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

CHEMICALS AND ALLIED PRODUCTS IN CANADA

1923

DOMINION BUREAU OF STATISTICS
MAR 13 1950
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OTTAWA
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PRINTER TO THE KING'S MOST EXCELLENT MAJESTY
1925

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, and (f) Construction.**

Manufacturing or secondary production is subdivided into nine groups of industries, producing concerns being classified according to the principal component material of their major products. For example, makers 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.

Classification of Manufacturing Industries in Canada for the Collection of Statistics

Manufactures of:

(1) **Vegetable Products,** including—Coffee and Spices; Cocoa and Chocolate; Preserved and Canned Products; Pickles, Vinegar and Cider; Flour and Cereals; Bread and other Bakery Products; Macaroni and Vermicelli; Distilled and Brewed Liquors and Wines; Rubber Products; Starch and Glucose; Sugar; Tobacco Products; Linseed Oil and Oil Cake.

(2) **Animal Products,** including—Fish and Fish Products; Dairy Factory Products; Meat and Meat Products; Leather and Leather Products; Furs and Fur Products.

(3) **Textiles and Textile Products,** including—Cotton Textiles (Cloth, Yarn, Thread and Waste); Woollen Textiles (Cloth, Yarn, Blankets, Felt and Waste); Silk Products; Factory-made Clothing; Carpets, Rugs and Mats; Cordage, Rope and Twine.

(4) **Wood and Paper,** including—Pulp and Paper Mill Products; Paper Goods, (Printing, Publishing and Lithographing); Saw and Planing Mill Products; Furniture; Carriages, Wagons and Sleighs; Wooden Containers; Woodenware; Turned Wood Products; and the output of similar wood-using industries.

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

(6) **Manufactures of Non-Ferrous Metal Products,** including—Aluminium Products; Brass and Copper Products; Lead, Tin and Zinc Products; Manufactures of Precious Metals; Electrical Apparatus and Supplies; Miscellaneous Non-Ferrous Metal Products.

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

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

(9) **Miscellaneous Products,** including—Brooms and Brushes; Electric Light and Power; Musical Instruments, etc.

PREFACE

The present issue of "Chemicals and Allied Products" gives a summary of the principal data relating to the industries in Canada manufacturing chemicals and similar products in 1923. For convenience, and following the practice adopted in previous years, the firms reporting were arranged in ten main classes according to their major products. The classes selected were coal tar and its products; acids, alkalies, salts and compressed gases; explosives, ammunition, fireworks and matches; fertilizers; medicinal and pharmaceutical preparations; paints, pigments and varnishes; soaps, washing compounds and toilet preparations; wood distillates and extracts; and the manufacture of adhesives, baking powders, boiler compounds, celluloid products, flavouring extracts, insecticides, polishes and dressings, sweeping compounds and chemical products not elsewhere specified.

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

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

R. H. COATS,
Dominion Statistician.

Dominion Bureau of Statistics,
Ottawa, March 30, 1925.

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TABLE 1—SUMMARY STATISTICS

Chemicals and Allied Products in Canada, 1919-1923

Year	Number of plants	Capital employed $	Number of employees	Salaries and wages $	Cost of materials $	Selling value of products $	Value added by manufacturing $
COAL TAR AND ITS PRODUCTS							
1919	11	1,098,545	128	146,349	352,896	847,091	494,195
1920	11	1,385,012	161	216,914	615,363	2,035,034	1,419,671
1921	9	1,502,670	114	153,699	456,474	1,183,130	726,656
1922	8	1,237,077	90	110,026	313,341	886,358	573,017
1923	14	3,205,780	239	334,965	1,381,724	3,166,100	1,784,376
ACIDS, ALKALIES, SALTS AND COMPRESSED GASES							
1919	43	26,555,857	2,702	3,549,701	3,753,395	13,540,376	9,786,981
1920	50	32,473,016	3,479	5,443,975	4,812,534	18,729,209	13,916,675
1921	50	34,163,604	1,814	3,004,948	5,336,568	13,869,166	8,532,598
1922	46	35,163,154	2,189	2,917,361	6,166,469	16,879,267	10,712,798
1923	47	36,436,315	2,788	3,780,443	11,636,321	23,912,992	12,276,671
EXPLOSIVES, AMMUNITION, FIREWORKS AND MATCHES							
1919	18	20,197,969	2,817	2,387,490	6,810,083	12,721,345	5,911,262
1920	21	14,689,508	2,631	2,858,412	8,528,128	15,459,279	6,931,151
1921	22	13,641,857	1,771	1,831,362	6,201,200	10,999,844	4,798,644
1922	20	12,345,296	2,123	2,030,877	8,893,740	13,788,658	4,894,918
1923	18	13,820,102	2,290	2,131,997	9,270,641	14,428,390	5,157,749
FERTILIZERS							
1919	15	3,545,554	367	353,578	1,461,291	2,541,097	1,079,806
1920	16	3,839,923	402	437,438	2,388,818	3,788,027	1,399,209
1921	15	3,209,240	274	369,653	1,696,205	2,677,735	981,530
1922	17	3,935,467	344	348,879	1,098,230	1,981,418	883,188
1923	18	3,616,001	329	310,441	831,470	1,487,244	655,774
MEDICINAL AND PHARMACEUTICAL PREPARATIONS							
1919	97	11,827,595	2,776	2,594,159	5,854,106	13,739,776	7,885,670
1920	100	12,191,155	2,838	2,964,822	7,029,594	15,728,224	8,698,630
1921	103	12,903,071	2,230	2,529,898	4,466,001	11,945,435	7,479,434
1922	109	13,995,461	2,302	2,752,680	4,145,298	11,532,536	7,387,238
1923	104	14,655,699	2,271	2,667,741	4,474,487	12,256,608	7,782,121
PAINTS, PIGMENTS AND VARNISHES							
1919	46	17,852,176	2,234	2,525,144	10,937,181	19,523,087	8,585,906
1920	48	20,320,851	2,568	3,431,064	15,931,923	27,042,096	11,110,173
1921	49	20,330,951	2,231	3,299,589	9,714,521	18,044,325	8,329,804
1922	53	21,073,706	2,454	3,421,217	11,354,903	20,230,545	8,875,6[illegible]2
1923	57	20,806,909	2,591	3,665,823	10,754,273	21,553,158	10,798,8[illegible]5
SOAPS, WASHING COMPOUNDS AND TOILET PREPARATIONS							
1919	55	12,948,621	1,830	1,789,375	12,640,787	18,857,657	6,216,870
1920	58	16,238,916	1,996	2,267,052	12,924,863	19,804,815	6,879,952
1921	63	16,114,665	1,871	2,160,066	8,482,704	15,307,821	6,825,117
1922	68	15,781,244	1,873	2,215,316	8,484,676	15,841,905	7,357,229
1923	70	15,668,592	2,082	2,459,655	9,400,752	17,909,011	8,508,259
INKS, DYES AND COLOURS							
1919	24	1,549,937	331	419,273	1,151,315	2,361,587	1,210,272
1920	26	1,931,705	412	613,084	1,643,991	3,288,664	1,644,673
1921	26	2,083,697	353	582,210	1,054,195	2,533,480	1,479,285
1922	26	2,140,953	416	668,719	1,070,287	2,756,006	1,685,719
1923	26	2,252,370	415	659,336	1,144,102	2,876,347	1,735,245
WOOD DISTILLATES AND EXTRACTS							
1919	17	6,004,577	485	431,842	1,718,221	2,998,028	1,279,807
1920	17	4,247,097	604	701,110	2,153,005	4,982,283	2,829,278
1921	12	2,694,824	276	327,271	1,110,697	2,202,314	1,091,617
1922	12	3,265,882	295	292,229	932,667	1,902,243	969,576
1923	9	2,814,045	344	332,026	976,621	2,743,295	1,766,674
MISCELLANEOUS CHEMICAL INDUSTRIES							
1919	103	10,179,188	1,937	2,187,518	5,704,858	11,424,266	5,719,408
1920	110	11,523,714	2,192	2,802,261	6,840,244	13,688,141	6,877,897
1921	120	12,060,910	1,735	2,020,893	4,827,225	10,138,297	5,311,072
1922	110	9,081,243	2,001	2,013,499	4,460,357	10,145,249	5,684,892
1923	112	13,261,668	1,800	2,001,252	4,770,671	10,911,011	6,140,340
ALL INDUSTRIES							
1919	**429**	**111,760,019**	**15,607**	**16,384,429**	**50,384,133**	**98,551,310**	**48,170,177**
1920	**457**	**118,840,887**	**17,283**	**21,736,132**	**62,838,463**	**124,545,772**	**61,707,309**
1921	**469**	**118,705,489**	**12,669**	**16,279,589**	**43,345,790**	**88,901,547**	**45,555,757**
1922	**469**	**118,025,483**	**14,084**	**16,770,803**	**46,919,968**	**95,944,185**	**49,024,217**
1923	**475**	**126,537,481**	**15,149**	**18,433,679**	**54,638,062**	**111,244,156**	**56,606,094**

DOMINION BUREAU OF STATISTICS, CANADA

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

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

CHEMICALS AND ALLIED PRODUCTS IN CANADA IN 1923

GENERAL REVIEW.

A marked recovery characterized the output of chemicals and allied products in Canada in 1923 when production reached a total value of $111,244,156 as compared with $95,944,185 in the preceding year and $88,901,547 in 1921. In 1920 the output of the chemical industries was valued at $124,545,772, the peak of production for this industrial group; in the preceding year $98,554,310 was reported as the total value of chemicals and allied products made in that year. Inflation of prices in post-war years has made it difficult to determine the actual growth of industries when only data on values are available for comparison. Taking the average prices prevailing in 1913 as 100, the index of prices for chemical products computed by the Bureau of Statistics and weighed according to the volume of trade in the 14 commodities listed showed an average of 185·4 in 1919; rose to 223·3 for 1920; declined to an average of 184·7 in 1921; dropped further to 166·4 for 1922 and stood at 164·8 for the year 1923. By applying these index numbers to the actual production values for each of the five years mentioned it is possible to obtain a set of figures which more nearly represents the growth in quantity production than do the gross selling values of the products made in each year. For example, the aggregate production in 1919 was valued at $98,554,310; the index number of chemical prices for the year was 185·4 in comparison with 100 for 1913 prices; the application of this factor to the gross value of production mentioned above shows that the output of chemicals and allied products in Canada during 1919 computed on the base of 1913 prices was actually worth $53,130,000. Computed on the basis of 1913 prices the production values for each of the four succeeding years was: 1920—$55,990,000; 1921—$48,140,000; 1922—$57,650,000 and 1923—$67,480,000. These figures gave a better indication of the growth in quantity production of chemicals and allied products in Canada than the actual market values of the output show, and make it apparent that the peak in production values reached in 1920 was very largely due to enhanced commodity prices; as a matter of fact, it would appear that the volume of production in that year was only slightly in excess of the output in 1919. On this basis also, both the 1922 and 1923 outputs were in excess of the 1920 production, and the volume of production in 1923 would then be the highest on record.

The production of chemicals and allied products in Canada covers a wide range of commodities, some of which are produced on a very large scale, others to a more limited extent. The needs of a country having a population of nearly nine million persons scattered over an area of three thousand miles in length by a few hundred miles in width are quite distinctly different from those of many other countries where the distribution of the population is less extensive. As a consequence, Canada's imports of chemical products are perhaps greater than might be expected, while on the other hand production and the development of an export trade have so far been limited to the more populous provinces. Canada's Middle West, rich in mineral resources, has not yet become an important factor in the chemical production of the country and its export trade in these commodities is negligible. Quebec and Ontario are the principal chemical-exporting provinces.

In recent years, there has been a re-alignment of Canada's foreign trade in chemical products. In 1919, chemicals and allied products imported into Canada amounted in value to 27·2 million dollars; in that year, 92 per cent of these purchases came from the United States, 13 per cent from the United Kingdom and 5 per cent from other countries. The following year, 1920, in which records were established both for aggregate production values and for imports, total importations of chemical products into Canada were valued in excess of 40 million dollars.

Purchases from the United States were greater in value in that year than in 1919 but they represented only 75 per cent of the total, and imports from the United Kingdom, which nearly doubled the value of those imported in the previous year, constituted 17 per cent of the aggregate. In the three following years, imports of chemicals and allied products into Canada were valued at about twenty-five million dollars annually. Canadian purchases from the United States gradually decreased from 74 per cent of the total in 1921 to 72 per cent of the total in 1923. Imports from the United Kingdom in the same years increased; 12 per cent of the total for 1921 was imported from the United Kingdom and 15 per cent of the total in 1923 was brought in from the same source.

Canada's import business in chemicals and allied products was spread over eight countries with the United States leading and the United Kingdom next. The remaining six countries arranged in order of importance as the source of Canada's chemical supply were France, Germany, the Netherlands, Belgium, Switzerland and Chile. There was in addition some trade with a considerable number of other countries but even in the aggregate this other import business was comparatively negligible.

Canada's exports of chemicals and allied products totalled 28·5 million dollars in 1919; dropped in 1920 to 22·3 million dollars and further in 1921 to the low point of 10·3 million dollars. There was a slight recovery to a total of 12·4 million dollars in 1922 and in 1923 the total exports stood at 15·9 million dollars. In 1923, exports of chemicals and allied products from Canada to the United States amounted to 48·5 per cent of the total. Exports to the United Kingdom stood at 19·6 per cent and exports to other countries amounted to 31·9 per cent. Canada's best chemical customer, other than the United States and United Kingdom, was Mexico.

In the export field, electrochemical products led the list. Sodium cyanide, cyanamide and calcium carbide were the three largest items in the group and the export of acetic acid, much of which is produced from carbide, has also increased in recent years. Canada's other chemical exports of importance include soda ash, cobalt oxides and salts, ammonium sulphate, paints, pigments and varnishes, medicinal and pharmaceutical preparations, soaps (more particularly toilet soaps) and white arsenic.

Canada's balance of trade in chemical products showed a credit of 1·3 million dollars in 1919 when exports reached a total valuation of 28·5 million dollars in comparison with imports valued at 27·2 million dollars. In the following year the trade balance in this group was adverse to the extent of 18·3 million dollars; exports totalled only 22·3 million dollars as against imports of 40·6 million dollars. In the three years 1921, 1922 and 1923, there was an adverse trade balance in chemical products but on the other hand the balance of trade against Canada was gradually reduced each year; in 1921, it stood at 14·7 million dollars, the difference between 10·3 million dollars for exports and 25 million dollars for imports; in the following year, it was reduced to 13·2 million dollars, the difference between 12·4 million dollars for exports and 25·6 million dollars for imports; in 1923, the adverse balance was 10·2 million dollars, exports amounting to 15·9 and imports to 26·1 million dollars respectively; so that with the production increasing in value during the three years 1921-1923 and with the balance of trade in chemical products gradually becoming less unfavourable, the outlook for the chemical industries of Canada was gradually improving.

Throughout 1923, the trend of prices in chemical products showed only a slight downward trend. In January, the index, based on average prices of 1913 as 100, stood at 166·4; this was the highest point for the year and the lowest was reached in December when the index stood at 163·8. For the whole year the average was 164·8.

In studying the production of chemicals and allied products in Canada it has been found convenient to arrange these industries in ten (10) groups, namely: coal tar and its products; acids, alkalies, salts and compressed gases; explosives, ammunition, fireworks and matches; fertilizers; medicinal and pharmaceutical preparations; paints, pigments and varnishes; soaps, perfumery, cosmetics and other toilet preparations; inks, dyes and colour compounds; wood distillates and extracts; miscellaneous chemical industries.

Of the 475 plants in Canada reporting a production of chemicals or allied products in 1923, the number located in Ontario was 252; production from these plants totalled $60,954,034.

There were 138 plants in Quebec; with a production valued at $37,963,779. British Columbia ranked third among the chemical-producing provinces with 29 plants and an output valued at $4,458,060. Manitoba came next with 25 plants and a production of $3,963,246. Nova Scotia's 12 plants produced $1,979,976 worth of chemical products; 8 plants in New Brunswick had an output valued at $1,457,691; the prairie provinces were represented by 11 plants and production was valued at $467,370.

In 1922, there were 469 plants in operation in this industry. The returns for 1923 showed a gain of 2 in Nova Scotia; a loss of one in New Brunswick; a drop of 11 in Quebec; gains of 6 in Ontario, 2 in Manitoba, 4 in the prairie provinces, and 4 in British Columbia.

Statistics on the capital employed in the manufacture of chemicals and allied products in Canada showed an increase of about 5 million dollars in the value of lands, buildings, machinery and tools; it will be remembered there was an increase of 6 in the total number of plants reporting. Materials on hand and stocks in process showed only a slightly higher total valuation; the decline in the prices of raw materials noted during the year permitted the carrying of increased stocks at approximately the same valuation as in the preceding year. Cash on hand and other liquid assets improved appreciably; the increased volume of business required additional working capital. The total advance in the amount of capital employed was upwards of 8 million dollars to a total of $126,537,481. Of this amount $68,356,640 was invested in Ontario plants; $42,170,-047 in Quebec; $5,546,070 in Manitoba; $5,067,749 in British Columbia; $3,235,438 in Nova Scotia; $1,608,617 in New Brunswick and $552,920 in the prairie provinces of Alberta and Saskatchewan.

Considered in relation to the capital employed, the output of chemicals and allied products in Canada showed a gross value of $87.90 for every $100 of capital employed. By provinces, the value of production per $100 of capital employed was as follows: Nova Scotia, $61.17; New Brunswick, $90.63; Quebec, $90.01; Ontario, $89.18; Manitoba, $71.45; Alberta and Saskatchewan $84.53, and British Columbia, $87.98.

Another set of calculations points to very interesting information respecting the relation between the value of output and the capital investment in the plants producing chemicals and allied products in Canada. In the coal tar distillation industry, the value of the output in 1923 amounted to a sum which corresponded to 98·79 per cent of the actual capital invested in the industry. Following this computation one step farther, the value of the output less the sum of reported expenditure showed a gross return of $34.07 per $100 of capital employed. Similar data for the other industries in the chemicals and allied products group follow. Acids, alkalies and salts, or the heavy chemical industry, showed an output valued at 65·63 per cent of the capital employed and a gross return of $9·99 per $100 capital employed. For the group of industries classed under the heading explosives, ammunition, fireworks and matches, the ratio of output to capital employed was 104·3 per cent and the gross return on capital was 12·14 per cent. The output of fertilizers amounted to $41·13 for every $100 of capital employed with a gross return to the industry of $24·55. Medicinal and pharmaceutical preparations showed an output of $83.60 per $100 capital and a gross return of $10·05. The production of paints and varnishes amounted to 103·6 per cent with a gross return of 18·01 per cent on the capital employed. The soap industry including the manufacture of toilet preparations and washing compounds reported an annual output amounting to $114·30 on every $100 of capital employed and showed a gross return of 11·77 per cent. The ink industry seemed even more prosperous with an output valued at 127·7 per cent of the capital employed bringing a gross return of 18·75 per cent. The total production in the wood distillation industry amounted to 97·5 per cent of the reported capital employed showing a gross return of 38·5 per cent but it is doubtful if the total expenditures of this industry were fully reported. It is probable that there were heavy charges for inter-plant transportation which were not shown in the annual returns. The other chemical industries made products valued at 82·2 per cent of their capital employed and showed a return of 13·06 per cent. For the whole group of industries the gross return per $100 capital employed amounted to $13·12.

It is, perhaps, not generally known that the consumption of electricity by the firms classified under the chemical and allied products group in Canada amounted in value to $1,439,909 in 1923, while other fuel including anthracite and bituminous coal, coke, fuel oil, gas, wood, etc., used during the year reached a total value of only $2,229,349 or less than double the value of electricity used. In this report, the cost of electricity used has been included as a separate item in the fuel

and electricity table; in previous reports, the cost of electricity was included in a general item "Miscellaneous Expenses." Ontario and Quebec were the principal users of fuel; the consumption of electricity in Ontario amounted in value to $965,296 out of a total for fuel and electricity amounting to $2,184,732. Quebec plants used $420,390 worth of electricity and spent in all their fuel $1,239,832. Consumption of bituminous coal in 1923 amounted to 237,686 tons; this marked little change from the previous year. Ontario was the principal user, consuming 157,326 tons at a cost of $1,048,743. Fuel oil and gasoline used during the year rose to about three times the volume reported in 1922 and amounted in all to 1,247,634 imperial gallons, of which 755,585 gallons was used in British Columbia plants; 327,925 gallons in Ontario plants and 160,491 gallons in plants located in Quebec.

Coal Tar and Its Products.—Data on the production of coal tar and its products are more complete in this report than in any previously issued owing to the fact that it has been possible to obtain from one of the largest producers a separation of statistics as between the departments manufacturing prepared roofings and the departments in which coal tar distilling operations only are carried on. The additional number of plants reported herein includes plants formerly only classified as manufacturers of composition roofings.

Of the 14 plants reporting in this industry, 6 located in Ontario reported a production of $936,860, and 4 in Quebec had a total output valued at $1,187,706. There were 2 plants in Manitoba and one each in Nova Scotia and British Columbia.

Acids, Alkalies, Salts and Compressed Gases.—The manufacture of industrial chemicals other than coal-tar products including such heavy chemicals as sulphuric, nitric and hydrochloric acids, caustic soda, salt cake and calcium carbide, and compressed gases such as oxygen, hydrogen, ammonia and acetylene dissolved in acetone has been reviewed as an industrial group, but owing to the fact that the manufacture of compressed gases differs appreciably from the manufacture of heavy chemicals, the group has been divided into two sections: (a) acids, alkalies and salts; (b) compressed gases.

There was a very considerable increase in the production of the acids, alkalies, salts and compressed gases group in 1923 as compared with 1922. With one additional plant reporting, the total capital amounted to $36,436,315 and employment rose from an average of 2,189 in 1922 to 2,788 in 1923; salaries and wages advanced correspondingly to a total of $3,780,443. Products valued at $23,912,992 were made from materials costing $11,636,321. During the two years 1922-23 employment in the chemical industries as a whole showed an upward trend of approximately 16 per cent. In the same period the trend of employment in the acids, alkalies, salts and compressed gases industry showed approximately the same degree of improvement. As a matter of fact this is the only industry in the whole ten groups to show such a pronounced and steady upward trend. The improvement in production was also reflected in the export trade; for example, exports of acids reached a total of $1,392,943 during the calendar year 1923 or approximately a million dollars more than the value reported in the preceding calendar year. Imports, on the other hand, remained steady at about a half million dollars in value. While most of the plants in this industry are located in central Canada, there being 21 plants in Ontario and 13 in Quebec, there were also 3 in Nova Scotia, 4 in Manitoba, 1 in Alberta and 5 in British Columbia. Ontario plants contributed $19,123,264 to the total value of the output and production from the Quebec plants amounted to $3,955,265.

(a) Acids, Alkalies and Salts.—In this industry, more particularly than in most other industries covered by this report, large quantities of intermediate products are made for the further use of the reporting firms. Of the total cost of materials used in 1923 which amounted to 21·7 million dollars, 6·6 million dollars represented the value of such intermediate products. In previous reports, the total production by the reporting firms has been shown under each of the items listed in the table; in this report there are two lists of materials, one showing the purchased materials used and the other the consumption of intermediate products made by the reporting companies. There was some improvement in the production of hydrochloric acid and in the output of sulphuric acid but the production of nitric acid in this group of industries was slightly below the total reported in 1922. It must be borne in mind, however, that nitric acid is also produced to a very great extent in the explosives industry. Sodium and potassium compounds, including caustic soda, soda ash, sodium cyanide and other sodium compounds showed further improvement to a total value of $5,269,098, an advance of nearly a million dollars above the value reported in 1922.

(b) Compressed Gases.—Oxygen, acetylene and carbon dioxide were the principal products of this group; aqua and anhydrous ammonia, hydrogen and nitrogen were produced in less amounts. The total capital employed in the compressed gases industry showed a slight advance over the total for 1922 and amounted to $4,472,896 of which 2·3 million dollars was invested in plant and equipment. Production was valued at $2,165,445 as compared with $1,908,269 in the preceding year and the improvement in production was shown throughout the list.

The group includes all firms manufacturing oxygen, hydrogen, acetylene, carbon dioxide and ammonia. Some firms who did not manufacture their own acetylene purchased the gas and compressed it in cylinders in which form it was marketed. The manufacture of pure ammonia gas has also been recorded in this group, but the production of ammonia liquor from gas plants was excluded.

Explosives, Ammunition, Fireworks and Matches.—The industrial group included under the foregoing heading comprises four separate industries namely: (a) explosives, (b) ammunition, (c) fireworks, (d) matches. In the general tables, these four industries have been grouped but the production of each has been shown separately for the past two years wherever possible.

There were 18 plants operating in this industry in 1923. Of these, 8 located in Quebec had an output valued at $11,148,871; there were 8 plants in Ontario with an aggregate production of $1,027,980, and there were 2 plants in British Columbia. Employment varied but little throughout 1922 and 1923; from 2,100 to 2,300 persons were employed. Exports of explosives in each of the past three years have been valued at between two and three hundred thousand dollars; imports of explosives and materials for their manufacture, on the other hand, have shown a greater variation and during 1923 amounted in value to $771,111 as compared with $463,501 in the preceding year and $267,911 in 1921. Investment in plant and equipment and operating accounts totalled $13,820,102, an appreciable advance over the $12,345,296 reported in 1922. More than 10·3 million dollars was invested in plants located in Quebec.

(a) Explosives.—Among the products, gelatine dynamites were produced in greatest volume; straight dynamites, gun powder, monobels and nitrate mixtures were produced in the order named. Among the intermediate products made for use, nitric acid, nitroglycerine, recovered acids, mixed acids and ammonium nitrate figured largely, reaching a total value of $2,723,921 as compared with a value of $4,816,809 for products made for sale. The total production of the industry amounting to $7,540,730 showed a decline from the total of $7,963,225 in 1922; the lowered total value was due to a decline in price and not to lessened output.

(b) Ammunition.—There was no change in the number of plants reporting in 1923 as compared with 1922. Products made for sale showed a slightly higher value, $2,364,942, and intermediate products made for use were valued at $1,564,960 or about three times as large as reported in the previous year. The total production of the ammunition industry thus showed a very distinct improvement to a total of $3,929,902. About 660 persons were employed during the year and salaries and wages totalled $644,687.

(c) Fireworks.—There was a slight improvement in the volume of production in the fireworks industry, particularly in the output of manufactured fireworks for retail stores and in the production of exhibition displays; some railway signal fusees were also manufactured. There were four plants operating during the year.

(d) Matches.—The total production of the match industry amounted to $2,714,950, a decline from the total of $2,923,998 reported in 1922. Four plants continued to operate throughout the year. The total capital investment in the match industry in Canada in 1923 amounted to $4,577,322, and the production as reported above was the value exclusive of the excise tax.

Fertilizers.—The fertilizer industry, as herein reviewed, includes only those plants engaged in the manufacture of fertilizers as a principal product. Mention has been made, however, of commodities such as cyanamide, ammonium sulphate, ground bone, etc., and other fertilizers and fertilizer materials produced in other industries.

A further reduction in the value of output was reported by the firms classified in this industry in 1923. Production was valued at $1,487,244 as compared with $1,981,418 in the preceding year and $2,677,735 in 1921. The decline in production was general throughout the list. Complete fertilizers produced in this industry amounted to 58,011,637 pounds valued at $1,113,857 as compared with 76,495,114 pounds produced in the previous year at a selling value of $1,673,029.

The production of fertilizer materials in other industries made a rather more favourable showing. The cyanamide industry, for instance, produced 117,310,000 pounds of calcium cyanamide at a selling value of $3,214,294 as compared with 70,088,000 pounds produced in 1922 worth $1,847,064. The output of tankage by the slaughtering and meat-packing industry and the production of raw ground bone and complete fertilizers were all greater in 1922. Production of complete fertilizers by the meat-packing establishments totalled 8,581 tons or 17,162,000 pounds as compared with 2,595 tons or 51,900,000 pounds made in 1922. The fisheries contributed 9,725 tons of fish and whale fertilizers and the coke and gas industries made 21,519 tons of ammonium sulphate during the year. The total production of mixed or complete fertilizers in 1923 was 76,593,637 pounds or 38,296 tons; in 1922 the total production of complete fertilizers was 129,993,114 pounds or 64,996 tons. The total importations of fertilizers and fertilizer materials showed a further decline and amounted in value to $1,673,841 as compared with $2,047,-451 in the preceding year and $2,589,190 in 1921. Ammonium sulphate imports increased to more than double the quantity reported in the preceding year; imports of muriate of potash on the other hand declined to less than one-half the quantity imported in 1922. Total importations of nitrate of soda showed little change from the preceding year and the quantity of acid phosphate brought in also remained at about the same level as in 1922. There was a distinct advance in the quantity of manufactured fertilizers imported from the United States, Belgium and the United Kingdom in 1923.

Canada's export trade in manufactured fertilizers and fertilizer materials amounted to about a quarter of a million dollars in value during 1923 and was less than the amount reported in either of the two preceding years. Exports of ammonium sulphate, on the other hand, showed improvement both in quantity and value. Very considerable quantities were shipped to Japan, the United States, Barbadoes, Cuba, and China during the year. Smaller quantities were shipped to several other countries. Most of the cyanamide exported was destined to points in the United States, but small shipments were made to some other foreign countries. The value of exports of cyanamide has trebled in the last three years: the total value now exceeds three million dollars annually.

Medicinal and Pharmaceutical Preparations.—Further improvement was noted in the production of medicinal and pharmaceutical preparations in Canada during 1923. The total output was valued at $12,256,608 as compared with $11,532,536 reported in 1922. The industry continued to be centred largely in Ontario where 65 plants produced patent and proprietary and other medicinal, pharmaceutical and toilet preparations worth in the aggregate $7,841,435. Quebec's 30 plants produced $2,766,739 worth of such preparations. There were also 6 plants in this industry located in Manitoba and one each in the provinces of Nova Scotia, New Brunswick and British Columbia. Employment was afforded to 1,461 wage-earners during the year as compared with 1,492 on the rolls in the preceding year.

Patent medicines and proprietary preparations made during 1923 were valued at $5,997,026 as compared with $5,777,490 in 1922. Toilet preparations including perfumes, hair tonics, etc., showed a decline in total value to $718,493 from $741,470 reported in the preceding year. The output of medicated wines increased and the production of pharmaceutical preparations reached a value of $3,518,911 as compared with $3,490,163 in 1922. Disinfectants made during the year were valued at only $61,326 as compared with $200,536 in 1922.

Paints, Pigments and Varnishes.—In point of value of production, the paints, pigments and varnishes industry in Canada yielded first place to the heavy chemical industry in 1923, but in spite of this loss of the premier position in the chemical group, the output of the paint industry was valued at $21,553,158 representing a value added by manufacturing of $10,798,885 as compared with an output value in the preceding year of $20,230,545 with value added by manufacturing computed at $8,875,642. About 150 more men were employed during the year raising the average number to 2,591, to whom $3,665,823 was paid. The 57 plants reporting included 29 in Ontario; 14 in Quebec; 9 in British Columbia; 3 in Manitoba and one each in Nova Scotia and Alberta. Quebec's plants produced $10,764,929 worth of paint products, while Ontario held second place with an output valued at $7,941,810. Both British Columbia and Manitoba records were above the million-dollar mark.

The total production value quoted above included $20,938,802, the selling value of products made for sale, and $614,356, the value of intermediate products made for further use in the producing plants. Mixed paints ready for use totalled 3,161,656 gallons valued at $8,916,759, an increase of more than one million dollars in total value representing an increase of close to half a million gallons of paint. Putty sales were slightly below those recorded in 1922, but the manufacture of varnishes, dry colours, litharge, and red lead showed advances over the totals for the preceding year.

Canada's imports of paints, pigments and varnishes totalled $3,615,777 as compared with $3,439,841 in the preceding year and $2,599,351 in 1921. Exports showed a slight improvement to a value of $550,639.

Soaps, Washing Compounds and Toilet Preparations.—Production of soaps, washing compounds and toilet preparations in 1923 was valued at $17,909,011 as compared with $15,841,-905 in the preceding year and the value added by manufacturing, computed as the difference between the cost of materials and the selling value of products made, amounted to $8,508,259, an advance of 1·2 million dollars over the corresponding figure for the previous year. More people were employed in the plants reporting during 1923 and 2 more plants were added to this group in that year. Employment in the soap industry shows a seasonal trend each year; the months of April, May, June and of September and October usually show employment peaks.

Of the 70 plants reporting in this group, 37 were located in Ontario and production from these amounted to $12,021,180 in value; 20 plants in Quebec had an aggregate output valued at $3,276,189. In addition one plant was located in New Brunswick and there were 3 in Manitoba; 5 altogether in Alberta and Saskatchewan and 4 in British Columbia.

The present report covers several distinct industries which have sufficient in common to permit of their being reviewed together. The manufacture of soaps, the related industry, the manufacture of washing compounds and the manufacture of perfumes, cosmetics and toilet preparations are included. General statistics have been shown in the tables for the soaps, washing compounds and toilet preparations industry as a whole; production data and materials used have been compiled separately for each section.

(a) Soaps.—One additional plant raised the number of soap manufacturers to 33 reporting in 1923. In these plants, there was invested $13,774,170 and employment was furnished to 1,084 wage-earners and 507 salaried workers throughout the year. Salaries and wages totalled $1,965,915. Production of household soaps advanced more than 4 million pounds to a total of 46,884,007 pounds; the output of laundry soaps and soap chips on the other hand was slightly less at 38,121,723 pounds and production of toilet soaps was 2 million pounds higher at 14,747,966 pounds; soap powders also showed a great increase in production to a total of 12,961,679 pounds. Other hard soaps, soft soaps, washing compounds, glycerine, crude and refined were important items in the production list.

There were several changes in the quantities of materials used also. Palm oil, soya bean oil, rosin, caustic potash, sal soda and sodium silicate were used in considerably increased quantities. Decreases in consumption were noted in the totals for cocoanut oil, fatty acids, tallow, grease and other soap stock and in common salt.

(b) Washing Compounds.—The washing compounds industry includes those firms manufacturing washing compounds, javelle water, ammonia powder and similar products which are used to some extent instead of soap for certain household purposes. Materials used include soda ash and chloride of lime principally; other materials are used to less extent and the cost of containers is appreciable. There were 11 plants in this group in 1923, representing a total capital investment of $283,851. For the most part the concerns in this group are small and the value of production annually is usually considerably in excess of the investment in plant and equipment. Many of the products made have great utility, however, and there is a good market for the output.

(c) Perfumery, Cosmetics and Other Toilet Preparations.—While considerable quantities of perfumes, cosmetics and toilet preparations are made as minor products of several other industries, the manufacture of these commodities as principal products has been carried on in Canada for a number of years and the present section has been prepared as a review of the activities in this growing industry.

The addition of 3 plants raised the number of concerns reporting in this group to 26 in which the amount of capital employed totalled $1,610,571. In the list of materials used, the cost of containers at $477,491 was greatly in excess of the cost shown for any other item, but essential oils used cost $110,632. Most of the products fell into the class of toilet preparations including perfumes and hair tonics but there was also a small production of toilet soaps.

Inks, Dyes and Colours.—Printing inks, writing inks, dyes and dye soaps, hat colours, washing blue, butter colour, caramel, mortar colours and shingle stains were the principal items of production in the inks, dyes and colours industry in Canada in 1923. The manufacture of printing inks reached a total of $1,385,492 and printers' rollers made during the year were worth $214,827. The manufacture of dyes and dye soaps was greater than in the previous year. Writing inks made in this industry had a selling value of $250,719 as compared with $174,814 worth made in the previous year, but in addition to this production there was an output from firms classified in other industries amounting to $117,361 in value so that the total output of writing inks from Canadian plants in 1923 was valued at $368,080.

There were 12 plants in Ontario with an output valued at $2,083,290; there were also 7 plants in Quebec; 1 in New Brunswick; 2 in Manitoba; 1 in Alberta, and 3 in British Columbia, making 26 in all. Production of the industry was valued at $2,876,347 as compared with $2,756,066 in the preceding year. The number of plants reporting remained unchanged, but the capital employed showed an increase to $2,252,370. The average number of employees was 415 and salaries and wages totalled $659,336.

Wood Distillates and Extracts.—There was a slight recovery in the production of wood distillates and extracts in 1923 as compared with 1922, and the total value of the output amounted to $2,743,295, but the total capital employed was cut down to $2,814,045 as compared with $3,265,882 reported in 1922. There were no outstanding changes in the items of materials used during the year, but in production there were some items which showed improvement. Grey acetate of lime produced for sale was nearly three times greater in amount than the quantity reported in 1922. Similarly, the quantities and values reported for methyl hydrate, both 95 per cent and pure, were greater. Production of formaldehyde, while slightly less in quantity, was higher in total value. Sales of wood creosote totalled 219,950 gallons as compared with 28,947 gallons in the preceding year and the output of acetone oils rose to 123,299 pounds as compared with 46,451 pounds in 1922. Acetone also advanced to 504,199 pounds valued at $134,721. Products of the wood distillation industry made for sale were valued at $2,165,191 as compared with $1,439,547 in 1922. The reported production of intermediates made for use was valued at $561,807 as compared with $463,364 in the preceding year.

In the wood extracts industry the manufacture of wood turpentine and the production of crude potash from wood burning are included. The output of the wood extracts industry was valued at $16,297 as compared with $9,332 in 1922.

Miscellaneous Chemical Industries.—A number of firms operating in Canada produce chemicals or allied products which do not naturally fall in any of the groups previously considered; a miscellaneous group has accordingly been made and the industries therein have been divided into nine classes, namely: adhesives; artificial abrasives; boiler compounds, flavouring extracts and jelly powders; polishes and dressings; sweeping compounds; baking powders; insecticides; and chemical products not elsewhere specified.

The principal products of the 112 firms thus grouped together have been shown by industries in the production tables; the only comment necessary is to point out that the data given in these tables do not represent the total production in Canada of the commodities mentioned, but only the output of the industries producing these commodities as their principal products. For example, large quantities of lime-sulphur solution and other insecticides are made in industries whose principal products place them in other categories. The manufacture of adhesives, flavouring extracts, etc., is carried on in other industries. The tables themselves present an example since under the "flavouring extract" industry there is shown a small production of baking powders.

Table 2.—Number of Plants and Value of Products in the Manufacturing of Chemicals and Allied Products, by Industries and by Provinces, 1923

Industry	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Alberta and Saskatchewan	British Columbia	Canada
COAL TAR AND ITS PRODUCTS—								
Number of plants	1	-	4	6	2	-	1	14
Value of products $	-	-	1,187,706	936,860	-	-	-	3,166,100
ACIDS, ALKALIES, SALTS AND COMPRESSED GASES—								
Number of plants	3	-	13	21	4	1	5	47
Value of products $	243,671	-	3,955,265	19,123,264	215,617	-	311,346	23,912,992
EXPLOSIVES, AMMUNITION, FIREWORKS AND MATCHES—								
Number of plants	-	-	8	8	-	-	2	18
Value of products $	-	-	11,148,871	1,027,980	-	-	-	14,428,390
FERTILIZERS—								
Number of plants	3	2	2	8	1	-	2	18
Value of products $	396,520	-	-	670,850	-	-	-	1,487,244
MEDICINAL AND PHARMACEUTICAL PREPARATIONS—								
Number of plants	1	1	30	65	6	-	1	104
Value of products $	-	-	2,766,739	7,841,435	1,439,520	-	-	12,256,608
PAINTS, PIGMENTS AND VARNISHES—								
Number of plants	1	-	14	29	3	1	9	57
Value of products $	-	-	10,764,929	7,941,810	1,278,995	-	1,064,099	21,553,158
SOAPS, WASHING COMPOUNDS AND TOILET PREPARATIONS—								
Number of plants	-	1	20	37	3	5	4	70
Value of products $	-	-	3,276,189	12,021,180	700,599	376,717	470,623	17,909,011
INKS, DYES AND COLOURS—								
Number of plants	-	1	7	12	2	1	3	26
Value of products $	-	-	673,485	2,083,290	-	-	55,867	2,876,347
WOOD DISTILLATES AND EXTRACTS—								
Number of plants	-	-	4	5	-	-	-	9
Value of products $	-	-	1,450,448	1,292,847	-	-	-	2,743,295
MISCELLANEOUS CHEMICAL INDUSTRIES—								
Number of plants	3	3	36	61	4	3	2	112
Value of products $	35,430	95,633	2,689,094	8,014,518	35,175	21,040	-	10,911,011
TOTAL								
Number of plants	12	8	138	252	25	11	29	475
Value of products	1,979,976	1,457,691	37,963,779	60,954,034	3,963,246	467,370	4,458,960	111,244,156
1922 TOTAL—								
Number of plants	10	9	149	246	23	7	25	469
Value of products $	1,626,265	1,536,598	32,916,142	50,841,464	3,956,564	489,863	4,577,289	95,944,185

Table 3.—Materials Used, Products Made and Value Added by Manufacturing in the Manufacture of Chemicals and Allied Products in Canada, by Industries, 1922

Industry	Cost of materials		Value of products		Value added by manufacturing
	Purchased	Made by firms reporting	Made for use	Made for sale	
	$	$	$	$	$
Coal tar and its products	307,038	6,303	(886,358)		573,017
Acids, alkalies, salts and compressed gases	2,951,843	3,214,626	(16,879,267)		10,712,798
Explosives, ammunition, fireworks and matches	4,402,759	4,490,981	4,490,981	9,297,677	4,894,918
Fertilizers	1,098,230	.....	.....	1,981,418	883,188
Medicinal and pharmaceutical preparations	4,145,298	.....	.....	11,532,536	7,387,238
Paints, pigments and varnishes	9,790,603	1,564,300	1,607,240	18,623,305	8,875,642
Soaps, washing compounds and toilet preparations	8,484,676	.....	.....	15,841,905	7,357,229
Inks, dyes and colours	1,070,287	.....	.....	2,756,006	1,685,719
Wood distillates and extracts	504,086	428,581	453,364	1,448,879	969,576
Miscellaneous chemical industries	4,460,357	.....	.....	10,145,249	5,684,892
Total	37,215,177	9,704,791	95,944,185		49,024,217

Table 4.—Materials Used, Products Made and Value Added by Manufacturing in the Manufacture of Chemicals and Allied Products in Canada, by Industries, 1923

Industry	Cost of materials		Value of products		Value added by manufacturing
	Purchased	Made by firms reporting	Made for use	Made for sale	
	$	$	$	$	$
Coal tar and its products	1,381,724	-	-	3,166,100	1,784,376
Acids, alkalies, salts and compressed gases	4,994,186	6,642,135	6,641,823	17,271,169	12,276,671
Explosives, ammunition, fireworks and matches	4,981,760	4,288,881	4,288,881	10,139,509	5,157,749
Fertilizers	831,470	-	-	1,487,244	655,774
Medicinal and pharmaceutical preparations	4,474,487	-	-	12,256,608	7,782,121
Paints, pigments and varnishes	9,965,145	789,128	614,356	20,938,802	10,798,885
Soaps, washing compounds and toilet preparations	9,400,752	-	-	17,909,011	8,508,259
Inks, dyes and colours	1,141,102	-	-	2,876,347	1,735,245
Wood distillates and extracts	570,373	406,248	561,807	2,181,488	1,766,674
Miscellaneous chemical industries	4,770,671	-	-	10,911,011	6,140,340
Total	**42,511,670**	**12,126,392**	**12,106,867**	**99,137,289**	**56,606,094**

Table 5.—Materials Used, Products Made and Value Added by Manufacturing in the Manufacture of Chemicals and Allied Products in Canada, by Provinces, 1922

Province	Cost of materials		Selling value of products including products made for use and for sale	Value added by manufacturing
	Purchased	Made by firms reporting		
	$	$	$	$
Nova Scotia	495,796	1,641	1,626,265	1,128,828
New Brunswick	1,023,349	.....	1,536,598	513,249
Quebec	13,667,946	4,368,255	32,916,142	14,879,941
Ontario	18,302,670	3,954,393	50,841,464	28,584,401
Manitoba	1,833,429	146,097	3,956,564	1,977,038
Alberta	249,228	.....	489,863	240,635
British Columbia	1,642,759	1,234,405	4,577,289	1,700,125
Canada	**37,215,177**	**9,704,791,**	**95,944,185**	**49,024,217**

Table 6.—Materials Used, Products Made and Value Added by Manufacturing in the Manufacture of Chemicals and Allied Products in Canada, by Provinces, 1923

Province	Cost of materials		Value of products		Value added by manufacturing
	Purchased	Made by firms reporting	Made for use	Made for sale	
	$	$	$	$	$
Nova Scotia	605,431	-	-	1,979,976	1,374,545
New Brunswick	873,782	-	-	1,457,691	583,909
Quebec	15,505,814	4,055,358	3,935,859	34,027,920	18,402,607
Ontario	21,537,123	7,238,910	7,338,881	53,615,150	32,178,091
Manitoba	1,838,345	37,941	37,911	3,925,305	2,086,960
Alberta and Saskatchewan	249,548	-	-	467,370	217,822
British Columbia	1,901,627	794,183	794,183	3,663,877	1,762,250
Canada	**42,511,670**	**12,126,392**	**12,106,867**	**99,137,289**	**56,606,094**

Table 7—Imports into Canada, and Exports of Chemicals and Allied Products during the Calendar Years, 1921, 1922 and 1923

—	Imports			Exports		
	1921	1922	1923	1921	1922	1923
Acids—	$	$	$	$	$	$
United Kingdom	118,704	79,857	100,022	2,618	257,167	1,039,154
United States	259,696	364,142	269,639	67,346	45,166	297,526
Other countries	72,996	108,072	136,516	12,456	18,158	56,263
Total	**451,396**	**552,071**	**506,177**	**82,420**	**320,491**	**1,392,943**
Alcohols, industrial—						
United Kingdom	141	16	33	131,852	77,625	82,986
United States	1,297,267	74,806	2,673	16	4,089	21,448
Other countries	117,933	17,069	11,241	109,193	18,170	11,718
Total	**1,415,341**	**91,891**	**13,947**	**241,061**	**99,884**	**116,152**
Cellulose products—						
United Kingdom	48,778	66,783	78,860	–	–	–
United States	896,276	822,186	940,427	–	–	–
Other countries	12,105	67,215	62,428	–	–	–
Total	**957,159**	**956,184**	**1,081,715**	–	–	–
Drugs, medicinal and pharmaceutical preparations—						
United Kingdom	768,170	904,427	1,045,711	231,327	217,276	266,007
United States	1,360,882	1,085,176	1,215,243	7,792	20,476	25,472
Other countries	363,638	377,185	378,620	250,169	227,152	216,481
Total	**2,492,690**	**2,366,788**	**2,639,574**	**489,288**	**464,904**	**507,960**
Dyeing and tanning materials—						
United Kingdom	300,359	234,934	181,912	21,300	26,739	4,732
United States	2,500,134	2,843,458	2,770,395	14,577	5,110	30
Other countries	957,157	977,559	1,126,350	1,631	3,938	1,300
Total	**3,757,650**	**4,055,951**	**4,078,657**	**37,508**	**35,787**	**6,062**
Explosives—						
United Kingdom	42,104	45,899	57,851	–	32	–
United States	187,599	219,826	583,956	253,380	84,442	625
Other countries	38,208	197,776	129,304	33,632	216,494	216,506
Total	**267,911**	**463,501**	**771,111**	**287,012**	**300,968**	**217,131**
Fertilizers—						
United Kingdom	40,764	2,960	40,184	12,029	–	–
United States	1,972,664	1,572,931	1,435,020	1,648,042	2,815,037	3,616,138
Other countries	575,762	471,560	198,637	599,812	411,790	1,100,940
Total	**2,589,190**	**2,047,451**	**1,673,841**	**2,259,883**	**3,226,827**	**4,717,078**
Paints, pigments and varnishes—						
United Kingdom	395,533	635,151	628,624	199,575	201,900	173,047
United States	1,793,223	2,349,390	2,621,034	92,619	67,525	69,695
Other countries	410,595	455,300	366,119	196,309	202,536	307,797
Total	**2,599,351**	**3,439,841**	**3,615,777**	**488,503**	**471,961**	**550,539**
Perfumery, cosmetics and toilet preparations—						
United Kingdom	64,229	75,533	147,059	–	–	–
United States	441,015	488,252	465,524	–	–	–
Other countries	438,619	339,132	259,818	–	–	–
Total	**943,863**	**902,917**	**872,401**	–	–	–
Soap—						
United Kingdom	61,467	106,435	104,217	97,195	192,922	405,281
United States	1,084,470	930,727	1,190,061	3,908	1,494	320
Other countries	83,789	102,708	95,046	69,126	81,374	147,551
Total	**1,229,726**	**1,139,870**	**1,389,324**	**170,229**	**275,790**	**553,152**
Inorganic chemicals—						
United Kingdom	458,261	672,199	665,691	8,399	152,381	499,875
United States	4,271,303	5,124,361	4,776,383	4,440,145	3,746,184	3,219,998
Other countries	246,128	423,475	378,396	649,761	2,284,781	2,835,569
Total	**4,975,692**	**6,220,035**	**5,820,270**	**5,098,305**	**6,183,346**	**6,555,442**
All other drugs and chemicals, etc., n.o.p.—						
United Kingdom	796,495	941,235	1,040,374	283,560	517,523	660,750
United States	2,374,942	2,285,624	2,469,560	663,939	415,716	494,478
Other countries	192,543	225,693	197,829	225,830	170,809	206,725
Total	**3,363,980**	**3,452,552**	**3,707,763**	**1,173,329**	**1,104,048**	**1,361,953**
Recapitulation—Chemicals and Allied Products—						
United Kingdom	**3,095,005**	**3,765,429**	**4,090,538**	**987,855**	**1,643,565**	**3,131,832**
United States	**18,439,471**	**18,160,879**	**18,739,715**	**7,191,764**	**7,205,239**	**7,745,730**
Other countries	**3,509,473**	**3,762,744**	**3,340,304**	**2,147,919**	**3,635,202**	**5,100,850**
Total	**25,043,949**	**25,689,052**	**26,170,557**	**10,327,538**	**12,484,006**	**15,978,412**

Table 8.—Number of Employees, Salaries and Wages Paid in the Manufacture of Chemicals and Allied Products in Canada, by Industries, 1922

Industry	Average number of employees					Salaries and wages.		
	Salaried employees		Wage-earners		Total	Salaries	Wages	Total
	Male	Female	Male	Female		$	$	$
Coal tar and its products	17	7	64	2	90	46,970	63,056	110,026
Acids, alkalies, salts and compressed gases	455	85	1,593	56	2,189	950,989	1,966,372	2,917,361
Explosives, ammunition, fireworks and matches	212	13	1,269	629	2,123	364,373	1,666,504	2,030,877
Fertilizers	77	17	248	2	344	148,214	200,665	348,879
Medicinal and pharmaceutical preparations	536	274	645	847	2,302	1,517,488	1,235,192	2,752,680
Paints, pigments and varnishes	638	193	1,421	199	2,451	1,899,135	1,522,082	3,421,217
Soaps, washing compounds and toilet preparations	424	118	876	456	1,874	1,027,445	1,187,871	2,215,316
Inks, dyes and colours	105	34	228	49	416	403,198	265,521	668,719
Wood distillates and extracts	35	3	257	.....	295	46,747	245,482	292,229
Miscellaneous chemical industries	465	174	1,023	339	2,001	1,051,660	961,839	2,013,499
Total	2,964	918	7,624	2,579	14,085	7,456,219	9,314,584	16,770,803

Table 9.—Number of Employees, Salaries and Wages Paid in the Manufacture of Chemicals and Allied Products in Canada, by Industries, 1923.

Industry	Average number of employees					Salaries and wages		
	Salaried employees		Wage-earners		Total	Salaries	Wages	Total
	Male	Female	Male	Female		$	$	$
Coal tar and its products	34	11	193	1	239	103,440	231,525	334,965
Acids, alkalies, salts and compressed gases	437	83	2,227	41	2,788	963,323	2,817,120	3,780,443
Explosives, ammunition, fireworks and matches	238	21	1,352	679	2,290	426,903	1,705,094	2,131,997
Fertilizers	84	14	229	2	329	152,134	158,307	310,441
Medicinal and pharmaceutical preparations	552	258	620	841	2,271	1,541,560	1,126,181	2,667,741
Paints, pigments and varnishes	698	230	1,167	196	2,591	2,050,381	1,615,442	3,665,823
Soaps, washing compounds and toilet preparations	471	175	966	470	2,082	1,145,547	1,314,108	2,459,655
Inks, dyes and colours	112	30	216	57	415	382,272	277,064	659,336
Wood distillates and extracts	23	3	318	–	344	43,796	288,230	332,026
Miscellaneous chemical industries	527	208	755	310	1,800	1,167,761	923,491	2,091,252
Total	3,176	1,033	8,343	2,597	15,149	7,977,117	10,456,562	18,433,679

Table 10.—Number of Employees, Salaries and Wages Paid in the Manufacture of Chemicals and Allied Products in Canada, by Provinces, 1922

Province	Average number of employees					Salaries and wages		
	Salaried employees		Wage-earners		Total	Salaries	Wages	Total
	Male	Female	Male	Female		$	$	$
Nova Scotia	56	19	215	16	306	115,784	185,865	301,649
New Brunswick	34	10	82	17	143	73,236	80,221	153,457
Quebec	869	244	3,006	1,177	5,296	2,367,799	3,587,472	5,955,271
Ontario	1,733	582	3,767	1,245	7,327	4,291,106	4,717,175	9,008,281
Manitoba	114	36	225	85	460	258,268	314,582	572,850
Alberta	25	3	34	11	73	50,543	37,260	87,803
British Columbia	133	24	295	28	480	299,483	392,009	691,492
Canada	2,964	918	7,624	2,579	14,085	7,456,219	9,314,584	16,770,803

Table 11.—Number of Employees, Salaries and Wages Paid in the Manufacture of Chemicals and Allied Products in Canada, by Provinces, 1923

Province	Average number of employees					Salaries and wages		
	Salaried employees		Wage-earners		Total	Salaries	Wages	Total
	Male	Female	Male	Female		$	$	$
Nova Scotia	59	17	229	16	321	129,175	177,929	307,104
New Brunswick	35	11	65	12	123	76,225	73,795	150,020
Quebec	937	250	3,237	1,191	5,615	2,494,669	3,892,396	6,387,065
Ontario	1,857	670	4,237	1,261	8,025	4,632,160	5,527,792	10,159,952
Manitoba	117	60	243	78	498	285,898	335,979	621,877
Alberta and Saskatchewan	36	3	34	10	83	47,126	41,450	88,576
British Columbia	135	22	298	29	484	311,864	407,221	719,085
Canada	3,176	1,033	8,343	2,597	15,149	7,977,117	10,456,562	18,433,679

Table 12.—Yearly Average Number of Wage-Earners Employed in the Manufacture of Chemicals and Allied Products in Canada by Provinces and by Industries, 1922

Province	Coal tar and its products	Acids, alkalies, salts and compressed gases	Explosives, ammunition, fireworks and matches	Fertilizers	Medicinal and pharmaceutical preparations
Nova Scotia	25	9	.....	120	11
New Brunswick	.....	.....	.....	41	8
Quebec	20	480	1,480	10	386
Ontario	21	1,100	286	63	970
Manitoba	.....	17	.....	.....	114
Alberta	.....	5	.....	.....	.....
British Columbia	.....	38	132	16	3
Canada	**66**	**1,649**	**1,898**	**250**	**1,492**

Province	Paints, pigments and varnishes	Soaps, washing compounds and toilet preparations	Inks, dyes and colours	Wood distillates and Extracts	Miscellaneous chemical industries	**All industries**
Nova Scotia	56	.....	.....	.....	10	**231**
New Brunswick	.....	45	1	.....	4	**99**
Quebec	920	316	74	106	389	**4,181**
Ontario	455	827	188	151	953	**5,014**
Manitoba	104	62	9	.....	4	**310**
Alberta	1	37	1	.....	1	**45**
British Columbia	84	45	4	.....	1	**323**
Canada	**1,620**	**1,332**	**277**	**257**	**1,362**	**10,203**

Table 13.—Yearly Average Number of Wage-Earners Employed in the Manufacture of Chemicals and Allied Products in Canada by Provinces and by Industries, 1923

Province	Coal tar and its products	Acids, alkalies, salts and compressed gases	Explosives, ammunition, fireworks and matches	Fertilizers	Medicinal and pharmaceutical preparations
Nova Scotia	34	17	.....	112	11
New Brunswick	.....	.....	.....	25	5
Quebec	89	577	1,595	9	351
Ontario	43	1,617	313	67	985
Manitoba	14	18	.....	1	106
Alberta and Saskatchewan	.....	4	.....	.....	.....
British Columbia	14	35	123	17	3
Canada	**194**	**2,268**	**2,031**	**231**	**1,461**

Province	Paints, pigments and varnishes	Soaps, washing compounds and toilet preparations	Inks, dyes and colours	Wood distillates and extracts	Miscellaneous chemical industries	**All industries**
Nova Scotia	60	–	–	–	11	**245**
New Brunswick	–	44	–	–	3	**77**
Quebec	929	345	70	117	346	**4,428**
Ontario	489	898	191	201	694	**5,498**
Manitoba	101	69	8	–	4	**321**
Alberta and Saskatchewan	1	34	1	–	4	**44**
British Columbia	83	46	3	–	3	**327**
Canada	**1,663**	**1,436**	**273**	**318**	**1,065**	**10,940**

Table 14.—Number of Wage-Earners Employed in the Manufacture of Chemicals and Allied Products in Canada by Months and by Industries, 1922

Month	Coal tar and its products	Acids, alkalies, salts and compressed gases	Explosives, ammunition fireworks and matches	Fertilizers	Medicinal and pharmaceutical preparations
January	65	1,202	1,744	234	1,378
February	54	1,259	1,839	247	1,468
March	47	1,385	1,855	315	1,519
April	56	1,448	1,908	412	1,492
May	99	1,575	1,881	346	1,515
June	61	1,609	1,897	209	1,473
July	60	1,740	1,811	155	1,490
August	58	1,817	1,810	200	1,513
September	52	1,803	1,976	217	1,572
October	61	1,960	2,086	207	1,582
November	101	2,069	1,997	213	1,527
December	73	1,924	1,959	240	1,373
Average	**66**	**1,649**	**1,898**	**250**	**1,492**

Month	Paints, pigments and varnishes	Soaps, washing compounds and toilet preparations	Inks, dyes and colours	Wood distillates and extracts	Miscellaneous chemical industries	**All industries**
January	1,487	1,302	267	359	1,270	**9,308**
February	1,567	1,260	267	330	1,382	**9,673**
March	1,623	1,277	276	309	1,417	**10,023**
April	1,702	1,290	282	217	1,358	**10,165**
May	1,758	1,335	285	164	1,423	**10,381**
June	1,738	1,358	280	157	1,491	**10,273**
July	1,698	1,316	278	152	1,269	**9,969**
August	1,617	1,343	281	172	1,271	**10,082**
September	1,537	1,358	287	236	1,392	**10,430**
October	1,570	1,393	276	306	1,345	**10,786**
November	1,571	1,391	278	337	1,353	**10,837**
December	1,576	1,354	276	347	1,358	**10,480**
Average	**1,620**	**1,332**	**277**	**257**	**1,362**	**10,203**

Table 15.—Number of Wage-Earners Employed in the Manufacture of Chemicals and Allied Products in Canada by Months and by Industries, 1923

Month	Coal tar and its products	Acids, alkalies, salts and compressed gases	Explosives, ammunition fireworks and matches	Fertilizers	Medicinal and pharmaceutical preparations
January	156	2,028	2,009	216	1,339
February	155	2,078	1,906	270	1,392
March	178	2,186	1,958	314	1,459
April	236	2,303	1,992	350	1,447
May	283	2,453	1,973	302	1,436
June	217	2,561	1,925	159	1,416
July	214	2,453	2,043	166	1,375
August	187	2,219	2,023	170	1,483
September	188	2,276	2,056	164	1,531
October	180	2,260	2,111	183	1,546
November	136	2,192	1,868	194	1,545
December	180	2,147	1,891	228	1,404
Average	**194**	**2,268**	**2,031**	**231**	**1,461**

Month	Paints, pigments and varnishes	Soaps, washing compounds and toilet preparations	Inks, dyes and colours	Wood distillates and extracts	Miscellaneous chemical industries	**All industries**
January	1,586	1,308	271	357	1,014	**10,284**
February	1,645	1,364	271	351	1,042	**10,474**
March	1,690	1,381	274	376	1,099	**10,915**
April	1,724	1,404	276	255	1,093	**11,080**
May	1,793	1,432	279	238	1,113	**11,302**
June	1,752	1,449	272	284	1,069	**11,104**
July	1,672	1,410	260	234	1,026	**10,853**
August	1,581	1,451	269	269	1,003	**10,655**
September	1,583	1,509	275	287	1,016	**10,885**
October	1,612	1,514	279	376	1,062	**11,123**
November	1,622	1,437	265	308	1,059	**10,686**
December	1,630	1,498	278	410	1,055	**10,721**
Average	**1,663**	**1,436**	**273**	**318**	**1,065**	**10,940**

Table 16.—Fuel Consumption in the Manufacture of Chemicals and Allied Products in Canada by Industries, 1922

Industry	Anthracite coal	Bituminous coal	Coke	Fuel oil and gasoline	Gas	Wood	Other fuel	Total Value
Coal tar and its products—	Tons	Tons	Tons	Gals.	M. cu. Ft.	Cords	$	$
Quantity	32	4,451	.....	.....	45	.....	.....	.....
Value	$ 483	$ 33,364	.....	.....	$ 60	.....	$ 6,966	$ 40,873
Acids, alkalies, salts and compressed gases—								
Quantity	1,014	69,090	6,958	41,558	1,208	90	.....	.....
Value	$ 9,601	$ 465,432	$ 62,377	$ 8,460	$ 1,252	$ 451	.....	$ 547,573
Explosives, ammunition, fireworks and matches—								
Quantity	582	22,228	247	306,300	17	867	.....	.....
Value	$ 7,304	$ 162,516	$ 4,375	$ 17,915	$ 13	$ 2,923	.....	$ 195,046
Fertilizers—								
Quantity	301	4,970	50	8,000	.....	219	.....	.....
Value	$ 2,645	$ 34,524	$ 690	$ 3,275	.....	$ 1,219	.....	$ 42,353
Medicinal and pharmaceutical preparations—								
Quantity	1,342	5,892	11	7,960	2,710	149	.....	.....
Value	$ 14,177	$ 47,063	$ 183	$ 1,387	$ 2,762	$ 884	.....	$ 66,456
Paints, pigments and varnishes—								
Quantity	333	21,376	3,235	63,348	964	562	.....	.....
Value	$ 3,452	$ 184,159	$ 44,060	$ 9,144	$ 1,155	$ 2,537	.....	$ 244,507
Soaps, washing compounds and Toilet preparations—								
Quantity	297	41,600	26	2,400	640	82	.....	.....
Value	$ 4,706	$ 320,642	$ 430	$ 840	$ 565	$ 493	$ 3,725	$ 331,401
Inks, dyes and colours—								
Quantity	250	994	101	.....	302	27	.....	.....
Value	$ 4,047	$ 9,317	$ 1,231	.....	$ 425	$ 180	.....	$ 15,200
Wood Distillates and extracts—								
Quantity	.....	19,043	1,664	.....	.....	5,298	.....	.....
Value	$	$ 157,687	$ 9,321	.....	.....	$ 25,293	$ 3,957	$ 196,258
Miscellaneous chemical industries—								
Quantity	425	18,998	9	4,520	4,161	260	.....	.....
Value	$ 6,182	$ 134,587	$ 135	$ 713	$ 4,150	$ 1,369	$ 1,870	$ 149,006
Total—								
Quantity	4,576	208,642	12,301	434,086	10,047	7,554	.....	.....
Value	$ 52,597	$ 1,549,291	$ 122,802	$ 41,734	$ 10,382	$ 35,349	$ 16,518	$1,828,673

Table 17.—Fuel and Electricity Used in the Manufacture of Chemicals and Allied Products in Canada by Industries, 1923

Industry	Anthracite coal	Bituminous coal	Coke	Fuel oil and gasoline	Gas	Wood	Other fuel	Electricity	Total value
Coal tar and its products—	Tons	Tons	Tons	Gals.	M cu.ft.	Cords	$	$	$
Quantity	30	11,542	–	104,205	45	1,003	–		–
Value	$ 470	79,277	–	6,598	60	4,293	6,087	6,673	103,458
Acids, alkalies, salts and compressed gases—									
Quantity	1,101	81,111	27,960	88,745	48,131	40	–	–	
Value	$ 8,479	527,465	265,488	11,504	4,494	255	–	1,232,853	2,050,538
Explosives, ammunition, fireworks and matches									
Quantity	3,376	21,182	118	781,209	3,459	899	–	–	
Value	$ 24,130	160,725	2,204	33,700	5,002	3,303	–	50,425	279,489
Fertilizers—									
Quantity	153	4,894	18	3,400	–	201	–	–	
Value	$ 1,637	32,912	252	1,070	–	867	450	2,450	39,638
Medicinal and pharmaceutical preparations—									
Quantity	1,178	5,600	–	7,390	4,371	118	–	–	
Value	$ 11,301	44,798	–	948	3,634	728	1,764	28,722	91,895
Paints, pigments and varnishes—									
Quantity	435	22,459	3,128	257,208	983	581	–	–	–
Value	$ 5,162	171,150	42,949	22,804	1,094	2,038	1,511	41,909	288,617
Soaps, washing compounds and toilet preparations—									
Quantity	532	43,725	71	4,450	577	67	–	–	
Value	$ 5,011	293,266	868	1,435	430	311	5,790	41,266	348,377
Inks, dyes and colours—									
Quantity	191	1,115	103	–	315	13	–	–	–
Value	$ 3,103	10,305	1,761	–	419	117	–	7,288	22,993
Wood distillates and extracts—									
Quantity	–	30,333	3,310	–	–	6,505	–	–	–
Value	$ –	233,709	14,871	–	–	25,764	3,212	–	277,556
Miscellaneous chemical industries—									
Quantity	2,240	15,725	2	1,027	8,457	381	–	–	–
Value	$ 21,497	107,878	14	260	6,187	1,878	660	28,323	166,697
Total Quantity	9,236	237,686	34,710	1,247,634	66,338	9,808	–	–	–
Value	$ 80,790	1,661,485	328,407	78,319	21,320	39,554	19,474	1,439,903	3,669,258

Table 18.—Fuel Consumption in the Manufacture of Chemicals and Allied Products in Canada, by Provinces, 1922

Province	Anthracite coal	Bituminous coal.	Coke	Fuel oil and gasoline	Gas	Wood	Other fuel	Total Value
Nova Scotia—	Tons	Tons	Tons	Gals.	M. cu. ft.	Cords		
Quantity	15	7,031	59	1,465	.....	10	.....	.....
Value	$ 250	$ 49,424	$ 826	$ 557	.....	$ 120	.....	$ 51,177
New Brunswick—								
Quantity	80	2,693	.....	5,500	.....	100	.....	.....
Value	$ 1,600	$ 20,216	.....	$ 2,450	.....	$ 600	.....	$ 24,866
Quebec—								
Quantity	2,381	55,932	4,257	29,925	4,395	2,007	.....	.....
Value	$ 28,554	$ 453,594	$ 45,965	$ 6,383	$ 5,076	$ 8,003	$ 8,038	$ 555,613
Ontario—								
Quantity	1,861	136,161	7,733	97,936	5,172	3,883	.....	.....
Value	$ 19,888	$ 969,467	$ 72,809	$ 14,910	$ 4,653	$ 20,435	$ 5,000	$1,107,162
Manitoba—								
Quantity	15	5,075	123	.....	106	12	.....	.....
Value	$ 303	$ 44,469	$ 1,926	.....	$ 168	$ 119	.....	$ 46,985
Alberta—								
Quantity	.....	1,034	.....	.....	.....	2	.....	.....
Value	.....	$ 6,972	.....	.....	.....	$ 16	$ 1,274	$ 8,262
British Columbia—								
Quantity	224	716	129	299,260	374	1,540	.....	.....
Value	$ 2,002	$ 5,149	$ 1,276	$ 17,434	$ 485	$ 6,056	$ 2,206	$ 34,608
Total—								
Quantity	**4,576**	**208,642**	**12,301**	**434,086**	**10,047**	**7,554**	.....	.....
Value	**$ 52,597**	**$1,549,291**	**$ 122,802**	**$ 41,734**	**$ 10,382**	**$ 35,349**	**$ 16,518**	**$1,828,673**

Table 19.—Fuel and Electricity Used in the Manufacture of Chemicals and Allied Products in Canada, by Provinces, 1923

Province	Anthracite coal	Bituminous coal	Coke	Fuel oil and gasoline	Gas	Wood	Other fuel	Electricity	Total value
	Tons	Tons	Tons	Gals.	M cu.ft.	Cords	$	$	$
Nova Scotia—									
Quantity	16	7,691	61	1,600	47,570	11	–	–	–
Value	$ 250	52,553	915	496	3,971	123	–	8,494	66,802
New Brunswick—									
Quantity	25	2,802	–	1,000	75	100	–	–	–
Value	$ 462	21,113	–	350	110	600	–	26	22,661
Quebec—									
Quantity	6,429	63,559	26,216	160,491	7,208	1,450	–		–
Value	$ 53,784	485,226	244,518	15,833	8,235	5,103	6,743	420,390	1,239,832
Ontario—									
Quantity	2,638	157,326	8,178	327,925	11,047	5,595	–	–	–
Value	$ 24,496	1,048,743	79,902	29,473	8,426	23,827	4,569	965,296	2,184,732
Manitoba—									
Quantity	54	5,221	83	880	91	14	–	–	–
Value	$ 1,065	45,883	1,378	287	152	110	2,214	21,415	72,504
Alberta and Saskatchewan—									
Quantity	2	124	–	153	–	2	–	–	–
Value	$ 13	836	–	65	–	19	3,548	2,427	6,908
British Columbia—									
Quantity	72	963	172	755,585	347	2,636	–	–	–
Value	$ 720	7,131	1,694	31,815	426	9,772	2,400	21,861	75,819
Total Quantity	**9,236**	**237,686**	**34,710**	**1,247,634**	**66,338**	**9,808**	–	–	–
Value	**$ 80,790**	**1,661,485**	**328,407**	**78,319**	**21,320**	**39,554**	**19,474**	**1,439,969**	**3,669,258**

Table 20.—Power Equipment Installed for the Manufacture of Chemicals and Allied Products in Canada, by Industries, 1923; with Comparative Totals for 1922.

—		Boilers	Steam engines and turbines	Gas engines	Oil and gasoline engines	Hydraulic turbines or water wheels	Electric motors: Operated by power owned	Electric motors: Operated by power purchased
Coal tar and its products	No.	13	10	-	-	-	-	20
	H.P.	1,540	120	-	-	-	-	216
Acids, alkalies, salts and compressed gases	No.	46	49	-	1	3	161	1,036
	H.P.	8,224	7,797	-	225	6,000	2,588	24,043
Explosives, ammunition, fireworks, and matches.	No.	25	15	-	2	2	81	273
	H.P.	4,809	2,962	-	21	250	1,553	2,738
Fertilizers	No.	4	9	3	-	1	6	35
	H.P.	685	893	78	-	75	135	676
Medicinal and pharmaceutical preparations.	No.	18	5	3	1	-	14	310
	H.P.	1,144	363	48	3	-	48	1,236
Paints, pigments and varnishes	No.	28	20	-	-	1	10	345
	H.P.	1,912	1,555	-	-	90	190	3,882
Soaps, washing compounds, and toilet preparations.	No.	53	21	-	2	-	18	466
	H.P.	6,426	1,276	-	18	-	187	3,373
Inks, dyes and colours	No.	3	2	1	1	-	2	88
	H.P.	37	42	4	4	-	29	871
Wood distillates and extracts	No.	28	7	-	1	-	2	12
	H.P.	3,590	263	-	6	-	45	670
Miscellaneous chemical industries	No.	30	13	1	-	1	8	261
	H.P.	2,996	542	5	-	110	187	2,060
Total for 1923	No.	**248**	**151**	**8**	**8**	**8**	**302**	**2,846**
	H.P.	**31,363**	**15,813**	**135**	**277**	**6,525**	**4,962**	**39,765**
Total for 1922	H.P.	**32,111**	**14,421**	**169**	**61**	**6,810**	**8,379**	**33,201**

Table 21.—Power Equipment Installed for the Manufacture of Chemicals and Allied Products in Canada by Provinces, 1923

Province		Boilers	Steam engines and turbines	Gas engines	Oil and gasoline engines	Hydraulic turbines or water wheels	Electric motors: Operated by power owned	Electric motors: Operated by power purchased
Nova Scotia	No.	10	9	-	-	1	11	7
	H.P.	1,410	815	-	-	90	226	149
New Brunswick	No.	1	1	3	-	-	-	4
	H.P.	50	5	78	-	-	-	135
Quebec	No.	81	35	1	1	7	110	626
	H.P.	9,661	3,870	40	12	6,435	1,935	10,560
Ontario	No.	137	88	4	7	-	137	1,972
	H.P.	18,348	9,872	17	265	-	2,186	25,268
Manitoba	No.	7	7	-	-	-	6	77
	H.P.	815	170	-	-	-	21	1,018
Alberta and Saskatchewan	No.	-	-	-	-	-	1	13
	H.P.	-	-	-	-	-	1	208
British Columbia	No.	12	11	-	-	-	37	147
	H.P.	1,079	1,081	-	-	-	593	2,427
Canada	No.	**248**	**151**	**8**	**8**	**8**	**302**	**2,846**
	H.P.	**31,363**	**15,813**	**135**	**277**	**6,525**	**4,962**	**39,765**

Table 22.—Capital Employed in the Manufacture of Chemicals and Allied Products in Canada, by Industries and by Provinces, 1922 and 1923

Industry and province	1922				1923			
	Capital employed as represented by				Capital employed as represented by			
	Lands buildings, machinery and tools	Materials on hand and stocks in process	Cash trading and operating accounts	Total	Lands buildings, machinery and tools	Materials on hand and stocks in process	Cash trading and operating accounts	Total
	$	$	$	$	$	$	$	$
COAL TAR AND ITS PRODUCTS—								
Quebec	710,237	187,006	29,714	926,957	736,940	195,067	474,421	1,406,428
Ontario	227,023	42,312	40,785	310,120	614,025	156,392	166,739	937,156
*Canada	937,260	229,318	70,199	1,237,077	1,869,124	528,691	808,565	3,205,780
ACIDS, ALKALIES, SALTS AND COMPRESSED GASES—								
Nova Scotia	–	–	–	–	289,799	133,177	37,936	460,912
Quebec	7,005,150	1,120,444	1,271,497	9,397,091	7,291,388	1,732,301	548,403	9,572,182
Ontario	17,668,817	3,038,803	3,557,969	24,265,589	18,287,728	3,310,187	3,534,798	25,132,713
Manitoba	222,708	159,809	50,489	433,006	371,977	96,560	3,509	503,628
British Columbia	482,165	139,569	27,281	649,015	480,638	135,236	25,474	641,348
*Canada	25,586,499	4,623,490	4,953,165	35,163,154	26,766,619	5,475,706	4,193,990	36,436,315
EXPLOSIVES, AMMUNITION, FIREWORKS AND MATCHES—								
Quebec	4,562,936	2,098,930	230,002	6,891,868	7,097,747	2,082,976	1,146,227	10,326,950
Ontario	1,477,565	590,013	163,794	2,231,972	580,082	386,316	420,846	1,387,244
*Canada	8,429,063	3,278,944	637,289	12,345,296	8,834,050	2,875,211	2,110,841	13,820,102
FERTILIZERS—								
Nova Scotia	386,590	128,365	943,134	1,458,089	402,139	298,724	687,834	1,388,697
Ontario	359,678	163,047	469,530	992,255	362,385	195,639	377,044	935,068
*Canada	907,372	620,395	2,407,700	3,935,467	953,609	770,117	1,892,275	3,616,001
MEDICINAL AND PHARMACEUTICAL PREPARATIONS—								
Quebec	585,826	696,689	1,062,654	2,345,169	612,922	552,157	1,284,122	2,449,201
Ontario	2,570,875	2,570,452	3,800,347	8,941,674	2,668,496	2,501,026	3,909,315	9,078,837
Manitoba	562,252	975,008	788,851	2,326,111	637,979	925,662	1,162,838	2,726,479
*Canada	3,740,628	4,270,334	5,984,499	13,995,461	3,941,122	4,002,365	6,712,212	14,655,699
PAINTS, PIGMENTS AND VARNISHES—								
Quebec	4,496,543	3,357,940	3,893,978	11,748,461	4,541,312	3,502,236	3,572,426	11,615,974
Ontario	2,496,984	2,139,279	181,652	6,452,784	2,366,500	1,960,354	2,212,435	6,539,289
Manitoba	692,893	343,632	35,008	1,071,533	333,577	291,311	21,716	646,604
British Columbia	558,790	420,461	246,058	1,225,309	593,163	438,429	386,700	1,418,292
*Canada	8,581,415	6,455,844	6,036,447	21,073,706	8,171,261	6,332,181	6,303,467	20,806,909
SOAPS, WASHING COMPOUNDS, AND TOILET PREPARATIONS—								
Quebec	948,128	874,850	589,509	2,412,487	1,079,713	734,833	515,296	2,329,842
Ontario	6,145,563	3,055,395	1,334,408	10,535,366	5,940,310	3,175,052	1,534,962	10,650,324
Manitoba	756,906	345,537	261,197	1,363,640	768,133	269,923	286,121	1,324,177
Alberta	233,013	115,252	116,717	464,982	246,300	127,647	35,292	409,239
British Columbia	–	–	–	–	197,355	133,251	68,213	398,819
*Canada	8,428,118	4,746,235	2,606,891	15,781,244	8,163,524	4,654,098	2,550,970	15,668,592
INKS, DYES AND COLOURS—								
Quebec	153,585	144,680	138,659	436,924	152,247	129,619	211,886	493,752
Ontario	705,629	385,150	547,738	1,638,517	835,000	374,060	462,039	1,671,099
British Columbia	5,204	10,050	6,116	21,370	3,835	8,700	6,295	18,830
*Canada	891,463	556,361	699,129	2,146,953	1,026,294	539,262	686,814	2,252,370
WOOD DISTILLATES AND EXTRACTS—								
Quebec	1,342,297	165,239	181,725	1,689,261	1,110,865	160,678	170,576	1,442,119
Ontario	1,222,819	162,727	191,075	1,576,621	995,432	196,457	180,037	1,371,926
Canada	2,565,116	327,966	372,800	3,265,882	2,106,297	357,135	350,613	2,814,045

Table 22.—Capital Employed in the Manufacture of Chemicals and Allied Products in Canada, by Industries and by Provinces, 1922 and 1923—Concluded

Industry and province	1922				1923			
	Capital employed as represented by			Total	Capital employed as represented by			Total
	Lands, buildings, machinery and tools	Materials on hand and stocks in process	Cash trading and operating accounts		Lands, buildings, machinery and tools	Materials on hand and stocks in process	Cash trading and operating accounts	
	$	$	$	$	$	$	$	$
MISCELLANEOUS CHEMICAL INDUSTRIES—								
Nova Scotia	20,117	8,514	9,571	38,202	20,407	8,291	5,872	34,570
New Brunswick	31,806	27,955	3,477	62,238	31,296	25,926	977	58,199
Quebec	1,256,493	861,523	341,124	2,459,140	1,363,750	721,446	356,370	2,441,566
Ontario	3,079,131	1,587,790	1,816,378	6,483,299	5,460,072	1,639,025	3,553,887	10,652,984
Manitoba	4,699	7,046	21,211	32,956	8,879	4,980	37,504	51,363
*Canada	1,392,546	2,496,622	2,192,075	9,081,243	6,895,015	2,408,984	3,957,669	13,261,668
All Industries—								
Nova Scotia	1,188,102	568,161	1,371,961	3,128,224	1,363,365	629,077	1,242,996	3,235,438
New Brunswick	265,234	487,015	1,098,161	1,850,410	300,591	438,799	869,227	1,608,617
Quebec	20,830,889	9,439,106	7,803,328	38,073,323	21,012,884	9,841,160	8,316,003	42,170,047
Ontario	35,954,084	13,735,568	13,738,545	63,428,197	38,110,630	13,894,508	16,352,102	68,356,640
Manitoba	2,262,003	1,817,213	1,163,272	5,242,488	2,246,144	1,687,197	1,612,729	5,546,070
Alberta and Saskatchewan	281,484	175,872	127,409	584,765	296,888	206,033	49,999	552,920
British Columbia	3,677,684	1,352,574	657,818	5,688,076	2,697,013	1,246,376	1,124,360	5,067,749
Canada	64,459,480	27,605,509	25,960,494	118,025,483	69,026,915	27,943,150	29,567,416	126,537,481

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

Table 23.—Summary of Financial Statistics Relative to the Manufacture of Chemicals and Allied Products in Canada, by Industries, 1922

Industry	Capital employed	Expenditures					Selling value of products
		Wages and salaries	Miscellaneous expenses	Fuel	Cost of materials	Total	
	$	$	$	$	$	$	$
Coal tar and its products	1,237,077	110,026	124,147	40,873	313,341	588,387	886,358
Acids, alkalies, salts and compressed gases	35,163,154	2,917,361	3,893,029	547,573	6,166,469	13,524,432	16,879,267
Explosives, ammunition, fireworks and matches	12,345,296	2,030,877	1,402,134	195,046	8,893,740	12,521,797	13,788,658
Fertilizers	3,935,467	348,879	564,299	42,353	1,098,230	2,053,761	1,981,418
Medicinal and pharmaceutical preparations	13,995,461	2,752,680	3,029,869	66,456	4,145,298	9,994,303	11,532,536
Paints, pigments and varnishes	21,073,706	3,421,217	2,953,474	244,507	11,354,903	17,974,101	20,230,545
Soaps, Washing Compounds and Toilet Preparations	15,781,244	2,215,316	3,587,493	331,401	8,484,676	14,618,886	15,841,905
Inks, dyes and colours	2,146,953	668,719	653,954	15,200	1,070,287	2,408,160	2,756,006
Wood distillates and extracts	3,265,882	292,229	106,495	196,258	932,667	1,527,649	1,902,243
Miscellaneous chemical industries	9,081,243	2,013,499	1,957,634	149,006	4,460,357	8,580,496	10,145,249
Total	118,025,483	16,770,803	18,272,528	1,828,673	46,919,968	83,791,972	95,944,185

Table 24.—Summary of Financial Statistics Relative to the Manufacture of Chemicals and Allied Products in Canada, by Industries, 1923

Industry	Capital employed	Expenditures					Selling value of products
		Wages and salaries	Miscellaneous expenses	Fuel and electricity	Cost of materials	Total	
	$	$	$	$	$	$	$
Coal tar and its products	3,205,780	334,965	253,634	103,458	1,381,724	2,073,781	3,166,100
Acids, alkalies, salts and compressed gases	36,436,315	3,780,443	2,803,205	2,050,538	11,636,321	20,270,507	23,912,992
Explosives, ammunition, fireworks and matches	13,820,102	2,131,997	1,068,094	279,489	9,270,641	12,750,221	14,428,390
Fertilizers	3,616,001	310,441	418,023	39,638	831,470	1,599,572	1,487,244
Medicinal and pharmaceutical preparations	14,655,899	2,667,741	3,549,882	91,895	4,474,487	10,784,005	12,256,608
Paints, pigments and varnishes	20,806,909	3,665,823	3,099,538	288,617	10,754,273	17,808,251	21,553,158
Soaps, washing compounds and toilet preparations	15,668,592	2,459,655	3,858,080	348,377	9,400,752	16,066,864	17,909,011
Inks, dyes and colours	2,252,370	659,336	630,417	22,993	1,141,102	2,453,848	2,876,347
Wood distillates and extracts	2,814,045	332,026	72,416	277,556	976,621	1,658,619	2,743,295
Miscellaneous chemical industries	13,261,668	2,091,252	2,149,834	166,697	4,770,671	9,178,454	10,911,011
Total	126,537,481	18,433,679	17,903,123	3,669,258	54,638,062	94,644,122	111,244,156

Table 25.—Summary of Financial Statistics Relative to the Manufacture of Chemicals and Allied Products in Canada, by Provinces, 1922

Province	Capital employed	Expenditures					Selling value of products
		Wages and salaries	Miscellaneous expenses	Fuel	Cost of materials	Total	
	$	$	$	$	$	$	$
Nova Scotia	3,128,224	301,649	378,904	51,177	497,437	1,229,167	1,626,265
New Brunswick	1,850,410	153,457	216,185	24,866	1,023,349	1,417,857	1,536,598
Quebec	38,073,323	5,955,271	4,588,437	555,613	18,036,201	29,135,522	32,916,142
Ontario	63,428,197	9,008,281	12,002,674	1,107,162	22,257,063	44,375,180	50,841,464
Manitoba	5,272,488	572,850	536,657	46,985	1,979,526	3,136,018	3,956,564
Alberta	584,765	87,803	88,575	8,262	249,228	433,868	489,863
British Columbia	5,688,076	691,492	461,096	34,608	2,877,164	4,064,360	4,577,289
Canada	**118,025,483**	**16,770,803**	**18,272,528**	**1,828,673**	**46,919,968**	**83,791,972**	**95,944,185**

Table 26.—Summary of Financial Statistics Relative to the Manufacture of Chemicals and Allied Products in Canada, by Provinces, 1923

Province	Capital employed	Expenditures					Selling value of products
		Wages and salaries	Miscellaneous expenses	Fuel and electricity	Cost of materials	Total	
	$	$	$	$	$	$	$
Nova Scotia	3,235,438	307,104	435,250	66,802	605,431	1,414,587	1,979,976
New Brunswick	1,608,617	150,020	262,112	22,661	873,782	1,308,575	1,457,691
Quebec	42,170,047	6,387,065	4,557,304	1,239,832	19,561,172	31,745,373	37,963,779
Ontario	68,356,640	10,159,952	11,350,274	2,184,732	28,776,033	52,470,991	60,954,034
Manitoba	5,546,070	621,877	711,502	72,504	1,876,286	3,282,169	3,963,246
Alberta and Saskatchewan	552,920	88,576	73,063	6,908	249,548	418,095	467,370
British Columbia	5,067,749	719,085	513,618	75,819	2,695,810	4,004,332	4,458,060
Canada	**126,537,481**	**18,433,679**	**17,903,123**	**3,669,258**	**54,638,062**	**94,644,122**	**111,244,156**

Table 27.—Materials Used in the Coal Tar and Its Products Industry in Canada, 1922 and 1923

—	Unit of measure	1922		1923	
		Quantity	Cost at works	Quantity	Cost at works
			$		$
COAL TAR DISTILLATION—					
Purchased Materials—					
Coal tar, crude	gal.	7,330,485	260,394	17,249,426	830,421
Other materials	.....	–	2,449	–	521,077
		–	262,843	–	1,351,498
Intermediates	.....	–	6,303	–	–
Total	.....	–	269,146	–	1,351,498
DISINFECTANTS—					
Total	.....	–	44,195	–	30,226
Total	.....	–	**313,341**	–	**1,381,724**

Table 28.—Products of the Coal Tar and its Products Industry in Canada, 1922 and 1923

—	Unit of measure	1922 Quantity	1922 Selling value	1923 Quantity	1923 Selling value
COAL TAR DISTILLATION*—			$		$
Creosote oils	gal.	2,166,538	319,871	2,169,222	425,447
Naphthalene	lb.	250,800	5,017	[2]	[2]
Pitch	"	30,717,120	220,480	63,427,049	830,058
Refined tar	gal.	-	-	1,651,943	126,483
Other tar	"	-	-	3,758,150	641,815
Other products[1]	.....	-	247,555	-	1,064,608
Total	.....	-	792,923	-	3,088,411
DISINFECTANTS—					
Disinfectants	gal.	-	56,717	-	52,937
Liquid soaps	"	38,875	19,828	-	18,243
Polishes and machine oils		-	8,896	-	4,500
All other products[3]	.....	-	7,994	-	2,009
Total		-	93,435	-	77,689
Total	.....	-	**886,358**	-	**3,166,100**
*Tar Distillation Products made in the "Composition Roofing Industry" 1922.				NOTE:—Statistics on Coal Tar Distillation for 1923 include production data formerly reported under the "Composition Roofing Industry."	
Refined tar, tarvia and protective coating	gal.	3,929,682	653,385		
Creosote oils and special oils	"	306,108	117,585		
Pitch	lb.	8,242,468	129,299		
Total	.....	-	**900,269**		

[1] Includes cresylic acid, tarred felt and various other products.
[2] Included with other products.
[3] Includes insecticides, etc.

Table 29.—Materials Used in the Acids, Alkalies, Salts and Compressed Gases Industry in Canada, 1922 and 1923

—	Unit of Measure	1922 Quantity	1922 Cost	1923 Quantity	1923 Cost
ACIDS, ALKALIES AND SALTS—			$		$
Purchased materials used—					
Acids:					
Hydrochloric	lb.	74,421	1,876	73,150	1,844
Nitric	"	59,085	5,990	58,140	5,129
Sulphuric 66° Bé	"	5,379,856	39,109	2,106,200	30,077
Other acids[1]	.....	-	14,282	-	22,309
Ethyl alcohol	.....	-	47,515	-	46,224
Ammonium compounds[2] and ammonia liquor	.....	-	19,234	-	26,507
Barium compounds	.....	-	13,236	-	20,138
Calcium carbonate (limestone)	ton	155,132	281,518	-	338,628
Calcium chloride	lb.	1,800	28	134,550	2,242
Calcium oxide and hyroxide (quick and slaked lime)	ton	5,963	65,280	9,540	106,377
Coke	"	53,925	522,297	68,646	752,774
Carbon electrodes	.....	-	212,776	-	306,697
Copper sulphate	lb.	214,000	12,458	138,265	7,898
Iron sulphide (pyrites)	ton	16,768	91,811	18,615	89,287
Sodium carbonate	lb.	618,000	13,961	1,079,839	22,001
Sodium chloride including brine	.....	-	135,668	8	170,989
Sodium hydroxide	ton	198	16,609	163	13,164
Sodium nitrate	"	1,053	64,297	1,325	81,089
Other sodium and potassium compounds[3]	"	-	33,750	-	21,811
Sulphur	"	14,026	284,625	21,564	434,687
Containers	.....				611,630
All other materials[4]	.....	.....	794,848	.....	1,393,649
Total	.....	-	2,671,177	-	4,505,307
Intermediate products used as materials—					
Sulphuric acid 66° Bé	lb.	4,675,153	42,902	15,924,212	113,056
Materials n. s.[5]	.....	.....	3,171,724	.....	6,529,079
Total	.....	.....	3,214,626	.....	6,642,135
Total	.....	-	5,885,803	-	11,147,442
COMPRESSED GASES—					
Calcium carbide	ton	1,124	94,379	1,240	101,917
Coke	"	1,963	28,246	1,879	30,251
Acetylene	cu. ft.	7,900,383	46,660	10,714,078	64,781
Acetone	lb.	59,323	11,853	78,472	20,484
All other materials[6]	.....	-	99,528	-	113,244
Cylinders purchased during year	no.	-	-	5,584	154,688
Other containers, boxes, carboys, etc	.....	-	-	-	3,514
Total	.....	-	280,666	-	488,879
Total	.....	-	**6,166,469**	-	**11,636,321**

[1] Includes acetic glacial, acetyl-salicylic, arsenious, boric, citric, cresylic, oxalic, phosphoric, tartaric.
[2] Includes nitrate and sulphate.
[3] Includes sodium-biborate, bicarbonate, bichromate, bisulphite, cyanide, nitrite, phosphate, silicate, sulphate, sulphide and potassium carbonate, chloride, hydroxide, and sodium potassium tartrate.
[4] Includes acetylene, calcium acetate, calcium fluoride, chlorine, magnesium sulphate, mercury, petroleum, phosphate rock, and other miscellaneous materials.
[5] Includes hydrogen sulphide, nitre cake, nitric acid, calcined salt cake, lime, calcium carbide, calcium cyanamide and nitrogen.
[6] Includes ammonia liquor and small amounts of other materials.

Table 30.—Products of the Acids, Alkalies, Salts and Compressed Gases Industry in Canada, 1922 and 1923

—	Unit of measure	1922		1923	
		Quantity	Value	Quantity	Value
			$		$
ACIDS, ALKALIES AND SALTS—					
Products made for sale:					
Acids:					
Hydrochloric—20°Bé	lb.	5,006,429	82,668	6,702,437	101,872
Nitric—100%	"	895,667	98,871	793,495	83,594
Sulphuric—66° Bé	ton	58,987	1,150,918	79,188	1,408,265
Calcium carbide	"	34,160	2,171,838	30,480	1,161,226
Calcium cyanamide	"	35,044	1,847,064	58,655	3,214,294
Sodium sulphate—					
Glaubers salt	"	1,906	54,997	2,332	62,027
Salt cake	"	1,631	37,042	2,376	57,621
All other sodium and potassium compounds[1]	.....	–	4,373,887	–	5,269,098
All other products[2]	.....	–	1,939,087	–	3,747,727
Total	.....	–	11,756,372	–	15,105,724
Intermediate products made for use	.....	–	–	–	–
Sulphuric acid 66° Bé	lb	4,675,153	42,902	15,924,212	113,056
Products n.s.[3]			3,171,724		6,528,767
Total	.....	–	3,214,626		6,641,823
Total	.....	.....	14,970,998	–	21,747,547
COMPRESSED GASES—					
Oxygen	cu. ft.	52,448,907	775,073	72,637,943	964,905
Acetylene	"	17,631,590	420,073	21,729,109	523,015
Carbon dioxide	lb.	3,263,908	360,740	3,355,628	353,387
Other products[4]	.....	–	352,383	–	324,138
Total	.....	–	1,908,269	–	2,165,445
Total	.....	–	**16,879,267**	–	**23,912,992**

[1] Includes bisulphates, bisulphites, carbonates, citrates, cyanides, hydroxides and iodides.

[2] Includes acetic acid made by Grasselli Chemical Co., Ltd., acetic glacial made by Canadian Electro Products Co. Ltd., calcium hypochlorite (bleach) made by Canadian Salt Co., phosphorus made by Electric Reduction Co., Ltd., and various other products and by-products.

[3] Includes hydrogen sulphide, nitre cake, nitric acid, calcined salt cake, lime, calcium carbide, calcium cyanamide and nitrogen.

[4] Includes aqua and anhydrous ammonia, hydrogen and nitrogen each made by one firm.

Table 31.—Materials Used in the Explosives, Ammunition, Fireworks and Matches Industry in Canada, 1922 and 1923

—	Unit of measure	1922 Quantity	1922 Cost at works	1923 Quantity	1923 Cost at works
			$		$
EXPLOSIVES INDUSTRY—					
Purchased materials used:					
Ammonium nitrate	lb.	2,296,652	141,201	3,094,694	210,072
Calcium carbonate (chalk)	"	179,277	1,913	308,086	3,052
Glycerine	"	2,530,698	400,567	3,570,305	637,314
Graphite	"	2,649	230	3,316	285
Mixed acids	"	12,717,333	261,247	2,173,150	66,872
Nitric acid	"	2,164,397	148,850	3,422,860	242,872
Petrolatum	"	8,721	497	14,658	893
Other petroleum products chiefly paraffin wax	"	485,957	17,922	503,952	17,686
Nitro or pyrocotton	"	74,928	42,166	127,729	62,344
Sodium carbonate	"	238,680	5,315	296,247	6,174
Sodium chloride	"	406,634	4,040	750,457	6,914
Sodium nitrate	"	17,319,469	456,142	22,555,441	594,310
Trinitrotoluene	"	233,295	43,488	120,112	21,240
Sugar and its derivatives	"	58,174	20,083	–	–
Flour	"	751,584	14,297	761,411	15,239
Wood pulp	"	821,014	20,703	953,672	22,995
All other miscellaneous materials	.....	–	525,339	–	701,786
Total	.....	–	2,104,000	–	2,610,048
Intermediate products used as materials	.....	–	3,972,366	–	2,723,921
Total	.....	–	6,076,366	–	5,333,969
AMMUNITION INDUSTRY—					
Purchased materials used	.....	–	811,209	–	975,051
Intermediate products used	.....	–	518,615	–	1,564,960
Total	.....	–	1,329,824	–	2,540,011
FIREWORKS INDUSTRY—					
Total	.....	–	65,535	–	93,105
MATCH INDUSTRY—					
Lumber and splints	.....	–	655,866	–	500,276
Wax	lb.	1,007,946	34,060	1,389,504	50,150
Glue	"	164,159	42,838	651,535	69,068
Chemicals—total	"	2,286,690	224,957	–	–
Chlorate of potash	"	–	–	1,086,653	73,102
Sesquisulphide of phosphorus	"	–	–	93,351	47,588
Zinc oxide	"	–	–	72,817	6,657
Ground glass	"	–	–	432,984	9,013
Containers	.....	–	376,879	–	233,260
All other materials	.....	–	84,415	–	314,442
Total	.....	–	1,419,015	–	1,303,556
Total	.....	–	**8,893,749**	–	**9,270,641**

Table 32.—Products of the Explosives, Ammunition, Fireworks and Match Industry in Canada, 1922 and 1923

—	Unit of measure	1922 Quantity	1922 Selling value	1923 Quantity	1923 Selling value
			$		$
EXPLOSIVES INDUSTRY—					
Products made for sale—					
Class 1—					
Gunpowder	lb.	148,357	49,357	1,084,895	249,260
Class 2—					
Nitrate mixtures	"	1,969,325	186,664	237,675	24,530
Class 3—Nitro compounds—					
Division 1—					
Dynamites	"	8,250,577	1,276,400	9,912,793	1,519,574
Gelatine dynamites	"	15,890,215	1,745,896	15,029,660	2,400,720
Monobels	"	2,010,848	347,746	2,114,188	341,822
Propellants	"	10,040	15,060	9,642	16,291
Class 4—Chlorate mixtures—					
Division 2		115,700	21,639	–	–
Total powder and blasting explosives in bulk		–	3,642,762	–	4,552,197
Other products and by-products		–	348,097	–	264,612
Total products made for sale		–	3,990,859	–	4,816,809
Intermediate products made for use—					
Nitric acids	lb.	5,357,162	547,517	7,320,713	566,000,032
Mixed acids	"	3,236,067	149,138	5,091,815	195,023
Recovered acids	"	5,441,828	69,426	7,803,110	109,003
Ammonium nitrate	"	2,452,393	255,638	399,396	38,779
Nitroglycerine	"	5,685,264	1,496,161	7,350,539	1,508,273
All other intermediate products	"	–	1,454,486	–	306,811
Total intermediates made for use	"	–	3,972,366	–	2,723,921
Total		–	**7,963,225**	–	**7,540,730**
AMMUNITION INDUSTRY—					
Total products made for sale		–	2,189,727	–	2,364,942
Intermediate products made for use		–	518,615	–	1,564,960
Total		–	2,708,342	–	3,929,902
FIREWORKS INDUSTRY—					
Class 7 Fireworks—					
Division 2—					
Manufactured fireworks for retail stores and exhibition displays together with railway signal fusees		–	177,162	–	230,842
All other products		–	15,931	–	11,966
Total		–	193,093	–	242,808
MATCH INDUSTRY—					
Total		–	2,923,998	–	2,714,950
Total		–	**13,788,658**	–	**14,428,390**

Table 33.—Materials Used in the Manufacture of Fertilizers in Canada, 1922 and 1923

—	Unit of measure	1922 Quantity	1922 Cost at works	1923 Quantity	1923 Cost at works
			$		$
Sodium nitrate	lb.	3,247,749	91,430	3,201,921	84,907
Ammonium sulphate	"	3,093,225	85,735	1,271,528	58,600
Ammonium phosphate	"	–	–	319,859	4,662
Calcium cyanamide	"	154,406	4,564	266,407	8,244
Tankage	"	8,653,803	134,285	13,449,146	107,072
Dried blood	"	1,318,070	23,109	147,762	4,185
Fish scrap, dried, acidulated and wet	"	241,000	3,702	657,760	8,522
Phosphate rock (crude)	"	3,469,020	38,874	8,529,101	47,712
Acid phosphate (superphosphate)	"	36,756,432	327,519	27,977,215	234,383
Bone meal (crude)	"	628,500	8,589	1,253,067	16,778
Bone flour (steamed)	"	674,490	8,905	713,750	16,361
Bone ash (Char)	"	324,269	2,717	232,065	868
Bone, dissolved	"	–	–	656,670	6,036
Basic slag	"	18,364,400	27,406	16,480,304	8,387
Potassium chloride (muriate)	"	4,401,582	110,208	3,738,355	72,185
Potassium sulphate	"	109,825	3,021	1,642,530	13,381
Potassium carbonate or wood ashes	"	452,627	7,130	251,125	3,498
Kainit and other crude potash salts	"	434,524	4,317	353,620	1,467
Lime or land plaster	"	1,599,040	5,603	3,225,243	5,773
Sulphuric acid, 50° Bé	"	108,288	763	–	1,036
Filler	"	420,760	552	779,800	1,662
All other materials including containers		–	209,801	–	125,751
Total		–	**1,098,230**	–	**831,470**

Table 34.—Products of the Fertilizer Industry in Canada, 1922 and 1923

—	Unit of measure	1922		1923	
		Quantity	Selling value	Quantity	Selling value
			$		$
Complete fertilizers	lb.	76,495,114	1,673,029	58,011,637	1,113,857
Superphosphate*	"	5,574,150	74,352	4,583,050	53,507
Bone flour and meal	"	620,093	12,008	418,125	9,773
Meat and fish scrap and fish guano	"	199,000	5,970	600,000	18,000
Grease and tallow	"	10,618	318	-	-
Bone and blood	"	-	-	365,094	4,378
Tankage and animal refuse	.....	-	20,940	-	960
All other products	.....	-	194,801	-	286,769
Total	.....	-	**1,981,418**	-	**1,487,244**

* Includes superphosphate milled in Canada.

Table 35.—Production of Fertilizers and Fertilizer Materials, in other Industries, 1922 and 1923

Industry	Product	Unit of measure	1922		1923	
			Quantity	Selling value	Quantity	Selling value
				$		$
Cyanamide	Calcium cyanamide	ton	35,044	1,847,064	58,655	3,214,294
Slaughtering and meat packing	Animal tankage	"	13,791	483,952	14,760	543,042
	Bone, raw, ground	"	8,990	316,356	9,776	399,545
	Complete fertilizer	"	2,595	145,107	8,581	252,486
Fisheries	Fish and whale fertilizers	"	7,349	92,346	9,725	142,894
Chemical	Mixed fertilizers	"	799	38,129	710	33,393
Coke and gas	Ammonium sulphate	"	13,601	667,934	21,519	1,268,146
Total	.....	.....		3,590,888		5,853,800

Table 36.—Materials Used in the Medicinal and Pharmaceutical Preparations Industry in Canada, 1922 and 1923

—	Unit of measure	1922		1923	
		Quantity	Cost at works	Quantity	Cost at works
			$		$
Acetone	lb.	2,970	660	2,295	715
Acids—					
Acetic 56%	"	1,281	245	2,516	439
Acetic, glacial	"	2,941	505	1,902	417
Arsenious (white arsenic)	"	1,804	248	710	106
Boric	"	46,416	6,423	56,761	6,692
Citric	"	79,155	40,192	76,096	34,381
Hydrochloric 20° Bé	"	3,181	277	4,134	267
Oxalic	"	953	169	1,177	230
Phosphoric	"	7,311	1,955	8,383	2,003
Nitric (1·4 S.G.)	"	1,779	410	1,140	221
Sulphuric	"	-	680	-	404
Tannic	"	753	643	761	615
Tartaric (crystals)	"	82,326	21,995	87,046	23,929
Alcohol, ethyl	.....	-	524,721	-	541,611
" methyl (pure)	gal.	-	494	-	275
" methylated spirits	"	1,982	2,284	2,021	4,059
" wood	.....	-	4,026	-	3,205
Alum, ammonia	lb.	-	499	-	357
Ammonia, liquor	"	29,335	3,239	-	4,014
" carbonate	"	7,109	1,191	6,449	1,247
" chloride	"	3,000	381	3,004	460
Barium peroxide	"	11,357	2,385	15,300	2,754
Bismuth salts	"	1,318	3,469	2,344	7,959
Caffeine	"	2,158	8,252	2,505	7,915
Caffeine citrate	"	18	114	42	121
Calcium carbonate (chalk)	"	65,108	2,724	79,995	3,359
Charcoal	"	73,585	1,926	76,691	2,072
Carbon tetrachloride	"	3,664	515	3,887	596
Collodion	"	-	1,101	-	1,239

Table 36.—Materials Used in the Medicinal and Pharmaceutical Preparations Industry in Canada, 1922 and 1923.—concluded

—	Unit of measure	1922 Quantity	1922 Cost at works	1923 Quantity	1923 Cost at works
			$		$
Copper sulphate	"	2,903	194	2,479	171
Ether	"	4,481	1,660	5,382	1,108
Formaldehyde (40%)	"	6,997	1,302	8,778	1,580
Glycerine, refined	"	420,608	89,339	452,911	91,676
Hydrogen peroxide	gal.	17,202	11,678	-	14,320
Iodine, crude	lb.	159	664	444	1,751
" resublimed	"	1,831	9,643	1,631	8,836
Iron sulphate (copper)	"	34,017	517	59,637	1,623
Magnesium carbonate	"	10,107	1,010	12,584	1,620
" oxide	"	13,937	5,007	34,673	9,371
" sulphate	"	260,173	8,462	320,941	15,372
Mercuric chloride	"	3,371	3,015	4,138	4,002
Mercuric oxide	"	4,002	4,096	-	-
Mercurous chloride	"	1,172	1,365	5,213	5,480
Petroleum, gasoline, etc.	.....	-	669	-	688
Potassium antimonyl tartrate	lb.	438	195	369	140
Potassium bicarbonate	"	4,624	541	19,936	957
" bitartrate	"	7,577	1,639	8,484	1,982
" carbonate	"	1,000	141	1,012	153
" chlorate	"	4,531	516	3,669	424
" citrate	"	841	689	464	343
" hydroxide	"	10,864	1,346	12,259	1,587
" iodide	"	2,242	9,216	2,750	12,203
" nitrate	"	29,919	2,419	33,286	2,536
" permanganate	"	815	194	675	349
" sodium tartrate	"	47,089	8,867	54,608	10,575
Sodium biborate	"	22,067	1,542	35,268	2,097
" bocarbonate	"	268,699	6,990	324,093	9,632
" soda ash	"	13,348	360	11,131	360
" carbonate (crystals)	"	6,004	142	15,550	317
" chloride	"	-	843	-	1,167
" citrate	"	800	618	1,147	714
" hydroxide	"	46,274	3,272	46,246	2,749
" phosphate (dibasic)	"	24,775	3,219	21,383	2,312
" nitrate	"	3,577	278	1,859	145
" silicate	.....	-	1,121	66,155	1,120
" sulphate (Glauber's salt)	"	27,064	1,154	33,409	1,229
Silver salts	"	99	770	26	202
Sulphur	"	23,225	753	43,578	1,438
Zinc oxide	"	-	6,076	12,200	1,668
Coal tar and its derivatives—					
Acetphenetidine	"	1,204	2,235	2,707	4,182
Acid, acetylsalicylic	"	41,566	40,178	38,344	37,488
" benzoic	"	641	581	1,676	1,400
" carbolic (phenol)	"	-	2,467	-	3,488
" cresylic (cresol)	"	-	2,127	15,186	1,732
" salicylic	"	3,303	1,187	3,501	1,608
Coumarin	"	240	918	202	710
Creosote oils	.....	-	238	-	1,830
Naphthalene	"	7,420	457	13,755	725
Sodium benzoate	"	763	471	1,275	872
Sodium salicylate	"	1,217	597	778	474
Herbs, roots and other drugs	.....	-	382,757	-	347,347
Extracts	.....	-	99,838	-	70,205
Gums, including camphor	.....	-	65,171	-	59,913
Sugar	.....	-	130,331	-	214,292
Essential oils	.....	-	158,668	-	128,426
Containers	.....	-	1,274,128	-	1,399,829
Materials, n.e.s.	.....	-	1,159,695	-	1,334,307
Total	.....	-	**4,145,298**	-	**4,474,487**

Table 37.—Products of the Medicinal and Pharmaceutical Preparations Industry in Canada, 1922 and 1923

—	1922 Value	1923 Value
	$	$
Patent medicine and proprietary preparations	5,777,490	5,997,026
Toilet preparations, including perfumes, hair tonics, etc.	741,470	718,493
Medicated wines	86,125	121,158
Disinfectants	200,536	61,326
Pharmaceutical preparations	3,490,163	3,518,911
All other products*	1,236,752	1,839,694
Total	**11,532,536**	**12,256,608**

*Includes surgical dressings, plasters, flavouring extracts, etc.

Table 38.—Materials Used in the Paint and Varnish Industry in Canada, 1922 and 1923

—	Unit of measure	1922		1923	
		Quantity	Cost at works	Quantity	Cost at works
Purchased materials—					
Pig lead	lb.	32,691,660	1,327,108	19,824,306	1,399,726
Basic carbonate white lead, dry	"	7,116,962	647,326	5,756,015	545,573
Basic carbonate white lead, in oil	"	1,607,674	169,465	1,958,267	208,603
Basic sulphate white lead	"	397,055	38,138	310,373	29,794
Red lead	"	576,167	58,480	724,278	70,799
Litharge	"	1,162,276	109,493	931,205	84,164
Zinc, or zinc ore and scrap	"	242,077	10,104	512,846	21,487
Zinc oxide, pure	"	1,660,109	157,050	2,510,347	222,416
Leaded zinc oxide and zinc-leads	"	2,374,241	197,941	1,787,997	127,167
Lithopone	"	4,548,427	291,455	4,691,088	301,310
Blanc fixe	"	24,965	1,258	43,503	2,137
Barytes	"	4,262,107	84,332	4,113,508	82,967
Satin white or gypsum	"	100,360	1,467	334,423	4,839
Whiting or chalk	"	9,129,892	117,853	10,035,338	115,171
Asbestine	"	2,795,832	46,012	3,130,899	41,006
Kaolin or china clay	"	634,512	9,605	1,210,136	16,784
Silica, silex or infusorial earth	"	795,465	15,870	1,091,403	20,325
Iron oxide ore	"	54,628	3,280	163,615	5,238
Iron oxide pigments	"	2,508,463	102,711	2,209,302	94,083
Ochres, siennas and umbers	"	1,289,640	81,216	1,686,311	82,703
Coal tar lakes (all colours)	"	22,409	17,168	14,714	15,975
Ultramarine	"	122,243	28,496	201,087	38,424
Prussian blue	"	11,198	8,019	11,404	7,941
Graphite	"	317,545	13,453	343,906	13,728
Lampblack and other carbon blacks	"	294,007	55,372	342,113	60,367
All other pigments and dry colours	"	1,746,222	258,166	2,227,543	285,863
Manganese salts	"	41,042	6,928	45,168	3,839
Cobalt salts	"	2,307	2,286	2,581	2,673
Resins	"	5,179,470	172,346	5,643,143	184,381
Gums	"	1,584,456	570,350	1,630,052	419,657
Waxes	"	55,806	15,196	65,496	11,872
Linoleate driers purchased	"	–	8,326	11,528	10,380
Resinate driers purchased	"	–	19,944	41,439	18,284
Linseed oil, raw	gal.	1,054,755	1,002,271	1,177,191	1,239,163
Linseed oil, boiled	"	292,476	288,219	253,036	274,365
China wood oil (tung oil)	"	323,072	429,144	436,566	659,827
Soya bean oil	"	18,327	18,155	21,047	18,281
Fish oils	"	26,798	27,967	48,400	42,226
Corn oil	"	–	–	970	156
Turpentine	"	436,672	618,387	386,678	550,760
Wood turpentine	"	46,959	35,450	11,928	21,634
Petroleum distillate	"	1,312,708	366,117	1,735,618	449,211
Alcohol	"	162,512	161,426	138,952	137,856
Acetone	lb.	–	17,954	823	25,199
Creosote	gal.	53,701	20,875	65,334	18,701
Coal tar naphtha and benzol	"	247,887	97,841	91,183	38,695
Coal tar pitch	lb.	–	752	49,697	1,241
Asphaltum	"	630,049	29,130	589,941	32,531
Cans, cases, barrels, labels, etc		–	1,281,787	–	1,269,263
All other materials		–	748,904	–	656,360
Total purchased materials used		–	9,790,603	–	9,965,145
Products of the plant used as materials—					
Basic carbonate white lead, in oil	lb.	450,760	43,017	442,367	52,135
All other pigments and dry colours	"	1,012,751	164,899	656,033	24,743
Linoleate driers		–	3,430	–	1,757
Resinate driers		–	42,576	–	24,042
Varnish	Gal.	1,107,565	1,137,198	285,511	531,021
Asphaltic and tar paints	"	700	1,500	–	–
Prepared resin	lb.	69,932	4,196	86,472	5,305
Japans and lacquers	gal.	23,716	27,059	16,256	15,348
Stand, blown and enamel oils	"	1,174	1,572	43,557	55,560
Paste colours	lb.	520,191	65,802	79,080	8,003
Enamel oils	gal.	523,191	39,239	–	–
Materials, n.e.s.		–	33,812	–	71,214
Total intermediates used		–	1,564,300	–	789,128
Total		–	**11,354,903**	–	**10,754,273**

Table 39.—Products of the Paint and Varnish Industry in Canada, 1922 and 1923

—	Unit of measure	1922		1923	
		Quantity	Selling value	Quantity	Selling value
			$		$
Products made or sale—					
Basic carbonate white lead, dry	lb.	10,491,833	953,774	8,347,772	802,992
Basic carbonate white lead in oil	"	14,590,581	1,504,680	14,670,310	1,744,657
Red lead	"	568,919	50,547	1,194,980	106,371
Litharge	"	2,557,285	199,531	4,196,537	345,374
Dry colours	"	2,662,419	561,774	2,938,046	577,719
Lampblack and other carbon blacks	"	–	–	8,936	1,517
Iron oxide pigments	"	3,800	596	582,000	23,285
Putty and other fillers	"	5,954,014	327,839	5,551,346	417,163
Mixed paints ready for use	gal.	2,790,231	7,795,261	3,161,656	8,916,759
Varnishes, all kinds	"	1,327,999	2,909,218	1,681,347	3,832,768
Japan and lacquers	"	958,624	601,532	178,301	323,884
Linoleate driers made	.....	–	183,503	–	101,153
Resinate driers made	.....	–	75,172	–	77,560
Stains	gal.	324,014	621,876	322,264	584,624
Shellac	"	139,902	622,855	146,112	632,323
Asphaltic and tar paints	"	77,858	91,146	–	212,445
Linseed oil, boiled	"	137,908	158,969	129,797	161,022
Stand, blown or enamel oils	"	123,203	179,266	139,399	188,904
Floor waxes and polishes	.....	–	51,229	–	57,457
Paste paints	.....	–	150,264	–	168,831
Colours ground in oil and japan	.....	–	428,718	–	461,547
Enamels	.....	–	25,482	–	18,818
All other products	.....	–	1,130,073	–	1,181,629
Total products made for sale	.....	–	18,623,305	–	20,938,802
Intermediate products made for use—					
Basic carbonate white lead, dry	lb.	212,515	18,225	28,200	2,749
Basic carbonate white lead, in oil	"	494,760	47,857	442,367	52,135
Dry colours	"	283,039	29,942	120,673	21,426
Varnishes, all kinds	gal.	1,017,565	1,208,402	216,588	405,624
Japans and lacquers	"	23,716	27,059	16,256	15,348
Linoleate driers made	"	14,916	42,970	2,432	4,413
Resinate driers made	"	27,442	40,189	12,481	24,042
Asphaltic and tar paints	"	700	1,500	1,070	2,675
Linseed oil, boiled	"	–	–	17,035	19,451
Stand, blown or enamel oils	"	26,761	40,135	1,446	1,837
Prepared resin	lb.	69,932	4,196	16,872	1,581
Enamel oils	"	–	21,402	–	–
Paste colours	"	–	89,317	–	11,204
Products, n.e.s.	.....	–	35,986	–	51,871
Total intermediates made for use	.....	–	1,607,240	.....	614,356
Total	.....	–	**20,230,545**	.....	**21,553,158**

Table 40.—Materials Used in the Soap, Washing Compounds and Toilet Preparations Industry in Canada, 1922 and 1923

—	Unit of measure	1922 Quantity	1922 Cost at works	1923 Quantity	1923 Cost at works
			$		$
SOAP INDUSTRY—					
Oils and fats—					
Castor oil	lb.	29,469	4,196	40,072	5,924
Cocoanut oil	"	8,421,228	755,245	10,610,230	946,689
Corn oil	"	432,247	40,027	-	34,678
Cottonseed oil	"	928,065	78,975	133,572	10,473
Cottonseed oil foots	"	411,865	16,868	440,968	23,315
Essential oils	"	-	-	-	81,779
Fatty acids—stearic, etc.	"	1,459,158	90,596	257,896	26,108
Linseed oil	gal.	27,116	27,595	-	18,194
Olive oil	lb.	42,144	8,109	600	138
Olive oil foots	"	1,154,785	92,862	1,414,305	127,164
Palm oil	"	1,350,984	108,853	3,133,848	266,430
Peanut oil	"	205,338	16,852	377,162	36,258
Rosin	"	8,992,446	310,657	9,149,956	309,171
Soya bean oil	"	3,957,928	279,164	7,339,517	527,883
Tallow, grease and other soap stock	"	40,089,751	2,739,036	35,795,735	2,836,017
Other oils and fats	.....	-	29,215	-	25,333
Chemicals and Minerals—					
Alcohol, 65 o.p.	proof gal.	34,874	39,801	10,011	11,416
Alum	lb.	40,296	1,007	131,119	2,951
Ammonium carbonate	"	1,569	78	3,333	166
Ammonium sulphate	"	90,750	3,210	80,505	3,398
Carbolic acid	"	48,647	4,125	-	710
Cresylic acid	"	-	-	46,604	4,879
Chalk	"	16,983	585	11,491	397
Feldspar	"	1,120,000	18,203	1,500,000	24,565
Glycerine, crude, purchased	"	2,733,864	263,006	3,072,201	318,106
Glycerine, refined, purchased	"	56	17	31,020	6,663
Hydrochloric acid (Muriatic)	"	586,770	18,375	-	15,363
Potash, caustic	"	101,889	13,201	713,228	29,551
Pumice	"	311,861	8,126	354,604	8,831
Silica sand	"	5,284,527	37,784	5,242,140	61,569
Soda ash	"	6,493,309	147,941	7,133,213	146,629
Soda, caustic, dry	"	10,678,195	478,061	7,318,688	295,861
Soda, caustic, in solution	lb. soda			3,587,561	132,349
Sodium sal	"	1,218,317	7,108	1,673,334	13,549
Sodium bicarbonate	"	49,450	1,292	41,173	1,024
Sodium chloride (common salt)	"	5,441,965	27,675	2,229,060	13,499
Sodium silicate (waterglass)	"	9,142,528	104,295	10,664,232	99,847
Sulphuric acid	"	57,168	1,546	136,679	2,776
Talc	"	-	3,377	319,687	4,894
Zinc oxide	"	9,367	833	18,090	2,034
Other materials—					
Colours and dyes	lb.	-	9,563	-	3,696
Naphtha	"	103,685	2,492	126,976	3,555
Perfumes	"	-	194,836	-	137,346
Soap	"	-	188,784	1,499,826	143,952
Starch	"	97,737	4,471	56,118	2,660
Sugar	"	49,009	3,677	60,865	6,072
All other materials	.....	-	178,807	-	34,140
Shipping containers (boxes, cartons, etc., or materials for their manufacture)	.....	-	1,173,949	-	1,647,230
Total	.....	-	7,534,475	-	8,455,229
WASHING COMPOUNDS INDUSTRY—					
Soda ash	lb.	1,222,702	30,014	1,445,565	28,149
Chloride of lime	"	774,242	17,764	655,315	12,839
Other materials	.....	-	45,887	-	39,015
Containers	.....	-	29,357	-	23,722
Total	.....	-	124,625	-	103,725
TOILET PREPARATIONS INDUSTRY—					
Acids—					
Boric	lb.	7,279	994	10,795	1,437
Citric	"	2,162	1,500	1,203	860
Other acids including stearic, carbolic, hydrochloric, sulphuric	"	48,244	6,932	65,087	11,343
Calcium carbonate (chalk)	"	70,467	4,045	157,059	6,190
Ethyl alcohol	Proof gal.	30,450	51,595	42,954	47,937
Essential oils	.....	-	101,324	-	110,632
Other oils	.....	-	1,568	-	6,719
Glycerine (refined)	lb.	193,635	38,865	201,728	40,599
Potassium hydroxide	"	11,421	997	14,291	930
Zinc oxide	"	13,367	2,488	26,016	4,059
Petrolatum	.....	179,186	40,596	212,256	39,475
Talc	lb.	104,488	1,513	264,418	5,218
Sodium benzoate	"	4,417	4,569	4,141	3,780
Soap	"	-	12,076	141,943	17,165
All other materials	.....	-	54,370	-	67,963
Containers	.....	-	502,144	-	477,491
Total	.....	-	825,576	-	841,798
Total	.....	-	**8,484,676**	-	**9,400,752**

Table 41.—Products of the Soap, Washing Compounds and Toilet Preparations Industry in Canada, 1922 and 1923

—	Unit of measure	1922 Quantity	1922 Selling value	1923 Quantity	1923 Selling value
			$		$
SOAP INDUSTRY—					
Hard soaps—					
Household soaps	lb.	42,740,992	2,901,515	46,884,007	3,513,458
Laundry soaps and soap chips	"	39,851,368	3,925,410	38,121,723	4,144,913
Toilet soaps	"	12,344,353	2,934,794	14,747,966	3,745,022
Polishing or scouring powder or soaps	"	-	753,290	-	342,148
Soap powder	"	7,349,603	477,125	12,961,679	1,125,283
All other hard soap	"	3,607,354	273,714	3,839,880	293,664
Soft soaps	"	919,475	68,541	1,121,657	71,981
Washing compounds	"	3,592,034	132,333	3,187,642	118,154
Lye	"	790,025	97,829	666,455	89,107
Glycerine, crude, sold as such	"	-	271,002	3,291,787	333,428
Glycerine, refined	"	2,889,410	567,606	3,710,589	715,766
Toilet preparations	.....	-	270,059	-	332,236
All other products	.....	-	459,072	-	114,626
Total	.....	-	13, 132,290	-	14,939,786
WASHING COMPOUNDS INDUSTRY—					
Washing compounds	.....	-	130,483	-	126,736
Javelle water	.....	-	171,802	-	183,058
All other products	.....	-	52,043	-	39,007
Total	.....	-	354,328	-	348,801
TOILET PREPARATIONS INDUSTRY—					
Toilet preparations, including perfumes, hair tonics, etc.	.....	-	2,150,621	-	2,390,460
Pharmaceutical preparations	.....	-	2,075	-	2,150
Patent medicines	.....	-	190	-	-
Disinfectants	.....	-	3,076	-	2,565
Toilet soaps	.....	-	179,245	-	133,823
All other products	.....	-	20,080	-	91,426
Total	.....	-	2,355,287	-	2,620,424
Total	.....	-	**15,841,905**	-	**17,909,011**

Table 42.—Materials Used in the Inks, Dyes and Colours Industry in Canada, 1922 and 1923

—	Unit of measure	1922 Quantity	1922 Cost at works	1923 Quantity	1923 Cost at works
			$		$
Dry colours, aniline dyes and dye mixture	lb.	.....	388,561	-	515,175
Plumbago, carbon and other blacks	"	95,533	15,262	162,910	23,789
Oils, varnishes and dryers	.....	-	200,067	-	171,041
Methylated spirits, alcohol, benzine, naphtha and turpentine	.....	-	23,724	-	20,063
Dextrine, gums, resins and shellac	.....	-	33,982	-	45,459
Glycerine	lb.	93,189	18,300	94,876	19,042
Glue	"	79,884	23,058	52,625	14,131
Tannic acid, gallic acid, nut galls, logwood extract	.....	-	621	-	-
All other materials	.....	-	175,338	-	159,014
Containers	.....	-	191,374	-	173,388
Total	.....	-	**1,070,287**	-	**1,141,102**

Table 43.—Products of the Inks, Dyes and Colours Industry in Canada, 1922 and 1923

—	1922	1923
	$	$
Dyes and dye soaps	459,711	513,576
Hat colour, washing blue, butter colour and caramel	107,858	108,369
Printing inks	1,356,262	1,385,492
Printer's rollers and composition	173,915	214,827
Writing inks[1]	174,814	250,719
Ink pellets, powders and miscellaneous inks	2,029	1,759
Mucilage and paste	68,673	10,831
Mortar colours, shingle stains, paints, varnishes, colours and stove polish	202,382	164,694
Carbon paper, inked ribbons, stamp pads		41,368
All other products[2]	210,362	184,712
Total	**2,756,006**	**2,876,347**

[1] Writing inks made by firms classified in other industries amounted in value to $108,580 in 1922 and $117,361 in 1923.
[2] Include malt flour, water-glass, carbon paper, typewriter ribbons and various other products.

Table 44.—Materials Used in the Wood Distillation and Wood Extracts Industry in Canada, 1922 and 1923

—	Unit of measure	1922 Quantity	1922 Cost at works	1923 Quantity	1923 Cost at works
			$		$
Primary materials—					
Hardwood	cord	59,169	479,299	56,310	540,541
Lime	bush.	38,990	16,771	52,903	22,107
Salt	lb.	5,900	59	13,900	139
Calcium chloride	"	9,880	169	14,070	269
Sulphuric acid, 60° Bé	"	538,400	4,983	567,706	5,045
Caustic soda	"	42,904	2,339	40,425	1,802
Other materials	.....	–	466	–	23
Total primary materials used	.....	.....	504,086	.....	569,926
Intermediates used—					
Gray acetate of lime	lb.	1,857,263	25,223	784,640	25,993
Crude methyl hydrate	gal.	485,490	267,357	309,655	233,528
Refined methyl hydrate	"	160,533	136,001	146,727	146,727
Total intermediates used	.....	.....	428,581	.....	406,248
Total	.....	.....	932,667	–	976,174
WOOD EXTRACTS—					
Total	.....	–	–	–	447
Total	.....	–	**932,667**	–	**976,621**

Table 45.—Products of the Wood Distillation and Wood Extracts Industry in Canada, 1922 and 1923

—	Unit of measure	1922 Quantity	1922 Value	1923 Quantity	1923 Value
			$		$
WOOD DISTILLATION—					
Products made for sale—					
Charcoal	bush.	3,019,167	856,604	2,780,707	794,929
Gray acetate of lime	lb.	1,924,733	42,921	6,815,977	253,051
Methyl hydrate, 95%	gal.	13,347	6,673	129,370	105,325
Methyl hydrate, pure	"	156,540	134,318	371,708	431,181
Columnnn spirits	"	6,530	9,483	3,399	8,939
Acetone	lb.	371,968	74,088	504,199	134,721
Acetone oils	"	46,451	8,427	123,299	24,575
Wood creosote	gal.	28,947	6,496	219,950	39,591
Acetic acid, 28%	lb.	963,110	31,747	1,158,456	57,634
Acetic acid, 80%	"	124,925	12,140	109,551	21,709
Formaldehyde	"	1,949,883	253,722	1,736,900	293,536
Sodium acetate	"	49,975	2,928	–	–
Total products for sale	.....	–	1,439,547	–	2,165,191
Intermediates made for use—					
Gray acetate of lime	lb.	2,766,149	52,934	4,430,360	134,399
Crude methyl hydrate	gal.	484,583	264,429	375,575	280,681
Refined methyl hydrate	"	160,553	136,001	146,727	146,727
Total intermediates made for use	.....	–	453,364	–	561,807
Total	.....	–	1,892,911	–	2,726,998
WOOD EXTRACTS—					
Total	.....	–	9,332	–	16,297
Total	.....	–	**1,902,243**	–	**2,743,295**

Table 46.—Materials Used in the Manufacture of Miscellaneous Chemical Products in Canada, 1922 and 1923

—	Unit of measure	1922 Quantity	1922 Cost at works	1923 Quantity	1923 Cost at works
			$		$
ADHESIVES—					
Glue stock	lb.	4,444,148	28,010	-	31,238
Bones and hide trimming	"	15,680,862	167,027	18,470,000	202,580
Fish skins, bones and waste	-	-	13,101	-	15,473
Boracic acid	"	2,662	422	2,892	369
Acetic acid	"	10,314	1,625	8,310	1,246
Sassafras oil	"	502	402	415	249
Lime	"	2,161,503	12,695	1,204,277	7,336
Dextrine	"	91,145	3,221	285,260	16,856
Flour	"	-	4,024	-	6,922
Sodium silicate	"	2,916	231	600	39
Containers	.....	-	48,927	-	63,504
All other materials	.....	-	364,232	-	348,695
Total	.....	-	643,917	-	694,507
BAKING POWDER—					
Total	"	-	869,608	-	894,045
BOILER COMPOUNDS—					
Total materials used, including sodium hydroxide, sodium silicate, soda ash, phosphate of soda, mercury powder, etc.	.....	-	53,368	-	64,265
CELLULOID PRODUCTS—					
Total	.....	-	915,571	-	952,924
FLAVOURING EXTRACTS—					
Sugar	lb.	1,282,718	80,578	1,738,429	166,083
Gelatine	"	138,790	83,780	177,379	55,584
Essences, essential oils, etc.	.....	-	118,769	-	126,366
Alcohol	.....	-	113,333	-	93,803
Corn starch	"	248,688	12,062	325,978	16,317
Vanilla beans	lb.	9,937	29,061	10,576	33,632
Salt	"	6,070	93	6,886	103
Flour	"	26,949	937	99,430	2,972
Baking powder and cream of tartar materials	.....	141,546	20,065	81,274	11,202
Containers	.....	-	127,172	-	187,794
All other materials	.....	-	246,882	-	179,739
Total	.....	-	832,732	-	873,595
INSECTICIDES—					
Insect flowers	lb.	48,000	19,530	46,000	28,000
Sulphur	"	1,530,000	14,579	1,021,794	16,260
Essential oils	.....	-	1,700	-	275
Containers	.....	-	62,041	-	77,342
All other materials	.....	-	196,061	-	369,395
Total	.....	-	293,911	-	491,272
POLISHES AND DRESSINGS—					
Turpentine	gal.	27,370	35,550	27,630	40,882
Shellac	lb.	42,484	29,461	-	28,468
Graphite	"	162,195	6,302	145,606	7,296
Carbon black	"	41,680	7,086	33,375	6,223
Resin	"	23,700	687	6,430	192
Methylated spirits	"	5,566	5,715	4,030	3,965
Paraffin wax	"	36,971	4,300	51,783	5,840
Carnauba wax	"	59,842	17,934	60,957	19,008
Wax, n.s.	"	243,659	29,611	224,789	27,077
Naphtha	Gal.	34,500	9,200	45,500	12,300
Dyes and colours	.....	-	18,664	-	16,529
Containers	.....	-	391,471	-	337,763
All other materials	.....	-	180,536	-	165,660
Total	.....	-	736,517	-	671,203
SWEEPING COMPOUNDS—					
Oils, citronella, myrbane, cocoanut, essential, etc.	.....	-	11,203	-	10,462
Containers	.....	-	22,839	-	18,571
All other materials	.....	-	8,045	-	5,746
Total	.....	-	42,087	-	34,779
MISCELLANEOUS CHEMICAL INDUSTRIES—					
Total	.....	-	72,646	-	94,081
Total	.....	-	**4,460,357**	-	**4,770,671**

Table 47.—Products of Miscellaneous Chemical Industries in Canada, 1922 and 1923

Industry	Unit of measure	1922 Quantity	1922 Selling value	1923 Quantity	1923 Selling value
			$		$
ADHESIVES—					
Glue / Liquid fish glue		-	912,372	-	1,028,569
Gum, dextrine, mucilage, liquid glues and flour paste		-	54,163	-	78,554
Size, including paper sizing		-	129,350	-	153,733
Rubber and other cements and sealing wax		-	113,347	-	100,419
All other products and by-products		-	328,417	-	125,532
Total		-	1,537,649	-	1,486,807
BAKING POWDER—					
Baking powder	lb.	6,258,357	1,700,923	6,530,194	1,706,523
Cream of tartar and substitutes		75,432	43,057	79,558	38,296
All other products		-	968,914	-	957,814
Total		-	2,712,894	-	2,702,633
BOILER COMPOUNDS—					
Boiler compounds		-	211,044	-	244,599
All other products		-	2,179	-	4,128
Total		-	213,223	-	248,727
CELLULOID PRODUCTS—					
Celluloid products including toilet articles, etc.		-	804,864	-	769,317
All other products		-	989,531	-	1,085,431
Total		-	1,794,395	-	1,854,748
FLAVOURING EXTRACTS—					
Flavouring extracts and essences	gal.	63,935	578,915	-	613,169
Jelly powders		-	378,071	-	491,296
Egg substitute		-	53,177	-	57,654
Ice cream powders		-	14,567	-	14,497
Baking powder		-	18,810	-	9,626
All other products		-	386,553	-	376,294
Total		-	1,430,093	-	1,562,536
INSECTIDES—					
Insecticides, n.e.s. paris green, lead arsenate, calcium arsenate and lime sulphur solution		-	349,974	-	744,351
All other products		-	186,300	-	194,431
Total		-	536,274	-	938,782
POLISHES AND DRESSINGS—					
Shoe polish		-	602,875	-	482,693
Stove polish		-	249,054	-	234,427
Floor polish		-	12,309	-	48,249
Furniture polish		-	249,281	-	260,794
Metal and silver polish		-	42,638	-	40,895
Harness polish		-	8,823	-	7,101
Polishes, n.e.s.		-	91,179	-	171,209
Sweeping compounds		-	11,295	-	3,158
Washing compounds		-	18,280	-	17,534
Waxes		-	144,278	-	156,077
Stove pipe varnish		-	28,067	-	23,343
All other products		-	212,214	-	319,681
Total		-	1,670,293	-	1,765,161
SWEEPING COMPOUNDS—					
Sweeping compounds		-	78,054	-	85,808
All other products		-	29,937	-	16,874
Total		-	107,991	-	102,682
MISCELLANEOUS CHEMICAL PRODUCTS—					
Total		-	142,437	-	248,935
Total		-	**10,145,249**	-	**10,911,011**

DIRECTORY OF FIRMS ENGAGED IN THE MANUFACTURE OF CHEMICALS AND ALLIED PRODUCTS.

Coal Tar and its Products.

Name	Head Office Address	Location of Plant
COAL TAR DISTILLATION—		
Nova Scotia—		
Dominion Tar & Chemical Co., Ltd	354 Salisbury House, London Wall, E.C. 2, London, England.	Sydney.
Quebec—		
The Barrett Co., Ltd	2001 St. Hubert St., Montreal, Que	Montreal.
Dominion Tar & Chemical Co., Ltd	354 Salisbury House, London Wall, E.C. 2, London, England.	Allard St., Ville la Salle
Ontario—		
The Barrett Co., Ltd	2001 St. Hubert St., Montreal, Que	Toronto.
Dominion Tar & Chemical Co., Ltd	354 Salisbury House, London Wall, E.C. 2, London, England.	Sault Ste. Marie.
Manitoba—		
The Barrett Co., Ltd	2001 St. Hubert St., Montreal, Que	St. Boniface.
British Columbia—		
The Barrett Co., Ltd	2001 St. Hubert St., Montreal, Que	Vancouver.
DISINFECTANTS—		
Quebec—		
Rowe, Robert W. Ltd	249 Grand Trunk St., Montreal	Montreal.
West Disinfecting Co	301 Casgrain St., Montreal	Montreal.
Ontario—		
Canadian Germicide Co., Ltd	1 Howard Park Ave., Toronto	Toronto.
Hayner, Norman C., Co	Rochester, N.Y., U.S.A	Rear 183 Huron St., Toronto.
Polusterine Products Co. of Canada, Ltd.	168 Ontario Street, Toronto	Toronto.
Manitoba—		
Canadian Sundries, Ltd	212 Balmoral St., Winnipeg	Winnipeg.

Acids, Alkalies, Salts and Compressed Gases

ACIDS, ALKALIES AND SALTS—		
Nova Scotia—		
Dominion Iron & Steel Co., Ltd	Sydney	Sydney.
Quebec—		
Canada Carbide Co., Ltd	611 Power Bldg., Montreal	Transmission Ave., Shawinigan Falls.
Canadian Electro Products Co., Ltd	611 Power Bldg., Montreal	Transmission Ave., Shawinigan Falls.
Cowan, John, Chemical Co., Ltd	9 Dalhousie St., Montreal	Montreal.
Electric Reduction Co., Ltd	Oldbury, England	Buckingham.
Laporte-Irwin, Ltd	26 St. Paul St., West Montreal	Montreal.
Les Usines Chimiques du Canada Ltée	37 rue Grothé and 51 rue Dubé, Montreal	Montreal.
Laurentian Laboratories, Ltd	34 St. Gabriel St., Montreal	230 DeCourcelle St., Montreal.
Montreal Water and Power Co	11 Place d'Armes Square, Montreal	Montreal.
Nichols Chemical Co., Ltd	222 St. James St., Montreal	Capelton.
Ontario—		
Algoma Steel Corp	Sault Ste. Marie	Sault Ste. Marie.
American Cyanamid Co	511 Fifth Ave., New York, N.Y	Niagara Falls.
Brunner, Mond Canada, Ltd	Canadian Bank of Commerce Bldg, Toronto	Amherstburg.
Canadian Hanson & Van Winkle Co., Ltd	15-25 Morrow Ave., Toronto	Toronto.
Canadian Salt Co., Ltd	719 Sandwich St., W., Windsor	Riverfront St., Sandwich.
Chemical Products, Ltd	Trenton	Trenton.
Grasselli Chemical Co., Ltd	Burlington St., Hamilton	Hamilton.
Lyman Bros., Co., Ltd	71 Front St. E., Toronto	179 Front St. E., Toronto
Nichols Chemical Co., Ltd	222 St. James St., Montreal, Que	Sulphide.
Trenton Chemical Co	Bay St., Trenton	Trenton.
Union Carbide Co. of Canada	46 King St. W., Toronto	Welland.
Yocum Faust Ltd	123 St. George St., London	London.
British Columbia—		
Consolidated Mining and Smelting Co. of Canada Ltd.	Drummond Bldg., Montreal	Trail.
Nichols Chemical Co., Ltd	222 St. James St., Montreal, Que	Barnet.
COMPRESSED GASES—		
Nova Scotia—		
Canadian Carbonate Ltd	1 Hadley St., Montreal, Que	Stairs St., Dartmouthat
L'Air Liquide Society	285 Beaver Hall Hill, Montreal, Que	Cor. Kane & Agricola Sts., Halifax.

Acids, Alkalies, Salts and Compressed Gases—Concluded

Name	Head Office Address	Location of Plant
Quebec—		
Canadian Carbonate Ltd	1 Hadley St., Montreal	Montreal.
Dominion Oxygen Co., Ltd	46 King St. West, Toronto, Ont	225 Bourgeois St., Montreal.
L'Air Liquide Society	285 Beaver Hall Hill, Montreal, Que	Viau and Rouen Sts., Montreal.
Prest-O-Lite Co. of Canada, Ltd	46 King Street West, Toronto, Ont	Transmission Ave., Shawinigan Falls.
Ontario—		
Canadian Ammonia Co., Ltd	65-87 Heward Ave., Toronto	Toronto.
Canadian Carbonate Ltd	1 Hadley St., Montreal, Que	Simcoe St., Hamilton.
Canadian Carbonate Ltd	1 Hadley St., Montreal, Que	6 Wabash Ave., Toronto
Commercial Acetylene Co. of Canada, Ltd.	611 Power Bldg., Montreal, Que	9 Noble St., Toronto.
Dominion Oxygen Company, Ltd	46 King St. West, Toronto	Hillcrest Park, Toronto.
L'Air Liquide Society	285 Beaver Hall Hill, Montreal, Que	York St., London.
L'Air Liquide Society	285 Beaver Hall Hill, Montreal, Que	West Toronto.
Peoples Gas Supply Co., Ltd	2 Mill St., Ottawa	Ottawa.
Prest-O-Lite Co., of Canada, Ltd	46 King St. West, Toronto	Merritton.
Manitoba—		
Canadian Carbonate Ltd	1 Hadley St., Montreal, Que	Archibald St., St. Boniface.
L'Air Liquide Society	285 Beaver Hall Hill, Montreal, Que	1297 Pine St., Winnipeg.
Prest-O-Lite Company of Canada, Ltd	46 King St. West, Toronto, Ont	Taché Ave., St. Boniface.
Western Hydrogen & Oxygen Mfg. Co., Ltd.	Winnipeg	Winnipeg.
Alberta—		
L'Air Liquide Society, Ltd	285 Beaver Hall Hill, Montreal, Que	202 First Ave. E., Calgary.
British Columbia—		
Canadian Carbonate Ltd	1 Hadley St., Montreal, Que	Cor. 11th Ave. and Yew St., Vancouver.
Compressed Gas Co., Ltd	1530 Hastings St., East Vancouver	Vancouver.
L'Air Liquide Society	285 Beaver Hall Hill, Montreal, Que	Cor. Fifth Ave. and Yukon St., Vancouver.

Explosives, Ammunition, Fireworks and Matches

EXPLOSIVES—		
Quebec—		
Canadian Explosives Ltd	120 St. James St., Montreal	McMasterville.
Northern Explosives Ltd	623 Drummond Bldg., Montreal	Dragon.
Ontario—		
Burrowite Explosives, Ltd	Amherstburg	Anderdon Tp.
Heney, J. J	Ottawa	Prescott.
National Explosives Co., Ltd	71½ Sparks St., Ottawa	Camp Mohawk.
British Columbia—		
Canadian Explosives Ltd	120 St. James St., Montreal, Que	James Island.
Giant Powder Co. of Canada, Ltd	Bank of Nova Scotia Bldg., Vancouver	Nanoose Bay.
AMMUNITION—		
Quebec—		
Canadian Safety Fuse Co., Ltd	120 St. James St., Montreal	Brownsburg.
Dominion Cartridge Co., Ltd	120 St. James St., Montreal	Brownsburg.
Dominion Arsenal	8 Carleton St., Quebec	Quebec.
FIREWORKS—		
Quebec—		
Central Railway Signal Co	230 Boylston St., Boston, Mass	Iberville.
Ontario—		
The T. W. Hand, Firework Co., td	611 King St., W., Hamilton	Hamilton.
Toronto Fireworks Co., Ltd	26 James St. South, Hamilton	Islington.
Dominic Ruffo	Cornwall	Cornwall.
MATCHES—		
Quebec—		
E. B. Eddy Co., Ltd	Hull	Hull.
World Match Corp., Ltd	137 McGill St., Montreal	Berthierville.
Ontario—		
Canadian Match Co., Ltd	Water St., Pembroke	Pembroke.
Dominion Match Co., Ltd	Main St., Deseronto	Deseronto.

Fertilizers

Name	Head Office Address	Location of Plant
Nova Scotia—		
Colonial Fertilizer Co	40 North Market St., Boston, Mass. U.S.A	Windsor.
Cross Fertilizers, Ltd	Prince St., Sydney	Sydney.
Nova Scotia Fertilizer Co., Ltd	Halifax	Fairview.
New Brunswick—		
Dominion Fertilizer Co., Ltd	61 Broadway, New York, N.Y., U.S.A	Prince William St., St. Stephen.
St. John Fertilizer Co	500 Chesley St., St. John	St. John.
Quebec—		
Capelton Chemical and Fertilizer Co	Buckingham	Masson
Tanguay Limitée	48 St. Paul St., Quebec	118-120 St. Andrew St., Quebec.
Ontario—		
Canadian Fertilizer Co., Ltd	Market Bldg., Chatham	End of King St. E., Chatham.
Farmers' Fertilizer Co., Ltd	Josephine St., Wingham	Wingham.
Freeman, W. A., Co., Ltd	Cor. Hunter St. & Ferguson Ave., Hamilton	Terra Cotta Ave., Hamilton.
Ontario Fertilizers, Ltd	Harriss Road, West Toronto	Harris Road, West Toronto.
Port Stanley Supply Co., Ltd	Port Stanley	Port Stanley.
Scottish Fertilizers, Ltd	Welland Jct., Township of Humberstone	Welland.
Stone, William, Sons, Ltd	Woodstock	Ingersoll.
Witts, Cyrus	R.R. No. 1, Norwich	Norwich.
MANITOBA—		
Brooks, Thomas H	259 Provencher Ave., St. Boniface	St. Boniface.
British Columbia—		
Globe Fertilizer Co	Campbell Rd., South Vancouver	South Vancouver.
Triangle Chemical Co., Ltd	P.O. Box 1011, New Westminster	Foot 16th St., New Westminster.

Medicinal and Pharmaceutical Preparations

Nova Scotia—		
Minard's Liniment Co., Ltd	7 Jenkins St., Yarmouth	Yarmouth.
New Brunswick—		
Brayley Drug Co., Ltd	13 Mill St., St. John	St. John.
Quebec—		
American Druggists Syndicate, Limited	24 Craig St. W., Montreal	Montreal.
Centaur Co	442 St. James St., Montreal	Montreal.
Chrétien, Alphonse	Ste. Eulalie	Ste. Eulalie.
Cie de Produits Chimiques, Dr. Varrain, Enreg	39 Notre Dame St. E., Montreal	Montreal.
Cie Pharmaceutique Rameau, Ltée	310 St. Catherine E., Montreal	Montreal.
Davis & Lawrence Co	Bronx Blvd. & 238th St. New York, N.Y., U.S.A.	356 St. Antoine St., Montreal.
Denver Chemical Mfg. Co	20 Grand St., New York City, N.Y., U.S.A	107 Lagauchetière St.W., Montreal.
Devins, R. J., Ltd	2123 St. James St., Montreal	Montreal.
Duclos, Wilfred	Bienville	Bienville.
Frasier, Thornton & Co., Ltd	Cookshire	Cookshire.
Frosst, Charles E. & Co	101 Lagauchetière St. W., Montreal	Montreal.
Gauvin, J. A. E	851A St. Catherine St. E., Montreal	273 Maisonneuve St., Montreal.
Horner, Frank W., Ltd	48 St. Urbain St., Montreal	Montreal.
Hanford, G. C., Mfg. Co., Ltd	133 Youville Sq. Montreal	Montreal.
Hervay Chemical Co. of Canada, Ltd	St. Basile	St. Basile.
Ideal Medicine Co	Victoriaville	Victoriaville.
Italian Pharmaceutical Products Company	23 St. Alexander St., Montreal	Montreal.
La Cie de Vins Franco-Canadiens	69 rue Marquette, Montreal	Montreal.
Laboratoire Nadeau Ltée	17 St. Paul St. East, Montreal	Montreal.
Lambert, Dr. J. O., Ltée	336 St. Antoine St., Montreal	Montreal.
Compagnie J. L. Mathieu	14 Albert St., Sherbrooke	Sherbrooke.
Morin, Dr. Ed. & Cie Ltée	113 Côte de la Montagne, Quebec	Quebec.
Menley & James Ltd. of Canada	45 St. Alexander St., Montreal	Montreal.
National Licorice Co	106 John St., Brooklyn, N.Y., U.S.A	Rouen St. & Desjardins Ave., Montreal.
Polson, N. C. & Co., Ltd	311 Notre Dame St. W., Montreal	Montreal.
Hurtubise, B	1814 Papineau St., Montreal	Montreal.
Les Usines Chimique du Canada	42 Grothé St., Montreal	Montreal.
Trudel, J. E	46-6th Ave., Quebec	Quebec.
Watson, D. & Co	35 St. François Xavier St., Montreal	Montreal.
White, A. J. & Co., Ltd	45 St. Alexander St., Montreal	Montreal.
Wingate Chemical Co., Ltd	468 St. Paul St. W., Montreal	Montreal.
Wyeth, John & Bro., Inc	Cor. Washington Ave. & Eleventh St., Philadelphia, Pa., U.S.A	46 Prince St., Montreal.

Medicinal and Pharmaceutical Preparations—Concluded

Name	Head Office Address	Location of Plant
Ontario—		
Allen & Hanburys Co., Ltd.	64-66 Gerrard St. E., Toronto	65 King St. E., Lindsay.
Arner Co., Ltd.	303 Michigan Ave., Buffalo, N.Y., U.S.A.	Fort Erie.
Bauer & Black, Ltd.	96 Spadina Ave., Toronto	Toronto.
Bayer Co., Ltd.	801 Dominion Bk. Bldg., Toronto	907 Elliott St., Windsor.
Bennett & Messecar Co., Ltd.	Mille Roches	Mille Roches.
Bonalene Products Ltd.	152 Duchess St., Toronto	Toronto.
Briggs, G. C. & Sons	122 King St. W., Hamilton	Hamilton.
Canada Pharmacal Co., Ltd.	447 Talbot St., London	London.
Canadian Gunagathon Ltd.	7501B Yonge St., Toronto	Toronto.
Cummings, J. H. (Carter Cummings and Co.)	107 Duke St., Toronto	Toronto.
Carter Drug Co.	1560 Dundas St. W., Toronto	Toronto.
Chamberlain Medicine Co., Ltd.	Sixth Ave., Des Moines, Iowa, U.S.A.	41 Dovercourt Road, Toronto.
Coleman & Co., Canada, Ltd.	67 Portland Street, Toronto	Toronto.
Crossman, L.	439 Booth St., Ottawa	Ottawa.
D. D. D. Co.	3845 Ravenswood Ave., Chicago, Ill., U.S.A.	27 Lyall Ave., Toronto.
Douglas and Co.	Napanee	Napanee.
Eaton, The T. Drug Co., Ltd.	190 Yonge St., Toronto	Toronto.
Edmanson, Bates & Co., Ltd.	244 Adelaide St. W., Toronto	Toronto.
Emerson Drug Co., Ltd.	1266 Queen St. W., Toronto	1266 Queen St. W., Toronto.
Fleming Bros., Ltd.	422 Wellington St. W., Toronto	Toronto.
Foster Duck Co., Ltd.	337 King St. W., Toronto	Toronto.
Fulford, C. E., Ltd.	310 Dupont St., Toronto	Toronto.
Gallagher Remedy Co., Ltd.	332 Water St., Peterborough	Peterborough.
Gamble, D. J. C. & Son	63 Sheridan Ave., Toronto	Toronto.
Gaskin, H. M. Co., Ltd.	420 Yonge St., Toronto	Toronto.
Howard Bros. Chemical Co.	Courtright St., Bridgeburg	Bridgeburg.
Hygiene Kola, Ltd.	20 Dundas St. W., Toronto	Toronto.
International Druggists' & Chemists' Laboratories, Inc.	280 Pearl St., New York, N.Y., U.S.A.	London.
Jefferis, E. G.	442 Quebec Ave., Toronto	Toronto.
Karn, F. E. Co., Ltd.	415 Spadina Rd., Tp. of York	York Tp.
Lambert Pharmacal Co.	2101 Locust St., St. Louis, Mo., U.S.A.	263 Adelaide St. W., Toronto.
Lavoris Chemical Co., Ltd.	1-3 Jarvis St., Toronto	Toronto.
Lewis, A. H., Medicine Co.	319 S. Fourth St., St. Louis, Mo., U.S.A.	67 Crawford Ave., Windsor.
Mahans, Dr., Compass Oil Co.	18 Garfield Ave., London	London.
Mentholatum Co.	Wichita, Kansas, U.S.A.	Lewis St., Bridgeburg.
Merrill Co., Ltd.	93½ Church St., Toronto	Toronto.
Milburn, The T. Co., Ltd.	643 King St. W., Toronto	Toronto.
Mulvency, R. L.	211 Ossington Ave., Toronto	Toronto.
National Drug & Chemical Co., of Canada, Ltd.	34 St. Gabriel Street, Montreal, Que.	1 Phoebe St., Toronto.
Noll, Geo. M.	424 Wellington St. W., Toronto	Toronto.
Northrop & Lyman Co., Ltd.	462-6 Wellington St. W., Toronto	Toronto.
Pabst Chemical Co.	319 W. Ohio St., Chicago, Ill.	Toronto.
Parke Davis & Co.	Joseph Campeau Ave., Detroit, Mich., U.S.A.	Walker and Sandwich Sts., Walkerville.
Penslar Co., Ltd.	Walker Power Bldg., Walkerville	Walkerville.
Pepsin Syrup Co., Ltd.	Stafford & Defoe Sts., Toronto	76 Stafford St., Toronto.
Pinkham, Lydia E. Medicine Co.	271 Western Ave., Lynn, Mass., U.S.A.	University Ave., Cobourg.
Powell, H., Chemical Co.	Dundas and Victoria Sts., Toronto	Toronto.
Rumble, Geo. H. & Son Co., Ltd.	Cor. Pitt and Dougal Ave., Windsor	Windsor.
Sanderson, John H.	Richmond Hill	Richmond Hill.
Saunders, W. E. & Co., Ltd.	188 King St., London	London.
Scott & Bowne, Inc.	60 Orange St., Bloomfield, N.J., U.S.A.	64-66 Princess St., Toronto.
Shuttleworth, E. B. Chemical Co., Ltd.	898 St. Clair Avenue West, Toronto	Toronto.
Frederick Stearns & Co., of Canada, Ltd.	345 Sandwich St. W., Windsor	Windsor.
Sutcliffe & Bingham of Canada, Ltd.	Manchester, England	81 Peter St., Toronto.
Synthetic Drug Co., Ltd.	243 College St., Toronto	Toronto.
Tankac Co., Ltd.	48 Kildare Rd., Walkerville	Walkerville.
Toronto Pharmacal Co., Ltd.	20 Brockton Avenue, Toronto	Toronto.
United Drug Co., Ltd.	68 Broadway Ave., Toronto	Toronto.
Vanderhoof & Co., Ltd.	Louis & Wyandotte St., Windsor	Windsor.
Wampole, Henry K. & Co., Ltd.	Perth	Perth.
Waterbury Chemical Co., of Canada, Ltd.	58 Spadina Ave., Toronto	Toronto.
West, Ernest P.	41 Duchess St., Toronto	Toronto.
World's Dispensary Medical Association	665 Main St., Buffalo, N.Y., U.S.A.	Courtwright St., Bridgeburg
Manitoba—		
Drugs, Ltd.	Lydia & McDermott Aves., Winnipeg	Winnipeg.
Eaton, The T. Co., Ltd.	190 Yonge St., Toronto, Ont.	Winnipeg.
Dr. Peter Fahrney & Sons Co.	2501-17 Washington Blvd., Chicago, Ill., U.S.A.	256 Stanley St., Winnipeg.
Macdonald Medicine Co. of Canada, Ltd.	310 Notre Dame Ave., Winnipeg	Winnipeg.
Sanol Mfg. Co.	184 Henley Ave., Winnipeg	Winnipeg.
Rawleigh, W. T. Co., Ltd.	London, Ont.	587-589 Henry Ave., Winnipeg.
Watkins, The J. R. Co.	Winona, Minnesota, U.S.A.	E. Higgins and Annabella Sts., Winnipeg.
British Columbia—		
British Columbia Pharmacal Co., Ltd.	329 Railway St., Vancouver	Vancouver.

Paints, Pigments and Varnishes

Name	Head Office Address	Location of Plant
Nova Scotia—		
Brandram-Henderson Ltd	2984 St. Urbain St., Montreal, Que	230-240 Kempt Road, Halifax.
Quebec—		
Brandram-Henderson Ltd	2984 St. Urbain St., Montreal	Montreal.
Canada Paint Co.	572 William St. Montreal	Montreal.
Carter White Lead Co. of Canada, Ltd	91 Delorimier Avenue, Montreal	Montreal.
Dougall Varnish Co., Ltd	305 Manufacturers St., Montreal	Montreal.
Holland Varnish Co., Ltd	3060 Park Ave., Montreal	Montreal.
Jamieson, Jas. W. Co., Ltd	Charlemagne and Boyce Sts., Montreal	Montreal.
Jamieson, R. C. Co., Ltd	264 St. Patrick St., Montreal	Montreal.
Martin-Senour Co., Ltd	2951 Greenshields Ave., Montreal	Montreal.
McArthur, Irwin Ltd	20 St. Paul St. W., Montreal	Montreal.
Mount Royal Color & Varnish Co., Ltd	195 Dorchester St. E., Montreal	305 Casgrain St., Montreal.
National Varnish Co. of Canada, Ltd	369 Craig St. W., Montreal	Montreal.
Ramsay, A. & Son Company	12 Inspector St., Montreal	Montreal.
Sherwin-Williams Co. of Canada, Ltd	897 Centre St., Montreal	Montreal.
The Steel Co. of Canada, Ltd	Hamilton, Ont.	Notre Dame St., Montreal.
Ontario—		
Arco Co., Ltd	Liberty St., Toronto	Toronto.
Berry Brothers, Incorporated	Walker Rd., Walkerville	Walkerville.
Brandram-Henderson, Ltd	2984 St. Urbain St., Montreal Que	377 Carlaw Ave., Toronto.
Cooke, Geo. Co., Ltd	174 King St., E., Toronto	Toronto.
Cosmos Chemical Company	Port Hope	Port Hope.
Dominion Paint Works, Ltd	102 Ottawa St., Walkerville	Walkerville.
Flint Varnish & Color Works of Canada, Ltd	120 St. James St., Montreal	Cor. Perth and Kingsley Aves., Toronro.
Glidden Co., Ltd	370-382 Wallace Ave., Toronto	Toronto.
H. S. & T. Crystal Co., Ltd	169 Yonge St., Toronto	Seventh St., New Toronto.
Hannan Varnish Co.	Glen Morris	Glen Morris.
Imperial Varnish & Color Co., Ltd.	6 Morse St., Toronto	Toronto.
Industrial Varnish Works, Ltd	Bigger Avenue, Hamilton	Hamilton.
International Varnish Co., Ltd	371 Carlaw Ave., Toronto	Toronto.
Langmuir, James & Co., Ltd	Oakville	Oakville.
Lowe Brothers, Ltd	263 Ave. Sorauren, Toronto	Toronto.
Moore, Benjamin & Co., Ltd	6 Lloyd St., West Toronto	Toronto.
Morin, J. H.	54 Colborne St., Toronto	Toronto.
Muirhead, A. Co., Ltd	217 King St. E., Toronto	Toronto.
Northern Varnish Co., Ltd	1st Ave. W., Owen Sound	Owen Sound.
Ottawa Paint Works, Ltd	687 Wellington St., Ottawa	Ottawa.
Penfound Varnish Co	Cariboo Ave., Toronto	Toronto.
Pratt & Lambert Inc	Long Island City, N.Y., U.S.A	Bridgeburg
Reynolds & Co.	261 Macdonell Ave., Toronto	Toronto.
Sanderson Pearcy & Co., Ltd	272 Van Horne St., Toronto	Toronto.
Scarfe & Co., Ltd	35 Greenwich St., Brantford	Brantford.
Standard Paint & Varnish Co., Ltd	Cor. Wyandotte St. and C.P. Railway, Windsor	Windsor.
Sturgeon's Ltd	330 Carlaw Ave., Toronto	Toronto.
Toronto Putty Co	142 Davenport Rd., Toronto	Toronto.
Watts Chemical Co.	80 Don Esplanade, Toronto	Toronto.
Manitoba—		
International Laboratories Ltd	Rue des Meurons, St. Boniface	St. Boniface.
Sherwin-Williams Co. of Canada, Ltd	897 Centre St., Montreal, Que	110 Sutherland Ave., Winnipeg.
Stephens, G. F. & Co., Ltd	172 Market St., East Winnipeg	172 Market St. E. Winnipeg.
Alberta—		
Rocky Mountain Paint Co., Ltd	921 9th Ave East, Calgary	Calgary.
British Columbia—		
Ayres Varnish & Paint Co. Ltd	Raymur Ave. and Parker St., Vancouver	Vancouver.
British America Paint Co., Ltd	Laurel Pl., Victoria	Victoria.
Crown Paint Co., Ltd	24 Cordova St. E., Vancouver	Vancouver.
Henry Darling and Son	28 Powell St., Vancouver	Vancouver.
Impermea Products Co., Ltd	1445 Venables St., Vancouver	1445 Venables St., Vancouver.
Martin-Senour Co., Ltd	1505 Powell St., Vancouver	Vancouver.
Pacific White Lead Co., Ltd	Granville Island, Vancouver	Vancouver.
Staneland Co., Ltd	840 Fort St., Victoria	Bay and Shakespeare Sts., Victoria.
Williams & Harte, Ltd	1302 Wharf St., Victoria	Victoria.

Soaps, Washing Compounds and Toilet Preparations

Name	Head Office Address	Location of Plant
SOAPS—		
New Brunswick—		
St. Croix Soap Mfg. Co.	Water St., St. Stephen	St. Stephen.
Quebec—		
Albert Soaps Ltd.	168 McCord St., Montreal	Montreal.
Barsalou, J. Cie. Ltée.	172 Delorimier Ave., Montreal	Montreal.
Boileau, Dme V.	511 rue Bélanger, Montreal	Montreal.
Darling & Brady Ltd.	159 Richardson St., Montreal	Montreal.
Marx & Rawolle of Canada, Ltd.	516 St. Ambroise St., Montreal	Montreal.
Robertson, J. T. Co. of Canada, Ltd.	501 Bennett Ave., Maisonneuve	Maisonneuve.
Sewards Ltd.	Cor. 8th Ave. and Maple St., Ville St-Pierre	Ville St-Pierre.
Soap Company Ltd.	91 Reading St., Montreal	Montreal.
Ontario—		
Cudahy Packing Co.	64 Macauley Ave., West Toronto	West Toronto.
Diamond Cleanser Ltd.	363 Royce Ave., Toronto	Toronto.
Elliott, J. & R.	Water St., S. Galt	Galt.
Guelph Soap Co., Ltd.	12-20 Waterloo St., Guelph	Guelph.
Hamilton Soaps Ltd.	101 Bay St., N., Hamilton	Hamilton.
Jergens, Andrew Co., Ltd.	Herriott St., Perth	Perth.
Lever Bros. Ltd.	Eastern Ave., Toronto	Toronto.
Liquid Soap & Sanitary Products, Ltd.	114 Jarvis St., Toronto	Toronto.
London Soap Co., Ltd.	197 South St., London	London.
Morton, D. & Sons, Ltd.	77 Emerald St. S., Hamilton	Hamilton.
Palmolive Company of Canada, Ltd.	64 Natalie St., Toronto	Toronto.
Proctor & Gamble Mfg. Co.	6th and Main Sts., Cincinnati, Ohio, U.S.A.	Burlington St. E., Hamilton.
Pugsley, Dingman & Co., Ltd.	Cor. Eastern and Davies Aves, Toronto	Cawthra Ave., Toronto.
Supon Soaps of Canada Ltd.	164 Strachan St. E., Hamilton	Hamilton.
Ontario Soap & Oil Co.	45 Dickens Ave., Toronto	Toronto.
Standard Soap Co. Ltd.	40 Dovercourt Rd., Toronto	Toronto.
Vegetable Oil Soap Co.	Box 103, Marmora	Marmora.
Manitoba—		
Beaver Soap Co., Ltd.	1377 Winnipeg Ave., Winnipeg	Winnipeg.
Royal Crown Soaps Ltd.	King and Henry Sts., Winnipeg	Winnipeg.
Saskatchewan—		
Chemical Novelty Products Co.	529 20th Street W., Saskatoon	Saskatoon.
Alberta—		
Hubley, E.	North Edmonton	North Edmonton.
Royal Crown Soaps Ltd.	Winnipeg, Man.	Calgary.
British Columbia—		
Pendray, W. J. & Sons, Ltd.	Belleville and Montreal Sts., Victoria	Victoria.
Royal Crown Soaps Ltd.	Winnipeg, Man.	308 Georgia St. E., Vancouver.
WASHING COMPOUNDS—		
Quebec—		
Fyon and Fyon, Ltd.	Cor. Papineau and Masson Sts., Montreal	Montreal.
Paquin, Jos.	915 Berri St., Montreal	Montreal.
Robillard, J. J. & Cie.	204 Fabre St., Montreal	Montreal.
Ontario—		
Alpha Chemical Co., Ltd.	Kitchener	Kitchener.
Eze Mfg. Co., Ltd.	182 Adelaide St. W., Toronto	Toronto.
Macks Laundry Specialty Co.	Almonte	Almonte.
Peninsula Products Co.	28 Niagara St., St. Catharines	St. Catharines.
Webb, Albert W.	99 Sandwich St., Walkerville	Walkerville.
Williamson, F. A. Mfg. Co., Ltd.	465-7 Wellington St., Ottawa	Ottawa.
Alberta—		
The Wash Out Co.	10249 95th St., Edmonton	Edmonton.
British Columbia—		
The White Wizard Co.	1238 Pender St., Vancouver	Vancouver.
TOILET PREPARATIONS—		
Quebec—		
Bellefontaine, Albert	322 St. Denis St., Montreal	Montreal.
California Perfume Co. of Canada, Ltd.	31 Park Place, New York, N.Y., U.S.A.	36 St. Alexander St., Montreal.
Chesebrough Mfg. Co., Cons'd.	17 State St., New York, N.Y., U.S.A.	1880 Chabot Ave., Montreal.
Colgate & Co., Ltd.	72 St. Ambroise St., Montreal	Montreal.
Forhans Limited	200 Sixth Ave., New York, N.Y., U.S.A.	489 St. Paul St. W., Montreal.
Lewis, G. A. Co., Ltd.	92 Prince St., Montreal	Montreal.
Marceau, J. A., Ltée.	2 Rodney St., Montreal	Montreal.
The Mennen Co., Ltd.	325 Craig St., Montreal	Montreal.
Palmers Limited	100 Latour St., Montreal	Montreal.

Soaps, Washing Compounds and Toilet Preparations—Concluded

Name	Head Office Address	Location of Plant
Ontario—		
Calsodent Co., Ltd.	33 Front St. E., Toronto	Toronto.
Canadian Booster Co., Ltd.	435 Sandwich St., Windsor	Windsor.
Corson, Ralph	146 Brock Ave., Toronto	Toronto.
Herpicide Company	63 W. Milwaukee Ave., Detroit, Mich., U.S.A.	30 Goyeau St., Windsor.
Ingram, Frederick F. Co.	1565 W. Lafayette Blvd., Detroit, Mich., U.S.A.	801-3 Sandwich St. W., Windsor.
McLarty, R. W., Ltd.	432 Wellington St. W., Toronto	Toronto.
Marion Perfume Co.	424 Wellington St. W., Toronto	Toronto.
Misner Mfg. Co.	Box 385, Goderich	Goderich.
Partin, L., Ltd.	32 Mutual St., Toronto	Toronto.
Pepsodent Co.	1104 S. Wabash Ave., Chicago, Ill., U.S.A.	191 George St., Toronto.
Pompeian Co.	2400 Payne Ave., Cleveland, Ohio, U.S.A.	Windsor.
Seely Mfg. Co., Ltd.	15 Church St., Windsor	Windsor.
Sovereign Perfumeries, Ltd.	146-148 Brock Ave., Toronto	Toronto.
Parfumerie Rigaud	75 Barrow St., New York, U.S.A.	Toronto.
West, E. G. and Co.	80 George St., Toronto	Toronto.
Manitoba—		
Pulford Drug Co., Ltd.	52 Albert St., Winnipeg	Winnipeg.
Wilson, Charlie T.	180 Balmoral St., Winnipeg	Winnipeg.
Alberta—		
Roberts Chemical Co.	10534 95th Street, Edmonton	Edmonton.
British Columbia—		
Henrietta Toilet Preparations	649 Seymour St., Vancouver	Vancouver.

Inks, Dyes and Colours

DYES AND COLOURS—		
Quebec—		
Dominion Caramel Co.	21 Walnut Ave., St. Henri, Montreal	Montreal.
Johnson-Richardson Ltd.	74 St. Antoine St., Montreal	Montreal.
Tellier, Rydwell & Co.	24-26 St. Dizier St., Montreal	Montreal.
Wells & Richardson Co., Ltd.	200 Mountain St., Montreal	Montreal.
Ontario—		
North American Dye Corp., Ltd.	519 S. 5th Ave., Mt. Vernon, New York, N.Y., U.S.A.	340 Richmond St. W., Toronto.
PRINTING INKS—		
New Brunswick—		
Johnson, Ensley B.	44 Kennedy St., St. John	St. John.
Quebec—		
Frontenac Ink Works	243 William St., Montreal	Montreal.
Robertson, J. S.	119 Lagauchetière St. W., Montreal	Montreal.
Ontario—		
Ault & Wiborg Co.	19 Charlotte St., Toronto	Toronto.
Bush, Charles, Limited	105 Davenport Rd., Toronto	Toronto.
Canada Printing Ink Co., Ltd.	15 Duncan St., Toronto	Toronto.
Dominion Printing Ink and Color Co., Ltd.	128-130 Pears Ave., Toronto	Toronto.
Manton Bros.	105 Elizabeth St., Toronto	Toronto.
Shackell Edwards Co., Can., Ltd.	127 Peter St., Toronto	Toronto.
Sinclair Valentine Co. of Canada Ltd.	233 Richmond St., W., Toronto	Toronto.
Manitoba—		
Printers' Roller Co.	475 McDermot Ave., Winnipeg	Winnipeg.
Alberta—		
Little, W. J.	2412-1a St. S.E., Calgary	Calgary.
British Columbia—		
Columbia Printing Ink & Roller Co., Ltd.	1063 Hamilton St., Vancouver	Vancouve
WRITING INKS—		
Quebec—		
Carter's Ink Co.	239 First St., Cambridge, Mass., U.S.A.	Drolet St. and Mont. Royal Ave., Montreal
Ontario—		
Century Ink Co.	5 Macdonell Ave., Toronto	Toronto.
Cutler Ink Co.	61 Richmond St. W., Toronto	Toronto.
Poole, J. E. & Co.	21 Prescott Ave., Toronto	Toronto.
Stafford, S. S., Ltd.	9 Davenport Rd., Toronto	Toronto.
Manitoba—		
Reliance Ink Co., Ltd.	520 McGee St., Winnipeg	Winnipeg.
British Columbia—		
Peerless Products Ltd.	1642 Pandora St., Vancouver	Vancouver.
Walmsley, Frank	2741 11th Ave. W., Vancouver	Vancouver.

Wood Distillates and Extracts

Name of Firm	Head Office Address	Location of Plant
WOOD DISTILLATION—		
Quebec—		
Standard Chemical Co., Ltd.	524 St. Ambroise St., Montreal	Fassett.
Standard Chemical Co., Ltd.	524 St. Ambroise St., Montreal	524 St. Ambroise St. Montreal.
Standard Chemical Co., Ltd.	524 St. Ambroise St., Montreal	Lac Mercier.
Ontario—		
Dominion Wood & Lumber Co., Ltd.	Kitchener	Trout Creek.
Hodgson Bros., Chemical Co.	89 St. Paul St., Lindsay	Lindsay
Standard Chemical Co., Ltd.	524 St. Ambroise St., Montreal, Quebec	Longford mills.
Standard Chemical Co.	524 St. Ambroise St., Montreal, Quebec	Parry Sound.
Standard Chemical Co., Ltd.	524 St. Ambroise St., Montreal, Quebec	Thornbury.
WOOD EXTRACTS—		
Quebec—		
Brown Corporation	71 St. Peter St., Quebec	La Tuque.

Miscellaneous Chemical Industries

(a) Adhesives

Nova Scotia—		
Robinson Glue Co., Ltd.	St. Nicholas Building, Montreal, Que.	Canso.
New Brunswick—		
Russia Cement Co.	Gloucester, Mass., U.S.A.	Gilberts Lane, St. John.
Quebec—		
Auld Mucilage Co., Reg.	46 St. Alexander St., Montreal	Montreal.
Boston Blacking Co.	3rd and Potter Sts. East, Cambridge, Mass., U.S.A.	Côte St. Paul, Montreal.
Dominion Flour Paste Co.	613 Maisonneuve St., Montreal	Montreal.
Fox, T. M. & Sons, Limited	Côte St. Paul, Montreal	Côte St. Paul, Montreal
Marquis, F. Canac	Guyart St., Quebec	Quebec.
Russia Cement Co.	Gloucester, Mass., U.S.A.	555 Pius IX Ave., Montreal.
Vol-Peek Mfg. Co. & H. Nagle Co.	30 St. François Xavier St.	30 St. François Xavier St., Montreal.
Woodward, F. E. & Sons	17th Avenue, Lachine	Lachine.
Ontario		
Arabol Manufacturing Co. of Canada, Ltd.	13 King St. West, Toronto	Brampton.
Canada Glue Company, Ltd.	Brantford	Brantford.
Cannon Canadian Co., Ltd.	361 Sorauren Ave., Toronto	Toronto.
Dextrine Co.	Front Street, Thorold	Thorold.
Harris, W. & Co., Ltd.	Keating St. and Don river, Toronto	Toronto.
Machon Sealing Wax Co.	47 St. James Ave., Toronto	Toronto.
Meredith Simmons Co., Ltd.	71 Brown's Ave., Toronto	Toronto.
Vera Chemical Co. of Canada, Ltd.	Freeman	Burlington.

(b) Baking Powder

Quebec—		
Cook's Friend Baking Power Co., Ltd.	641 St. Paul St. W., Montreal	Montreal.
Royal Baking Powder Co.	100 E. 72 St., New York, N.Y., U.S.A.	4 St. Lawrence Blvd., Montreal.
Standard Spice Mills	43 Champflour St., Three Rivers	Three Rivers.
Ontario—		
Coleman Baking Powder Co., Ltd.	131-133 Perth St., Brockville	Brockville.
Egg-O Baking Powder Co., Ltd.	198 Gage Avenue South, Hamilton	Hamilton.
Gillett, E. W. Co., Ltd.	Fraser Ave., Toronto	Toronto.

(c) Boiler Compounds

Ontario—		
Bird-Archer Co.	33 Rector St., New York, N.Y., U.S.A.	2nd St., Cobourg.
Dearborn Chemical Co., Ltd.	2454-64 Dundas St. West, Toronto	Toronto.
Perolin Co. of Canada, Ltd.	858 Dupont St., Toronto	Toronto.
Shell-Bar Boico Supply Ltd.	1-15 Saunders Ave., Toronto	Toronto.

Miscellaneous Chemical Industries—Continued

(d) Celluloid Products

Name of Firm	Head Office Address	Location of Plant
Quebec—		
Arlington Co. of Canada, Ltd	120 St. James St., Montreal	108 Beaubien St., Montreal.
Dominion Comb & Novelty Co	Warwick	Warwick.
Granby Mfg. Co	Court St., Granby	Granby.
McCombiskey, R. B. & Co	47 Alexander St., Granby	Granby.
Ontario—		
Austin, Carl W	266 King St. W., Toronto	54 Kenneth Ave., West Toronto.
Broad Novelty Co	38 Clifford St., Toronto	254 Niagara St., Toronto.
Canadian Fabrikoid Ltd	120 St. James St., Montreal, Que	New Toronto.
French Ivory Products Ltd	1475 Queen St. W., Toronto	Toronto.
Latimer, H. B.	7 Widmer St., Toronto	Toronto.
Smith, Henry Elias	19 Main St., Smith's Falls	Smith's Falls.

(e) Flavouring Extracts

Nova Scotia—		
Crouse, Fred. O & Co	Bridgewater	Bridgewater.
New Brunswick—		
Wilson Chemical Co., Ltd	23-27 Water St., St. John	St. John.
Quebec—		
Bee Starch Co	291 St. Paul St. West, Montreal	Montreal.
Bush, W. J. & Co. (Canada), Limited	394 St. Paul St. W., Montreal	Montreal.
Chaput, L. Fils & Cie, Ltée	2 rue DeBresoles, Montreal	Montreal.
Jonas, Henri & Co	173-177 St. Paul St. W., Montreal	Montreal.
King-Marceau, Ltd	183 St. Paul St. W., Montreal	Montreal.
Rose & Laflamme Ltd	500 St. Paul St., Montreal	Montreal.
Stuart Brothers	41-43 Youville Sq., Montreal	Montreal.
Thomas Tremblay	1868 Bordeaux St., Montreal	Montreal.
Ontario—		
John R. Cressy Co	296 Gladstone Ave., Toronto	Toronto.
Genesee Pure Food Co. of Canada, Ltd	Bridgeburg	Niagara St., Bridgeburg.
Harry Horne Co., Ltd	1297 Queen St. W., Toronto	Toronto.
Imperial Extract Co	2-24 Matilda St., Toronto	Toronto.
Jeffress, E. W., Ltd	Walker Power Bldg., Walkerville	Walkerville.
Joe Lowe Co., Ltd	100 Stirling Road, Toronto	100 Sterling Rd., Toronto.
Ottens, Henry H., Mfg. Co	129 S. Front St., Philadelphia, Pa., U.S.A	3 Jarvis St., Toronto.
Patrick, W. G. and Co., Limited	51 Wellington Street West, Toronto	Toronto.
Alberta—		
Pure Standard Products Ltd	10865-96 St., Edmonton	Edmonton.
British Columbia—		
Grantham, F. C. Co., Ltd	700-16th Ave. West, Vancouver	Vancouver.

(f) Insecticides

New Brunswick—		
Empire Chemical Co., Ltd	8 Bentley St., St. John	St. John.
Quebec—		
Auto Roach Killer Co	1359 St. Hubert St., Montreal	Montreal.
The Kennedy Mfg Co	588 Henri Julien Ave., Montreal	Montreal.
Wilfrid Parisien	594 rue Ontario E., Montreal	Montreal.
Canada Paint Co., Ltd	572 William St., Montreal	19 Hunter St., Montreal.
Ontario—		
Canada Rex Spray Co., Ltd	Ontario St., Brighton	Brighton.
J. Bonner	258 George St., Toronto	Toronto.
Common Sense Mfg. Co	393 Queen St. W., Toronto	Toronto.
Delora Chemical Co., Ltd	Deloro	Deloro.
Niagara Brand Spray Co., Ltd	Burlington	Burlington.
Ismena B. Dobie	30 Victor St., London	London.
The Williams Chemical Co., Ltd	Russell	Russell.
Manitoba—		
Charles Riess & Co	386 Colony St., Winnipeg	Winnipeg.
British Columbia—		
Oliver Chemical Co., Ltd	407 Hastings St. W., Vancouver	Penticton.

Miscellaneous Chemical Industries—Concluded

(g) Polishes and Dressings

Name	Head Office Address	Location of Plant
Nova Scotia—		
Blacking & Mercantile Co., Ltd	Station St., Amherst	Amherst.
Quebec—		
American Metal Polish Co	89 Winslow Ave., West Somerville, Mass., U.S.A.	Second Ave., Ville St-Pierre.
Boston Blacking Co	3rd and Potter Sts. East Cambridge, Mass. U.S.A.	152 McGill St., Montreal
Boston Blacking Co	3rd and Potter Sts. East Cambridge, Mass., U.S.A.	1760 St. Lawrence Blvd., Montreal.
La-Lo Manufacturing Co., Ltd	365 Aqueduct St., Montreal	Montreal.
Star Dressing Co	Rear 2055 Hutchison St., Montreal	Montreal.
Sultana Limited	102 Amherst St., Montreal	Montreal.
The Uni-Lak Co	6 South Lyon St., Batavia, N.Y., U.S.A.	3 Hogan St., Montreal.
Vlit Manufacturing Co., Ltd	724-26 Notre Dame St. E., Montreal	Montreal.
Ontario—		
The Lacoa-Finish Co. of Canada	75 Oak Ave., Hamilton	Hamilton.
Buffalo Specialty Co	375 Ellicott St., Buffalo, N.Y., U.S.A.	Bridgeburg.
John Bull Mfg. Co	119 Augusta St., Hamilton	Hamilton.
Canadian Polishes Ltd	58 Catherine St. N., Hamilton	58 Catherine St., N. Hamilton.
Channell Limited	369 Sorauren Ave., Toronto	Toronto.
The Commercial Oil Co., Ltd	420 Jackson St. W., Hamilton	Hamilton.
F. F. Dalley Co. of Canada, Ltd	75 Hughson St. N., Hamilton	Hamilton.
Dandy Specialties Co	58 James St. Ridgetown	Ridgetown.
National Polish Co	240 King St. E., Toronto	Toronto.
Edward Hawes & Co., Ltd	71 Duke St., Toronto	Toronto.
The Hays Manufacturing Co	35 Carlaw Ave., Toronto	Toronto.
Home Products Co	151 Hyde Park Ave., Hamilton	Hamilton.
S. C. Johnson & Son, Ltd	Frank St., Brantford	Brantford.
Lion Polish Co., Ltd	5 Wellington St. E., Toronto	525 King St. W., Toronto.
National Chemical Compounds, Ltd	4 Clinton Place, Toronto	Toronto.
The Nonsuch Mfg. Co., Ltd	257 Logan Ave., Toronto	9 Busy St., Toronto.
The Permanent Ink Co., Ltd	302 Cumberland Ave., Hamilton	Hamilton.
Robt. Ralston & Co., Ltd	33 Sanford Ave. S., Hamilton	Hamilton.
Reflex Mfg. Co	Box 639, Parry Sound	Parry Sound.
Solicat Mfg. Co	160 Simcoe St., S., Oshawa	Oshawa.
Wills and Kemp Products Mfg. Co	184 Logan Ave., Toronto	Toronto.
Windsor Polish Co	73 Roseberry Place, St. Thomas	St. Thomas.
Alberta—		
Rudder Manufacturing Co	8105-112 Avenue, Edmonton	Edmonton.

(h) Sweeping Compounds

Quebec—		
Conway Mfg. Co	16 Jenckes Lane, Sherbrooke	Sherbrooke.
Ontario—		
Dustbane Manufacturing Co., Ltd	Ottawa	Ottawa.
Soclean Limited	144 King St. W., Toronto	Toronto.
Manitoba—		
Dustbane Western Ltd	325 Elgin St., Winnipeg	325 Elgin Ave., Winnipeg.

(i) Miscellaneous Chemical Products

Quebec—		
Montreal Water & Power Co	11 Place D'Armes Sq., Montreal	20 Charlevoix St., Montreal.
Ontario—		
Anti-Borax Compound Co	198 McDougall St., Windsor	Windsor.
Chr. Hansen's Canadian Laboratory	Little Falls, New York, N.Y., U.S.A.	Toronto.
Mead Johnson & Co. of Canada, Ltd	163 Dufferin St., Toronto	Toronto.
Quaker City Chemical Co., of Canada, Ltd	Birmingham St. & Whitfield Ave., Hamilton	Hamilton.
Manitoba—		
North Star Anti-Freeze Co	331 Austin Street, Winnipeg	Winnipeg.
Robinson & Webber Co., Ltd	53 Victoria St., Winnipeg	Winnipeg.
Saskatchewan—		
Radio-Tite Mfg. Co., Ltd	1932 Albert St. Regina	Regina.

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