alphabetical List of Products made in All Industries classified under the Manufactures of Non-Metallic Minerals in Canada, 1938 and 1939—Continued

Item No.	Products	Industry number (See key on page 21)	Unit of measure	1938		1939	
				Quantity	Gross selling value at works	Quantity	Gross selling value at works
					\$		\$
29	Brick, cement	4			86,383		76,186
30	Brick, sand lime	15	M	8,774	99,573	11,805	133,168
31	Briquettes, coal (1)	17			..		..
32	Building blocks of cement, hollow	4			431,547		653,185
33	Building blocks, sand-lime	15			37,660		67,407
34	Calcium boride	1			..		..
35	Carbon brushes (for motors)	17			..		..
36	Cements, high temperature	1-13-17			63,164		179,862
37	Cement laundry tubs	4			76,323		89,991
38	Cement, Portland	3			8,241,350		8,511,211
39	Cement products, other, including burial vaults and slabs, ready mixed concrete, etc.	4			1,249,289		1,466,557
40	Cement stucco	4			14,818		22,469
41	Cinder blocks	4-15	M	2,661	251,619	2,423	250,951
	Clay—						
42	Bentonite	12	ton	1,179	3,659	988	3,441
43	Fireclay	12	ton	2,344	17,243	10,045	30,824
44	Kaolin	12	ton	13,797	18,053	3,114	9,412
45	Coke from gas retorts	5	ton	221,493	2,265,759	249,054	2,213,431
46	Coke from by-product and bee-hive ovens	5	ton	1,993,637	14,162,064	2,017,709	14,076,442
47	Coke breeze from gas retorts	5	ton	9,922	29,924	13,831	32,900
48	Coke breeze from by-product and bee-hive ovens	5	ton	126,951	437,320	129,501	440,744
49	Coke, petroleum	11	ton	64,009	390,300	66,332	389,189
50	Core compounds	17	ton	540	19,731		4,200
51	Crayons, wax and chalk (1)	17			..		..
52	Electrodes, carbon and graphite	17			..		..
53	Facings and partings, foundry	17			82,111		109,435
54	Ferrosilicon (1)	1	ton	6,819	79,369	5,698	65,533
55	Fillers, non-metallic, ground (1)	17			..		..
56	Firebrick and stove-linings from imported clays—						
57	Rigid	12	ton	11,306	271,711	17,383	405,562
58	Plastic	13	ton	2,018	83,736	2,047	83,095
59	Firebrick from domestic clay	12	M	2,213	113,581	2,331	119,346
60	Firebrick, other	1-17			176,683		242,972
61	Fireclay blocks and shapes from domestic clay	12			73,512		95,256
62	Frit, porcelain enamelling	17			..		..
	Gas made (coal and water gas)—						
63	Retort coal gas	5	M cu. ft.	4,732,207		5,120,592	
64	Coke oven gas	5	M cu. ft.	29,628,018		28,785,955	
65	Water gas	5	M cu. ft.	2,363,712		2,637,110	
66	Producer gas	5	M cu. ft.	6,208,784		5,469,116	
	Total gas made	5	M cu. ft.	42,932,721		41,632,773	
67	Gas sold (coal and water gas)	5	M cu. ft.	15,198,068	15,001,142	14,936,102	14,502,246
68	Gas used in heating ovens or retorts in coke or gas plants	5	M cu. ft.	16,890,810	2,265,330	15,732,194	2,206,196
69	Gas used in associated metallurgical works	5	M cu. ft.	9,259,954	1,232,106	9,317,343	1,204,936
70	Gas otherwise accounted for but not sold	5	M cu. ft.	228,899	61,278	231,514	74,625
71	Gas not accounted for	5	M cu. ft.	1,488,650	1,101,415	1,339,750	1,112,897
72	Gas, Pintsch oil	17			..		..
73	Gas, still, from petroleum refineries	11	M cu. ft.	6,486,618	1,615,350	7,802,666	1,671,238
74	Gasoline	11	Imp. gal.	654,029,125	58,649,032	740,563,619	64,491,018
75	Glass, bent plate	6			6,451		7,850
76	Glass, bent sheet	6			11,905		47,133
77	Glass, bevelled or polished edge plates	6			157,232		169,639
78	Glass, bevelled or polished edge sheets	6			34,434		21,258
79	Glass, chipped or etched plate	6			6,191		6,072
80	Glass, chipped or etched sheet	6			10,355		12,173
81	Glass, cut (tumblers, fruit bowls)	6			264,953		277,483
82	Glass, leaded (including memorial windows)	6			139,026		113,024
83	Glass, plate mirrors	6			697,834		750,585
84	Glass, plate signs	6			23,691		41,918
85	Glass, pressed and blown	6			9,125,819		8,854,629
86	Glass, sheet mirrors	6			98,402		169,840
87	Glass, sheet signs	6			20,520		3,914
88	Glass, vials and chemical glassware	6			99,419		113,355
89	Glass products, n.e.s., including non-shatterable glass, framed mirrors, auto windshields, prismatic glassware, store fronts, etc.	6			1,239,614		1,261,361
90	Granite, cut and polished for building purposes	16			216,485		438,619
91	Graphite, artificial	1-17			..		..
92	Grease, lubricating	10-11	lb.	14,271,613	763,066	13,141,616	785,527
93	Gypsum products, including blocks, wall-board, wall plasters, tile, acoustical plasters	8			2,431,525		2,797,287

Table 9.—Alphabetical List of Products made in All Industries classified under the Manufactures of Non-Metallic Minerals in Canada, 1938 and 1939—Concluded

Item No.	Products	Industry number (See key on page 21)	Unit of measure	1938		1939	
				Quantity	Gross selling value at works	Quantity	Gross selling value at works
94	Haydite products, all kinds.....	4			\$ 142,734		\$ 176,746
95	Insulators, high tension, porcelain.....	13			..		..
96	Kerosene.....	11	Imp. gal.	22,536,425	2,110,773	27,260,255	2,482,687
97	Lenses, optical.....	6			506,056		606,539
98	Lime, hydrated.....	9	ton	71,161	589,561	77,450	676,867
99	Lime, quick.....	9-17	ton	436,936	3,010,261	499,479	3,412,974
100	Limestone, for building.....	16			832,123		664,270
101	Magnesia, fused.....	1			..		..
102	Marble chips and dust.....	16			81,312		47,920
103	Marble, cut and polished for building purposes.....	16			369,698		174,275
104	Mica products, including flexible mica plate, mica tubes, amber mica, heater plate, etc.....	17			..		..
105	Monuments, lettered only.....	16			385,669		182,828
106	Monuments, granite, cut and polished.....	16			1,515,000		1,513,958
107	Monuments and bases, limestone.....	16			109,030		53,309
108	Monuments, marble, cut and polished.....	16			127,803		129,623
109	Naphthalene.....	5	Imp. gal.	16,168	1,690	8,326	512
110	Oil, creosote (1).....	17			..		..
111	Oil, core.....	17	Imp. gal.	67,569	42,955	33,543	21,231
112	Oil, fuel and gas.....	11	Imp. gal.	88,538,537	4,218,973	86,233,863	4,067,883
113	Oils, light (except toluol and xylol), from coke and gas plants.....	5	Imp. gal.	2,714,565	211,492	3,640,753	292,526
114	Oils, lubricating.....	10-11	Imp. gal.	22,709,001	4,816,843	25,017,072	5,054,013
115	Oils, fuel, residual.....	11	Imp. gal.	387,130,145	13,550,246	424,232,977	14,167,133
116	Oil, stove.....	11	Imp. gal.	14,429,501	652,935	18,053,570	782,020
117	Oil, diesel (all oil sold under this name).....	11	Imp. gal.	50,809,788	2,243,882	54,185,273	2,325,055
118	Paste, Soderberg, for electrodes.....	17			..		..
119	Petroleum spirits, including engine distillate and V.M. & P. or solvent naphtha.....	11	Imp. gal.	42,148,278	3,457,248	41,839,754	3,254,906
120	Pipe, drain (sewer, water and culvert), of cement.....	4			464,916		481,095
122	Pipe, sewer, of clay, including flue linings, copings, etc.....	12-13			938,007		975,609
123	Pottery, glazed or unglazed.....	12-13			642,044		752,798
124	Pulpstones, artificial.....	1			..		..
125	Refractories (silicon carbide firesand, etc.).....	1	ton	321	5,147	416	10,034
126	Salt.....	14	ton	440,045	1,912,913	424,500	2,957,982
127	Sanitary earthenware, enamelled.....	13			..		..
128	Silicon carbide, crude.....	1	ton	19,094	2,002,041	17,225	1,865,604
129	Soap, soft and soap chips (1).....	10	lb.	363,431	30,748	302,674	33,117
130	Sockets and plugs, porcelain (1).....	13	no.		..		..
131	Sphagnum and other peat mosses.....	17			97,372		150,703
132	Stone, artificial.....	4			155,660		149,644
133	Stones, sharpening and files.....	1			91,467		96,217
134	Tar, coal.....	5	Imp. gal.			27,077,070	1,615,071
135	Tar, oil.....	5	Imp. gal.			1,536,570	6,829
136	Textolite and cold moulded goods.....	13			..		..
137	Tile, drain, from domestic clay.....	12	M	12,862	322,774	14,361	353,973
138	Tile, floor, from imported clay.....	13			..		..
139	Tile, wall, from imported clay.....	13			..		..
140	Tile, structural (from domestic clay)— Hollow blocks, including fireproofing and loadbearing tile.....	12	ton	70,648	591,416	86,120	714,291
141	Roofing tile.....	12	no.	150,504	5,196	148,291	4,964
142	Floor tile (quarries).....	12	sq. ft.	100,968	15,330	90,812	15,233
143	Ceramic or glazed tile.....	12			..		..
144	Tiles made in abrasives industry.....	1			..		..
145	Toluol and xylol.....	5	Imp. gal.	493,226	186,196	561,066	179,624
146	Wax, petroleum, and candles.....	11-17	lb.		192,827	6,726,588	325,131
147	Wool, mineral.....	8-16			396,262		655,646
148	Products reported by only 1 or 2 firms as indicated by **.....				9,466,191		8,285,283
149	All other products.....	1-2-4-6-8-10-11-12-13-15-16-17			1,759,161		1,851,204
150	Repairs and custom work.....	4-6-16-17			86,373		67,399
	Total				197,629,490		208,168,791

KEY TO NUMBERED INDUSTRIES

Industries	Industry number
Artificial abrasives and abrasive products	1
Asbestos products	2
Cement	3
Cement products	4
Ooke and gas	5
Glass:—	
Plate, cut and ornamental	6
Pressed and blown	7
Gypsum	8
Lime	9
Petroleum products:—	
Lubricating oils and greases	10
Petroleum refining	11
Products from domestic clays	12
Products from imported clays	13
Salt	14
Sand-lime brick	15
Stone products	16
Miscellaneous non-metallic mineral products, n.e.s.	17

CHAPTER TWO

THE ARTIFICIAL ABRASIVES AND ABRASIVE PRODUCTS
INDUSTRY

The factory selling value of all products made during 1939 by the manufacturers in Canada of artificial abrasives and abrasive products amounted to \$9,275,143. This value represented a decline of 3 per cent from the total of \$9,579,705 in 1938 and 34 per cent from the 1937 output of \$14,174,351.

There was no change in the number or location of the establishments which made artificial abrasives and abrasive products in 1939; there were fourteen works in Ontario and two in Quebec. The average number of employees in the industry was 1,099 and payments in salaries and wages totalled \$1,630,889. Expenditures for manufacturing materials amounted to \$2,971,056 and \$777,654 were paid out for fuel and electricity. Capital investment in the industry totalled \$7,179,801, of which \$3,259,831 was the value placed on land and buildings.

Artificial abrasives were made in 4 plants in Ontario and 2 in Quebec. The output of these 6 works was valued at \$7,191,098 and included 51,118 tons of crude fused alumina at \$4,565,569; 17,225 tons of crude silicon carbide at \$1,865,604 and other products and by-products, such as, ferrosilicon, firesand, refractory brick, refractory cements, calcium boride, crude boron carbide and boron carbide shapes. An average of 784 people were employed and salaries and wages totalled \$1,123,226.

Ten other plants were occupied chiefly in making abrasive products, such as, wheels, paper, pulpstones and sharpening stones; 9 made abrasive wheels and segments, 7 made sharpening stones and files, and 2 made abrasive cloth and paper. The value of all products made in these establishments was \$2,084,045, of which \$1,117,689 was for abrasive wheels and segments. The number of employees was 315 and payments for salaries and wages amounted to \$507,663.

Exports of crude artificial abrasives totalled 71,956 tons valued at \$4,380,148 in 1939, and the exports of wheels and stones were reported at \$47,158.

Imports of crushed or ground artificial grains were appraised at \$642,792 and manufactured grinding wheels at \$100,977 in 1939.

Table 10.—Capital Employed, 1938 and 1939

	1938	1939
	\$	\$
Present value of lands, buildings, machinery and equipment.....	3,368,646	3,259,831
Inventory value of materials, finished products, fuel and other supplies on hand, and stocks in process.....	2,585,000	2,532,791
Operating capital (cash, bills and accounts receivable, etc.).....	801,024	1,387,179
Total	6,754,670	7,179,801

Table 11.—Employees, Salaries and Wages, 1938 and 1939

	1938	1939
Number of employees:—		
On salaries—Male.....	211	185
Female.....	61	60
On wages—Male.....	868	853
Female.....	1	1
Total employees	1,141	1,099
Salaries.....	549,628	567,432
Wages.....	1,053,143	1,063,457
Total salaries and wages	1,602,771	1,630,889

Table 12.—Wage-Earners, by Months, 1938 and 1939

(On the last work-day of each month)

Months	1938	1939
January.....	1,048	810
February.....	1,003	781
March.....	942	780
April.....	889	788
May.....	855	761
June.....	804	816
July.....	806	816
August.....	813	806
September.....	806	877
October.....	815	972
November.....	805	1,019
December.....	809	1,016
Average	10,455	10,242

Table 13.—Fuel and Electricity Used, 1938 and 1939

Kind	Unit of measure	1938		1939	
		Quantity	Cost at works	Quantity	Cost at works
Bituminous coal—Canadian.....	ton	173	\$ 1,254	188	\$ 1,329
Imported.....	ton	5,590	35,264	5,399	34,924
Anthracite coal (for fuel only).....	ton	302	2,660	272	2,510
Coke (for fuel only).....	ton	129	1,299	120	1,131
Gasoline.....	Imp. gal.	335	80	606	152
Kerosene.....	Imp. gal.	75	14	135	24
Fuel oil.....	Imp. gal.	167,978	12,621	228,269	15,235
Gas—Manufactured.....	M cu. ft.	575	721	369	290
Natural.....	M cu. ft.	1,899	1,432	2,593	1,945
Other fuel.....			5		7
Electricity purchased.....	K.W.H.	288,408,154	775,463	280,038,539	720,107
Total			830,613		777,654

MANUFACTURES OF NON-METALLIC MINERALS

Table 14.—Power Equipment, 1938 and 1939

	1938		1939	
	No. of units	Total rated horse-power	No. of units	Total rated horse-power
Gasoline engines—Ordinarily in use.....	1	27	1	27
Electric motors run by purchased power—				
Ordinarily in use.....	781	6,918	814	7,147
In reserve or idle.....	80	802	82	720
Electric motors run by power generated by the establishment—				
Ordinarily in use.....	74	264	78	269
Stationary boilers—Ordinarily in use.....	11	616	12	666
In reserve or idle.....	1	125	1	100

Table 15.—Materials Used in Manufacturing, 1938 and 1939

Materials	Unit of measure	1938		1939	
		Quantity	Cost at works	Quantity	Cost at works
			\$		\$
Bauxite and pure alumina.....	ton	57,120	1,267,712	60,441	1,440,406
Coal (not for fuel)—					
For fused alumina.....	ton	308	1,603	244	1,398
For silicon carbide.....	ton	5,855	35,241	5,029	31,442
Coke (not for fuel)—					
For fused alumina.....	ton	3,723	20,391	3,685	21,496
For silicon carbide.....	ton	17,647	230,963	18,123	217,434
Electrodes.....	ton	929	111,746	986	119,845
Feldspar.....	ton	41	1,129	45	1,368
Iron borings.....	ton	5,651	51,155	5,993	47,996
Salt.....	ton	203	1,784	260	2,265
Sawdust.....	ton	7,132	19,242	6,155	16,149
Silica sand.....	ton	32,746	159,284	32,661	161,514
Artificial abrasive grains.....	ton	2,534	281,475	2,996	370,482
Natural abrasive grains—					
Garnet.....	lb.	195,536	17,219	310,213	25,737
Emery.....	lb.	66,191	3,807	91,721	5,254
Quartz or flint.....	lb.	405,282	4,937	253,099	4,828
Other.....	lb.	22,195	2,805	56,958	4,967
Bonding and bushing materials—					
Clay bonds.....	lb.	436,380	13,015	611,039	16,890
Silicate (quantity in equivalent solid form).....	lb.	6,781	340	10,898	426
Elastic mixture.....	lb.	15,150	3,654	17,227	4,493
Bakelite and synthetic resins.....	lb.	108,591	37,426	80,387	34,119
Lead for bushings.....	lb.	35,150	1,814	36,380	1,911
Cotton cloth.....			71,390		45,186
Kraft and rope paper.....			61,543		83,495
Containers and packing material.....			29,558		34,378
All other material.....			228,163		267,697
Total.....			2,657,393		2,971,056

Table 16.—Products Manufactured, 1938 and 1939

Products	1938		1939	
	Short tons	Selling value at works	Short tons	Selling value at works
		\$		\$
Crude silicon carbide.....	19,094	2,002,041	17,225	1,865,604
Crude fused alumina.....	50,515	5,165,920	51,118	4,565,569
Silicon carbide firosand, etc.....	321	5,147	416	10,034
Abrasive wheels and segments.....		916,695		1,117,689
Sharpening stones and files.....		91,467		96,217
Ferrosilicon.....	6,819	79,369	5,698	65,533
Other products*.....		1,319,066		1,554,497
Total.....		9,579,705		9,275,143

* Includes abrasive cloth, abrasive paper, tiles, artificial pulpstones, artificial graphite, boron carbide, boron carbide shapos, calcium boride, fused magnesia, refractory cements, firebrick, etc., each of which was reported by only one or two companies.

Table 17.—Production of Crude Artificial Abrasives in Canada, 1929-1939

Years	Crude silicon carbide		Crude fused alumina		Total	
	Quantity	Selling value at works	Quantity	Selling value at works	Quantity	Selling value at works
	tons	\$	tons	\$	tons	\$
1929	21,592	2,577,033	53,857	4,974,789	75,449	7,551,822
1930	22,778	2,111,476	42,894	3,376,908	65,672	5,488,384
1931	10,754	1,060,712	35,781	3,007,307	46,535	4,068,019
1932	3,164	269,405	6,658	427,628	9,822	697,033
1933	7,887	765,192	20,967	1,726,191	28,854	2,491,383
1934	10,398	1,858,746	44,596	3,958,837	60,994	5,814,583
1935	18,475	1,788,657	51,194	4,735,019	69,669	6,523,676
1936	23,805	2,299,602	59,533	5,762,217	83,338	8,061,819
1937	25,644	2,808,016	86,604	8,435,371	112,248	11,243,387
1938	19,094	2,002,041	50,515	5,165,920	69,609	7,167,961
1939	17,225	1,865,604	51,118	4,565,569	68,343	6,431,173

Table 18.—Production of Artificial Abrasive Wheels and Segments* in Canada, 1929-1939

Year	Selling value at works \$	Year	Selling value at works \$
1929	819,884	1935	785,777
1930	546,276	1936	862,283
1931	347,345	1937	1,165,403
1932	293,528	1938	916,695
1933	336,647	1939	1,117,689
1934	569,764		

* Sharpening stones and artificial pulpstones not included.

Table 19.—Imports into Canada and Exports of Abrasives, 1938 and 1939

	1938		1939	
	Quantity	Value \$	Quantity	Value \$
IMPORTS				
Artificial abrasive grains, crushed or ground for use in Canadian manufactures		418,462		642,792
Diamond dust or bort and black diamond for borers		3,950,698		4,129,532
Diatomaceous earth or infusorial earth (Kieselguhr), ground or unground Cwt.	51,299	73,900	86,139	128,808
Emery in bulk, crushed or ground		38,743		55,967
Grinding wheels, manufactured by the bonding together of either natural or artificial abrasives		88,851		100,977
Grinding stones or blocks, manufactured by the bonding together of either natural or artificial abrasives		21,257		22,586
Manufactures of emery or of artificial abrasives, not otherwise provided for		42,345		43,301
Grindstones, not mounted, and not less than 36 inches in diameter No.	840	91,205	849	126,260
Grindstones, not otherwise provided for No.	4,516	6,161	1,502	7,013
Pumice and pumice stone, lava and calcareous tufa, not further manufactured than ground		24,688		29,314
Sand paper, glass, flint and emery paper and emery cloth		60,560		60,797
Total		4,816,870		5,347,347
EXPORTS				
Abrasives, natural, not otherwise provided for, in ore or bulk, crushed or ground, including infusorial earth, rotten stone, tripoli, etc. Cwt.	6,397	11,346	5,122	11,827
Abrasives, artificial, crude, including carborundum Cwt.	1,202,216	3,773,570	1,439,126	4,380,148
Abrasives, artificial, made up into wheels, stones, etc. (To March 31, 1938)		47,704		
Abrasives, artificial, made up into wheels and stones (From April 1, 1938)		32,219		47,158
Sandpaper, glass, flint and emery paper, and emery cloth (From April 1, 1938)		79,600		122,296
Grindstones, manufactured		5,441		6,312
Total		3,949,860		4,567,741

Directory of Firms in the Artificial Abrasives and Abrasive Products Industry, 1939

Names of firms and addresses	Products
(a) Artificial Abrasives	
Abrasive Company of Canada, Arvida, Ltd., Arvida, Que.	Crude fused alumina; ferrosilicon.
Canadian Carborundum Co. Ltd., H.O.—Box 65, Niagara Falls, Ont.	Crude silicon carbide; crude fused alumina; ferrosilicon; fire-
Plants—Shawinigan Falls, P.Q., Niagara Falls, Ont.	sand; refractory brick; refractory cements.
Exolon Company, H.O.—Blasdell, N.Y., U.S.A.	Crude silicon carbide; crude fused alumina; firesand; ferro-
Plant—Thorold, Ont.	silicon; graphite; calcium boride.
Lionite Abrasives, Ltd., H.O.—Niagara Falls, N.Y., U.S.A.	Crude fused alumina; ferrosilicon; crude abrasive scrap.
Plant—Stanley St., Niagara Falls, Ont.	
Norton Company, H.O.—Worcester, Mass., U.S.A.	Crude fused alumina; crude silicon carbide; crude boron
Plant—Chippawa, Ont.	carbide; boron carbide shapes; ferrosilicon; periclase.
(b) Abrasive Products	
Bay State Abrasive Products Co. of Canada Ltd., 186 Pearl St., Brantford, Ont.	Abrasive wheels and segments.
Canada Sand Papers Limited, H.O.—Box 260, Preston, Ont.	Abrasive cloth; abrasive paper.
Plant—Plattsville, Ont.	
Canadian Carborundum Co. Ltd., Niagara Falls, Ont.	Abrasive wheels and segments; sharpening stones and files.
Canadian Hart Grinding Wheel Co., 491 Dundas St., Galt, Ont.	Abrasive wheels and segments; sharpening stones and files.
Dominion Abrasive Wheel Co. Ltd., 49 Main St., Mimico, Ont.	Abrasive wheels and segments; sharpening stones and files.
Empire Abrasives, 24 Lewis St., Brantford, Ont.	Abrasive wheels and segments; sharpening stones and files.
Lion Grinding Wheels, Ltd., 192 Pearl St. W., Brockville, Ont.	Abrasive wheels and segments.
Norton Company of Canada, Ltd., 3 Beach Road, Hamilton, Ont.	Abrasive wheels and segments, artificial pulpstones; tiles; sharpening stones and files.
Ontario Abrasive Wheels Limited, 41 George St., Prescott, Ont.	Abrasive wheels and segments; sharpening stones and files.
Canadian Durex Abrasives Limited, Brantford, Ont.	Abrasive cloth; abrasive paper, adhesive tape; and processed material.
Wright Abrasives, 54 Alanson St., Hamilton, Ont.	Abrasive wheels and segments; sharpening stones and files.

CHAPTER THREE

THE ASBESTOS PRODUCTS INDUSTRY

Fourteen factories in Canada were occupied chiefly in the manufacture of asbestos goods in 1939. Production by these works was valued at \$1,783,993, this output being 17 per cent above the 1938 total of \$1,531,118, but 6 per cent below the corresponding figure for 1937. Products included brake linings valued at \$639,884, boiler and pipe covering at \$156,878, clutch facings at \$147,249, asbestos packings at \$112,649 and such other lines as asbestos gaskets, paper, cloth, blackboards, yarn, dryer felts, cements, etc.

The factories which operated in this industry in 1939 were distributed as follows: in Quebec, 7; in Ontario, 6; and in Nova Scotia, 1. Fixed and working capital as represented by these works totalled \$2,003,516; the number of employees averaged 415 for each month of the year, and total payments in salaries and wages amounted to \$497,324. Expenditures for fuel and electricity totalled \$99,711 and materials for manufacturing cost \$724,424.

Table 20.—Principal Statistics, by Provinces, 1938 and 1939

Provinces	Number of plants	Capital employed	Average number of employees	Salaries and wages	Cost of fuel and electricity at works	Cost of materials at works	Gross selling value of products at works
		\$		\$	\$	\$	\$
1938							
Quebec.....	6	1,087,962	290	290,420	87,824	373,287	929,259
Nova Scotia.....	1						
Ontario.....	6	613,240	113	143,544	19,612	240,920	601,859
Canada.....	13	1,701,202	403	433,964	107,436	614,207	1,531,118
1939							
Quebec.....	7	1,262,489	288	333,852	77,020	422,501	995,193
Nova Scotia.....	1						
Ontario.....	6	741,027	127	163,472	22,691	301,923	788,800
Canada.....	14	2,003,516	415	497,324	99,711	724,424	1,783,993

Table 21.—Capital Employed, by Provinces, 1938 and 1939

Provinces	Present value of land, buildings, fixtures, machinery and tools	Inventory value of materials on hand, finished products and stocks in process	Cash, bills and accounts receivable, prepaid expenses, etc.	Total capital employed
	\$	\$	\$	\$
1938				
Quebec.....	574,245	260,561	253,156	1,087,962
Other provinces.....	310,283	179,787	123,170	613,240
Canada.....	884,528	440,348	376,326	1,701,202
1939				
Quebec.....	598,810	336,223	327,456	1,262,489
Other provinces.....	322,643	208,353	210,031	741,027
Canada.....	921,453	544,576	537,487	2,003,516

Table 22.—Employees, Salaries and Wages, by Provinces, 1938 and 1939

Provinces	Average number of employees					Salaries	Wages	Total salaries and wages
	On salaries		On wages		Total			
	Male	Female	Male	Female				
No.	No.	No.	No.	No.	\$	\$	\$	
1938								
Quebec.....	51	4	211	24	290	94,483	195,937	290,420
Other provinces.....	22	10	81	.....	113	69,045	74,499	143,544
Canada.....	73	14	292	24	403	163,528	270,436	433,964
1939								
Quebec.....	50	5	206	27	284	99,300	234,552	333,852
Other provinces.....	22	10	95	.....	127	70,744	92,728	163,472
Canada.....	72	15	301	27	415	170,044	327,280	497,324

Table 23.—Wage-Earners, by Months, 1938 and 1939

(On the last work-day of each month)

Months	1938			1939		
	Male	Female	Total	Male	Female	Total
	No.	No.	No.	No.	No.	No.
January.....	304	25	329	290	24	314
February.....	276	23	299	288	24	312
March.....	280	23	303	290	25	315
April.....	316	26	342	295	26	321
May.....	305	24	329	288	26	314
June.....	274	21	295	281	24	305
July.....	290	26	316	273	23	296
August.....	284	26	310	284	23	307
September.....	298	26	324	310	26	336
October.....	305	25	330	335	32	367
November.....	290	25	315	346	33	379
December.....	291	25	316	326	32	358
Average.....	292	24	316	301	27	328

Table 24.—Hours Worked per Week by Wage-Earners, 1939

(In one week in month of normal employment; overtime not included)

Regular hours worked per week	Number of wage-earners	Per cent of total	Regular hours worked per week	Number of wage-earners	Per cent of total
30 hours or less.....			55 hours.....	4	1.2
31-43 hours.....	10	2.9	56-64 hours.....	25	7.3
44 hours.....	13	3.8	65 hours and over.....	7	2.0
45-47 hours.....			Total.....	344	100.0
48 hours.....	191	55.5	Total wages paid in selected week.....		\$7,230
49-50 hours.....	87	25.3			
51-54 hours.....	7	2.0			

Table 25.—Fuel and Electricity Used, 1938 and 1939

Kinds	Unit of measure	1938		1939	
		Quantity	Cost at works	Quantity	Cost at works
			\$		\$
Anthracite coal.....	short ton	18	208	9	102
Bituminous coal—Canadian.....	short ton	5,866	37,066	4,198	24,607
Imported.....	short ton	9	65	31	190
Coke.....	short ton	1	11	4	39
Gasoline.....	Imp. gal.	180	45	908	259
Fuel oil.....	Imp. gal.	444,132	30,478	465,001	28,640
Kerosene.....	Imp. gal.	966	155	2,745	439
Gas—Manufactured.....	M cu. ft.	115	109	14	14
Other fuel.....					2
Electricity purchased.....	K.W.H.	2,468,373	39,299	3,015,618	45,419
Total.....	\$		107,436		99,711

Table 26.—Power Equipment, 1938 and 1939

	1938		1939	
	Number of units	Total rated horse power	Number of units	Total rated horse power
Electric motors—Ordinarily in use.....	359	3,502	373	3,726
In reserve or idle.....			1	5
Total.....	359	3,502	374	3,731
Boilers —Ordinarily in use.....	8	1,140	6	521
In reserve or idle.....				
Total.....	8	1,140	6	521

Table 27.—Materials Used In the Asbestos Products Industry, 1938 and 1939

Materials	Unit of measure	1938		1939	
		Quantity	Cost at works	Quantity	Cost at works
Asbestos fibre.....	lb.	5,841,692	110,077	6,995,578	144,864
Asbestos cloth.....	lb.	64,027	23,529	102,851	35,848
Asbestos paper, corrugated and plain.....	lb.	146,626	6,734	232,992	10,576
Asbestos sheets and strips.....	lb.	21,529	8,728	19,509	8,769
Asbestos yarn.....	lb.	230,777	66,859	427,445	121,227
Cotton cloth and cotton yarn.....	\$		43,578		56,607
Rubber and rubber sheets.....	lb.	89,278	14,943	109,174	21,463
Containers and packing material.....	\$		63,514		32,721
All other materials.....	\$		276,245		292,349
Total.....	\$		614,207		724,424

Table 28.—Products Manufactured in the Asbestos Products Industry, 1938 and 1939

Products	Unit of measure	1938		1939	
		Quantity	Selling value at works	Quantity	Selling value at works
Asbestos brake linings—Moulded.....	ft.	1,859,377	330,726	2,245,559	489,305
Other.....	ft.	1,197,453	148,108	1,096,577	150,579
Asbestos boiler and pipe covering.....	ft.	1,619,599	145,621	1,769,485	156,878
Asbestos clutch facings.....	no.	529,766	117,082	638,498	147,249
Asbestos gaskets.....	lb.	33,733	21,900	38,185	19,669
Asbestos packings of all kinds.....	lb.	253,475	63,689	283,358	112,649
All other products*.....	\$		673,982		707,664
Total.....	\$		1,531,118		1,783,993

* Includes products reported by 1 or 2 firms, such as, asbestos dryer felt, hydraulic brake hose, asbestos shingles, asbestos yarn, packings of rubber, duck and flax, asbestos paper, asbestos cloth, etc.

Table 29.—Production of Asbestos Brake Linings, Pipe Coverings and Packings, 1925-1939

Years	Asbestos brake linings	Asbestos boiler and pipe coverings	Asbestos packings
1925.....	\$ 272,217	\$ 179,717	\$ 187,916
1926.....	279,783	232,963	184,515
1927.....	326,072	277,339	204,376
1928.....	439,431	376,399	218,904
1929.....	555,739	406,395	234,595
1930.....	459,616	283,312	197,601
1931.....	321,664	178,611	144,983
1932.....	309,942	83,964	87,682
1933.....	316,938	65,725	91,597
1934.....	458,147	99,948	78,860
1935.....	439,904	136,917	107,824
1936.....	392,309	162,216	113,821
1937.....	580,487	212,341	131,213
1938.....	478,834	145,621	93,699
1939.....	639,884	156,878	112,649

Table 30.—Imports into Canada and Exports of Asbestos, 1938 and 1939

	1938		1939	
	Tons	\$	Tons	\$
IMPORTS—				
Asbestos clutch facings for automobiles, motor vehicles and chassis.....		†93,470		
Asbestos brake linings for automobiles, motor vehicles and chassis.....		*150,410		185,673
Asbestos brake linings and clutch facings, n.o.p.....		*13,157		19,855
Asbestos in any form other than crude, and all manufactures of, n.o.p.....		581,080		764,046
Asbestos packing.....	47	45,866	65	65,074
Asbestos clutch facings.....		*26,659		36,895
Total.....		911,551		1,072,443
EXPORTS—				
Asbestos.....	165,744	10,872,435	186,236	12,463,177
Asbestos sand and waste.....	123,143	2,237,751	159,780	2,902,111
Asbestos manufactures, including asbestos roofing.....		206,372		479,415
Total.....		13,316,558		15,844,703

† To March 31, 1938. * From April 1, 1938.

Directory of Firms in the Asbestos Products Industry, 1939

Names of firms and location of plants	Main products, 1939
Guildfords Limited, June St., Halifax, N.S.....	Asbestos boiler and pipe coverings, packings and gaskets; eel grass insulation.
Asbestos Corporation, Limited, St. Lambert, Montreal, P.Q.	Asbestos brake linings, clutch facings, packings and brake blocks.
Asbestoslate Manufacturing Co., 2035 Desjardins St., Montreal, P.Q.	Asbestos blackboards.
Asten-Hill Ltd., Valleyfield, P.Q.	Asbestos dryer felts.
Atlas Asbestos Company Limited, 110 McGill St., Montreal, P.Q.	Asbestos boiler and pipe coverings; gaskets and cloth.
Autobestos Manufacturing Co. Ltd., Sherbrooke, P.Q.....	Asbestos brake linings.
Canadian Johns-Manville Co. Ltd., Asbestos, P.Q.....	Asbestos brake linings, boiler and pipe covering, dryer felts, millboard, gaskets, clutch facings, packings, paper, cloth, shingles, refractory cements, yarn, etc.
Philip Carey Company Limited, Lennoxville, P.Q.....	Asbestos boiler and pipe covering, paper, millboard and asphalt bridge planking.
Asbestos Covering Supply Co., 618A Brock Ave., Toronto, Ont.	Asbestos boiler and pipe covering.
Beldam Asbestos Packing Ltd., 37 Britain St., Toronto, Ont.	Asbestos gaskets.
Canadian Raybestos Co. Ltd., 280 Perry St., Peterboro, Ont.	Asbestos brake linings, clutch facings, packings, brass rivets, rubber hose, etc.
Garlock Packing Company, 200 Queen St. N., Hamilton, Ont.	Asbestos packings and gaskets; rubber, duck and flax packings.
Hamilton Engine Packing Co., 56 Alanson St., Hamilton, Ont.	Asbestos gaskets, boiler and pipe covering.
Wild, C., & Co., 142 Vine Ave., Toronto, Ont.....	Asbestos boiler and pipe covering; felt pipe covering.

Primary Production.—The Asbestos Mining Industry.—Production (mine sales) of primary asbestos in Canada during 1939, including all grades, totalled 364,472 short tons valued at \$15,859,212 compared with 289,793 short tons at \$12,890,195 in 1938. The value of sales in 1939 was the highest ever recorded and the tonnage shipped was surpassed only by that in 1937. Production of the mineral in Canada is confined almost entirely to the Eastern Townships of the province of Quebec. In 1939 a relatively few tons were shipped from a deposit located in Northern Ontario.

Table 31.—Principal Statistics of the Asbestos Mining Industry in Canada, 1938 and 1939

	1938	1939
Number of firms.....	8	8
Capital employed.....	\$ 22,008,771	22,489,233
Number of employees—On salaries (c).....	313	299
On wages.....	3,398	3,485
Total.....	3,711	3,784
Salaries and wages—Salaries.....	\$ 584,792	608,529
Wages.....	\$ 3,439,571	3,738,535
Total.....	\$ 4,024,363	4,347,064
Selling value of products (a).....	\$ 12,892,659	15,862,142
Cost of fuel and electricity (purchased).....	\$ 1,298,089	1,376,568
Cost of process supplies (b).....	\$ 1,889,636	2,086,945
Net value of sales.....	\$ 9,704,934	12,398,629

(a) Includes value of sand and gravel.

(b) Explosives, drill steel, etc.

(c) In 1939 includes 41 females; 41 in 1937 and 41 in 1938.

Table 32.—Sales and Shipments* by the Asbestos Mining Industry, 1938 and 1939

Grades	1938		1939	
	Tons	\$	Tons	\$
Crudes.....	2,911	955,423	3,121	938,718
Fibres.....	163,097	9,710,899	(b)193,992	12,049,539
Shorts.....	123,785	2,223,873	167,359	2,870,955
Total.....	289,793	12,890,195	364,472	15,859,212
Sand, gravel, and stone (waste rock only) (a).....	3,279	2,464	3,897	2,930

(* All from the province of Quebec unless otherwise noted.
(a) This production is included under the sand and gravel industry.
(b) Includes 18 tons valued at \$720, produced in Ontario.

	1938	1939
	Tons	Tons
Quantity of rock mined.....	5,816,368	6,650,416
Quantity of rock milled.....	4,874,548	5,548,765

Table 33.—Sales and Shipments of Asbestos, 1926-1939

Years	Tons	\$	Years	Tons	\$
1926.....	279,403	10,099,423	1933.....	158,367	5,211,177
1927.....	274,778	10,621,013	1934.....	155,980	4,936,326
1928.....	273,033	11,238,360	1935.....	210,467	7,054,614
1929.....	306,055	13,172,581	1936.....	301,287	9,958,183
1930.....	242,114	8,390,163	1937.....	410,026	14,505,791
1931.....	164,296	4,812,886	1938.....	289,793	12,890,195
1932.....	122,977	3,039,721	1939.....	364,472	15,859,212

Directory of Firms in the Canadian Asbestos Mining Industry, 1939

Name of firms	Head office addresses	Location of plants
QUEBEC—		
Asbestos Corporation Ltd.....	Canada Cement Building, Montreal	Thetford Mines, Black Lake, Coleraine.
Beaulieu, Thomas (a).....	Sts. Florence.....	Matapedia Co.
Bell Asbestos Mines Ltd.....	Thetford Mines.....	Thetford Tp.
Canadian Johns-Manville Co. Ltd.....	Sun Life Building, Montreal.....	Asbestos.
Johnson's Company.....	Thetford Mines.....	Thetford Mines; Coleraine.
Nicolet Asbestos Mines Ltd.....	820 Transportation Bldg., Montreal	Norbestos.
Quebec Asbestos Corp. Ltd.....	East Broughton Station.....	East Broughton Sta.
ONTARIO—		
Rahn Lake Mines Corp. Ltd.....	19 Melinda Street, Toronto.....	Bannockburn Tp.; Matachewan Dist.

(a) Carried on exploration or development work only.

CHAPTER FOUR

THE CEMENT INDUSTRY

Producers' sales of cement, as reported by the Canadian Cement Industry, totalled 5,731,264 barrels valued at \$8,511,211 in 1939, compared with 5,519,102 barrels worth \$8,241,350 in 1938. Of the 1939 sales, 3,027,759 barrels were produced in Quebec plants, 1,709,263 barrels in Ontario, 343,717 barrels in Manitoba, 377,846 barrels in Alberta and 272,679 barrels in British Columbia. The high and low prices per barrel in both 1939 and 1938 were \$2.35 and \$1.25 respectively.

The number of firms reporting commercial production of cement in Canada during 1939 was three and the plants in operation totalled eight. Capital employed aggregated \$51,251,358 and the industry distributed \$1,297,542 in salaries and wages to 1,001 employees. The total value of fuel and electricity purchased during the year under review amounted to \$1,705,981, of which \$1,092,407 were expended for coal and \$589,190 for electricity. Process supplies consumed, including explosives, etc., were valued at \$532,058 and the following tonnage of primary materials of mineral origin were used in the manufacture of the final product: limestone, 1,379,858; clay, 105,982; gypsum, 31,492; shale, 27,241; sand, 7,942, and iron pyrites, 16. Imports of Portland cement into the Dominion in 1939 totalled 16,620 barrels worth \$58,316 compared with 48,497 barrels valued at \$105,326 in 1938. Exports in 1939 totalled 156,556 barrels valued at \$159,579 as against 89,419 barrels worth \$101,059 in the preceding year.

In 1939, as in the preceding year, the wet process was employed in all Canadian cement plants with the exception of one plant in Alberta where the dry method was continued.

In Ontario, Medusa Products Company of Canada, Limited, began operations at Paris, in June, 1938, manufacturing white Portland cement, waterproofed white Portland cement, white masonry cement, cement paints, etc., from imported clinker. Since this Company does not process domestic materials, the statistics relating to their operations have been included in the Cement Products Industry.

Table 34.—Capital Employed, 1938 and 1939

	1938	1939
	\$	\$
Present value of lands, buildings, machinery and equipment	46,201,932	45,132,186
Inventory value of materials, finished products, fuel and other supplies on hand, and stocks in process	2,179,483	2,189,804
Operating capital (cash, bills and accounts receivable)	3,917,631	3,929,368
Total	52,299,046	51,251,358

Table 35.—Employees, Salaries and Wages, 1938 and 1939

	1938	1939
	\$	\$
Number of employees—		
On salaries—Male	95	87
Female	5	4
On wages—Male	934	910
Female		
Total employees	1,034	1,001
Salaries	218,445	198,141
Wages	1,087,886	1,099,401
Total salaries and wages	1,306,331	1,297,542

Table 36.—Wage-Earners, by Months, 1938 and 1939

(On the last work-day of each month)

Month	1938	1939	
		Quarry	Mill
January.....	843	55	719
February.....	860	56	743
March.....	888	82	738
April.....	957	120	796
May.....	1,060	128	915
June.....	1,018	130	932
July.....	939	140	897
August.....	956	144	922
September.....	1,033	134	898
October.....	1,035	105	852
November.....	916	65	698
December.....	711	58	592
Average.....	934	101	809

Table 37.—Hours Worked by Wage-Earners, 1939

(In one week in month of normal employment)

Regular hours worked per week	No. of wage-earners	Percent of total	Regular hours worked per week	No. of wage-earners	Percent of total
30 hours or less.....			51-54 hours.....	15	1.3
31-43 hours.....	127	11.7	55 hours.....		
44 hours.....	285	26.3	55-64 hours.....	169	15.6
45-47 hours.....	49	4.6	65 hours and over.....	42	4.0
48 hours.....	391	36.0	Total.....	1,084	100.0
49-50 hours.....	6	0.6	Total wages paid in selected week.....	\$28,764	

Table 38.—Power Equipment, 1938 and 1939

	Ordinarily in use		In reserve or idle	
	Number of units	Total rated horsepower	Number of units	Total rated horsepower
1938				
Steam engines and steam turbines.....	2	57	2	50
Diesel engines.....	2	535		
Gasoline, gas and oil engines, other than Diesel engines.....	31	1,359	4	267
Electric motors operated by purchased power.....	1,312	74,893	168	7,094
Total.....	1,347	76,844	174	7,411
Electric motors operated by above primary units.....	10	756		
Stationary boilers.....	11	392	4	164
1939				
Steam engines and steam turbines.....	2	57		
Diesel engines.....	3	825		
Gasoline, gas and oil engines, other than Diesel engines.....	41	1,934	6	327
Hydraulic turbines or water wheels.....				
Electric motors operated by purchased power.....	1,308	69,272	300	14,062
Total.....	1,354	62,088	306	14,389
Electric motors operated by above primary units.....	11	796		
Stationary boilers.....	10	342	5	214

MANUFACTURES OF NON-METALLIC MINERALS

Table 39.—Fuel and Electricity Used, 1938 and 1939

Kinds	Unit of measure	1938		1939	
		Quantity	Value	Quantity	Value
			\$		\$
Bituminous coal—Canadian	ton	127,812	656,187	190,538	1,010,071
Imported	ton	89,172	499,812	16,141	82,336
Gasoline	Imp. gal.	109,616	21,699	108,306	21,422
Kerosene	Imp. gal.	3,135	577	2,990	523
Fuel oil and diesel oil	Imp. gal.	18,521	2,132	20,684	2,337
Wood (cords of 128 cu. ft.)	cord	50	162	30	102
Electricity purchased, including service charges	K.W.H.	59,705,200	583,858	58,438,700	589,190
Total			1,764,427		1,705,981

Table 40.—Kilns Used by Canadian Cement Industry, 1932-1939

Year	Total daily capacity	
	Number	Barrels
1932	47	43,822
1933	41	43,622
1934	41	43,922
1935	20	32,650
1936	19	33,000
1937	18	33,900
1938	21(a)	35,200
1939	21(b)	35,000

(a) Ten in use with a daily capacity of 23,100 barrels.

(b) Eleven in use with a capacity of 23,700 barrels.

Table 41.—Production of Cement in Canada, Factory Sales, Imports and Exports, 1938 and 1939

	1938		1939	
	Barrels*	Value	Barrels*	Value
		\$		\$
Output	5,588,047		5,721,447	
Sold or used by producers	5,519,102	8,241,350	5,731,264	8,511,211
Stocks held by producers December 31	1,875,285		1,865,471	
Imports—				
Portland cement and hydraulic or water lime	48,497	105,326	16,620	58,316
Manufactures		6,650		14,968
Total		111,976		73,284
Exports—				
Portland cement	89,419	101,059	156,556	159,579
Apparent Consumption	5,478,180		5,591,328	

* 1 barrel—350 pounds.

Table 42.—Producer's Sales and Apparent Consumption of Cement in Canada, 1929-1939

Years	Sold or used by producers		Apparent consumption in Canada
	Barrels	\$	Barrels
1929	12,284,081	19,337,235	12,105,950
1930	11,032,538	17,713,067	10,977,238
1931	10,161,658	15,826,243	10,085,986
1932	4,498,721	6,930,721	4,466,738
1933	3,007,432	4,536,935	2,974,020
1934	3,783,226	5,667,946	3,727,521
1935	3,648,086	5,580,043	3,610,217
1936	4,508,718	6,908,192	4,479,656
1937	6,168,971	9,095,867	6,157,485
1938	5,519,102	8,241,350	5,478,180
1939	5,731,264	8,511,211	5,591,328

Table 43.—Imports into Canada and Exports of Cement, by Principal Countries, 1938 and 1939

	1938		1939	
	Quantity	Value	Quantity	Value
	cwt.	\$	cwt.	\$
IMPORTS—				
Cement, Portland, and hydraulic or water lime—				
From—United Kingdom.....	20,362	31,263	11,336	15,802
United States.....	28,080	34,563	21,978	31,598
Belgium.....	121,204	39,441	24,245	10,312
Other countries.....	95	59	618	604
Total.....	169,741	165,326	58,177	58,316
Cement manufactures, a.o.p.....		6,560		14,968
Total Imports.....		111,976		73,284

In addition, there was imported, from July 22 to December 31, 1939, 1,388,500 pounds of white Portland cement clinker valued at \$1,389.

	Quantity	Value	Quantity	Value
	cwt.	\$	cwt.	\$
EXPORTS—				
Cement, Portland—				
To—United Kingdom.....	12,299	10,401	9,012	7,325
United States.....	107,628	34,372	232,586	61,845
Trinidad and Tobago.....	18,190	6,000	46,187	13,068
British Guiana.....	63,757	18,485	149,838	41,808
Other British West Indies.....	30,201	9,845	57,175	19,771
Newfoundland.....	52,250	13,506		
Colombia.....	9,475	2,521	30,400	7,712
Peru.....	19,167	5,929	22,747	8,050
Other countries.....				
Total.....	312,967	161,659	547,945	159,579

Directory of Firms in the Cement Industry, 1939

Names of companies	Head office addresses	Location of plants
QUEBEC—		
Canada Cement Company, Ltd.....	Box 290, Station B, Montreal.....	Hull and Montreal East.
ONTARIO—		
Canada Cement Company, Ltd.....	Box 290, Station B, Montreal, P.Q....	Belleville, Lakefield* and Port Colborne, St. Marys.
St. Marys Cement Company, Ltd.....	357 Bay St., Toronto.....	St. Marys.
MANITOBA—		
Canada Cement Company, Ltd.....	Box 290, Station B, Montreal, P.Q....	Fort Whyte and Steep Rock.
ALBERTA—		
Canada Cement Company, Ltd.....	Box 290, Station B, Montreal, P.Q....	Exshaw.
BRITISH COLUMBIA—		
British Columbia Cement Company, Ltd..	805 Government St., Victoria.....	Bamberton and Tod Inlet.

* Idle in 1939.

CHAPTER FIVE

THE CEMENT PRODUCTS INDUSTRY

Production of manufactured cement products in Canada during 1939 was valued at \$3,716,692 compared with \$3,200,419 during 1938.

A total of 122 plants operated in this industry during 1939—there being 72 in Ontario, 27 in Quebec, 9 in British Columbia, 7 in Alberta, 1 in Nova Scotia, 3 in New Brunswick, 1 in Manitoba and 2 in Saskatchewan. Many of these works were quite small, there being 41 with outputs of less than \$5,000 each, while 62 were in the \$5,000 to \$50,000 group and only 19 were above \$50,000. The Ontario plants accounted for 51 per cent of the total production; establishments in Quebec contributed 34 per cent, and works in British Columbia accounted for more than 7 per cent, the remaining 8 per cent being distributed among New Brunswick, Nova Scotia, Manitoba, Saskatchewan and Alberta.

Products included ready-mixed concrete worth \$1,198,809, cement pipe of all kinds at \$481,095, hollow building blocks of cement at \$653,185, cinder blocks at \$240,012, artificial stone at \$149,644, cement bricks at \$76,186, and other items, such as, haydite blocks and slabs, laundry tubs, burial vaults, etc.

Data presented for this industry cover manufacturing only and do not include figures for the cement work done on the building of bridges, dams, foundations, etc.; this type of work has been covered in the annual survey of construction.

Table 44.—Principal Statistics, by Provinces, 1938 and 1939

Provinces	Number of operating plants	Capital employed	Average number of employees	Salaries and wages	Cost of fuel and electricity at works	Cost of materials at works	Gross selling value of products at works
		\$		\$	\$	\$	\$
1938							
Nova Scotia.....	1	17,814	8	4,402	203	4,492	12,665
New Brunswick.....	2						
Quebec.....	29	1,102,605	248	212,812	46,328	472,987	995,887
Ontario.....	69	2,031,993	487	482,159	44,712	683,145	1,649,280
British Columbia.....	11	212,498	52	64,646	3,521	261,288	449,898
Manitoba.....	2	95,872	25	22,436	1,970	20,226	64,618
Saskatchewan.....	2						
Alberta.....	3	16,608	14	10,447	289	10,031	28,071
Canada.....	119	3,476,390	834	796,962	97,023	1,452,169	3,200,419
1939							
New Brunswick.....	3	18,661	6	2,080	132	2,451	7,869
Quebec.....	27	1,219,138	291	257,996	54,478	559,647	1,248,416
Ontario.....	72	2,068,306	496	530,973	52,130	839,400	1,882,835
British Columbia.....	9	211,248	71	73,337	3,429	139,968	285,197
Nova Scotia.....	1	85,977	22	22,677	1,840	12,341	53,942
Manitoba.....	1						
Saskatchewan.....	2	128,322	65	74,080	3,029	144,372	238,433
Alberta.....	7						
Canada.....	122	3,731,652	951	961,143	115,638	1,698,179	3,716,692

Table 45.—Capital Employed, by Provinces, 1938 and 1939

Provinces	Present value of lands, buildings, fixtures, machinery and tools	Inventory value of materials on hand, finished products and stocks in process	Cash, bills and accounts receivable, prepaid expenses, etc.	Total capital employed
	\$	\$	\$	\$
1938				
Nova Scotia and New Brunswick.....	12,299	5,015	500	17,814
Quebec.....	758,585	164,491	179,529	1,102,605
Ontario.....	1,187,053	307,907	537,933	2,031,993
British Columbia.....	182,686	12,918	16,894	212,498
Other provinces.....	93,089	7,935	10,456	111,480
Canada.....	2,233,712	498,266	744,412	3,476,390
1939				
New Brunswick.....	14,598	2,163	1,900	18,661
Quebec.....	792,900	196,294	229,944	1,219,138
Ontario.....	1,207,724	335,257	525,325	2,068,306
British Columbia.....	169,890	17,272	24,086	211,248
Alberta.....	63,481	28,603	36,178	128,322
Other provinces.....	76,819	5,708	3,650	85,277
Canada.....	2,325,212	585,357	821,053	3,731,632

Table 46.—Employees, Salaries and Wages, by Provinces, 1938 and 1939

Provinces	Average number of employees					Salaries	Wages	Total salaries and wages
	On salaries		On wages		Total			
	Male	Female	Male	Female				
1938								
Nova Scotia and New Brunswick.....	1		7		8	800	3,602	4,402
Quebec.....	46	2	200		248	50,710	162,102	212,812
Ontario.....	101	13	367	6	487	166,678	315,481	482,159
British Columbia.....	14	2	35	1	52	28,393	36,253	64,646
Other provinces.....	11	2	26		39	15,745	17,138	32,883
Canada.....	173	19	635	7	834	262,326	534,576	796,902
1939								
New Brunswick.....			6		6		2,080	2,080
Quebec.....	54	3	234		291	65,062	192,934	257,996
Ontario.....	97	12	381	6	496	187,332	343,641	530,973
British Columbia.....	16	3	51	1	71	27,270	46,067	73,337
Alberta.....	12	1	51	1	65	30,607	43,473	74,080
Other provinces.....	6	1	15		22	11,634	11,043	22,677
Canada.....	185	20	738	8	951	321,965	639,238	961,143

Table 47.—Wage-Earners, by Months, 1938 and 1939

(On the last work-day of each month)

Months	1938			1939		
	Male	Female	Total	Male	Female	Total
January.....	461	6	467	438	7	445
February.....	471	6	477	438	7	445
March.....	542	6	548	486	7	493
April.....	593	6	599	636	7	643
May.....	677	6	683	761	7	768
June.....	724	6	730	898	7	905
July.....	765	6	771	1,000	7	1,007
August.....	727	7	734	974	9	983
September.....	729	7	736	925	7	932
October.....	715	7	722	872	7	879
November.....	647	7	654	781	6	787
December.....	520	7	527	637	6	643
Average.....	635	7	642	738	8	746

MANUFACTURES OF NON-METALLIC MINERALS

Table 48.—Hours Worked per Week by Wage-Earners, 1939

(In one week in month of normal employment; overtime not included)

Regular hours worked per week	Number of wage-earners	Per cent of total	Regular hours worked per week	Number of wage-earners	Per cent of total
30 hours or less.....	79	6.9	51-54 hours.....	191	16.8
31-43 hours.....	111	9.8	55 hours.....	62	5.5
44 hours.....	115	10.1	56-64 hours.....	226	19.8
45-47 hours.....	36	3.2	65 hours or over.....	4	0.4
48 hours.....	167	14.7			
49-50 hours.....	146	12.8	Total	1,137	100.0
			Total wages paid in selected week..... \$20.326		

Table 49.—Fuel and Electricity Used, 1938 and 1939

Kinds	Unit of measure	1938		1939	
		Quantity	Cost at works	Quantity	Cost at works
			\$		\$
Bituminous coal—Canadian.....	ton	2,881	19,301	2,326	15,726
Imported.....	ton	1,756	11,650	2,998	19,840
Anthracite coal.....	ton	103	1,208	66	787
Lignite coal.....	ton	4	23	14	85
Coke.....	ton	112	1,007	108	1,014
Gasoline.....	Imp. gal.	131,791	27,032	172,058	35,822
Kerosene or coal oil.....	Imp. gal.	223	52	560	197
Fuel oil.....	Imp. gal.	34,482	1,859	43,363	2,299
Wood.....	cord	152	728	309	747
Gas—Manufactured.....	M cu. ft.	685	583	548	467
Natural.....	M cu. ft.	123	125	2,062	621
Other fuel.....	\$		484		976
Electricity purchased.....	K.W.H.	985,240	32,971	1,104,309	36,457
Total	\$		97,023		115,038

Table 50.—Power Equipment, 1938 and 1939

	Ordinarily in use		In reserve or idle	
	Number of units	Total rated horsepower	Number of units	Total rated horsepower
1938				
Steam engines and steam turbines.....	1	20	1	20
Gasoline engines.....	27	229	3	4
Electric motors run by purchased power.....	286	2,792	45	449
Total	316	3,041	49	473
Stationary boilers.....	21	1,300	7	289
1939				
Steam engines and steam turbines.....	3	44		
Gasoline engines.....	33	412	3	19
Electric motors run by purchased power.....	333	3,618	34	184
Total	369	4,074	37	203
Stationary boilers.....	22	1,471	6	219

Table 51.—Materials Used, 1938 and 1939

Materials	Unit of measure	1938		1939	
		Quantity	Cost at works	Quantity	Cost at works
			\$		\$
Portland cement.....	brl.	380,286	771,893	444,608	891,870
Quicklime.....	ton	87	1,808	139	2,627
Sand.....	cu. yd.	175,525	184,026	190,492	206,606
Gravel.....	cu. yd.	54,876	50,742	83,333	92,895
Crushed stone.....	cu. yd.	122,537	140,805	152,159	166,358
Cinders.....	cu. yd.	34,938	27,720	46,775	44,328
Reinforcing steel.....	ton		57,118		66,859
Other materials.....	\$		202,297		208,560
Boxes, crates, lumber, etc.....	\$		15,760		18,076
Total	\$		1,452,169		1,698,179

Table 52.—Materials Used, by Provinces, 1939

Materials	Quebec	Ontario	British Columbia	Other Provinces	Canada
	\$	\$	\$	\$	\$
Portland cement.....	279,167	432,118	75,764	104,821	891,870
Quicklime.....	531	1,337	739	20	2,627
Sand.....	91,172	80,901	16,963	17,570	206,606
Gravel.....	1,279	48,586	12,010	31,020	82,895
Crushed stone.....	108,938	55,111	2,094	215	166,358
Cinders.....	7,668	26,000	10,649	11	44,328
Reinforcing steel.....	38,286	24,941	.....	3,632	66,859
Other materials.....	31,956	156,641	16,518	1,445	208,560
Boxes, crates, lumber, etc.....	650	13,765	3,231	430	18,076
Total	559,647	839,400	139,968	159,164	1,698,179

Table 53.—Products Manufactured, 1938 and 1939

Products	1938		1939	
	Quantity	Selling value at works	Quantity	Selling value at works
		\$		\$
Cement bricks.....		56,393		76,186
Cement hollow building blocks, etc.....		431,547		653,185
Cement drain pipe, sewer pipe, water pipe and culvert tile.....		484,916		481,095
Artificial stone.....		155,660		149,644
Cement laundry tubs.....		76,323		89,991
Cinder blocks.....	M	2,404	2,247	240,012
Cement stucco.....		14,818		22,469
Ready mixed concrete.....		1,162,028		1,198,809
All other products.....		570,652		805,301
Total		3,200,419		3,716,697

Table 54.—Products Manufactured, by Provinces, 1939

Products	Quebec	Ontario	British Columbia	Other Provinces	Canada
	\$	\$	\$	\$	\$
Cement bricks.....	18,986	56,960	.....	240	76,186
Cement hollow building blocks, etc.....	173,470	470,106	2,419	7,190	653,185
Cement drain pipe, sewer pipe, water pipe and culvert tile.....	172,470	139,365	111,470	57,790	481,095
Artificial stone.....	60,747	84,659	1,218	3,020	149,644
Cement laundry tubs.....	18	76,319	13,654	.....	89,991
Cinder blocks.....	30,150	209,862	.....	.....	240,012
Cement stucco.....	305	14,438	7,526	200	22,469
Ready mixed concrete.....	558,614	331,523	112,341	196,331	1,198,809
All other products.....	233,656	499,003	36,599	35,473	805,301
Total	1,248,416	1,882,835	285,197	300,244	3,716,692

Table 55.—Output of Principal Cement Products, 1920-1939

Years	Cement hollow building blocks	Cement sewer pipe, water pipe, drain pipe and culvert tile	Cement bricks	Artificial stone	Cinder blocks
	\$	\$	\$	\$	\$
1920.....	852,304	457,312	.....	69,382	.....
1921.....	511,283	463,091	11,376	71,741	Not
1922.....	596,083	378,818	75,742	27,725	specified
1923.....	652,420	432,002	70,502	53,326	.....
1924.....	523,326	473,719	53,066	77,484	.....
1925.....	859,706	596,256	40,261	256,118	.....
1926.....	1,066,901	647,798	53,412	479,287	.....
1927.....	941,194	766,209	94,302	473,051	69,145
1928.....	1,158,508	1,294,076	40,007	1,173,645	192,358
1929.....	902,413	1,546,376	178,257	1,134,328	306,228
1930.....	802,604	1,181,943	129,409	877,659	273,097
1931.....	709,976	1,373,136	30,763	824,056	231,782
1932.....	194,750	921,244	58,057	226,057	80,322
1933.....	179,052	1,014,443	8,685	101,548	39,617
1934.....	231,901	202,345	13,949	86,511	76,684
1935.....	277,923	305,203	17,178	148,480	102,615
1936.....	315,141	432,424	63,032	133,629	167,350
1937.....	380,008	377,806	146,522	188,021	208,149
1938.....	431,547	464,916	86,383	155,660	238,092
1939.....	653,185	481,095	76,186	149,644	240,012

Directory of Firms in the Cement Products Industry, 1939

Names of firms	Location of plants
NOVA SCOTIA—	
Kentville Concrete Products.....	Meadow Road, Kentville.
NEW BRUNSWICK—	
Blakeny & Son, Ltd.....	806 Main St., Moncton.
Pelletier, Alfred B.....	St. Basile.
Scott Concrete Works.....	Barker's Point.
QUEBEC—	
Aerocrete Construction Co., Ltd.....	Lakefield Ave., Montreal E.
Arco Stone Company Ltd.....	2565 Belanger St., Montreal.
Asselin-Lapierre.....	St. Charles St., Bellechasse.
Bilodeau, L. Alfred.....	144 Renaud Ave., Quebec.
Brunet, R.....	Ornstown.
Concrete Engineering Ltd.....	2049 Harvord Ave., Montreal.
"Doric" Stone Co.....	2745 Grand Trunk St., Montreal.
Duntile Company Ltd.....	6905 Clanranald Ave., Montreal.
Genest, Emile.....	St. Basile, Co. Portneuf.
Giguere, Limoges.....	1392 Beaubien St. E., Montreal.
Grandmison, F. M.....	5081 Iberville St., Montreal.
Lallemine & Bourassa.....	484 Laviolette St., St. Jérôme.
La Brique du Nord Ltée.....	Rouyn.
La Cie des Produits de Ciment.....	St. Jérôme.
La Societe de Construction Moderne.....	27 St. Sacrament St., Chicoutimi.
Marchand & Laberge.....	Chatsauguay.
Montreal Dual Mixed Concrete Ltd.....	Ottawa St., Montreal.
Paquette, Emile.....	9 Beaubien St., Montreal.
Piazagalli Terrazzo Tile Mfg. Co., Ltd.....	6824 Briand St., Montreal.
Potier & Frères.....	105 Jean Talon St. W., Montreal.
Proseure Pipe Co. of Canada, Ltd.....	6945 Casgrain St., Montreal.
Produits de Ciment Economiques, Ltée.....	Head of Colbrook Ave., Montreal.
Proulx, Roméo.....	10 Aberdeen St., Laclaine.
Ready-Mix Concrete Ltd.....	St. Polycarpe.
St. Louis, Rosaire.....	425 Selby St., Montreal.
Standard Clay Products.....	Ste. Ursule.
Tisserand, Felix.....	St. Jean.
	5936 Des Ecoles St., Montreal.
ONTARIO—	
Aristocrat Mfg. Co., Ltd.....	7 Fraser Ave., Toronto.
Ashman, T. J. & Son.....	520 Grosvenor St., London.
Babcock Supply Co.....	Wallaceburg.
Baird Barton Stone.....	225 MacPherson Ave., Toronto.
Barr, William.....	1856 Yonge St., Toronto.
Bishop Vault & Memorial Works.....	Ridgeville.
Boyd Bros.....	Osgoode.
Brans, J.....	22 Savoy Ave., East York (Toronto).
Brown, A. E.....	215 Spruce St., Sudbury.
Brown, D. L.....	54 Lorne St., Sudbury.
Burwell, C. H.....	Tillsonburg.
Calder, James.....	Fergus.
Calkins, H. W., Ltd.....	30 Industrial St., Leaside, Toronto.
Canada Block & Tile Co., Ltd.....	70 Verona Ave., Toronto.
Century Concrete Vault Ltd.....	Industrial St., Leaside, Toronto.
Clemens & Miller.....	Lincoln St. W., Welland.
Concrete Pipe Ltd.....	198 Riddell St., Woodstock.
Concrete Pipe Ltd.....	400 Old Park Road, Toronto.
Cookville Co., Ltd.....	Cookville.
Cooper Concrete Block & Supply Co., Ltd.....	1001 Rosclawn Ave., Fairbank, Toronto.
Cowley, John.....	Westport.
Crawford, Stanley.....	Glen Road & Macklin St., Hamilton.
Cross Supplies & Paving Ltd.....	1272 Windsor Ave., Windsor.
Dell, E. E.....	Aylmer.
Dominion Concrete Co., Ltd.....	Kemptville.
Dominion Concrete Co., Ltd.....	Preccott.
Dual Mixed Concrete & Materials Ltd.....	445 Fleet St. W., Toronto.
Dundas Concrete Block Co., Ltd.....	400 Scarlett Road, Toronto.
D. W. S. Concrete Products Limited.....	640 Dufferin St., Toronto.
Economy Fuel Co.....	100 Wallace Ave., Haultailon.
Fairbank Block & Supply Co., Ltd.....	318 Hopewell Ave., Toronto.
Florry, A., & Son (Scarlett Road Block Co.).....	16 Scarlett Road, Toronto.
Frazier Duntile Co., Ltd.....	Clyde Ave., Westboro.
Frid Bros. Ltd.....	Main W. and Macklin Sts., Hamilton.
Garnett, Thos., & Sons.....	Barrett St., Port Hope.
Grimo, Frank.....	1500 Ferry St., Niagara Falls.
Hall, J. H.....	George St. N., Peterborough.
Hayley, Harry.....	Hurdman Road, Ottawa.
Hill Bros.....	1512 Dufferin Place, Windsor.
Jackson, Jas. H.....	19 Orchard St., London.
Kilbourne, H., & Son.....	1451 Wharcliffe Rd. S., London.
Kitchener Concrete Block Co.....	R. R. 4, Kitchener.
Leaside Block & Tile Ltd.....	Industrial St., Leaside.
Leblond, J.....	68 Hunna St., Eastview.
London Cement Burial Vault-Works.....	435 Hamilton Rd., London.
Medusa Products Co. of Canada Ltd.....	Paris.
Miller, A.....	50 Harvey St., Chatham.
Northern Cement B. B. & Tile Co.....	Tinnina.
Ontario Ready Mix Concrete Ltd.....	Ottawa and Toronto.
Peerless Construction Co.....	4740 Riverside Drive, Riverside.

Directory of Firms in the Cement Products Industry, 1939—Concluded

Names of firms	Location of plants
ONTARIO (concluded)	
Peerless Stone Ltd.....	510 Rhodes Ave., Toronto.
Pinchin, R.....	Clarkson.
Red-D-Mix Concrete Ltd.....	501 Main St. W., Hamilton.
Rideau Concretes Ltd.....	119 Fourth Ave., Ottawa.
Robinet, Frank.....	3179 Sandwich St. W., Windsor.
Robinson, Ernest.....	R. R. 3, Mitchell.
Russels, Howard.....	Leamington.
Sarnia Cement Products Co., Ltd.....	Albert St., Point Edward.
Sauve, Dennis.....	Belle River.
Schmidt, J. T. (St. Jacobs Tile Yard).....	R. R. 1, Waterloo.
Sudbury Brick & Block Supply.....	337 Bond St., Sudbury.
Superior Stone Ltd.....	528 Victoria St., Kitchener.
Tooke, Thos.....	57 Government Rd., Kirkland Lake.
Toronto Brick Company Ltd.....	Ormskirk Ave., Village of Swansea.
Toronto Concrete Burial Vault Co.....	Islington.
Twin City Dunbrik Co.....	River Rd., Eastview.
Walmsley, Frank.....	42 St. Julien St., London.
White, Homer & Co.....	Spring St., Picton.
Willowdale Block Co.....	113 Hounslow Ave., Willowdale, Toronto.
Woollatt Fuel & Supply Co., Ltd.....	2171 Ottawa St., Walkerville.
MANITOBA—	
Lo'ns Stone Works Limited.....	St. Mary's Road, Norwood Grove.
SASKATCHEWAN—	
Concrete Products Ltd.....	Fifth and St. John Sts., Regina.
Precast Concrete Co.....	826 Dewdney Ave. E., Regina.
ALBERTA—	
Alberta Concrete Products Ltd.....	104th Ave. and 111th St., Edmonton.
Bell, T. A.....	122-3rd Ave. E., Calgary.
Concrete Products & Supplies.....	Rifle Range, East Calgary and Edmonton.
Marblite Memorial Products.....	9664 Jasper Ave., Edmonton.
Sorensen, R.....	Wetaskiwin.
Woods Cement Works.....	1926 28th Ave. S.W., Calgary.
BRITISH COLUMBIA—	
B.C. Cement Co., Ltd.....	305 Belmont Bldg., Victoria.
B.C. Concrete Co., Ltd.....	77th and Oak Sts., Vancouver.
Canadian Stucco Products.....	Granville Island, Vancouver.
Dawson Art Stone Works.....	294 East 1st Ave., Vancouver.
Diethers Ltd.....	Granville Island, Vancouver.
Hunter, George.....	2613 East 22nd Ave., Vancouver.
Pressure Pipe Co. of Canada Ltd.....	Fell Ave. N., Vancouver.
Sanderson, Warren.....	1780 Broadway E., Vancouver.
Williams Concrete Co., Ltd.....	1401 Main St., Vancouver.

CHAPTER SIX

THE COKE AND GAS INDUSTRY

Production from the coke and gas plants in Canada during 1939 was valued at \$39,029,570. This output was 2 per cent under the \$39,721,530 of the previous year which in turn was 5 per cent under the record of \$41,702,929 established in 1937. Output for the year under review included 2,410,095 tons of coke valued at \$16,763,517 at the works, 41,632,773 M cubic feet of gas of which 41,616,723 M cubic feet valued at \$19,160,900 were sold or used, and by-products valued at \$3,105,153.

Thirty coke and gas works operated in 1939, including 8 by-product plants, 2 bee-hive plants and 20 retort coal and water gas plants. Sixteen of these works were located in Ontario, 4 in British Columbia, 4 in Quebec, 2 in Manitoba, 2 in Nova Scotia, and 1 in each of New Brunswick and Alberta. In addition to these producers, 1 company in Quebec and 2 in Ontario purchased coke-oven gas and distributed it for domestic or commercial use and data covering their operations have been included to round out the figures for the industry.

Output of coke from gas retorts, by-product and bee-hive ovens, totalled 2,410,095 tons in 1939 compared with 2,352,003 tons in 1938 and 2,570,385 tons in 1937. By-product and bee-hive ovens produced 2,147,210 tons of coke in 1939 and gas retorts made 262,885 tons. In addition, 66,332 tons of petroleum coke were recovered in petroleum refineries.

Data on the distribution of coke (except petroleum coke) by the producers show that 313,237 tons were sold direct to domestic consumers, 799,653 tons were used in metallurgical works operated by the producing companies, 232,027 tons were used by coke plants as fuel or to make water gas, 379,365 tons were sold direct to consumers for foundry and other uses (other than domestic), and 772,709 tons were sold to dealers for resale. The total distribution was 2,496,991 tons, including about 67,000 tons withdrawn from producers' stocks during the year. Total stocks of coke in the hands of the producers amounted to 311,077 tons at the end of 1939.

Imports of coke made from coal advanced to 435,871 tons in 1939 from 414,682 tons in 1938 and exports to 48,719 tons from 30,537 tons. Imports of petroleum coke during the period also rose to 147,690 tons from 81,294 tons and exports to 35,604 tons from 25,408 tons.

Manufactured gas, sold and used, amounted to 41,616,723 M cubic feet in 1939, including 34,655,444 M cubic feet from by-product ovens and 6,961,279 M cubic feet from gas plants. Sales of gas by the producers totalled 14,936,102 M cubic feet of which 8,688,352 M cubic feet were from by-product ovens and 6,247,750 M cubic feet were from gas works. Most of the remaining gas was used as a fuel in the producing plants or in their associated metallurgical works. These figures do not include 39,470 M cubic feet of (Pintsch) oil gas for lighting railway cars, 7,802,666 M cubic feet of still gas recovered at petroleum refineries, nor iron blast furnace gas and some producer gas which was recovered and used by the producers but for which no records are available.

The number of customers served with manufactured gas in 1939 was 477,475, the number of active meters was 497,039, the length of distributing mains was 3,882 miles, and the average calorific value of the gas sold ranged from 450 to 570 B.T.U. per cubic foot.

Table 56.—Distribution of Coke and Gas Manufacturing Plants, by Provinces, 1939

Provinces	Coke plants	Gas plants			Total
	By-product and bee-hive ovens	Retort coal gas only	Water gas only	Retort coal gas and water gas	
Nova Scotia.....	1	1			2
New Brunswick.....	1	1			1
Quebec.....	1			1	4
Ontario.....	4	4	5	3	16
Manitoba.....	1	1			2
Alberta.....	1				1
British Columbia.....	2	1		1	4
Canada.....	10	9	6	5	30

Table 57.—Size of Establishments, according to Quantity of Coal and Coke Used for Coke and Gas-Making, 1939

Coal or coke used	Number of plants	Total coal or coke for gas-making
Less than 1,000 tons.....	5	2,381
1,001— 5,000.....	7	12,035
5,001— 15,000.....	7	65,827
15,001—100,000.....	4	208,460
100,001—500,000.....	3	828,871
Over 500,000.....	4	2,179,276
Total.....	30	3,360,300

Table 58.—Principal Statistics of the Coke and Gas Industry by Sub-Groups, 1935-1939

Years	Number of companies*	Capital employed	Average number of employees	Salaries and wages	Cost of fuel and electricity at works	Cost of materials at works	Gross selling value of products at works
Coke (By-product and Bee-hive)							
		\$		\$	\$	\$	\$
1935.....	13	57,622,800	2,084	2,940,341	1,675,503	12,064,977	26,927,436
1936.....	13	55,352,751	2,306	3,294,227	2,051,914	13,833,486	29,458,063
1937.....	13	56,416,067	2,314	3,325,958	2,243,977	14,614,177	31,913,459
1938.....	13	56,952,033	2,227	3,351,614	2,181,609	14,068,917	29,583,633
1939.....	13	58,691,213	2,327	3,392,800	2,364,768	14,102,330	29,158,686
Gas (Retort and Water Gas)							
1935.....	31	41,316,360	2,023	2,687,520	756,608	3,168,542	11,547,353
1936.....	29	37,735,971	1,810	2,420,256	729,131	2,752,085	10,413,835
1937.....	†20	35,494,583	1,713	2,383,611	662,115	2,603,780	9,789,470
1938.....	†20	36,385,539	1,703	2,447,888	660,711	2,534,726	10,137,897
1939.....	†20	36,234,551	1,716	2,458,814	1,065,625	2,624,115	9,870,884
Total—Coke and Gas							
1935.....	44	98,939,160	4,107	5,627,861	2,432,111	15,233,519	38,474,789
1936.....	42	93,089,722	4,116	5,714,483	2,781,045	16,585,571	39,871,898
1937.....	33	91,911,236	4,027	5,709,569	2,906,092	17,217,957	41,762,929
1938.....	33	93,337,572	3,930	5,790,502	3,842,320	16,603,643	39,721,530
1939.....	33	94,925,764	4,043	5,851,614	3,430,393	16,726,445	39,029,570

*The number shown for by-product and bee-hive ovens includes 3 companies which did not produce coke or gas but which purchased coke-oven gas from the manufacturers and distributed it to customers.

†Eight plants making Pintsch oil gas for railway car lighting have been excluded from the statistics for 1937 to 1939 but they were included for previous years.

Note—Profits or losses cannot be calculated from above figures as data are not available for general expense items, such as, interest, rent, depreciation, taxes, insurance, advertising, etc.

MANUFACTURES OF NON-METALLIC MINERALS

Table 59.—Principal Statistics, by Provinces, 1938 and 1939

Provinces	Number of companies	Capital employed	Average number of employees	Salaries and wages	Cost of fuel and electricity at works	Cost of materials at works	Gross selling value of products at works
		\$		\$	\$	\$	\$
1938							
Nova Scotia and New Brunswick	3	8,853,107	365	482,482	247,005	1,906,658	3,416,178
Quebec	4	11,961,459	637	1,034,256	922,108	3,244,626	10,103,372
Ontario	19	53,075,006	2,375	3,525,221	1,389,833	9,786,594	22,241,322
Manitoba and Alberta	3	6,617,476	224	294,118	103,896	798,851	1,484,431
British Columbia	4	12,830,524	320	463,425	179,478	796,914	2,476,227
Canada	33	93,337,572	3,930	5,799,592	2,842,320	16,603,643	39,721,530
1939							
Nova Scotia and New Brunswick	3	9,896,464	378	479,330	273,312	2,272,898	4,052,115
Quebec	5	11,640,038	648	1,011,091	924,065	3,257,010	10,042,883
Ontario	18	54,320,483	2,463	3,553,487	1,992,649	9,647,794	21,033,396
Manitoba and Alberta	3	6,038,157	194	291,780	74,469	774,788	1,439,250
British Columbia	4	13,030,622	300	515,926	165,898	773,955	2,461,926
Canada	33	94,925,764	4,043	5,851,614	3,436,393	16,726,445	39,029,570

Table 60.—Capital Employed, by Classes and by Provinces, 1938 and 1939

Provinces	Present value of land, buildings, fixtures, and machinery	Inventory value of materials on hand, stocks in process, and finished products	Operating capital (cash, bills and accounts receivable, prepaid, expenses, etc.)	Total capital employed
	\$	\$	\$	\$
1938				
Nova Scotia and New Brunswick	6,684,742	1,543,193	625,172	8,853,107
Quebec	9,165,202	2,061,265	734,992	11,961,459
Ontario	42,817,653	6,063,978	4,193,375	53,075,006
Manitoba and Alberta	6,218,392	259,137	142,947	6,617,476
British Columbia	12,057,977	351,312	421,235	12,830,524
Canada	76,943,966	10,275,885	6,117,721	93,337,572
1939				
Nova Scotia and New Brunswick	8,724,880	2,043,255	1,128,329	9,896,464
Quebec	8,994,566	2,105,059	540,413	11,640,038
Ontario	43,745,699	6,398,063	4,176,721	54,320,483
Manitoba and Alberta	5,711,532	276,167	50,408	6,038,157
British Columbia	12,454,666	276,839	299,117	13,030,622
Canada	77,631,343	11,039,373	6,195,048	94,925,764

Table 61.—Employees, Salaries and Wages, by Provinces, 1938 and 1939

Provinces	Average number of employees					Salaries	Wages	Total salaries and wages
	On salaries		On wages		Total			
	Male	Female	Male	Female				
1938						\$	\$	\$
Nova Scotia and New Brunswick	37	9	319		365	64,638	417,844	482,482
Quebec	192	34	411		637	423,067	611,189	1,034,256
Ontario	523	182	1,669	1	2,375	1,044,003	2,481,218	3,525,221
Manitoba and Alberta	42	24	158		224	84,363	209,765	294,118
British Columbia	56	3	270		329	118,166	345,259	463,425
Canada	850	252	2,827	1	3,930	1,734,227	4,065,275	5,799,592
1939								
Nova Scotia and New Brunswick	37	11	330		378	60,772	418,558	479,330
Quebec	179	42	427		648	406,531	604,560	1,011,091
Ontario	567	197	1,697	2	2,463	1,026,371	2,527,114	3,553,487
Manitoba and Alberta	43	25	126		194	86,163	205,617	291,780
British Columbia	59	3	298		360	123,618	392,308	515,926
Canada	885	278	2,878	2	4,043	1,703,455	4,148,159	5,851,614

Table 62.—Wage-Earners, by Months, 1938 and 1939

(On the last work-day of each month)

Months	1938			1939		
	Male	Female	Total	Male	Female	Total
January.....	2,817	1	2,818	2,748	2	2,750
February.....	2,781	1	2,782	2,769	2	2,771
March.....	2,760	1	2,761	2,733	2	2,735
April.....	2,842	1	2,843	2,777	2	2,779
May.....	2,884	1	2,885	2,858	2	2,860
June.....	2,965	1	2,966	2,974	2	2,976
July.....	2,918	1	2,919	3,048	2	3,050
August.....	2,915	1	2,916	3,050	2	3,052
September.....	2,934	1	2,935	3,028	2	3,030
October.....	2,795	1	2,796	2,998	2	3,000
November.....	2,795	1	2,796	2,968	2	2,970
December.....	2,753	1	2,754	2,869	2	2,871
Average.....	2,827	1	2,828	2,875	2	2,880

Table 63.—Hours Worked per Week by Wage-Earners, 1939

(In one week in month of normal employment; overtime not included)

Regular hours worked per week	Number of wage-earners	Per cent of total	Regular hours worked per week	Number of earners	Per cent of total
30 hours or less.....	7	0.2	51-54 hours.....	140	4.0
31-43 hours.....	249	8.7	55 hours.....	63	2.2
44 hours.....	361	12.5	56-64 hours.....	430	14.9
45-47 hours.....	94	3.3	65 hours and over.....	38	1.3
48 hours.....	1,294	45.0	Total.....	2,878	100.00
49-50 hours.....	202	7.0			
			Total wages paid during selected week.....	\$85,386	

Table 64.—Fuel and Electricity Used, 1938 and 1939

NOTE—Includes fuel for boilers, benches, retorts, etc., but does not include coal, coke, etc., charged to ovens, retorts or water gas sets.

Kinds	Unit of measure	1938		1939	
		Quantity	Cost at works	Quantity	Cost at works
Bituminous coal—Canadian	short ton	12,943	43,072	10,291	41,291
Imported	short ton	6,133	34,453	11,792	64,221
Anthracite coal.....	short ton				
Lignite coal—Canadian	short ton	56	168	5	15
Coke (all made in users' works)	short ton	143,530	741,083	152,226	1,115,006
Gasoline.....	Imp. gal.	14,672	2,211	17,490	2,247
Fuel oil.....	Imp. gal.	337,783	14,127	93,071	3,560
Wood.....	cord	17	101	3	9
Gas—Manufactured (all made in users' works)	M cu. ft.	13,990,227	1,777,378	15,810,014	1,968,696
Natural	M cu. ft.				
Other fuel.....	\$		4,654		10,393
Electricity purchased	K.W.H.	43,045,158	225,073	41,351,395	224,955
Total.....	\$		2,842,320		3,430,393

MANUFACTURES OF NON-METALLIC MINERALS

Table 65.—Power Equipment, 1938 and 1939

	1938		1939	
	Number of units	Total rated horse power	Number of units	Total rated horse power
1938				
Steam engines and turbines.....	186	8,465	100	5,827
Diesel engines.....	1	40	1	40
Gasoline, gas and oil engines (except Diesel).....	2	19	5	188
Hydraulic turbines or water wheels.....	1	6	1	6
Electric motors run by purchased power.....	813	18,755	157	3,161
Total	1,001	27,239	264	9,222
Electric motors run by above primary units.....	120	2,311		
Stationary boilers.....	82	17,064	39	14,916
1939				
Steam engines and turbines.....	189	8,536	101	5,940
Diesel engines.....	1	40	1	40
Gasoline, gas and oil engines (except Diesel).....	2	19	5	188
Hydraulic turbines or water wheels.....	1	3	1	3
Electric motors run by purchased power.....	714	15,337	148	2,951
Total	905	23,891	256	9,122
Electric motors run by above primary units.....	214	3,731		
Stationary boilers.....	73	15,261	43	15,556

Table 66.—Materials Used in Coke and Gas Plants, 1938 and 1939

Materials	Unit of measure	1938		1939	
		Quantity	Cost at works	Quantity	Cost at works
			\$		\$
Bituminous coal carbonized in ovens or retorts—					
(a) Canadian.....	ton	1,008,895	4,256,564	1,076,978	4,592,536
(b) Imported.....	ton	2,215,469	10,784,493	2,194,348	10,672,863
Bituminous coal for making water gas—					
Imported.....	ton	3,650	27,191	2,882	21,449
Coke for gas-making—					
(a) Purchased.....	short ton	4,150	39,351	6,339	53,483
(b) Companies' own make.....	short ton	87,923	606,880	79,953	530,179
Oil used for enriching water gas.....	Imp. gal.	4,358,714	327,027	4,028,892	299,033
Absorbing and wash oil.....	Imp. gal.	243,089	26,950	201,602	21,777
Caustic soda.....	pound	745,762	12,084	720,632	10,666
Lime.....	ton	2,396	23,724	2,168	21,592
Water.....			17,311		14,848
Iron oxide.....			41,013		35,417
Sulphuric acid, 66° Bé.....	pound	43,713,138	317,195	45,729,750	320,002
All other materials.....			123,824		132,600
Total			16,603,643		16,726,445

Table 67.—Materials Used in Coke and Gas Plants, by Areas, 1939

Materials	Unit of measure	Eastern provinces		Ontario		Western provinces	
		Quantity	Cost at works	Quantity	Cost at works	Quantity	Cost at works
			\$		\$		\$
Bituminous coal carbonized in ovens and retorts—							
(a) Canadian.....	ton	733,972	3,272,083	9,260	51,997	333,746	1,268,456
(b) Imported.....	ton	352,162	1,747,235	1,840,772	8,914,436	1,424	11,192
Bituminous coal for making water gas—							
Imported.....	ton	84	840	2,798	20,609		
Coke for gas-making—							
(a) Purchased.....	ton	958	9,101	3,941	35,742	1,440	8,640
(b) Companies' own make.....	ton	25,441	187,460	28,755	171,067	25,757	171,652
Oil used for enriching water gas.....	Imp. gal.	392,267	32,061	2,668,793	198,350	967,832	68,622
Absorbing and wash oil.....	Imp. gal.	102,292	11,511	78,580	8,709	20,730	1,557
Caustic soda.....	pound	192,620	2,917	528,012	7,749		
Lime.....	ton	1,683	17,142	485	4,450		
Water.....			10,792		3,584		472
Iron oxide.....	ton		12,863		21,729		825
Sulphuric acid, 66° Bé.....	pound	20,635,289	128,776	25,094,461	191,226		
All other materials.....			97,127		18,146		17,327
Total			5,529,908		9,647,794		1,548,743

Table 68.—Products Made in Coke and Gas Plants, 1938 and 1939

Products	Unit of measure	1938		1939	
		Quantity	Gross selling value at works	Quantity	Gross selling value at works
			\$		\$
GAS MADE—					
Retort coal gas.....	M cu. ft.	4,732,207		5,120,592	
Coke oven gas.....	M cu. ft.	29,628,018		28,785,955	
Producer gas.....	M cu. ft.	6,208,784		5,689,116	
Water gas.....	M cu. ft.	2,363,712		2,037,110	
Oil gas.....	M cu. ft.				
Total gas made.....	M cu. ft.	42,932,721		41,632,773	
GAS SOLD OR USED—					
Gas sold.....	M cu. ft.	15,198,068	15,001,142	14,936,102	14,562,246
Gas used in own plants.....	M cu. ft.	16,890,810	2,365,330	15,732,194	2,206,196
Gas used in associated metallurgical works.....	M cu. ft.	9,259,954	1,222,106	9,377,343	1,204,936
Gas otherwise accounted for but not sold.....	M cu. ft.	228,899	61,278	231,514	74,625
Gas not accounted for.....	M cu. ft.	1,488,650	1,161,415	1,339,570	1,112,897
Total gas sold or used.....	M cu. ft.	43,066,381	19,811,271	41,616,723	19,160,900
COKE MADE—					
Coke from by-product or bee-hive ovens.....	ton	1,993,637	14,162,064	2,017,709	14,076,442
Coke from gas retorts.....	ton	221,493	2,265,759	249,054	2,213,431
Coke breeze from by-product ovens.....	ton	126,951	437,320	129,501	440,744
Coke breeze from gas retorts.....	ton	9,922	29,924	13,831	32,900
Total coke.....	ton	2,352,003	16,895,067	2,410,095	16,763,517
OTHER PRODUCTS—					
Tar.....	Imp. gal.	26,081,011	1,417,750	27,077,070	1,515,071
Ammonia liquor.....			14,826		16,297
Ammonium sulphate.....	pound	56,255,120	671,762	57,327,569	683,977
Benzol.....	Imp. gal.	3,292,058	511,276	2,813,014	417,146
Other light oils, including toluol, xylol, naphthalene, etc.....	Imp. gal.	3,223,959	399,578	3,810,145	472,662
Grand total.....			39,721,539		39,629,676

Table 69.—Products Made in Coke and Gas Plants, by Areas, 1939

Products	Unit of measure	Eastern provinces		Ontario		Western provinces	
		Quantity	Gross selling value at works	Quantity	Gross selling value at works	Quantity	Gross selling value at works
GAS MADE—			\$		\$		\$
Retort coal gas.....	M cu. ft.	425,052		4,500,675		194,865	
Coke oven gas.....	M cu. ft.	11,051,139		15,694,198		2,040,618	
Producer gas.....	M cu. ft.	3,546,872				2,142,344	
Water gas.....	M cu. ft.	183,511		1,783,758		69,841	
Oil gas.....	M cu. ft.						
Total gas made....	M cu. ft.	15,206,574		21,978,631		4,447,568	
GAS SOLD OR USED—							
Gas sold.....	M cu. ft.	4,912,044	5,480,785	8,093,847	7,086,457	1,930,211	1,995,004
Gas used in own plants.....	M cu. ft.	6,445,598	986,184	6,969,506	1,048,767	2,317,090	171,245
Gas used in associated metallurgical works.....	M cu. ft.	3,292,574	337,289	6,084,769	867,647		
Gas otherwise accounted for but not sold.....	M cu. ft.	35,366	9,417	196,148	65,208		
Gas not accounted for.....	M cu. ft.	520,726	519,242	620,789	404,523	198,055	189,132
Total gas sold or used..	M cu. ft.	15,206,308	7,332,917	21,965,059	9,472,602	4,445,356	2,355,381
COKE MADE—							
Coke from by-product or bee-hive ovens.....	ton	715,241	5,230,688	1,094,288	7,481,141	208,200	7,598
Coke from gas retorts.....	ton	17,621	138,167	223,835	2,034,783	1,364,613	40,481
Coke breeze from by-product ovens.....	ton	66,697	205,821	51,254	174,999	11,550	59,924
Coke breeze from gas retorts.....	ton	2,513	8,641	10,585	21,241	733	3,018
Total coke.....	ton	802,072	5,583,317	1,379,942	9,712,164	1,585,096	111,021
OTHER PRODUCTS—							
Tar.....	Imp. gal.	9,363,669	495,289	16,370,250	942,023	1,343,151	77,769
Other products.....	\$		683,475		906,607		1,357,015
Grand total.....	\$		14,694,998		21,633,396		3,901,176

Table 70.—Production of Bee-Hive, By-Product and Gas-Retort Coke, by Kinds, 1919-1939

Years	Bee-hive and by-product coke		Gas retort coke		Total	
	Quantity	Gross selling value at works	Quantity	Gross selling value at works	Quantity	Gross selling value at works
	short tons	\$	short tons	\$	short tons	\$
1919.....	1,276,443	9,821,998	398,589	2,251,744	1,675,032	12,073,742
1920.....	1,270,322	11,524,091	437,881	3,875,093	1,708,203	15,399,184
1921.....	1,011,847	11,049,369	452,152	3,061,514	1,463,999	14,111,183
1922.....	700,098	5,560,183	532,548	3,492,307	1,232,646	9,052,190
1923.....	1,169,989	10,236,524	498,309	3,695,960	1,668,298	13,932,181
1924.....	985,305	7,208,713	451,607	3,164,234	1,436,912	10,132,917
1925.....	1,079,526	7,442,103	467,213	3,040,738	1,546,739	10,182,841
1926.....	1,555,962	10,232,775	471,096	3,073,150	2,027,058	13,305,925
1927.....	1,582,662	10,165,035	443,776	2,799,177	2,026,438	12,964,212
1928.....	1,980,591	12,353,588	333,536	2,182,123	2,314,127	14,535,711
1929.....	2,372,229	15,938,466	305,352	2,009,192	2,677,581	17,947,658
1930.....	2,062,764	13,592,418	323,230	2,259,829	2,385,991	15,852,247
1931.....	1,512,381	10,157,011	320,319	2,262,730	1,832,700	12,119,741
1932.....	1,331,170	9,085,716	306,531	3,008,789	1,637,701	12,094,505
1933.....	1,500,448	9,847,800	271,710	2,618,595	1,772,161	12,166,195
1934.....	1,948,294	13,481,930	295,126	2,379,827	2,243,420	15,861,757
1935.....	1,962,844	13,121,614	294,760	2,739,545	2,237,601	15,861,159
1936.....	2,147,810	14,343,959	256,983	2,366,049	2,404,793	16,710,008
1937.....	2,334,556	16,289,370	235,829	2,182,698	2,570,385	18,466,068
1938.....	2,120,588	14,599,384	231,415	2,295,683	2,352,003	16,895,067
1939.....	2,147,210	14,517,186	262,885	2,246,331	2,410,095	16,763,517

Table 71.—Production of Bee-Hive, By-Product and Gas-Retort Coke, by Provinces, 1919-1939

Years	Nova Scotia, New Brunswick and Quebec		Ontario		Manitoba, Alberta, and British Columbia		Canada	
	Quantity	Gross selling value at works	Quantity	Gross selling value at works	Quantity	Gross selling value at works	Quantity	Gross selling value at works
	short tons	\$	short tons	\$	short tons	\$	short tons	\$
1919	567,778	4,700,079	986,833	6,301,068	120,421	1,072,595	1,675,032	12,073,742
1920	604,642	6,053,226	882,257	6,834,357	221,304	2,511,601	1,708,203	15,399,184
1921	413,420	3,005,746	858,951	9,166,758	191,628	1,938,679	1,163,399	14,111,183
1922	454,678	2,439,591	603,219	4,893,672	174,749	1,719,227	1,232,616	9,652,490
1923	599,458	4,905,506	882,341	7,189,816	186,499	1,837,162	1,668,298	13,932,481
1924	420,535	2,753,384	857,528	6,161,144	158,849	1,518,419	1,136,912	10,432,947
1925	504,956	2,755,147	830,839	5,967,333	210,944	1,760,361	1,546,739	10,182,811
1926	646,929	3,265,348	1,144,493	8,208,124	235,636	1,882,453	2,027,058	13,365,925
1927	561,918	2,815,912	1,260,355	8,542,988	204,165	1,605,312	2,026,438	12,964,212
1928	703,297	3,926,491	1,443,512	9,332,926	167,318	1,276,294	2,314,127	14,335,711
1929	850,452	5,259,446	1,624,884	11,112,809	202,245	1,575,403	2,677,581	17,912,658
1930	660,911	4,361,204	1,516,080	10,021,292	189,003	1,469,751	2,385,394	15,852,247
1931	538,126	3,887,746	1,113,509	7,163,526	181,065	1,368,460	1,832,700	12,419,741
1932	403,330	3,115,737	1,087,122	7,876,941	147,249	1,101,827	1,637,701	12,091,505
1933	445,755	2,840,433	1,153,509	8,429,660	172,900	1,196,102	1,772,164	12,466,195
1934	654,305	4,369,150	1,388,700	10,200,363	200,406	1,292,244	2,243,120	15,861,757
1935	730,460	4,738,191	1,334,081	9,868,953	193,054	1,254,015	2,257,604	15,861,159
1936	775,270	4,655,468	1,441,633	10,807,611	187,690	1,246,929	2,104,793	16,710,008
1937	853,122	5,548,042	1,504,334	11,522,965	212,929	1,305,061	2,570,385	18,466,068
1938	754,975	5,040,400	1,365,571	10,339,065	231,457	1,515,602	2,352,003	16,895,067
1939	802,072	5,583,317	1,379,842	9,712,104	228,081	1,468,036	2,410,095	16,769,517

Table 72.—Production of Bee-Hive, By-Product and Gas Retort Coke, by Months, 1931-1939

(In thousands of short tons)

Months	1931	1932	1933	1934	1935	1936	1937	1938	1939
January	171	151	160	195	200	212	218	224	203
February	165	144	128	169	181	198	198	199	177
March	179	156	139	192	198	202	221	218	191
April	169	143	122	185	180	190	214	208	184
May	169	129	134	185	185	200	218	208	196
June	155	119	136	179	180	199	210	192	189
July	139	127	145	183	176	193	212	183	190
August	132	121	150	189	175	191	214	182	193
September	126	127	156	188	180	189	208	184	188
October	140	131	173	204	205	212	218	184	226
November	144	143	174	199	206	208	217	180	229
December	144	147	165	175	192	211	222	190	244
Total	1,833	1,638	1,772	2,243	2,258	2,405	2,570	2,352	2,410
Monthly average	153	137	148	187	188	200	214	196	209

Table 73.—Bituminous Coal Charged to Coke Ovens and Gas Retorts, 1919-1939

Years	Bee-hive and by-product ovens		Gas retorts		Total
	Canadian	Imported	Canadian	Imported	
	(Short tons)				
1919	850,305	1,015,706	581,750		2,447,761
1920	960,148	977,304	648,618		2,586,130
1921	586,185	910,845	655,789		2,152,819
1922	487,907	565,406	641,875		1,695,278
1923	736,818	970,206	728,011		2,435,035
1924	584,304	826,613	681,480		2,092,397
1925	598,280	930,738	723,394		2,252,412
1926	938,134	1,254,806	80,923	620,360	2,894,283
1927	809,135	1,431,345	68,894	555,035	2,865,209
1928	829,157	1,876,502	80,382	413,118	3,199,159
1929	872,884	2,378,507	88,507	372,387	3,712,285
1930	640,167	2,097,921	90,299	356,056	3,191,444
1931	468,838	1,576,881	96,044	390,773	2,532,536
1932	351,960	1,413,328	97,304	354,420	2,217,012
1933	557,249	1,488,492	46,768	373,452	2,465,961
1934	803,121	1,830,668	40,982	435,133	3,116,104
1935	943,240	1,734,650	45,914	(*412,539)	3,136,343
1936	1,008,841	1,951,515	48,258	(*349,884)	3,358,498
1937	1,106,706	2,106,960	48,109	(*318,175)	3,579,550
1938	960,492	1,917,965	48,403	(*301,124)	3,228,011
1939	1,020,585	1,871,975	56,393	(*325,255)	3,274,208

(* Includes 3,261 tons used in making water gas in 1935, 3,159 tons in 1936, and 2,392 tons in 1937, 3,650 tons in 1938 and 2,882 tons in 1939.

MANUFACTURES OF NON-METALLIC MINERALS

Table 74.—Bituminous Coal Charged to Coke Ovens and Gas Retorts, by Provinces, 1919-1939

Years	Nova Scotia, New Brunswick and Quebec		Ontario		Manitoba, Alberta and British Columbia		Total
	Canadian	Imported	Canadian	Imported	Canadian	Imported	
			(Short tons)				
1919	946,019		1,319,943		181,799		2,447,761
1920	991,332		1,260,336		334,462		2,586,130
1921	653,598		1,219,398		279,823		2,152,819
1922	588,217		851,177		255,884		1,695,278
1923	910,081		1,248,549		276,405		2,435,035
1924	751,551		1,104,980		235,866		2,092,397
1925	797,545		1,122,808		332,059		2,252,412
1926	750,775	244,805		1,559,427	268,282	70,994	2,894,283
1927	633,158	218,411		1,701,060	244,871	67,809	2,865,309
1928	696,605	340,890	9,424	1,890,181	293,510	58,543	3,199,159
1929	734,221	466,433		2,206,338	227,170	78,128	3,712,285
1930	515,793	433,414		1,963,195	220,673	57,998	3,191,943
1931	338,072	414,179		1,516,819	226,810	36,656	2,532,536
1932	271,496	295,114	105	1,435,964	177,663	36,670	2,217,012
1933	384,175	256,086	5,700	1,584,052	214,142	21,806	2,465,961
1934	556,628	359,210	700	1,911,920	286,975	671	3,116,104
1935	708,873	326,342	600	1,820,847	279,681		3,136,343
1936	765,743	328,216	15,684	1,973,183	275,672		3,358,498
1937	853,949	338,861	6,028	2,060,077	294,838	26,197	3,579,950
1938	673,625	345,319	3,200	1,858,798	335,270	11,802	3,228,014
1939	733,972	352,236	9,260	1,843,470	333,746	1,424	3,274,208

Table 75.—Bee-Hive, By-Product and Gas-Retort Coke Made Available for Consumption in Canada, 1902-1939

Years	Output	Imports	*Exports	Coke made available for consumption
1902	502,043	266,140	62,568	765,615
1903	561,318	258,703	32,608	787,413
1904	554,083	239,310	102,463	690,930
1905	700,488	470,486	116,071	1,054,903
1906	782,055	501,942	37,003	1,246,994
1907	842,003	624,649	70,617	1,396,835
1908	858,257	426,971	58,708	1,276,520
1909	862,011	661,425	74,067	1,449,369
1910	902,715	737,088	57,971	1,581,832
1911	935,651	751,389	9,852	1,677,188
1912	1,411,229	628,174	57,744	1,981,659
1913	1,530,499	723,906	68,235	2,186,170
1914	1,023,860	553,046	67,838	1,509,068
1915	1,170,473	637,857	35,869	1,772,461
1916	1,469,741	757,116	48,539	2,178,318
1917	1,245,862	970,106	23,595	2,192,373
1918	1,250,744	1,165,690	29,612	2,386,722
1919	1,675,032	383,374	14,799	2,043,697
1920	1,708,203	586,406	39,536	2,355,073
1921	1,463,996	228,030	20,907	1,671,122
1922	1,232,646	336,270	19,831	1,549,685
1923	1,668,298	733,004	34,407	2,367,495
1924	1,436,912	521,725	23,144	1,935,493
1925	1,546,739	852,427	25,578	2,373,588
1926	2,027,058	988,034	41,699	2,974,393
1927	2,026,438	772,235	74,109	2,724,564
1928	2,314,127	1,060,029	25,058	3,349,098
1929	2,677,581	1,226,853	25,208	3,879,276
1930	2,385,994	1,061,040	29,891	3,417,233
1931	1,637,701	733,274	20,905	2,345,669
1932	1,637,104	651,802	15,469	2,274,034
1933	1,772,104	644,075	5,199	2,391,044
1934	2,243,420	930,221	7,399	3,166,245
1935	2,257,094	532,926	20,649	2,769,881
1936	2,404,793	612,858	18,215	2,999,436
1937	2,570,385	417,733	36,959	2,951,159
1938	2,352,003	414,682	30,537	2,736,148
1939	2,410,095	435,871	48,719	2,797,247

* Prior to 1925 exports of petroleum coke were included.

Table 76.—Bee-Hive, By-Product and Gas Retort Coke Sold and Used by Producers during 1938 and 1939, and Stocks on Hand at End of 1939

	Coke	Breeze	Total
	(Short tons)		
1938			
Coke actually used by reporting companies—			
In coke or gas plant.....	180,909	51,425	232,334
In associated metallurgical works.....	666,578	35,460	702,038
Coke sold—			
For domestic use.....	847,795	15,511	863,306
For other uses.....	395,521	30,854	426,375
Total sold or used	2,090,893	133,250	2,224,053
1939			
Coke actually used by reporting companies—			
In coke or gas plant.....	181,538	50,489	232,027
In associated works.....	750,982	48,671	799,653
Coke sold—			
(a) Direct to consumers			
For domestic use.....	296,719	16,518	313,237
For other uses.....	347,464	31,901	379,365
(b) To dealers for resale.....	770,057	2,652	772,709
Total sold or used	2,346,760	150,231	2,496,991
Stocks on hand at end of year.....	273,495	37,582	311,077

Table 77.—Coal Carbonized, Coke Produced, and Distribution of Coke by Manufacturers, 1939

	Bee-hive and by-product plants	Gas retort plants	Total for coke producing plants
	short tons	short tons	short tons
Coal carbonized—			
Canadian.....	1,020,588	58,393	1,076,978
Imported.....	1,871,975	322,373	2,194,348
Total	2,892,560	378,766	3,271,326
Coke made—			
Coke.....	2,017,709	249,054	2,266,763
Breeze.....	129,501	13,831	143,332
Total	2,147,210	262,885	2,410,095
Coke yield.....	74.2	69.4	7.37
Coke used in coke or gas plants—			
Coke.....	44,907	136,631	181,538
Breeze.....	48,495	1,994	50,489
Total	93,402	138,625	232,027
Coke used in associated metallurgical works—			
Coke.....	747,052	3,930	750,982
Breeze.....	48,671		48,671
Total	795,723	3,930	799,653
Coke sold direct to consumers for domestic use—			
Coke.....	208,725	87,994	296,719
Breeze.....	5,557	11,161	16,518
Total	214,082	99,155	313,237
Coke sold direct to consumers for other uses—			
Coke.....	346,185	1,279	347,464
Breeze.....	31,388	513	31,901
Total	377,573	1,792	379,365
Coke sold to dealers for resale—			
Coke.....	764,785	5,272	770,057
Breeze.....	1,960	692	2,652
Total	766,745	5,964	772,709
Total coke sold and used—			
Coke.....	2,111,654	235,106	2,346,760
Breeze.....	133,871	14,360	150,231
Total	2,245,525	249,466	2,496,991
Stocks on December 31, 1939—			
Coke.....	205,967	67,528	273,495
Breeze.....	36,784	798	37,582
Total	242,751	68,326	311,077

Table 78.—Imports of Coke into Canada, by Ports of Entry, 1938 and 1939

(Tons of 2,000 pounds)

Ports	Sources	1938		1939	
		Made from coal	Made from petroleum	Made from coal	Made from petroleum
PRINCE EDWARD ISLAND					
NOVA SCOTIA —					
Bridgewater.....	United States.....	31			
Halifax.....	United States.....			292	
	Great Britain.....	2,498		582	
	Germany.....	4,531			
New Glasgow.....	United States.....	133		63	
Total Nova Scotia		7,193		937	
NEW BRUNSWICK —					
Campbellton.....	United States.....		224		
Total New Brunswick			224		
QUEBEC —					
Chicoutimi.....	United States.....	1,708	42,837	10,570	45,406
Hull.....	United States.....			38	
Montreal.....	United States.....	1,041		2,893	
Quebec.....	United States.....	187		155	
Rock Island.....	United States.....	8		30	
Shawinigan Falls.....	United States.....	666	1	776	
Sutton.....	United States.....			4	
Sherbrooke.....	United States.....				
Three Rivers.....	United States.....	13,632	7,152	8,976	8,316
Valleyfield.....	United States.....	1,973			
Total Quebec		19,215	49,990	23,442	53,722
ONTARIO —					
Amherstburg.....	United States.....	9,005		11,517	
Belleville.....	United States.....	674		711	
Bowmanville.....	United States.....	198		313	
Brantford.....	United States.....	3,560	28	4,040	
Brockville.....	United States.....			28	
Chatham.....	United States.....	5,342	34	7,738	32
Cobourg.....	United States.....	548		825	
Collingwood.....	United States.....	206		202	
Fort Erie.....	United States.....	1,091		1,881	
Galt.....	United States.....	2,456		2,522	
Goderich.....	United States.....	161		337	
Guelph.....	United States.....	3,512		4,614	
Hamilton.....	United States.....	10,445		7,975	
Ingersoll.....	United States.....	294		486	
Kingston.....	United States.....	844		899	37
Kitchener.....	United States.....	3,515	116	3,178	24
Lindsay.....	United States.....	676		630	
London.....	United States.....	7,918	665	8,018	131
Midland.....	United States.....	1,745		362	
Morrisburg.....	United States.....	113			
Napanee.....	United States.....	73		658	
Niagara Falls.....	United States.....	8,937	9,469	6,514	15,077
North Bay.....	United States.....	628		491	
Orillia.....	United States.....	1,728		1,759	
Oshawa.....	United States.....	880		1,504	
Ottawa.....	United States.....	989		1,106	
Owen Sound.....	United States.....	2,590		4,519	
Paris.....	United States.....	214		393	
Peterborough.....	United States.....	651	1	471	3
Picton.....	United States.....	142		71	
Port Hope.....	United States.....	1,236		1,727	
St. Catharines.....	United States.....	6,871	3,260	8,417	8,143
St. Thomas.....	United States.....	6,094	168	5,882	66
Sarnia.....	United States.....	5,627		6,019	
Sault Ste. Marie.....	United States.....			7,984	
Simcoe.....	United States.....	235		218	
Stratford.....	United States.....	1,777	21	1,423	59
Sudbury.....	United States.....			60	
Tillsonburg.....	United States.....	454		233	
Toronto.....	United States.....	118,577	101	112,083	278
Trenton.....	United States.....	448		85	

Table 78.—Imports of Coke into Canada, by Ports of Entry, 1938 and 1939—Concluded

(Tons of 2,000 pounds)

Ports	Sources	1938		1939	
		Made from coal	Made from petroleum	Made from coal	Made from petroleum
ONTARIO—Concluded—					
Walkerville.....	United States.....	15,546	392	27,880	131
Wallaceburg.....	United States.....	1,854		2,906	
Welland.....	United States.....	84,258	15,082	84,387	68,764
Whitby.....	United States.....	39,942	546	40,785	589
Windsor.....	Great Britain.....	47			
Woodstock.....	United States.....	1,004	62	1,328	
Head of Lakes—					
Fort Frances.....	United States.....	1			
Fort William.....	United States.....	23,415		18,209	
Port Arthur.....	United States.....	35			
Total Ontario.....		376,576	30,535	399,388	93,334
MANITOBA—					
Emerson.....	United States.....	28		20	
Gretna.....	United States.....			28	
Winnipeg.....	United States.....	10,679		10,327	
Total Manitoba.....		10,794		10,375	
SASKATCHEWAN—					
Regina.....	United States.....				
Total Saskatchewan.....					
ALBERTA.....					
BRITISH COLUMBIA—					
New Westminster.....	United States.....	48	114	47	314
Trail.....	United States.....	87			
Vancouver.....	United States.....	13	421	10	303
	Great Britain.....	843		1,672	
Victoria.....	United States.....		10		17
Total British Columbia.....		994	545	1,729	634
Canada.....	Great Britain.....	3,388		2,254	
	United States.....	406,763	81,294	433,617	147,690
	Germany.....	4,531			
Total Canada.....		414,682	81,294	435,871	147,690

MANUFACTURES OF NON-METALLIC MINERALS

Table 79.—Exports of Canadian Coke, by Ports of Exit, 1938 and 1939

(Tons of 2,000 pounds)

	1938		1939	
	Made from coal	Made from petroleum	Made from coal	Made from petroleum
PRINCE EDWARD ISLAND.....				
NOVA SCOTIA—				
Halifax.....				780
North Sydney.....	13		1	
Sydney.....	98		53	
Total—Nova Scotia	111		54	780
NEW BRUNSWICK—				
Edmundston.....			40	
McAdam Junction.....			1	
Saint John.....				210
Total—New Brunswick			41	210
QUEBEC—				
Contrecoeur.....	258		247	
Huntingdon.....	33		77	
Lacolle.....	28	476		
Lake Megantic.....	267		280	
Montreal.....	40	200	43	2,040
St. Johns.....		400		
Sutton.....			34	
Total—Quebec	626	1,076	681	2,040
ONTARIO—				
Fort Erie.....		1,325	21,168	2,101
Niagara Falls.....		8,962	174	2,262
St. Catharines.....				3
Sarnia.....			10	
Toronto.....		7		
Total—Ontario		10,294	21,352	4,366
MANITOBA—				
Emerson.....			2	
Total—Manitoba			2	
SASKATCHEWAN.....				
ALBERTA—				
Coutts.....			23	
Lethbridge.....				
Total—Alberta			23	
BRITISH COLUMBIA—				
Cranbrook.....	25,447		24,370	
Fernie.....				
New Westminster.....	671		588	
Vancouver.....	3,372		1,003	
Victoria.....	310			
Total—British Columbia	29,800		25,961	
Canada—Total	30,537	11,370	48,114	7,396
Re-Exports of imported coke		14,038	605	28,208

Table 80.—Production of Petroleum Coke, 1929-1939

Years	Made for own use		Made for sale		Total	
	Tons	Selling value at works	Tons	Selling value at works	Tons	Selling value at works
		\$		\$		\$
1929.....	25,408	140,230	84,108	465,753	109,516	605,983
1930.....	23,538	124,363	68,549	392,945	92,087	517,308
1931.....	20,029	96,676	52,310	280,660	72,339	377,336
1932.....	19,278	104,181	53,787	293,755	73,065	397,936
1933.....	20,079	115,400	54,646	322,379	74,725	437,779
1934.....	9,293	57,961	52,467	200,512	61,760	258,473
1935.....	8,348	21,256	63,843	372,723	72,191	393,979
1936.....	2,629	11,687	62,077	381,473	64,706	393,160
1937.....	2,381	8,942	59,634	371,198	62,015	380,140
1938.....	634	1,547	63,375	388,753	64,009	390,300
1939.....	4,238	18,253	62,094	370,936	66,332	389,189

Note.—Petroleum coke is not included in coke production figures given for the coke and gas industry.

Table 81.—Sales of Petroleum Coke in Canada for Fuel Purposes, 1936-1939

(From "Petroleum Fuels in Canada" issued by the Bureau of Mines, Ottawa)

Areas and Years	Fuel for Domestic heating	Fuel for Industrial heating	Total	Inventory on December 31, including stocks at refineries
	(short tons)			
1936.....	38,373	7,323	45,696	88,662
1937.....	42,138	6,049	48,187	109,095
1938—Maritimes.....	375		375	
Quebec.....	2,988		2,988	26,843
Ontario.....	47,625	94	47,719	66,241
Western provinces.....	696	573	1,269	980
Canadian.....			51,127	
Imported.....			1,224	
Total for 1938.....	51,684	667	52,351	94,040
1939—Maritimes.....	783		783	
Quebec.....	269		269	42,330
Ontario.....	31,077	2,515	33,592	100,211
Western provinces.....	581	1,724	2,305	1,692
Canadian.....			35,210	
Imported.....			1,739	
Total for 1939.....	32,710	4,239	36,949	144,233

Table 82.—Total Production of Coke (including Petroleum Coke) in Canada, 1936-1939

	Nova Scotia and New Brunswick	Quebec	Ontario	Manitoba, Saskatchewan, Alberta and British Columbia	Canada
	(short tons)				
1936					
Coke and gas industry.....	Tons 379,801	395,409	1,441,833	187,690	2,404,733
\$ 1,894,628	2,760,840	10,807,611	1,246,929	16,710,008	
Petroleum refining industry.....	Tons 448	3,168	55,667	5,423	64,706
\$ 1,597	15,523	349,776	25,964	393,169	
Total.....	Tons 380,309	398,577	1,497,500	193,113	2,469,199
\$ 1,896,525	2,776,363	11,157,387	1,272,893	17,103,168	
1937					
Coke and gas industry.....	Tons 451,799	401,323	1,504,334	212,929	2,570,385
\$ 2,652,431	2,895,611	11,522,965	1,395,061	18,466,068	
Petroleum refining industry.....	Tons 373	2,246	56,556	2,840	62,015
\$ 1,504	8,499	357,078	13,059	390,140	
Total.....	Tons 452,172	403,569	1,560,890	215,769	2,632,400
\$ 2,653,935	2,904,110	11,880,043	1,408,120	18,846,208	
1938					
Coke and gas industry.....	Tons 350,234	404,741	1,365,571	231,457	2,352,003
\$ 2,126,335	2,914,065	10,339,065	1,515,602	16,895,067	
Petroleum refining industry.....	Tons 377	3,530	59,010	1,092	64,009
\$ 1,225	16,535	369,184	3,356	390,300	
Total.....	Tons 350,611	408,271	1,424,581	232,549	2,416,012
\$ 2,127,560	2,930,600	10,708,249	1,518,958	17,385,367	
1939					
Coke and gas industry.....	Tons 390,692	411,380	1,379,942	228,081	2,410,095
\$ 2,607,367	2,975,950	9,712,164	1,468,036	16,763,517	
Petroleum refining industry.....	Tons 783	3,660	68,762	3,127	66,332
\$ 2,162	15,592	362,965	8,470	389,189	
Total.....	Tons 391,475	415,040	1,438,704	231,208	2,476,427
\$ 2,609,529	2,991,542	10,075,129	1,476,506	17,152,706	

Table 83.—Apparent Consumption of Coke (including Petroleum Coke) in Canada, by Provinces, 1935-1939

	Prince Edward Island, Nova Scotia and New Brunswick	Quebec	Ontario	Manitoba, Saskatchewan, Alberta and British Columbia	Canada
	(short tons)				
Apparent consumption—1935	332,577	424,329	2,032,985	200,449	2,990,340
1936.....	384,848	500,297	2,143,653	214,025	3,242,823
1937.....	458,119	477,829	2,044,592	192,352	3,172,892
1938.....	350,611	408,271	1,424,581	232,549	2,416,012
Add—Decline in producers' stocks.....	2,350				2,350
Deduct—Increase in producers' stocks.....	352,961	408,271	1,424,581	232,549	2,418,362
Add—Imports entered for consumption.....	7,307	69,306	384,933	12,343	473,889
Deduct—Exports and re-exports.....	111	1,702	24,332	29,800	55,945
Apparent consumption	360,157	448,704	1,691,839	199,476	2,700,176
1939.....	391,475	415,040	1,438,704	231,208	2,176,427
Add—Decline in producers' stocks.....	4,468	11,019	61,737		77,234
Deduct—Increase in producers' stocks.....	395,943	426,050	1,500,441	231,208	2,553,651
Add—Imports entered for consumption.....	3,032	77,164	565,949	12,738	659,883
Deduct—Exports and re-exports.....	1,085	2,721	54,531	25,066	84,323
Apparent consumption	398,790	500,502	2,011,859	207,231	3,118,382

NOTE.—The imports "entered for consumption" represent tonnages cleared from customs' ports. The tonnages under this heading differ slightly from actual imports.

Table 84.—Analysis of Coke Consumption in Canada, by Principal Areas, 1935-1939

	Prince Edward Island, Nova Scotia and New Brunswick	Quebec	Ontario	Manitoba, Saskatchewan, Alberta and British Columbia	Canada
	(Short tons)				
1935	240,785	16,583	577,200	88,131	922,679
Furnace charges.....	229	70,410	182,455	4,435	216,538
Manufacturing material.....	32,036	53,033	265,333	35,754	386,156
Industrial fuel.....	59,527	274,714	1,057,997	72,129	1,464,367
Available for domestic use (by difference).....	332,577	424,329	2,032,985	200,449	2,990,340
1936	300,129	20,718	652,353	76,793	1,049,993
Furnace charges.....	281	101,343	141,635	27,088	270,947
Manufacturing material.....	34,032	46,328	247,621	17,416	345,397
Industrial fuel.....	50,406	331,908	1,102,044	92,128	1,576,486
Available for domestic use (by difference).....	384,848	500,297	2,143,653	214,025	3,242,823
1937	358,425	33,087	878,234	68,599	1,338,345
Furnace charges.....	337	118,959	178,306	36,059	333,661
Manufacturing material.....	38,900	50,585	226,758	11,145	327,388
Industrial fuel.....	60,457	275,198	761,294	76,549	1,173,498
Available for domestic use (by difference).....	458,119	477,829	2,044,592	192,352	3,172,892
1938	273,671	25,190	719,307	74,842	1,093,010
Furnace charges.....	377	112,642	135,774	46,293	295,086
Manufacturing material.....	23,501	43,215	218,158	10,010	294,884
Industrial fuel.....	62,008	267,657	618,000	68,331	1,017,196
Available for domestic use (by difference).....	360,157	448,704	1,691,839	199,476	2,700,176
1939	313,050	25,270	769,688	73,958	1,181,966
Furnace charges.....	368	123,420	134,579	54,470	314,837
Manufacturing material.....	31,829	47,451	218,303	11,584	309,167
Industrial fuel.....	53,543	304,361	890,289	67,219	1,315,412
Available for domestic use (by difference).....	398,790	500,502	2,011,859	207,231	3,118,382

NOTE.—1. Figures showing the tonnage of coke available for domestic use are obtained by difference and include the coke used for purposes other than specified in these tables.

2. No allowance has been made for changes during the year in stocks of coke held by dealers or users.

3. No allowance has been made for interprovincial shipments of coke.

Table 85.—Production and Sales of Manufactured Gas, 1929-1939

Years	From by-product and gas plants			Production of still gas from petroleum refineries M cu. ft.
	Production **	Sales		
		Quantity	Income from sales	
	M cu. ft.	M cu. ft.	\$	
1929.....	38,925,086	17,649,371	13,316,684	3,140,187
1930.....	35,927,532	17,713,477	13,471,629	3,529,319
1931.....	30,542,961	17,111,432	13,010,733	5,161,905
1932.....	27,264,587	17,083,631	12,895,039	3,836,413
1933.....	29,125,295	15,893,248	11,839,345	3,505,405
1934.....	40,125,201	15,409,927	15,766,750	3,772,746
1935.....	39,721,010	15,398,952	15,358,572	5,154,885
1936.....	44,345,358	15,321,832	15,163,664	6,083,549
1937.....	46,009,633	15,289,839	14,732,531	6,199,110
1938.....	42,932,721	15,198,068	15,001,142	6,488,618
1939.....	41,632,773	14,936,102	14,562,246	7,802,666

** Does not include blast furnace gas and producer gas which are recovered and used by the producers but for which no records are available.

Table 86.—Sales of Manufactured Gas, Number of Customers and Mileage of Pipe Lines, 1939

Areas	Number of customers	Number of active meters	Gas sales		Mileage of pipe lines	Approximate population served by mains
			M cu. ft.	\$		
Eastern provinces.....	197,274	223,993	4,912,044	5,480,785	991	1,636,928
Ontario.....	214,288	203,127	8,093,847	7,086,457	2,102	1,244,360
Western provinces.....	65,313	69,919	1,930,211	1,995,004	789	506,216
Total.....	476,875	497,039	14,936,102	14,562,246	3,882	3,387,504

Table 87.—General Rates for Manufactured Gas in Canadian Towns and Cities, 1939

Towns or cities	Approximate general rate		
	Per M cu. ft. gross	Discount	Service charge
	\$		
Halifax, N.S.....	2.00-1.00	10 cents per M	\$1.00 per month for prepayment meters
Saint John, N.B.....	1.80-1.45	10 cents per M	60 cents per month.
Quebec, P.Q.....	1.66-0.90	10 per cent	•
Sherbrooke, P.Q.....	1.35-1.00	10 per cent	•
Montreal, P.Q.....	1.17-0.50	10 per cent	14 to 55 cents per meter per month.
Barrie, Ont.....	2.00	10 per cent	75 cents per month.
Belleville, Ont.....	1.60-1.00	10 cents penalty	•
Brockville, Ont.....	1.50	10 per cent	•
Guelph, Ont.....	0.65-0.40	10 per cent penalty	•
Kingston, Ont.....	1.38	10 per cent	33 cents per month.
Toronto, Ont.....	0.90-0.52	•	50 cents per month.
Oshawa, Ont.....	2.00-0.60	10 per cent penalty	•
Peterborough, Ont.....	1.45-1.00	10 per cent	45 cents per month.
Kitchener, Ont.....	0.95-0.80	10 per cent	10 cents per month.
Waterloo, Ont.....	1.28	10 per cent	11 cents per month.
Ottawa, Ont.....	1.36-1.00	10 cents per M	50 cents per month.
Port Hope, Ont.....	2.50-2.00	•	\$1.20 per year.
Owen Sound, Ont.....	0.83	10 per cent	25 cents per month meter rent.
Stratford, Ont.....	1.72-1.11	10 per cent	25 cents per month.
Hamilton, Ont.....	0.80-0.45	5 to 20 cents per M	•
Sault Ste. Marie, Ont.....	1.54-0.50 (net)	•	•
Winnipeg, Man.....	1.53-0.95	10 cents per M	•
Nelson, B.C.....	2.25-1.25	25 cents per M	15 cents per meter.
Vancouver, B.C.....	1.58-0.75 (net)	•	•
New Westminster, B.C.....	1.50-0.90	•	25 cents per month.
Burnaby, B.C.....	•	•	•
Victoria, B.C.....	1.75-0.45	•	25 cents per month meter rent.

* Not mentioned on report.

Table 88.—Production of Crude Coal Tar, by Provinces, 1937-1939

Provinces	1937	1938	1939
	(Imperial gallons)		
Nova Scotia and New Brunswick.....	6,337,281	5,084,021	5,781,879
Quebec.....	3,651,294	3,845,718	3,581,790
Ontario.....	16,535,960	15,829,487	16,370,250
Manitoba.....	410,161	472,049	483,315
British Columbia.....	854,871	849,736	859,836
Canada.....	27,789,567	26,081,011	27,077,070

Table 89.—Production, Imports and Exports of Ammonium Sulphate, 1929-1939

Years	Production*		Imports		Exports	
	Short tons	\$	Short tons	\$	Short tons	\$
1929.....	34,141	1,203,953	1,723	80,019	24,489	909,510
1930.....	23,893	936,417	3,423	137,607	12,010	386,710
1931.....	28,354	706,197	12,830	369,254	5,627	167,477
1932.....	57,770	983,077	13,811	280,026	38,741	701,707
1933.....	82,534	1,437,749	4,156	100,415	62,383	1,081,392
1934.....	76,292	1,398,251	11,046	245,372	57,704	1,144,164
1935.....	67,362	1,473,675	4,280	94,222	45,055	977,552
1936.....	98,483	1,883,088	5,729	148,056	83,835	1,802,818
1937.....	87,621	1,782,364	3,230	82,440	56,485	1,212,258
1938.....	119,520	2,590,994	5,011	150,540	77,191	1,697,204
1939.....	129,865	3,107,977	3,217	94,854	109,260	2,508,364

* Includes output of synthetic ammonium sulphate in the Fertilizer Industry.

Table 90.—Summary of Coke-making and Gas-making Equipment, 1939

Type of ovens, retorts, etc.	In use		In reserve or idle		Total	
	Number	Annual capacity	Number	Annual capacity	Number	Annual capacity
	(Capacity given in tons of coal carbonized)					
Bee-hive ovens.....	212	188,410	1,072	525,000	1,284	713,410
By-product ovens.....	612	3,675,290			612	3,675,290
Vertical gas retorts.....	156	266,327	60	76,150	216	342,477
Horizontal gas retorts.....	280	180,280	24	10,700	304	190,980
Water gas sets.....	20		18		38	
Producers.....	8		20		28	

Primary Production—Natural Gas.—(From the Annual Report on the *Mineral Production of Canada*).—Output of natural gas was higher in 1939 than in the previous year by 5.2 per cent in quantity and 7.9 per cent in value. The figures for 1939 were 35,185,146 M cu. ft. valued at \$12,507,307 as against 33,444,791 M cu. ft. worth \$11,587,050 in 1938.

Table 91.—Principal Statistics of the Natural Gas Industry, 1938 and 1939

	1938	1939
Number of firms.....	218	222
Capital employed..... \$	79,143,830	78,409,338
Number of employees—On salary.....	808	789
On wages.....	1,158	1,201
Total.....	1,966	1,990
Salaries and wages—Salaries..... \$	1,152,029	1,202,284
Wages..... \$	1,354,092	1,333,936
Total.....	2,506,121	2,536,220
Cost of fuel, electricity and process supplies..... \$	67,725	82,877
Gross selling value of products..... \$	11,587,450	12,507,307

Table 92.—Production of Natural Gas, by Provinces, 1938 and 1939

Provinces	1938		1939	
	M cu. ft.	Value	M cu. ft.	Value
New Brunswick.....	577,492	\$ 284,689	606,382	\$ 292,403
Ontario.....	10,952,806	0,460,764	11,066,581	7,261,028
Manitoba.....	600	180	600	180
Saskatchewan.....	90,285	34,136	96,423	36,640
Alberta.....	21,822,108	4,807,346	22,513,660	4,915,821
Northwest Territories.....	1,500	335	1,500	335
Total.....	33,444,791	11,587,450	35,185,146	12,507,307

Table 93.—Prices of Natural Fuel Gas used for Domestic Consumption in Specified Cities in Canada, 1938 and 1939

(Prepared in the Internal Trade Branch)

Net price per 1,000 cu. ft. (exclusive of meter rent or other service charges)

(Where double quotations are shown, the first figure is the regular rate, and the second figure is the summer rate; single quotations apply to the end of the year)

	1938	1939
NEW BRUNSWICK—	\$	\$
Moncton.....	0.50	0.50
ONTARIO—		
Brantford.....	0.80	0.80
Chatham.....	1.36	1.36
Galt.....	0.80	0.80
London.....	1.40	1.40
Niagara Falls.....	1.00	1.00
Port Colborne.....	0.80	0.80
St. Catharines.....	0.75	0.75
Sarnia.....	0.55	0.55
Welland.....	0.80	0.80
Windsor.....	1.00	1.00
Woodstock.....	1.40	1.40
	0.80	0.80
ALBERTA—		
Calgary.....	0.33	0.33
Edmonton.....	0.38	0.38
Medicine Hat.....	0.237	0.237

Directory of Firms in the Coke and Gas Industry, 1939

Names of firms and location of plants
Coke and gas making equipment, including reserve equipment. (Rated annual capacity in tons of coal carbonized or in cubic feet of gas produced given in brackets)

1. Coke Plants

(a) By-Product

Dominion Steel and Coal Corp. Ltd., Sydney, N.S.	In use—180 Koppers horizontal ovens (813,000 tons).
Montreal Coke & Manufacturing Co., (Montreal Light, Heat & Power Consolidated) (3) 435 St. Patrick St., Ville La Salle, Que.	In use—59 Koppers Becker type horizontal ovens (500,275 tons); 2 Koppers Kerpely Ring type producers (6,351,000 M cu. ft.) In reserve or idle—2 Koppers Kerpely ring type producers (6,351,000 M. cu. ft.); 5 water gas sets (8,000,000 M cu. ft.).
Algoma Steel Corporation Ltd. (Great Northern Gas Co. Ltd.), (3) Sault Ste. Marie, Ont.	In use—103 Wilputte ovens (660,000 tons) and 55 Koppers ovens (355,000 tons).
Hamilton By-Product Coke Ovens, Ltd. (United Gas & Fuel Co. Ltd.) (3), Hamilton, Ont.	In use—25 Smet-Solvay ovens (175,000 tons), and 35 Wilputte ovens (240,000 tons).
Ottawa Gas Co. (2), (3), Ottawa, Ont.	In use—18 vertical ovens, intermittent type (37,500 tons) underfired by built-in producers; (use discontinued August 1, 1939); 1 carburetted blue gas set (547,500 M cu. ft.). In reserve or idle—1 carburetted blue gas set (547,000 M cu. ft.).
Steel Company of Canada, Limited, Hamilton, Ont.	In use—80 Wilputte ovens (641,232 tons).
Winnipeg Electric Company (3), Elec. Railway Chambers, Winnipeg, Man.	In use—17 Koppers Becker type horizontal ovens (84,500 tons); 1 Kopper Kerpely producer for heating benches. In reserve or idle—1 water gas set (1,460,000 M cu. ft.).
B.C. Electric Power & Gas Co. Ltd. (2), (3), Keefer St., and Carrall St., Vancouver, B.C.	In use—45 intermittent Chamber ovens (131,604 tons); 3 internal and 3 external mechanical producers for chamber oven plants. In reserve or idle—40 continuous vertical retorts (706,500 M cu. ft.); 2 water gas generators (1,095,000 M cu. ft.).

Directory of Firms in the Coke and Gas Industry, 1939—Concluded

Names of firms and location of plants	Coke and gas making equipment, including reserve equipment. (Rated annual capacity in tons of coal carbonized or in cubic feet of gas produced given in brackets)
(b) BEE-HIVE	
International Coal & Coke Co., Ltd., Coleman, Alberta.....	In use —104 bee-hive ovens (109,500 tons).
Crow's Nest Pass Coal Co., Ltd., Michel, B.C.....	In use —108 bee-hive ovens (78,910 tons); 10 by-product ovens (9,205 tons).
	In reserve or idle —1,072 bee-hive ovens (625,000 tons).

NOTE.—Names of gas distributing companies in brackets.

(2) Indicates carburetted water gas was distributed.

(3) Indicates coke oven gas was distributed for domestic and commercial use.

2. Illuminating and Fuel Gas Plants

RETORT COAL GAS AND CARBURETTED WATER GAS

Nova Scotia Light & Power Co., Ltd. (1), Halifax, N.S.....	In use —12 Glover-West continuous vertical retorts (18,000 tons).
New Brunswick Power Company (1), Saint John, N.B.....	In use —12 Russell horizontal retorts (2,931 tons); In reserve or idle —6 Russell horizontal retorts (1,550 tons).
Shawinigan Chemicals Ltd., Shawinigan Falls, Que.....	1 retort of own design (25,000 tons).
City of Sherbrooke Gas and Electricity Dept. (2), Sherbrooke, Que.	In use —Western Gas water gas set (146,000 M cu. ft.). In reserve or idle —1 Western Gas water gas set (146,000 M cu. ft.).
Quebec Power Company (Gas Division) (1), Quebec, P.Q.....	In use —12 Woodall-Duckham vertical continuous retorts (25,300 tons).
	In reserve or idle —1 Western Gas water gas set and 2 U.G.I. water gas sets.
Barrie Public Utilities Commission (2), Barrie, Ont.....	In use —1 vertical water gas set.
	In reserve or idle —1 vertical water gas set.
	(This plant ceased operations on March 31, 1939 and has since been dismantled.)
Board of Light & Heat Commission (1), Guelph, Ont.....	In use —8 Glover-West vertical continuous retorts (14,600 tons); 3 Shell Lowe carburetted water gas sets (273,000 M cu. ft.)
	In reserve or idle —2 Glover-West vertical ovens (3,650 tons) and 1 Shell Lowe water gas set (109,000 M cu. ft.).
Brockville Public Utilities Commission (2), Brockville, Ont. Consumers Gas Company of Toronto (1), (2), 19 Toronto St., Toronto, Ont.	In use —2 water gas sets (182,500 M cu. ft.).
	In use —104 Glover-West vertical retorts (190,000 tons); 220 Drakes Ltd. horizontal retorts (112,420 tons); 8 Lowe Principal water gas sets.
Belleville Public Utilities Commission (1), Belleville, Ont.....	In use —4 Glover-West continuous vertical retorts (2,075 tons).
Ontario Shore Gas Co. Ltd. (2), Oshawa, Ont.....	In use —2 water gas sets.
Peterborough Utilities Commission (2), Peterborough, Ont.....	In use —1 Merrifield Pearson water gas set (90,000 M cu. ft.).
	In reserve or idle —1 Merrifield Pearson water gas set (90,000 M cu. ft.).
Port Hope Gas Co. Ltd. (1), Port Hope, Ont.....	In use —4 horizontal gas retorts (400 tons);
	In reserve or idle —6 horizontal gas retorts (500 tons). (This plant discontinued operations in February, 1940 and has been dismantled.)
Public Utilities Commission (2), Kingston, Ont.....	In use —1 Merrifield-Westcott water gas set (300,000 M cu. ft.).
	In reserve or idle —1 Merrifield-Westcott water gas set (150,000 M cu. ft.).
Public Utilities Commission (1), (2), Kitchener, Ont.....	In use —3 horizontal retorts (5,790 tons); 1 water gas set (219,000 M cu. ft.).
	In reserve or idle —2 horizontal retorts (5,159 tons); 1 water gas set (219,000 M cu. ft.).
Public Utilities Commission (1), Owen Sound, Ont.....	In use —3 Curran-Knowles ovens (10,948 tons).
Public Utility Commission (1), Stratford, Ont.....	In use —12 horizontal retorts (5,000 tons);
	In reserve or idle —6 horizontal retorts (2,500 tons).
Manitoba Power Commission (1), Brandon, Man.....	In use —12 Russell Mfg. Co. retorts (1,400 tons); 12 Kerr-Murray retorts (1,300 tons).
Victoria Gas Company, Ltd. (1), (2), Victoria, B.C.....	In use —16 Glover-West vertical retorts (16,352 tons);
	In reserve or idle —1 Humphrey & Glasgow water gas set (182,500 M cu. ft.).
Corporation City of Nelson (1), Nelson, B.C.....	In use —4 horizontal retorts (1,000 tons);
	In reserve or idle —4 horizontal retorts (1,000 tons).

NOTE.—(1) Indicates that retort coal gas was distributed to customers.

(2) Indicates that carburetted water gas was distributed.

CHAPTER SEVEN

THE GLASS INDUSTRY

Production from the glass industry in Canada amounted in value to \$12,529,050 during 1939, a decline of 1 per cent from the \$12,649,957 reported for 1938, which in turn was 12 per cent under the 1937 total of \$14,437,250.

Seventy-three factories were occupied in the production of glass and glass products during 1939. These establishments had a working capital of \$16,534,181 and gave employment to an average of 3,372 persons who received \$3,948,603 in salaries and wages. Their fuel and electricity cost \$888,316 and expenditures for materials to be used in manufacturing processes amounted to \$4,559,732.

Pressed and blown glass was produced in 5 plants, including 2 in Quebec, 2 in Ontario and 1 in Alberta. This branch of the industry had an output worth \$8,854,629 against \$9,125,819 in 1938. Production consisted of bottles and jars, etc., no sheet or plate glass being made in Canada.

The cutting, bevelling and ornamental section of this industry included all plants which were occupied in bevelling, cutting or working glass to produce mirrors, bevelled or polished edged plate glass, laminated and other safety glass, lenses, cut glassware, chemical glassware, glass signs, show cases, prismatic glassware, etc. The number of plants operating in this group totalled seventy-eight distributed across Canada as follows: 42 in Ontario, 15 in Quebec, 6 in British Columbia, 4 in Manitoba and 1 in New Brunswick. Production from these works was valued at \$3,674,421 in 1939, a gain of 4 per cent from the 1938 production of \$3,524,138.

Imports of glass and glassware into Canada during the calendar year 1939 were appraised at \$7,915,113, a gain of 19 per cent from the \$6,670,261 imported in the preceding twelve-month period. For the same periods, exports advanced to \$145,083 from \$129,757 and re-exports declined to \$21,866 from \$36,345.

Table 94.—Principal Statistics, by Provinces, 1938 and 1939

Provinces	Number of plants	Capital employed	Average number of employees	Salaries and wages	Cost of fuel and electricity at works	Cost of materials at works	Gross selling value of products at works
		\$		\$	\$	\$	\$
1938							
Quebec.....	15	6,247,960	1,109	1,322,394	367,414	1,315,918	4,228,961
Ontario.....	50	7,344,842	2,019	2,347,428	488,899	2,698,112	7,169,591
British Columbia.....	6	119,285	36	24,040	1,385	43,841	81,577
New Brunswick.....	1						
Manitoba.....	4	1,621,854	265	293,964	40,308	590,606	1,169,828
Alberta.....	1						
Canada.....	77	15,333,941	3,429	3,987,826	898,006	4,648,477	12,649,957
1939							
Quebec.....	17	6,784,377	1,106	1,302,682	336,286	1,305,868	4,105,576
Ontario.....	44	8,085,764	2,019	2,329,079	484,063	2,668,809	7,258,579
British Columbia.....	6	121,328	30	24,737	1,404	50,845	89,167
New Brunswick.....	1						
Manitoba.....	4	1,542,712	217	292,105	66,563	534,210	1,075,728
Alberta.....	1						
Canada.....	73	16,534,181	3,372	3,948,603	888,316	4,559,732	12,529,050

MANUFACTURES OF NON-METALLIC MINERALS

Table 95.—Capital Employed, by Provinces, 1938 and 1939

Provinces	Present value of lands, buildings, machinery tools and other equipment	Inventory value of materials, supplies and finished products on hand and stocks in process	Operating capital (cash, bills and accounts receivable, etc.)	Total capital employed
	\$	\$	\$	\$
1938				
Quebec.....	3,736,323	1,235,249	1,276,388	6,247,960
Ontario.....	4,564,705	1,349,799	1,430,238	7,344,842
British Columbia.....	36,312	45,780	37,193	119,285
Other provinces.....	979,331	337,817	304,708	1,621,854
Canada.....	9,316,671	2,968,645	3,048,625	15,333,941
1939				
Quebec.....	3,661,277	1,255,950	1,867,150	6,784,377
Ontario.....	4,398,502	1,504,853	2,182,409	8,085,764
British Columbia.....	30,278	48,867	42,186	121,328
Other provinces.....	1,036,856	308,188	197,668	1,542,712
Canada.....	9,126,916	3,117,858	4,289,413	16,534,181

Table 96.—Employees, Salaries and Wages, by Provinces, 1938 and 1939

Provinces	Average number of employees					Salaries	Wages	Total salaries and wages
	On salaries		On wages		Total			
	Male	Female	Male	Female				
						\$	\$	\$
1938								
Quebec.....	123	38	822	126	1,109	332,131	990,263	1,322,394
Ontario.....	174	65	1,618	162	2,019	414,198	1,933,230	2,347,428
British Columbia.....	9	1	26		36	4,779	19,261	24,040
Other provinces.....	22	8	208	27	265	48,902	245,062	293,964
Canada.....	328	112	2,674	315	3,429	800,010	3,187,816	3,987,826
1939								
Quebec.....	149	39	789	129	1,106	377,512	925,170	1,302,682
Ontario.....	193	66	1,559	211	2,019	433,129	1,895,950	2,329,079
British Columbia.....	8	1	21		30	5,811	18,926	24,737
Other provinces.....	26	9	167	15	217	53,793	238,312	292,105
Canada.....	366	115	2,536	355	3,372	870,245	3,078,358	3,948,603

Table 97.—Wage-Earners, by Months, 1938 and 1939

(On the last work day of each month)

Months	1938			1939		
	Male	Female	Total	Male	Female	Total
January.....	2,488	277	2,765	2,376	290	2,666
February.....	2,516	276	2,792	2,267	269	2,536
March.....	2,489	278	2,767	2,324	279	2,603
April.....	2,619	284	2,903	2,492	293	2,775
May.....	2,799	357	3,156	2,638	400	3,038
June.....	2,809	383	3,192	2,743	443	3,186
July.....	2,767	353	3,120	2,751	427	3,178
August.....	2,865	360	3,225	2,775	444	3,219
September.....	2,772	353	3,125	2,675	434	3,109
October.....	2,598	299	2,893	2,545	358	2,903
November.....	2,689	298	2,987	2,483	320	2,803
December.....	2,688	284	2,972	2,580	316	2,896
Average.....	2,674	315	2,989	2,536	355	2,891

Table 98.—Hours Worked per Week by Wage-Earners, 1939

(In one week in month of normal employment; overtime not included)

Regular hours worked per week	Number of wage-earners	Per cent of total	Regular hours worked per week	Number of wage-earners	Per cent of total
30 hours or less.....	161	4.8	51-54 hours.....	212	6.3
31-43 hours.....	286	8.5	55 hours.....	59	1.8
44 hours.....	415	12.3	56-64 hours.....	416	12.4
45-47 hours.....	250	7.4	65 hours and over.....	17	0.5
48 hours.....	1,176	34.9	Total.....	3,367	100.0
49-50 hours.....	375	11.1	Total wages paid in selected week.....	\$69,579	

Table 99.—Fuel and Electricity Used, 1938 and 1939

Kinds	Unit of measure	1938		1939	
		Quantity	Cost at works	Quantity	Cost at works
			\$		\$
Bituminous coal—Canadian.....	ton	3,821	19,210	2,697	16,260
Imported.....	ton	8,073	54,958	3,464	21,266
Anthracite coal.....	ton	207	2,072	228	2,404
Coke.....	ton	237	2,388	231	2,488
Gasoline.....	Imp. gal.	2,200	526	4,165	963
Fuel oil.....	Imp. gal.	3,344,593	172,148	4,954,582	232,863
Kerosene.....	Imp. gal.	640	108	545	80
Wood.....	cord	9	90	44	231
Gas—Manufactured.....	M cu. ft.	17,386	14,015	22,835	17,939
Natural.....	M cu. ft.	1,247,011	357,924	1,239,457	377,848
Other fuel.....	\$		59,154		26
Electricity purchased.....	K.W.H.	32,272,743	215,413	31,748,530	215,948
Total.....	\$		898,006		898,316

Table 100.—Power Equipment, 1938 and 1939

Kind	Ordinarily in use		In reserve or idle	
	Number of units	Total rated horsepower	Number of units	Total rated horsepower
1938				
Steam engines and steam turbines.....	2	105		
Gasoline, gas and oil engines.....			3	409
Electric motors run by purchased power.....	1,183	12,275	109	1,669
Total.....	1,185	12,380	112	2,078
Stationary boilers.....	23	1,342	3	240
1939				
Steam engines and steam turbines.....	2	105		
Gasoline, gas and oil engines.....	1	100	1	150
Electric motors run by purchased power.....	1,271	12,477	54	1,281
Total.....	1,274	12,682	55	1,431
Stationary boilers.....	22	1,192		

Table 101.—Materials Used in Manufacturing, 1938 and 1939

Material	Unit of measure	1938		1939	
		Quantity	Cost at works	Quantity	Cost at works
			\$		\$
CUT AND BEVELLED GLASS DIVISION—					
Figured and cathedral glass, leaded glass, etc.			23,394		26,116
Glass blanks for making cut glass			130,194		144,489
Glass tubing			25,992		31,097
Plate glass used for bevelling, silvering, laminating, etc., and bevelled or polished edged plates			790,521		707,079
Sheet glass used for bevelling, silvering, laminating, etc., and bevelled or polished edge sheets			118,245		250,075
Rough blanks for lenses			121,392		133,091
Grinding and polishing materials			41,885		44,151
Celluloid and other plastics			40,747		62,760
Lead, zinc and copper			12,330		13,393
Solder			2,750		4,101
Silver nitrate			24,311		29,985
Containers, boxes, packages, etc.			9,936		13,682
All other materials			135,420		162,860
Total			1,483,123		1,622,879
PRESSED AND BLOWN GLASS DIVISION—					
Arsonic	lb.	323,712	10,678	272,572	8,152
Borax	ton	1,524	102,250	1,501	98,265
Cobalt oxide	lb.	4,789	7,287	3,002	4,589
Cullet	ton	24,943	221,524	21,683	207,500
Feldspar	ton	1,343	20,788	609	9,727
Fluorspar	ton	121	4,507	131	5,330
Lime	ton	8,158	86,878	8,518	89,196
Nepheline-syenite	ton	2,539	41,678	3,472	58,629
Salt cake	lb.	334,627	3,509	295,112	3,028
Selenium	lb.	3,186	5,711	3,392	5,851
Silica sand	ton	77,499	363,233	74,511	351,671
Shipping containers and packing materials			775,867		545,602
All other materials			1,521,444		1,549,313
Total			3,165,354		2,936,853
Grand Total			4,648,477		4,559,732

Table 102.—Products Made, 1938 and 1939

Products	Selling value at works	
	1938	1939
	\$	\$
CUT AND BEVELLED GLASS DIVISION—		
Bent plate glass	6,451	7,856
Bevelled or polished edge plate	157,232	169,639
Chipped or etched plate glass	6,191	6,072
Plate glass signs	23,691	41,918
Plate glass mirrors	697,834	750,585
Bent sheet glass	11,905	47,133
Bevelled or polished edge sheet glass	34,424	21,258
Chipped or etched sheet glass	10,355	12,173
Sheet glass signs	20,520	3,914
Sheet glass mirrors	98,402	169,840
Leaded glass, including memorial windows	139,026	113,024
Cut glass (tumblers, bowls, etc.)	264,953	277,483
Optical lenses	506,056	86,000
Druggists' and chemical glassware	175,203	5,477
Receipts from repair work	26,236	23,665
All other products, including laminated and safety glass	1,345,649	1,935,384
Total	3,524,138	3,674,421
PRESSED AND BLOWN GLASS DIVISION—		
Pressed and blown glass	9,125,819	8,854,629
Grand total	12,649,957	12,529,050

Table 103.—Imports into Canada and Exports of Glass and Glassware, Calendar Years 1938 and 1939

Commodities	1938	1939
IMPORTS		
Glass plates or discs, rough cut or unwrought, for use in the manufacture of optical instruments. \$	139,838	183,472
Glass carboys or demijohns, bottles, n.o.p., decanters, flasks, jars, and phials (To March 31, 1938)..... \$	196,703	.....
Decanters and machine made tumblers of glass, not cut or decorated, n.o.p. (From April 1, 1938)..... \$	116,802	152,882
Lamp chimneys, n.o.p. (From April 1, 1938)..... \$	16,882	17,166
Glass demijohns, carboys, bottles, flasks, phials, jars and balls, not cut (From April 1, 1938). \$	757,740	1,056,233
Glass tableware, cut, pressed, moulded or crystal, blown glass tableware, other cut glassware and glass balls..... \$	912,214	949,354
Incandescent lamp bulbs and glass tubing for use in the manufacture of incandescent lamps. \$	395,317	549,570
Lamp chimneys, glass shades or globes..... \$	107,274	69,832
Lenses, glass, n.o.p..... \$	75,661	60,352
Common and colourless window glass..... sq. ft. \$	36,300.373	48,801,227
Lenses, fresnel or dioptric, sections and globes..... \$	972,995	1,159,896
Hollow shapes of glass, moulded, when imported to be used by manufacturers of electric light fixtures..... \$	10,290	15,046
High thermal shock resisting glassware..... \$	191,091	315,015
Plate glass, not bevelled, in sheets or panes, not exceeding 7 sq. ft. each, n.o.p..... sq. ft. \$	280,654	523,777
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. \$	1,896,045	1,511,833
Plate glass, n.o.p..... sq. ft. \$	600,826	493,535
Glass in sheets and bent plate glass, n.o.p. (To March 1, 1938)..... \$	433,504	551,217
Glass in sheets, wired (From April 1, 1938)..... \$	160,607	206,780
Glass in sheets and bent plate glass, n.o.p. (From April 1, 1938)..... \$	622,246	916,117
Laminated glass, sheet or plate, and manufactures thereof, n.o.p..... \$	239,845	356,020
Ornamental figured and enamelled coloured glass, and memorial or other ornamental window glass, n.o.p..... \$	46,005	.....
Painted or vitrified, chipped, figured, enamelled and obscured white glass..... \$	30,752	95,626
Stained or ornamental glass windows..... \$	301,577	419,275
Silver glass, bevelled or not, framed or not framed..... \$	2,230	7,651
Articles of glass, not plate or sheet, designed to be cut or mounted..... \$	34,681	71,463
Glass eyes for human use..... \$	15,883	35,899
Photographic dry plates..... \$	9,211	2,832
Spectacles, eye glasses and ground or finished spectacle or eye-glass lenses..... \$	143,325	134,608
Manufacturers of glass, n.o.p..... \$	172,629	216,371
	4,657	2,579
	20,096	23,475
	99,340	81,190
	615,156	715,315
Total imports..... \$	6,670,261	7,915,113
EXPORTS		
Total..... \$	139,757	145,063
RE-EXPORTS		
Total..... \$	38,245	31,866

Directory of Firms included in the Glass Industry in Canada, 1939

Names of Firms	Location of Plants
(a) Pressed and Blown Glass	
QUEBEC—	
Consumers' Glass Company, Limited.....	2nd Avenue, Ville St. Pierre.
Dominion Glass Company, Ltd.....	2376 Wellington St., Montreal.
ONTARIO—	
Dominion Glass Company, Ltd.....	Hamilton and Wallaceburg.
ALBERTA—	
Dominion Glass Company, Ltd.....	Redcliff.
(b) Cut and Bevelled Glass	
NEW BRUNSWICK—	
Murray & Gregory, Ltd.....	Falls View Ave., Saint John.
QUEBEC—	
Acme Glass Co.....	1311 Bonaventure St., Montreal.
Art Glass & Fixture Mfrs.....	36 Craig St. W., Montreal.
Canadian Plate Glass & Mirror Co. Regd.....	834 Notre Dame St. W., Montreal.
Commercial Optical Co.....	209 St. Catherine St. E., Montreal.
Consolidated Plate Glass Co. of Canada, Ltd.....	414 Sulpice St., Montreal.
Dominion Rock Crystal Co. Reg'd.....	1118 St. Catherine St. W., Montreal.

Directory of Firms included in the Glass Industry in Canada, 1939—Concluded

Names of Firms	Location of Plants
(b) Cut and Bevelled Glass—Concluded	
QUEBEC—Concluded	
Empire Glass Works	1185 Montcalm St., Montreal.
Hobbs Manufacturing Co. Ltd.	804 St. James St. W. and 689 Notre Dame St., Montreal.
Lafayette Glass Co.	1500 Craig St. E., Montreal.
La Vitrierie Moderne	305 St. Francois St., Quebec.
McLaren, James, Co.	360 Recollet St., Montreal.
O'Shea, J. P., & Co.	929 Perrault Lane, Montreal.
Phillips Cut Glass Co. Ltd.	2251 Papineau Ave., Montreal.
Pilkington Bros. (Canada) Ltd.	19 Busby Lane, Montreal.
Star Glass Co.	427 St. Francois Xavier, Montreal.
ONTARIO—	
Advance Glass & Mirror Co., Ltd.	92 Adelaide St. E., Toronto.
Bath Mirror Mfg. Co.	1490 Main St. E., Hamilton.
Bausch & Lomb Optical Co. Ltd.	388 Yonge St., Toronto.
Bennett Glass Co. Ltd.	1004 Walker Road, Windsor.
Bent Glass Specialties Co.	120 Geary Ave., Toronto.
Bullas Glass Co.	136 Ontario St. S., Kitchener.
Canadian Plate & Window Glass Ltd.	93 Don Roadway, Toronto.
Canadian Tumbler Co. Ltd.	63 Front St. E., Toronto.
Capital Glass & Paint Co. Ltd.	433 Crooper St., Ottawa.
Central Ornamental Glass Co.	83 McCaul St., Toronto.
Clapperton Sons Company.	23 River St., Toronto.
Colonial Art Glass Co.	384 Bank St., Ottawa.
Consolidated Optical Co. Ltd.	257 Coleman St., Belleville.
Consolidated Plate Glass Co. of Canada, Ltd.	241 Spadina Ave., Toronto.
Crystal Glass Co.	174 Mutual St., Toronto.
Dundas Plate Glass Co. Ltd.	Hend St., Dundas.
Duplute Safety Glass Co. of Canada, Ltd.	First Ave., Oshawa.
Duplute (Windsor) Ltd.	1850 Walker Road, Windsor.
Excelsior Plate Glass Co. Ltd.	189 Queen St. E., Toronto.
Glass & Mirrors Co.	175 King St., Stratford.
Holophane Co. Ltd.	385 Yonge St., Toronto.
Hobbs Manufacturing Co. Ltd.	London, Ottawa, Toronto and Hamilton.
Holiday Flint Glass Works of Toronto.	103 River St., Toronto.
Hughes, W. J. & Son.	212 Wychwood Ave., Toronto.
Imperial Optical Company.	21 Dundas Square, Toronto.
Jewell, Ernest C.	374 Montrose Ave., Toronto.
Johns, O. H., Glass Co. Ltd.	219 Broadview Ave., Toronto.
K. W. Optical Co.	251 King St. W., Kitchener.
London Glass & Mirror Co.	791 Dundas St., London.
Luxfer Prism Company, Ltd.	162 Parliament St., Toronto.
McCausland, Robert, Ltd.	218 John St., Toronto.
Monarch Optical Co. Ltd.	24 Hayter St., Toronto.
Niagara Glass Co.	39 King St., St. Catharines.
Palmer Thermometer Co. Ltd.	172 King St. E., Toronto.
Pringle & London.	146 Jarvis St., Toronto.
Queen City Glass Co. Ltd.	243 Victoria St., Toronto.
Richards Glass Co. Ltd.	102 Atlantic Ave., Toronto.
Scott Glass and Mirror Co.	1162 Yonge St., Toronto.
Supreme Art Glass & Mirror Works.	61 Vine St., Hamilton.
Tait Plate & Window Glass Company.	71 Victoria St., Kitchener.
X. I. Glass Company.	59 King St. W., Hamilton.
York Glass Co. Ltd.	26 Industrial St., Leaside.
MANITOBA—	
Canada Cut Glass Co.	120 Fort St., Winnipeg.
Excel Products.	185 Market St. E., Winnipeg.
Hobbs Manufacturing Co. Ltd.	360 Princess St., Winnipeg.
Taylor Painting & Decorating Co. Ltd.	331 Donald St., Winnipeg.
ALBERTA—	
Capital Glass & Beveling Works Ltd.	9812 Jasper Ave., Edmonton.
BRITISH COLUMBIA—	
Bogardus Wickens, Ltd.	1000 Homer St., Vancouver.
Fraser, J., Glass Works.	2132 Granville St., Vancouver.
Holt, W., & Son.	426 Second Ave. W., Vancouver.
Kingsway Glass Co. Ltd.	385 Kingsway, Vancouver.
Regal Art Glass Works.	1471 Broadway W., Vancouver.
Western Glass Co. Ltd.	158 W. Cordova St., Vancouver.

CHAPTER EIGHT

THE GYPSUM PRODUCTS INDUSTRY

Nine Canadian factories, operated by four companies, manufactured gypsum products having a factor selling value of \$3,174,137 during 1939. This output was 27 per cent over the 1938 total of \$2,715,894 and 26 per cent over the 1937 value of \$2,525,507. The main products were gypsum wallboard, gypsum hardwall plaster, gypsum tile and gypsum blocks.

Capital employed in these nine manufacturing plants amounted to \$3,660,233 in 1939, including \$2,237,978 as the value of buildings and equipment, \$435,180 as the value of inventories at the year-end and \$987,075 as cash, bills receivable, etc. The average number of employees in 1939 was 307, to whom \$321,596 was paid in salaries and wages. Expenditures for fuel and electricity amounted to \$129,889 while materials used in manufacturing processes cost \$1,240,763.

Table 104.—Capital Employed, 1938 and 1939

	1938	1939
	\$	\$
Present value of land, buildings, machinery and equipment.....	1,746,014	2,237,978
Inventory value of materials, finished products, fuel and other supplies on hand, and stocks in process.....	327,892	435,180
Operating capital (cash, bills and accounts receivable).....	749,278	987,075
Total	2,823,184	3,660,233

Table 105.—Employees, Salaries and Wages, 1938 and 1939

	1938	1939
Number of employees—		
On salaries—Male.....	30	30
Female.....	3	3
On wages—Male.....	212	274
Female.....		
Total employees	245	307
Salaries.....	\$ 58,798	\$ 60,227
Wages.....	\$ 230,788	\$ 261,369
Total salaries and wages	289,583	321,596

Table 106.—Wage-Earners, by Months, 1938 and 1939

(On the last work-day of each month)

Months	1938	1939	Months	1938	1939
January.....	186	233	July.....	224	274
February.....	187	254	August.....	240	309
March.....	191	295	September.....	237	308
April.....	220	268	October.....	214	278
May.....	201	270	November.....	227	286
June.....	209	279	December.....	200	244
			Average	212	274

Table 107.—Fuel and Electricity Used, 1938 and 1939

Kinds	Unit of measure	1938		1939	
		Quantity	Cost at works	Quantity	Cost at works
			\$		\$
Coal—Bituminous—Canadian.....	ton	397	3,474	487	3,682
Imported.....	ton	4,746	30,190	4,635	29,314
Lignite.....	ton	740	2,887	1,779	6,936
Coke.....	ton	1,285	10,017	1,468	15,551
Kerosene.....	Imp. gal.	182	30	14	3
Fuel oil.....	Imp. gal.	640,169	30,503	777,635	34,391
Wood.....	cord	358	1,790	496	2,164
Gas—Natural.....	M cu. ft.	6,170	1,855	6,947	2,076
Electricity purchased.....	K.W.H.	3,234,967	38,190	3,072,110	35,772
Total			118,936		129,889
Electricity generated for own use.....	K.W.H.	293,360		209,509	

Table 108.—Power Equipment, 1938 and 1939

	1938		1939	
	Number of units	Total rated horse power	Number of units	Total rated horse power
Steam engines and turbines.....	5	155	5	170
Gasoline, gas and oil engines.....	1	5	1	40
Electric motors run by purchased power.....	297	3,573	296	4,547
Total	303	3,733	302	4,757
Electric motors run by power generated by above primary units.....	35	278	34	279
Stationary boilers.....	6	995	6	995

Table 109.—Materials Used in the Gypsum Products Industry, 1938 and 1939

Materials	Unit of measure	1938		1939	
		Quantity	Cost at works	Quantity	Cost at works
			\$		\$
Gypsum, crude.....	ton	18,528	69,598	19,946	75,000
Gypsum, calcined (plaster of Paris).....	ton	99,441	505,093	105,397	552,527
Paper.....	ton	5,143	253,175	5,601	265,187
Starch or paste.....	ton	186	29,217	112	9,875
Hair.....	ton	110	19,041	418	35,636
Retarder.....	tan	367	15,772	271	16,238
Sawdust or shavings.....	ton	369	2,927	576	5,351
Containers, etc.....			98,989		113,643
All other materials.....			128,938		167,306
Total			1,123,950		1,240,763

Table 110.—Output of the Gypsum Products Industry, 1938 and 1939

Products	Unit of measure	1938		1939	
		Quantity	Selling value at works	Quantity	Selling value at works
			\$		\$
Gypsum wallboard.....	sq. ft.	61,860,550	1,451,853	78,147,747	1,744,895
Gypsum hard wall plasters.....	ton	66,780	920,597	69,853	959,154
All other products*			343,444		470,088
Total			2,715,894		3,174,137

* Includes gypsum tile, gypsum blocks, etc.

List of Firms in the Gypsum Products Industry, 1939

Names of Firms	Head Office Addresses	Plant Location
Windsor Plaster Co., Ltd.....	Windsor, N.S.....	Windsor, N.S.
Canadian Gypsum Co. Ltd.....	1221 Bay Street, Toronto, Ont.....	Hillsborough, N.B. Hagersville, Ont.
Gypsum, Lime and Alabastine, Canada, Ltd.....	Paris, Ont.....	Montreal, P.Q. Caledonia, Ont. Winnipeg, Man. Calgary, Alta. New Westminster, B.C.
Western Gypsum Products Ltd.....	503 McArthur Bldg., Winnipeg, Man....	Winnipeg, Man.

Primary Production.—The Gypsum Mining Industry

(From the Annual Report on the Mineral Production of Canada)

Production (producers' sales and consumption) of gypsum in Canada during 1939 totalled 1,421,934 short tons valued at \$1,935,127 compared with 1,008,799 short tons at \$1,502,265 in 1938. The tonnage in both years represents various grades of crude gypsum and anhydrite shipped from quarries or mines together with the tonnage of calcined gypsum used in or shipped from quarry or "primary" plants. The quantity of the mineral produced in 1939 established an all-time high record in the history of the Canadian gypsum mining industry; the value, however, was exceeded annually during the years 1922-1931 inclusive.

Of the total output in the Dominion in 1939, Nova Scotia contributed 1,298,618 short tons valued at \$1,340,830; Ontario, 59,440 tons at \$260,792; New Brunswick, 29,765 tons at \$134,286; British Columbia, 18,150 tons at \$100,641 and Manitoba, 15,961 tons worth \$98,578. The total production of gypsum in Canada from 1874 to 1939, inclusive, totalled 28,253,403 short tons valued at \$60,105,497.

The quantity of crude gypsum mined in 1939 amounted to 1,488,778 short tons while the tonnage of anhydrite mined totalled 43,645 short tons. Crude gypsum calcined in primary or quarry plants totalled 138,163 short tons.

The following are the average prices per short ton recorded for total sales of various grades, including anhydrite, by the industry in 1939: Crude lump, \$1.21; crushed crude, \$1.01; ground crude, \$6.04; calcined (quarry), \$12.55.

In 1939 the number of firms reporting production was 10 and the gypsum quarries and mines in operation totalled 17. Some of the Canadian gypsum mining companies confine their operations in the Dominion to the production and shipment of crude gypsum or anhydrite, while others, in addition to marketing various grades of crude gypsum, produce a calcine for sale or for consumption in their own gypsum products plants.

Capital employed by Canadian gypsum mining companies totalled \$6,806,907 in 1939; employees aggregated 714; salaries and wages paid amounted to \$692,158 and the total value of fuel, purchased electricity and process supplies used was recorded at \$299,319.

Gypsum is exported from Canada almost entirely in the crude form; during 1939 exports of crude grades totalled 1,260,231 tons valued at \$1,390,126 compared with 810,109 tons at \$932,742 in 1938. Of the 1939 exports, 1,191,389 tons were consigned to the United States and 62,665 to the United Kingdom. In addition to exports of crude gypsum in 1939, there were exported 1,339 tons of plaster of Paris and prepared wall plaster and 224 short tons of ground gypsum valued at \$1,342.

Table 111.—Principal Statistics of the Gypsum Mining Industry, 1938 and 1939

	1938	1939
Number of firms.....	9	10
Capital employed.....	\$ 7,325,412	6,806,907
Number of employees—On salaries.....	\$ 60	66
On wages.....	\$ 563	648
Total	623	714
Salaries and wages—salaries.....	\$ 103,466	112,915
wages.....	\$ 424,561	579,243
Total	\$ 528,027	692,158
Cost of fuel and electricity.....	\$ 149,149	193,488
Cost of process supplies.....	\$ 90,157	105,831
Gross selling value of products.....	\$ 1,502,265	1,935,127

Table 112.—Production in Canada, Imports and Exports of Gypsum, 1938 and 1939

	1938		1939	
	Quantity Tons	Value \$	Quantity Tons	Value \$
SHIPMENTS BY GRADES—				
Crude (1)—Lump or mine run.....	17,030	20,391	27,912	34,406
Crushed.....	892,028	939,073	1,288,796	1,304,035
Fine ground.....	473	2,489	412	2,490
Calcined gypsum (2).....	99,268	540,312	104,814	594,196
Total	1,008,799	1,502,265	1,421,934	1,935,127
SHIPMENTS BY PROVINCES—				
Nova Scotia.....	870,856	908,383	1,298,618	1,340,630
New Brunswick.....	48,418	159,203	29,795	134,286
Ontario.....	57,503	242,470	59,440	260,792
Manitoba.....	14,571	92,129	15,961	98,578
British Columbia.....	17,451	100,080	18,150	100,641
Total	1,008,799	1,502,265	1,421,934	1,935,127
Total gypsum mined and quarried (1).....	1,084,057		1,532,423	
Total gypsum calcined (2).....	122,710		138,163	
IMPORTS—				
Gypsum, crude (sulphate of lime).....	8	212	3	52
Gypsum, ground, not calcined.....	418	13,602	695	18,075
Plaster of Paris or gypsum, calcined, and prepared wall plaster.....	1,326	25,464	1,520	30,225
Total	1,752	39,278	2,218	48,352
EXPORTS—				
Gypsum, ground.....			224	1,342
Gypsum or plaster, crude.....	810,109	932,742	1,260,231	1,390,126
Plaster of Paris, ground, and prepared wall plaster.....	1,458	34,004	1,339	33,727
Total		966,746		1,425,195

(1) Includes some anhydrite quarried in Nova Scotia.

(2) Does not include gypsum calcined in manufacturing plants located in Montreal and Calgary.

CHAPTER NINE

THE LIME INDUSTRY

Production of quick and hydrated lime in Canada during 1939 totalled 552,209 short tons valued at \$4,003,514 compared with 486,922 short tons at \$3,542,652 in 1938. The 1939 output comprised 474,753 short tons of quick lime valued at \$3,326,647 and 77,456 short tons of hydrated lime worth \$676,867. During the year under review, 424,287 tons of quick lime and 30,861 tons of hydrated lime were sold or used by lime producers for chemical purposes while the balance of Canadian lime production, totalling 97,061 tons and consisting of both quick and hydrated was sold or used for building, agricultural and other purposes.

Stone used in the production of lime in Canada included calcium, high calcium and dolomitic varieties of limestone. It is estimated that more than 900,000 tons of limestone were used in the production of lime in 1939. Lime was produced in all Canadian provinces in 1939 with the exception of Prince Edward Island and Saskatchewan; no commercial production was reported in the Territories. Of the total Canadian output of lime in 1939, Ontario plants produced 302,259 tons or 54.7 per cent and Quebec 161,112 tons or 29.2 per cent. Imports of lime into Canada in 1939 came entirely from the United States and totalled 6,058 short tons valued at \$33,342; exports of lime during the same period amounted to 9,209 tons at \$75,172.

During 1939 the industry reported 59 plants as active, capital employed totalled \$4,802,983 and \$849,468 in salaries and wages were distributed to 937 employees. The cost of fuel and purchased electricity used amounted to \$944,502 and the value of explosives, chemicals and other process supplies consumed aggregated \$107,510.

Table 113.—Principal Statistics, by Provinces, 1938 and 1939

Provinces	Number of plants	Capital employed	Number of employees	Salaries and wages	Cost of fuel and electricity at works	Cost of process supplies at works	Gross selling value of products at works
		\$		\$	\$	\$	\$
1938							
New Brunswick (*).....	5	235,805	103	99,090	49,699	5,941	230,204
Quebec.....	20	1,368,630	317	253,422	254,473	27,654	843,331
Ontario.....	18	2,197,065	248	266,790	426,394	27,664	1,989,259
Manitoba.....	4	545,781	80	67,060	43,299	33,793	198,685
Alberta.....	3	177,883	23	28,990	10,884	15,244	197,012
British Columbia.....	3	356,050	96	79,716	41,481	3,463	174,161
Canada.....	53	4,881,214	867	795,068	826,230	113,759	3,542,652
1939							
New Brunswick (*).....	6	195,600	109	109,925	54,852	8,576	281,409
Quebec.....	21	1,050,338	346	278,523	358,812	33,324	983,072
Ontario.....	22	2,457,491	254	276,077	466,048	17,380	2,236,952
Manitoba.....	4	527,924	85	67,509	37,326	34,825	196,190
Alberta.....	3	171,859	25	29,031	10,559	10,000	108,632
British Columbia.....	3	393,771	118	88,403	16,905	3,405	167,259
Canada.....	59	4,802,983	937	849,468	944,502	107,510	4,003,514

(*) Includes data relating to two firms in Nova Scotia.

Table 114.—Capital Employed, by Classes and by Provinces, 1938 and 1939

Provinces	Present value of land, buildings, fixtures, machinery and tools	Inventory value of materials on hand, finished products and stocks in process	Cash, bills and accounts receivable, prepaid expenses, etc.	Total capital employed
	\$	\$	\$	\$
1938				
New Brunswick and Nova Scotia.....	164,887	21,123	29,795	215,805
Quebec.....	1,036,563	130,636	201,431	1,368,630
Ontario.....	1,975,882	196,370	24,813	2,197,065
Manitoba.....	505,597	37,184	3,000	545,781
Alberta.....	132,675	14,434	30,774	177,883
British Columbia.....	253,840	70,696	31,508	356,050
Canada	4,089,150	470,443	321,321	4,881,214
1939				
New Brunswick and Nova Scotia.....	137,000	15,000	43,600	195,600
Quebec.....	675,932	156,408	223,998	1,056,338
Ontario.....	2,193,908	232,945	30,638	2,457,491
Manitoba.....	484,500	43,424	.....	527,924
Alberta.....	135,675	11,820	24,364	171,859
British Columbia.....	242,032	79,067	72,672	393,771
Canada	3,869,047	538,664	395,272	4,802,983

Table 115.—Employees, Salaries and Wages, by Provinces, 1938 and 1939

Provinces	Average number of employees				Total	Salaries	Wages	Total salaries and wages
	On salaries		On wages					
	Male	Female	Male	Female				
1938								
Nova Scotia and New Brunswick..	6	2	95	.....	193	15,904	83,186	99,090
Quebec.....	27	3	287	.....	317	33,651	219,771	253,422
Ontario.....	19	2	227	.....	248	32,396	234,334	266,730
Manitoba.....	5	.....	75	.....	80	10,365	50,695	67,060
Alberta.....	3	.....	20	.....	23	5,560	23,430	28,990
British Columbia.....	8	2	86	.....	96	15,122	64,594	79,716
Canada	68	9	790	.....	867	112,998	682,076	795,068
1939								
New Brunswick and Nova Scotia..	5	2	102	.....	109	14,748	95,177	109,925
Quebec.....	25	2	319	.....	346	43,537	234,986	278,523
Ontario.....	27	3	224	.....	254	35,612	240,435	276,077
Manitoba.....	6	.....	79	.....	85	9,865	57,634	67,509
Alberta.....	3	1	21	.....	25	7,350	21,681	29,031
British Columbia.....	9	2	107	.....	118	16,955	71,418	88,103
Canada	75	10	852	.....	937	128,067	721,491	849,468

Table 116.—Wage-Earners, by Months, 1938 and 1939

(On the last work-day of each month)

Months	1938		1939	
	Quarry	Kiln	Quarry	Kiln
January.....	206	463	274	450
February.....	242	488	252	449
March.....	275	472	330	489
April.....	298	491	340	492
May.....	329	524	338	530
June.....	341	456	370	522
July.....	341	482	332	539
August.....	333	487	339	538
September.....	315	480	339	549
October.....	302	519	331	585
November.....	286	503	347	539
December.....	263	448	310	471
Average	300	490	316	516

Table 117.—Hours Worked per Week by Wage-Earners, 1939

(In one week in month of normal employment; overtime not included)

Regular hours worked per week	Number of wage-earners	Per cent of total	Regular hours worked per week	Number of wage-earners	Per cent of total
30 hours or less.....	12	1.2	51-54 hours.....	167	17.0
31-43 hours.....	15	1.5	55 hours.....	97	10.0
44 hours.....	52	5.3	56-64 hours.....	265	27.0
45-47 hours.....	33	3.4	65 hours and over.....	80	8.1
48 hours.....	233	23.8	Total	960	100.0
49-50 hours.....	26	2.7			
			Total wages paid in selected week..... \$18,030		

Table 118.—Fuel and Electricity Used, 1938 and 1939

Kinds	Unit of measure	1938		1939	
		Quantity	Value	Quantity	Value
			\$		\$
Bituminous coal—Canadian.....	ton	36,792	218,943	48,628	305,348
Imported.....	ton	50,896	256,292	51,137	235,652
Anthracite coal.....	ton	21	116	249	1,956
Lignite coal.....	ton	80	299	81	302
Coke.....	ton	12,545	89,884	13,570	93,136
Gasoline.....	Imp. gal.	38,694	8,885	50,615	11,429
Kerosene.....	Imp. gal.	30	9	2,919	577
Fuel oil and diesel oil.....	Imp. gal.	304,496	13,775	423,422	16,807
Wood.....	cord	55,465	189,503	50,018	173,403
Gas, natural.....	M cu. ft.			165,914	56,362
Electricity purchased.....	K.W.H.	7,807,485	48,524	9,108,478	49,530
Total	\$		826,230		944,502
Electricity generated for own use.....	K.W.H.	1,312,711		1,247,789	

Table 119.—Power Equipment, 1938 and 1939

	Ordinarily in use		In reserve or idle	
	Number of units	Total rated horsepower	Number of units	Total rated horsepower
1938				
Steam engines and steam turbines.....	8	165		
Diesel engines.....	4	376		
Gasoline, gas and oil engines (except Diesel).....	15	499	4	20
Electric motors run by purchased power.....	265	5,031	14	500
Total	292	6,071	18	520
Electric motors run by power generated by above primary units.....	46	717	1	30
Stationary boilers.....	18	1,352	1	75
1939				
Steam engines and turbines.....	7	230		
Diesel engines.....	5	421		
Other internal combustion engines.....	20	532	1	10
Electric motors run by purchased power.....	273	5,295	25	640
Total	305	6,478	26	650
Electric motors run by power generated by above primary units.....	51	728		
Stationary boilers.....	18	1,217	1	75

MANUFACTURES OF NON-METALLIC MINERALS

Table 120.—Production of Lime in Canada, by Provinces, 1938, showing Purposes for which Used* or Sold

	Nova Scotia and New Brunswick	Quebec	Ontario	Manitoba and Alberta	British Columbia	Total Canada
QUICKLIME (tons of 2,000 pounds)						
Building trades—						
Finishing lime.....	Tons \$	10	2,600	2,122	250	4,982
	\$	198	15,800	20,645	6,750	43,393
Masons' lime.....	Tons \$	685	5,780	4,530		12,471
	\$	5,980	60,405	36,854	14,159	117,398
Sand-lime brick.....	Tons \$		1,316	5,048		6,364
	\$		6,041	33,660		39,701
Agriculture.....	Tons \$	200	42		40	282
	\$	2,100	303		160	2,623
Chemical—						
Smelters (non-ferrous).....	Tons \$		1,052	1,991		3,043
	\$		5,672	19,905		25,577
Iron and steel furnaces.....	Tons \$	13,806	495	12,298	4,130	30,529
	(a) \$	118,932	3,793	80,936	33,098	246,246
Cyanide mills (gold mines).....	Tons \$	50	5,218	28,077	730	35,016
	\$	500	39,517	179,761	8,285	237,261
Pulp and paper mills.....	Tons \$	5,520	80,474	6,652	7,061	97,393
	\$	42,155	324,418	42,437	48,162	526,515
Glass works.....	Tons \$		6,985	885		7,870
	\$		46,223	6,197		52,420
Sugar refineries.....	Tons \$	250	34	5,577	7,734	15
	\$	2,200	298	53,883	64,192	147
Tanneries.....	Tons \$		709	2,684		3,393
	\$		5,271	18,529		23,800
Fertilizer plants.....	Tons \$			171		171
	\$			1,211		1,211
Insecticide plants.....	Tons \$			864		864
	\$			6,084	940	7,024
Other chemical works.....	Tons \$		30,946	160,154	130	191,230
	\$		225,072	1,119,744	1,719	1,316,535
Uses unspecified.....	Tons \$	1,553	3,562	5,858	1,088	17,194
	\$	12,424	33,205	44,921	12,333	153,175
Other consumers.....	Tons \$		1,120	70		1,190
	\$		8,960	512		9,472
Total quicklime.....	Tons \$	21,564	169,706	242,629	27,344	415,761
	\$	184,351	707,481	1,692,227	228,685	2,953,091
HYDRATED LIME						
Building trades—						
Finishing lime.....	Tons \$			10,732	4,335	15,067
	\$			120,306	73,553	193,859
Masons' lime.....	Tons \$	148	1,066	4,032		5,216
	\$	1,480	13,753	32,526		47,759
Sand-lime brick.....	Tons \$					
	\$					
Agriculture.....	Tons \$	660	685	1,533	2,980	5,858
	\$	6,200	4,685	15,392	19,614	45,891
Chemical—						
Smelters (non-ferrous).....	Tons \$		255	85	971	1,311
	\$		1,590	1,055	5,391	9,036
Iron and steel furnaces.....	Tons \$		13,551	23		13,574
	\$		40,653	245		40,898
Cyanide mills.....	Tons \$	25	1,210	223		1,458
	\$	250	5,930	2,594		8,774
Pulp and paper mills.....	Tons \$	4,150	6,287	111		10,548
	\$	29,500	35,684	1,100		66,284
Glass works.....	Tons \$					
	\$					
Sugar refineries.....	Tons \$	20	96	15		131
	\$	175	796	157		1,128
Tanneries.....	Tons \$		392	248		640
	\$		2,989	2,684		5,673
Fertilizer plants.....	Tons \$		150	34		184
	\$		900	354		1,254
Insecticide plants.....	Tons \$	402		30	35	467
	\$	3,216		290	231	3,737
Other chemical works.....	Tons \$		927	1,109		2,234
	\$		7,230	12,125	3,459	22,814
Uses unspecified.....	Tons \$	629	1,706	9,613	151	13,099
	\$	5,032	14,509	107,471	7,578	131,590
Other consumers.....	Tons \$		1,283	61		1,344
	\$		7,131	733		7,864
Total hydrated lime.....	Tons \$	6,034	27,608	27,849	4,533	71,161
	\$	45,853	135,850	297,032	77,012	599,361
Grand total.....	Tons \$	27,598	137,314	270,478	31,877	486,922
	\$	230,201	843,331	1,989,259	17,161	3,542,652

(a) Includes calcined dolomite used as a refractory material.

* Not necessarily consumed in provinces where produced.

Table 121.—Production of Lime in Canada, by Provinces, 1939, showing Purposes for which Used* or Sold

	Nova Scotia and New Brunswick	Quebec	Ontario	Manitoba and Alberta	British Columbia	Total Canada
QUICKLIME						
(Tons of 2,000 pounds)						
Building trades—						
Finishing lime.....	Tons	35	2,965	2,557	308	5,865
	\$	475	21,455	22,984	4,446	49,360
Masons' lime.....	Tons	2,450	7,312	6,397	829	16,988
	\$	21,940	68,254	50,265	6,832	147,291
Sane-lime brick.....	Tons	1,555	5,910	10	—	7,465
	\$	7,218	37,900	—	—	45,118
Agriculture.....	Tons	210	5	10	118	342
	\$	2,290	48	30	590	2,958
Chemical—						
Smelters (non-ferrous).....	Tons	—	603	1,500	62	2,174
	\$	—	3,490	15,090	620	19,200
Iron and steel furnaces (a).....	Tons	16,054	996	17,877	759	35,686
	\$	139,438	7,717	127,177	7,587	281,920
Cyanide mills (gold mines).....	Tons	25	5,197	15,817	4,877	26,722
	\$	250	38,082	96,171	39,962	182,521
Pulp and paper mills.....	Tons	6,928	77,252	5,405	7,477	165,415
	\$	55,984	412,515	36,172	49,240	621,395
Glass works.....	Tons	—	7,775	524	—	8,299
	\$	—	51,550	4,199	—	55,749
Sugar refineries.....	Tons	200	33	7,783	8,075	16,689
	\$	1,700	316	69,694	66,990	144,776
Tanneries.....	Tons	—	825	3,194	—	4,019
	\$	—	5,777	20,716	—	26,493
Fertilizer plants.....	Tons	—	—	109	—	109
	\$	—	—	703	—	703
Insecticide plants.....	Tons	—	—	1,034	87	1,121
	\$	—	—	7,221	869	8,090
Other commercial works.....	Tons	160	34,176	180,460	247	221,043
	\$	1,450	236,241	1,306,262	2,381	1,546,334
Uses unspecified.....	Tons	—	798	3,630	1,543	6,965
	\$	—	9,786	33,756	16,790	129,637
Other consumers.....	Tons	—	6,147	753	—	6,900
	\$	—	57,626	7,413	—	65,039
Total quick lime.....	Tons	26,027	134,331	268,622	27,738	474,753
	\$	223,053	844,055	1,870,035	224,468	3,326,647
HYDRATED LIME						
Building trades—						
Finishing lime.....	Tons	80	—	18,165	4,523	22,768
	\$	830	—	208,870	76,456	286,156
Masons' lime.....	Tons	1,083	721	7,605	—	9,409
	\$	9,024	10,213	65,135	—	84,372
Sand-lime brick.....	Tons	—	—	—	—	—
	\$	—	—	—	—	—
Agriculture.....	Tons	1,664	766	2,629	2,841	7,900
	\$	14,470	7,610	26,837	10,009	67,926
Chemical—						
Smelters (non-ferrous).....	Tons	14,236	—	18	20	15,147
	\$	42,878	—	173	200	49,092
Iron and steel furnaces.....	Tons	—	73	—	—	73
	\$	—	697	—	—	697
Cyanide mills.....	Tons	—	1,090	383	20	1,492
	\$	—	5,450	4,234	200	9,884
Pulp and paper mills.....	Tons	4,300	5,868	101	—	10,269
	\$	30,750	41,297	1,113	—	73,160
Glass works.....	Tons	—	—	—	—	—
	\$	—	—	—	—	—
Sugar refineries.....	Tons	20	126	88	—	250
	\$	180	1,071	928	—	2,346
Tanneries.....	Tons	—	485	413	—	898
	\$	—	3,413	4,421	—	7,834
Fertilizer plants.....	Tons	—	185	—	—	185
	\$	—	1,170	—	—	1,170
Insecticide plants.....	Tons	282	300	—	—	626
	\$	3,102	2,400	—	294	5,796
Other chemical works.....	Tons	—	—	1,671	—	1,901
	\$	—	—	18,585	3,498	22,083
Uses unspecified.....	Tons	—	468	2,224	1,033	3,725
	\$	—	3,749	32,324	6,912	42,985
Other consumers.....	Tons	—	2,526	267	—	2,793
	\$	—	19,766	3,000	—	23,766
Total hydrated lime.....	Tons	7,429	26,781	33,637	4,793	77,456
	\$	59,356	139,017	366,917	80,354	676,867
Grand total	Tons	33,456	161,112	302,259	32,531	552,209
	\$	281,469	983,072	2,236,952	304,822	4,003,514

(a) Includes calcined dolomite used as a refractory material.

* Not necessarily consumed in provinces where produced.

NOTE.—Of the total quantity of 552,209 tons of lime produced, 263,957 tons were consumed by the producers themselves

MANUFACTURES OF NON-METALLIC MINERALS

Table 122.—Production of Lime in Canada, 1922-1939

Years	Tons	Gross selling value at kilns	Years	Tons	Gross selling value at kilns
		\$			\$
1922	314,054	3,165,005	1931	344,785	2,764,415
1923	351,236	3,260,608	1932	323,650	2,394,537
1924	319,793	3,178,541	1933	323,540	2,432,306
1925	358,979	3,387,652	1934	363,113	2,745,797
1926	413,901	3,781,484	1935	405,419	2,925,791
1927	444,753	3,923,388	1936	463,401	3,335,970
1928	508,889	4,534,568	1937	543,353	3,824,917
1929	674,087	5,908,610	1928	483,922	3,542,652
1930	490,802	4,038,698	1939	552,209	4,003,514

Table 123.—Lime sold or used for Chemical and other purposes in Canada, 1930-1939

Year	Lime sold or used for chemical purposes		Lime sold or used for building or other non-chemical purposes	
	short tons	\$	short tons	\$
1930	351,443	2,596,112	131,359	1,442,586
1931	231,837	1,637,319	112,948	1,127,098
1932	255,472	1,758,898	65,178	635,639
1933	235,810	1,664,946	87,730	767,360
1934	229,906	1,598,906	133,207	1,148,891
1935	260,885	1,775,657	144,534	1,150,134
1936	389,324	2,670,266	74,077	665,704
1937	466,796	3,112,147	82,557	712,770
1938	403,825	2,746,927	83,097	795,725
1939	455,148	3,059,306	97,061	944,208

Table 124.—Imports into Canada and Exports of Lime and Various Lime Compounds, 1938 and 1939

	1938		1939	
	Quantity	Value	Quantity	Value
		\$		\$
IMPORTS—				
Lime—				
Lime	(a) 133,050 cwt.	36,248	(a) 121,170	33,342
Calcium chloride in packages of not less than 25 pounds	lb.	383,900	233,200	2,866
Calcium chloride in packages of less than 25 pounds	lb.	1,263	229	69
Calcium chloride not in solution for road treating purposes	lb.	15,283,100	11,181,600	104,579
Calcium arsenate	lb.	37,068	383,557	23,643
Chloride of lime and hypochlorite of lime in packages of not less than 25 pounds	lb.	345,100	403,900	26,550
Chloride of lime and hypochlorite of lime in packages of less than 25 pounds	lb.	39,280	32,986	5,127
EXPORTS—				
Lime	127,615 cwt.	51,346	184,184	75,172
Acetate of lime	41,208 cwt.	44,910	43,972	58,391

(a) All from the United States.

List of Plants in the Lime Industry, 1939

Names of Operators	Head Office Addresses	Plant Location
NOVA SCOTIA—		
Dominion Steel & Coal Corp., Ltd. (b)	Sydney	Sydney.
Eastern Lime Co., Ltd. (a) (b)	Windsor	Windsor.
NEW BRUNSWICK—		
Bathurst Power and Paper Co., Ltd. (a)	Bathurst	Bathurst.
Purdy & Green, Ltd. (a)	204 Metcalf St., Saint John	Saint John.
Randolph & Baker, Ltd. (a) (b) (c)	Randolph	Randolph.
Snowflake Lime Ltd. (a) (b)	3 Pokiok Road, Saint John	Saint John.
St. John Lime Co. (a) (b)	Brookville	Brookville.

List of Plants in the Lime Industry, 1939—Concluded

Names of Operators	Head Office Addresses	Plant Location
QUEBEC—		
Arnould & Beaudry.....	Joliette.....	Joliette.
Boivin, Arthur.....	Pont Rouge.....	Pont Rouge.
Canada Lime & Stone, Ltd..... (a)	St. Marc des Carrières.....	St. Marc des Carrières.
Carrière St. Maurice Ltée.....	307 Alexandre, Trois Rivières.....	St. Louis de France.
Carswell, Robt. B.....	Bryson.....	Bryson.
Cote, Xavier..... (a)	Metabetchouan.....	Metabetchouan.
Desfond, G..... (a)	St. Cuthbert.....	St. Cuthbert.
Dontigny, Raymond.....	Ste. Thècle.....	Ste. Thècle.
Dominion Lime Ltd..... (a)	Lime Ridge.....	Lime Ridge.
Filion, Narcisse.....	St. Joachim.....	St. Joachim.
Gagné, Octave.....	St. Ulric.....	St. Ulric.
Heon and Heon..... (a)	St. Louis de France.....	Ste. Marguerite Tp.
Lalumière, Joseph.....	St. Dominique de Bagot.....	St. Dominique de Bagot.
Machabee, Lucien.....	Ste. Anne des Plaines.....	Ste. Anne des Plaines.
Limoges, Henri..... (a)	552 Pouport St., Montreal.....	St. Michel.
Marcotte, J. A. Dr..... (c)	4403 St. Hubert, Montreal.....	St. Marc des Carrières.
Mercure, C..... (a)	9 rue St. Demis, St. Hyacinthe.....	St. Dominique de Bagot.
Shawinigan Chemicals Ltd..... (a)	107 Craig St. West, Montreal.....	Shawinigan Falls.
Standard Lime Co., Ltd..... (a)	Joliette.....	St. Paul de Joliette, St. Marc des Carrières.
Trottier, David.....	St. Marc des Carrières.....	St. Marc des Carrières.
Villeneuve, R..... (a) (b)	St. Jérôme.....	St. Jérôme.
ONTARIO—		
Bell, Harry.....	R. R. 4, Chesley.....	Grey County.
Biederman, Albert J..... (a)	R. R. 1, Golden Lake.....	Golden Lake.
Brown's Lime Works..... (b)	Owen Sound.....	Owen Sound.
Brunner, Mond Canada, Limited..... (a)	Canadian Bank of Commerce Bldg., Toronto.....	Amherstberg Dist.
Cameron, W. M..... (a)	Box 65, Carleton Place.....	Carleton Place.
Canada and Dominion Sugar Co., Ltd..... (a)	Chatham.....	Chatham, Wallaceburg.
Canada Lime Co..... (a)	Box 51, Cobocook.....	Cobocook.
Canadian Gypsum Co., Ltd..... (b)	170 Bloor St. W., Toronto.....	Guelph.
Chalmers Lime Works..... (b)	Owen Sound.....	Owen Sound.
Dominion Rock Products Ltd..... (a)	941 Dominion Square Bldg., Montreal, P.Q.....	Eganville.
Electro Metallurgical Company of Canada, Limited..... (a)	Canada Life Bldg., Toronto.....	Welland.
Federal Lime Ltd..... (a)	Eganville.....	Grattan Tp.
Gypsum, Lime & Alabastine, Canada, Ltd. (a) (b)	Paris.....	Beachville, Hespeler, Milton.
Hall, W. S..... (a)	701 National Bldg., Toronto.....	Red Lake Dist.
Innertip Lime & Stone Co., Ltd..... (a)	Beachville.....	Beachville.
Jamieson Lime Co..... (a)	Renfrew.....	Renfrew County.
North American Cyanamid Ltd..... (a)	Royal Bank Bldg., Toronto.....	Niagara Falls.
Rockwood Lime Co..... (b)	Box 46, Rockwood.....	Rockwood.
Shane Lime and Charcoal Co., Ltd..... (a)	Eganville.....	Renfrew County.
MANITOBA—		
Gillis Quarries Ltd..... (a) (b)	Richard and Spruce Sts., Winnipeg.....	Garson, Stonewall.
Gypsum, Lime and Alabastine, Canada Ltd..... (a) (b)	Paris, Ont.....	Winnipeg.
Winnipeg Supply & Fuel Co., Ltd..... (a) (b)	812 Boyd Bldg., Winnipeg.....	Spearhill, Stonewall.
ALBERTA—		
Canadian Sugar Factories Ltd..... (a)	Raymond.....	Raymond.
Loder's Lime Co., Ltd..... (a)	Kananaskis.....	Kananaskis.
Summit Lime Works..... (a)	Box, 273, Lethbridge.....	Lethbridge Dist.
BRITISH COLUMBIA—		
Pacific Lime Co., Ltd..... (a)	744 West Hastings St., Vancouver.....	Texada Island.
Pacific Mills Ltd..... (a)	Campbell Ave., Vancouver.....	Ocean Falls.
Victoria Lime Co..... (a)	R. R. 1, Victoria.....	Parsons Bridge.

(a) Use calcium or high calcium limestone.

(b) Use dolomite or dolomitic limestone.

(c) No production reported in 1939.

CHAPTER TEN

PETROLEUM PRODUCTS INDUSTRY

Statistics for the petroleum Products industry cover all establishments in Canada which were occupied chiefly in—(a) the refining of crude oil to produce gasoline, fuel oil, etc., and (b) the blending or compounding of lubricating oils and greases.

Forty-two refineries and 11 blending plants, or a total of 53 works, reported under this category in 1939 and the aggregate value of production was \$104,578,517, an increase of 7·8 per cent over the 1938 total of \$97,003,347.

Output figures for 1939 included \$103,494,238 for petroleum refineries and \$1,084,279 for concerns engaged in blending oils and greases, against corresponding totals in 1938 of \$96,121,611 and \$881,736 respectively. The principal statistics for each of these groups and for the industry as a whole are tabulated below.

Table 125.—Principal Statistics of the Petroleum Products Industry, 1935-1939

Years	Number of plants	Capital employed	Average number of employees	Salaries and wages	Cost of fuel and electricity at works	Cost of materials at works	Gross selling value of products at works
Petroleum Refining							
		\$		\$	\$	\$	\$
1935.....	45	64,012,045	4,771	7,046,675	3,839,424	58,415,916	79,176,081
1936.....	50	61,307,820	4,935	7,103,148	3,027,321	66,219,145	85,172,981
1937.....	44	63,759,579	5,047	8,126,583	4,444,678	79,993,972	97,701,954
1938.....	47	62,097,038	4,586	7,750,746	4,678,933	75,993,557	96,121,611
1939.....	42	65,784,933	4,675	7,736,330	4,573,570	73,922,206	103,494,238
Compounding Oils and Greases							
1935.....	13	695,409	85	106,549	7,025	453,898	774,444
1936.....	13	576,106	84	116,807	5,313	330,737	629,382
1937.....	13	520,687	90	120,200	5,127	407,908	752,060
1938.....	12	523,870	89	122,204	4,284	425,959	881,736
1939.....	11	596,256	91	153,917	5,129	543,394	1,084,279
Total							
1935.....	58	64,707,454	4,856	7,153,224	3,847,049	58,869,814	79,950,525
1936.....	63	61,883,926	5,019	7,309,955	3,932,634	66,555,885	85,802,363
1937.....	57	64,280,266	5,137	8,216,843	4,450,005	80,401,880	98,454,014
1938.....	59	62,620,968	4,675	7,873,010	4,683,217	76,410,516	97,003,347
1939.....	53	66,381,189	4,766	7,890,247	4,578,699	74,465,600	104,578,517

Table 126.—Principal Statistics of the Petroleum Products Industry, by Provinces, 1938 and 1939

Provinces	Number of plants	Capital employed	Average number of employees	Salaries and wages	Cost of fuel and electricity at works	Cost of materials at works	Gross selling value of products at works
		\$		\$	\$	\$	\$
1938							
Quebec.....	8	25,139,180	1,046	1,915,626	1,683,686	24,977,619	31,354,925
Ontario.....	13	19,424,451	2,019	3,362,982	1,590,383	24,136,319	29,442,712
Manitoba.....	5	771,969	100	99,530	43,157	1,044,062	1,659,986
Saskatchewan.....	12	4,094,938	410	616,655	446,607	6,660,841	9,389,608
Alberta.....	14	3,698,938	410	631,463	295,430	6,056,105	9,101,782
British Columbia.....	4	4,251,575	309	589,389	250,456	7,628,198	9,037,066
Nova Scotia.....	1						
New Brunswick.....	1	5,239,857	381	657,395	373,498	5,916,372	7,017,248
N. W. Territories.....	1						
Canada.....	59	62,620,908	4,675	7,873,040	4,683,217	76,419,516	97,003,347
1939							
Quebec.....	7	25,633,897	990	1,680,886	1,595,415	23,350,561	33,329,907
Ontario.....	12	19,111,045	2,031	3,408,743	1,523,567	23,266,811	32,087,996
Manitoba.....	5	1,231,709	134	151,271	54,572	1,453,756	1,884,891
Saskatchewan.....	11	4,659,959	452	655,759	467,015	6,669,751	10,074,461
Alberta.....	11	6,849,617	481	719,616	331,079	6,277,687	10,074,323
British Columbia.....	4	4,271,032	274	527,142	242,958	7,948,618	9,144,073
Nova Scotia.....	1						
New Brunswick.....	1	4,623,930	404	746,830	364,093	5,498,416	7,765,866
Northwest Territories.....	1						
Canada.....	53	66,381,189	4,766	7,890,247	4,578,699	74,465,600	104,578,517

Petroleum Refining Industry

Forty-two petroleum refineries operating in Canada during 1939 were distributed by provinces, as follows: 11 in Saskatchewan, 11 in Alberta, 5 in Ontario, 5 in Manitoba, 4 in Quebec, 3 in British Columbia and 1 in each of Nova Scotia, New Brunswick and the Northwest Territories. Compared with 1938, there was a loss of 3 refineries in Alberta, 1 in Quebec and 1 in Saskatchewan, while in the other provinces the numbers remained unchanged. Operating refineries had a capacity of 200,020 barrels of crude oil per day, distributed as follows—Quebec, 64,500 barrels or 32.2 per cent; Ontario, 44,500 barrels or 22.2 per cent; Nova Scotia, 32,500 barrels or 16.3 per cent; British Columbia, 22,700 barrels or 11.4 per cent; Alberta, 18,250 barrels or 9.1 per cent; Saskatchewan, 14,620 barrels or 7.3 per cent; Manitoba, 2,550 barrels or 1.3 per cent; New Brunswick, 250 barrels or 0.1 per cent and the Northwest Territories, 150 barrels or 0.1 per cent. Eighteen of these plants reported cracking units in use with an aggregate capacity of about 95,500 barrels per day. The location, type and capacity of each of these refineries is recorded in the directory at the end of this chapter.

During the year 1,307,704,411 gallons of imported crude oil and 262,198,884 gallons of crude oil, naphtha and absorption gasoline from Canadian wells, or a total of 1,569,903,295 gallons was put through Canadian refineries; this was about 61 per cent of the quantity they are equipped to handle. Over 63 per cent or 996,684,536 gallons was imported from the United States, 20 per cent or 311,019,875 gallons came from other countries and nearly 17 per cent, or 262,198,884 gallons came from Canadian wells. The total cost at the refineries of all crude oil and naphtha charged to stills during the year was \$68,046,834. Stocks of crude and naphtha held at refineries on December 31 were reported at 154,546,529 gallons.

Refinery production of gasoline in 1939 amounted to 740,563,619 gallons of which 405,738,237 gallons were made by the straight run process and 334,825,382 gallons by cracking. In addition, the refineries used 34,231,014 gallons of imported casinghead gasoline for blending purposes, but this was not included in the Canadian production figures. The gallonage of gasoline made in 1939 was the greatest on record, being 13 per cent greater than the output in 1938, which in turn was 2 per cent over 1937. The factory selling value of the gasoline made during 1939 was \$64,491,018. Stocks of gasoline held by refineries at the year end included 119,056,751 gallons of straight run and cracked gasoline and 10,556,679 gallons of imported casinghead. In 1939 there was an output of 10,479,315 gallons of natural gasoline from absorption plants in Alberta. Of this amount, only 483,000 gallons were sold direct to consumers while the

remainder went to refineries for further treatment. The amount used in refineries is included with the gallonage charged to stills and the refined gasoline made therefrom is included in the refinery output figures.

Imports of gasoline, including casinghead, amounted to 109,021,177 gallons during 1939, which added to a production of 740,563,619, less the increase in refinery stocks of 31,953,163 and less the exports of 3,443,416, made an apparent Canadian consumption for the year of 814,188,217 gallons. Actual sales as reported to the Provincial Governments under the Gasoline Tax Acts amounted to only 807,666,298 gallons.

Production in Canadian refineries of fuel and gas oils (excluding any made and used for cracking purposes) totalled 582,705,683 gallons of which 521,232,546 gallons were made for sale and 61,473,137 gallons for use as fuel in the producing plant. Imports aggregated 59,960,460 gallons and exports amounted to 2,879,286 gallons. Refinery stocks at the end of the year amounted to 75,240,018 gallons or about seven and a half million gallons less than in 1938. The apparent consumption in Canada as calculated from the above figures was 647,298,402 gallons.

Output of tractor and engine distillates was 33,620,396 gallons in 1939, imports amounted to 1,257,808 gallons, and refinery stocks declined 3,146,182 gallons. The apparent Canadian consumption was 38,024,386 gallons.

Lubricating oils were produced both in the refineries and in the blending plants, the actual figures being 23,656,313 gallons and 1,360,759 gallons respectively, a total of 25,017,072 gallons. By adding to this total the imports of 18,067,304 gallons and the decline in refinery stocks of 194,687, a consumption in Canada of 43,279,063 gallons is indicated.

Lubricating greases were produced as follows—845,140 pounds in the blending plants and 12,296,476 in the refineries, a total of 13,141,616 pounds. The latter quantity plus the imports of 7,719,447 indicates a consumption in Canada of 20,861,063 pounds during 1939.

Capital employed in the petroleum refining industry in 1939 was reported at \$65,784,933 of which \$35,216,303 was the value placed on lands, buildings and equipment. The average number of employees was 4,675 and payment to these workers in salaries and wages amounted to \$7,736,330. Materials used in refining operations cost \$73,922,206, fuel and electricity cost \$4,573,570 and the products were valued at \$103,494,238.

Table 127.—Principal Statistics of the Petroleum Refining Industry, 1921-1939

Years	Number of refineries	Capital employed	Average number of employees	Salaries and wages	Cost of fuel and electricity at works	Cost of materials at works	Gross selling value of products at works
		\$		\$	\$	\$	\$
1921.....	11	55,630,864	3,911	6,003,559	4,429,308	35,850,653	51,565,403
1922.....	13	61,253,400	3,498	5,391,285	4,227,615	38,129,880	56,495,821
1923.....	14	60,288,861	4,195	5,531,589	4,054,846	36,435,306	45,571,506
1924.....	17	53,095,784	3,603	5,023,978	3,580,032	36,669,292	48,677,347
1925.....	13	49,461,900	3,655	5,021,898	3,433,017	37,814,303	49,802,615
1926.....	17	56,476,449	3,698	5,782,589	3,580,049	50,783,871	70,570,240
1927.....	16	55,442,193	3,802	6,078,226	3,628,842	52,743,530	63,979,849
1928.....	16	55,811,418	4,252	6,803,234	3,440,578	57,033,185	82,448,392
1929.....	15	69,887,267	4,883	7,984,786	3,745,956	76,289,182	98,384,180
1930.....	15	69,077,982	5,030	8,003,357	3,859,683	71,307,879	90,809,711
1931.....	20	67,288,556	4,058	6,110,068	3,371,118	50,353,423	75,588,425
1932.....	24	68,882,376	4,058	5,897,811	3,338,648	52,020,471	71,360,324
1933.....	37	67,566,886	4,551	6,041,230	3,130,719	48,916,966	69,803,721
1934.....	42	66,450,496	4,870	6,274,799	3,117,697	56,659,492	75,785,677
1935.....	45	64,012,045	4,771	7,046,675	3,839,424	53,415,916	79,176,081
1936.....	50	61,307,820	4,935	7,193,148	3,927,321	66,219,148	85,172,981
1937.....	44	63,759,579	5,047	8,126,583	4,444,878	79,993,972	97,701,954
1938.....	47	62,097,038	4,586	7,750,746	4,678,933	75,993,557	96,121,611
1939.....	42	65,784,933	4,675	7,736,330	4,573,570	73,922,206	103,494,238

Table 128.—Number and Total Capacity of Petroleum Refineries in Operation in Canada, 1936-1939

Provinces	1936		1937		1938		1939	
	Number	Capacity in barrels of crude per day	Number	Capacity in barrels of crude per day	Number	Capacity in barrels of crude per day	Number	Capacity in barrels of crude per day
Nova Scotia.....	1	11,000	1	11,000	1	20,000	1	32,500
New Brunswick.....	1	250	1	250	1	250	1	250
Quebec.....	4	65,500	5	68,500	5	65,500	4	64,500
Ontario.....	5	39,500	5	40,500	5	41,500	5	44,500
Manitoba.....	4	2,650	3	2,450	5	3,360	5	2,550
Saskatchewan.....	18	15,250	17	16,070	12	14,475	11	14,620
Alberta.....	12	16,860	8	9,800	14	13,600	11	18,250
British Columbia.....	4	20,000	3	19,500	3	22,500	3	22,700
Northwest Territories.....	1	150	1	150	1	150	1	150
Canada.....	50	171,160	41	168,220	47	181,335	42	200,020

NOTE.—1 barrel=35 Imperial gallons.

Table 129.—Principal Statistics of the Petroleum Refining Industry, by Provinces, 1938 and 1939

Provinces	Number of refineries	Capital employed	Average number of employees	Salaries and wages	Cost of fuel and electricity at works	Cost of materials at works	Gross selling value of products at works
		\$		\$	\$	\$	\$
1938							
Quebec.....	5	25,040,477	1,024	1,881,674	1,681,283	24,929,320	31,243,848
Ontario.....	5	19,005,635	1,954	3,276,492	1,588,619	23,762,206	28,679,052
Manitoba.....	5	771,969	100	99,530	43,157	1,044,062	1,659,986
Saskatchewan.....	12	4,094,938	410	610,655	446,607	6,660,841	9,380,608
Alberta.....	14	3,698,938	410	631,463	295,430	6,066,105	9,101,782
British Columbia.....	3	4,245,224	307	587,537	250,339	7,624,591	9,030,087
Other provinces.....	3	5,239,857	381	657,395	373,498	5,916,372	7,017,248
Canada (1).....	47	62,097,038	4,586	7,750,746	4,678,933	75,993,557	96,121,611
1939							
Quebec.....	4	25,533,326	967	1,645,643	1,592,467	23,296,707	33,210,624
Ontario.....	5	18,621,442	1,964	3,291,375	1,621,543	22,780,552	31,129,057
Manitoba.....	5	1,231,709	134	151,271	54,572	1,453,756	1,884,891
Saskatchewan.....	11	4,059,959	452	655,759	467,015	6,669,751	10,074,461
Alberta.....	11	6,849,617	481	719,616	331,079	6,277,687	10,291,323
British Columbia.....	3	4,264,950	273	525,836	242,801	7,945,337	9,138,016
Other provinces.....	3	4,623,930	404	746,830	364,093	5,498,416	7,765,866
Canada (1).....	42	65,784,933	4,675	7,736,330	4,573,570	73,922,206	103,494,238

(1) Includes 1 refinery in each of Nova Scotia, New Brunswick and the Northwest Territories.

Table 130.—Capital Employed in the Petroleum Refining Industry, 1938 and 1939

Provinces	Present value of lands, buildings, machinery and equipment	Inventory value of finished products and materials on hand and stocks in process	Operating capital (cash, bills and accounts receivable, etc.)	Total capital employed
	\$	\$	\$	\$
1938				
Quebec.....	13,514,127	11,434,722	91,628	25,040,477
Ontario.....	11,300,616	6,988,509	716,510	19,005,635
Manitoba.....	370,582	207,660	193,747	771,969
Saskatchewan.....	1,937,566	1,974,510	182,862	4,094,938
Alberta.....	1,591,192	1,886,171	221,575	3,698,938
British Columbia.....	2,170,706	2,070,735	3,783	4,245,224
Other provinces.....	2,540,012	2,359,777	340,068	5,239,857
Canada.....	33,421,781	26,922,084	1,750,173	62,097,038
1939				
Quebec.....	12,865,169	12,490,325	177,832	25,533,326
Ontario.....	10,850,294	7,437,593	333,565	18,621,442
Manitoba.....	741,305	270,925	219,479	1,231,709
Saskatchewan.....	2,306,831	2,037,471	315,657	4,659,959
Alberta.....	4,106,544	2,546,791	196,282	6,849,617
British Columbia.....	2,074,743	2,185,321	4,866	4,264,950
Other provinces.....	2,271,417	2,163,516	188,997	4,623,930
Canada.....	35,216,303	29,131,042	1,436,688	65,784,933

MANUFACTURES OF NON-METALLIC MINERALS

Table 131.—Employees in Petroleum Refineries, Salaries and Wages, 1938 and 1939

Provinces	Average number of employees					Salaries	Wages	Total salaries and wages
	On salaries		On wages		Total			
	Male	Female	Male	Female				
						\$	\$	\$
1938								
Quebec.....	168	20	835	1	1,024	467,799	1,413,875	1,881,674
Ontario.....	298	45	1,605	6	1,954	878,714	2,347,778	3,226,492
Manitoba.....	29	7	64		100	43,682	55,848	99,530
Saskatchewan.....	72	15	321	2	410	171,621	445,034	616,655
Alberta.....	71	11	327	1	410	172,162	459,301	631,463
British Columbia.....	59	12	236		307	187,295	400,242	587,537
Other provinces.....	47	16	318		381	178,188	479,207	657,395
Canada.....	744	126	3,706	10	4,586	2,099,461	5,631,285	7,730,746
1939								
Quebec.....	172	18	776	1	967	485,349	1,160,294	1,645,643
Ontario.....	299	43	1,615	7	1,964	872,481	2,418,894	3,291,375
Manitoba.....	34	10	90		134	61,491	89,780	151,271
Saskatchewan.....	88	20	341	3	452	187,526	468,233	655,759
Alberta.....	81	12	387	1	481	206,202	513,414	719,616
British Columbia.....	54	10	209		273	165,882	319,954	525,836
Other provinces.....	51	16	337		404	188,222	508,608	716,830
Canada.....	779	129	3,755	12	4,675	2,167,153	5,549,177	7,736,330

Table 132.—Hours Worked per Week by Wage-Earners, 1939

(In one week in month of normal employment; overtime not included)

Regular hours worked per week	Number of wage-earners	Per cent of total	Regular hours worked per week	Number of wage-earners	Per cent of total
30 hours or less.....	549	14.2	55 hours.....	1	0.1
31-43 hours.....	2,144	55.5	56-64 hours.....	87	2.2
44 hours.....	116	3.6	65 hours and over.....	27	0.7
45-47 hours.....	3	0.2			
48 hours.....	794	20.6	Total.....	3,828	100.0
49-50 hours.....	10	0.4			
51-54 hours.....	97	2.5	Total wages paid in selected work.....	\$110,894	

Table 133.—Number of Wage-Earners in Petroleum Refineries, by Months, 1939

(On the last work-day of each month)

Months	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Other Provinces	Canada
January.....	809	1,512	53	283	298	191	329	3,475
February.....	757	1,547	63	283	300	192	336	3,478
March.....	800	1,535	83	286	314	196	316	3,530
April.....	773	1,561	121	319	416	196	328	3,714
May.....	820	1,633	121	380	407	216	331	3,914
June.....	794	1,663	102	378	420	219	366	3,942
July.....	747	1,606	98	390	417	223	359	3,840
August.....	784	1,606	102	398	422	214	348	3,874
September.....	766	1,673	95	399	433	216	345	3,927
October.....	775	1,700	88	372	411	215	315	3,936
November.....	788	1,681	75	349	399	222	328	3,842
December.....	709	1,695	67	285	393	213	347	3,709
Average.....	777	1,622	96	344	388	209	337	3,767

Table 134.—Fuel* and Electricity Used in Petroleum Refineries, 1938 and 1939

Kinds	Unit of measure	1938		1939	
		Quantity	Cost at works	Quantity	Cost at works
Bituminous coal—Canadian	ton	156	\$ 967		\$
Imported	ton	21,505	98,473	11,650	52,485
Coke, including petroleum coke	ton	5,948	15,439	4,232	18,202
Gasoline	Imp. gal.	1,337	495	17,903	2,005
Fuel oil	Imp. gal.	58,629,349	2,167,809	61,741,130	2,045,005
Wood	cord	146	558	100	613
Gas—Manufactured, including still gas	M cu. ft.	6,486,618	1,615,350	7,798,120	1,647,908
Natural	M cu. ft.	1,649,973	146,182	1,559,740	136,928
Other fuel	\$		214,695		207,127
Electricity purchased	K.W.H.	54,160,652	419,965	61,780,897	460,296
Total	\$		4,678,933		4,573,570
Electricity generated for own use	K.W.H.	134,000		279,910	

* Includes fuel oil, still gas, petroleum coke, etc., produced in the refineries and used by the producers for heating stills, buildings, etc., or for power purposes.

Table 135.—Power Equipment in Petroleum Refineries, 1938 and 1939

	Ordinarily in use		In reserve or idle	
	Number of units	Total rated horse power	Number of units	Total rated horse power
1938				
Steam engines and steam turbines	433	17,090	4	455
Diesel engines	6	1,050		
Gasoline, gas and oil engines (except Diesel)	19	1,340		
Electric motors run by purchased power	1,205	23,117	18	506
Total	1,663	42,573	22	961
Stationary boilers	130	29,457	8	500
1939				
Steam turbines and steam engines	476	19,479	28	575
Diesel engines	9	1,034		
Gasoline, gas and oil engines (except Diesel)	57	2,952	3	78
Electric motors run by purchased power	1,306	25,600	50	550
Total	1,848	49,065	81	1,203
Electric motors run by power generated by primary equipment above	25	75		
Stationary boilers	138	31,650	5	220

Table 136.—Materials Used in Petroleum Refineries, 1938 and 1939

Materials	Unit of measure	1938		1939	
		Quantity	Cost at works	Quantity	Cost at works
Crude oil (under 66° A.P.I.) in its natural state, from Canadian wells	Imp. gal.	217,105,125	\$ 10,807,043	253,964,242	\$ 11,813,685
Crude naphtha (66° A.P.I. and over) in its natural state, from Canadian wells	Imp. gal.	12,035,820	746,679	5,750,952	338,747
Absorption gasoline, etc., from Canadian wells (run to stills)	Imp. gal.	7,351,255	496,303	2,483,690	100,059
Crude oil, in its natural state, imported (run to stills)—					
(a) From United States	Imp. gal.	860,931,586	44,761,798	894,341,531	45,025,216
(b) From Other Countries	Imp. gal.	321,229,681	14,067,659	311,019,875	10,577,842
Crude oil, not in its natural state (run to stills)	Imp. gal.	5,697	570	2,343,005	131,285
Benzol for blending	Imp. gal.	2,061,032	327,458	2,087,860	328,321
Phenol	pound	172,535	26,690	249,472	41,074
Sulphuric acid, 66° B ₆	pound	19,874,862	194,046	20,377,249	219,201
Sulphur	pound	280,060	8,128	175,727	4,161
Caustic soda	pound	4,309,264	130,565	4,100,782	127,642
Soda ash	pound	424,431	8,915	648,207	13,330
Litharge	pound	499,921	36,240	267,923	23,027
Fuller's earth and clay	pound	19,087,467	281,068	19,814,473	304,214
Compounding materials	\$		482,055		507,992
Tetraethyl fluid	\$		2,677,961		3,023,903
Other materials	\$		207,325		417,155
Shipping containers	\$		732,454		804,752
Total	\$		75,993,557		73,922,206

Table 137.—Materials Used in Petroleum Refineries, by Provinces, 1939

Materials	Unit of measure	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Other Provinces
Crude oil (under 60° A.P.I.) in its natural state, from Canadian wells	Imp. gal.		7,313,063	6,152,135	105,595,965	133,414,979		1,488,100
	\$		428,993	421,144	5,759,153	5,123,070		81,325
Crude naphtha (60° A.P.I. and over) in its natural state, from Canadian wells	Imp. gal.			33,675		5,717,277		
	\$			5,095		333,652		
Absorption gasoline, etc., from Canadian wells (run to stills)	Imp. gal.				119,729	2,363,961		
	\$				17,223	142,636		
Crude oil, in its natural state, imported (run to stills)—								
(a) From United States	Imp. gal.	323,186,485	421,963,188	10,301,652	6,492,609	3,202,470	189,609,066	39,585,661
	\$	14,877,494	19,291,314	961,206	401,118	127,316	7,505,809	1,860,859
(b) From Other Countries	Imp. gal.	199,681,431					3,635,802	107,702,632
	\$	7,115,947					183,613	3,278,282
Benzol for blending	Imp. gal.	1,106,642	851,586	120,290	2,297	2,884	3,261	900
	\$	181,759	114,780	28,135	972	1,263	1,274	138
Sulphuric acid, 66° Bé	pound	819,654	15,804,626	11,030	1,412,474	1,430,954	834,371	3,840
	\$	7,623	163,381	347	23,701	15,764	8,372	113
Sulphur	pound	13,850	52,379	272	61,990	47,236		
	\$	421	1,132	15	1,631	962		
Caustic soda	pound	698,786	953,590	50,910	694,447	919,717	207,333	375,699
	\$	25,045	23,952	2,218	24,963	34,389	6,250	10,822
Soda ash	pound	19,090	122,940	2,490	304,660	41,450	18,250	139,387
	\$	372	1,607	75	6,760	1,135	82	2,699
Litharge	pound	14,779	64,519	1,063	70,006	116,490	78	385
	\$	1,288	6,554	171	5,292	9,681	6	35
Fuller's earth and clay	pound	694,000	1,902,733	1,000	103,370	95,060		
	\$	11,723	19,658	135	1,954	2,597		
Compounding materials	\$		500,434			457	7,101	
Tetraethyl fluid	\$	905,913	1,080,667	29,550	218,308	415,874	201,337	171,966
Other materials	\$	156,618	368,354	2,665	193,611	59,159	23,251	54,503
Shipping containers	\$	12,501	779,138	3,000	15,065	9,532	7,642	37,574
Total	\$	23,296,767	22,780,552	1,453,756	6,649,751	6,227,697	7,945,337	5,498,416

(\$ = Cost at works)

Table 138.—Products Made in Petroleum Refineries, 1938 and 1939

Products	Unit of measure	1938		1939	
		Quantity	Gross selling value at works	Quantity	Gross selling value at works
			\$		\$
MADE FOR SALE—					
Gasoline—Straight run (11°)	Imp. gal.	362,448,896	32,969,483	405,564,306	35,820,713
By cracking process	Imp. gal.	291,422,445	25,664,662	334,806,306	28,651,369
Stove oil (40°-42.5° A.P.I.)	Imp. gal.	14,429,501	652,935	18,051,831	781,873
Gas and light fuel oil (20°-40° A.P.I., except diesel)	Imp. gal.	86,884,950	4,157,448	86,120,186	4,061,854
Diesel fuel oil (all fuel oil sold under this name)	Imp. gal.	60,731,677	2,240,724	54,144,956	2,323,585
Residual fuel oil (10°-20° A.P.I.)	Imp. gal.	330,308,137	11,447,994	362,915,573	12,140,704
Tractor and engine distillate	Imp. gal.	35,002,461	2,873,639	33,618,261	2,607,008
V.M. and P. or solvent naphtha	Imp. gal.	7,144,906	583,507	8,218,123	647,534
Kerosene	Imp. gal.	22,518,046	2,109,211	27,245,025	2,481,379
Lubricating oil	Imp. gal.	21,543,098	4,123,954	23,578,851	4,243,728
Lubricating grease	Imp. gal.	13,658,233	669,514	12,287,047	629,082
Asphalt	Imp. gal.	54,914,869	3,979,788	56,571,431	4,419,190
Petroleum coke	short ton	63,375	388,753	62,094	370,936
Other products	\$		219,895		338,189
Total—Made for sale	\$		92,081,567		99,517,114
MADE FOR OWN USE—					
Gasoline—Straight run	Imp. gal.	134,753	11,743	173,877	16,475
By cracking process	Imp. gal.	23,031	3,144	19,073	2,461
Gas and light fuel oil (20°-40° A.P.I.)	Imp. gal.	1,653,567	61,525	113,677	6,029
Residual fuel oil (10°-20° A.P.I.)	Imp. gal.	56,822,008	2,102,252	61,317,404	2,020,429
Kerosene	Imp. gal.	18,379	1,562	15,230	1,308
Lubricating oil	Imp. gal.	74,261	13,701	77,462	13,413
Tar	Pound	624,708	27,764	1,536,570	6,829
Asphalt	Imp. gal.	65,058	4,879	43,607	3,332
Petroleum coke	short ton	634	1,547	4,238	18,253
Still gas	M cu. ft.	6,486,618	1,615,350	7,802,666	1,671,238
Other products	\$		196,637		211,327
Total—Made for Own Use	\$		4,046,104		3,977,094
Grand Total	\$		96,127,671		103,494,208
Fuel and gas oils made for use in cracking process	Imp. gal.		497,513,602		576,923,544

(1) Includes Turner Valley naphtha and natural gasoline run to refinery stills but does not include the imported casing-head gasoline which was used for blending at the refineries.

Table 139.—Products made in Petroleum Refineries, by Provinces, 1939

Product	Unit of measure	Quebec	Ontario	Mani- toba	Saskat- chewan	Alberta	British Columbia	Other Provinces
MADE FOR SALE								
Gasoline—(a) Straight run.	Imp. gal.	115,644,640	114,768,441	7,221,662	42,012,886	63,450,429	40,756,446	21,709,856
	\$	10,100,777	9,059,506	1,043,309	4,600,524	5,604,447	3,885,090	1,527,060
(b) By cracking process	Imp. gal.	138,392,584	110,297,800	1,000,000	24,004,498	27,113,919	808,150	33,189,358
	\$	12,577,559	8,570,964	140,000	2,555,249	2,439,448	68,127	2,300,023
Fuel oil and gas oil	Imp. gal.	176,111,763	97,379,989	3,500,078	15,024,364	18,769,232	137,354,477	72,543,082
	\$	6,318,223	3,981,390	274,956	733,528	749,028	4,539,205	2,685,324
Tractor and engine distillate	Imp. gal.	1,325,145	7,986,024	2,387,537	13,537,818	8,381,737		
	\$	79,525	539,987	277,355	1,139,698	570,443		
V. M. & P. or solvent naphtha	Imp. gal.	3,311,583	3,362,850	45,219	240,652	369,187	674,137	214,495
	\$	262,581	244,268	10,573	22,549	35,868	56,830	14,865
Kerosene	Imp. gal.	3,355,590	14,375,562	487,593	3,136,067	2,913,077		2,977,136
	\$	267,466	1,149,454	66,778	408,158	331,405		258,118
Lubricating oil	Imp. gal.	569,807	22,388,740			390	474,016	145,898
	\$	98,235	4,043,361			190	80,772	21,170
Grease	pound		12,103,330	181,283		3,034		
	\$		605,178	23,590		314		
Asphalt	Imp. gal.	26,848,212	10,810,402		2,475,627	5,252,566	3,636,665	7,547,962
	\$	2,018,822	897,263		192,630	382,499	301,495	626,481
Petroleum coke	ton	3,660	56,248		1,157	246		783
	\$	15,592	350,505		1,920	757		2,162
Wax and candles	pound		6,725,284					
	\$		313,553					
Other products	\$		6,808	2,000	26,362	15,828		
Total made for sale	\$	31,738,779	29,762,237	1,838,561	9,680,618	10,130,227	8,931,519	7,435,203
MADE FOR OWN USE								
Gasoline—(a) Straight run	Imp. gal.	19,822	97,250	6,500	15,819	10,993	7,889	15,804
	\$	1,941	7,381	975	3,109	894	648	1,527
(h) By cracking process	Imp. gal.	10,010	9,063					
	\$	1,600	861					
Fuel oil and gas oil	Imp. gal.	22,151,582	18,825,201	775,158	6,972,922	1,253,079	6,160,292	5,334,903
	\$	673,967	634,165	39,455	267,001	36,094	196,042	197,551
Kerosene	Imp. gal.		10,586		1,800		60	2,784
	\$		867		193		7	241
Lubricating oil	Imp. gal.	6,888	62,924				2,917	4,733
	\$	1,188	11,041				497	687
Tar	Imp. gal.		1,536,570					
	\$		6,829					
Petroleum coke	ton		2,514		341	1,383		
	\$		12,460		1,147	4,646		
Still gas	M cu. ft.	3,327,345	2,631,760		507,207	546,587	32,485	757,282
	\$	793,230	494,217		132,223	111,696	9,221	130,651
Other products	\$	19	196,999	5,900	170	7,766	82	6
Total made for own use	\$	1,471,845	1,366,820	46,330	393,843	161,090	206,497	330,663
Grand total	\$	33,210,624	31,129,057	1,884,891	10,074,461	10,291,323	9,138,016	7,765,866
Fuel and gas oils made for use in cracking process	Imp. gal.	198,257,300	200,485,101	1,340,648	38,170,265	37,777,285	4,360,090	96,532,855

(\$ = Gross selling value at works).

Table 140.—Stocks on Hand at the Refineries at the End of 1939

	Stocks on hand at refineries on December 31, 1939		Increase or decrease over December 31, 1938	
	Imp. gal.	Imp. gal.	Imp. gal.	Imp. gal.
Crude oil and naphtha, in its natural state, from Canadian wells	19,207,581	+ 6,958,426		
Absorption gasoline, etc., from Canadian wells	445,028	+ 138,020		
Crude oil, imported—in its natural state	134,893,920	- 13,286,021		
not in its natural state		- 2,124,825		
Gasoline (excluding imported casinghead or Canadian absorption gasoline)	119,056,751	+ 31,953,163		
Stove oil (40°-42.5° A.P.I.)	5,932,582	+ 470,499		
Gas and light fuel oil (20°-40° A.P.I., excepting diesel)	18,879,939	- 10,598,925		
Diesel fuel oil	6,144,423	+ 915,467		
Residual fuel oil (10°-20° A.P.I.)	44,283,074	+ 1,701,414		
Fuel oil for use in cracking process	25,534,195	- 14,089,699		
Tractor and engine distillate	7,339,506	- 3,146,182		
Kerosene	5,753,356	- 2,593,104		
Lubricating oils	4,300,528	- 194,687		
Petroleum coke	4,016	- 233		
	short tons			

Table 141.—Casinghead Gasoline Imported and Used for Blending at the Refineries, 1938 and 1939

	1938	1939
Imported natural casinghead gasoline received at the refinery during the year..... Imp. gal.	44,986,148	38,134,791
..... \$	3,445,915	3,193,883
Imported natural casinghead gasoline used for blending during the year..... Imp. gal.	47,265,103	34,231,014
Total stocks of imported natural casinghead gasoline at the end of the year..... Imp. gal.	6,828,407	10,556,679

Table 142.—Principal Statistics of the Lubricating Oils and Greases Industry, 1921-1939

Provinces	Number of plants	Capital employed	Average number of employees	Salaries and wages	Cost of fuel and electricity at works	Cost of materials at works	Gross selling value of products at works
		\$		\$	\$	\$	\$
1921.....	5	1,933,724	103	178,955	10,343	778,923	1,367,012
1922.....	6	800,629	57	101,398	4,172	283,311	539,742
1923.....	6	738,843	62	116,751	6,236	381,390	709,028
1924.....	8	700,010	66	125,727	6,500	423,419	733,720
1925.....	8	1,118,649	83	153,148	14,113	446,721	959,512
1926.....	6	701,676	55	109,810	4,746	388,288	626,071
1927.....	7	693,371	54	110,000	4,614	316,391	548,971
1928.....	9	720,196	67	119,346	7,204	350,656	673,780
1929.....	10	1,373,192	95	168,839	8,699	572,757	1,024,134
1930.....	13	1,256,399	104	186,773	8,861	492,550	977,494
1931.....	12	847,725	64	104,677	7,481	264,319	570,219
1932.....	7	593,484	58	82,870	7,003	207,916	337,433
1933.....	10	626,968	77	100,715	7,000	270,791	464,544
1934.....	9	570,545	81	104,427	6,837	309,523	551,836
1935.....	13	695,409	85	106,549	7,625	453,898	774,444
1936.....	13	576,106	84	116,807	5,313	336,737	629,382
1937.....	13	520,687	90	120,260	5,127	407,908	752,060
1938.....	12	523,870	89	122,294	4,284	425,959	881,736
1939.....	11	596,256	91	153,917	5,129	543,394	1,084,279

Table 143.—Principal Statistics of the Lubricating Oils and Greases Industry, by Provinces, 1938 and 1939

Provinces	Number of plants	Capital employed	Average number of employees	Salaries and wages	Cost of fuel and electricity at works	Cost of materials at works	Gross selling value of products at works
		\$		\$	\$	\$	\$
1938							
Ontario.....	8	418,816	65	86,490	1,764	374,053	763,660
Quebec.....	3	105,054	24	35,804	2,520	51,906	118,076
British Columbia.....	1						
Canada.....	12	523,870	89	122,294	4,284	425,959	881,736
1939							
Ontario.....	7	489,603	67	117,368	2,024	486,259	958,939
Quebec.....	3	106,653	24	36,549	3,105	57,135	125,340
British Columbia.....	1						
Canada.....	11	596,256	91	153,917	5,129	543,394	1,084,279

Table 144.—Capital Employed in the Lubricating Oils and Greases Industry, 1938 and 1939

Provinces	Value of lands, buildings, machinery and equipment	Inventory value of materials and finished products on hand and stocks in process	Operating capital (cash, bills receivable, etc.)	Total capital employed
1938	\$	\$	\$	\$
Ontario.....	157,774	105,881	155,161	418,816
Other provinces.....	70,336	9,059	25,659	105,054
Canada.....	228,110	114,940	180,820	523,870
1939				
Ontario.....	157,345	176,507	155,751	489,603
Other provinces.....	70,173	14,334	22,146	106,653
Canada.....	227,518	190,841	177,897	596,25

Table 145.—Employees, Salaries and Wages in the Lubricating Oils and Greases Industry, 1938 and 1939

Provinces	Average number of employees					Salaries	Wages	Total salaries and wages
	On salaries		On wages		Total			
	Male	Female	Male	Female				
1938						\$	\$	\$
Ontario.....	31	8	25	1	65	63,816	22,674	86,490
Other provinces.....	10	2	12		24	25,160	10,644	35,804
Canada.....	41	10	37	1	89	88,976	33,318	122,294
1939						\$	\$	\$
Ontario.....	32	9	24	2	67	91,156	26,212	117,368
Other provinces.....	9	2	13		24	24,272	12,277	36,549
Canada.....	41	11	37	2	91	115,428	38,489	153,917

Table 146.—Number of Wage-earners in the Lubricating Oils and Greases Industry, by Months, 1938 and 1939

Months	Ontario		Other Provinces		Canada	
	1938	1939	1938	1939	1938	1939
January.....	30	26	8	14	38	40
February.....	29	25	8	14	37	39
March.....	26	25	10	14	36	39
April.....	29	25	12	11	41	36
May.....	25	24	20	12	45	36
June.....	26	25	14	16	40	41
July.....	26	26	14	15	40	41
August.....	25	27	12	12	37	39
September.....	28	28	13	15	41	43
October.....	25	31	13	14	38	45
November.....	20	27	13	14	33	41
December.....	26	27	12	15	38	42
Average.....	26	26	12	13	38	39

Table 147.—Hours Worked per Week by Wage-earners, 1939

(In one week in month of normal employment; overtime not included.)

Regular hours worked per week	No. of wage-earners	Per cent of wage-earners	Regular hours worked per week	No. of wage-earners	Per cent of wage-earners
31-43 hours.....	1	2.7	48 hours.....	1	2.7
44 hours.....	24	63.1	49-50 hours.....	4	10.5
45-47 hours.....	4	10.5	55 hours.....	4	10.5
			Total.....	38	100.00
			Total wages paid in selected week.....		\$817

Table 148.—Fuel and Electricity Used in the Lubricating Oils and Greases Industry, 1938 and 1939

Kinds	Unit of measure	1938		1939	
		Quantity	Cost at works	Quantity	Cost at works
Coal, anthracite.....	ton	29	\$ 339	24	\$ 273
Coal, bituminous—Canadian.....	ton	.....	.....	1	12
Imported.....	ton	189	1,262	188	1,392
Coke.....	ton	1	10	10	125
Wood.....	cord	59	512	73	630
Manufactured gas.....	M cu. ft.	190	226	200	215
Electricity purchased.....	K.W.H.	100,480	1,935	103,270	2,482
Total.....	\$	.....	4,284	.....	5,129

Table 149.—Power Equipment in the Lubricating Oils and Greases Industry, 1938 and 1939

	1938		1939	
	Number of units	Total rated horsepower	Number of units	Total rated horsepower
Steam engines and turbines.....	2	8	2	8
Electric motors run by purchased power.....	25	133	24	131
Total.....	27	141	26	139
Stationary boilers.....	1	8	2	18

Table 150.—Materials Used in the Lubricating Oils and Greases Industry, 1938 and 1939

Materials	Unit of measure	1938		1939	
		Quantity	Cost at works	Quantity	Cost at works
Compounding stocks (mineral oils, animal oils, etc.).....	Imp. gal.	1,187,619	\$ 249,411	.....	\$ 360,623
Tallow and grease.....	pound	231,506	18,886	218,200	17,857
All other materials.....	\$	.....	58,728	.....	69,356
Shipping containers.....	\$	.....	100,934	.....	95,558
Total.....	\$	.....	425,959	.....	543,394

Table 151.—Products Made in the Lubricating Oils and Greases Industry, 1938 and 1939

Products	Unit of measure	1938		1939	
		Quantity	Gross selling value at works	Quantity	Gross selling value at works
Greases, lubricating.....	pound	602,876	\$ 93,021	845,140	\$ 155,997
Oils, lubricating.....	gal.	1,091,652	679,188	1,360,759	796,872
Soaps and soap powders.....	pound	.....	30,748	.....	33,117
All other products.....	\$	.....	78,779	.....	98,293
Total.....	\$	.....	881,736	.....	1,084,279

Table 152.—Imports into Canada and Exports of Petroleum, Asphalt and Their Products, 1938 and 1939

Tariff Item Number	Items	Unit of measure	1938		1939	
			Quantity	Value \$	Quantity	Value \$
(a) IMPORTS						
7151	Oil, imported by miners or mining companies or concerns, for use in the concentration of ores of metals in their own concentrating establishments.	Imp. gal.	69,593	33,485	48,395	27,416
7153	Crude petroleum not subjected to any other process than natural weathering and removal of foreign matter and water when imported by oil refiners to be refined in their own factories, .8155 specific gravity (42.0° A.P.I.) or heavier at 60° Fahrenheit.	M	1,226,340	40,971,068	1,292,469	39,411,230
7157	Crude petroleum not subjected to any other process than natural weathering and removal of foreign matter or water, when imported by oil refiners to be refined in their own factory, lighter than .8155 specific gravity (42.0° A.P.I.) at 60° Fahrenheit.	Imp. gal.	1,760,735	78,558	5,191,284	213,658
7158	Crude petroleum, n.o.p.	Imp. gal.	469,574	17,153	658,882	24,890
7156	Fuel oil, ex-warehoused for ships' stores.	Imp. gal.	31,198,446	866,359	41,057,202	975,164
7162	Coal oil and kerosene lighter than .8236 specific gravity at 60° temperature, n.o.p.	Imp. gal.	4,723,576	325,217	6,518,685	457,224
7163	Engine distillate .8017 specific gravity or heavier at 60° temperature	Imp. gal.	1,142,847	70,917	1,257,808	73,956
7164	Gasoline lighter than .8236 specific gravity at 60° temperature	Imp. gal.	71,624,855	5,222,893	70,073,942	5,527,116
7165	Natural casinghead, compression or absorption gasoline, lighter than .6690 specific gravity (30.0° A.P.I.) at 60° Fahrenheit, when imported by refiners of crude petroleum for blending with gasoline wholly produced in Canada.	Imp. gal.	47,413,265	2,497,014	38,947,235	2,471,220
7166	Lubricating oils, composed wholly or in part of petroleum, and costing less than 25 cents per gallon.	Imp. gal.	13,020,226	1,897,246	13,474,618	2,070,674
7167	Lubricating oils, n.o.p.	Imp. gal.	3,153,200	1,259,758	4,592,686	1,886,941
7168	All other oils, n.o.p.	Imp. gal.	187,525	75,304	293,848	137,718
7169	Products of petroleum, n.o.p., .8236 specific gravity (40.3° A.P.I.) or heavier at 60° Fahrenheit.	Imp. gal.	20,075,353	684,548	18,903,258	674,810
7181	Grease, axle.	pound	5,588,079	311,550	7,719,447	428,080
7182	Vaseline and all similar preparations of petroleum, for toilet, medicinal or other purposes.	\$		233,267		324,506
7183	Paraffin wax.	pound	13,868,469	454,405	18,038,306	659,765
7184	Paraffin wax candles.	pound	186,525	34,895	213,308	37,091
7185	Products of petroleum, n.o.p., lighter than .8236 specific gravity at 60° temperature.	Imp. gal.	3,869,992	333,033	2,900,736	281,614
7170	Petroleum oil, .8236 specific gravity or heavier at 60° temperature for use exclusively in the manufacture of petroleum white oils.	Imp. gal.	292,539	30,344		
7186	Liquefied petroleum gases for heating, cooking or illuminating purposes when imported in containers.	\$		12,150		13,206
7141	Asphaltum or asphalt, solid or not.	cwt.	296,125	193,513	234,136	198,096
7143	Asphalt oil for paving purposes only.	Imp. gal.	41,062	3,255	134,221	8,802
	Coke, petroleum.	ton	81,384	628,963	147,505	962,537
Total—Petroleum, Asphalt and Their Products			\$	56,235,585	\$	56,875,714
(b) EXPORTS						
	Oil, petroleum, crude.	Imp. gal.	1,125	57	336	17
	Oil, coal and kerosene, refined.	Imp. gal.	767,763	77,585	614,139	67,267
	Oil, gasoline and naphtha.	Imp. gal.	4,984,879	458,997	3,443,416	331,541
	Fuel oil.	Imp. gal.	1,847,017	92,095	2,879,286	188,409
	Oil, mineral, n.o.p.	Imp. gal.	806,041	247,207	709,681	251,176
	Wax, mineral.	cwt.	289	1,612	3,638	10,148
	Coke, petroleum.	ton	11,370	248,300	7,396	190,802
Total—Petroleum and Its Products			\$	1,125,853	\$	1,039,360
(c) RE-EXPORTS						
	Petroleum and its products.	Imp. gal.		13,138		12,145
	Petroleum coke.	ton	14,038	294,575	28,208	660,443
Total—Re-exports			\$	307,713	\$	672,588

MANUFACTURES OF NON-METALLIC MINERALS

Table 153.—Imports into Canada of Petroleum, Asphalt and Their Products, by Provinces, 1939

NOTE.—For description of tariff item numbers see Table 152.

Provinces	No. 7141	No. 7143	No. 7151	No. 7153	No. 7154	No. 7156	No. 7157	No. 7158
	cwt.	Imp. gal.	Imp. gal.	M Imp. gal.	Imp. gal.	Imp. gal.	Imp. gal.	Imp. gal.
Nova Scotia.....	49		138	143,296		8,640,224		
New Brunswick.....	1,902							
Quebec.....	43,521			543,396		4,413,579	4,964	10,688
Ontario.....	68,557	126,170	25,959	399,756		25,650		6,523
Manitoba.....	2,661		350	5,442			4,502,170	233,720
Saskatchewan.....	43,428			4,211			682,394	7,436
Alberta.....	87	8,051		4,044			1,756	393,800
British Columbia.....	73,929		21,868	192,324		27,977,749		6,715
Yukon.....	2		80					
Canada.....	234,136	134,221	48,395	1,292,469		41,057,292	5,191,294	658,882
Provinces		No. 7162	No. 7163	No. 7164	No. 7165	No. 7166	No. 7167	No. 7168
		Imp. gal.	Imp. gal.	Imp. gal.	Imp. gal.	Imp. gal.	Imp. gal.	Imp. gal.
Prince Edward Island.....				90		1,420	121	
Nova Scotia.....		554		1,514,413	1,080,208	121,338	263,385	208
New Brunswick.....		41,004		72,320		235,272	60,175	2,417
Quebec.....		142,973		14,860,716	16,774,588	1,304,412	606,770	149,058
Ontario.....		343,790	62,317	30,846,231	4,392,554	6,403,249	2,118,219	116,784
Manitoba.....		277,634	33,439	424,217	1,340,720	2,756,282	215,328	754
Saskatchewan.....		244,830	116,210	1,811,561	230,882	630,352	172,102	163
Alberta.....		12,064	1,045,774	14,167,368		750,480	251,129	5,461
British Columbia.....		5,451,672	68	6,014,883	15,128,283	1,271,813	885,052	19,003
Yukon.....		4,074		356,143			20,405	
Canada.....		6,518,685	1,257,968	70,673,942	38,947,235	13,474,618	4,592,686	293,848
—		No. 7169	No. 7181	No. 7182	No. 7183	No. 7184	No. 7185	No. 7186
		Imp. gal.	lb.	\$	lb.	lb.	Imp. gal.	\$
Prince Edward Island.....			200		60,217			
Nova Scotia.....	1,046,087	266,362	2,846	340,536	1,233	18,586	580	
New Brunswick.....	6,966	39,444	1,385	1,667,480	729	1,349		
Quebec.....	6,737,413	572,501	76,396	6,954,934	40,210	626,748	4,801	
Ontario.....	3,283,685	3,819,122	190,325	7,177,933	96,094	1,817,526	5,342	
Manitoba.....	73,249	288,367	32,247	294,485	9,321	75,300		
Saskatchewan.....	65,482	619,479		1,941	579	86,716		
Alberta.....	380,296	522,248	2,780	4,566	1,329	15,036	19	
British Columbia.....	7,050,780	1,549,122	18,527	1,536,214	63,813	255,668	2,464	
Yukon.....	253,300	42,602				813		
Canada.....	18,983,258	7,719,447	324,566	18,638,366	213,308	2,900,736	13,206	

Table 154.—Consumption of Crude Oil in Petroleum Refineries in Canada, 1918-1939

Years	Crude oil used	Years	Crude oil used
	Imp. gal.		Imp. gal.
1918.....	261,742,274	1929.....	1,072,828,496
1919.....	301,006,553	1930.....	1,064,434,974
1920.....	295,576,527	1931.....	1,074,788,038
1921.....	373,469,418	1932.....	930,114,055
1922.....	394,139,055	1933.....	1,044,210,850
1923.....	408,810,739	1934.....	1,109,510,343
1924.....	467,144,634	1935.....	1,196,411,443
1925.....	445,115,694	1936.....	1,286,462,895
1926.....	585,466,329	1937.....	1,433,581,694
1927.....	716,309,890	1938.....	1,418,659,164
1928.....	849,933,770	1939.....	1,569,903,295

Table 155.—Consumption of Crude Oil in Petroleum Refineries Showing Canadian and Imported, Separately, 1926-1939

Years	Canadian (a)	Imported (b)	Total
	Imp. gal.	Imp. gal.	Imp. gal.
1926	12,203,286	573,263,043	585,466,329
1927	15,032,271	700,737,619	716,369,890
1928	20,324,814	829,608,956	849,933,770
1929	37,338,402	1,035,490,094	1,072,828,496
1930	51,522,804	1,012,912,110	1,064,434,914
1931	49,668,529	1,025,119,509	1,074,788,038
1932	37,340,321	892,773,734	930,114,055
1933	32,404,139	1,011,806,711	1,044,210,850
1934	41,461,783	1,068,048,580	1,109,510,343
1935	40,785,473	1,155,625,970	1,196,411,443
1936	42,792,311	1,243,670,584	1,286,462,895
1937	90,004,069	1,343,577,025	1,433,581,694
1938	236,482,200	1,182,166,964	1,418,659,164
1939	262,198,884	1,307,704,411	1,569,903,295

(a) Includes the crude naphtha and natural gasoline from the Turner Valley field which was run to refinery stills.
 (b) Includes reduced crude.

Table 156.—Refinery Production of Gasoline in Canada, 1926-1939

Years	Straight run	By cracking	Total	Per cent of total made by cracking
	Imp. gal.	Imp. gal.	Imp. gal.	
1926	152,307,473	69,839,231	222,146,704	31
1927	184,818,378	73,731,346	258,549,724	29
1928	226,954,319	117,175,542	344,129,861	34
1929	303,973,918	132,646,696	436,620,614	30
1930	276,284,656	169,314,761	445,599,417	38
1931	278,292,873	191,632,502	469,925,375	41
1932	207,823,273	192,113,405	399,936,678	48
1933	267,086,230	155,850,563	422,936,793	37
1934	294,980,092	166,773,271	461,753,363	36
1935	292,520,425	221,195,579	513,716,004	43
1936	316,207,576	251,451,700	567,659,276	44
1937	361,900,397	278,399,479	640,299,876	43
1938	362,583,649	291,445,476	654,029,125	45
1939	405,738,237	334,825,382	740,563,619	45

Table 157.—Average Wholesale Tank Wagon Prices for Gasoline (Medium Grade), Fuel Oil, etc., by Months, 1939

Months	Halifax	Montreal	Toronto	Winnipeg	Regina	Calgary	Vancouver
	\$	\$	\$	\$	\$	\$	\$
Gasoline—							
January	0-135	0-140	0-150	0-205	0-190	0-165	0-160
February	0-135	0-140	0-160	0-205	0-190	0-165	0-160
March	0-135	0-140	0-150	0-195	0-190	0-165	0-160
April	0-135	0-140	0-160	0-195	0-190	0-165	0-160
May	0-135	0-140	0-160	0-195	0-190	0-165	0-160
June	0-135	0-140	0-145	0-195	0-190	0-165	0-160
July	0-135	0-140	0-145	0-195	0-190	0-165	0-160
August	0-135	0-140	0-145	0-195	0-190	0-165	0-160
September	0-135	0-140	0-145	0-195	0-190	0-165	0-160
October	0-140	0-145	0-150	0-195	0-190	0-165	0-160
November	0-145	0-150	0-155	0-195	0-185	0-160	0-160
December	0-145	0-155	0-155	0-195	0-185	0-160	0-160
Yearly average	0-137	0-143	0-149	0-197	0-189	0-164	0-160
Kerosene	0-177	0-148	0-154	0-205	0-209	0-184	0-230
Fuel oil, light			0-076				
Lubricating oils (Atlantic red oil)			0-303				

Table 158.—Apparent Consumption in Canada of Gasoline, Fuel Oil, Engine Distillate, Kerosene and Lubricating Oils, 1937, 1938 and 1939

	Fuel and gas oils (a)	Gasoline	Lubricating oils	Kerosene	Tractor and engine distillate
1937	Imp. gal.	Imp. gal.	Imp. gal.	Imp. gal.	Imp. gal.
Production.....	(b)544,109,039	640,299,876	23,867,529	26,349,649	30,319,024
Plus imports.....	49,315,477	72,478,101	15,331,130	2,415,350	1,451,292
Less exports and re-exports.....	593,424,510 11,050,735	712,777,977 4,322,972	39,198,659	28,764,999 890,309	31,770,316
Plus decline in refinery stocks.....	582,373,781	708,455,005 820,659	39,198,659 426,473	27,874,690	31,770,316
Less increase in refinery stocks.....	582,373,781 18,566,691	709,275,664	39,625,132	27,874,690 1,191,994	31,770,316 580,997
Apparent consumption.....	563,807,090	709,275,661	39,625,132	26,652,696	31,189,319
1938					
Production.....	(b)540,907,971	654,029,125	22,709,001	22,536,425	35,002,461
Plus imports.....	51,273,799	119,038,120	16,173,426	4,723,576	1,142,847
Less exports and re-exports.....	592,181,770 1,847,017	773,067,245 4,984,879	38,882,427	27,260,001 767,763	36,145,308
Plus decline in refinery stocks.....	590,334,753 2,325,053	768,082,366 1,844,503	38,882,427	26,492,238 974,518	36,145,308
Less increase in refinery stocks.....	592,659,806	769,926,869	38,882,427 132,899	27,466,756	36,145,308 4,115,975
Apparent consumption.....	592,659,806	769,926,869	38,749,528	27,466,756	32,029,333
1939					
Production.....	(b)582,705,683	740,563,619	25,017,072	27,260,255	33,620,396
Plus imports.....	59,960,460	109,021,177	18,067,304	6,518,655	1,257,805
Less exports and re-exports.....	642,666,143 2,879,286	849,584,796 3,443,416	43,084,376	33,778,940 614,139	34,878,204
Plus decline in refinery stocks.....	639,786,857 7,511,545	846,141,380	43,084,376 194,687	33,164,801 2,593,104	34,878,204 3,146,182
Less increase in refinery stocks.....	647,298,402	846,141,380 31,953,183	43,279,063	35,757,905	38,024,386
Apparent consumption.....	647,298,402	814,188,217	43,279,063	35,757,905	38,024,386

(a) Import figures for fuel oil include amounts brought in "ex-warehoused for ships' stores". This item covers fuel oil imported in bond for use in fueling vessels at Canadian ports and, as there is no corresponding export item, such quantities might properly be omitted when compiling figures of Canadian consumption. In 1937, the amount under this item was 24,369,010 gallons; in 1938, 31,198,446 gallons, and in 1939, 41,057,202 gallons.

(b) Exclusive of fuel oil for crucking operations but including fuel oil used by refineries for power or heating purposes.

Table 159.—Apparent Consumption of Fuel Oil, Gasoline, Kerosene, Engine Distillate, and Lubricating Oils, 1920-1939

(Computed from Production, Imports, Exports and Refinery Stocks)*

Years	Fuel and gas oils	Gasoline	Engine distillate	Kerosene	Lubricating oils
	Imp. gal.	Imp. gal.	Imp. gal.	Imp. gal.	Imp. gal.
1920.....	216,707,656	94,334,133		67,883,829	29,564,092
1921.....	185,729,965	159,379,748		68,160,649	29,286,776
1922.....	172,744,361	184,068,277		78,722,847	25,161,654
1923.....	246,280,451	172,889,742		70,073,769	25,318,579
1924.....	253,104,267	232,324,241		65,214,433	23,975,888
1925.....	272,861,288	246,986,374		48,774,434	24,235,590
1926.....	299,069,417	300,949,380		61,759,997	28,182,731
1927.....	387,344,557	363,927,380		57,585,207	31,464,944
1928.....	435,327,021	483,798,833	Not available	58,649,530	35,781,341
1929.....	516,271,783	606,934,668		52,516,909	41,851,437
1930.....	513,137,434	601,786,656		47,130,034	34,394,696
1931.....	488,371,080	565,266,046		46,543,627	29,270,337
1932.....	460,369,156	505,231,853		54,534,585	26,128,986
1933.....	481,883,950	463,176,444		42,362,473	30,557,493
1934.....	503,060,805	524,622,641		42,727,528	26,933,794
1935.....	505,844,126	564,140,772	38,030,150	31,168,762	32,800,623
1936.....	532,285,599	616,670,937	35,344,520	31,138,985	34,823,724
1937.....	563,807,090	709,275,664	31,189,319	26,682,696	39,625,132
1938.....	592,659,806	769,926,869	32,029,333	27,466,756	38,749,528
1939.....	647,298,402	814,188,217	38,024,386	35,757,905	43,279,063

*No record of refinery stocks prior to 1931.

Table 160.—Gross Sales of Gasoline in Canada, by Provinces, 1936-1939

(Gross sales—Imperial gallons sold for all purposes)

(Net sales—Imperial gallons on which no tax refunds were granted)

Provinces	1936	1937	1938	1939
Prince Edward Island.....	3,088,910	3,420,163	3,631,360	4,128,907
Nova Scotia.....	25,247,957	29,159,361	29,632,787	31,621,971
New Brunswick.....	17,477,029	21,947,202	21,998,728	23,192,413
Quebec.....	109,835,482	128,394,645	135,026,866	138,925,246
Ontario.....	282,827,724	324,858,959	337,880,996	345,105,726
Manitoba.....	30,561,665	34,635,432	38,596,582	41,455,558
Saskatchewan.....	45,966,233	46,278,251	65,090,674	87,877,403
Alberta.....	60,397,814	75,166,087	73,724,520	75,535,323
British Columbia.....	48,723,037	54,567,327	57,157,813	59,823,751
Total Gross Sales.....	624,115,851	718,427,427	762,740,326	807,666,298
Refunds.....	91,260,543	115,022,668	130,722,877	144,504,737
Total net sales.....	532,855,308	603,404,759	632,017,449	663,161,561

*Includes diesel oil to March 31st, 1938.

Table 161.—Gross Sales of Gasoline in Canada, by Months, 1936-1939

(Gross sales—Imperial gallons sold for all purposes)

Months	1936	1937	1938	1939
January.....	27,728,100	33,788,537	35,407,164	40,077,850
February.....	23,879,349	30,770,948	33,146,647	33,452,206
March.....	28,416,716	38,871,176	41,373,278	43,065,980
April.....	41,868,840	50,976,732	54,401,471	48,866,349
May.....	57,754,193	68,420,444	74,511,526	78,800,092
June.....	65,611,294	73,724,575	77,799,950	77,668,907
July.....	70,395,637	80,023,053	80,660,413	87,258,978
August.....	75,456,062	84,022,269	90,584,831	97,200,212
September.....	74,486,006	79,135,342	85,737,623	95,290,364
October.....	64,363,792	71,172,611	77,036,948	82,708,454
November.....	51,365,992	61,183,652	63,580,199	67,842,577
December.....	42,789,870	46,329,088	48,520,376	55,424,639
Total.....	624,115,851	718,427,427	762,740,326	807,666,298

Table 162.—Gross Monthly Sales of Gasoline in Canada, by Months, 1939, and Totals for 1938

(in thousands of gallons)

Months	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Total
January.....	100	1,500	987	6,758	19,692	1,826	1,825	3,586	3,748	40,078
February.....	73	1,324	866	5,708	17,675	1,301	836	2,147	3,522	32,452
March.....	90	1,710	1,025	6,042	24,280	1,520	1,028	3,409	3,950	43,966
April.....	107	1,690	986	7,093	19,857	2,809	5,564	6,536	4,425	48,867
May.....	432	2,886	1,893	12,635	32,074	3,825	11,643	8,020	5,412	78,810
June.....	531	3,202	2,437	14,579	33,165	4,029	7,099	7,086	5,541	77,669
July.....	529	3,512	2,884	16,131	36,599	4,567	9,359	7,604	6,074	87,259
August.....	643	3,989	3,272	17,364	38,917	5,177	12,452	8,515	6,571	97,200
September.....	537	3,415	2,846	16,545	36,210	5,197	16,670	9,153	5,717	95,290
October.....	468	3,112	2,496	14,806	32,264	4,738	11,389	8,042	5,393	82,708
November.....	404	2,856	2,030	12,200	28,895	3,732	6,579	6,229	4,917	67,842
December.....	215	2,354	1,480	9,065	25,492	2,934	4,433	4,908	4,554	55,425
Totals for 1939.....	4,129	31,622	23,192	138,926	345,106	41,455	87,877	75,535	59,824	807,666
Totals for 1938.....	3,631	29,632	21,999	135,027	337,881	38,597	65,090	73,725	57,159	762,740

MANUFACTURES OF NON-METALLIC MINERALS

Table 163.—Net Sales of Gasoline in Canada, by Provinces, 1936-1939

(Net Sales—Gallons sold, on which no refunds have been granted, chiefly for motor vehicles)

Provinces	1936	1937	1938	1939
	(Imperial gallons)			
Prince Edward Island.....	2,484,445	2,814,770	2,891,204	3,205,532
Nova Scotia.....	22,322,829	23,968,732	25,575,322	26,836,029
New Brunswick.....	15,042,044	19,119,043	18,905,155	19,479,851
Quebec.....	103,662,080	121,732,952	128,768,743	131,113,441
Ontario.....	260,721,064	301,997,891	310,461,674	316,505,620
Manitoba.....	28,578,031	32,665,795	36,388,003	38,858,888
Saskatchewan.....	29,308,886	24,753,482	27,347,080	41,692,634
Alberta.....	32,861,958	33,762,330	37,179,884	38,900,385
British Columbia.....	37,873,971	42,589,755	44,500,384	46,568,881
Canada.....	532,855,308	603,404,759	632,017,449	663,161,561

Table 164.—Revenues from Gasoline Taxes, by Provinces, 1936-1939

Provinces	1936	1937	1938	1939
	\$	\$	\$	\$
Prince Edward Island.....	200,854	269,232	285,505	316,087
Nova Scotia.....	1,760,209	2,006,489	2,424,355	2,608,189
New Brunswick.....	1,149,129	1,439,096	1,807,493	1,893,169
Quebec.....	6,272,064	7,078,230	7,637,151	*9,969,226
Ontario.....	16,049,857	17,644,164	18,503,789	*25,105,359
Manitoba.....	2,051,200	2,270,660	2,529,088	2,750,638
Saskatchewan.....	1,951,834	1,937,553	1,822,689	2,760,196
Alberta.....	2,380,088	2,610,211	2,953,128	3,096,644
British Columbia.....	2,717,201	3,118,312	3,284,490	3,454,852
Canada.....	31,532,436	38,373,947	41,247,688	51,954,360

* Rates increased from 6 to 8 cents, April 1, 1939.

Table 165.—Dates when Gasoline Acts became Effective and Rates of Tax

Provinces	Dates gasoline tax rates became effective	Rates per gallon (*)
		cents
Prince Edward Island.....	May 1, 1924.....	2
	March 31, 1926.....	3
	May 1, 1928.....	5
	May 2, 1932.....	6
	April 15, 1933.....	8
	April 23, 1937.....	10
Nova Scotia.....	March 15, 1926.....	3
	March 11, 1927.....	5
	April 1, 1932.....	6
	May 1, 1934.....	8
	March 15, 1938.....	10
New Brunswick.....	April 30, 1926.....	3
	December 1, 1928.....	5
	April 1, 1932.....	7
	April 1, 1934.....	8
	March 20, 1938.....	10
Quebec.....	April 1, 1924.....	2
	April 1, 1925.....	3
	April 1, 1928.....	5
	December 17, 1931.....	6
	April 18, 1939.....	8
Ontario.....	May 11, 1925.....	3
	March 27, 1929.....	5
	March 25, 1932.....	6
	April 1, 1939.....	8
Manitoba.....	April 27, 1923.....	1
	March 5, 1925.....	3
	April 14, 1930.....	5
	May 7, 1932.....	7 (refund 5 cents)
	April 5, 1940.....	7 (refund 7 cents)
Saskatchewan.....	May 1, 1928.....	3
	April 1, 1930.....	5
	May 1, 1932.....	6 (refund 5 cents) †
	April 1, 1935.....	7 (refund 7 cents)
Alberta.....	April 30, 1922.....	2
	June 1, 1929.....	5 (refund 4 cents)
	April 1, 1933.....	6 (refund 5 cents)
	April 1, 1935.....	7 (refund 6 cents)
British Columbia.....	December 21, 1923.....	3
	March 25, 1930.....	5 (refund 5 cents)
	April 18, 1932.....	7 (refund 6 cents)

(*) When gasoline is used by farm tractors, fishing boats and for other stipulated uses, the total tax paid is refunded, except in the western provinces where only a portion is refunded, as noted.

† Effective January 1, 1933.

Table 166.—Registrations of Motor Vehicles in Canada, 1904-1939

Years	TOTAL	Years	Passenger cars	Commercial vehicles	Motor cycles	Total
1904.....	535	1922.....				509,382
1905.....	565	1923.....	513,075	54,564	8,346	575,985
1906.....	1,447	1924.....	573,204	64,003	8,056	645,263
1907.....	2,148	1925.....	641,186	74,938	7,924	724,048
1908.....	3,054	1926.....	736,729	88,019	7,520	832,268
1909.....	4,809	1927.....	830,001	102,088	7,562	939,651
1910.....	9,158	1928.....	930,619	130,827	7,897	1,069,343
1911.....	21,783	1929.....	1,022,654	155,820	8,857	1,187,331
1912.....	36,429	1930.....	1,055,514	167,548	9,427	1,232,489
1913.....	54,380	1931.....	1,023,923	167,097	9,648	1,200,668
1914.....	74,246	1932.....	945,073	159,041	9,419	1,113,533
1915.....	95,284	1933.....	917,006	156,170	10,000	1,083,176
1916.....	128,328	1934.....	952,427	166,799	10,306	1,129,532
1917.....	203,502	1935.....	989,754	175,888	10,484	1,176,126
1918.....	276,593	1936.....	1,041,529	187,770	10,825	1,240,124
1919.....	342,433	1937.....	1,103,012	205,588	11,102	1,319,702
1920.....	408,790	1938.....	1,159,604	223,176	12,073	1,394,853
1921.....	464,805	1939.....	1,190,021	236,902	12,322	1,439,245

NOTE—Livery and taxi-cabs included with passenger cars.
Buses, convertible cars, road tractors, ambulances, etc., included with commercial vehicles.

Table 167.—Registrations of Motor Vehicles in Canada, by Provinces, 1935-1939

Provinces	1935	1936	1937	1938	1939
	Number	Number	Number	Number	Number
Prince Edward Island.....	8,231	7,632	8,011	7,992	8,040
Nova Scotia.....	43,952	46,179	50,048	51,214	53,008
New Brunswick.....	31,227	33,402	36,780	37,110	38,116
Quebec.....	170,644	181,628	197,917	205,463	213,148
Ontario.....	564,076	590,226	623,918	669,088	682,891
Manitoba.....	70,660	74,940	80,860	88,219	88,864
Saskatchewan.....	94,792	102,276	105,064	109,014	119,018
Alberta.....	93,870	97,468	100,434	107,191	113,702
British Columbia.....	98,411	106,079	116,341	119,220	122,087
Yukon.....	263	300	329	342	371
Canada.....	1,176,126	1,240,124	1,310,702	1,394,853	1,439,245

Table 168.—Registrations of Motor Vehicles in Canada, by Types, 1939

Provinces	Passenger cars	Motor trucks	Motor buses	Motor cycles	Ambulances, hearses, etc.	Total
	Number	Number	Number	Number	Number	Number
Prince Edward Island.....	6,804	1,192	6	18	20	8,040
Nova Scotia.....	41,919	10,262	(2)	291	536	53,008
New Brunswick.....	30,457	6,865	102	187	505	38,116
Quebec.....	171,766	37,141	796	2,879	566	213,148
Ontario.....	593,693	83,139	960	5,099	(2)	682,891
Manitoba.....	70,596	17,605	96	667	(1-2)	88,864
Saskatchewan.....	89,471	28,908	77	553	(1-2-3) 9	119,018
Alberta.....	88,516	24,369	143	674	(1-2-3)	113,702
British Columbia.....	96,737	22,445	355	1,938	612	122,087
Yukon.....	152	162	5	16	36	371
Canada.....	1,190,021	232,088	2,530	12,322	2,234	1,439,245

(1) Included with passenger cars. (2) Included with trucks. (3) not registered.

MANUFACTURES OF NON-METALLIC MINERALS

Table 169.—Fuel Oil Deliveries: Deliveries for Consumption, by Provinces, 1939, and Totals for 1937 and 1938

(As reported by distributors and importers—Imperial gallons—Calendar years)

NOTE—Figures taken from "Petroleum Fuels in Canada" issued by the Bureau of Mines, Department of Mines and Resources, Ottawa.

Provinces	Domestic and building heating		Industrial (manufacturers) heating and for power	Tractor fuel oil, not lubricant	Railways principally locomotive fuel	Bunkering, including distributors' tankers	Total Deliveries	Inventory on Dec. 31, at refinery, warehouses and consumers' storage
	Number domestic customers	Quantity						
1939								
N.B. and P.E.I.....	2,186	4,493,469	2,485,211	49,913	49,507	5,270,941	12,349,041	2,852,333
Nova Scotia.....	4,454	6,442,431	6,366,062	53,389	15,241	50,545,488	63,422,611	21,565,440
Quebec.....	12,536	53,134,573	46,218,057	966,538	2,010,681	67,988,200	170,318,019	63,874,721
Ontario.....	23,232	40,029,080	72,160,112	4,189,732	2,692,579	7,420,359	126,491,868	62,167,856
Manitoba.....	786	1,926,773	2,942,160	14,326,537	1,156,855		20,352,325	2,404,785
Saskatchewan.....	339	1,664,445	9,803,010	7,693,313	201,735		19,362,512	12,260,155
Alta. and N.W.T.....	113	609,732	2,958,450	6,729,997	12,643,068	114,898	23,056,145	8,558,119
British Columbia*.....	15,008	27,800,598	38,306,818	764,272	35,025,401	73,604,578	175,501,667	34,960,258
Total—1939.....	58,654	136,101,167	181,239,889	34,773,691	53,795,067	204,944,464	610,854,218	208,643,667
Total—1938.....	42,982	118,987,210	164,161,165	26,769,293	51,458,444	175,258,308	536,631,420	188,421,793
Total—1937.....	50,319	117,723,083	162,446,348	38,595,588	52,634,677	161,160,924	532,560,620	177,936,649

Fuel oil includes all oils heavier than 42° A.P.I. processed from petroleum. Amounts recorded respectively for domestic, industrial, and tractor purposes were for actual CONSUMPTION within the areas indicated; those recorded under railways and bunkering were taken from, or accepted at delivery points within these areas, but were consumed by carriers where required.

* Including Yukon.

Table 170.—Kerosene Deliveries: Deliveries for Consumption, by Provinces, 1939, and Totals for 1937 and 1938

(Data include all oils ranging approximately between 42° and 47° A.P.I.—Imperial gallons—Calendar years)

NOTE—Figures taken from "Petroleum Fuels in Canada" issued by the Bureau of Mines, Department of Mines and Resources, Ottawa.

Provinces	For domestic heating, cooking and lighting purposes	For fuel in tractors	For other general usage	Total deliveries	Inventory December 31
1939					
New Brunswick and Prince Edward Island.....	2,972,999		5,477	2,978,476	485,701
Nova Scotia.....	3,194,206		11,704	3,205,970	647,683
Quebec.....	4,320,475	68,364	151,968	4,540,807	3,074,840
Ontario.....	7,031,887	551,173	351,105	7,934,165	4,049,948
Manitoba.....	1,981,444	280,194	70,024	2,331,662	601,976
Saskatchewan.....	3,742,813	329,969	65,562	4,138,344	2,095,524
Alberta.....	1,334,606	1,413,057	10,111	2,757,774	2,186,504
British Columbia.....	1,025,779	411	33,753	1,059,943	1,166,757
Total—1939.....	25,604,269	2,643,168	699,704	28,947,141	14,308,933
Total—1938.....	23,868,526	20,067,567	477,394	44,413,487	16,623,879
Total—1937.....	22,331,826	6,343,340	1,220,608	29,895,774	22,868,792

Table 171.—Petroleum Coke: Deliveries for Consumption, 1939, and Totals for 1937 and 1938

(Used as fuel only—not as manufacturing materials)

NOTE—Figures taken from "Petroleum Fuels in Canada" issued by the Department of Mines and Resources, Ottawa.

Provinces	Fuel for domestic heating (x)	Fuel for industrial heating (a)	Total	Inventories December 31
1939				
(short tons)				
Prince Edward Island and New Brunswick.....				
Nova Scotia.....	753		753	
Quebec.....	269		269	42,330
Ontario.....	31,077	2,515	33,592	100,211
Manitoba.....				
Saskatchewan.....	149	1,724	1,873	1,581
Alberta and N.W.T.....	432		432	111
British Columbia and Yukon.....				
Canada, 1939.....	32,710	4,239	36,949	144,233
Canada, 1938.....	51,684	667	52,351	91,029
Canada, 1937.....	42,138	6,049	48,187	109,095

(x) As reported by dealers, distributors and importers.
 (a) Consists mostly of amounts used in refineries as fuel.

Directory of Operating Petroleum Refineries in Canada, 1939

Names of companies	Location of refineries	Crude oil capacity	Type of refinery	Cracking plant	
				Type	Capacity
		Bbls. per 24 hours			
NOVA SCOTIA— Imperial Oil Limited.....	Imperial.....	32,500	S—C	Combination two stage cracking unit.....	12,500
NEW BRUNSWICK— New Brunswick Gas & Oilfields Ltd.....	Weldon.....	250	S		
QUEBEC— British American Oil Co. Ltd.....	Montreal East.....	12,000	S—C	Liquid and vapour phase.....	7,500
Imperial Oil Limited.....	Montreal.....	25,000	S—C	Tube and tank.....	10,500
McCull-Fontenac Oil Co. Limited.....	Montreal East.....	20,000	S—C	2 Jenkins, 1 Kellogg and 1 own make.....	12,500
Shell Oil Company of Canada Ltd.....	Montreal East.....	7,500	S—C	Dubbs Selective.....	5,500
ONTARIO— British American Oil Co. Limited.....	Toronto.....	6,000	S—C	Liquid and vapour phase.....	3,000
Canadian Oil Companies Limited.....	Petrolia.....	3,000	S—C	Liquid phase conventional cracking coil.....	1,000
Good Rich Refining Co. Ltd.....	Port Credit.....	2,000	S—C	Dubbs.....	900
Imperial Oil Limited.....	Sarnia.....	29,000	S—C	Tube and tank.....	20,000
McCull-Fontenac Oil Co. Limited.....	Toronto.....	4,500	S—C	2 Jenkins.....	2,800
MANITOBA— Anglo-Canadian Oils Ltd.....	Brandon.....	750	S—C	Dubbs.....	500
Carman Oil Refinery Ltd.....	Carman.....	250	S		
North Star Oil Limited.....	St. Boniface.....	800	S		
Radio Oil Refineries Ltd.....	East Kildonan.....	500	S		
Trump Oil Company Limited.....	Morris.....	250	S		
SASKATCHEWAN— British American Oil Co. Limited.....	Moose Jaw.....	4,000	S—C	Liquid and vapour phase.....	2,000
Carrot River Oil Refineries Ltl.....	Melfort.....	400	S		
Consumers' Co-Operative Refineries Ltd.....	Regina.....	500	S		
Eston Refining Co. Ltd.....	Eston.....	300	S		
Hi-Way Refineries Limited.....	Moose Jaw.....	275	S		
Hi-Way Refineries Limited.....	Saskatoon.....	275	S		
Home Oil and Refining Co. Ltd.....	Humboldt.....	420	S—C	(Type not stated).....	100
Imperial Oil Limited.....	Regina.....	6,500	S—C	Tube and tank.....	5,500
Northern Petroleum Corporation, Ltd.....	Kamsack.....	200	S		
Sterling Refineries Ltd.....	Yorkton.....	750	S—C	Liquid phase.....	250
Natural Sodium Products Ltd.....	Bishopric.....	1,000	S		
ALBERTA— Becker Refineries Ltd.....	Royalties.....	500	S—C	(Not given).....	300
British American Oil Co. Ltd.....	Calgary.....	4,500	S—C	Liquid and vapour phase.....	2,250

Directory of Operating Petroleum Refineries in Canada, 1939—Concluded

Names of companies	Location of refineries	Crude oil capacity	Type of refinery	Cracking plant	
				Type	Capacity
		Bbbs. per 24 hours			Bbbs. per 24 hours
ALBERTA—Concluded					
Dina Oil & Refining Co. Ltd.....	Dina.....	100	S		
Fraser, J. W., Refining Co.....	Wainwright.....	50	S		
Gas and Oil Products, Ltd.....	Hartell.....	3,000	S-C	Dubbs.....	500
Gold Standard Oils Ltd.....	Wainwright.....	300	S		
Huff Refinery Co. Ltd.....	Lethbridge.....	500	S		
Imperial Oil Limited.....	Calgary.....	7,500	S-C	Tube and tank.....	4,500
Lion Refining Company.....	Calgary.....	1,200	S	(Under construction)....	
Munro, J. R.....	Hubalta.....	500	S		
Oughton Bros.....	Turner Valley.....	100	S		
BRITISH COLUMBIA—					
Imperial Oil Limited.....	Ioco.....	16,000	S-C	Tube and tank.....	3,400
Shell Oil Company of British Columbia Ltd.....	Vancouver.....	4,000	S		
Standard Oil Company of British Columbia Ltd.....	Burnaby.....	2,700	S		
NORTHWEST TERRITORIES—					
Northwest Company Ltd.....	Fort Norman.....	150	S		

S=Skimming. C=Cracking.

Names of companies	Location of plants
QUEBEC—	
Chapman, L. L. & W. H.....	Champlain St., Gatineau Point.
Economic Products, Ltd.....	6508 Durocher Avenue, Outremont.
Union Products.....	1150 Conway Street, Montreal.
ONTARIO—	
Campbell Grease Company.....	414 Eastern Avenue, Toronto.
Hollingshead, R. M., Co. of Canada, Ltd.....	Bowmanville.
Houghton, E. F., & Co. of Canada, Ltd.....	185 Dufferin Street, Toronto.
Kendall Refining Company of Canada, Ltd.....	35 Fraser Avenue, Toronto.
Ontario Lubricating Co. Ltd.....	120 Chatham Street, Hamilton.
Ontario Gasoline & Oil Ltd.....	45 Dickens Avenue, Toronto.
Tide Water Oil Co. of Canada, Ltd.....	201 Weston Road S., Toronto.
BRITISH COLUMBIA—	
Canada Grease Works Ltd.....	280 East 6th Avenue, Vancouver.

Primary Production—Crude Petroleum.—The Canadian production of crude petroleum and natural gasoline set up a new high record in 1939 when 7,838,310 barrels worth \$10,353,351 were produced. The continued development of the Turner Valley field, Alberta, was responsible in the main part for the advance in output during the year. Thirty-four new wells were brought into production in this field in 1939 and drilling was in progress on some twenty-two other wells at the close of the year. The south producing area of the Turner Valley field is now about 6 miles in length and from $1\frac{1}{2}$ to $1\frac{1}{4}$ miles in width. In the north producing area Royalite No. 43 well, a large producer, was brought into production in 1939, but the field at this point is less than $\frac{1}{2}$ mile wide.

The Petroleum and Natural Gas Conservation Board continued to regulate the output of oil in the Turner Valley to meet market requirements. During the first two days of December, 1939, the daily rate was set at 20,000 barrels; this was lowered to 14,000 barrels a day until the twenty-second of the month when a further reduction to 12,000 barrels was enforced. The Board also controls the spacing of wells in the Turner Valley, confining drilling to one well per 40 acres.

New Brunswick wells produced 20,101 barrels in 1939. Output in Ontario totalled 206,196 barrels and in the Northwest Territories, 17,013 barrels.

Table 172.—Principal Statistics of the Crude Petroleum Industry, 1938 and 1939

	1938	1939
Number of firms.....	310	348
Capital employed..... \$	51,685,038	52,102,077
Number of employees—On salary..... No.	282	283
On wages..... No.	1,612	1,497
Total..... No.	1,894	1,780
Salaries and wages—Salaries..... \$	497,517	532,040
Wages..... \$	2,158,595	2,035,943
Total..... \$	2,656,112	2,567,983
Cost of fuel, electricity..... \$	338,790	707,067
Gross selling value of products..... \$	9,230,173	9,846,352

Table 173.—Production of Crude Petroleum in Canada, 1938 and 1939

Areas	1938		1939	
	Barrels	Value \$	Barrels	Value \$
NEW BRUNSWICK.....	19,276	27,246	22,799	32,062
ONTARIO—				
Petrolia and Enniskillen.....	58,273	120,229	56,951	109,934
Oil Springs.....	32,283	69,728	32,442	65,715
Moore Township.....	1,398	2,882	1,527	2,947
Sarnia Township.....	595	1,227	397	786
Plympton Township.....	191	394	156	301
Bothwell Township.....	40,449	83,399	39,616	76,364
West Dover.....	8,801	18,145	15,037	29,023
Onondaga.....	878	1,882	219	507
Mosa Township.....	13,527	27,888	12,857	24,810
Brooke.....	101	208	52	101
Dunwich.....	195	402	210	405
Raleigh and Tilbury East.....	207	427	27	52
Thamesville.....	1,990	4,103	1,293	2,486
Dawn and Euphemia.....	5,416	11,166	3,958	7,639
Warwick.....	8,310	17,132	41,478	80,057
Chatham.....	27	56	159	307
Total for Ontario.....	172,641	359,268	206,379	401,430
ALBERTA—				
Turner Valley.....	6,703,548	8,736,064	7,543,929	9,334,069
Red Coulee.....	14,157	12,742	12,649	11,137
Wainwright-Taber-Moose Dome.....	33,607	25,688	20,354	17,157
Total for Alberta.....	6,751,312	8,775,094	7,576,932	9,362,363
NORTHWEST TERRITORIES.....	22,855	68,565	20,191	50,477
Canada.....	6,966,684	9,230,173	7,826,301	9,846,352

CHAPTER ELEVEN

PRODUCTS FROM DOMESTIC CLAYS

Statistics for the Clay and Clay Products industry are recorded under two headings, the first as reviewed in the present chapter, covering products made from domestic clays and the second, as reviewed in Chapter Twelve, covering the manufacture of products from imported clays.

A total of 169 plants representing a total capital investment of \$22,602,563 operated in the domestic and imported clay products industries in Canada during 1939. These two industries provided employment for 3,262 persons during the year; their earnings totalled \$3,312,400. The combined production in 1939 was valued at \$8,123,215 compared with \$7,584,972 in 1938.

The gross value of Canadian producers' sales of domestic clays and products made from same totalled \$5,151,236 in 1939 compared with \$4,536,084 in 1938 and \$13,904,643, the all-time high record established in 1929. Commercial production of domestic clay products in 1939 was reported from every province except Prince Edward Island; no output of these materials has as yet been recorded for Yukon and the Northwest Territories. Of the total value of sales in 1939, Ontario and Quebec firms contributed \$2,346,638 and \$1,274,776 respectively.

Sales of building brick in 1939 totalled 165,024 thousand, valued at \$2,676,634. Sewer pipe shipments aggregated \$813,208; hollow blocks, roofing and floor tile \$734,488; drain tile, \$353,973 and pottery, including earthenware, \$280,420.

Fireclay was mined in Nova Scotia, Saskatchewan and British Columbia and sales of this material totalled 10,045 short tons valued at \$30,824. Firebrick made from Canadian clays in 1939 numbered 2,331 thousand worth \$119,346. Bentonite shipments during the year under review amounted to 988 short tons valued at \$3,441.

The number of firms reported as active in the Canadian domestic clay products industry totalled 141 in 1939, of which 82 were located in Ontario, 18 in Quebec, 11 in British Columbia, 10 in Alberta and the balance in Nova Scotia, New Brunswick, Saskatchewan and Manitoba. Capital employed by the industry as a whole was reported at \$17,940,742; employees numbered 2,165 and salaries and wages paid amounted to \$2,161,688. Fuel and electricity used during 1939 were appraised at \$998,683 and chemicals and various other process supplies consumed were valued at \$108,815.

Imports into Canada in 1939 of clay and its products, in all forms, were valued at \$7,934,630 compared with \$7,657,202 in 1938. Of the 1939 imports, \$3,610,781 came from the United Kingdom and \$3,887,187 from the United States. Exports in 1939 of Canadian clays and products made from Canadian clays were appraised at \$542,788 against \$546,005 in the preceding year.

Table 174.—Principal Statistics, by Provinces, 1938 and 1939

Provinces	Number of plants	Capital employed	Average number of employees	Salaries and wages	Cost of fuel and electricity at works	Cost of process supplies at works	Gross selling value of products at works
		\$		\$	\$	\$	\$
1938							
Nova Scotia.....	5	928,933	146	136,443	64,121	2,948	340,253
New Brunswick.....	5	253,124	80	55,007	25,409	2,069	123,625
Quebec.....	21	4,579,040	491	458,737	235,148	33,030	1,022,194
Ontario.....	89	8,349,292	956	905,432	493,118	66,091	2,083,496
Manitoba.....	4	238,534	68	50,375	23,278	460	105,334
Saskatchewan.....	6	825,968	33	38,901	10,882	824	118,713
Alberta.....	10	1,941,991	269	201,974	25,891	2,267	377,337
British Columbia.....	12	931,660	199	196,704	61,343	6,370	365,132
Canada.....	153	18,069,542	2,242	2,110,233	939,190	111,659	4,536,084
1939							
Nova Scotia.....	6	933,708	142	129,870	62,994	3,270	339,952
New Brunswick.....	3	245,928	64	40,356	29,906	2,069	129,985
Quebec.....	20	4,307,156	498	503,480	293,010	43,686	1,274,776
Ontario.....	87	8,303,880	884	930,217	497,052	49,936	2,346,638
Manitoba.....	5	265,876	63	46,780	13,337	390	78,892
Saskatchewan.....	7	818,889	41	55,774	11,536	1,282	148,774
Alberta.....	10	2,153,477	263	249,081	32,077	1,725	461,079
British Columbia.....	11	912,128	210	200,130	58,171	6,457	371,140
Canada.....	149	17,940,742	2,165	2,161,688	998,683	108,815	5,151,236

Table 175.—Capital Employed, by Classes and by Provinces, 1938 and 1939

Provinces	Present value of lands, buildings, fixtures machinery and tools	Inventory value of materials on hand, finished products and stocks in process	Cash, bills and accounts receivable, prepaid expenses, etc.	Total capital employed
	\$	\$	\$	\$
1938				
Nova Scotia.....	711,767	152,660	64,506	928,933
New Brunswick.....	190,010	38,701	24,413	253,124
Quebec.....	3,823,828	447,225	307,887	4,578,940
Ontario.....	5,959,962	1,014,672	1,374,658	8,349,292
Manitoba.....	158,019	30,134	70,381	258,534
Saskatchewan.....	725,009	52,799	47,200	825,008
Alberta.....	1,560,670	291,889	89,432	1,941,991
British Columbia.....	667,632	153,507	110,521	931,660
Canada.....	13,797,957	2,181,587	2,088,998	18,068,542
1939				
Nova Scotia.....	715,312	161,610	56,786	933,708
New Brunswick.....	180,183	35,680	30,065	245,928
Quebec.....	3,505,952	423,180	378,015	4,307,156
Ontario.....	5,977,000	901,227	1,425,353	8,303,580
Manitoba.....	155,261	34,406	76,119	265,876
Saskatchewan.....	693,886	52,379	72,624	818,889
Alberta.....	1,776,904	254,734	122,839	2,154,477
British Columbia.....	644,185	164,076	103,857	912,128
Canada.....	13,647,693	2,027,391	2,265,658	17,940,742

Table 176.—Employees, Salaries and Wages, by Provinces, 1938 and 1939

Provinces	Average number of employees				Total	Salaries	Wages	Total salaries and wages
	On salaries		On wages					
	Male	Female	Male	Female				
1938								
Nova Scotia.....	10	1	135		146	\$ 31,023	\$ 105,420	\$ 136,443
New Brunswick.....	8	1	71		80	11,060	44,607	55,667
Quebec.....	64	2	425		491	120,752	337,985	458,737
Ontario.....	96	18	842		956	218,902	686,530	905,432
Manitoba.....	8		80		88	15,960	40,415	56,375
Saskatchewan.....	8		25		33	16,370	22,531	38,901
Alberta.....	42	2	225		269	78,259	183,715	261,974
British Columbia.....	16	2	181		199	33,176	163,528	196,704
Canada.....	252	26	1,964		2,242	525,502	1,584,731	2,110,233
1939								
Nova Scotia.....	13	3	126		142	35,158	94,712	129,870
New Brunswick.....	3	1	60		64	5,075	41,284	46,359
Quebec.....	58	2	438		498	127,625	375,855	503,480
Ontario.....	97	17	770		884	222,129	708,088	930,217
Manitoba.....	6		57		63	16,300	30,480	46,780
Saskatchewan.....	8		33		41	16,465	39,309	55,774
Alberta.....	31	2	230		263	65,246	183,835	249,081
British Columbia.....	18	2	190		210	38,982	161,168	200,150
Canada.....	234	27	1,904		2,165	526,960	1,634,728	2,161,688

Table 177.—Average Number of Wage-Earners, by Months, 1938 and 1939
(On the last work-day of each month)

Months	1938	1939	
		Pit	Plant
January.....	893	46	792
February.....	823	31	712
March.....	941	57	833
April.....	1,561	81	1,277
May.....	2,567	285	2,001
June.....	2,940	415	2,326
July.....	2,837	441	2,438
August.....	2,638	369	2,392
September.....	2,553	275	2,153
October.....	2,179	160	1,887
November.....	1,837	143	1,832
December.....	1,501	102	1,470
Average.....	1,964	220	1,684

MANUFACTURES OF NON-METALLIC MINERALS

Table 178.—Hours Worked per Week by Wage-Earners, 1939

(In one week in month of normal employment; overtime not included)

Regular hours per week	Number of wage-earners	Percent of total	Regular hours per week	Number of wage-earners	Percent of total
30 hours or less.....	60	1.7	55 hours.....	127	2.8
31-43 hours.....	213	7.0	56-64 hours.....	948	32.4
44 hours.....	262	6.4	65 hours and over.....	153	5.2
45-47 hours.....	87	3.6			
48 hours.....	409	14.8	Total.....	2,877	100.0
49-50 hours.....	236	11.2			
51-54 hours.....	382	14.9	Total wages paid in selected week.....	\$38,864	

Table 179.—Fuel and Electricity Used, 1938 and 1939

Kinds	Unit of measure	1938		1939	
		Quantity	Cost at works	Quantity	Cost at works
			\$		\$
Bituminous coal—Canadian.....	ton	24,635	150,909	22,023	142,851
Imported.....	ton	67,090	458,436	77,161	537,821
Anthracite coal—From United States.....	ton	2,694	18,776	692	4,675
Other.....	ton	17	208	381	2,367
Lignite coal.....	ton	505	2,361	1,483	2,907
Coke.....	ton	391	3,544	540	4,639
Gasoline.....	Imp. gal.	49,679	11,923	69,854	14,825
Kerosene or coal oil.....	Imp. gal.	1,050	240	6,687	1,557
Fuel oil.....	Imp. gal.	51,340	4,691	45,988	4,717
Wood.....	cord	36,079	127,832	34,566	120,767
Gas—Natural.....	M cu. ft.	532,374	22,204	598,311	24,253
Manufactured.....	M cu. ft.	16,528	4,699		
Electricity purchased.....	K.W.H.	9,939,902	133,334	9,771,973	137,175
Other fuel.....	\$		33		129
Total.....	\$		939,190		998,683
Electricity generated for own use.....	K.W.H.	612,411		508,412	

Table 180.—Power Equipment, 1938 and 1939

	Ordinarily in use		In reserve or idle	
	Number of units	Total rated horsepower	Number of units	Total rated horsepower
1938				
Steam engines and steam turbines.....	52	4,597	10	1,389
Diesel engines.....	4	495	8	890
Gasoline, gas and oil engines (except Diesel).....	43	1,160	10	218
Electric motors run by purchased power.....	517	14,280	54	2,358
Total.....	616	20,542	82	4,855
Electric motors run by above primary units.....	27	404	2	140
Stationary boilers.....	59	5,384	6	475
1939				
Steam engines and steam turbines.....	67	5,539	2	160
Diesel engines.....	4	495	7	815
Gasoline, gas and oil engines (except Diesel).....	47	1,250	9	130
Electric motors run by purchased power.....	544	14,818	60	2,568
Total.....	662	22,102	78	3,673
Electric motors run by above primary units.....	29	437	1	10
Stationary boilers.....	54	5,003	9	645

Table 181.—Factory Sales of Domestic Clay and Clay Products in Canada, 1938 and 1939

Products	Unit of measure	Sales or shipments			
		1938		1939	
		Quantity	\$	Quantity	\$
Clay—Fuller's earth.....	ton				
Bentonite.....	ton	1,170	3,659	988	3,441
Fireclay.....	ton	2,344	17,243	10,045	30,824
Kaolin (china clay).....	ton				95,256
Other clay.....	ton	13,797	18,053	3,114	9,412
Fireclay blocks and shapes.....	\$		73,512		
Firebrick.....	M	2,213	113,581	2,331	119,340
Brick—Soft mud process—Face.....	M	10,838	208,610	10,927	182,376
Common.....	M	24,104	313,082	26,652	372,116
Sift mud process (wire cut)—Face.....	M	34,179	671,471	45,993	941,696
Common.....	M	50,734	681,744	51,114	692,224
Dry press—Face.....	M	13,125	296,039	12,263	242,518
Common.....	M	15,536	192,741	17,790	236,597
Fancy or ornamental brick (including special shapes, embossed and enamelled brick).....	M	63	4,175	68	4,601
Sewer brick.....	M	228	3,581	217	4,508
Paving brick.....	M	1	34	157	6,089
Structural tile—					
Hollow blocks (including fireproofing and load-bearing tile).....	ton	70,548	591,416	86,120	714,291
Roofing tile.....	No.	150,504	5,196	148,291	4,964
Floor tile (quarries).....	Sq. ft.	100,958	15,330	90,812	15,233
Ceramic or glazed floor and wall tile.....	\$				
Drain tile.....	M	12,862	322,774	14,361	353,973
Sewer pipe (including copings, flue linings, etc.) (a).....	\$		778,107		813,208
Pottery, glazed or unglazed (including coarse earthenware, sanitaryware, stoneware, flower pots, and all other pottery).....	\$		235,800		282,712
Other products.....	\$		19,840	(b)	26,853
Total.....	\$		4,536,084		5,151,236

(a) Includes value of clay conduits.

(b) Includes crucibles.

Note—In addition to the clays recorded in this table, there were 105,982 tons of ordinary clay consumed in Canada during 1939 in the production of Portland cement; the corresponding consumption in 1938 was 143,421 short tons. Also consumed by the Canadian cement industry in 1939 were 27,241 short tons of shale.

Table 182.—Factory Sales of Products from Domestic Clays, by Provinces, 1938 and 1939

Provinces	1938	1939
	\$	\$
Nova Scotia.....	340,253	339,952
New Brunswick.....	123,625	129,935
Quebec.....	1,022,194	1,274,776
Ontario.....	2,082,496	2,340,635
Manitoba.....	105,334	78,892
Saskatchewan.....	118,713	148,774
Alberta.....	377,337	461,079
British Columbia.....	305,132	371,140
Canada.....	4,536,084	5,151,236

Table 183.—Factory Sales of Fireclay, Firebrick and Fireclay Blocks and Shapes, from Domestic Clays, 1927-1939

Years	Fireclay		Firebrick		Fireclay blocks and shapes	Years	Fireclay		Firebrick		Fireclay blocks and shapes
	Quantity	Value	Quantity	Value			Quantity	Value	Quantity	Value	
	tons	\$	M	\$			Value	tons	\$	M		$	Value
1927.....	5,070	35,961	3,588	246,266	100,659	1935.....	2,272	15,574	1,817	90,149	71,344
1928.....	5,123	35,284	4,919	234,460	105,091	1936.....	2,437	17,639	2,548	118,923	65,171
1929.....	5,041	35,226	5,196	251,043	130,411	1937.....	4,123	26,081	2,950	142,827	75,431
1930.....	2,870	25,975	3,789	177,608	147,309	1938.....	2,344	17,243	2,213	113,581	73,512
1931.....	1,233	14,857	2,248	107,597	83,039	1939.....	10,045	30,824	2,331	119,346	95,256
1932.....	900	11,820	1,580	71,757	75,209						
1933.....	1,421	11,273	1,547	73,226	80,625						
1934.....	1,043	12,598	2,109	101,219	62,388						

Table 184.—Factory Sales of Fireclay Blocks and Shapes and Firebrick, by Provinces, 1939

Provinces	Fireclay		Fireclay blocks and shapes	Firebrick	
	Short tons	\$	\$	M	\$
Nova Scotia.....	2,522	7,720	813	3	123
New Brunswick.....					
Saskatchewan.....	6,931	15,020	73,990	474	26,300
Alberta.....				30	1,297
British Columbia.....	592	8,084	20,453	1,824	91,626
Canada	10,045	30,821	95,256	2,331	119,346

NOTE.—Firebrick and fireclay shapes were made also in the Imported Clay Products Industry; see Table 205.

Table 185.—Production of Pottery from Domestic Clays in Canada, 1927-1939

Years	Value	Years	Value
	\$		\$
1927.....	307,057	1934.....	223,733
1928.....	356,093	1935.....	220,711
1929.....	323,194	1936.....	218,402
1930.....	294,866	1937.....	232,200
1931.....	257,125	1938.....	235,890
1932.....	244,861	1939.....	282,712
1933.....	202,500		

Table 186.—Production (Sales) of Pottery from Domestic Clays, by Provinces, 1938 and 1939

Provinces	1938	1939
	\$	\$
New Brunswick.....	28,580	(x)30,593
Ontario.....	59,092	60,692
Saskatchewan.....		50
Alberta.....	138,519	180,017
British Columbia.....	9,699	11,360
Canada	235,890	282,712

(x) Includes value of sanitaryware.

NOTE.—Pottery was made also in the Imported Clay Products Industry.

Table 187.—Factory Sales of Building Brick in Canada, 1927-1939

Years	Soft mud process		Stiff mud process (wire cut)		Dry press		Fancy or ornamental brick	Sewer brick	Total
	Face	Common	Face	Common	Face	Common			
1926.....	M 28,235	78,158	101,028	94,046	30,423	19,450	462	6,546	358,348
	\$ 556,572	1,145,400	2,146,302	1,624,055	651,236	260,598	24,057	117,194	6,325,665
1927.....	M 16,196	70,554	95,480	150,222	39,753	14,617	620	10,997	398,439
	\$ 325,966	1,091,274	2,024,064	2,239,180	833,570	187,062	29,372	210,643	6,911,131
1928.....	M 17,532	93,280	101,717	144,404	36,587	24,204	599	2,888	421,301
	\$ 349,847	1,328,981	2,247,472	2,182,307	748,301	337,096	28,763	59,010	7,281,777
1929.....	M 26,624	77,399	114,093	170,840	38,591	26,131	187	4,765	458,630
	\$ 538,096	1,195,511	2,409,417	2,509,451	813,461	368,039	12,796	96,588	8,003,358
1930.....	M 11,350	56,487	99,284	105,225	29,434	16,915	339	804	319,838
	\$ 247,220	861,805	2,135,871	1,480,965	604,197	208,495	27,649	15,299	5,581,501
1931.....	M 5,476	41,177	77,135	81,030	20,149	8,888	355	2,253	237,143
	\$ 116,316	619,357	1,752,947	1,205,464	423,357	107,213	20,773	43,692	4,289,119
1932.....	M 6,188	12,801	30,197	40,753	5,522	4,248	125	643	100,477
	\$ 108,582	182,372	664,756	638,922	119,547	46,762	6,237	12,156	1,779,334
1933.....	M 2,482	12,389	19,602	23,894	4,544	3,916	830	243	67,760
	\$ 41,737	156,769	412,367	356,498	101,252	44,377	7,824	3,693	1,124,517
1934.....	M 4,904	14,256	23,800	30,317	6,005	6,440	43	307	86,072
	\$ 76,247	183,585	494,341	424,131	130,392	66,016	2,625	5,992	1,383,929
1935.....	M 6,695	21,197	25,289	32,334	8,454	6,381	13	175	100,538
	\$ 122,215	259,504	500,066	437,123	175,042	55,253	728	5,236	1,555,167
1936.....	M 6,097	24,180	30,218	35,592	8,991	10,241	25	418	115,732
	\$ 111,378	362,690	675,785	484,078	165,924	109,785	1,374	6,778	1,548,272
1937.....	M 9,904	23,636	37,610	55,689	12,565	14,136	55	175	152,770
	\$ 175,544	310,534	735,615	755,630	233,542	152,662	2,972	2,777	2,375,276
1938.....	M 10,838	24,104	34,170	50,734	13,125	15,536	63	228	178,897
	\$ 208,810	313,082	671,471	681,744	266,039	192,741	4,175	3,581	2,341,441
1939.....	M 10,927	26,652	45,983	51,114	12,263	17,790	68	217	165,021
	\$ 182,376	372,116	941,096	692,224	242,518	236,597	4,601	4,506	2,676,631

Table 188.—Production (Sales) of Building Brick (a) in Canada, by Provinces, 1938 and 1939

Provinces	1938		1939	
	M	\$	M	\$
Nova Scotia.....	5,102	69,185	4,975	74,489
New Brunswick.....	4,870	77,810	5,371	78,074
Quebec.....	48,249	768,379	59,452	935,051
Ontario.....	65,038	1,092,072	71,691	1,276,978
Manitoba.....	6,146	95,190	4,099	69,353
Saskatchewan.....	504	8,700	982	16,633
Alberta.....	11,151	108,330	11,907	124,358
British Columbia.....	7,747	123,777	6,547	107,698
Canada.....	148,807	2,341,443	165,024	2,676,634

(a) Includes fancy and sewer brick.

Table 189.—Factory Sales of Sewer Pipe, Copings, Flue Linings, etc., in Canada, 1927-1939

Years	Value	Years	Value
	\$		\$
1927.....	1,475,875	1934.....	436,433
1928.....	1,723,644	1935.....	481,559
1929.....	2,005,887	1936.....	588,485
1930.....	1,721,815	1937.....	790,210
1931.....	1,508,803	1938.....	778,107
1932.....	813,224	1939.....	813,208
1933.....	354,458		

Table 190.—Factory Sales of Drain Tile in Canada, 1927-1939

Years	Quantity	Value	Years	Quantity	Value
	M	\$		M	\$
1927.....	22,259	598,098	1934.....	7,325	180,553
1928.....	22,629	656,054	1935.....	7,124	205,336
1929.....	25,000	720,316	1936.....	8,148	214,590
1930.....	25,291	687,070	1937.....	11,391	298,970
1931.....	12,518	328,410	1938.....	12,862	322,774
1932.....	7,385	186,670	1939.....	14,361	353,973
1933.....	10,057	222,829			

Table 191.—Factory Sales of Drain Tile and Sewer Pipe, in Canada, by Provinces, 1938 and 1939

Provinces	1938			1939		
	Drain tile		Sewer pipe*	Drain tile		Sewer pipe*
	M	\$	\$	M	\$	\$
Nova Scotia.....	164	4,943	214,554	233	7,512	195,218
New Brunswick.....	178	7,968	1,432	43	1,588	.....
Quebec.....	647	17,600	71,433	649	24,876	78,447
Ontario.....	10,748	252,444	342,549	12,193	274,846	377,550
Manitoba.....	80	4,196	.....	76	3,690	.....
Saskatchewan.....	.....	.....	.....	5	200	.....
Alberta.....	92	3,552	93,071	77	3,129	111,476
British Columbia.....	953	32,071	55,068	1,084	38,132	50,517
Canada.....	12,862	322,774	778,107	14,360	353,973	813,208

* Includes copings, flue linings, etc.

Table 192.—Production of Structural Tile in Canada, 1930-1939

Years	Hollow blocks (x)		Roofing tile		Floor tile (from quarries)	
	Short tons	\$	No.	\$	Sq. ft.	\$
1930.....	165,359	1,667,783	3,056	356	179,786	56,230
1931.....	105,635	1,046,634	6,935	720	107,499	31,415
1932.....	48,118	421,672	48,939	3,900	94,316	21,502
1933.....	26,747	160,059	20,469	1,136	91,495	14,297
1934.....	31,136	244,122	44,115	1,852	80,356	17,491
1935.....	(a) 47,195	344,608	82,015	3,669	51,765	7,629
1936.....	58,501	467,890	52,730	2,139	97,738	13,798
1937.....	64,526	533,843	60,542	3,302	73,191	12,169
1938.....	70,648	591,416	150,504	5,196	100,958	15,330
1939.....	86,120	714,291	148,291	4,964	90,812	15,233

(x) Including fireproofing and load-bearing tile.

(a) In addition, there was produced \$615 worth of ceramic tile.

Table 193.—Production of Structural Tile in Canada, by Provinces, 1939

Provinces	Hollow blocks (x)		Roofing tile		Floor tile (from quarries)	
	Short tons	\$	No.	\$	Sq. ft.	\$
Nova Scotia.....	5,385	50,713				
New Brunswick.....	2,377	19,341				
Quebec.....	27,230	235,581				
Ontario.....	41,856	329,951	110,869	3,599	90,292	15,163
Manitoba.....	551	5,258				
Saskatchewan.....	790	7,835				
Alberta.....	4,989	37,952				
British Columbia.....	2,942	27,660	37,422	1,365	520	70
Canada.....	86,120	714,291	148,291	4,964	90,812	15,233

(x) Including fireproofing and load-bearing tile.

Table 194.—Production (Sales) of Bentonite and Kaolin in Canada, by Provinces, 1928-1939

Years	Bentonite (x)		Kaolin (a)	
	Tons	\$	Tons	\$
1928.....	20	100	5	25
1929.....				
1930.....	74	1,396		
1931.....	187	935		
1932.....	7	176		
1933.....	55	1,363		
1934.....	63	1,578	48	504
1935.....	41	781	170	1,520
1936.....	(b) 120	180		
1937.....	163	1,971		
1938.....	1,179	3,659		
1939.....	988	3,441		

(x) All from British Columbia 1928-1936 inclusive; in 1937 includes 132 tons at \$1,154 produced in Manitoba and 31 tons at \$317 in British Columbia. Sales in 1938 included 1,136 tons worth \$3,444 from Alberta and 43 tons at \$215 from British Columbia, and in 1939 there were 99 tons worth \$591 from Manitoba and 889 tons valued at \$2,850 from Alberta.

(a) All from Quebec.

(b) Partly for experimental purposes.

Table 195.—Imports into Canada and Exports of Clay and Clay Products, 1938 and 1939

	Unit of measure	1938		1939	
		Quantity	\$	Quantity	\$
IMPORTS—					
Building brick.....	ton	1,801	22,075	1,908	27,236
Building blocks.....			48,310		30,098
Clays—China.....	cwt.	758,794	324,933	877,425	376,750
Fire.....	cwt.	1,083,493	181,221	1,060,786	162,925
Pipe.....			7,999		8,083
Other clays, n.o.p.....			203,587		192,521
Zirconium silicate.....			1,847		5,589
Zirconium oxide.....			24,983		40,006
Saggars, when for use in the manufacture of ceramics.....			2,364		7,085
Activated clay, when imported for use in the refining of oils (From January 1, 1939).....					130,231
Drain tile, unglazed.....			54		729
Drain, sewer pipe and earthenware fittings therefor, chimney linings or vents, chimney tops or inverted blocks, glazed or unglazed.....			12,950		15,768
Tiles or blocks of earthenware or stone prepared for mosaic flooring.....			53,223		56,209
Tiles, earthenware, for roofing purposes.....			3,152		10,731
Tiles, earthenware, n.o.p.....			131,990		123,689
Insulators, electric, porcelain.....			88,344		75,931
Pottery and chinaware.....			4,043,852		3,451,712
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.....			69,440		75,894
Brick, fire, n.o.p., for use exclusively in the construction or repair of a furnace, kiln, or other equipment of a manufacturing establishment.....			321,850		494,396
Firebrick, n.o.p.....			660,359		841,071
Firebrick, chrome.....			47,885		88,367
Magnesite brick.....			571,910		677,011
Silica brick (containing not less than 90 per cent silica).....			240,184		312,413
Paving brick.....	ton	1,995	12,798	816	6,891
Artificial teeth, not mounted.....			365,083		439,102
Baths, bath tubs, basins, laundry tubs, etc., of earthenware, cement or clay, n.o.p.....			119,164		147,976
Crucibles, clay or sand.....			29,159		40,259
Other manufactures of clay.....			62,526		95,957
Total.....			7,657,292		7,934,620
EXPORTS—					
Building brick.....	M	1,134	77,544	1,903	22,826
Clay—Unmanufactured.....	cwt.	919	2,652	1,427	2,065
Manufactured.....			53,104		65,046
Earthenware.....			15,808		14,919
Porcelain insulators.....			456,897		437,932
Total.....			696,005		542,788

List of Operators Shipping Brick, Tile, Sewer Pipe, etc., made from Domestic Clays, 1939

Names of Firms	Head Office Addresses	Plant Location
NOVA SCOTIA—		
Brooks, Stephen, & Sons (a).....	Box 159, New Glasgow.....	New Glasgow.
MacIntyre, A. D. (a).....	Sydney.....	Sydney.
McCurdy, Henry (a).....	Middle Musquodoboit.....	Musquodoboit.
Miller, Archie E.....	Elmsdale.....	Lantz Siding.
Shaw, L. E., Ltd. (a).....	8 Prince St., Halifax.....	Lantz Siding.
Standard Clay Products Ltd.....	St. Johns, P.Q.....	New Glasgow.
NEW BRUNSWICK—		
Ryan, M., & Son, Ltd.....	Fredericton.....	Fredericton.
Shaw, L. E. Ltd. (a).....	8 Prince St., Halifax, N.S.....	Chipman.
Tondreau, Adélaïde.....	Bathurst.....	Bathurst.
QUEBEC—		
Ascot Tile & Brick Co. Ltd.....	Ascot Corner.....	Richmond Co.
Bégin, Olivier.....	R. R. 1, Petite Rivière.....	Petite Rivière.
Canada China Clay Ltd.....	St. Rémi d'Amherst.....	St. Rémi d'Amherst.
Castonguay, H.....	Deschailions.....	Deschailions.
Champlain Brick Ltd.....	323 Blvd. Charest, Quebec.....	Beauport-Est.
Citadel Brick Ltd.....	14 St. Joseph St., Quebec.....	L'Islet Station, Bois-chatel.
Côté, Albert.....	Victoriaville.....	Victoriaville.
Crite, Freddy.....	St. Tite.....	St. Tite.
Desmarais, S. E., & Co.....	Richmond.....	Richmond.
Duquette, Isidore.....	Box 626, East Angus.....	Westbury.
Gaulin, E. (e).....	Princeville.....	Princeville

**List of Operators Shipping Brick, Tile, Sewer Pipe, etc., made from Domestic Clays,
1939—Continued**

Names of Firms	Head Office Addresses	Plant Location
QUEBEC—Concluded—		
Hodgins, David T.	Shawville	Shawville.
LaPrairie Co. Inc.	660 St. Catherine St. W., Montreal.	LaPrairie and Delson.
Lotbinière Brick Co.	Deschailions	Deschailions.
Montreal Terra Cotta Ltd.	1010 St. Catherine St. W., Montreal.	Lakeside.
Parrot, M. H.	Deschailions	Deschailions.
Potvin, Alphonse	Deschailions	Deschailions.
St. Lawrence Brick Co. Ltd.	1010 St. Catherine St. W., Montreal.	LaPrairie.
Scott Brick Co.	Scott Junction	Dorchester Co.
Standard Clay Products Ltd. (a)	St. Johns	St. Johns.
Tremblay, Jules R.	272 rue Racine, Chicoutimi	Chicoutimi.
ONTARIO—		
Barnes, Wm. R., Company Ltd.	243 Cumberland Ave., Hamilton	Hamilton.
Belle River Brick & Tile Co.	Belle River	Essex County.
Brampton Pressed Brick Co. Ltd.	Brampton	Peel County.
Broadwell, B., & Son	Kingsville	Essex County.
Canadian Ceramic Co. Ltd. (a)	Room 608, 159 Bay St., Toronto	Acton.
Canadian Pressed Brick Co. Ltd.	195 Ottawa St. S., Hamilton	Hamilton.
Central Tile Brick Corp. Ltd.	Box 25, Tilbury	Kent Co.
Chapman Bros.	145 Dawes Road, Toronto	E. York Tp.
Construction Materials Ltd.	Drawer 70, New Toronto	Etobicoke Tp.
Cooksville Co. Ltd.	46 Bloor St. W., Toronto	Cooksville.
Cornhill, James & Sons Ltd.	Box 36, Chatham	Kent County.
Coults, Geo. & Son	Theford	Lambton County.
Cowell, Geo. Wesley	Box 361, Tilsonburg	Oxford County.
Curtin, F., Estate	R.R. 4, Lindsay	Victoria County.
Curtis Bros.	Box 809, Peterborough	Otonabee Tp.
Deller, A., & Son	Brewsville	Oxford County.
Deller, Wm. H.	Thorndale, R.R. 4	W. Missouri Tp.
Doehard Brick, Tile & Terra Cotta Works	Arnprior	Arnprior.
Donaldson, Thos. Geo.	R.R. 1, Greenock	Culross Tp.
Douglas, John R.	Wilkesport	Lambton County.
Dover Brick and Tile Works	Chatham	Dover Tp.
Elliott, Chas.	Bluevale	Huron County.
Elliott, Jas., Jr.	Sault Ste. Marie	Korah Tp.
Elliott, Wm.	Glenmann	Bruce County.
Ferguson, A. W.	95 Rectory St., London	London.
Fletcher Brick and Tile	Fletcher	Kent Co.
Fort William Brick Co.	Fort William	Fort William.
Frid Bros. Ltd.	Main West and Macklin Sts., Hamilton	Hamilton.
Gamage, C. R.	R.R. 2, Dresden	Lambton County.
Georgian Bay Building Products	Owen Sound	Shallow Lake.
Godfrey, Thos., & Co.	Carleton Place	Lanark County.
Gomall Brick & Tile Works	Powassan	S. Himsworth Tp.
Grimshy Brick & Tile Co.	Grimshy	Grimshy.
Haist, W. R.	Crediton	Crediton.
Hamilton Pressed Brick Co. Ltd.	211 Kensington Ave. S., Hamilton	Wentworth County.
Harper Brick Works	348 Greenwood Avenue, Toronto	Toronto.
Hill, Aaron	Essex	Essex.
Hill, Albert W.	R.R. 1, Coatsworth	Tilbury E. Tp.
Hitch, D. A.	Ridgetown	Howard Tp.
Hodder, Mrs. J. H., & Sons	Dutton	Elgin County.
Howlett, Fred W., & Sons, Ltd.	Box 849, Petrolia	Petrolia.
Huntville Brick Works	Box 308, Huntsville	Muskoka.
Interprovincial Brick Co., Ltd.	46 Bloor St. W., Toronto	Chinquacousy Tp., Nassagaweya Tp.
Jackson, W. B., Brick & Tile	Brantford	Brantford.
Jamieson Lime Co.	Renfrew	Renfrew.
Janes, D. A.	Mt. Brydges	Middlesex Co.
Jasperson Brick & Tile Co.	Kingsville	Coatsworth.
Jervis, W. J.	R.R. 3, Dorchester	N. Dorchester.
Kerr, C., Estate of	R.R. 4, Goderich	Huron County.
Koebel Bros.	St. Clements	St. Clements.
Lindsay, Earl & Sons	R.R. 2, Wallaceburg	Kent County.
McComb, Chester	R.R. 2, London	Middlesex Co.
McCormick, Thos. L.	R.R. 5, Watford	Lambton County.
McFarlane, W. J.	Forest	Lambton County.
McFarren, F. B., Ltd.	34 Toronto St., Toronto	Streetsville.
Milton Brick Co. Ltd.	170 Bloor St. W., Toronto	Milton.
Moulton's Tile & Brick Yard	R.R. 2, Holyrood	Greenock Tp.
Napanee Brick & Tile Works	R.R. 3, Napanee	Lennox County.
National Fireproofing Co. of Canada, Ltd.	96 Bloor St. W., Toronto	Wentworth Co.
National Sewer Pipe Co. Ltd.	Aldershot	E. Flamboro Tp., Aldershot, Hamilton, Swanesa.
New Liskeard Brick Works	Box 74, New Liskeard	New Liskeard.
Norwich Brick & Tile Works	R.R. 2, Norwich	Oxford County.
Ontario Brick & Tile Plant (Government)	Parliament Bldgs., Toronto	Mimico.
O'Reilly, T. E.	320 Bay St., Ottawa	Carleton County.
Ottawa Brick & Terra Cotta Co. Ltd.	Box 131, Billings Bridge	Carleton County.
Owen Sound Brick Co. Ltd. (c)	Owen Sound	Owen Sound.
Paxton, Fred R.	St. Catharines	St. Catharines.
Phinn, Geo. A.	St. James Park, London	Middlesex County.
Phippen & Son	390 Dawes Road, Coleman	E. York Tp.
Richardson, J. & Son	Kerwood	Kerwood.
Rollins, D. W.	R.R. 4, Belleville	Thurlow Tp.

List of Operators Shipping Brick, Tile, Sewer Pipe, etc., made from Domestic Clays, 1939—Concluded

Names of Firms	Head Office Addresses	Plant Location
ONTARIO—Concluded—		
Seegmiller Brick and Tile Company.....	525 Wendell Ave., Kitchener.....	Kitchener.
Snelgrove, A., Estate of.....	Beaverton.....	Beaverton.
Sprout & Sprout.....	R. R. 4, Seaforth.....	Tuckersmith Tp.
Standard Brick Co.....	500 Greenwood Ave., Toronto.....	Toronto.
Superior Brick & Tile Co. Ltd.....	Fort William.....	Paipoung Tp.
Thomson, Ralph.....	R. R. 4, Atwood.....	S. Grey Tp.
Toronto Brick Co. Ltd.....	897 Bay St., Toronto.....	Toronto, York Tp., Milton.
Wagstaff Brick & Tile Co.....	32 Simcoe St., Lindsay.....	Victoria County.
Wein, Aaron.....	92 First Ave. E., North Bay.....	Widdifield Tp.
Weitzel Bros.....	Crediton.....	Huron County.
Wright, Geo., & Sons.....	R. R. 1, Tavistock Box 56, Comber.....	Zorn Tp. Comber.
MANITOBA—		
Alsip Brick, Tile & Lumber Co. Ltd.....	537 Portage Ave., Winnipeg.....	Winnipeg.
Snyder Brick Yards Ltd.....	Portage la Prairie.....	Portage la Prairie.
Spencer and Sons (b).....	R. R. 1, Morden.....	Morden.
Wardrop, D. M.....	Whittemouth.....	Whittemouth.
Western Clay Products Ltd.....	507 Somerset Bldg., Winnipeg.....	Edrans.
SASKATCHEWAN—		
Alberta Clay Products Co. Ltd. (a).....	Medicine Hat, Alberta.....	Willows, Ravenscrag and Eastend.
Bruno Clay Works Ltd.....	Saskatoon.....	Bruno.
Dominion Fire Brick & Clay Products Ltd. (a).....	Box 99, Moose Jaw Box 399, Estevan.....	Claybank. Estevan, Readlyn, Knollys and Prince Albert.
International Clay Products Ltd.....	Perona, Mont., U.S.A.	Willow Bunch.
Midland, H.....	366-7th Ave. W., Calgary, Alta.....	Willows.
Medalta Potteries Ltd.....		
ALBERTA—		
Aetna Coal Co. (b).....	East Couleó.....	Tp. 28 Rge. 19 W4th.
Aeme Brick Co. Ltd.....	125 Alberta Block, Edmonton.....	Camell.
Alberta Clay Products Co. Ltd.....	Box 672, Medicine Hat.....	Medicine Hat, Dunmore (n).
Gauderson Brick & Coal Co. Ltd.....	Redcliff.....	Redcliff.
Kidd, Gordon L. (b).....	Box 230, Drumheller.....	Sec. 14-29-20 W.4.
Little, J. B., & Sons Ltd.....	9120-100th Ave., Edmonton.....	Edmonton.
Medicine Hat Brick & Tile Co. Ltd.....	Box 1,000, Medicine Hat.....	Medicine Hat.
Redcliff Pressed Brick Co. Ltd. (a).....	Box 87, Redcliff.....	Redcliff.
Redcliff Premier Brick Co. Ltd.....	Redcliff.....	Redcliff.
BRITISH COLUMBIA—		
Baker Brick & Tile Co. Ltd.....	3191 Douglas St., Victoria.....	Victoria.
Clayburn Co. Ltd. (a).....	850 W. Hastings St., Vancouver.....	Kilgard.
Champion and White Ltd.....	1075 Main St., Vancouver.....	Bazan Bay Road.
Fairey & Company (a).....	661 Taylor St., Vancouver.....	Williams Lake.
Gabriola Shale Products Ltd.....	1304 Broad St., Victoria.....	Gabriola Island.
Gorse, Percy A.....	Salmon Arm.....	Enderby.
Haug, Wm. & Son.....	Box 220, Kelowna.....	Kelowna.
Port Haney Brick Co. Ltd.....	846 Howe St., Vancouver.....	Haney.
Richmond, Geo. W., & Co. (a).....	2625 W. 15th Ave., Vancouver.....	Kilgard.
Vancouver Brick & Tile Ltd.....	Ft. Columbia Ave., Vancouver.....	New Westminster, Sullivan.

(a) Includes production of refractories. (b) Produces bentonite. (c) No production reported in 1939.

Canadian Producers of Stoneware and Pottery from Domestic Clays, 1939.

Names of Firms	Head Office Addresses	Plant Location
NEW BRUNSWICK—		
The Foley Pottery Ltd. (a).....	Saint John.....	Saint John, Middle Musquodoboit.
ONTARIO—		
Ferguson, A. W.....	95 Rectory St., London.....	London.
The Foster Pottery Co.....	Main St. W., Hamilton.....	Hamilton.
Maple Leaf Potteries.....	601 Merton St., Toronto.....	Toronto.
McMaster Pottery.....	Dundas Co.....	Wentworth Co.
ALBERTA—		
Alberta Clay Products Co.....	Medicine Hat.....	Medicine Hat.
Medalta Potteries Ltd.....	336-7th Ave. W., Calgary.....	Medicine Hat.
SASKATCHEWAN—		
Canadian Claycraft Co.....	1301 Main St., Saskatoon.....	Saskatoon.
BRITISH COLUMBIA—		
Baker Brick & Tile Co. Ltd.....	3191 Douglas St., Victoria.....	Victoria.
B. C. Clay Products Co.....	3439 Euclid Ave., Vancouver.....	Vancouver.

(a) Includes production of refractories.

CHAPTER TWELVE

PRODUCTS FROM IMPORTED CLAYS

This industry covers the operations of Canadian plants which were occupied chiefly in making ceramic products from imported clays. Products made in these plants during 1939 included high tension insulators, vitreous china sanitaryware, china dinnerware, firebrick, sewer pipe, floor and wall tile, refractory cements, electrical porcelains, etc.

Twenty plants reported in this group for 1939 and their output was valued at \$2,971,979, against last year's total of \$3,048,888 and the 1937 figure of \$3,599,181. Capital employed amounted to \$4,661,821. The average number of workers was 1,097 and payments for salaries and wages totalled \$1,150,712. Fuel and electricity cost \$237,718 and materials for use in manufacturing processes cost \$792,767.

Table 196.—Principal Statistics, by Provinces, 1938 and 1939

Provinces	Number of plants	Capital employed	Average number of employees	Salaries and wages	Cost of fuel and electricity at works	Cost of materials at works	Gross selling value of products at works	Net value of production
		\$		\$	\$	\$	\$	\$
1938								
Ontario.....	16	3,063,609	911	891,419	157,952	695,598	2,253,290	1,489,740
Quebec.....	4							
Saskatchewan.....	1							
Canada.....	21	4,690,306	1,163	1,194,509	229,517	795,956	3,048,888	2,023,415
1939								
Ontario.....	15	2,997,261	857	877,938	168,044	624,077	2,222,108	1,429,987
Quebec.....	4							
Saskatchewan.....	1							
Canada.....	20	4,661,821	1,097	1,150,712	237,718	792,767	2,971,979	1,941,494

Table 197.—Capital Employed, by Provinces, 1938 and 1939

Provinces	Present value of land, buildings, machinery and tools	Inventory value of materials and finished products on hand and stocks in process	Operating capital (cash, bills and accounts receivable, etc.)	Total capital employed
	\$	\$	\$	\$
1938				
Ontario.....	1,630,010	675,969	757,621	3,063,609
Quebec.....				
Saskatchewan.....				
Canada.....	2,789,768	1,029,155	871,393	4,690,306
1939				
Ontario.....	1,664,201	662,960	670,100	2,997,261
Quebec.....				
Saskatchewan.....				
Canada.....	2,791,413	906,639	963,769	4,661,821

Table 198.—Employees, Salaries and Wages, by Provinces, 1938 and 1939

Provinces	Average number of employees					Salaries	Wages	Total salaries and wages
	On salaries		On wages		Total			
	Male	Female	Male	Female				
1938								
Ontario.....	88	36	620	167	911	226,428	664,991	891,419
Quebec.....	}		205	9	252	76,691	226,399	303,090
Saskatchewan.....								
Canada.....	117	45	825	176	1,163	303,119	891,390	1,194,509
1939								
Ontario.....	84	36	577	160	857	225,173	652,765	877,938
Quebec.....	}		193	9	240	70,817	201,957	272,774
Saskatchewan.....								
Canada.....	115	43	770	169	1,097	295,990	854,722	1,150,712

Table 199.—Wage-Earners, by Months, 1938 and 1939

(On the last work-day of each month)

Months	1938			1939		
	Male	Female	Total	Male	Female	Total
January.....	822	170	998	767	149	916
February.....	793	178	971	745	147	892
March.....	814	175	989	730	151	881
April.....	820	174	994	754	150	904
May.....	849	192	1,041	757	164	921
June.....	853	184	1,037	762	168	930
July.....	835	166	1,001	749	164	913
August.....	823	173	996	752	160	912
September.....	816	176	992	783	181	964
October.....	833	179	1,012	810	188	998
November.....	847	191	1,038	838	197	1,035
December.....	819	159	978	830	204	1,034
Average.....	825	176	1,001	770	169	939

Table 200.—Hours Worked per Week by Wage-Earners, 1939

(In one week in month of normal employment; overtime not included)

Regular hours worked per week	Number of wage-earners	Per cent of total	Regular hours worked per week	Number of wage-earners	Per cent of total
30 hours or less.....	66	6.6	55 hours.....	41	4.1
31-43 hours.....	181	18.0	56-64 hours.....	33	3.3
44 hours.....	183	18.2	65 hours and over.....	10	1.0
45-47 hours.....	299	29.7			
48 hours.....	44	4.4	Total.....	1,006	100.0
49-50 hours.....	119	11.8	Total wages paid in selected week.....	\$23,006	
51-54 hours.....	50	4.9			

Table 201.—Fuel and Electricity Used, 1938 and 1939

Kinds	Unit of measure	1938		1939	
		Quantity	Cost at works	Quantity	Cost at works
Coal, anthracite.....	ton	6	\$ 91	7	\$ 109
Coal, bituminous—Canadian.....	ton	504	2,881	574	3,287
—Imported.....	ton	17,830	123,462	18,291	126,037
Coke.....	ton	818	6,994	1,040	8,320
Gasoline.....	Imp. gal.	8,570	1,871	7,692	1,770
Kerosene.....	Imp. gal.	685	104	130	17
Fuel oil.....	Imp. gal.	501,454	41,665	543,320	37,076
Wood.....	cord	85	454	38	224
Gas—Manufactured.....	M cu. ft.	303	273	341	305
—Natural.....	M cu. ft.	36,332	25,704	45,194	36,233
Other fuel.....			157		
Electricity purchased.....	K.W.H.	1,834,757	25,761	1,785,240	24,340
Total.....	\$		229,517		237,718
Electricity generating for own use.....	K.W.H.	661,700		660,800	

Table 202.—Power Equipment, 1938 and 1939

	Ordinarily in use		In reserve or idle	
	Number of units	Total rated horsepower	Number of units	Total rated horsepower
1938				
Steam engines and steam turbines.....	2	175	1	290
Gasoline, gas and oil engines.....	1	40		
Electric motors operated by purchased power.....	412	1,885	15	154
Total.....	415	2,100	16	444
Electric motors run by above primary units.....	24	284		
Stationary boilers.....	14	1,038	2	110
1939				
Steam engines and steam turbines.....	2	175	1	290
Gasoline, gas and oil engines.....	1	40		
Electric motors operated by purchased power.....	447	2,008	15	127
Total.....	450	2,223	16	417
Electric motors run by above primary units.....	33	365		
Stationary boilers.....	13	1,018	2	110

Table 203.—Materials Used in the Imported-Clay Products Industry, 1938 and 1939

Materials	1938		1939	
	Short tons	Total cost at works	Short tons	Total cost at works
		\$		\$
Imported clays—Ball clay.....	2,531	46,766	2,970	48,994
China clay.....	2,573	52,927	2,973	51,427
Fireclay.....	20,717	118,875	21,721	127,663
Saggur clay.....	402	4,376	453	4,909
Other imported clays.....	640	7,517	1,125	18,000
Canadian clays—Fireclay.....	202	1,879	192	1,722
Other clays.....	3,491	2,599	95	645
Feldspar.....	1,890	35,979	2,021	38,840
Silica and ground quartz.....	2,576	38,441	1,968	27,161
Talc.....	100	2,119	178	2,502
Other glazing materials.....		15,793		25,796
Insulator hardware.....		219,367		206,221
Shipping containers and packing materials.....		75,186		100,155
All other materials.....		174,032		138,732
Total.....		795,958		792,767

Table 204.—Products Made in the Imported Clay Products Industry, 1938 and 1939

Products	1938		1939	
	Gross selling value at works		Gross selling value at works	
	\$	\$	\$	\$
Firebrick and stove linings—Rigid.....	271,711	403,893		
Plastic.....	83,736	83,695		
High temperature cements.....	36,040	36,280		
High tension porcelain insulators, china sanitary ware, clay sewer pipe, floor and wall tile, pottery, china table-ware, etc. (Separate figures cannot be shown for these items as there were only one or two producers in each case).	2,657,401	2,448,711		
Total.....	3,648,888	2,871,979		

NOTE.—Clay firebrick, floor tile, sewer pipe and pottery are also made in Canada from domestic clays (See Tables 183 and 184). Refractory cements and refractory bricks are made also by concerns in other industries. (See Tables 205 and 206).

Table 205.—Total Production in Canada of Refractory Shapes, 1929-1939

(From all industries)

Years	From domestic clays				Silica Brick		Other (x)	Total
	Fireclay blocks and shapes	Firebrick				Rigid firebrick and stove linings		
		\$	M	\$	M		\$	
1929.....	130,411	5,196	251,043	3,951	173,581	362,360	917,395	
1930.....	147,309	3,789	177,608	2,418	97,379	298,945	721,241	
1931.....	83,039	2,248	107,597	900	35,746	280,588	506,970	
1932.....	75,209	1,580	71,757	93	4,304	212,838	364,108	
1933.....	80,625	1,547	73,226	636	23,185	220,484	397,520	
1934.....	62,388	2,109	101,219	2,528	85,945	275,472	525,024	
1935.....	71,344	1,817	90,149	2,461	96,194	314,825	572,512	
1936.....	65,171	2,548	118,923	2,393	97,285	330,602	611,981	
1937.....	75,431	2,950	142,827	3,744	181,126	441,341	840,725	
1938.....	73,512	2,213	113,581	1,788	100,403	448,494	735,990	
1939.....	95,256	2,331	119,340	2,492	124,807	640,376	979,785	

(x) Includes shapes made from imported clays, from magnesite, etc.

Table 206.—Total Production in Canada of Refractory Cements and Plastics, 1932-1939

(From all industries)

Years	Short tons	Selling value at works
		\$
1932.....		118,402
1933.....	1,465	101,488
1934.....	2,119	142,290
1935.....	3,506	179,161
1936.....	3,784	212,607
1937.....	5,303	260,883
1938.....	7,155	377,687
1939.....	5,094	271,106

List of Firms included in the Imported-Clay Products Industry, 1939

Names of firms and location of plants	Products made
Canada Firebrick Company Ltd., 4741 St. Ambrose St., Montreal, P.Q.	Firebrick.
Canada Vitrified Products Limited, 675 Talbot St. E., St. Thomas, Ont.	Sewer pipe; flue linings.
Canadian General Electric Co. Ltd., 262 Townsend St., Peterborough, Ont.	Porcelain sockets, plugs, etc.; moulded textolite; high tension insulators.
Canadian Ohio Brass Company Ltd., Niagara Falls, Ont.	High tension insulators.
Canadian Porcelain Company Ltd., Paradise Road, Hamilton, Ont.	High tension insulators.
Canadian Potteries Ltd., St. Johns, P.Q.	Vitreous china sanitaryware.
Dominion Fire Brick & Clay Products Ltd., Moose Jaw, Sask.	Firebrick; high temperature cements.
Frontenac Floor and Wall Tile Co., Ltd., Kingston, Ont.	Floor and wall tile; ground feldspar; porcelain balls, etc.
Georgetown Clay Products, Ltd., Georgetown, Ont.	Firebrick.
Green, A. P., Fire Brick Co. Ltd., Leaside, Ont.	Plastic firebrick; high temperature cements.
Hamilton Potteries Limited, 100 Locke St., S., Hamilton, Ont.	Porcelain sockets, plugs, etc.; firebrick, porcelain dies.
National Refractories Limited, Port Robinson, Ont.	Firebrick.
Ontario Refractories Limited, Fort Erie, Ont.	Firebrick.
Plabric Jointless Firebrick, Ltd., Lake Shore Rd., New Toronto, Ont.	Plastic firebrick; high temperature cements; stove lining.
Robinson Clay Product Co. of Canada, Ltd., 127 Shaftesbury Ave., Toronto, Ont.	High temperature cements.
Smith Potteries (Estate of), 353 King St. W., Oshawa, Ont.	Art pottery.
Sovereign Pottery, Ltd., 282 Sheridan St. N., Hamilton, Ont.	China dinnerware.
Standard Clay Products Ltd., St. Johns, P.Q.	Sewer pipe; firebrick.
Turner, C. B., & Co., Reg'd., Mimico, Ont.	Plastic firebrick.
Walker-Hind-Sutherland Refractories Ltd., 309 St. Ferdinand St., Montreal, P.Q.	Refractory cements; firebrick.

CHAPTER THIRTEEN

THE SALT INDUSTRY

Commercial production of common salt or sodium chloride in Canada during 1939 totalled 424,500 short tons valued at \$2,486,632 compared with 440,045 short tons at \$1,912,913 in 1938. In 1939 salt was produced in Nova Scotia, Ontario, Manitoba and Alberta and of the total Canadian output in 1939 Ontario contributed 370,843 short tons or 87 per cent. Statistics of Canadian salt production represent the recovery of the mineral from brine wells with the exception of Nova Scotia where the output comes entirely from the underground mining of rock salt deposits.

Of the total salt used or sold in 1939 there were 187,958 short tons or 44 per cent consumed directly by the producers themselves in the manufacture of caustic soda and other chemicals. Table and dairy grades sold were recorded at 70,390 short tons, 8,156 tons were reported as sold as highway salt while the balance of production totalling 157,996 short tons included common fine, common coarse and various other grades.

The number of Canadian firms reporting primary salt production in 1939 totalled 9; capital employed by the industry amounted to \$4,417,204 of which \$3,085,024 represented the value of buildings, machinery, etc., and \$274,326 the value of land. Employees numbered 547, including 65 female workers. Salaries and wages totalled \$741,736; \$276,267 were expended for fuel and electricity and \$37,161 for chemicals and other process supplies.

Imports of salt into Canada during 1939 totalled 117,629 short tons valued at \$507,368 compared with 108,131 short tons at \$453,765 in 1938. Included in the 1939 imports were 34,646 short tons for the use of sea and gulf fisheries. Exports of Canadian salt during 1939 totalled 10,656 short tons appraised at \$76,287. The total "apparent" consumption of salt in Canada in 1939, for all purposes, and in all forms was estimated at 531,473 short tons valued at \$2,917,713 compared with 536,332 short tons worth \$2,298,385 in 1938.

Statistics relating to Canadian salt production are available only since 1886 and Canadian salt production since that year to the end of 1939 totalled 8,413,987 short tons valued at \$48,050,840.

Table 207.—Capital Employed, 1938 and 1939

	1938	1939
	\$	\$
Present value of land, buildings, fixtures, machinery and tools.....	3,350,453	3,359,350
Inventory value of materials and finished products on hand, and stocks in process.....	330,952	399,454
Cash, bills and accounts receivable, prepaid expenses, etc.....	539,394	688,400
Total.....	4,270,799	4,447,204

Table 208.—Employees, Salaries and Wages, 1938 and 1939

	1938	1939
Number of employees:—		
On salaries—Male.....	78	78
Female.....	37	35
On wages—Male.....	415	404
Female.....	32	30
Total employees.....	562	547
Salaries.....	\$ 278,478	\$ 285,023
Wages.....	\$ 508,242	\$ 456,713
Total salaries and wages.....	\$ 786,720	\$ 741,736

Table 209.—Wage-Earners, by Months, 1938 and 1939

(On the last work-day of each month)

Months	1938			1939			Total
	Male	Female	Total	Surface		Under-ground	
				Male	Female		
	(Number)						
January.....	350	31	411	359	27	54	440
February.....	416	30	446	348	24	54	426
March.....	412	29	441	329	27	51	407
April.....	422	30	452	342	29	53	424
May.....	418	30	448	356	31	52	439
June.....	393	30	423	370	36	53	459
July.....	409	30	439	372	35	53	460
August.....	407	81	438	335	28	53	416
September.....	439	38	477	345	32	54	431
October.....	443	44	487	366	40	52	458
November.....	437	37	474	363	33	53	449
December.....	398	28	426	332	23	53	408
Average.....	415	32	447	351	30	53	434

Table 210.—Hours Worked per Week by Wage-Earners, 1939

(In one week in month of normal employment; overtime not included)

Regular hours worked per week	Number of wage-earners	Per cent of total	Regular hours worked per week	Number of wage-earners	Per cent of total
30 hours or less.....	9	2.0	55 hours.....	12	2.6
31-43 hours.....	18	4.1	56-64 hours.....	136	30.3
44 hours.....	97	21.6	65 hours and over.....	31	6.9
45-47 hours.....	7	1.6			
48 hours.....	117	26.0	Total.....	449	100.0
49-50 hours.....	12	2.7			
51-54 hours.....	10	2.2	Total wages paid in selected week.....	\$9,745	

Table 211.—Fuel and Electricity Used, 1938 and 1939

Kinds	Unit of measure	1938		1939	
		Quantity	Cost at works	Quantity	Cost at works
		\$		\$	
Bituminous coal—Canadian.....	ton	8,671	36,779	17,827	78,506
Imported.....	ton	42,855	179,550	33,725	137,305
Anthracite coal.....	ton	4,241	18,820	4,712	21,617
Lignite coal.....	ton	6,633	21,833	5,180	17,754
Coke.....	ton				
Gasoline.....	Imp. gal.	4,450	733	5,575	933
Kerosene.....	Imp. gal.	160	40	88	22
Fuel oil.....	Imp. gal.	78,582	8,460	84,541	9,265
Wood.....	cord				
Gas, natural.....	M cu. ft.			47	25
Electricity purchased.....	K.W.H.	2,123,280	12,496	1,767,603	10,840
Total.....	\$		278,711		276,267
Electricity generated for own use.....	K.W.H.	3,731,534		4,212,990	

Table 212.—Power Equipment, 1938 and 1939

	Ordinarily in use		In reserve or idle	
	Number of units	Total rated horsepower	Number of units	Total rated horsepower
1938				
Steam engines and steam turbines.....	26	2,656	4	78
Diesel engines.....	3	555	1	25
Gasoline, gas and oil engines (except Diesel).....	2	22	2	9
Electric motors run by purchased power.....	94	799	2	41
Total.....	125	4,032	9	153
Electric motors run by above primary units.....	141	1,708	3	50
Stationary boilers.....	9	3,800	4	600
1939				
Steam engines and steam turbines.....	18	2,210	6	190
Diesel engines.....	3	555		
Gasoline, gas and oil engines (except Diesel).....	2	24		
Electric motors run by purchased power.....	108	909	2	41
Total.....	131	3,698	8	231
Electric motors run by above primary units.....	130	1,642		
Stationary boilers.....	8	3,300		

Table 213.—Production of Salt, by Grades, 1938 and 1939

Grades	1938			1939		
	Manu- factured	Sold	Value of salt sold (not including containers)	Manu- factured	Sold	Value of salt sold (not including containers)
	tons	tons	\$	tons	tons	\$
Table, dairy and pressed blocks.....	83,323	85,422	876,204	68,629	70,390	1,223,433
Common, fine.....	101,949	104,174	418,810	85,921	84,106	503,589
Common, coarse.....	32,440	30,613	253,384	27,733	28,704	286,179
Highway salt.....	5,778	10,174	34,689	8,156	8,156	40,501
Land salt.....	88	71	397	288	268	1,697
Other grades.....	44,214	38,653	158,491	40,313	44,918	185,274
Brine for chemical works (salt equivalent sold or used).....	170,938	170,938	170,938	187,958	187,958	245,959
Total.....	438,736	440,045	1,913,913	424,998	424,500	2,486,632
Value of containers.....			576,806			471,350
Grand total.....	438,736	440,045	2,490,719	424,998	424,500	2,957,982

Table 214.—Total Production of Salt, Specified Years, 1886-1939

Years	Tons	\$	Years	Tons	\$
1886.....	62,359	227,195	1921.....	164,658	1,673,685
1890.....	43,754	198,857	1929.....	330,264	1,578,086
1895.....	52,376	160,455	1930.....	271,695	1,694,631
1900.....	62,055	279,458	1931.....	259,047	1,904,149
1913.....	100,791	491,290	1932.....	263,543	1,947,551
1914.....	107,038	493,648	1933.....	280,115	1,939,874
1915.....	119,900	600,226	1934.....	321,753	1,954,953
1916.....	132,903	717,653	1935.....	360,343	1,880,978
1917.....	138,909	1,047,792	1936.....	391,310	1,773,144
1918.....	131,727	1,285,039	1937.....	458,957	1,799,465
1919.....	148,301	1,397,929	1938.....	440,045	1,912,913
1920.....	209,855	1,544,724	1939.....	424,500	2,486,632

Table 215.—Production of Salt, by Provinces, 1930-1939

Years	Nova Scotia		Ontario		Manitoba		Saskatchewan		Alberta	
	Tons	\$	Tons	\$	Tons	\$	Tons	\$	Tons	\$
1930.....	23,058	136,226	248,637	1,558,405						
1931.....	27,718	143,761	231,329	1,790,388						
1932.....	31,897	150,708	231,138	1,789,751	508	7,092				
1933.....	34,278	161,880	244,107	1,755,087	1,499	18,388	231	4,510		
1934.....	42,886	191,917	276,751	1,734,196	1,664	20,137	452	8,703		
1935.....	38,701	161,650	320,003	1,668,508	1,538	19,765	101	2,046		
1936.....	38,774	183,915	350,044	1,557,078	2,498	32,151				
1937.....	47,865	216,401	407,701	1,530,599	3,391	43,465				
1938.....	44,950	194,759	388,130	1,637,140	2,920	34,979			4,045	46,035
1939.....	47,855	213,029	370,843	2,200,189	2,453	35,888			3,319	37,526

Table 216.—Available Statistics on Consumption of Salt in Canada, by Industries, 1938 and 1939*

Industries	1938		1939	
	Quantity used	Cost at works	Quantity used	Cost at works
	Pounds	\$	Pounds	\$
Fish canning and curing (factories only).....	38,146,100	206,797	42,939,790	212,325
Slaughtering and meat packing.....	72,938,200	391,772	77,119,352	405,238
Acids, alkalies and salts—Brine (salt content) and dry salt.....	398,870,603	332,411	333,004,000	331,797
Soaps and cleaning preparations.....	3,833,557	14,015	4,215,720	17,366
Dyeing, cleaning and laundry work.....	5,155,651	35,282	5,105,994	38,043
Dyeing and finishing of textiles.....	1,971,890	7,972	2,263,589	11,640
Artificial ice.....	1,435,067	6,212	1,782,233	7,685
Abrasives—artificial.....	406,000	1,784	520,000	2,265
Waterworks.....	(a)	(a)	3,888,000	(a)
Leather tanneries.....	10,868,261	40,280	12,514,496	55,389
Pulp and paper mills.....	20,686,000	68,485	25,652,000	87,365
Stock and poultry foods.....	4,150,000	27,016	5,428,000	42,439
Bread and other bakery products.....	11,076,372	140,230	15,730,960	144,129
Fruit and vegetable preparations.....	10,108,280	59,102	8,999,969	68,956
Biscuits, confectionery, etc.....	1,771,000	19,043	1,485,960	13,222
Foods, breakfast.....	1,655,734	10,768	1,528,023	10,207
Sausage and sausage casing.....	545,923	7,958	564,139	6,016
Ice cream industry (b).....	1,200,000	9,561	1,680,840	12,164
Breweries.....	280,544	2,809	412,823	3,434
Malt and malt products.....	265,605	1,179	258,023	1,173
Coffee, tea and spices.....	237,863	2,371	387,470	2,949
Macaroni, vermicelli, etc.....	94,940	770	109,337	1,074
Ice cream cones.....	4,279	33	9,010	91
Foods, miscellaneous.....	937,764	9,596	1,255,111	12,483
Butter and cheese.....		164,815		122,786
Starch and glucose.....	386,043	1,189	455,019	1,607

(x) In addition, large quantities of salt are used on highways. (a) Not compiled in 1938.

Table 217.—Salt Used by Producers in the Manufacture of Chemicals, 1925-1939

Year	Tons	Per cent of total salt output	Year	Tons	Per cent of total salt output
1925.....	93,500	40	1933.....	104,740	37
1926.....	113,020	43	1934.....	124,132	39
1927.....	115,985	43	1935.....	145,433	40
1928.....	135,138	45	1936.....	165,882	42
1929.....	168,327	51	1937.....	205,149	45
1930.....	114,737	42	1938.....	170,938	39
1931.....	97,958	38	1939.....	187,956	44
1932.....	96,242	37			

Table 218.—Imports into Canada and Exports of Salt, 1930-1939

Years	Exports		Imports	
	Quantity	Value	Quantity	Value
	Tons	\$	Tons	\$
1930.....	8,758	74,397	128,385	660,903
1931.....	6,126	55,110	130,890	751,938
1932.....	5,627	36,248	102,033	595,954
1933.....	5,335	43,461	135,620	651,237
1934.....	6,597	48,097	138,794	586,033
1935.....	9,045	51,239	128,247	526,740
1936.....	5,549	46,601	108,925	460,998
1937.....	9,329	61,522	116,460	466,190
1938.....	11,844	68,293	108,131	453,765
1939.....	10,656	76,287	117,629	507,368

Table 219.—Imports into Canada and Exports of Salt, 1938 and 1939

	1938		1939	
	Tons	Value	Tons	Value
		\$		\$
IMPORTS—				
Salt, for the use of the sea or gulf fisheries.....	39,016	110,808	34,046	97,598
Salt, in bulk, n.o.p.....	44,692	169,039	54,659	193,233
Salt, n.o.p. in bags, barrels, etc.....	24,384	172,742	28,313	216,171
Salt, table, made by an admixture of other ingredients, when containing not less than 90 per cent of pure salt.....	41	1,176	11	366
Total.....	108,133	453,765	117,629	507,368
EXPORTS—				
Total.....	11,844	68,293	10,656	76,287

List of Firms in the Salt Industry, 1939

Names of firms	Head offices	Location of plants
NOVA SCOTIA—		
Malagash Salt Co. Ltd.....	196 Provost St., New Glasgow.....	Malagash.
ONTARIO—		
Brunner, Mond Canada, Ltd.....	Canadian Bank of Commerce Bldg., Toronto.....	Amherstburg.
Canadian Industries Limited.....	P.O. Box 10, Montreal, P.Q.....	Windsor.
The Dominion Salt Co. Ltd.....	Sarnia.....	Sarnia.
Goderich Salt Co. Ltd.....	Goderich.....	Goderich.
Warwick Pure Salt Co. Ltd.....	R.R. 5, Watford.....	Lambton Co.
Western Canada Flour Mills Co. Ltd.....	287 MacPherson Ave., Toronto.....	Goderich.
MANITOBA—		
Neepawa Salt Ltd.....	P.O. Box 10, Montreal, P.Q.....	Neepawa.
ALBERTA—		
Industrial Minerals Ltd.....	423 Canada Cement Bldg., Montreal, Que.	Waterways

CHAPTER FOURTEEN

THE SAND-LIME BRICK INDUSTRY

Four plants in Ontario and one in Quebec manufactured sand-lime building brick during 1939. The value of their production, including building blocks and bricks, was \$212,223 compared with \$153,763 in 1938.

These five plants had a capital investment in Canada of \$382,745 as represented by the value of lands, buildings, machinery, inventories and accounts receivable. They employed an average of 74 persons monthly who received \$73,885 in salaries and wages; spent \$19,587 for fuel and electricity and paid \$66,187 for the materials used in manufacturing processes.

Output of sand-lime brick amounted to 11,805 M valued at \$133,168, an increase in both quantity and value from the 8,774 M brick at \$99,573 in the previous year. Production of sand-lime building blocks also increased to \$67,407 from \$37,660.

Table 220.—Capital Employed, 1938 and 1939

	1938	1939
	\$	\$
Present value of lands, buildings, fixtures, machinery and tools.....	466,929	302,323
Inventory value of materials on hand, finished products and stocks in process.....	36,214	35,858
Cash, bills and accounts receivable, prepaid expenses, etc.....	39,505	44,566
Total.....	542,648	382,745

Table 221.—Employees, Salaries and Wages, 1938 and 1939

	1938	1939
Salaries		
Salaried employees—Male.....	13	13
Female.....	1	1
Total.....	14	14
Wages		
Wage-earners—Male.....	54	60
Female.....		
Total.....	54	60
Total employees.....	68	74
Salaries.....	\$ 19,861	\$ 22,582
Wages.....	\$ 42,564	\$ 51,303
Total salaries and wages.....	\$ 62,425	\$ 73,885

Table 222.—Wage-Earners, by Months, 1938 and 1939
(On the last work-day of each month)

Months	1938	1939	Months	1938	1939
January.....	42	42	August.....	76	74
February.....	39	40	September.....	60	70
March.....	42	49	October.....	46	57
April.....	58	59	November.....	42	68
May.....	50	66	December.....	44	68
June.....	71	59			
July.....	80	73	Average.....	54	60

Table 223.—Fuel and Electricity Used, 1938 and 1939

Kinds	Unit of measure	1938		1939	
		Quantity	Cost at works	Quantity	Cost at works
			\$		\$
Coal, bituminous—Canadian.....	short ton	744	3,832	236	1,298
Imported.....	short ton	1,211	6,368	1,995	11,628
Electricity purchased.....	K.W.H.	261,740	5,804	329,011	6,661
Total			16,004		19,587

Table 224.—Power Equipment, 1938 and 1939

	Ordinarily in use		In reserve or idle	
	Number of units	Total rated horsepower	Number of units	Total rated horsepower
1938				
Primary equipment.....				
Electric motors run by purchased power.....	38	938		
Total	38	938		
Stationary boilers.....	9	1,185	1	120
1939				
Primary equipment.....				
Electric motors run by purchased power.....	35	813		
Total	35	813		
Stationary boilers.....	8	761		

Table 225.—Materials Used in Manufacturing, 1938 and 1939

Materials	Unit of measure	1938		1939	
		Quantity	Cost at works	Quantity	Cost at works
			\$		\$
Quicklime.....	ton	3,950	28,954	4,192	31,303
Sand.....	cu. yd.	18,777	20,133	24,639	25,601
Other materials.....			3,789		9,283
Total			52,876		66,187

Table 226.—Products, 1938 and 1939

Products		1938		1939	
		Quantity	Selling value at works	Quantity	Selling value at works
			\$		\$
Sand-lime brick.....	M	8,774	99,573	11,805	133,168
Sand-lime building blocks.....	M	373	37,660		67,407
Other products (x).....			16,530		11,648
Total			153,763		212,223

(x) Includes some cinder blocks.

Table 227.—Production of Sand-Lime Brick in Canada, 1920-1939

Years	Quantity		Selling value at works		Years	Quantity		Selling value at works	
	M	£	M	£		M	£	M	£
1920.....	39,264	693,641	1930.....	52,770	567,022				
1921.....	43,457	662,744	1931.....	46,003	469,783				
1922.....	52,749	851,007	1932.....	10,819	131,440				
1923.....	60,080	897,960	1933.....	8,541	91,468				
1924.....	55,873	618,946	1934.....	12,744	135,588				
1925.....	68,869	854,055	1935.....	10,522	120,307				
1926.....	50,282	606,409	1936.....	11,456	119,707				
1927.....	72,864	864,911	1937.....	11,363	125,880				
1928.....	82,271	1,038,510	1938.....	8,774	99,573				
1929.....	78,361	953,726	1939.....	11,805	133,168				

Directory of Firms in the Sand-Lime Brick Industry, 1939

Names of companies	Location of plants
Standard Lime Company Limited.....	1595 St. Gregoire St., Montreal, P.Q.
Harbour Brick Company Limited.....	565 Fleet St. W., Toronto, Ont.
Hinde Bros.....	134 Northland Ave., Toronto, Ont.
Toronto Brick Company Ltd.....	Victoria Park Ave., Toronto, Ont.
York Sandstone Brick Company Ltd.....	447 Victoria Park Ave., Toronto, Ont.

CHAPTER FIFTEEN

THE STONE PRODUCTS INDUSTRY

The Stone Industry in Canada comprises two main divisions:—1. *The Stone Quarrying Industry*, including quarries and dressing works operated in conjunction with quarries, and 2. *The Stone Products Industry*, comprising the operations of firms having no quarries but who operate dressing works where stone for building and monumental purposes is cut, polished or otherwise finished. Statistics for the second of these divisions are given in detail herewith. Detailed data for the first division are included under the mining industry and do not come within the scope of this report, although a number of tables relating to this phase of the industry are shown as a supplement to the present chapter.

In 1939 there were 190 stone-working plants whose operations were reported separately from the quarries. These plants were engaged chiefly in cutting or polishing Canadian or imported stone to produce finished monuments or cut and dressed stone for construction purposes. Retail establishments engaged only in selling and lettering monuments have not been included.

Output from this industry was valued at \$3,805,989 in 1939, a decline of 2.5 per cent from the total of \$3,902,774 reported for the previous year. The 87 works in Ontario accounted for 54 per cent of the total output and the 44 plants in Quebec for 27 per cent. The average number of employees was 1,257 and \$1,458,780 were paid in salaries and wages. Materials used in the cutting and dressing processes, including stone, cost \$1,259,547 and expenditures for fuel and electricity amounted to \$139,438.

The stone industry as a whole employed capital amounting to \$17,204,666 in 1939 and production, including the value of the quarry output and the value added by manufacturing in the secondary stone industry, totalled \$9,022,138. Salaried employees and wage-earners employed in 1939 numbered 4,333 and their combined earnings amounted to \$4,275,358.

Table 228.—Principal Statistics of the Stone Products Industry, by Provinces, 1938 and 1939

Provinces	Number of plants	Capital employed	Average number of employees	Salaries and wages	Cost of fuel and electricity at works	Cost of materials at works	Gross selling value of products at works
		\$		\$	\$	\$	\$
1938							
Prince Edward Island.....	2						
New Brunswick.....	5	111,128	32	32,775	2,141	27,130	89,842
Nova Scotia.....	10	99,046	41	36,930	2,772	37,812	113,758
Quebec.....	48	1,298,865	309	355,573	34,735	278,666	857,814
Ontario.....	125	2,865,933	674	887,480	82,989	754,124	2,248,014
Manitoba.....	14	196,646	67	58,135	4,259	45,047	137,326
Saskatchewan.....	10	159,038	29	38,950	3,433	24,328	83,845
Alberta.....	7	268,621	37	49,935	2,760	25,221	131,766
British Columbia.....	13	172,737	72	101,153	5,170	79,322	240,409
Canada.....	234	5,172,014	1,261	1,569,931	138,259	1,271,650	3,902,774
1939							
Prince Edward Island.....	2						
New Brunswick.....	5	120,910	35	37,225	2,270	27,660	87,635
Nova Scotia.....	9	106,829	37	36,726	2,921	42,292	118,019
Quebec.....	44	1,386,105	379	404,286	38,363	401,249	1,031,619
Ontario.....	87	2,619,038	613	765,813	81,541	640,926	2,044,382
Manitoba.....	13	172,770	53	41,346	4,038	33,785	102,638
Saskatchewan.....	10	153,860	39	43,184	3,211	27,113	95,075
Alberta.....	7	260,621	46	51,601	3,272	48,223	154,802
British Columbia.....	13	171,497	55	78,639	3,822	38,299	171,819
Canada.....	190	4,991,636	1,257	1,458,780	139,438	1,259,547	3,805,989

Table 229.—Capital Employed in the Stone Products Industry, 1938 and 1939

Provinces	Present value of land, buildings, fixtures, machinery and tools	Inventory value of materials on hand, finished products and stocks in process	Operating capital (cash, bills and accounts receivable, prepaid expenses, etc.)	Total capital employed
	\$	\$	\$	\$
1938				
Prince Edward Island.....	45,825	39,515	25,788	111,128
New Brunswick.....	55,174	21,688	22,184	99,046
Nova Scotia.....	747,011	280,423	271,431	1,298,865
Quebec.....	1,768,681	529,859	567,393	2,865,933
Ontario.....	71,963	79,519	45,164	196,646
Manitoba.....	68,566	38,177	52,295	159,038
Saskatchewan.....	149,084	36,352	92,185	268,621
Alberta.....	100,757	27,538	44,442	172,737
British Columbia.....				
Canada.....	2,998,961	1,053,071	1,120,882	5,172,914
1939				
Prince Edward Island.....	46,345	43,173	31,398	120,916
New Brunswick.....	60,857	12,725	33,247	106,829
Nova Scotia.....	926,464	259,054	200,587	1,386,105
Quebec.....	1,575,165	480,209	563,664	2,619,038
Ontario.....	58,703	77,152	38,915	172,770
Manitoba.....	67,973	36,651	49,236	153,860
Saskatchewan.....	143,786	30,057	86,778	260,621
Alberta.....	96,336	26,491	48,700	171,527
British Columbia.....				
Canada.....	2,975,629	965,482	1,050,525	4,991,636

Table 230.—Employees, Salaries and Wages in the Stone Products Industry, by Provinces, 1938 and 1939

Provinces	Average number of employees					Salaries	Wages	Total salaries and wages
	On salaries		On wages		Total			
	Male	Female	Male	Female				
1938								
Prince Edward Island.....	7	3	21	1	32	12,828	19,947	32,775
New Brunswick.....	13	1	27		41	15,423	21,507	36,930
Nova Scotia.....	80	7	222		309	118,851	236,722	355,673
Quebec.....	196	16	456	6	674	336,583	550,897	887,480
Ontario.....	24	4	39		67	26,642	31,393	58,135
Manitoba.....	15		14		29	20,626	18,324	38,950
Saskatchewan.....	12	3	20	2	37	23,135	26,800	49,935
Alberta.....	22	2	47	1	72	34,888	60,265	101,153
British Columbia.....								
Canada.....	369	38	846	10	1,261	588,976	971,953	1,560,931
1939								
Prince Edward Island.....	6	4	25		35	12,007	25,218	37,225
New Brunswick.....	10	1	26		37	12,017	24,709	36,726
Nova Scotia.....	73	6	309		379	114,690	289,626	404,316
Quebec.....	161	17	426	9	613	293,922	481,891	765,813
Ontario.....	17	4	31	1	53	15,265	26,061	41,346
Manitoba.....	19	2	17	1	39	25,244	17,940	43,184
Saskatchewan.....	13	4	29		46	21,434	30,137	51,561
Alberta.....	21	1	33		55	31,018	47,621	78,639
British Columbia.....								
Canada.....	320	39	887	11	1,257	515,577	943,203	1,458,780

MANUFACTURES OF NON-METALLIC MINERALS

Table 231.—Wage-Earners, by Months, 1938 and 1939

(On the last work day of each month)

Months	1938			1939		
	Male	Female	Total	Male	Female	Total
January.....	615	6	621	647	6	653
February.....	621	5	626	714	6	720
March.....	720	8	728	758	7	765
April.....	830	9	839	837	10	847
May.....	870	10	880	957	10	967
June.....	914	9	923	982	10	992
July.....	945	9	954	1,071	10	1,081
August.....	1,045	9	1,054	1,066	10	1,076
September.....	972	9	981	1,015	10	1,025
October.....	917	8	925	896	9	905
November.....	835	8	843	866	8	874
December.....	736	7	743	785	8	793
Average.....	846	10	856	887	11	898

Table 232.—Hours Worked per Week by Wage-Earners, 1939

(In one week in month of highest employment; overtime not included)

Regular hours worked per week	Number of wage-earners	Per cent of total	Regular hours worked per week	Number of wage-earners	Per cent of total
30 hours or less.....	108	9.9	49-50 hours.....	89	8.2
31-43 hours.....	188	17.3	51-54 hours.....	37	3.4
44 hours.....	350	32.1	55 hours.....	31	2.8
45-47 hours.....	41	3.8	56-64 hours.....	45	4.1
48 hours.....	150	13.8	65 hours and over.....	50	4.6
			Total.....	1,089	100.0
			Total wages paid in selected week..... \$24,955		

Table 233.—Fuel and Electricity Used in the Stone Products Industry, 1938 and 1939

Kinds	Unit of measure	1938		1939	
		Quantity	Cost at works	Quantity	Cost at works
			\$		\$
Bituminous coal—Canadian.....	ton	239	2,088	1,427	8,782
Imported.....	ton	1,446	8,318	950	5,991
Anthracite coal.....	ton	348	3,412	287	3,214
Coke.....	ton	868	8,110	411	4,158
Gasoline.....	Imp. gal.	12,732	3,512	24,171	2,899
Kerosene or coal oil.....	Imp. gal.	135	37	5,649	1,175
Fuel oil.....	Imp. gal.	35,600	3,181	66,586	4,767
Wood.....	cord	331	1,608	252	1,201
Gas—Manufactured.....	M cu. ft.	107	95	30	31
Natural.....	M cu. ft.	656	437	742	449
Other fuel.....			1,098		897
Electricity purchased.....	K.W.H.	10,820,887	106,357	6,512,361	105,864
Total.....			138,259		139,438

Table 234.—Power Equipment in the Stone Products Industry, 1938 and 1939

Kinds	Ordinarily in use		In reserve or idle	
	Number of units	Total rated horse power	Number of units	Total rated horse power
1938				
Steam engines and steam turbines.....	1	150		
Diesel engines.....	2	97	1	9
Gasoline, gas and oil engines (other than Diesel).....	12	168	2	50
Hydraulic turbines and water wheels.....	1	25		
Electric motors run by purchased power.....	727	9,902	58	1,044
Total.....	743	10,342	61	1,103
Electric motors run by power generated by above primary units.....	1	5		
Stationary boilers.....	2	95	1	80
1939				
Steam engines and steam turbines.....	1	150		
Diesel engines.....	3	106		
Gasoline, gas and oil engines (other than Diesel).....	14	163	1	10
Electric motors run by purchased power.....	724	9,796	62	1,082
Total.....	742	10,215	63	1,092
Electric motors run by power generated by above primary units.....	1	10		
Stationary boilers.....	5	237	1	90

Table 235.—Cost of Stone Used in the Stone Products Industry, 1938 and 1939

Materials	Cost at works	
	1938	1939
	\$	\$
Granite and marble from Canadian quarries.....	647,007	521,918
Granite and marble (imported).....	260,572	307,984
Monuments, cut and polished, for lettering only.....	189,357	106,275
All other materials.....	174,714	323,370
Total.....	1,271,650	1,259,547

Table 236.—Products of the Stone Products Industry, 1938 and 1939

Products	Total selling value at works	
	1938	1939
	\$	\$
Granite, cut and polished—		
(a) Monuments.....	1,515,000	1,513,958
(b) For building purposes.....	216,485	438,619
Marble, cut and polished—		
(a) Monuments.....	127,803	129,623
(b) For building purposes.....	369,698	174,275
Marble chips and dust.....	81,312	47,920
Limestone—		
(a) Monuments and bases.....	109,036	53,309
(b) For building purposes.....	832,123	664,270
Finished monuments, lettered only.....	385,669	182,828
Other products.....	210,491	561,560
Repairs and custom work (re-lettering, etc.).....	55,157	39,627
Total.....	3,902,774	3,865,869

Table 237.—Production from the Stone Products Industry, by Provinces, 1938 and 1939

	Granite		Marble		Marble chips and dust	Limestone		Finished monuments, lettered only	Other products	Total
	Monuments	For building purposes	Monuments	For building purposes		Monuments and bases	For building purposes			
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Prince Edward Island and New Brunswick—										
1938.....	65,399	1,398	700	14,770			7,275	300	89,842	
1939.....	63,283	87	13,780			1,610	8,595	280	87,635	
Nova Scotia—										
1938.....	71,476	100	11,179			2,591	24,650	3,762	113,758	
1939.....	73,863	2,900	8,856	4,816			25,875	1,709	118,019	
Quebec—										
1938.....	323,656	40,004	28,068	203,539	67,923	13,993	140,783	22,822	17,026	857,814
1939.....	323,922	281,547	15,298	76,494	37,076	4,795	119,050	34,516	138,921	1,031,619
Ontario—										
1938.....	819,917	15,123	40,121	142,964	75	63,431	669,865	264,559	231,959	2,248,014
1939.....	799,165	438	57,932	72,881	518	37,914	539,317	89,320	446,899	2,044,382
Manitoba—										
1938.....	69,190	679	7,457	8,250	325	11,785		34,990	4,659	137,326
1939.....	71,968	1,911	11,033	5,837	255	6,690	3,591	534	819	102,633
Saskatchewan—										
1938.....	31,206	679	21,718	175	2,980	4,918	3,475	13,933	4,710	83,845
1939.....	45,321	24,777	235	4,697			357	12,589	7,099	85,075
Alberta—										
1938.....	61,131	8,000	16,316		10,009	3,628	18,000	13,480	1,202	131,766
1939.....	63,024	36,660	20,154	9,250	10,931	2,100		9,719	2,964	154,802
British Columbia—										
1938.....	72,965	150,520	2,244			8,690		3,960	2,030	240,409
1939.....	72,512	90,301	2,335	300	40	200	1,955	1,880	2,496	171,519
Canada—										
1938.....	1,515,000	216,485	127,863	309,698	81,312	109,036	832,123	385,669	265,648	3,902,774
1939.....	1,512,958	436,619	129,623	174,275	47,920	53,309	664,270	182,828	601,187	3,805,959

Table 238.—Total Production in Canada of Dressed Building Stone, 1925-1939

Years	Granite		Marble		Limestone		Sandstone from quarries	Total
	From quarries	From dressing works	From quarries	From dressing works	From quarries	From dressing works		
	\$	\$	\$	\$	\$	\$	\$	\$
1925.....	236,651	73,376	223,840	573,602	378,194	1,909,212	18,114	3,412,989
1926.....	190,711	74,792	4,500	944,945	602,211	1,969,755	13,036	3,559,950
1927.....	267,194	83,877		673,120	716,929	1,713,445	8,784	3,463,355
1928.....	667,050	314,553	340,585	883,076	702,081	2,861,336	18,000	5,786,681
1929.....	746,537	465,185	347,256	1,621,112	944,491	2,739,504	92,500	6,956,585
1930.....	1,189,120	902,519	687,115	1,339,108	1,416,277	2,706,390	286,972	8,527,501
1931.....	1,011,499	1,032,202	576,458	1,054,932	1,085,767	1,372,121	686,616	6,819,615
1932.....	336,632	79,136	188,743	339,627	348,187	636,294	20,580	1,949,199
1933.....	114,318	40,224	27,377	73,445	111,235	281,074	19,300	666,973
1934.....	216,574	35,957		137,002	173,536	280,279	5,500	849,748
1935.....	403,951	184,033	16,000	130,227	425,247	837,985	97,400	2,094,843
1936.....	171,858	330,306	104,738	175,834	189,064	514,375	167,859	1,654,034
1937.....	252,346	179,557	18,297	347,405	248,659	438,450	51,893	1,536,607
1938.....	244,501	216,485	1,440	369,698	227,324	832,123	83,692	1,975,263
1939.....	561,253	438,619	145,618	174,275	349,547	664,270	101,448	2,435,030

Table 239.—Total Production in Canada of Dressed Monumental and Ornamental Stone, 1925-1939

Years	Granite		Marble		Limestone		Sandstone from quarries	Total
	From quarries	From dressing works	From quarries	From dressing works	From quarries	From dressing works		
	\$	\$	\$	\$	\$	\$		
1925	188,513	1,387,655		292,621	754	154,488		2,024,634
1926	196,820	1,619,206	466,648	376,850	3,908	94,446		2,737,887
1927	147,510	1,728,293	449,717	420,651	1,523	97,264		2,814,958
1928	125,744	1,718,988	9,700	404,958	2,237	132,406		2,393,133
1929	149,310	1,815,463		391,947	4,722	325,876		2,687,818
1930	111,594	1,815,143		350,323	3,577	319,472		2,600,019
1931	251,370	1,584,009		257,608	6,300	43,584		2,113,030
1932	196,071	1,104,283		180,323	2,532	43,652		1,586,861
1933	215,610	1,111,354		200,313	2,808	30,370		1,560,521
1934	244,286	1,271,008	24,342	168,201	3,488	27,036		1,738,362
1935	277,508	1,268,414		158,249	1,680	28,690		1,732,601
1936	231,482	1,317,005		150,629		35,162		1,734,278
1937	218,140	1,468,895	*800	176,101	2,335	117,404		1,983,775
1938	294,001	1,515,000	2,644	127,803	79,156	109,636		2,127,640
1939	260,375	1,513,958	800	129,623	3,321	53,309	325	1,961,711

* Sandstone.

Table 240.—Imports into Canada and Exports of Stone, by Kinds, 1938 and 1939

	1938		1939	
	Tons	Value	Tons	Value
IMPORTS—		\$		\$
Curling stones and handles..... pair	746	16,385	586	13,017
Building stone, other than marble or granite, planed, turned, cut or further manufactured than sawn on four sides.....	0.1	19	0.2	11
Flagstone, sandstone, and all building stone, not hammered, sawn or chiselled	3,604	20,757	4,586	27,801
Flagstone and building stone, other than marble or granite, sawn on not more than two sides.....	1,849	13,997	1,169	9,644
Granite, rough, not hammered or chiselled.....		62,735		07,273
Granite, sawn only.....		10,429		10,166
Granite, monuments.....		16,949		10,941
Granite, manufactures of, n.o.p.....		8,990		6,368
Marble, rough, not hammered or chiselled.....		23,102		20,436
Marble, sawn or sand rubbed, not polished.....		28,051		32,716
Marble, not further manufactured than sawn for tombstones.....		11,886		11,088
Marble, manufactures of, n.o.p.....		8,634		11,184
Ornamental or decorative marble (not chips), unicolour or variegated, of colours or texture not produced in Canada; rough or dressed, etc., for church interiors.....		9,743		22,373
Paving blocks of stone.....				
Refuse stone, not sawn, hammered or chiselled.....	303,103	160,618	504,592	287,577
Slate roofing..... square	1,174	10,651	963	7,856
Slate pencils and school writing slates.....		5,244		4,618
Slate mantels and manufactures of slate, n.o.p.....		19,935		17,785
Chalk, china, Cornwall or cliff stone and mica schist.....		22,572		22,831
Mimeral wool.....	669	45,109	811	44,860
Whiting, gilders' whiting and Paris white.....	10,701	116,923	13,105	152,397
Lithographic stones not engraved.....		30,518		16,551
Chalk prepared.....		449		
Pumice and pumice stone, lava and calcareous tufa, not further manufactured than ground.....		5,731		8,295
		24,688		29,314
Grindstones, not mounted, and not less than 36 inches in diameter..... No.	840	91,205	849	126,360
Burrstones, rough in blocks..... No.	22	213	15	210
Ganister.....	300	2,835	255	2,018
Total		768,412		963,560
EXPORTS—				
Crushed stone*.....	112,567	198,720	32	32
Granite and marble, unwrought.....	657	5,042	925	10,235
Freestone, limestone, and other building stone, unwrought.....	42	227	94	828
Dressed stone of all kinds.....		16,156		2,035
Grindstones, manufactured.....		5,441		6,312
Quartzite.....			108,397	196,418
Total		225,586		215,860

* Included quartzite prior to January 1, 1939.

Primary Production—The Stone Quarrying Industry.—The kinds of stone quarried in Canada include granite (trap rock, syenite and other igneous rock), limestone, marble, sandstone, and slate. Stone of almost every known variety occurs in Canada; rocks of the igneous areas of British Columbia, Manitoba, Ontario, Quebec and the Maritime Provinces exhibit a wide range of physical characteristics, some varieties being especially noted for their richness of colour and beauty of crystallization. The sedimentary rocks, including limestones, sandstones and marbles are quarried at various points in Canada. The products from quarries operating in these different formations not only yield high class structural and decorative materials but provide the chemical and other allied industries with many of their increasing requirements.

The gross value of all varieties of stone produced in Canada during 1939 totalled \$6,475,696 compared with \$5,556,026 in 1938. Comprising the tonnage shipped in 1939 were 1,102,395 tons of granite valued at \$2,119,501; 4,149,589 tons of limestone at \$3,817,551; 14,124 tons of marble at \$200,054; 176,265 tons of sandstone at \$331,830 and 1,149 tons of slate worth \$6,760. Of the total value of stone sold in 1939, the value of Quebec shipments amounted to 51 per cent, Ontario 35 per cent and British Columbia 6 per cent.

Imports of stone and various stone products during 1939 were appraised at \$963,560 compared with \$768,412 in 1938. Exports of stone from Canada in 1939 were valued at \$215,860 as against \$225,586 in the preceding year.

The number of firms in the stone quarrying industry, reported as active in 1939, totalled 452; capital employed amounted to \$12,213,030; employees numbered 3,076; salaries and wages paid aggregated \$2,816,578 and the cost of fuel, electricity and process supplies used was reported at \$1,081,884.

Table 241.—Principal Statistics of the Stone Quarrying Industry in Canada, 1938 and 1939

	1938	1939
Number of firms.....	429	452
Capital employed.....\$	11,187,274	12,213,030
Number of employees—On salary.....	266	303
On wages.....	2,549	2,773
Total.....	2,815	3,076
Salaries and wages—Salaries.....\$	347,959	472,413
Wages.....\$	1,950,195	2,344,165
Total.....\$	2,298,154	2,816,578
Selling value of products (Gross).....\$	5,556,026	6,475,696
Cost of fuel and electricity.....\$	433,041	456,966
Process supplies used.....\$	457,309	624,918
Selling value of products (Net).....\$	4,665,676	5,393,812

Table 242.—Production of Stone from Canadian Quarries by Kinds showing Purposes for which Used, 1938 and 1939

For use as follows:	Granite (a)	Limestone (b)	Marble	Sandstone	Slate	Total
1938						
Building stone—Rough..... tons	6,468	17,094	59	2,745		26,366
\$	36,819	115,891	1,446	14,289		168,445
Dressed..... tons	7,294	13,553	180	2,273		23,300
\$	244,501	227,324	1,440	83,692		556,957
Monumental and ornamental stone—						
Rough..... tons	14,506	331	353	12		15,202
\$	53,059	1,776	17,592	100		72,527
Dressed..... tons	3,704	3,454	22			7,180
\$	294,001	79,156	2,644			375,801
Flagstone..... tons	80	363		463	17	923
\$	28	365		2,555	111	3,059
Curbstone..... tons	5,975	200		150		6,325
\$	12,195	750		2,000		14,945
Paving blocks..... tons	981			20		981
\$	10,673			235		10,908
Lining open-hearth furnaces..... tons		634				634
\$		1,440				1,440

Table 242.—Production (Sales) of Stone from Canadian Quarries by Kinds showing Purposes for which Used, 1938 and 1939—Continued

For use as follows—	Granite (a)	Limestone (b)	Marble	Sandstone	Slate	Total
1938						
Chemical—						
Flux in iron and steel furnaces..... tons		190,366				190,366
Flux in non-ferrous smelters..... tons		145,416				145,416
Flux in non-ferrous smelters..... \$		124,238				124,238
Glass factories..... tons		88,255				88,255
Glass factories..... \$		308	236			544
Pulp and paper mills..... tons		463	1,158			1,621
Pulp and paper mills..... \$		114,572				114,572
Sugar refineries..... tons		126,980				126,980
Sugar refineries..... \$		90				90
Other chemical uses..... tons		360				360
Other chemical uses..... \$		121,927				121,927
Pulverized Stone—		105,368				105,368
Whiting (substitute)..... tons						
Whiting (substitute)..... \$						
Asphalt filler..... tons		9,631				9,631
Asphalt filler..... \$		30,050				30,050
Dusting coal mines..... tons		761				761
Dusting coal mines..... \$		3,045				3,045
Agricultural purposes and fertilizer plants..... tons		128,289	1,400			129,689
Agricultural purposes and fertilizer plants..... \$		142,707	3,850			146,557
Other uses..... tons		26,580			19	26,608
Other uses..... \$		8,162			105	8,267
Crushed stone for the manufacture of artificial stone..... tons		10	2,557			2,567
Crushed stone for the manufacture of artificial stone..... \$		10	13,351			13,361
Roofing granules..... tons	8,889	8			344	9,241
Roofing granules..... \$	75,468	8			3,632	79,108
Poultry grit..... tons		1,222	1,010			2,238
Poultry grit..... \$		4,568	5,057			9,715
Stucco dash..... tons		137	2,453			2,611
Stucco dash..... \$		210	12,136			13,177
Terrazzo chips..... tons		15	4,618			4,633
Terrazzo chips..... \$		22	19,409			19,431
Rock wool..... tons		4,499				4,499
Rock wool..... \$		4,204				4,204
Rubble and riprap..... tons	240,151	240,361	3,281	16,829	494	501,216
Rubble and riprap..... \$	156,607	183,725	3,447	14,906	547	359,232
Crushed Stone—						
Concrete aggregate..... tons	88,111	885,643		7,985		981,739
Concrete aggregate..... \$	75,230	706,350		10,391		791,971
Road metal..... tons	329,126	2,327,033	3,106	62,552	105	2,721,932
Road metal..... \$	420,514	1,837,424	5,744	81,412	1,916	2,347,010
Railroad ballast..... tons		77,194		8,825		86,019
Railroad ballast..... \$		49,991		8,825		58,816
Canada (b)..... tons	705,307	4,288,507	19,375	101,854	979	5,116,022
..... \$	1,379,417	3,864,619	87,271	219,405	6,311	5,556,026
1939						
Building stone—Rough..... tons	12,098	14,621	88	4,111		31,118
Building stone—Rough..... \$	64,752	89,191	4,744	17,787		176,474
Building stone—Dressed..... tons	17,460	17,296	955	4,459		40,170
Building stone—Dressed..... \$	561,263	349,547	145,618	101,448		1,157,866
Monumental and ornamental stone—						
Rough..... tons	4,613	33	211			4,857
Rough..... \$	42,678	12	5,508			48,198
Dressed..... tons	3,262	165	5	7		3,439
Dressed..... \$	260,375	3,321	800	325		264,821
Flagstone..... tons	99	684		820		1,603
Flagstone..... \$	225	2,297		3,558		6,080
Curbstone..... tons	1,446					1,446
Curbstone..... \$	7,548					7,548
Paving blocks..... tons	775					775
Paving blocks..... \$	6,233					6,233
Lining open-hearth furnaces..... tons		24,331				24,331
Lining open-hearth furnaces..... \$		17,038				17,038
Chemical—						
Flux in iron and steel plants..... tons		135,583				135,583
Flux in iron and steel plants..... \$		107,748				107,748
Flux in smelters..... tons		138,387				138,387
Flux in smelters..... \$		95,924				95,924
Glass factories..... tons		890	173			1,063
Glass factories..... \$		1,112	848			1,960
Pulp and paper mills..... tons		175,154				175,154
Pulp and paper mills..... \$		206,126				206,126
Sugar refineries..... tons		5,141				5,141
Sugar refineries..... \$		5,704				5,764
Other chemical uses..... tons		121,950				121,950
Other chemical uses..... \$		106,057				106,057
Pulverized stone—						
Whiting (substitute)..... tons		100				100
Whiting (substitute)..... \$		1,250				1,250

Table 242.—Production (Sales) of Stone from Canadian Quarries by Kinds showing Purposes for which Used, 1938 and 1939—Concluded

For use as follows—	Granite (a)	Limestone (b)	Marble	Sandstone	Slate	Total
Asphalt filler.....	tons 19,726					19,726
\$ 45,858						45,858
Dusting coal mines.....	tons 585					585
\$ 2,340						2,340
Agricultural purposes.....	tons 191,833		672			192,505
\$ 269,353			1,941			271,294
Other uses.....	tons 13,357		1,403		10	14,770
\$ 50,172			4,766		103	55,041
Crushed stone for manufacture of artificial stone.....	tons 173		1,143			1,316
\$ 115			4,049			4,164
Roofing granules.....	tons 10,865	400	80		456	11,801
\$ 92,782	630		320		5,974	99,706
Poultry grit.....	tons 6	1,645	1,432			3,083
\$ 90	5,344		7,015			12,449
Stucco dash.....	tons 20	175	1,300			1,495
\$ 200	1,110		8,088			9,398
Terrazzo chips.....	tons		3,046			3,046
\$			15,205			15,205
Rock wool.....	tons 4,665					4,665
\$ 4,905						4,905
Rubble and riprap.....	tons 174,437	218,000	3,326	32,759	683	429,205
\$ 109,360	152,581	832	17,546	683		311,002
Crushed stone— Concrete aggregate.....	tons 270,224	1,039,666	38	34,708		1,344,536
\$ 265,322	811,586	152	41,968			1,109,028
Road metal.....	tons 201,645	1,836,068	252	93,341		2,131,306
\$ 262,303	1,307,728	168	143,138			1,773,337
Railroad ballast.....	tons 405,272	188,934		6,060		600,266
\$ 396,265	120,557		6,060			522,882
Canada (b).....	tons 1,192,395	4,149,589	14,124	176,265	1,149	5,443,522
\$ 2,119,501	3,817,531	200,054	331,830	6,760		6,475,696

(a) Includes all igneous rock. (b) Does not include limestone used in Canadian lime and cement industries, but includes marl used for agricultural purposes.

Table 243.—Production (Sales) of Stone from Canadian Quarries, by Kinds and by Provinces, 1938 and 1939.

Provinces	Granite (a)	Limestone (b)	Marble	Sandstone	Slate	Total
1938						
Nova Scotia.....	tons 5,765	20,957		36,940		63,662
\$ 31,768	34,686		80,480			146,944
New Brunswick.....	tons 954	7,985		4,340		13,279
\$ 71,000	19,855		28,870			120,325
Quebec.....	tons 294,446	1,850,019	8,838	42,587	494	2,196,384
\$ 757,531	1,672,260	46,580	51,010	547		2,527,928
Ontario.....	tons 254,917	2,242,964	10,537	4,662	211	2,513,291
\$ 351,941	1,911,841	40,694	16,220	2,469		2,323,165
Manitoba.....	tons 329	39,049				39,378
\$ 6,120	95,497					101,617
Alberta.....	tons	1,691				1,691
\$	6,148					6,148
British Columbia.....	tons 148,896	125,842		13,325	274	288,347
\$ 160,457	124,322		41,825	3,295		329,899
Canada.....	tons 705,307	4,288,507	19,375	101,834	979	5,116,022
\$ 1,379,417	3,861,619	87,274	218,465	6,311		5,556,026
1939						
Nova Scotia.....	tons 885	17,239		31,711		49,835
\$ 20,809	33,941		79,167			133,917
New Brunswick.....	tons 1,492	52,505		21,412		55,409
\$ 72,005	142,927		51,175			266,107
Quebec.....	tons 503,011	1,904,658	7,600	112,403	683	2,528,355
\$ 1,276,859	1,726,653	168,612	150,792	683		3,323,599
Ontario.....	tons 495,619	1,931,285	6,519	4,124	47	2,447,594
\$ 625,880	1,624,618	30,642	16,322	649		2,298,111
Manitoba.....	tons 174	35,909				36,143
\$ 3,544	80,404					83,948
Alberta.....	tons	2,888	5	155		3,048
\$	8,166	800	5,314			14,280
British Columbia.....	tons 101,214	205,045		6,460	419	313,138
\$ 120,404	200,842		29,060	5,428		355,734
Canada.....	tons 1,102,395	4,149,589	14,124	176,265	1,149	5,443,522
\$ 2,119,501	3,817,531	200,054	331,830	6,760		6,475,696

NOTE.—Not included in the above limestone statistics are 1,344,868 tons of limestone consumed in the cement industry in 1938 and 1,379,858 tons in 1939. Limestone used in the Canadian lime industry is also not included; it is estimated that approximately 900,000 tons of limestone were burned in the manufacture of lime in 1938 and more than 900,000 tons in 1939.

(a) All igneous rocks included. (b) Includes dolomite, also marl for agricultural purposes.

Directory of Firms in the Stone Products Industry, 1939

NOTE.—These works are operated separately from the quarries.

Names of companies	Location of plants
PRINCE EDWARD ISLAND—	
Beck, Vere & Son.....	Main St., Montague.
Chandler & Bell.....	Malpeque Road, Charlottetown.
NOVA SCOTIA—	
Coughlan, James S.....	Simpson's Siding, Halifax.
Keddy, C. I. Monumental Works.....	171 Kempt Rd., Halifax.
Kelly Monumental Works.....	Bridgewater.
Nixon's Monumental Works.....	R.R. 3, Middleton.
Rottler, Roy W.....	Main St., Kentville.
Steele, John D., & Sons.....	Commercial St., North Sydney.
Tingley, Harold.....	13 Merkel St., Halifax.
Tingley, J. A., Granite Works.....	Amherst.
Truro Marble & Granite Works.....	92 Walker St., Truro.
NEW BRUNSWICK—	
Kane, M. T., & Co. Ltd.....	Westmoreland Rd., Saint John.
Miramichi Granite & Marble Works.....	Chatham.
St. Stephen Granite Works.....	Queen St., St. Stephen.
Sherrard, T. F., & Son.....	135 Victoria St., Moncton.
Sultz, Chester E.....	Hampstead.
QUEBEC—	
Anderson, James.....	Beebe.
Beaulet & Frénetto Ltée.....	Mont Joli.
Beaulieu, Elzéar.....	Ste. Hélène, Kamouraska.
Berson, L., & Son.....	3890 St. Lawrence Blvd., Montreal.
Braut, Z.....	1 Champlain St., Valleyfield.
Brodie's Ltd.....	6th Ave., Iberville.
Brunet, Limitée.....	4485 Chenin Côte des Neiges, Montreal.
Canadian Johns-Manville Co. Ltd.....	Manville St., Asbestos.
Chabot, J. Ray.....	Scott Junction, Co. Beauce.
Chausse, Edouard & Fils.....	524 King Ouest, Sherbrooke.
Côté, Valère, Inc.....	187 First Ave., Quebec.
Crete, James.....	190 Sophie St., Sorel.
Dalceggio, F.....	4588 Chenin Côte des Neiges, Montreal.
Daudelin, Napoléon.....	92 St. Antoine St., St. Hyacinthe.
Ducharme, J. Maurice.....	257 Notre Dame St., Victoriaville.
Dugas, Joseph.....	191 St. Charles Borromé, Joliette.
Dussault, Théo, & Cie.....	Mont Laurier.
Fortin, Dollard.....	St. David de Lévis.
Gervais, René.....	1035 Blvd. Des Forges, Trois-Rivières.
Gingras, Roch.....	Ste. Foy.
Godin & Delisle.....	1253 St. Vallier St., Quebec.
Gordon Stone Monument Reg'd.....	4374 St. Lawrence Blvd., Montreal.
Gosselin, Arsène.....	Beauceville Est.
Gosselin, Oscar.....	Lake Megantic (Frontenac Co.)
Hansford, Frank.....	14 Baldwin St., Coutcook.
Hawkins, S.....	1116 Bleury St., Montreal.
Hurtubise, Albert.....	6752 Sherbrooke St. E., Montreal.
Jacques, André.....	18 Desjardins St., Lévis.
Lachute Marble & Granite Works.....	Main St., Lachute.
Lafresnaye, Louis.....	Rivière du Loup.
Lasalle Stone Co. Ltd.....	Laflour Ave., Ville La Salle.
National Granite Works Ltd.....	Iberville.
Ottawa Silica & Sandstone Ltd.....	East Templeton.
Paquin, Laurent.....	1043 Blvd. des Forges, Three Rivers.
Quinlan Cut Stone Ltd.....	Bois Franc Rd., Cartierville.
Robertson, Fred.....	Beebe Jet.
Savard, Armand.....	27 Lemoine St., Longueuil.
Savard, J. Bte.....	Ste. Anne de la Pérade.
Smith Bros. Memorial Art Ltd.....	1195 Ducharme St., Montreal.
Smith Marble & Cons. Co. Ltd.....	207 Van Horne Ave. W., Montreal.
Sutton Marble & Granite Co.....	Sutton.
Thompson, T. C.....	270 Wellington St. S., Sherbrooke.
Thuot & Denicourt.....	87 Fourth St., Iberville.
Todoro & Bigras.....	3275 Desautels St., Montreal.
ONTARIO—	
Ambrose, L. & Son.....	48 Alma St., Guelph.
Bayview Memorial Co.....	Willow Cove.
Benzie, W. E.....	649 York St., Hamilton.
Bowers, Chas. Henry.....	226 King St., Prescott.
Bradfield, W. & Son.....	335 Main St., Simcoe.
Braun Monument Works.....	16 Andrew St., Kitchener.
Brown, R. & Son.....	376 Sparks St., Ottawa.
Brown, Geo. W., Monumental Works.....	473 Bronson Ave., Ottawa.
Campbell, A. C.....	21 Bridge St. W., Belleville.
Canadian Art Memorials.....	819 St. Clarens, Toronto.
Canadian Cut Stone Co.....	5 Isabella St., Ottawa.
Canadian Gypsum Co. Ltd.....	Oak St., Weston.
Colby, C. H. (Chatham Marble & Granite Works).....	30 Market Square, Chatham.
Coughlin Monumental Works.....	216 Hunter St. W., Peterborough.
Creber Son & Co.....	1333 St. Clair Ave. W., Toronto.
Doyle, J. E.....	269 Eighth St. E., Owen Sound.

Directory of Firms in the Stone Products Industry, 1939—Continued

Names of companies	Location of plants
ONTARIO—Concluded	
Expelsior Granite & Marble Works.....	163 Pitt St. E., Windsor.
Fallon Bros.....	393 Princess St., Kingston.
Froats, George & Co.....	Argyle St., Renfrew.
Galt Monument Works.....	62 Water St. N., Galt.
Gladstone & Ross.....	388 East Block St., Fort William.
George, J. T.....	Port Elgin.
Geard, A. W.....	995 Barton St. E., Hamilton.
Goldberg Bros.....	153 St. Patrick St., Toronto.
Guelph Marble and Granite Works (G. H. Farmworth).....	Elora Rd., Guelph.
Gypsum, Lime and Alabastine, Canada, Ltd.....	Caledonia.
Hardwick, H. G., & Son.....	30 Ottawa St. N., Hamilton.
Hayes Bros. Co.....	290 Klock Ave., North Bay.
Hibberd, Arthur, Cut Stone.....	195 Melita Ave., Toronto.
Humberstone Cut Stone & Monument Works.....	590 King St., Port Colborne.
Ideal Monument Works (T. Rapson).....	R. H. 4, Springbank.
Insulation Products Ltd.....	Todmorden P.O.
Isaac, James, & Son.....	30 Dupont St., Toronto.
Johnston & Cranston.....	1849 Yonge St., Toronto.
Jones & Stevens.....	277 Rideau St., Ottawa.
Kemp & Ronald.....	Listowel.
Kilvington Bros., Ltd.....	1357 St. Clair Ave. W., Toronto.
Kingsway Monumental Works.....	112 Gault Ave., Toronto.
Kitchener Monument Works.....	311 King St. E., Kitchener.
Lake Superior Granite & Marble Works.....	111 Wellington St. W., Sault Ste. Marie.
Langs Memorials.....	16 Elm St., Cornwall.
Laurin, J. P.....	95 George St., Ottawa.
London Marble & Granite Co. Ltd.....	493 Richmond St., London.
McCullum Granite Co. Ltd.....	305 Princess St., Kingston.
McIntosh Granite Co. Ltd.....	1623 Yonge St., Toronto.
McIntyre, George Co.....	60 Danforth Ave., Toronto.
McKay Cut Stone Co.....	65 Shaluar Ave., Forest Hill.
McMillan Granite Co. Ltd.....	105 Ontario St., Sarnia.
Memorial Company of Toronto.....	2299 Bloor St. W., Toronto.
Monumental Art Co.....	2168 Dundas St. W., Toronto.
Napanee Memorial Granite Works.....	Dundas St., Napanee.
National Cut Stone Ltd.....	355 Logan Ave., Toronto.
Niagara Cut Stone Co. Ltd.....	Buttrey St., Niagara Falls.
Nicholsons Cut Stone Ltd.....	Copeland St., Leaside.
Nobbs, E. E.....	Williams St. at C.P.R., London.
Ontario Marble Co. Ltd.....	Marie St., Peterboro.
Orillia Monument Co.....	252 Coldwater Rd. W., Orillia.
Patterson & Cornelius.....	428 Queenston Rd., St. Catharines.
Pine Hills Monument Co.....	Dunforth & Kennedy, Scarborough Jct.
Pollock & Ingham.....	151 Main St., Galt.
Rhodes Memorials Ltd.....	Cayuga.
Rigg Bros.....	605 Queen St., Niagara Falls.
Rivercourt Memorials.....	360 O'Connor Drive, Toronto.
Ritchie Cut Stone Co. Ltd.....	203 New Toronto St., New Toronto.
Ritchie Stone Co.....	51 Catherine St., Ottawa.
Ruch, L. J. & Son.....	35 Avondale Ave., Stratford.
Sanderson, R. J., Marble Co.....	33 Peter St. S., Orillia.
Sharp Bros. Cut Stone Co. Ltd.....	516 Kenilworth St. N., Hamilton.
Skelton, E. J., & Son.....	Yonge St., Walkerton.
Smith Memorial Works.....	1539 Main St. E., Hamilton.
Smith Monument Co.....	349 Weston Road, Toronto.
Spun Rock Woods Ltd.....	65 Ormond St., Thorold.
Standard Stone Co. Ltd.....	1704 Howard Ave., Windsor.
Stead, Arthur, Cut Stone Co. Ltd.....	Frid St., Hamilton.
Steiner's Monuments.....	321 College St., Toronto.
Stubbs & Gibson.....	Morrisburg and Winchester.
Strathroy Granite & Marble Co. Ltd.....	Strathroy.
Sudbury Memorial Works.....	453 Annie St., Sudbury.
Tarbo Monuments.....	429 Spadina Ave., Toronto.
Thinks, H. W.....	Mill St., Westport.
Thomas, Geo., & Son.....	Industrial St., Leaside.
Thomson Monument Co. Ltd.....	862 Dupont St., Toronto.
Trenton Marble & Granite Works.....	Cor Front and Ford Sts., Trenton.
Twin City Monument Co.....	King St. E., Kitchener.
Wardell Monument Works.....	2696 Dundas St. W., Toronto.
Westport Marble Works.....	Westport.
Wilcox Granite Co.....	Plains Road, Hamilton.
Williscroft, B. A.....	585 Third Ave. E., Owen Sound.
MANITOBA—	
Allen & Grant.....	405 Youville St., St. Boniface.
Brunet, Joseph O.....	26 Lyonsdale Drive, Norwood.
Carsan Monumental Co.....	422-10th St., Brandon.
Fort Rouge Monumental Works.....	465 Gertrude Ave., Winnipeg.
Gauthier, Joseph.....	554 1/2 Des Meurons St., St. Boniface.
Guinn & Simpson Co. Ltd.....	52 Tupper St. N., Portage la Prairie.
Hooper's Memorial Works.....	451 Notre Dame St., Winnipeg.
MacIntyre, A. I.....	351 Bannatyne Ave., Winnipeg.
Memorial Marble & Tile Co. Ltd.....	1180 Wall St., Winnipeg.
Neepawa Marble & Granite Works.....	Neepawa.

Directory of Firms in the Stone Products Industry, 1939—Concluded

Name of companies	Location of plants
MANITOBA—Concluded	
Peirson, C. H.	201 Sixth St., Brandon.
Somerville & Co.	1417 Rosser Ave., Brandon.
Wheeldon & Sons.	1055 Main St., Winnipeg.
SASKATCHEWAN—	
Best Monumental Co.	721 Caribou St. W., Moose Jaw.
Cooper's Monumental Co.	2019 Broad St., Regina.
Moharo Marble & Stone Works.	23rd St. and Pacific Ave., Saskatoon.
Moose Jaw Marble & Granite Works Ltd.	706 Athabasca St. E., Moose Jaw.
Regina Monumental Co.	2537 Railway St., Regina.
Sask. Marble & Construction Co. Ltd.	140 Sixth St. E., Prince Albert.
Saskatoon Granite & Marble Works Ltd.	137 Ave. A North, Saskatoon.
Western Granite, Marble & Stone Co. Ltd.	714 Second Ave. North, Saskatoon.
Yorkton Monumental Works.	20 Agricultural Ave., Yorkton.
Young, Alex., Ltd.	Scarth St. and 4th Ave., Regina.
ALBERTA—	
Alberta Granite, Marble & Stone Co. Ltd.	10702-101st St., Edmonton.
Hart, Albert J.	1821 Second St. E., Calgary.
Lethbridge Monumental Stone & Tile Works.	325 Eighth St. S., Lethbridge.
Maclean Granite Co.	Reel Deer.
McDonald Granite Co. Ltd.	2313 Second St. E., Calgary.
North West Granite & Marble Co.	8537-109th St., Edmonton.
Somerville Calgary Monumental Co.	121-13th Ave. W., Calgary.
BRITISH COLUMBIA—	
Allan, A. S., & Co. Ltd.	880 Beach Ave., Vancouver.
Arl Monument Co. Ltd.	602 Kingsway, Vancouver.
Bertram Marble and Granite Works.	4880 Fraser Ave., Vancouver.
Burnaby Monumental Works.	2655 Patterson Ave., Burnaby.
Continental Marble Co. Ltd.	1002 Georgia St. E., Vancouver.
Forster Monumental Works.	5528 Fraser St., Vancouver.
Kingsway Monumental Works.	3070 Kingsway St., Vancouver.
Mortimer, J., & Son.	George Rd. and Government St., Victoria.
Nanaimo Monumental Works.	Pine St. and Comox Road, Nanaimo.
Patterson & Chandler.	5498 Fraser St., Vancouver.
Stewart Monumental Works Ltd.	1401 May St., Victoria.
Westaway's Monumental Works.	143 Columbia St. E., New Westminster.
Wiley Monument Works.	4696 Fraser Ave., Vancouver.

CHAPTER SIXTEEN

THE MISCELLANEOUS NON-METALLIC MINERAL PRODUCTS INDUSTRY

Statistics for this industry cover the operations of factories which manufactured articles from non-metallic minerals but which, because of the nature of their products, could not be allotted to any of the other main industries in this group as reviewed in separate chapters.

During 1939 there were 49 plants operating in this miscellaneous industry; 8 made Pintsch oil gas for lighting railway cars; 5 made foundry facings and supplies; 4 made refractories; 5 made asphalt emulsions; 6 produced peat and moss; 2 made graphite and carbon electrodes; 2 ground non-metallic minerals, while each of the following was reported by only one establishment: enamel frit, lime from imported stone, mica plate, imitation brick siding, wax crayons, tailors' wax chalk, composition toilet seats and battery boxes, roofing cements, abrasive pads, carbon brushes, core oil, diamond saw teeth, onyx and marble novelties, fuel briquettes, cement and wood wallboard, asphalt paving material, and mud for rotary drilling.

The 49 plants operating in this industry had a production during 1939 valued at \$6,465,545, an increase of 10 per cent over the \$5,880,096 reported for the previous year. They represented a capital investment in Canada of \$7,970,460 and afforded employment to a monthly average of 975 people who were paid \$1,232,707 in salaries and wages. Expenditures for processing materials totalled \$2,217,698 and the fuel and power bill amounted to \$333,982.

Of the 49 plants, 20 in Ontario had an output worth \$2,585,769; 14 in Quebec had \$3,203,388; 7 in British Columbia had \$203,920 and 3 in Alberta had \$50,551. The remainder of \$421,917 was produced by 2 firms in Saskatchewan and 1 in each of Nova Scotia, New Brunswick and Manitoba.

Table 244.—Distribution of Plants, by Provinces and Principal Groups, 1939

Provinces	Carbon electrodes	Foundry facings and supplies	Mica products	Asphalt emulsions	Pintsch Gas	Miscellaneous	Total
Nova Scotia.....						1	1
New Brunswick.....					1		1
Quebec.....	1	2	1	3	1	6	14
Ontario.....	1	4		1	2	12	20
Manitoba.....					1		1
Saskatchewan.....					1	1	2
Alberta.....					1	2	3
British Columbia.....				2	1	4	7
Canada.....	2	6	1	6	8	26	49

Table 245.—Principal Statistics, by Provinces, 1938 and 1939

Provinces	Number of plants	Capital employed	Average number of employees	Salaries and wages	Cost of fuel and electricity at works	Cost of materials at works	Gross selling value of products at works
		\$		\$	\$	\$	\$
1938							
Quebec	14	3,805,769	325	419,285	127,811	1,202,780	2,883,836
Ontario	19	2,521,633	477	598,248	139,917	709,243	2,343,008
Alberta	3	44,048	10	10,956	917	6,376	31,341
British Columbia	7	277,474	75	77,109	10,539	53,464	171,741
Nova Scotia	1						
New Brunswick	1						
Manitoba	1	647,000	58	69,524	30,073	174,419	450,170
Saskatchewan	2						
Canada	48	7,296,524	945	1,175,122	309,257	2,146,288	5,880,096
1939							
Quebec	14	4,272,395	327	428,672	122,546	1,289,021	3,203,388
Ontario	20	2,741,259	488	639,671	184,594	716,321	2,585,769
Alberta	3	48,550	17	17,791	1,499	13,305	50,551
British Columbia	7	280,015	90	90,077	8,743	50,245	203,920
Nova Scotia	1						
New Brunswick	1						
Manitoba	1	628,241	53	56,496	16,500	148,806	421,917
Saskatchewan	2						
Canada	49	7,970,460	975	1,232,707	333,962	2,217,608	6,465,545

Table 246.—Capital Employed, by Classes and by Provinces, 1938 and 1939

Provinces	Present value of land, buildings, fixtures and machinery	Inventory value of materials on hand, stocks in process, and finished products	Operating capital (cash, bills and accounts receivable, prepaid expenses, etc.)	Total
	\$	\$	\$	\$
1938				
Quebec	2,353,806	846,043	605,920	3,805,769
Ontario	1,104,824	1,010,830	405,979	2,521,633
Alberta	41,522	2,841	285	44,648
British Columbia	203,739	40,774	32,961	277,474
Other provinces	600,000	12,000	35,000	647,000
Canada	4,303,891	1,912,488	1,080,145	7,296,524
1939				
Quebec	2,247,977	959,689	1,004,719	4,272,395
Ontario	1,109,042	1,015,803	616,414	2,741,259
Alberta	40,900	2,160	5,490	48,550
British Columbia	208,998	40,561	30,450	280,015
Other provinces	576,371	18,870	33,000	628,241
Canada	4,183,288	2,037,063	1,750,079	7,970,460

Table 247.—Employees, Salaries and Wages, by Provinces, 1938 and 1939

Provinces	Average number of employees					Salaries	Wages	Total salaries and wages
	On salaries		On wages		Total			
	Male	Female	Male	Female				
1938								
Quebec	52	9	247	17	325	131,390	287,895	
Ontario	72	18	376	11	477	178,926	419,322	
Alberta	3		7		10	4,357	6,599	
British Columbia	11	2	61	1	75	18,300	58,809	
Other provinces	13		45		58	21,156	48,368	
Canada	151	29	736	29	945	351,129	820,993	
1939								
Quebec	51	9	250	17	327	135,480	293,192	
Ontario	89	22	367	10	488	221,937	417,734	
Alberta	5		12		17	9,675	8,116	
British Columbia	10	2	77	1	90	20,971	69,106	
Other provinces	14		39		53	19,850	36,640	
Canada	169	33	745	28	975	407,919	824,788	

MANUFACTURES OF NON-METALLIC MINERALS

Table 248.—Wage-Earners, by Months, 1938 and 1939
(On the last work day of each month)

Months	1938			1939		
	Male	Female	Total	Male	Female	Total
January.....	689	28	717	690	24	714
February.....	705	29	734	655	25	680
March.....	693	31	724	657	31	688
April.....	746	33	779	638	27	665
May.....	779	35	814	701	28	729
June.....	804	35	839	733	29	762
July.....	762	35	797	792	17	809
August.....	770	27	797	798	29	827
September.....	765	16	781	835	27	862
October.....	732	33	765	809	31	840
November.....	720	27	747	832	31	863
December.....	669	26	695	785	31	816
Average.....	734	29	763	745	28	773

Table 249.—Regular Hours Worked per Week by Wage-Earners, 1939
(In one week in month of normal employment; overtime not included)

Regular hours worked per week	Number of wage-earners	Per cent of total	Regular hours worked per week	Number of wage-earners	Per cent of total
30 hours or less.....	22	2.8	49-50 hours.....	78	10.0
31-43 hours.....	180	23.0	51-54 hours.....	8	1.0
44 hours.....	178	22.7	55 hours.....	5	0.6
45-47 hours.....	58	7.4	56-64 hours.....	48	6.2
48 hours.....	173	22.1	65 hours and over.....	33	4.2
			Total.....	783	100.0
			Total wages paid in selected week.....		\$ 17,155

Table 250.—Fuel and Electricity Used, 1938 and 1939

Kind	Unit of measure	1938		1939	
		Quantity	Cost at works	Quantity	Cost at works
Coal—anthracite.....	ton	772	\$ 5,372	594	\$ 4,373
Coal—bituminous—Canadian.....	ton	2,811	16,989	2,901	17,562
Imported.....	ton	3,854	20,341	4,895	25,427
Coke.....	ton	288	1,537		
Gasoline.....	Imp. gal.	12,345	3,251	10,483	2,506
Fuel oil.....	Imp. gal.	489,183	37,214	619,199	42,584
Wood.....	cord	123	205	215	378
Gas—manufactured.....	M cu. ft.	134,182	13,848	1,165	895
natural.....	M cu. ft.	575	355	1,771	878
Other fuel.....					4
Electricity.....	K.W.H.	87,203,010	210,145	105,875,588	239,389
Total.....			309,257		333,982

Table 251.—Power Equipment, 1938 and 1939

	Ordinarily in use		In reserve or idle	
	Number of units	Total rated horsepower	Number of units	Total rated horsepower
1938				
Steam engines and steam turbines.....	2	620		
Gasoline, gas and oil engines.....	6	170		
Electric motors run by purchased power.....	702	9,187	4	38
Total.....	710	9,877	4	38
Stationary boilers.....	20	1,580	1	10
1939				
Steam engines and turbines.....	1	20		
Gasoline, gas and oil engines.....	8	237		
Electric motors run by purchased power.....	657	8,561	15	378
Total.....	666	8,818	15	378
Stationary boilers.....	19	1,490	9	136

Table 252.—Materials Used, 1938 and 1939

Materials	Unit of measure	1938		1939	
		Quantity	Cost at works	Quantity	Cost at works
Asphalt	ton	11,907	202,834	8,381	116,195
Coal—anthracite	ton	8,997	67,008	9,003	86,898
bituminous	ton	12,743	54,611	10,954	62,600
lignite	ton	45,000	68,933	50,540	52,056
Coke—petroleum	ton	50,478	690,353	46,540	680,452
Carbon, scrap and electrode butts	ton	7,271	117,203	7,605	150,771
Carbon, blanks	ton		18,000		18,500
Clays	ton	414	8,006	1,354	15,244
Limestone, imported	ton	24,548	23,075	30,910	26,740
Mica, including splittings	lb.	56,630	13,416	42,242	14,254
Oil, linseed	Imp. gal.	15,310	9,744	18,991	11,050
Oil, perilla	lb.	106,000	10,700	53,588	6,182
Oil for oil gas	Imp. gal.	639,766	55,438	608,280	49,922
Pitch	ton	14,665	257,705	13,712	267,955
Resin	lb.	232,689	8,321	192,560	5,920
Tar	Imp. gal.	102,174	7,133	131,516	9,497
Tripoli	ton	55	1,385	63	1,609
Wax	lb.	110,485	12,088		12,176
Other materials			520,335		629,877
Total			2,116,288		2,217,698

Table 253.—Products Made, 1938 and 1939

Product	Unit of measure	1938		1939	
		Quantity	Selling value at works	Quantity	Selling value at works
Asphalt emulsions	Imp. gal.	3,028,084	352,622	2,844,682	338,878
Foundry facings and partings			82,111		109,435
Core oil and core compounds			62,686		25,431
Oil gas (Pintech)	M cu. ft.	41,232	476,245	39,470	455,650
Refractories					461,537
All other products (x)			4,906,432		5,074,614
Total			5,890,096		6,465,545

(x) Includes products made by less than 3 firms, such as, carbon electrodes, graphite electrodes, enamel frit, chalk and wax crayons, etc.

Primary Production—The Mica Mining Industry.—Producers' sales of mica in Canada during 1939, including sales from stock, totalled 2,135,356 pounds valued at \$147,321 compared with 1,037,026 pounds valued at \$80,989 in 1938; comprising the 1939 output were 1,792,091 pounds of scrap and ground mica valued at \$18,419; 92,333 pounds of knife-trimmed at \$38,370; 176,051 pounds of splittings at \$83,633; 68,181 pounds of thumb-trimmed at \$6,832 and 6,700 pounds of rough cobbled worth \$67. Of the 1939 shipments, mines in the province of Quebec contributed \$67,396 pounds valued at \$122,243, Ontario 1,127,960 pounds at \$22,978 and British Columbia an output valued at \$2,100.

Table 254.—Principal Statistics of the Mica Mining Industry, 1938 and 1939

	1938		1939	
	Canada*	Quebec	Ontario	Canada*
Number of firms or operators	40	38	22	61
Capital employed	\$ 159,758	194,418	35,919	239,337
Number of employees—On salary	9	9	2	11
On wages	142	182	31	213
Total	156	191	33	274
Salaries and wages—Salaries	\$ 6,419	6,844	2,190	9,634
Wages	\$ 68,065	93,216	10,403	193,619
Total	\$ 74,424	100,060	12,593	112,653
Selling value of products (gross)	\$ 80,989	122,243	22,978	147,321
Cost of fuel and electricity	\$ 5,529	6,999	571	7,529
Cost of process supplies used	\$ 13,718	11,251	193	11,444
Selling value of products (net)	\$ 61,742	103,993	22,214	128,367

* Does not include data for one operation in British Columbia for which statistics are not available for publication.

Table 255.—Production of Mica in Canada, by Grades, 1938 and 1939

	1938			1939		
	Quantity	Value, f.o.b. shipping point	Price per pound	Quantity	Value, f.o.b. shipping point	Price per pound
	pounds	\$	\$	pounds	\$	\$
Rough cobbled	12,000	36.	0-03	6,700	67	0-01
Knife-trimmed	81,127	43,419	0-56	92,333	38,370	0-42
Thumb-trimmed	17,050	4,366	0-26	68,181	6,832	0-10
Splittings	51,434	22,451	0-44	170,051	83,633	0-48
Scrap*	875,415	8,388	0-009	1,792,091	18,419	0-01
Total	1,037,026	80,989		2,135,356	117,321	

* Includes ground mica.

Table 256.—Production of Mica in Canada, by Provinces, Imports and Exports, 1938 and 1939

	1938		1939	
	Pounds	Value	Pounds	Value
		\$		\$
PRODUCTION—				
Quebec	436,037	72,982	867,396	122,243
Ontario	504,739	6,445	1,127,960	22,978
British Columbia	(a) 96,250	1,562		2,100
Total	1,037,026	80,989		147,321
IMPORTS—				
Mica and manufactures of, n.o.p.—				
From—				
United Kingdom		11,603		4,532
United States		53,602		46,696
British India		21,583		10,583
Germany		1		
Other countries		14		24
Total		86,803		61,835
Chalk, china, Cornwall or cliff stone and mica schist		22,572		22,881
EXPORTS—				
Mica, rough cobbled, knife-trimmed and thumb-trimmed—				
To—				
United Kingdom	68,800	48,784	26,100	19,887
United States	24,900	3,804	118,900	15,836
Other countries	24,500	7,312	24,700	7,101
Mica, scrap and waste—				
To—				
United States	1,288,600	7,649	1,069,100	12,514
Other countries			2,000	11
Mica splittings—				
To—				
United Kingdom		5,810	78,500	34,737
United States	13,200	16,333	150,000	74,086
Japan	35,800	1,507		980
Mica plate and manufactures of (micaceous)		1,507		
Total		89,259		165,252

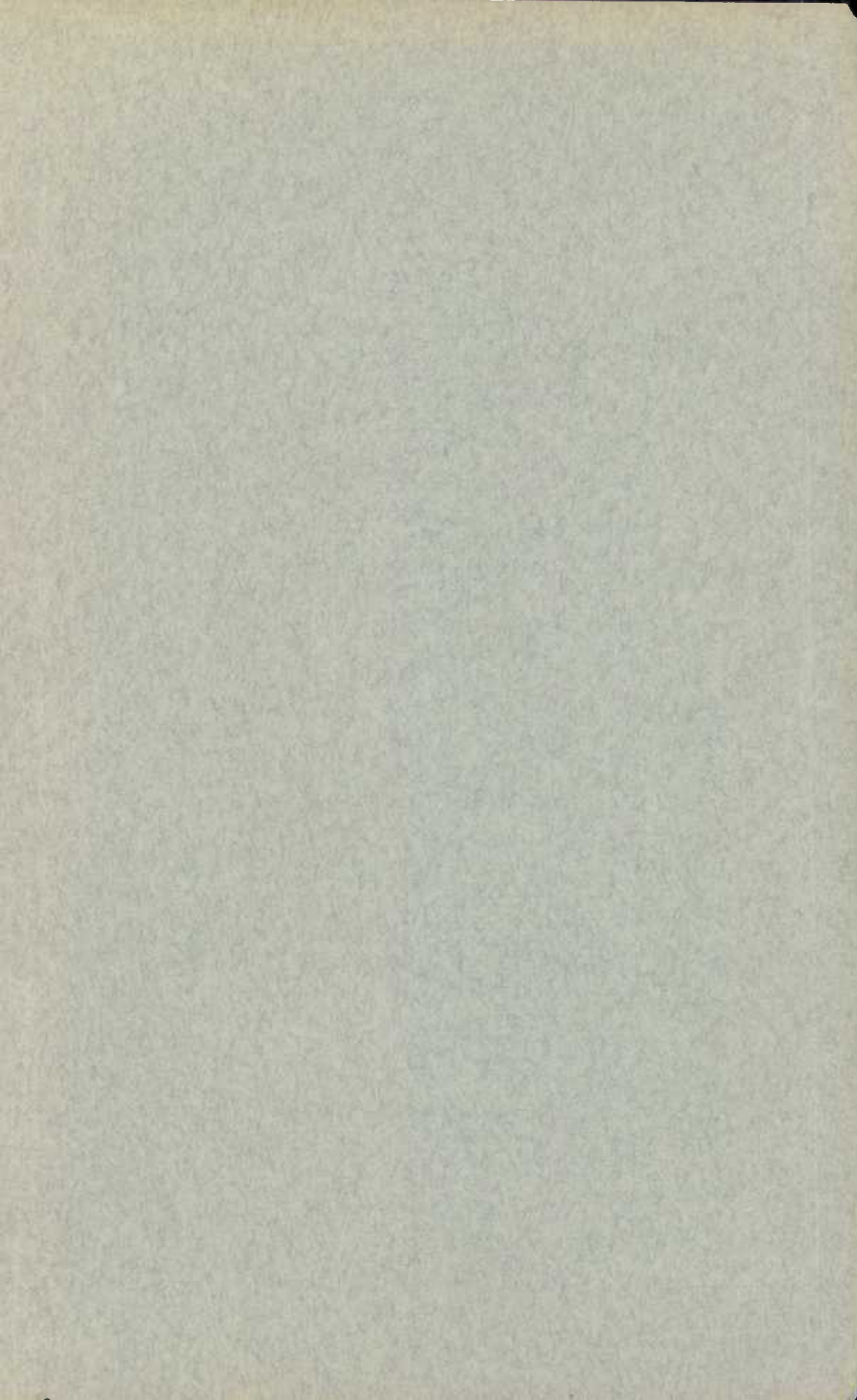
(a) Ground mica schist.

List of Firms in the Miscellaneous Non-Metallic Mineral Products Industry in Canada, 1939

Name of firms	Location of plants	Principal products
Alberta Mud Company Ltd	1115 12th St. E., Calgary, Alta.	Rotary drilling mud.
Alouette Peat Products Ltd	Ford Road, Pitt Meadows, B.C.	Peat insulation and asparagus pads.
Aluminum Co. of Canada Ltd	Arvida, Que.	Carbon electrodes and Soderberg paste.
Anderson, George, & Co. of Canada Ltd	4211 St. Ambrose St., Montreal, Que.	Diamond saw teeth.
Bitumen Products Corp	3560 St. Patrick St., Montreal, Que.	Asphalt emulsion.
Canada Crayon Co. Ltd	Lindsay, Ont.	Chalk and wax crayons.
Canadian Battery & Bonalite Co.	1587 McDougall Ave., Windsor, Ont.	Toilet seats, etc.
Canadian Bitumuls Co. Ltd	Marion Ave., Montreal, Que., 13 Industrial St., Leaside, Ont., Burnaby, B.C.	Asphalt emulsion.

List of Firms in the Miscellaneous Non-Metallic Mineral Products Industry in Canada, 1939—Concluded

Name of firms	Location of plants	Principal products
Canadian Botfield Refractories Co. Ltd.	171 Eastern Ave., Toronto, Ont.	Refractory cements.
Canadian Foundry Supplies & Equipment Ltd.	4295 Richilieu St., Montreal, Que.	Foundry facings and partings, core
	37 Niagara St., Toronto, Ont.	oils and compounds and refractory cements.
Canadian Refractories Ltd.	Canada Cement Bldg., Montreal, Que.	Refractory brick and cements,
		calcined materials.
Colas Roads Ltd.	Ville St. Pierre, Que.	Asphalt emulsions.
C-R Company Ltd.	Lynnour, B.C.	Asphalt paving.
Dominion Briquettes & Chemicals Ltd.	Bienfait, Sask.	Coal briquettes, erposote.
Dominion Carbon Brush Co. Ltd.	250 Richmond St. W., Toronto, Ont.	Carbon brushes.
Dominion Steel & Coal Corp. Ltd.	Sydney, N.S.	Lime from imported stone.
Electro Metallurgical Co. of	Welland, Ont.	Carbon and graphite electrodes, graphite powder.
Ferro Enamels (Canada) Ltd.	629 Wellington St., Ottawa, Ont.	Porcelain enamel frit, coloured oxides.
Fibrocork Insulation Ltd.	Granville Island, Vancouver, B.C.	Insulation board.
Hamilton Facing Mill Co. Ltd.	249 Hess St. N., Hamilton, Ont.	Foundry facings and partings, core compounds, etc.
Insulated Building Materials Ltd.	101 Johnson St., Sarnia, Ont.	Imitation brick siding.
Insulation Ltd.	Isle Verte, Que.	Peat moss.
Leasa, Wm.	Milverton, Ont.	Peat (for fuel).
Marblite Memorial Products.	9557 Jasper Ave., Edmonton, Alta.	Memorial stones from marble dust.
McKenzie, R. W.	Clinton, Ont.	Peat moss insulation and poultry litter.
Mica Co. of Canada Ltd.	2 Lois St., Hull, Que.	Mica plate and tubes, etc.
Milloy, M.	5578 Hadley St., Montreal, Que.	Tailors' wax.
Morval Products Co. Ltd.	238 King St. E., Hamilton, Ont.	Abrasive pads, sewing stands, foot supports.
Mosstex Ltd.	Winterburn, Alta.	Loose moss-tex, (peat moss) and moss-tex boards.
Onyx & Marble Ltd.	319 Howland Ave., Toronto, Ont.	Onyx and marble novelties.
Peterson Core Oil & Mfg. Co. of Canada Ltd.	35 Dunbar Ave., Hamilton, Ont.	Core oil.
Pintsch Compressing Co. Inc. (H.O.-New Haven, Conn. U.S.A.)	McAdam, N.B.; Montreal, Que.; North Bay, Ont.; Toronto, Ont.; Winnipeg, Man.; Moose Jaw, Sask.; Edmonton, Alta.; Vancouver, B.C.	Oil and gas hydrocarbon.
Pulverized Products Ltd.	4820 Fourth Ave., Rosemount, Que.	Ground fillers from non-metallic rock.
Quigley Co. of Canada Ltd.	191 20th Ave., Lachine, Que.	Refractory cements and protective coatings.
Richmond, Geo. W., & Co.	12th Ave. & Renfrew St., Vancouver, B.C.	Pulverized mica and talc, etc.
Sterne, G. F., & Sons Ltd.	126 Bruce St., Brantford, Ont.	Refractory cements, plastic fire-brick and boiler compounds.
Stevens, Frederick B., of Canada Ltd.	1262 McDougall St., Windsor, Ont.	Foundry facings, core oil and buffing compositions.
Thivierge, E.	5980 1st Ave., Rosemount, Que.	Roofing cement.
Western Peat Co. Ltd.	Lulu Island, B.C.	Peat moss, sphagnum pads.
Wilkinson Foundry Facing & Supply Co. Ltd.	81 Florence St., Toronto 3, Ont.	Foundry facings and partings, core oils and compounds, etc.



* STATISTICS CANADA LIBRARY
BIBLIOTHÈQUE STATISTIQUE CANADA



1010681694