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MINING, METALLURGICAL AND CHEMICAL BRANCH

CHEMICALS AND ALLIED PRODUCTS IN CANADA

1925

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STATISTICS OF PRODUCTION

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

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

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

Manufactures of:

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

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

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

(4) **Wood and Paper,** including—Pulp and Paper Mill Products; Paper Goods; Printing, Publishing and Lithographing; Saw and Planing Mill Products; Furniture; Carriages, Wagons and Sleighs; Wooden Containers; Woodenware; Turned Wood Products; and the Output of Similar Wood-Using Industries.

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

(6) **Manufactures of Non-Ferrous Metal Products,** including—Aluminium and Aluminium Ware; Brass and Copper Products; Lead, Tin and Zinc Products; Precious Metals Products; 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; Products made from Imported Clay; 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) Gypsum Products; (e) Mica Products; (f) Miscellaneous Non-Metallic Mineral Products, n.e.s.

(8) **Chemicals and Allied Products,** including—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; 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.

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

(1) **Food,** including—Breadstuffs; Fish; Nuts; Fruits and Vegetables; Meats; Milk Products; Oils and Fats; Sugar; Infusions; Miscellaneous.

(2) **Drink and Tobacco,** including—Beverages, alcoholic; Beverages, non-alcoholic; Tobacco.

(3) **Clothing,** including—Boots and Shoes; Fur Goods; Garments and Personal Furnishings; Gloves and Mitts; Hats and Caps; Knitted Goods; Waterproofs; Miscellaneous.

(4) **Personal Utilities,** including—Jewelry and Time-Pieces; Recreational Supplies; Personal Utilities, n.e.s.

(5) **House Furnishings.**

(6) **Books and Stationery.**

(7) **Vehicles and Vessels.**

(8) **Producers' Materials,** including—Farm Materials; Manufacturers' Materials; Building Materials; General Materials.

(9) **Industrial Equipment,** including—Farming Equipment; Manufacturing Equipment; Trading Equipment; Service Equipment; Light, Heat and Power Equipment; General Equipment.

(10) **Miscellaneous.**

PREFACE

Canada's chemical industries contribute in no small measure to the diversification of Canadian manufactures and add appreciably to the volume of production. If the larger definition of the chemical industry be taken, as including all industries using chemical processes, the field covered represents not less than one-fifth of the aggregate of Canadian manufactures.

The present report deals primarily with such industries as manufacture chemicals and allied products, along the lines followed in previous issues. Certain features enhance its value considerably; alphabetical lists of all the products made and material used in the various industries included in the survey have been prepared, the convenience of which will be apparent; comprehensive data have been compiled on the imports and exports of chemicals, the statistics showing the imports and exports for (a) the average for the five fiscal years ending March 31, 1924; (b) the fiscal year ending March 31, 1925; and (c) the fiscal year ending March 31, 1926. Following the general review of the industry and the general tables relating to all the industries and to their distribution by provinces, are several chapters each of which presents all the statistics relating to a particular industry.

Another feature of the report is the inclusion of statistics relating to those industries which use chemical processes in the manufacture of products not usually described as chemicals. Students in this broader field will find this comprehensive table more useful than the more restricted compilation which deals only with the output of recognized chemical products.

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.

Preparation of the present 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, by Mr. H. McLeod, B.Sc., who is in charge of the work on manufactures based on mineral products.

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Dominion Statistician.

DOMINION BUREAU OF STATISTICS,
OTTAWA, December 6, 1926.

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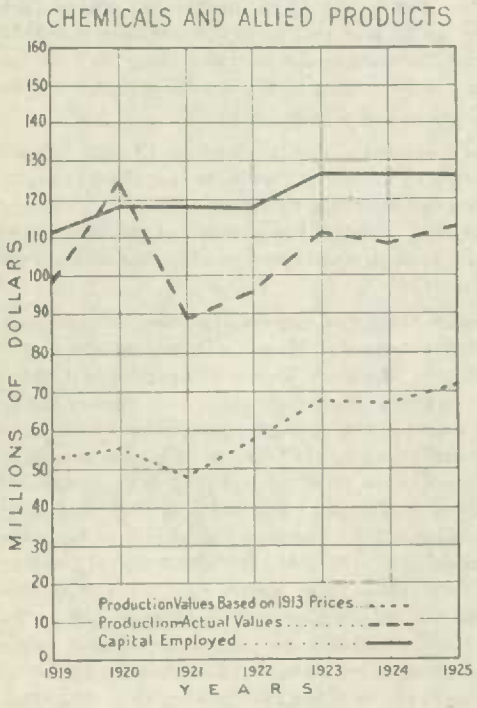
CHEMICALS AND ALLIED PRODUCTS IN CANADA IN 1925

CHAPTER ONE

GENERAL REVIEW

(a) Summary

Chemical processes contribute not less than one-fifth to the aggregate value of Canadian manufactures each year. In 1925, the latest year for which complete data are at hand, 1,400 concerns using chemical processes made products valued at $655,000,000; the aggregate value of all manufactured products in that year was $2,678,000,000. Employment in these industries totalled close to 87,000 persons, and salaries and wages to almost 110 million dollars.



Twenty-eight industries have been selected as typical. These are the leading enterprises in Canada depending on the applications of chemical science for the manufacture of their major products, but they are, by no means, all the industries in which chemistry finds a place in Canadian productive enterprise. For instance, there have not been included in this grouping those great extractive plants in which ores are processed for the recovery and refining of a variety of metals; only those concerns commonly thought of, as engaged in manufacturing have been considered here.

Included in the 28 classes selected, there are 10 groups which are generally recognized as representing Canada's chemical industry; the other concerns seem often to lose their identity as "chemical industries" in the overshadowing importance of their products as articles of commerce, as for example, pulp and paper, rubber, sugar, etc. There is no question about the chosen ten: 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; inks, dyes and colours; wood distillates and extracts and a group of industries producing miscellaneous chemical products. Other industries, selected for this purpose because of their extensive use of chemical processes and classified according to their major products are: malt; brewery products; distilled liquors; wines and grape juices; linseed oil and oil cake; rubber footwear and rubber goods; starch and glucose; refined sugar; tanned leather; tallow and animal oils; textiles, dyed, cleaned and finished; pulp and paper; wood, creosoted or otherwise preserved; coke; illuminating and fuel gas; glass; petroleum products and artificial ice.

Statistics for 1925 for all of these industries show the magnitude of Canada's output in this field. Representing a capital investment of nearly a billion dollars, the 1,400 plants in these groups employ nearly 87,000 men, pay almost $110,000,000 annually in salaries and wages, buy materials for manufacturing at a cost of $334,000,000 and produce a variety of commodities having an aggregate factory value of more than $655,000,000.

This will emphasize the importance of chemistry as a factor in the commerce of Canada. For statistical purposes, however, it has been found convenient to include in the annual survey only the first 10 industries mentioned above and to measure the progress of the chemical industry as a whole in Canada by the advances made in those industries which produce only chemicals and allied products.

Production of chemicals and allied products in Canada showed substantial progress in 1925. The 510 plants reporting in that year manufactured commodities with a total selling value of $112,906,746, an increase of 4·7 million dollars over the reported value of sales in the preceding year. The output value of paints, pigments and varnishes was 2 million dollars above the corresponding total for 1924; the manufacture of heavy chemicals and the soaps, washing compounds and toilet preparations industry, showed gains of over a million dollars; the medicinal and pharmaceutical preparations industry, the manufacture of inks, dyes and colours, the fertilizers group and the numerous small plants producing miscellaneous chemical products, showed substantial increases over the preceding year; the output of coal tar and disinfectants was well maintained; while the explosives, ammunition, fireworks and matches industry and the wood distillates industry showed declines from 1924. Employing 13,951 persons to whom 17·5 million dollars were paid in salaries and wages, the 510 plants reporting in these industries in 1925 represented a capital investment of 126·5 million dollars and used materials costing 56·3 million dollars in the production of commodities having a selling value of 112·9 million dollars. The value added by manufacture thus amounted to 56·6 million dollars.

Throughout 1925, prices of chemical products showed a slightly downward trend. Based on 1913 prices as 100, the Bureau of Statistics' index number on chemicals and allied products which showed an average of 161·8 in 1924 declined to an average for the year of 157·1 with only slight variations from month to month. That is to say, while a given quantity of the 13 chemical products listed in the index, cost $100 in 1913, the cost of an equal quantity of the same chemicals in 1925 was $157.10 as against a cost of $161.80 in 1924.

Price fluctuations make it difficult to determine the actual growth of industries when data on values only are available for comparison. By applying the Bureau's index numbers to the actual production values, it is possible to obtain figures which are directly comparable and which perhaps more nearly represent the growth in the quantity production than do the gross selling values of the products made in each year. For example, the aggregate production in 1920 was valued at $124,545,772; the index number of chemical prices for the year was 223·3 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 1920, computed on the base of 1913 prices, was actually worth $55,990,000. Computed on the same basis the production in each of the next years was valued as follows: 1921-$48,140,000; 1922-$57,650,000; 1923-$67,480,000; 1924-$67,091,000 and 1925-$71,869,000. These figures give a better indication of the growth in quantity production of chemicals and allied products in Canada than do the actual market values of the outputs and make it apparent that the peak in production values reached in 1920 was very largely due to enhanced commodity prices, and also that the volume of production in each of the four years 1922-1925 was in excess of the 1920 total. Thus computed, the volume of production in 1925 would then be the highest on record for this group of industries.

Of the 510 plants in Canada reporting a production of chemicals and allied products in 1925, the number located in Ontario was 278; production from these plants was valued at $65,524,984. There were 140 plants in Quebec with a production valued at $34,799,853. Manitoba ranked third among the chemical producing provinces with 27 plants and a production worth $4,887,107. British Columbia came next with 33 plants and an output valued at $4,605,170. Nova Scotia's 12 plants produced $1,461,152 worth of chemical products; 9 plants in New Brunswick had an output valued at $1,166,908, and the prairie provinces of Saskatchewan and Alberta were represented by 11 plants having a production valued at $461,572.

In 1924, there were 457 plants in operation in this industry. Returns for 1925 showed a gain of 1 in the province of Nova Scotia, 3 in the area represented by the prairie provinces, 11 in Quebec, 34 in Ontario, and 4 in British Columbia.

By industries, the acids, alkalies, salts and compressed gases group led the list with a total production value of $27,483,395 followed by paints, pigments and varnishes worth $22,234,268; soaps, washing compounds and toilet preparations, with an output value of $17,388,506; medicinal and pharmaceutical preparations, valued at $13,987,849; explosives, ammunition, fireworks and matches worth $12,313,155; and the miscellaneous chemical industries group with products valued at $10,699,162. Output values of the inks, dyes and colours industry, and of the coal tar products, each exceeded 2·5 million dollars; wood distillates and extracts totalled nearly 2 million dollars in value, and the output of fertilizers was above the million dollar mark.

The total capital employed in the chemicals and allied products group remained at about the same figures as in the preceding year and amounted in all to $126,483,348 of which approximately one-half was invested in lands, buildings, machinery and tools, and the remainder was almost equally divided between the cost of materials, stocks in process, etc., and working capital. Ontario plants reported a total investment of $68,618,224 and Quebec accounted for $43,671,393; British Columbia was credited with about 6 million dollars' investment; Manitoba, 5 million dollars; Nova Scotia, 2 million dollars; New Brunswick nearly 1 million dollars; while the capital employed in Alberta and Saskatchewan totalled about half a million dollars. There was little change in the amount of capital invested in the several groups from the totals recorded for the preceding year. Considered in relation to the capital employed, the output of chemicals and allied products in Canada showed a gross value of $89.30 for every $100 of capital employed.

Including both salaried employees and wage-earners, 13,951 persons found employment in the industries classified under chemicals and allied products in 1925. This number represented an increase of only 1 per cent over the preceding year. Payments in salaries and wages increased 2 per cent to an aggregate of $17,469,157 in 1925. Most of the employees were engaged in Ontario and Quebec plants, these two provinces accounting for 12,596 employees in all.

The trend of employment as reflected by the records of the number of wage-earners on the rolls as at the fifteenth of each month showed 9,753 wage-earners (excluding salaried employees) on the rolls in January, from which the number employed increased gradually to the maximum of 10,300 in May and thereafter remained fairly steady to make an average of 10,122 for the year.

Cost of fuel and electricity is an important item in the chemical industries. The consumption of electricity by the firms classified under the chemicals and allied products group in Canada amounted in value to $1,682,241 in 1925, while other fuel including anthracite and bituminous coal, coke, fuel oil, gas, wood, etc., used during the year reached a total value of only $1,591,276, or slightly less than the value of electricity used. Ontario and Quebec were the principal users of fuel. The consumption of electricity in Ontario amounted in value to $1,094,047 out of a total for fuel and electricity amounting to $2,049,782 and Quebec plants used $536,990 worth of electricity out of a total of $1,025,561 for fuel and electricity. Consumption of bituminous coal in the chemical industries in 1925 amounted to 211,860 tons. Ontario industries were the principal users consuming 151,623 tons at a cost of $788,509. Fuel oil and gasoline used during the year amounted in all to 1,305,129 imperial gallons, of which 451,533 gallons were used in British Columbia plants, 553,811 gallons in Ontario plants, 296,796 gallons in plants located in Quebec, and 2,989 gallons by plants in Nova Scotia, New Brunswick, Manitoba, Alberta and Saskatchewan.

In Canada's foreign trade there were substantial gains in both the imports and the exports of chemicals. Increases in imports were general throughout the list but were particularly noticeable in the items of cellulose products; medicinal and pharmaceutical preparations; dyeing, and tanning materials; fertilizers; paints and varnishes; and unspecified chemicals. Total imports of chemicals and allied products for the calendar year were valued at $27,653,819 as compared with a total of $24,565,574 in 1924. In the export field there were important gains in the fertilizer and heavy chemical groups, and appreciable gains were made in the exports of soap.

Not since 1919 when some war-time output was still being shipped, has Canada shown a favourable balance of trade in chemicals and allied products. In 1925, the excess of imports

over exports amounted to 10·2 million dollars, a gain in this column of 1·1 million dollars over the figures for the preceding year. While Canada imported chemicals and allied products to a value of 27·6 million dollars, exports were valued at only 17·4 million dollars.

An analysis of the trend of Canada's external trade in chemical products shows that t value of imports in this class from the United States made up 66 per cent of the total brought in from all foreign sources; 16 per cent of the value of purchases, represented goods from the United Kingdom, and the balance, or 18 per cent, was derived from other countries, chief among which were: Germany, France, Netherlands, Chile, Belgium, Switzerland, and the Argentine. Canada also purchased chemical products from a number of other countries but even in the aggregate this other business was comparatively small. These figures show little change from the corresponding percentages for the preceding year when 66 per cent of Canada's imports of chemicals and allied products came from the United States; 17 per cent from the United Kingdom and 17 per cent from other countries. There was an increase in the relative value of chemical products exported from Canada to the United States in 1925, and a decrease in the percentage shipped to the United Kingdom. Of the total, 51 per cent of Canada's exports of chemical products went to the United States; 21 per cent to the United Kingdom and 28 per cent to other countries, chief among which were Mexico, Newfoundland, Japan, Cuba, Portuguese Africa, Barbados, New Zealand, and India. There were also small exports to a number of other countries.

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 sulphuric acid.

In studying the production of chemicals and allied products in Canada it has been found convenient to arrange these industries in 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, washing compounds and toilet preparations; inks, dyes and colour compounds; wood distillates and extracts and miscellaneous chemical industries.

(b) By Industries

Coal Tar and its Products.—This industrial group includes all those firms whose principal products were obtained by the distillation of crude coal tar, or by the manufacture of commodities, such as disinfectants, from the distillation products.

In 1925, production values totalled $2,622,821 as compared with $2,637,577 in 1924. Of the 15 plants in this group, 9 were primarily tar-distilling units and 6 were engaged in the manufacture of disinfectants.

(a) Coal Tar Distillation.—The 9 tar-distilling units were located as follows: 4 in Ontario, 2 in Quebec and 1 in each of the provinces of Nova Scotia, Manitoba and British Columbia; 1 new plant in Ontario was opened during the year. Capital employed at $3,101,951 was 6 per cent above the 1924 figure but production was slightly lower at $2,502,629. Raw materials worth $1,365,314 consisting essentially of crude tar, yielded over 2 million gallons of creosote and special oils, 21,350 tons of pitch, 7 million gallons of tar and nearly 1 million dollars' worth of other products.

(b) Disinfectants.—The disinfectant industry showed a slight improvement in 1925. Capital invested stood at $179,381 as against $173,698 in 1924, and production amounted in value to $120,192 as compared with $118,084 in the previous year. The 6 plants were distributed as follows: 4 in Ontario, and 2 in Quebec.

Acids, Alkalies, Salts and Compressed Gases.—Production 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 one 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 reviewed under two sections (a) acids, alkalies and salts; (b) compressed gases.

For the group as a whole, the value of production was higher by more than a million dollars than the total for the previous year and the capital employed increased by a like amount. The average number of persons employed was 2,409, and payments of salaries and wages totalled $3,474,290. Ontario plants contributed $21,464,766 to the total value of the output and production from the Quebec plants amounted to $4,953,172.

(a) Acids, Alkalies and Salts.—In 1925, there were 20 plants in operation in this industry; the same number reported in 1924, but 1 of these plants did not operate during 1925, while a new plant in Ontario commenced to produce sulphuric acid from waste smelter gases. Capital employed showed an increase of 2 million dollars and the value of products was greater by 1·2 million dollars and amounted to $25,396,782. There was an increase in the production of hydrochloric and sulphuric acids but calcium compounds including cyanamide and carbide showed a slight decline to $5,733,279. Sodium compounds including carbonate, cyanide, hydroxide, etc., were valued at more than 5·5 million dollars.

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 reporting firms. Of the total production of 1925 which amounted in value to 25·4 million dollars, 8·5 million dollars represented the value of products used as materials in further processes. Lime, calcium carbide, and crude cyanamide made up the bulk of the intermediates.

(b) Compressed Gases.—Production of compressed gases was maintained at about the same level as in 1924, the total selling value being $2,086,613 as compared with $2,051,448 in the previous year. Oxygen, acetylene and carbon dioxide were the principal products of this group; aqua and anhydrous ammonia, and nitrogen were produced in smaller amounts. Production of acetylene was 5 million cubic feet more than in 1924, while the output of oxygen and carbon dioxide showed a slight increase.

This 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 been recorded in this group but the production of ammonia liquor from gas plants is not included.

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 industries have been grouped but in the chapter relating thereto, separate statistics have been shown for each industry.

There were 15 firms classified in this group in 1925. Of these, 7 were located in Quebec, 7 in Ontario, and 1 in British Columbia. Production values amounted to $12,313,155, or about a million dollars below the total for 1924. Employment likewise was a little below 1924, there being an average of 2,072 names on the rolls in 1925 as compared with 2,174 in the previous year.

(a) Explosives.—Production in 1925 was valued at $7,999,856 and while this figure is half-a-million dollars below the output value of 1924, it is probable that the actual volume of output in 1925 was considerably above that for 1924. More dynamite was made than in 1924, but the output of gunpowder was only half of the amount produced in the previous year; other products showed little change. Among the intermediates made for use, nitric acid, nitroglycerine and recovered acids, figured largely, reaching a total value of $2,287,515 as compared with a value of $5,312,341 for products made for sale.

(b) Ammunition.—The same 3 firms in Canada produced ammunition in 1925 as were producing in 1924; all were located in Quebec. Production value was slightly lower at $2,129,975 as compared with $2,936,960 in 1924.

(c) Fireworks.—This industry is very small. There were 3 plants operating in 1925 and the production was valued at $128,684 as compared with $196,672 in the previous year. The industry employed 33 persons throughout the year and paid $52,572 in salaries and wages. Manufactured fireworks made up the large part of the production.

(d) Matches.—The total production of the match industry amounted in value to $2,054,640 an increase of 23 per cent over the total of $1,674,001 in 1924. Four plants were in operation, of which 2 were in Quebec and 2 in Ontario. The production value as reported above, was the selling value at the works, exclusive of the excise tax.

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

In 1925, there were 13 plants in operation in this industry. Capital employed at $2,095,608 was slightly above the figure for 1924, and the average number of perons employed was 201 as compared with 166 in the previous year. Production also was above that of 1924; in 1925, the output was valued at $1,437,787 as compared with $1,277,145 in 1924. Complete fertilizers produced in this industry amounted to about 41,000 tons valued at $1,142,510 as compared with 30,000 tons produced in the previous year at a selling value of $1,086,806.

Production of fertilizers in other industries was also greater than in 1924. The outputs of calcium cyanamide, animal tankage, ammonium sulphate, ground bone, and fish fertilizer were above the quantities made in the previous year.

Medicinal and Pharmaceutical Preparations.—Further improvement was noted in the production of medicinal and pharmaceutical preparations in Canada during 1925. The total output was valued at $13,987,849 as compared with $13,350,347 in 1924. The industry continued to be centerd largely in Ontario where 77 plants produced patent and proprietary and other medicinal, pharmaceutical and toilet preparations worth in the aggregate $9,223,383; Quebec's 30 plants produced $2,777,680 worth of such preparations. There were also 6 plants in this industry located in Manitoba, 2 in each of the provinces of Nova Scotia, New Brunswick and British Columbia and 1 in Saskatchewan. Patent and proprietary medicines and pharmaceutical preparations made up the bulk of the output.

Paints, Pigments and Varnishes.—In point of value of production the paints, pigments and varnishes industry ranked next to the heavy chemical industry in 1925. The output of the paint industry was valued at $22,234,268, an increase of 2 million dollars over the total for 1924. There were 62 plants in operation in 1925 as against 55 in the previous year. Active plants were located as follows: 29 in Ontario; 17 in Quebec; 4 in Manitoba; 10 in British Columbia; and 1 in each of the provinces of Nova Scotia and Alberta. Quebec plants produced $9,217,135 worth of paint products while factories in Ontario had an output valued at $9,660,171.

The total production in 1925 included $19,530,082 worth of products for sale and $2,704,186 worth of intermediates for further use in the producing plants. In 1924, products for sale were valued at $18,187,681 and intermediates at $2,013,143. Mixed paints ready for use was the chief product with varnishes of next importance. Only 4 firms corroded pig lead for the production of basic carbonate white lead.

Canada's imports of paints, pigments and varnishes during the calendar year of 1925 totalled $3,853,853 in value, as compared with $3,448,167 in 1924. Export values also rose slightly to $498,760 from $459,761 in the preceding year.

Soaps, Washing Compounds and Toilet Preparations.—Production of soaps, washing compounds and toilet preparations in 1925 was valued at $17,388,506, which was 1·4 million dollars above the total for the preceding year. Active plants in this industry numbered 88 as compared with 66 in 1924. Forty-seven plants in Ontario had a production worth $11,092,205 in 1925, and the output of the 23 plants in Quebec was valued at $3,648,141. There were also 7 plants in Manitoba; 1 in New Brunswick; 4 in Alberta; 1 in Saskatchewan; and 5 in British Columbia.

(a) Soaps.—Representing a capital investment of 14 million dollars and employing 1,446 persons, the 36 plants in this industry in 1925 had a combined output worth $13,568,252. In 1924 the 33 reporting plants produced $13,187,267 worth of commodities. Production of household soaps in 1925 increased nearly 6 million pounds, while the output of laundry soaps and soap chips dropped about 4 million pounds. The production of toilet soaps, soap powders and other commodities in this industry, except washing compounds was about the same as in the preceding year.

(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. There were 21 plants with a production valued at $500,126 in 1925 as compared with 9 plants and an output worth $334,470 in 1924. For the most part, concerns in this group are small and the value of production is usually considerably in excess of the investment in plant and equipment. Many of the products are very useful, however, and there is a good market for the output.

(c) 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. In 1925 there were 31 plants in this industry as against 24 in the preceding year. Production at $3,320,128 was nearly a million dollars higher. Most of the products consisted of toilet preparations including perfumes, hair tonics, tooth paste, etc., but there was also a small production of liquid and toilet soaps in this industry.

Inks, Dyes and Colours.—Printing inks, writing inks, dyes and dye soaps, printers' rollers and composition and paints, stains and enamels, were the principal products of this industry in 1925. Production of printing inks reached a total value of $1,442,512 in 1925 as against $1,348,850 in 1924. Writing inks, mucilage, and paste reached a value of $242,199 as against $257,940 in the previous year. Dyes and dye soaps manufactured during the year had a selling value of $360,785 as against $393,894 in 1924.

The 27 plants operating in 1925 had a total production worth $2,749,807 as compared with 24 plants and an output valued at $2,656,400 in 1924. Five plants made dyes and colours as their principal product; 13 made printing inks or printers' rollers; and 9 manufactured writing inks. A new plant in Ontario for the production of food colours, carbolic acid and other products was opened during 1925. These industries i.e. (1) Printing Inks, (2) Writing Inks, (3) Dyes and Colours,—are treated separately in a succeeding chapter but for convenience of treatment are grouped in the general tables.

Wood Distillates and Extracts.—Output values receded to a total of $1,989,996 as against $2,283,422 in 1924 and $2,743,295 in the preceding year. The number of plants in operation dropped from 12 to 10 and capital employed declined to $2,287,109 from $2,784,681 in the previous year. Gray acetate of lime made for sale, was nearly 1·5 million pounds above the quantity reported in 1924. Production of formaldehyde was less by nearly 240,000 pounds, and the quantity of acetone made, was only a third of the amount made in 1924. Charcoal and wood creosote also were made in smaller quantities.

Miscellaneous Chemical Industries.—A number of firms operating in Canada produce chemicals or allied products which do not naturally fall in any of the previous groups; a miscellaneous group has accordingly been made and the industries therein have been divided into 9 main classes, namely: adhesives, baking powder, boiler compounds, celluloid products, flavouring extracts, insecticides, polishes and dressings, sweeping compounds and chemical products not elsewhere specified.

Data for the 120 firms in this group are shown by industries in a separate chapter but in the general tables, the group totals only are shown. The production totals given in these tables do not necessarily represent the entire output in Canada of the commodities mentioned, but only the outputs of the industries producing these articles as their principal products. For example, baking powder, polishes and dressings and insecticides are also made in other industries whose principal products place them in other categories. Production in this group in 1925 totalled $10,699,162 in value and employment was given to 1,689 persons during the year.

(c) By Provinces

Nova Scotia.—In 1925 there were 12 plants in Nova Scotia engaged in the manufacture of chemicals and allied products. These plants represented a capital investment of $2,193,140, employed 211 people throughout the year and produced commodities valued in the aggregate at $1,461,152. Raw materials used during the year cost $701,110 so the net addition to industrial wealth from this source amounted to $760,042. Three plants in the fertilizers industry had a combined output valued at $349,412; 2 establishments manufactured medicinal and pharmaceutical preparations; 2 made compressed gases; 1 concern made sulphuric acid; 1 distilled coal tar; 1 manufactured paints, pigments and varnishes; 1 was engaged in the preparation of flavouring extracts; and 1 establishment produced polishes and dressings.

In 1924, there was a total of 11 plants in the chemical industry and the aggregate production amounted in value to $1,808,531.

New Brunswick.—Only 9 plants in New Brunwick manufactured chemicals and allied products in 1925. The same number reported in 1924 but in 1925 returns were received from 1 new plant engaged in the manufacture of medicinal and pharmaceutical preparations and 1 engaged primarily in the production of sweeping compounds, while 1 plant making insecticides did not operate during the year and 1 establishment formerly included in the fertilizers industry was transferred to the fish-curing industry as the fertilizers were obtained only as a by-product. In 1925, there were 2 plants producing medicinal and pharmaceutical preparations, and 1 plant in each of the following industries: printing inks, insecticides, flavouring extracts, adhesives, sweeping compounds, soaps and fertilizers. These plants had a combined production valued at $1,166,908, the bulk of which was contributed by the soap industry. Capital employed amounted to $820,252, and the number of employees was 103. Salaries and wages totalled $136,882.

In 1924, there were also 9 plants operating in the chemical group in this province and production totalled $1,300,114 or slightly in excess of the corresponding figure for 1925.

Quebec.—In 1925, Quebec led in the production of explosives, wood distillates and coal-tar products and was second to Ontario in most of the other industries in the chemical group. Altogether, there were 140 establishments engaged in the manufacture of chemicals and allied products, distributed by industries as follows: acids, alkalies and salts, 6; compressed gases, 4; coal-tar distillation, 2; disinfectants, 2; explosives, 2; ammunition, 3; matches, 2; medicinal and pharmaceutical preparations, 30; paints, pigments and varnishes, 17; soaps, 9; washing compounds, 5; toilet preparations, 9; inks, dyes and colours, 6; wood distillates and extracts, 5; polishes and dressings, 11; adhesives, 8; flavouring extracts, 8; insecticides, 4; celluloid products, 1; baking powder, 2; and sweeping compounds, 1. These plants employed 5,174 people and produced commodities valued at $34,799,853. Capital employed amounted to $43,671,393 of which more than half was invested in permanent assets such as land, buildings and plant equipment. Fuel and electricity consumed in the various factories cost slightly over a million dollars.

In the previous year, 1924, there were 129 plants in operation, and 5,246 persons were employed to produce commodities with a total selling value of $36,253,426.

Ontario.—Ontario led in the production of chemicals and allied products with a total output valued at $65,524,984 in 1925. Of the plants in the chemical industries in Canada, 278 were located in Ontario. These plants employed a capital of $68,618,224, gave work to 7,422 people during the year and used $32,991,217 worth of raw materials for the manufacturing processes.

Ontario's plants produced acids, alkalies, salts and compressed gases valued at $21,464,766; the medicinal and pharmaceutical preparations industry contributed $9,223,383; production of the soap industry reached a value of $11,092,205; and inks, dyes and colour were valued at $2,133,548; wood distillates, fertilizers, coal-tar products, and miscellaneous chemicals were also produced extensively.

Electricity used for power purposes in the chemical plants in Ontario cost over a million dollars and fuel consumed reached a like amount bringing the total cost of fuel and electricity to $2,049,782 in 1925.

Manitoba.—The manufacture of medicinal and pharmaceutical preparations was the most important of the chemical industries in Manitoba in 1925; the output of the 6 plants in this industry amounted in value to $1,732,348. Of almost equal importance was the manufacture of paints and varnishes as the 4 establishments in this line of production made $1,725,878 worth of commodities for sale. The soap industry with 7 plants and an aggregate output valued at $828,930 was of next importance. There were also 3 concerns producing compressed gases, 2 making inks, 1 making fertilizers, 1 making coal-tar products and 3 manufacturing miscellaneous chemical products. In all, the 27 plants produced $4,887,107 worth of commodities from materials costing $2,559,737 at the works. Employment was given to 501 persons the year round and $630,111 was paid out in salaries and wages.

In 1924, only 25 chemical plants were in operation in this province and the total output was valued at $4,414,528.

Saskatchewan and Alberta.—Saskatchewan had only 2 plants in the chemical industries; one establishment manufactured soaps and the other made medicinal and pharmaceutical preparations; both were small concerns. In Alberta there were 9 establishments included in the chemicals and allied products industry; soaps, washing compounds and toilet preparations were made in 4 plants. One concern produced compressed gases and 1 other made paints in considerable quantity but the outputs of the remaining plants were very small. The total value of production in these provinces amounted to $461,572.

British Columbia.—Production of chemicals and allied products in British Columbia amounted in value to $4,605,170 in 1925. The explosives industry and the paint industry were the more important of the group; the 2 plants in the former industry were amalgamated but both establishments were in operation during the year, and the 10 paint factories made commodities valued at $1,158,176. Three establishments produced heavy chemicals and 2 made compressed gases for sale; 1 firm distilled coal tar and manufactured composition roofing; and 5 establishments produced nearly half a million dollars' worth of soaps, washing compounds and toilet preparations; pharmaceutical preparations, fertilizers, inks, insecticides, and flavouring extracts were also made in small quantities. Altogether, the 33 plants employed a capital of $5,752,242, paid 469 persons $624,398 in salaries and wages and used fuel and electricity worth $69,077.

(d) Prices

Based on average prices in 1913 as 100 the index number for chemicals and allied products fell from 161·8 in 1924 to 157·1 in 1925.

Coal Tar.—Crude coal tar was on the average a little higher in 1925, the price being $9.16 per barrel as compared with $9.01 in 1924.

Sulphuric Acid 66° Baumé.—This commodity was $2.25 per cwt., in small lots in 1925 and $2.34 in 1924.

Paint Materials, etc.—In spite of the tendency to cut prices, white lead averaged $15.36 per cwt., as compared with $14.75 in 1924. This was due to the higher pig lead prices.

Pure linseed oil putty dropped from $6.00 per cwt. in 1924 to $5.87 in 1925 and pure orange shellac from $4.78 per gallon to $4.13.

Soap.—The average price for common laundry soap declined from $5.88 per case of 100 to $5.40. This was the result of a reduction which took place in the middle of 1924 due to cheaper raw materials.

Inorganic Chemicals.—Lump alum fell from $2.80 per cwt., in 1924 to $2.67 in 1925. Bleaching powder 35-37% remained at the price attained in December, 1924, viz., $2.00 per cwt. Soda ash, 58% light, was $1.89 per cwt., as compared with $1.94 in 1924. Caustic soda, 76-78% solid, remained at $3.25 per cwt.

Glycerine refined was 21½c. per pound from September, 1924, to October, 1925, but rose to 23c. in November and to 27½c. in December. The average price for the year was 22c. per pound as compared with 20¾c. in 1924. The rise at the end of the year was due to a strong demand for the commodity for anti-freeze uses.

The price of wood alcohol 97% was the same as in 1924 viz., 87c. per gallon.

TABLE 1.—SUMMARY STATISTICS

(a) Chemicals and Allied Products in Canada by Industries 1921-1925

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							
1921	9	1,562,670	114	153,699	456,474	1,183,130	726,656
1922	8	1,237,677	90	110,026	313,341	886,358	573,017
1923	14	3,265,780	239	334,965	1,381,724	3,166,100	1,784,376
1924	14	3,099,995	208	280,728	1,137,497	2,637,573	1,500,076
1925	15	3,281,332	190	275,416	1,418,892	2,622,821	1,203,929
Acids, Alkalies, Salts, and Compressed Gases							
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
1924	41	34,298,071	2,413	3,469,320	11,616,643	26,241,722	14,625,079
1925	40	35,656,528	2,409	3,474,290	12,843,256	27,483,395	14,640,139
Explosives, Ammunition, Fireworks and Matches							
1921	22	13,641,857	1,771	1,831,362	6,261,200	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
1924	18	20,457,440	2,174	2,059,642	8,787,392	13,310,315	4,522,923
1925	15	16,827,321	2,672	1,903,769	6,848,921	12,313,155	5,464,234
Fertilizers							
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	831,476	1,487,244	655,774
1924	14	2,072,488	166	159,310	730,158	1,277,145	546,987
1925	13	2,095,608	201	205,173	1,045,294	1,437,787	392,493
Medicinal and Pharmaceutical Preparations							
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
1924	104	15,156,479	2,193	2,666,907	4,895,352	13,350,347	8,454,995
1925	120	16,037,286	2,273	2,892,975	4,798,120	13,987,849	9,189,729
Paints, Pigments and Varnishes							
1921	49	20,330,951	2,231	3,299,589	9,714,521	18,044,325	8,329,804
1922	53	21,073,706	2,451	3,421,217	11,354,903	20,230,545	8,875,642
1923	57	20,806,909	2,591	3,605,823	10,754,273	21,553,158	10,798,885
1924	55	20,587,856	2,287	3,044,228	11,674,837	20,200,824	8,525,987
1925	62	21,460,431	2,355	3,093,191	12,613,995	22,234,268	9,620,273
Soaps, Washing Compounds and Toilet Preparations							
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
1924	66	16,367,069	1,904	2,359,060	8,782,085	15,965,318	7,183,233
1925	88	16,731,558	2,050	2,618,507	10,093,741	17,388,506	7,294,765
Inks, Dyes and Colours							
1921	26	2,083,697	353	582,210	1,054,195	2,533,480	1,479,285
1922	26	2,146,953	416	668,719	1,070,287	2,756,006	1,685,719
1923	26	2,252,370	415	659,336	1,141,102	2,876,347	1,735,245
1924	24	2,391,859	377	632,607	942,325	2,656,400	1,714,075
1925	27	2,669,720	403	677,077	968,830	2,749,807	1,780,977

TABLE 1.—SUMMARY STATISTICS—Continued

(a) Chemicals and Allied Products in Canada by Industries 1921-1925—Concluded

Year	Number of plants	Capital employed	Number of employees	Salaries and wages	Cost of materials	Selling value of products	Value added by manufacturing
		$		$	$	$	$
Wood Distillates an Extracts							
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
1924	12	2,784,681	367	384,050	1,055,658	2,283,422	1,227,764
1925	10	2,287,109	309	238,848	847,663	1,989,996	1,142,333
Miscellaneous Chemical Industries							
1921	120	12,060,910	1,735	2,020,893	4,827,225	10,138,297	5,311,072
1922	110	9,081,243	2,601	2,013,499	4,460,357	10,145,249	5,684,892
1923	112	13,261,668	1,800	2,091,252	4,770,671	10,911,011	6,140,340
1924	109	9,279,747	1,707	2,018,587	4,689,066	10,294,171	5,604,205
1925	120	9,436,455	1,689	2,089,911	4,820,507	10,699,162	5,878,655
Total Chemicals and Allied Products							
1921	469	118,705,489	12,669	16,279,589	43,315,790	88,901,547	45,585,757
1922	469	118,025,483	14,084	16,770,803	46,919,968	95,941,185	49,024,217
1923	475	126,537,481	15,149	18,433,679	51,638,062	111,244,156	56,606,094
1924	457	126,195,685	13,796	17,071,529	51,311,913	108,217,237	53,905,324
1925	510	126,183,348	13,851	17,469,157	56,299,219	112,906,746	56,607,527

(b) Other Industries using Chemical Processes Classified According to Their Principal Products

Malt							
1921	7	2,246,223	181	306,892	2,019,577	2,793,417	773,840
1922	6	2,183,282	174	369,752	1,372,301	2,416,686	1,044,385
1923	5	2,473,818	184	364,134	1,504,187	2,599,966	1,095,779
1924	5	3,553,042	134	245,550	2,047,500	4,308,631	2,261,131
1925	5	3,580,979	172	302,941	2,503,525	4,015,634	1,512,109
Brewery Products							
1921	55	37,645,447	3,027	4,353,613	9,714,486	30,931,853	21,217,367
1922	53	34,788,432	2,857	3,963,240	8,125,364	25,875,730	17,750,366
1923	52	38,384,708	3,160	4,308,550	9,846,130	29,260,243	19,414,113
1924	57	45,375,529	3,820	5,347,563	15,368,618	33,532,783	18,164,165
1925	62	51,222,456	4,073	5,633,935	14,692,473	38,897,995	24,205,522
Distilled Liquors							
1921	5	11,557,051	457	759,118	2,161,525	7,460,845	5,299,320
1922	6	15,253,827	313	466,587	1,546,376	3,296,545	1,750,169
1923	9	16,135,724	409	556,560	1,714,716	4,226,465	2,511,749
1924	13	22,556,007	806	1,023,522	3,322,878	10,711,801	7,388,922
1925	16	24,506,712	834	1,049,985	3,212,010	9,897,863	6,685,853
Wines and Grape Juice							
1921	13	1,966,659	128	156,409	350,098	706,289	356,191
1922	12	1,939,831	145	189,209	500,568	1,136,075	635,507
1923	16	2,257,413	159	197,388	675,000	1,624,382	949,292
1924	22	2,636,728	155	231,875	612,521	1,325,333	712,812
1925	24	2,944,943	171	246,746	781,307	1,624,742	843,435

TABLE 1.—SUMMARY STATISTICS—Continued

(b) Other Industries using Chemical Processes Classified according to their Principal Products—Continued

Year	Number of plants	Capital employed	Number of employees	Salaries and wages	Cost of materials	Selling value of products	Value added by manufacturing
		$		$	$	$	$
Linseed Oil and Oil Cake							
1921	8	2,509,124	292	324,978	4,239,255	6,223,376	1,984,121
1922	8	2,603,241	251	303,465	4,319,555	5,558,627	1,239,072
1923	8	2,818,291	249	299,906	4,697,051	5,761,840	1,064,789
1924	8	2,231,954	217	286,977	4,851,264	5,911,530	1,060,266
1925	8	2,490,462	213	280,846	4,876,835	6,005,969	1,129,134
Rubber Footwear and Rubber Goods							
1921	35	54,237,618	9,798	9,759,365	16,857,124	39,469,786	22,612,662
1922	62	50,652,497	10,369	16,621,893	19,295,080	46,487,327	27,192,247
1923	40	56,061,625	11,646	12,329,117	26,335,306	56,512,947	30,177,641
1924	38	56,160,930	10,778	11,413,632	24,468,736	57,411,446	32,942,710
1925	40	65,562,734	12,964	14,143,165	38,389,352	78,229,574	39,840,222
Starch and Glucose							
1921	7	5,887,210	697	781,108	2,716,292	4,436,328	1,720,036
1922	9	5,674,843	551	543,156	2,242,282	3,871,977	1,629,695
1923	8	4,380,179	579	654,133	3,146,245	5,135,103	1,988,858
1924	7	4,803,122	556	649,980	3,665,350	5,241,908	1,576,558
1925	7	4,764,140	523	616,355	3,490,016	5,095,040	1,605,024
Refined Sugar							
1921	7	35,783,067	2,469	3,182,894	56,882,242	69,509,827	12,627,585
1922	7	36,691,472	2,745	3,265,972	56,493,942	70,822,782	14,328,840
1923	7	45,618,182	2,393	3,329,662	61,817,862	77,001,026	15,186,164
1924	7	46,229,188	2,387	3,399,826	55,071,573	67,292,122	12,220,549
1925	8	59,089,717	2,784	3,828,442	51,457,385	68,445,879	13,988,494
Tanned Leather							
1921	119	32,137,488	3,707	4,081,062	15,157,358	22,905,528	7,748,170
1922	116	32,818,775	3,854	4,302,918	15,754,951	24,291,884	8,536,933
1923	123	30,348,468	3,787	4,302,069	16,458,674	23,633,105	7,174,491
1924	114	30,031,624	3,907	4,416,572	16,486,261	25,655,675	9,169,414
1925	104	30,095,917	3,523	4,151,058	17,904,138	26,141,217	8,237,079
Tallow and Animal Oils							
1921	7	196,652	33	42,064	175,429	304,459	129,030
1922	7	202,251	41	44,106	153,862	326,973	176,111
1923	8	797,414	110	132,444	254,667	595,331	340,664
1924	5	734,006	104	120,210	350,156	527,237	177,081
1925	6	761,483	107	124,304	395,830	589,764	193,934
Textiles—Dyed, Cleaned and Finished							
1921	530	7,498,834	6,807	6,150,698	1,600,800	13,413,787	11,812,987
1922	620	8,740,368	7,496	6,538,832	1,733,273	14,649,726	12,916,453
1923	605	10,798,737	7,969	7,156,359	1,824,628	15,551,684	13,727,056
1924	518	14,930,859	8,065	7,409,786	2,218,800	15,577,050	13,358,160
1925	343	15,857,978	7,827	7,314,822	2,433,055	15,578,482	13,145,429
Pulp and Paper							
1921	100	379,812,751	24,611	34,199,090	62,276,224	151,003,165	88,726,041
1922	104	381,006,324	25,830	32,918,955	64,692,722	158,950,956	94,258,234
1923	110	417,611,678	29,234	38,382,845	71,322,722	184,414,675	113,091,953
1924	115	459,457,696	27,627	37,649,528	72,233,876	179,259,504	107,025,628
1925	114	460,397,772	28,031	38,560,905	76,514,990	193,092,937	116,577,947

TABLE 1.—SUMMARY STATISTICS—Continued

(b) Other Industries using Chemical Processes Classified according to their Principal Products—Concluded

Year	Number of plants	Capital employed	Number of employees	Salaries and wages	Cost of materials	Selling value of products	Value added by manufacturing
		$		$	$	$	$
Wood—Creosoted or Otherwise Preserved							
1921	3	1,469,781	49	65,555	691,055	1,017,771	326,716
1922	5	2,018,085	179	146,351	1,737,605	2,484,536	746,931
1923	6	2,133,137	213	175,478	1,285,733	1,973,705	687,972
1924	8	2,700,646	238	159,599	1,446,870	2,148,818	701,948
1925	10	Data not available as these are operated by 2 firms.					
Coke							
1921	5	19,866,300	647	1,222,789	12,295,797	14,214,728	1,918,931
1922	6	20,363,785	533	716,893	6,130,628	7,336,627	1,205,999
1923	5	20,494,442	598	842,376	11,437,863	13,901,445	2,463,582
1924	6	24,315,744	530	900,992	6,879,516	10,438,462	3,558,946
1925	6	23,905,454	583	885,637	7,112,311	11,020,298	3,907,987
Illuminating and Fuel Gas							
1921	50	37,097,280	2,818	3,984,976	9,279,697	18,772,285	9,492,588
1922	48	39,615,765	3,107	3,974,765	8,580,208	19,089,170	10,508,962
1923	45	45,520,495	3,021	3,801,832	9,024,084	19,605,340	10,581,256
1924	44	42,818,276	3,648	4,835,351	6,772,576	18,101,724	11,329,148
1925	44	46,129,651	3,804	5,057,702	6,178,609	17,874,479	11,695,870
Glass							
1921	48	13,725,482	3,097	3,621,768	3,074,358	11,401,932	7,487,574
1922	45	15,053,327	2,984	3,369,854	3,287,691	8,842,588	5,555,497
1923	46	14,892,372	3,350	3,778,862	3,714,515	11,098,026	7,383,511
1924	48	13,304,814	3,137	3,666,213	3,667,660	10,776,816	7,109,156
1925	52	12,694,338	2,778	3,291,912	4,029,035	10,117,604	6,088,569
Petroleum Products							
1921	16	57,564,588	4,014	6,182,514	36,629,576	52,932,415	16,302,839
1922	19	62,054,629	3,555	5,492,683	38,413,191	57,035,563	18,622,372
1923	20	61,027,704	4,257	5,648,320	36,816,696	46,280,534	9,463,838
1924	25	53,795,794	3,669	5,749,705	37,092,711	49,411,067	12,318,356
1925	21	50,580,549	3,738	5,775,046	38,261,024	50,762,127	12,501,103
Artificial Ice							
1921	18	1,775,206	302	502,248	46,368	1,153,249	1,106,881
1922	23	2,244,904	282	415,582	53,827	1,058,021	1,004,194
1923	24	3,422,571	244	343,549	48,179	1,010,363	962,184
1924	25	4,557,912	309	424,665	102,452	1,202,344	1,099,892
1925	26	4,616,317	303	443,055	104,991	1,338,554	1,233,563
Totals for Other Industries Using Chemical Processes							
1921	**1,033**	**702,976,821**	**63,134**	**79,677,142**	**237,067,261**	**448,711,040**	**211,643,779**
1922	**1,156**	**713,905,038**	**65,260**	**77,581,153**	**234,432,826**	**453,331,793**	**219,098,967**
1923	**1,137**	**775,182,958**	**71,502**	**86,603,524**	**261,924,348**	**500,189,240**	**238,264,892**
1924	**1,065**	**830,193,871**	**70,087**	**87,991,546**	**256,659,408**	**498,834,251**	**242,174,843**
***1925**	**896**	**853,717,399**	**72,789**	**91,978,139**	**277,585,188**	**542,291,261**	**264,706,272**
GRAND TOTAL—all Industries							
1921	**1,502**	**821,682,310**	**75,803**	**95,956,731**	**280,413,051**	**537,612,587**	**257,199,536**
1922	**1,625**	**831,930,521**	**79,344**	**91,354,956**	**281,352,294**	**549,475,978**	**268,123,184**
1923	**1,612**	**901,720,439**	**86,651**	**105,037,203**	**316,582,410**	**611,433,396**	**294,850,986**
1924	**1,522**	**956,689,556**	**83,883**	**105,006,025**	**310,971,321**	**607,851,488**	**296,880,167**
***1925**	**1,406**	**980,200,747**	**86,740**	**109,447,196**	**333,884,448**	**655,198,267**	**321,313,799**

* Includes data for wood creosoted or otherwise preserved.

TABLE 1.—SUMMARY STATISTICS—Concluded

(c) Number of Plants, Materials Used and Products Made in the Chemical Industries in Canada, by Provinces, 1924 and 1925

Province	1924				1925			
	Number of plants	Cost of materials	Value of products	Value added by manufacturing	Number of plants	Cost of materials	Value of products	Value added by manufacturing
		$	$	$		$	$	$
(a) Chemicals and Allied Products—								
Nova Scotia	11	738,681	1,808,531	1,069,850	12	701,110	1,461,152	760,042
New Brunswick	9	746,892	1,360,114	553,222	9	734,941	1,166,908	431,967
Quebec	129	18,722,758	36,253,426	17,530,668	140	16,679,967	34,799,853	18,119,886
Ontario	244	28,735,764	59,046,932	30,311,168	278	32,991,217	65,524,984	32,533,767
Manitoba	25	2,300,182	4,414,528	2,114,346	27	2,559,737	4,887,107	2,327,370
Saskatchewan, Alberta	10	234,562	463,092	228,530	11	280,705	461,572	180,867
British Columbia	29	2,833,074	4,930,614	2,097,540	33	2,351,542	4,605,170	2,253,628
Canada	**457**	**54,311,913**	**108,217,237**	**53,905,324**	**510**	**56,299,219**	**112,906,746**	**56,607,527**
(b) Other Industries Using Chemical Processes—								
Prince Edward Island	5	42,916	75,818	32,902	5	25,918	57,046	31,128
Nova Scotia	33	12,514,346	18,118,518	5,604,172	35	13,164,988	18,669,456	5,504,468
New Brunswick	33	15,732,180	22,753,122	7,020,942	32	19,528,236	27,937,820	8,409,584
Quebec	221	77,390,839	*151,054,220	*73,663,391	230	85,138,014	184,977,568	99,839,554
Ontario	486	114,462,348	*186,719,388	*66,257,040	375	124,274,079	239,693,676	115,419,597
Manitoba	67	3,862,027	9,703,849	5,841,822	52	4,027,683	10,270,713	6,243,030
Saskatchewan, Alberta	89	11,435,030	19,789,099	8,354,069	67	11,634,197	20,920,015	9,285,818
British Columbia	131	21,219,722	*39,208,781	*17,989,059	100	19,792,074	39,765,167	19,873,093
Canada	**1,065**	**256,659,408**	**498,834,251**	**242,174,843**	**896**	**277,585,189**	**542,291,461**	**264,706,272**
(c) Grand Total—								
Prince Edward Island	5	42,916	75,818	32,902	5	25,918	57,046	31,128
Nova Scotia	44	13,253,027	19,927,049	6,674,022	47	13,866,098	20,130,608	6,264,510
New Brunswick	42	16,479,072	24,053,236	7,574,164	41	20,263,177	29,104,728	8,841,551
Quebec	350	96,113,597	*187,307,656	*91,194,059	370	101,817,981	219,777,421	117,959,440
Ontario	730	143,198,112	*239,766,320	*96,568,208	653	157,265,296	305,218,660	147,953,364
Manitoba	92	6,162,209	14,118,377	7,956,168	79	6,587,420	15,157,820	8,570,400
Saskatchewan, Alberta	99	11,669,592	20,252,191	8,582,599	78	11,914,902	21,381,587	9,466,685
British Columbia	160	24,052,796	*34,139,395	*20,086,599	133	22,143,610	44,370,337	22,226,721
Canada	**1,522**	**310,971,321**	**607,051,488**	**296,080,167**	**1,406**	**333,884,408**	**655,198,207**	**321,313,799**

*Data for the value of products and for the value added by manufacturing in the rubber footwear and rubber goods industry are not included in the provincial totals but they are included in the Canada totals.

Table 2.—Historical Summary of the Chemicals and Allied Products Industry in Canada, 1880-1925

Year	Number of plants	Capital employed	Number of employees	Salaries and wages	Cost of materials	Value of products	Value added by manufacturing
		$		$	$	$	$
1880-81	474	3,449,287	2,340	711,413	3,516,364	5,836,556	2,320,192
1891	143	5,317,777	2,318	926,580	–	7,459,511	–
1901	136	8,444,975	2,389	832,972	–	9,132,990	–
1911	225	28,574,364	5,352	2,384,563	13,775,634	27,243,926	13,468,292
1917	419	106,838,052	13,126	9,996,022	56,994,355	114,982,473	57,988,118
1918	431	108,121,600	14,836	15,113,533	77,592,651	149,273,449	71,680,798
1919	429	111,760,019	15,607	16,384,429	50,384,133	98,554,310	48,170,177
1920	457	118,840,897	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
1924	457	126,495,685	13,796	17,074,529	54,311,913	108,217,237	53,905,324
1925	510	126,483,348	13,951	17,469,157	56,299,219	112,906,746	56,607,527

Table 3.—Imports into Canada and Exports of Chemicals and Allied Products during the Fiscal Years ending March 31, 1895-1926

Imports					Exports				
Fiscal Year	United Kingdom	United States	Other Countries	Total Imports	Fiscal Year	United Kingdom	United States	Other Countries	Total exports
	$	$	$	$		$	$	$	$
1895	1,174,408	1,614,021	679,871	3,469,200	1895	204,089	199,876	58,306	462,271
1896	1,276,645	1,761,582	802,579	3,840,806	1896	240,574	182,026	59,061	481,661
1897	1,205,029	1,853,837	745,691	3,804,557	1897	142,329	157,802	82,810	382,941
1898	1,311,441	2,199,559	995,061	4,506,061	1898	120,834	172,360	99,614	392,808
1899	1,479,598	2,450,280	1,046,541	4,976,419	1899	172,782	197,723	129,402	499,907
1900	1,743,473	2,674,519	1,007,355	5,425,347	1900	232,025	114,388	110,517	456,930
1901	1,770,468	2,927,679	994,417	5,692,564	1901	245,905	377,982	168,088	791,975
1902	1,601,971	3,373,581	1,268,421	6,243,973	1902	240,375	581,741	181,308	1,003,424
1903	1,849,785	3,757,950	1,376,794	6,984,529	1903	213,173	653,954	268,217	1,135,344
1904	1,828,884	3,830,826	1,443,799	7,103,509	1904	178,779	707,603	324,977	1,211,359
1905	1,988,784	4,106,188	1,467,730	7,562,702	1905	292,171	777,721	332,725	1,402,617
1906	2,395,823	4,358,284	1,497,271	8,251,378	1906	411,925	902,430	470,445	1,784,800
1907	2,422,444	3,502,662	1,134,719	7,059,825	1907	327,688	712,524	320,991	1,361,203
1908	3,345,643	5,030,924	1,537,668	9,914,235	1908	343,776	1,052,636	592,043	1,988,455
1909	3,016,650	5,096,238	1,308,063	9,420,951	1909	358,472	1,073,620	612,376	2,044,468
1910	3,236,106	6,141,469	1,394,134	10,771,709	1910	527,404	1,483,934	656,169	2,667,507
1911	3,553,692	6,981,961	1,954,123	12,489,776	1911	543,300	1,684,008	673,071	2,900,379
1912	3,860,127	7,940,071	2,130,729	13,930,927	1912	504,691	1,606,411	863,473	2,974,575
1913	4,411,455	10,220,001	3,011,005	17,642,461	1913	613,595	2,270,631	934,196	3,818,422
1914	4,293,412	9,583,462	3,227,519	17,104,393	1914	496,469	3,169,015	968,057	4,633,541
1915	3,061,189	9,907,278	1,418,379	14,386,846	1915	649,334	3,749,631	803,016	5,291,981
1916	2,957,776	15,192,511	1,108,039	19,258,326	1916	7,640,515	6,757,005	1,550,960	15,948,480
1917	4,183,090	23,151,423	1,338,485	28,672,998	1917	32,503,751	15,137,772	4,861,412	52,502,935
1918	3,316,961	23,262,817	1,260,798	27,840,576	1918	27,856,626	17,576,572	3,697,886	49,131,084
1919	3,307,095	28,719,765	2,165,787	34,282,647	1919	20,176,855	30,671,606	5,951,338	56,799,799
1920	4,154,345	23,854,300	1,877,457	29,886,102	1920	3,595,936	13,803,067	5,182,046	22,581,049
1921	6,048,717	26,776,364	3,509,531	36,334,612	1921	3,225,947	11,694,858	4,661,246	19,582,051
1922	3,238,465	17,688,482	3,114,938	24,041,885	1922	939,529	5,937,114	2,394,384	9,271,027
1923	3,636,013	18,414,962	3,742,126	25,793,101	1923	1,984,441	7,951,543	4,110,956	14,046,940
1924	4,203,326	18,409,812	3,474,903	26,088,041	1924	3,188,187	7,598,432	4,773,337	15,559,956
1925	4,146,061	16,366,165	4,248,011	24,760,237	1925	3,805,628	7,826,076	4,578,116	16,209,820
1926	4,282,489	18,754,942	5,366,845	28,404,276	1926	3,318,614	9,204,155	4,975,359	17,498,128

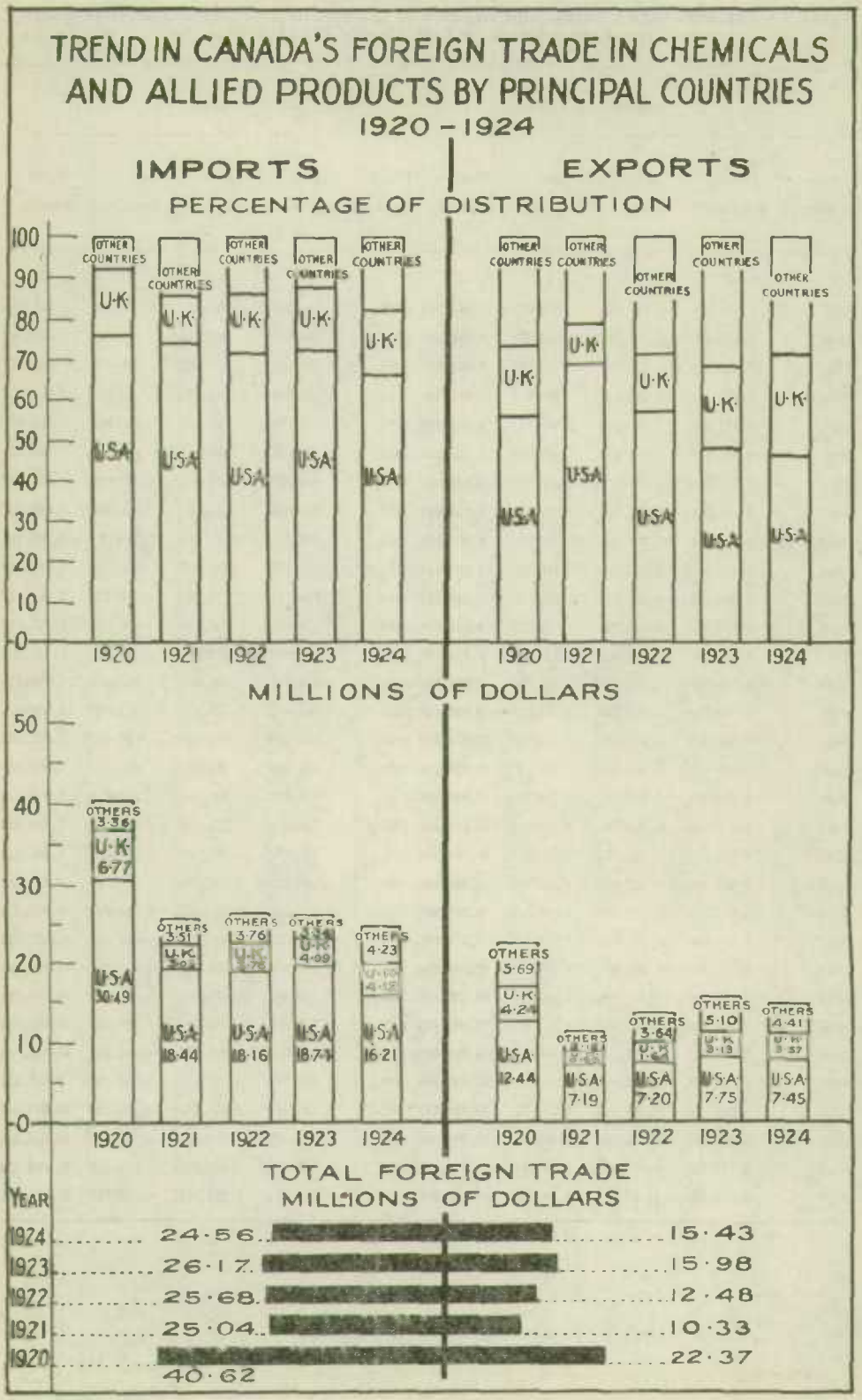

TREND IN CANADA'S FOREIGN TRADE IN CHEMICALS AND ALLIED PRODUCTS BY PRINCIPAL COUNTRIES
1920 – 1924
IMPORTS
EXPORTS
PERCENTAGE OF DISTRIBUTION
OTHER COUNTRIES
U·K·
U·S·A·
1920
1921
1922
1923
1924
MILLIONS OF DOLLARS
OTHERS 3·36
U·K· 6·77
U·S·A 30·49
OTHERS 3·51
U·K· 3·02
U·S·A· 18·44
OTHERS 3·76
U·K· 3·78
U·S·A· 18·16
OTHERS 3·34
U·K· 4·09
U·S·A 18·71
OTHERS 4·23
U·K· 4·15
U·S·A 16·21
OTHERS 5·69
U·K· 4·24
U·S·A· 12·44
OTHERS 3·18
U·K· 2·46
U·S·A· 7·19
OTHERS 3·64
U·K· 1·86
U·S·A 7·20
OTHERS 5·10
U·K· 3·13
U·S·A· 7·75
OTHERS 4·41
U·K· 3·37
U·S·A· 7·45
TOTAL FOREIGN TRADE
MILLIONS OF DOLLARS
YEAR
1924 24·56 15·43
1923 26·17 15·98
1922 25·68 12·48
1921 25·04 10·33
1920 40·62 22·37

Table 4.—Principal Statistics Relative to the Manufacture of Chemicals and Allied Products in Canada, by Industries and by Provinces, 1924

Industry	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan and Alberta	British Columbia	*Canada
COAL TAR AND ITS PRODUCTS—								
Number of plants	1	–	4	6	2	–	1	14
Capital employed $	–	–	1,407,315	910,367	–	–	–	3,089,995
Number of salaried employees–								
Male	–	–	12	15	–	–	–	32
Female	–	–	1	3	–	–	–	6
Number of wage-earners—								
Male	–	–	71	41	–	–	–	167
Female	–	–	–	3	–	–	–	3
Total employees	–	–	84	62	–	–	–	208
Salaries $	–	–	26,669	33,995	–	–	–	76,343
Wages $	–	–	82,590	57,579	–	–	–	204,385
Total $	–	–	109,259	91,574	–	–	–	280,728
Cost of fuel and electricity $	–	–	39,283	22,439	–	–	–	90,688
Cost of materials $	–	–	534,799	354,357	–	–	–	1,137,497
Value of products $	–	–	922,003	802,154	–	–	–	2,637,573
ACIDS, ALKALIES, SALTS AND COMPRESSED GASES—								
Number of plants	3	–	11	18	4	1	4	41
Capital employed $	–	–	8,992,123	23,550,127	558,895	–	635,491	34,298,071
Number of salaried employees–								
Male	–	–	107	264	12	–	12	411
Female	–	–	23	47	4	–	2	81
Number of wage-earners—								
Male	–	–	511	1,325	16	–	35	1,909
Female	–	–	1	10	–	–	1	12
Total employees	–	–	642	1,646	32	–	50	2,413
Salaries $	–	–	292,815	588,921	30,355	–	28,053	978,483
Wages $	–	–	584,444	1,801,326	22,897	–	57,258	2,490,837
Total $	–	–	877,259	2,390,247	53,252	–	85,311	3,469,320
Cost of fuel and electricity $	–	–	411,456	1,387,754	16,459	–	9,011	1,836,751
Cost of materials used—								
Purchased $	–	–	1,447,095	2,502,120	82,189	–	96,260	4,190,727
Firms' own make $	–	–	39,118	7,382,808	–	–	–	7,425,916
Total $	–	–	1,486,213	9,884,928	82,189	–	96,260	11,616,643
Value of products—								
Made for use $	–	–	39,118	7,391,865	–	–	–	7,437,073
Made for sale $	–	–	6,074,518	11,856,847	206,606	–	389,828	18,804,649
Total $	–	–	6,113,636	19,248,712	206,606	–	389,828	26,241,722
EXPLOSIVES, AMMUNITION, FIREWORKS AND MATCHES—								
Number of plants	–	–	8	8	–	–	2	18
Capital employed $	–	–	12,412,905	1,840,947	–	–	–	20,457,440
Number of salaried employees–								
Male	–	–	138	14	–	–	–	195
Female	–	–	15	8	–	–	–	26
Number of wage-earners—								
Male	–	–	1,022	141	–	–	–	1,298
Female	–	–	543	112	–	–	–	655
Total employees	–	–	1,718	275	–	–	–	2,174
Salaries $	–	–	335,391	48,251	–	–	–	488,110
Wages $	–	–	1,247,472	148,401	–	–	–	1,571,532
Total $	–	–	1,582,863	196,652	–	–	–	2,059,642
Cost of fuel and electricity $	–	–	209,097	11,926	–	–	–	277,554
Cost of materials used—								
Purchased $	–	–	3,374,119	481,260	–	–	–	4,492,775
Firms' own make $	–	–	3,186,738	–	–	–	–	4,294,617
Total $	–	–	6,560,857	481,260	–	–	–	8,787,392
Value of products—								
Made for use $	–	–	3,186,738	–	–	–	–	4,294,617
Made for sale $	–	–	6,760,744	757,887	–	–	–	9,015,698
Total $	–	–	9,947,482	757,887	–	–	–	13,310,315
FERTILIZERS—								
Number of plants	1	2	–	7	1	–	3	14
Capital employed $	–	–	–	638,474	–	–	188,018	2,972,488
Number of salaried employees–								
Male	–	–	–	17	–	–	5	38
Female	–	–	–	4	–	–	–	13
Number of wage-earners—								
Male	–	–	–	59	–	–	14	115
Female	–	–	–	–	–	–	–	–
Total employees	–	–	–	80	–	–	19	166
Salaries $	–	–	–	32,480	–	–	10,800	64,176
Wages $	–	–	–	41,431	–	–	17,097	95,134
Total $	–	–	–	73,911	–	–	27,897	159,310
Cost of fuel and electricity $	–	–	–	7,292	–	–	2,458	24,872
Cost of materials $	–	–	–	389,819	–	–	85,650	730,158
Value of products $	–	–	–	636,984	–	–	164,704	1,277,145

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

Table 4.—Principal Statistics Relative to the Manufacture of Chemicals and Allied Products in Canada, by Industries and by Provinces, 1924—Continued

Industry	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan and Alberta	British Columbia	*Canada
MEDICINAL AND PHARMACEUTICAL PREPARATIONS—								
Number of plants	2	1	28	66	6	–	1	104
Capital employed $	–	–	2,756,992	9,779,555	2,533,955	–	–	15,156,479
Number of salaried employees—								
Male	–	–	98	315	17	–	–	439
Female	–	–	32	175	14	–	–	222
Number of wage-earners—								
Male	–	–	161	431	44	–	–	645
Female	–	–	240	582	44	–	–	887
Total employees	–	–	531	1,503	119	–	–	2,193
Salaries $	–	–	366,501	1,014,127	48,075	–	–	1,444,005
Wages $	–	–	288,625	828,824	86,293	–	–	1,222,992
Total $	–	–	655,126	1,842,951	134,368	–	–	2,666,997
Cost of fuel and electricity $	–	–	26,549	59,180	7,194	–	–	93,391
Cost of materials $	–	–	1,116,655	3,088,228	649,656	–	–	4,895,352
Value of products $	–	–	2,996,562	8,617,695	1,537,100	–	–	13,350,347
PAINTS, PIGMENTS AND VARNISHES—								
Number of plants	1	–	14	26	4	1	9	55
Capital employed $	–	–	11,214,334	6,691,837	887,766	–	1,195,291	20,587,856
Number of salaried employees—								
Male	–	–	218	295	40	–	33	599
Female	–	–	63	81	10	–	18	175
Number of wage-earners—								
Male	–	–	699	411	92	–	83	1,340
Female	–	–	97	58	9	–	7	173
Total employees	–	–	1,677	843	151	–	141	2,387
Salaries $	–	–	631,153	793,435	98,969	–	86,135	1,632,342
Wages $	–	–	677,794	495,422	111,069	–	82,970	1,411,886
Total $	–	–	1,308,947	1,288,857	209,978	–	169,105	3,044,228
Cost of fuel and electricity $	–	–	173,012	78,383	17,021	–	6,752	282,654
Cost of materials used—								
Purchased $	–	–	5,089,840	3,163,761	659,765	–	475,476	9,778,525
Firms' own make $	–	–	395,364	1,173,664	209,146	–	28,138	1,896,312
Total $	–	–	5,485,204	4,337,425	958,911	–	503,614	11,674,837
Value of products—								
Made for use $	–	–	450,807	1,212,464	32,734	–	28,138	2,013,143
Made for sale $	–	–	8,474,853	6,863,691	1,217,209	–	1,006,298	18,187,681
Total $	–	–	8,925,660	8,076,155	1,538,943	–	1,034,436	20,200,824
SOAPS, WASHING COMPOUNDS AND TOILET PREPARATIONS—								
Number of plants	–	1	20	33	3	5	4	66
Capital employed $	–	–	3,005,476	10,821,930	1,181,682	407,450	–	16,367,069
Number of salaried employees—								
Male	–	–	125	232	38	18	–	443
Female	–	–	42	100	10	1	–	158
Number of wage-earners—								
Male	–	–	192	564	50	22	–	899
Female	–	–	119	242	12	9	–	404
Total employees	–	–	478	1,138	110	50	–	1,904
Salaries $	–	–	321,807	604,316	68,739	28,481	–	1,093,195
Wages $	–	–	258,674	786,455	92,639	35,851	–	1,265,565
Total $	–	–	580,481	1,390,771	161,378	64,332	–	2,359,060
Cost of fuel and electricity $	–	–	49,263	183,931	21,324	4,480	–	280,104
Cost of materials $	–	–	1,583,124	5,518,798	480,500	214,313	–	8,782,085
Value of products $	–	–	3,448,408	9,889,493	838,114	386,368	–	15,965,318
INKS, DYES AND COLOURS—								
Number of plants	–	1	6	11	2	1	3	24
Capital employed $	–	–	422,005	1,882,515	–	–	20,270	2,391,859
Number of salaried employees—								
Male	–	–	13	70	–	–	1	88
Female	–	–	6	19	–	–	–	26
Number of wage-earners—								
Male	–	–	28	183	–	–	3	221
Female	–	–	30	12	–	–	–	42
Total employees	–	–	77	284	–	–	4	377
Salaries $	–	–	41,244	293,972	–	–	1,600	347,827
Wages $	–	–	54,971	221,208	–	–	2,932	284,780
Total $	–	–	96,215	515,178	–	–	4,532	632,607
Cost of fuel and electricity $	–	–	6,221	21,611	–	–	258	28,749
Cost of materials $	–	–	200,518	693,378	–	–	15,205	942,325
Value of products $	–	–	556,693	1,984,887	–	–	53,471	2,656,400

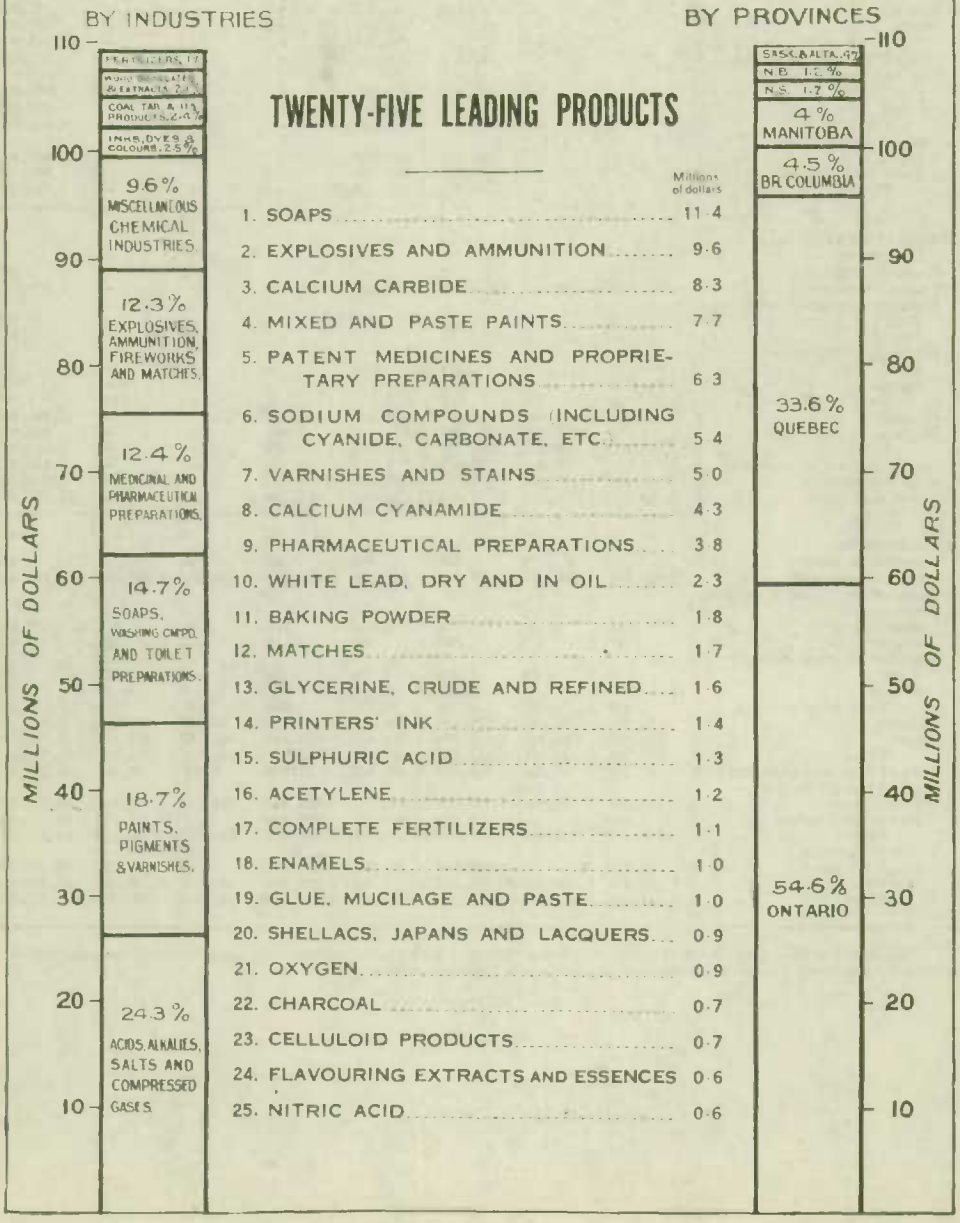
*Where fewer than three firms in one province were engaged in the same industry, the data for these companies are not shown by provinces, but they are included in the Canada totals for each industry.

Table 4.—Principal Statistics Relative to the Manufacture of Chemicals and Allied Products in Canada, by Industries and by Provinces, 1924—Concluded

Industry	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan and Alberta	British Columbia	*Canada
WOOD DISTILLATES AND EXTRACTS—								
Number of plants	–	–	6	6	–	–	–	12
Capital employed $	–	–	1,387,072	1,397,609	–	–	–	2,784,681
Number of salaried employees—								
Male	–	–	11	12	–	–	–	23
Female	–	–	1	–	–	–	–	1
Number of wage-earners—								
Male	–	–	116	226	–	–	–	342
Female	–	–	–	1	–	–	–	1
Total employees	–	–	128	239	–	–	–	367
Salaries $	–	–	19,650	21,732	–	–	–	41,382
Wages $	–	–	107,803	234,865	–	–	–	342,668
Total $	–	–	127,453	256,597	–	–	–	384,050
Cost of fuel and electricity $	–	–	82,475	166,341	–	–	–	248,816
Cost of materials used—								
Purchased $	–	–	156,397	435,990	–	–	–	592,387
Firms' own make $	–	–	333,606	129,665	–	–	–	463,271
Total $	–	–	490,003	565,655	–	–	–	1,055,658
Value of products—								
Made for use $	–	–	185,351	263,616	–	–	–	448,967
Made for sale $	–	–	859,755	974,700	–	–	–	1,834,455
Total $	–	–	1,045,106	1,238,316	–	–	–	2,283,422
MISCELLANEOUS CHEMICAL INDUSTRIES—								
Number of plants	3	4	32	63	3	2	2	109
Capital employed $	43,190	52,862	2,449,894	6,637,090	62,037	–	–	9,279,747
Number of salaried employees—								
Male	4	1	111	307	2	–	–	427
Female	–	1	31	160	–	–	–	192
Number of wage-earners—								
Male	10	9	257	468	4	–	–	752
Female	2	5	112	216	–	–	–	336
Total employees	16	16	511	1,151	6	–	–	1,787
Salaries $	3,672	2,340	242,916	808,868	3,240	–	–	1,064,636
Wages $	6,010	17,098	273,307	647,048	3,695	–	–	953,951
Total $	9,682	19,438	516,223	1,455,916	6,935	–	–	2,018,587
Cost of fuel and electricity $	5,437	2,292	37,862	110,582	18	–	–	156,871
Cost of materials $	7,617	57,375	1,165,385	3,421,916	10,605	–	–	4,689,966
Value of products $	32,769	74,334	2,297,876	7,794,649	28,359	–	–	10,294,171
All Industries—								
Number of plants	**11**	**9**	**129**	**244**	**25**	**10**	**29**	**457**
Capital employed $	**2,058,565**	**1,305,674**	**44,048,116**	**64,150,460**	**5,457,453**	**538,090**	**8,937,327**	**126,495,685**
Number of salaried employees—								
Male	**41**	**30**	**833**	**1,541**	**114**	**26**	**110**	**2,695**
Female	**13**	**8**	**214**	**597**	**40**	**2**	**26**	**900**
Number of wage-earners—								
Male	**143**	**63**	**3,057**	**3,849**	**225**	**28**	**323**	**7,688**
Female	**12**	**24**	**1,142**	**1,234**	**65**	**9**	**27**	**2,513**
Total employees	**209**	**125**	**5,246**	**7,221**	**444**	**65**	**486**	**13,796**
Salaries $	**74,898**	**59,893**	**2,278,116**	**4,210,097**	**264,466**	**44,169**	**269,130**	**7,230,799**
Wages $	**130,395**	**85,914**	**3,575,680**	**5,262,557**	**339,405**	**43,267**	**406,512**	**9,843,730**
Total $	**205,293**	**145,807**	**5,853,826**	**9,502,654**	**603,871**	**87,436**	**675,642**	**17,074,529**
Cost of fuel and electricity $	**51,270**	**20,356**	**1,035,718**	**2,049,439**	**71,329**	**6,431**	**86,407**	**3,320,450**
Cost of materials used—								
Purchased $	**734,691**	**746,892**	**14,767,932**	**20,049,627**	**2,001,036**	**234,562**	**1,691,807**	**40,226,547**
Firms' own make $	**3,990**	**–**	**3,954,826**	**8,686,137**	**299,146**	**–**	**1,141,267**	**14,085,366**
Total $	**738,681**	**746,892**	**18,722,758**	**28,735,764**	**2,300,182**	**234,562**	**2,833,074**	**54,311,913**
Value of products—								
Made for use $	**6,090**	**–**	**3,862,011**	**8,867,945**	**321,734**	**–**	**1,141,267**	**14,199,050**
Made for sale $	**1,802,441**	**1,300,114**	**32,391,412**	**50,178,987**	**4,092,794**	**463,092**	**3,789,347**	**94,018,187**
Total $	**1,808,531**	**1,300,114**	**36,253,426**	**59,046,932**	**4,414,528**	**463,092**	**4,930,614**	**108,217,237**

*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.

PRODUCTION OF CHEMICALS AND ALLIED PRODUCTS IN CANADA 1924



TWENTY-FIVE LEADING PRODUCTS

	Millions of dollars
1. SOAPS	11·4
2. EXPLOSIVES AND AMMUNITION	9·6
3. CALCIUM CARBIDE	8·3
4. MIXED AND PASTE PAINTS	7·7
5. PATENT MEDICINES AND PROPRIETARY PREPARATIONS	6·3
6. SODIUM COMPOUNDS (INCLUDING CYANIDE, CARBONATE, ETC.)	5·4
7. VARNISHES AND STAINS	5·0
8. CALCIUM CYANAMIDE	4·3
9. PHARMACEUTICAL PREPARATIONS	3·8
10. WHITE LEAD, DRY AND IN OIL	2·3
11. BAKING POWDER	1·8
12. MATCHES	1·7
13. GLYCERINE, CRUDE AND REFINED	1·6
14. PRINTERS' INK	1·4
15. SULPHURIC ACID	1·3
16. ACETYLENE	1·2
17. COMPLETE FERTILIZERS	1·1
18. ENAMELS	1·0
19. GLUE, MUCILAGE AND PASTE	1·0
20. SHELLACS, JAPANS AND LACQUERS	0·9
21. OXYGEN	0·9
22. CHARCOAL	0·7
23. CELLULOID PRODUCTS	0·7
24. FLAVOURING EXTRACTS AND ESSENCES	0·6
25. NITRIC ACID	0·6

Table 5.—Principal Statistics Relative to the Manufacture of Chemicals and Allied Products in Canada, by Industries and by Provinces, 1925

Industry	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan and Alberta	British Columbia	*Canada
COAL TAR AND ITS PRODUCTS—								
Number of plants	1	–	4	8	1	–	1	15
Capital employed $	–	–	1,221,676	1,393,867	–	–	–	3,281,332
Number of salaried employees—								
Male	–	–	13	17	–	–	–	35
Female	–	–	1	5	–	–	–	8
Number of wage-earners—								
Male	–	–	65	39	–	–	–	144
Female	–	–	–	3	–	–	–	3
Total employees	–	–	79	64	–	–	–	190
Salaries $	–	–	25,733	43,075	–	–	–	84,939
Wages $	–	–	77,603	56,781	–	–	–	190,477
Total $	–	–	103,336	99,856	–	–	–	275,416
Cost of fuel and electricity $	–	–	36,594	23,400	–	–	–	83,945
Cost of materials $	–	–	635,345	454,680	–	–	–	1,418,892
Value of products $	–	–	1,109,262	880,597	–	–	–	2,622,821
ACIDS, ALKALIES, SALTS AND COMPRESSED GASES—								
Number of plants	3	–	10	18	3	1	5	40
Capital employed $	–	–	8,362,333	25,997,700	332,808	–	554,942	35,656,528
Number of salaried employees—								
Male	–	–	103	282	20	–	13	434
Female	–	–	20	66	8	–	3	102
Number of wage-earners—								
Male	–	–	485	1,298	16	–	44	1,865
Female	–	–	–	8	–	–	–	8
Total employees	–	–	608	1,654	44	–	66	2,409
Salaries $	–	–	256,197	638,704	38,240	–	30,218	1,001,360
Wages $	–	–	555,276	1,786,717	24,027	–	79,855	3,472,930
Total $	–	–	811,473	2,425,421	62,267	–	110,073	3,474,290
Cost of fuel and electricity $	–	–	418,891	1,455,417	6,379	–	8,693	1,902,911
Cost of materials used—								
Purchased $	–	–	1,368,007	2,739,120	46,571	–	95,765	4,326,557
Firms' own make $	–	–	9,787	8,500,842	–	–	–	8,516,699
Total $	–	–	1,377,794	11,239,962	46,571	–	95,765	12,843,256
Value of products—								
Made for sale $	–	–	4,943,397	12,961,698	289,333	–	452,480	18,889,861
Made for use $	–	–	9,775	8,503,068	–	–	–	8,593,534
Total $	.....	.....	4,953,172	21,464,766	289,333	–	452,480	27,483,395
EXPLOSIVES, AMMUNITION, FIREWORKS AND MATCHES—								
Number of plants	–	–	7	7	–	–	1	15
Capital employed $	–	–	12,076,729	–	–	–	–	16,827,321
Number of salaried employees—								
Male	–	–	155	–	–	–	–	185
Female	–	–	21	–	–	–	–	31
Number of wage-earners—								
Male	–	–	993	–	–	–	–	1,301
Female	–	–	459	–	–	–	–	555
Total employees	–	–	1,628	–	–	–	–	2,072
Salaries $	–	–	409,354	–	–	–	–	507,154
Wages $	–	–	1,079,490	–	–	–	–	1,396,615
Total $	–	–	1,488,844	–	–	–	–	1,903,769
Cost of fuel and electricity $	–	–	200,042	–	–	–	–	253,008
Cost of materials used—								
Purchased $	–	–	3,220,271	–	–	–	–	4,561,406
Firms' own make $	–	–	1,690,006	–	–	–	–	2,287,515
Total $	–	–	4,919,277	–	–	–	–	6,848,921
Value of products—								
Made for sale $	–	–	7,369,059	–	–	–	–	10,025,640
Made for use $	–	–	1,690,006	–	–	–	–	2,287,515
Total $	–	–	9,059,065	–	–	–	–	12,313,155
FERTILIZERS—								
Number of plants	3	1	–	6	1	–	2	13
Capital employed $	1,011,202	–	–	768,093	–	–	–	2,095,608
Number of salaried employees—								
Male	13	–	–	13	–	–	–	35
Female	4	–	–	7	–	–	–	11
Number of wage-earners—								
Male	55	–	–	77	–	–	–	155
Female	–	–	–	–	–	–	–	–
Total employees	72	–	–	97	–	–	–	201
Salaries $	29,252	–	–	33,120	–	–	–	79,417
Wages $	44,169	–	–	59,329	–	–	–	125,756
Total $	73,421	–	–	92,449	–	–	–	205,173
Cost of fuel and electricity $	12,628	–	–	5,539	–	–	–	21,369
Cost of materials $	287,639	–	–	678,526	–	–	–	1,045,294
Value of products $	349,412	–	–	976,778	–	–	–	1,437,787

*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 5.—Principal Statistics Relative to the Manufacture of Chemicals and Allied Products in Canada, by Industries and by Provinces, 1925—Continued

Industry	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan and Alberta	British Columbia	*Canada
MEDICINAL AND PHARMACEUTICAL PREPARATIONS—								
Number of plants	2	2	30	77	6	1	2	120
Capital employed $	–	–	2,934,324	10,831,573	1,906,760	–	–	16,037,286
Number of salaried employees—								
Male	–	–	147	354	12	–	–	524
Female	–	–	35	194	7	–	–	240
Number of wage-earners—								
Male	–	–	179	444	51	–	–	688
Female	–	–	209	534	54	–	–	821
Total employees	–	–	570	1,526	124	–	–	2,273
Salaries $	–	–	382,260	1,071,350	39,012	–	–	1,525,593
Wages $	–	–	285,006	946,156	104,313	–	–	1,367,382
Total $	–	–	667,266	2,017,506	143,325	–	–	2,892,975
Cost of fuel and electricity $	–	–	23,692	62,170	7,497	–	–	94,820
Cost of materials $	–	–	962,906	3,067,317	759,703	–	–	4,798,120
Value of products $	–	–	2,777,680	9,223,383	1,732,348	–	–	13,987,849
PAINTS, PIGMENTS AND VARNISHES—								
Number of plants	1	–	17	29	4	1	10	62
Capital employed $	–	–	11,856,253	6,993,844	964,524	–	1,250,170	21,466,431
Number of salaried employees—								
Male	–	–	219	293	55	–	31	612
Female	–	–	66	89	10	–	14	183
Number of wage-earners—								
Male	–	–	693	459	96	–	82	1,379
Female	–	–	95	61	12	–	9	181
Total employees	–	–	1,073	902	173	–	136	2,355
Salaries $	–	–	631,091	796,794	103,186	–	68,473	1,628,885
Wages $	–	–	698,422	549,182	105,994	–	73,631	1,464,306
Total $	–	–	1,329,513	1,345,976	209,180	–	142,104	3,093,191
Cost of fuel and electricity $	–	–	172,352	90,381	20,055	–	6,077	293,893
Cost of materials used—								
Purchased $	–	–	4,847,122	3,672,243	699,979	–	550,310	9,974,106
Firms' own make $	–	–	555,783	1,728,233	329,577	–	26,296	2,639,889
Total $	–	–	5,402,905	5,400,476	1,029,556	–	576,615	12,613,995
Value of products—								
Made for sale $	–	–	8,597,258	7,931,938	1,396,098	–	1,131,880	19,539,082
Made for use $	–	–	619,877	1,728,233	329,780	–	26,296	2,701,186
Total $	–	–	9,217,135	9,660,171	1,725,878	–	1,158,176	22,234,268
SOAPS, WASHING COMPOUNDS AND TOILET PREPARATIONS—								
Number of plants	–	1	23	47	7	5	5	88
Capital employed $	–	–	2,896,164	11,076,202	1,372,301	409,274	–	16,731,558
Number of salaried employees—								
Male	–	–	108	248	33	15	–	435
Female	–	–	25	142	12	2	–	187
Number of wage-earners—								
Male	–	–	219	580	66	22	–	957
Female	–	–	140	289	12	9	–	471
Total employees	–	–	492	1,259	123	48	–	2,059
Salaries $	–	–	336,029	722,711	76,171	26,623	–	1,210,140
Wages $	–	–	317,261	843,133	89,600	38,587	–	1,378,367
Total $	–	–	653,290	1,565,844	165,771	65,210	–	2,618,507
Cost of fuel and electricity $	–	–	62,352	165,126	19,332	4,647	–	270,682
Cost of materials $	–	–	1,705,923	6,630,784	554,953	239,457	–	10,093,741
Value of products $	–	–	3,648,141	11,092,205	828,930	336,833	–	17,388,506
INKS, DYES AND COLOURS—								
Number of plants	–	1	6	14	2	1	3	27
Capital employed $	–	–	427,925	2,165,032	–	–	20,870	2,669,720
Number of salaried employees—								
Male	–	–	18	77	–	–	2	100
Female	–	–	8	23	–	–	–	32
Number of wage-earners—								
Male	–	–	21	199	–	–	3	231
Female	–	–	28	12	–	–	–	40
Total employees	–	–	75	311	–	–	5	403
Salaries $	–	–	50,437	296,155	–	–	2,300	359,188
Wages $	–	–	37,349	272,179	–	–	2,926	317,889
Total $	–	–	87,786	568,334	–	–	5,226	677,077
Cost of fuel and electricity $	–	–	6,439	19,088	–	–	186	26,350
Cost of materials $	–	–	103,043	755,381	–	–	17,481	968,830
Value of products $	–	–	499,405	2,133,548	–	–	63,506	2,749,807

*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 5.—Principal Statistics Relative to the Manufacture of Chemicals and Allied Products in Canada, by Industries and by Provinces, 1925—Continued

Industry	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan and Alberta	British Columbia	*Canada
WOOD DISTILLATES AND EXTRACTS—								
Number of plants	–	–	5	5	–	–	–	10
Capital employed $	–	–	1,330,645	956,464	–	–	–	2,287,109
Number of salaried employees—								
Male	–	–	12	10	–	–	–	22
Female	–	–	1	–	–	–	–	1
Number of wage-earners—								
Male	–	–	112	173	–	–	–	285
Female	–	–	–	1	–	–	–	1
Total employees	–	–	125	184	–	–	–	309
Salaries $	–	–	18,819	17,635	–	–	–	36,454
Wages $	–	–	82,765	119,629	–	–	–	202,394
Total $	–	–	101,584	137,264	–	–	–	238,848
Cost of fuel and electricity $	–	–	70,658	120,926	–	–	–	191,584
Cost of materials used—								
Purchased $	–	–	157,062	329,982	–	–	–	487,044
Firms' own make $	–	–	329,198	31,421	–	–	–	360,619
Total $	–	–	486,260	361,403	–	–	–	847,663
Value of products—								
Made for sale $	–	–	1,047,445	646,505	–	–	–	1,693,950
Made for use $	–	–	150,737	145,309	–	–	–	296,046
Total $	–	–	1,198,182	791,814	–	–	–	1,989,996
MISCELLANEOUS CHEMICAL INDUSTRIES—								
Number of plants	2	4	38	67	3	2	4	120
Capital employed $	–	52,813	2,565,344	6,723,918	36,738	–	35,283	9,436,455
Number of salaried employees—								
Male	–	3	128	302	3	–	2	441
Female	–	1	38	172	–	–	–	211
Number of wage-earners—								
Male	–	7	251	431	4	–	4	701
Female	–	4	107	221	1	–	1	336
Total employees	–	15	524	1,126	8	–	7	1,689
Salaries $	–	2,564	301,222	827,242	4,240	–	3,500	1,141,168
Wages $	–	12,888	288,518	633,088	5,595	–	4,161	948,743
Total $	–	15,452	589,740	1,460,930	9,835	–	7,661	2,089,911
Cost of fuel and electricity $	–	2,239	34,541	96,911	210	–	855	134,955
Cost of materials $	–	47,374	1,085,614	3,641,518	10,583	–	23,232	4,820,507
Value of products $	–	65,497	2,337,811	8,204,633	27,692	–	36,823	10,609,462
All Industries—								
Number of plants	**12**	**9**	**140**	**278**	**27**	**11**	**33**	**510**
Capital employed $	**2,193,140**	**820,252**	**43,671,393**	**68,618,224**	**4,868,479**	**559,618**	**5,752,242**	**126,483,348**
Number of salaried employees—								
Male	**41**	**27**	**903**	**1,606**	**127**	**28**	**91**	**2,823**
Female	**13**	**5**	**215**	**707**	**39**	**4**	**23**	**1,006**
Number of wage-earners—								
Male	**116**	**48**	**3,048**	**3,884**	**256**	**30**	**324**	**7,706**
Female	**11**	**23**	**1,038**	**1,225**	**79**	**9**	**31**	**2,416**
Total employees	**211**	**103**	**5,174**	**7,422**	**506**	**71**	**469**	**13,951**
Salaries $	**91,528**	**62,044**	**2,111,142**	**4,489,211**	**275,741**	**52,044**	**219,612**	**7,601,298**
Wages $	**133,158**	**74,838**	**3,421,690**	**5,430,506**	**354,397**	**45,481**	**404,786**	**9,864,859**
Total $	**227,686**	**136,882**	**5,532,832**	**9,919,720**	**630,111**	**97,528**	**624,398**	**17,469,157**
Cost of fuel and electricity $	**44,119**	**17,510**	**1,025,561**	**2,019,782**	**60,502**	**6,966**	**69,077**	**3,273,517**
Cost of materials used—								
Purchased $	**695,040**	**734,941**	**14,095,193**	**22,730,721**	**2,230,169**	**280,705**	**1,725,737**	**42,494,497**
Firms' own make $	**6,070**	**–**	**2,584,774**	**10,260,496**	**329,577**	**–**	**623,805**	**13,804,722**
Total $	**701,110**	**734,941**	**16,679,967**	**32,991,217**	**2,559,737**	**280,705**	**2,351,542**	**56,299,219**
Value of products—								
Made for sale $	**1,380,461**	**1,166,908**	**32,329,458**	**55,148,371**	**4,557,327**	**461,572**	**3,981,365**	**99,025,465**
Made for use $	**80,691**	**–**	**2,470,395**	**10,376,610**	**329,780**	**–**	**623,805**	**13,881,281**
Total $	**1,461,152**	**1,166,908**	**34,799,853**	**65,524,984**	**4,887,107**	**461,572**	**4,605,170**	**112,906,746**

*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 6.—Capital Employed in the Manufacture of Chemicals and Allied Product by Industries, 1924 and 1925

Industry	1924				1925			
	Capital employed as represented by				Capital employed as represented by			
	Lands, buildings, fixtures, machinery and tools	Materials on hand and stocks in process	Cash, trading and operating accounts	Total	Lands, buildings, fixtures, machinery and tools	Materials on hand and stocks in process	Cash, trading and operating accounts	Total
	$	$	$	$	$	$	$	$
Coal tar and its products	1,871,253	593,677	635,065	3,099,995	1,678,333	690,065	912,934	3,281,332
Acids, alkalies, salts and compressed gases	24,478,840	5,395,464	4,423,767	34,298,071	25,170,540	5,034,048	5,451,940	35,656,528
Explosives, ammunition, fireworks and matches	10,213,178	2,975,745	7,268,517	20,457,440	10,285,575	3,555,719	2,986,027	16,827,321
Fertilizers	567,284	445,261	1,059,943	2,072,488	829,988	538,647	726,973	2,095,608
Medicinal and pharmaceutical preparations	5,331,381	4,034,966	5,790,132	15,156,479	5,552,830	4,188,037	6,296,419	16,037,286
Paints, pigments and varnishes	8,616,235	5,741,253	6,230,368	20,587,856	8,845,642	5,995,512	6,619,277	21,460,431
Soaps, washing compounds and toilet preparations	8,664,619	5,095,295	2,607,155	16,367,069	8,857,633	5,156,194	2,717,731	16,731,558
Inks, dyes and colours	1,195,411	527,521	668,927	2,391,859	1,423,592	553,416	692,712	2,669,720
Wood distillates and extracts	2,453,045	322,692	8,944	2,784,681	1,966,144	307,913	13,052	2,287,109
Miscellaneous chemical industries	4,679,501	2,522,992	2,077,254	9,279,747	4,754,266	2,675,517	2,006,672	9,436,455
All industries	**68,070,747**	**27,654,866**	**30,770,072**	**126,495,685**	**69,364,543**	**28,695,068**	**28,423,737**	**126,483,348**

Table 7.—Capital Employed in the Manufacture of Chemicals and Allied Products, by Provinces, 1924 and 1925

Province	1924				1925			
	Capital employed as represented by				Capital employed as represented by			
	Lands, buildings, fixtures, machinery and tools	Materials on hand and stocks in process	Cash, trading and operating accounts	Total	Lands, buildings, fixtures, machinery and tools	Materials on hand and stocks in process	Cash, trading and operating accounts	Total
	$	$	$	$	$	$	$	$
Nova Scotia	1,112,725	594,103	351,737	2,058,565	1,153,505	423,782	615,853	2,193,140
New Brunswick	295,529	311,627	698,518	1,305,674	282,460	389,160	148,632	820,252
Quebec	24,356,457	9,715,094	9,976,565	44,048,116	24,562,860	10,585,713	8,522,820	43,671,393
Ontario	35,675,558	13,756,971	14,717,931	64,150,460	37,640,051	14,222,781	16,755,392	68,618,224
Manitoba	2,487,099	1,706,002	1,204,352	5,457,453	2,258,422	1,676,090	933,967	4,868,479
Alberta and Saskatchewan	312,375	181,647	44,068	538,090	344,402	169,342	45,874	559,618
British Columbia	3,831,004	1,389,422	3,716,901	8,937,327	3,122,843	1,228,200	1,401,199	5,752,242
Canada	**68,070,747**	**27,654,866**	**30,770,072**	**126,495,685**	**69,364,543**	**28,695,068**	**28,423,737**	**126,483,348**

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

Month	Coal tar and its products	Acids, alkalies, salts and compressed gases	Explosives, ammunition, fireworks and matches	Fertilizers	Medicinal and pharmaceutical preparations
January	148	1,989	1,841	91	1,487
February	164	1,961	1,863	108	1,495
March	185	1,874	1,856	165	1,559
April	216	1,870	1,888	166	1,492
May	237	1,887	1,911	137	1,481
June	188	1,912	1,958	104	1,450
July	170	1,989	1,966	85	1,490
August	133	1,960	1,898	86	1,505
September	164	1,902	1,821	110	1,625
October	163	1,907	1,353	95	1,620
November	161	1,930	1,539	114	1,567
December	126	1,858	1,645	102	1,501
Average	**170**	**1,921**	**1,853**	**115**	**1,532**

Table 8.—Number of Wage-Earners Employed in the Manufacture of Chemicals and Allied Products in Canada, by Months and by Industries, 1924—Concluded

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	1,503	1,371	268	434	1,074	10,206
February	1,558	1,342	266	362	1,068	10,187
March	1,621	1,361	269	272	1,102	10,264
April	1,598	1,316	276	333	1,078	10,233
May	1,563	1,261	266	291	1,093	10,157
June	1,571	1,236	262	293	1,052	10,026
July	1,540	1,271	256	327	1,025	10,119
August	1,429	1,270	254	302	1,018	9,855
September	1,395	1,314	262	335	1,019	9,948
October	1,415	1,308	267	375	1,028	9,531
November	1,450	1,265	259	388	1,058	9,731
December	1,453	1,248	256	398	1,029	9,616
Average	**1,513**	**1,303**	**263**	**343**	**1,088**	**10,201**

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

Month	Coal tar and its products	Acids, alkalies, salts and compressed gases	Explosives, ammunition, fireworks and matches	Fertilizers	Medicinal and pharmaceutical preparations
January	121	1,737	1,910	91	1,477
February	142	1,759	1,898	121	1,575
March	151	1,781	1,894	208	1,556
April	177	1,822	1,857	251	1,548
May	180	1,880	1,814	257	1,549
June	145	1,923	1,574	178	1,512
July	133	1,951	1,828	128	1,521
August	124	1,946	1,887	126	1,520
September	123	1,922	1,858	152	1,596
October	117	1,907	1,844	110	1,648
November	135	1,912	1,733	104	1,639
December	145	1,907	1,749	117	1,576
Average	**147**	**1,873**	**1,856**	**155**	**1,569**

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	1,500	1,389	270	306	952	9,753
February	1,542	1,382	267	294	991	9,971
March	1,587	1,397	275	262	1,014	10,122
April	1,623	1,393	283	263	1,055	10,272
May	1,651	1,376	280	264	1,049	10,300
June	1,616	1,407	275	232	1,062	9,924
July	1,557	1,406	271	226	1,029	10,050
August	1,488	1,443	254	134	1,015	9,937
September	1,510	1,455	260	144	1,002	10,022
October	1,486	1,484	265	250	1,034	10,145
November	1,498	1,457	267	278	1,004	10,027
December	1,507	1,424	272	274	989	9,960
Average	**1,561**	**1,428**	**271**	**286**	**1,037**	**10,122**

Table 10.—Number of Wage-Earners Employed in the Manufacture of Chemicals and Allied Products in Canada by Months and by Provinces, 1924

Month	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan and Alberta	British Columbia	Canada
	No.	No.	No.	No.	No.	No.	No.	No.
January	142	86	4,062	5,276	289	40	311	10,206
February	144	82	4,117	5,172	290	41	341	10,187
March	182	95	4,145	5,124	292	39	387	10,264
April	177	93	4,206	5,050	289	41	377	10,233
May	207	95	4,112	5,032	293	41	377	10,157
June	160	88	4,198	4,883	293	38	366	10,026
July	134	84	4,232	4,980	292	37	360	10,119
August	117	76	4,090	4,898	293	36	345	9,855
September	124	82	4,128	4,950	287	36	340	9,947
October	145	79	3,700	4,953	290	33	331	9,531
November	165	75	3,765	5,076	288	34	328	9,731
December	144	89	3,822	4,921	283	34	323	9,616
Average	**155**	**87**	**4,199**	**5,083**	**290**	**37**	**350**	**10,201**

Table 11.—Number of Wage-Earners Employed in the Manufacture of Chemicals and Allied Products in Canada, by Months and by Provinces, 1925

Month	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan and Alberta	British Columbia	Canada
	No.	No.	No.	No.	No.	No.	No.	No.
January	117	74	3,952	4,878	326	36	370	9,753
February	124	74	4,056	4,960	329	37	391	9,971
March	193	73	4,046	5,044	332	37	397	10,122
April	211	72	4,140	5,087	332	35	395	10,272
May	238	72	4,038	5,195	341	36	380	10,300
June	203	72	3,957	4,960	338	41	353	9,924
July	142	71	4,084	5,040	342	42	329	10,050
August	123	70	3,994	5,040	336	39	335	9,937
September	123	71	4,031	5,083	339	38	337	10,022
October	120	71	4,010	5,267	314	38	325	10,145
November	125	72	3,958	5,195	313	36	328	10,027
December	146	70	3,940	5,147	302	36	319	9,960
Average	**157**	**71**	**4,056**	**5,109**	**335**	**39**	**355**	**10,122**

Table 12.—Number of Wage-Earners Working in Month of Greatest Employment, Classified According to the Number of Hours Worked per Day, in the Manufacture of Chemicals and Allied Products in Canada, by Provinces and by Industries, 1924

Province and industry	1924			
	Number of wage-earners working			
	8 hours or less per day	9 hours	10 hours	Over 10 hours
(a) By Provinces—				
Nova Scotia	75	113	10	37
New Brunswick	29	47	2	1
Quebec	1,269	2,518	884	109
Ontario	2,325	2,645	948	182
Manitoba	222	41	49	7
Saskatchewan and Alberta	41	–	–	1
British Columbia	257	127	20	23
Canada	**4,218**	**5,491**	**1,913**	**360**
(b) By Industries—				
Coal tar and its products	178	11	–	86
Acids, alkalies, salts and compressed gases	984	1,136	144	65
Explosives, ammunition, fireworks and matches	273	1,285	606	75
Fertilizers	36	59	64	9
Medicinal and pharmaceutical preparations	980	789	32	4
Paints, pigments and varnishes	551	953	143	49
Soaps, washing compounds and toilet preparations	513	763	117	27
Inks, dyes and colours	172	117	1	–
Wood distillates and extracts	2	3	514	1
Miscellaneous chemical industries	529	375	292	44
All industries	**4,218**	**5,491**	**1,913**	**360**

Table 13.—Number of Wage-Earners Working in Month of Greatest Employment, Classified According to the Number of Hours Worked per Day, in the Manufacture of Chemicals and Allied Products in Canada, by Provinces and by Industries, 1925

Province and industry	1925			
	Number of wage-earners working			
	8 hours or less per day	9 hours	10 hours	Over 10 hours
(a) By Provinces—				
Nova Scotia	51	141	52	31
New Brunswick	29	44	–	–
Quebec	1,304	2,464	731	101
Ontario	2,471	2,679	661	186
Manitoba	267	58	46	9
Saskatchewan and Alberta	42	–	–	1
British Columbia	239	173	9	2
Canada	**4,403**	**5,559**	**1,499**	**330**
(b) By Industries—				
Coal tar and its products	69	88	–	69
Acids, alkalies, salts and compressed gases	1,045	802	142	65
Explosives, ammunition, fireworks and matches	258	1,585	440	51
Fertilizers	45	80	144	33
Medicinal and pharmaceutical preparations	1,170	651	37	8
Paints, pigments and varnishes	533	1,028	130	48
Soaps, washing compounds and toilet preparations	605	792	103	8
Inks, dyes and colours	178	123	1	–
Wood distillates and extracts	2	–	265	–
Miscellaneous chemical industries	498	410	237	48
All industries	**4,403**	**5,559**	**1,499**	**330**

Table 14.—Fuel and Electricity Used in the Manufacture of Chemical and Allied Products in Canada, by Kinds and by Industries, 1924

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	$	K.W.H.	$
Quantity	1,027	7,304	–	244,364	20	1,813	–	179,503	–
Value $	15,662	46,383	–	17,703	23	6,253	–	4,664	90,688
Acids, Alkalies, Salts and Compressed Gases—									
Quantity	1,233	89,010	9,240	84,427	255	7	–	555,276,553	–
Value $	8,329	450,697	74,871	10,192	228	14	173	1,292,247	1,836,751
Explosives, Ammunition, Fireworks and Matches—									
Quantity	7,864	16,842	180	751,765	28,155	798	–	3,540,452	–
Value $	53,389	113,355	2,611	41,457	10,429	2,566	9,257	44,490	277,554
Fertilizers—									
Quantity	123	1,710	–	3,800	–	230	–	221,405	–
Value $	1,657	14,135	–	1,045	–	954	225	6,856	24,872
Medicinal and Pharmaceutical Preparations—									
Quantity	1,194	6,302	4	29,577	11,355	251	–	1,397,877	–
Value $	11,308	44,581	48	3,208	3,866	516	2,005	27,859	93,391
Paints, Pigments and Varnishes—									
Quantity	670	18,008	2,556	488,443	1,703	530	–	5,804,649	–
Value $	5,217	131,434	29,841	30,513	1,114	2,124	4,279	78,132	282,654
Soaps, Washing Compounds and Toilet Preparations—									
Quantity	579	37,476	167	10,455	511	83	–	3,561,738	–
Value $	5,999	224,591	655	3,247	419	412	7,950	36,831	280,104
Inks, Dyes and Colours—									
Quantity	161	1,314	110	–	452	17	–	919,530	–
Value $	2,524	9,299	1,550	–	495	142	161	14,578	28,749
Wood Distillates and Extracts—									
Quantity	–	35,030	2,014	–	–	477	–	330,830	–
Value $	–	229,937	8,052	–	–	1,928	–	8,899	248,816
Miscellaneous Chemical Industries—									
Quantity	452	17,537	7	813	3,449	309	–	2,445,072	–
Value $	6,158	108,060	84	261	3,197	1,502	438	37,171	156,871
Total....Quantity	**13,303**	**230,533**	**14,278**	**1,613,644**	**45,900**	**4,515**	–	**573,477,609**	–
Value $	**110,243**	**1,372,472**	**117,712**	**107,626**	**19,771**	**16,411**	**24,488**	**1,551,727**	**3,320,450**

Table 15.—Fuel and Electricity Used in the Manufacture of Chemicals and Allied Products in Canada, by Kinds and by Industries, 1925

Industry	Anthracite coal	Bituminous coal	Coke	Fuel oil and gasoline	Gas	Wood	Other fuel	Electricity	Total value
	Tons	Tons	Tons	Gals.	M cu. ft.	Cords	$	K.W.H.	$
COAL TAR AND ITS PRODUCTS—									
Quantity	2,846	6,474	369	241,038	20	1,767	–	204,074	–
Value $	14,367	42,282	1,127	16,019	23	2,935	–	7,192	83,945
ACIDS, ALKALIES, SALTS AND COMPRESSED GASES—									
Quantity	1,510	89,377	7,878	111,290	228	48	–	610,222,405	–
Value $	12,498	407,367	53,799	13,839	220	103	39	1,415,046	1,902,911
EXPLOSIVES, AMMUNITION, FIREWORKS AND MATCHES—									
Quantity	7,177	15,729	578	468,119	38,375	8	–	4,184,668	–
Value $	46,999	99,272	6,815	31,890	12,123	145	5,664	50,100	253,008
FERTILIZERS—									
Quantity	89	1,549	1	3,600	–	106	–	265,900	–
Value $	937	12,986	12	1,080	–	338	79	5,937	21,369
MEDICINAL AND PHARMACEUTICAL PREPARATIONS—									
Quantity	741	6,859	35	26,076	12,268	153	–	1,399,825	–
Value $	10,007	47,565	489	2,966	4,215	877	270	28,431	94,820
PAINTS, PIGMENTS AND VARNISHES—									
Quantity	1,983	17,033	2,562	439,091	1,711	536	–	5,341,556	–
Value $	15,448	117,414	29,349	35,809	932	2,163	8,217	84,561	293,893
SOAPS, WASHING COMPOUNDS AND TOILET PREPARATIONS—									
Quantity	493	36,092	209	12,545	868	72	–	2,602,932	–
Value $	4,615	218,532	1,134	3,068	807	453	7,324	34,749	270,682
INKS, DYES AND COLOURS—									
Quantity	202	1,156	95	–	387	18	–	690,810	–
Value $	3,019	8,623	1,234	–	431	65	32	12,946	26,350
WOOD DISTILLATES AND EXTRACTS—									
Quantity	–	22,531	2,651	–	–	3,066	–	581,160	–
Value $	–	154,639	13,086	–	–	14,389	–	9,470	191,584
MISCELLANEOUS CHEMICAL INDUSTRIES—									
Quantity	345	15,060	58	3,370	3,409	353	–	1,922,686	–
Value $	5,508	88,906	698	989	2,842	1,533	670	33,809	134,955
Total .... Quantity	**15,386**	**211,860**	**14,436**	**1,305,129**	**57,266**	**6,127**	–	**627,416,016**	–
Value $	**113,398**	**1,197,586**	**107,743**	**105,660**	**21,593**	**23,001**	**22,295**	**1,682,241**	**3,273,517**

Table 16.—Fuel and Electricity Used in the Manufacture of Chemicals and Allied Products in Canada, by Kinds and by Provinces, 1924

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	$	K.W.H.	$
NOVA SCOTIA—									
Quantity	30	5,651	60	1,222	–	30	–	342,240	–
Value $	247	38,666	840	367	–	180	–	10,970	51,270
NEW BRUNSWICK—									
Quantity	25	2,468	–	1,000	–	100	–	18,050	–
Value $	525	17,822	–	325	–	600	–	1,084	20,356
QUEBEC—									
Quantity	10,384	53,549	3,814	292,963	35,174	884	–	197,187,411	–
Value $	84,511	373,482	30,207	27,812	14,229	3,936	9,373	491,668	1,035,218
ONTARIO—									
Quantity	2,785	162,629	10,110	582,920	10,233	216	–	370,933,948	–
Value $	24,160	891,759	83,105	39,085	4,908	1,164	5,141	1,000,117	2,049,439
MANITOBA—									
Quantity	–	5,325	101	27	91	–	–	3,187,091	–
Value $	–	43,731	1,607	11	146	–	2,059	23,775	71,329
SASKATCHEWAN AND ALBERTA—									
Quantity	–	104	–	250	36	1	–	125,605	–
Value $	–	766	–	105	36	12	3,779	1,733	6,431
BRITISH COLUMBIA—									
Quantity	79	807	193	735,262	366	3,284	–	1,683,263	–
Value $	800	6,246	1,953	39,921	452	10,519	4,136	22,380	86,407
Canada .. Quantity	**13,303**	**230,533**	**14,278**	**1,613,644**	**45,900**	**4,515**	–	**573,477,689**	–
Value $	**110,243**	**1,372,472**	**117,712**	**107,626**	**19,771**	**16,411**	**24,488**	**1,551,727**	**3,320,450**

Table 17.—Fuel and Electricity Used in the Manufacture of Chemicals and Allied Products in Canada, by Kinds and by Provinces, 1925

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	27	4,648	68	1,971	–	34	–	571,380	–
Value $	262	30,574	758	555	–	170	–	11,800	44,119
NEW BRUNSWICK—									
Quantity	–	2,327	–	–	390	–	–	700	–
Value $	–	17,038	–	–	390	–	–	82	17,510
QUEBEC—									
Quantity	11,053	47,963	5,453	296,796	47,569	437	–	221,588,305	–
Value $	76,880	319,137	42,190	27,227	15,384	2,050	5,703	536,990	1,025,561
ONTARIO—									
Quantity	4,021	151,623	8,659	553,811	8,897	3,054	–	401,820,730	–
Value $	33,476	788,509	61,829	47,291	5,332	14,484	4,814	1,094,047	2,049,782
MANITOBA—									
Quantity	195	4,861	102	1,009	177	7	–	1,471,726	–
Value $	1,859	39,257	1,630	333	241	89	4,009	13,084	60,502
ALBERTA AND SASKATCHEWAN—									
Quantity	–	65	–	9	95	1	–	148,001	–
Value $	–	480	–	3	56	5	4,182	2,240	6,966
BRITISH COLUMBIA—									
Quantity	90	373	149	451,533	138	2,604	–	1,815,174	–
Value $	921	2,591	1,336	30,251	190	6,203	3,587	23,998	69,077
Total.....Quantity	**15,386**	**211,860**	**14,436**	**1,305,129**	**57,266**	**6,127**	**–**	**627,416,016**	**–**
Value $	**113,398**	**1,197,586**	**107,743**	**105,660**	**21,593**	**23,001**	**22,295**	**1,682,241**	**3,273,517**

Table 18.—Power Equipment Installed for the Manufacture of Chemicals and Allied Products in Canada, by Provinces, 1925, with Comparative Totals for 1924

Province		Steam engines and turbines	Internal combustion engines (gas, gasoline, oil, etc.)	Hydraulic turbines or water wheels	Total primary power	Electric motors driven by purchased power	Total power equipment employed	Electric motors driven by power generated by primary power	Total electric motors	Boilers installed
Nova Scotia	No.	5	–	1	6	9	15	7	16	8
	H.P.	710	–	90	800	218	1,018	116	334	1,205
New Brunswick	No.	1	–	–	1	2	3	–	2	1
	H.P.	5	–	–	5	4	9	–	4	50
Quebec	No.	36	2	6	44	682	726	189	871	99
	H.P.	3,731	34	6,380	10,145	10,527	20,672	1,688	12,215	11,625
Ontario	No.	77	8	–	85	2,001	2,086	171	2,172	142
	H.P.	8,956	256	–	9,212	23,207	32,419	2,695	25,902	17,798
Manitoba	No.	6	–	–	6	85	91	–	85	10
	H.P.	505	–	–	505	994	1,499	–	994	965
Saskatchewan and Alberta	No.	1	–	–	1	12	13	–	12	2
	H.P.	8	–	–	8	137	145	–	137	200
British Columbia	No.	13	–	–	13	135	148	5	140	9
	H.P.	594	–	–	594	2,146	2,740	84	2,230	867
Total for 1925	**No.**	**139**	**10**	**7**	**156**	**2,926**	**3,082**	**372**	**3,298**	**271**
	H.P.	**14,509**	**290**	**6,470**	**21,269**	**37,233**	**58,502**	**4,583**	**41,816**	**32,710**
Total for 1924	**No.**	**141**	**15**	**6**	**162**	**2,753**	**2,915**	**389**	**3,142**	**274**
	H.P.	**14,758**	**389**	**6,400**	**21,547**	**38,323**	**59,870**	**4,933**	**43,256**	**33,690**

Table 19.—Power Equipment Installed for the Manufacture of Chemicals and Allied Products in Canada, by Industries, 1925, with Comparative Totals for 1924

Industry	Steam engines and turbines	Internal combustion engines (gas, oil, gasoline, etc.)	Hydraulic turbines or water wheels	Total primary power	Electric motors driven by purchased power	Total power equipment employed	Electric motors driven by power generated by primary power	Total electric motors	Boilers installed
Coal tar and its products.....No.	10	–	–	10	29	39	–	29	18
H.P.	130	–	–	130	243	373	–	243	1,976
Acids, alkalies, salts and compressed gases.....No.	37	1	3	41	976	1,017	181	1,157	34
H.P.	7,625	225	6,000	13,850	21,795	35,645	3,112	24,907	8,019
Explosives, ammunition, fireworks and matches.....No.	14	1	2	17	257	274	132	389	21
H.P.	2,287	6	250	2,543	3,064	5,607	798	3,862	4,286
Fertilizers.....No.	4	1	–	5	23	28	4	27	4
H.P.	725	2	–	727	325	1,052	85	410	655
Medicinal and pharmaceutical preparations.....No.	4	2	–	6	452	458	1	453	27
H.P.	210	7	–	217	1,480	1,697	3	1,483	1,817
Paints, pigments varnishes.....No.	21	–	1	22	365	387	16	381	37
H.P.	1,948	–	90	2,038	3,950	5,988	252	4,202	2,872
Soaps, washing compounds and toilet preparations.....No.	21	2	–	23	426	449	20	446	53
H.P.	855	18	–	873	2,729	3,602	146	2,875	5,781
Inks, dyes and colours No.	1	1	–	2	100	102	5	105	5
H.P.	40	4	–	44	1,009	1,053	28	1,037	215
Wood distillates and extracts.....No.	7	1	–	8	17	25	1	18	32
H.P.	263	6	–	269	505	774	25	539	4,065
Miscellaneous chemical industries.....No.	20	1	1	22	281	303	12	293	40
H.P.	426	22	130	578	2,133	2,711	134	2,267	3,024
Total for 1925 No.	**139**	**10**	**7**	**156**	**2,926**	**3,082**	**372**	**3,298**	**271**
H.P.	**14,509**	**290**	**6,470**	**21,269**	**37,233**	**58,502**	**4,583**	**41,816**	**32,710**
Total for 1924 No.	**141**	**15**	**6**	**162**	**2,753**	**2,915**	**389**	**3,142**	**274**
H.P.	**14,758**	**389**	**6,400**	**21,547**	**38,323**	**59,870**	**4,933**	**43,256**	**33,690**

Table 20.—Imports into Canada and Exports of Chemicals and Allied Products (a) Five-Year Average for the Fiscal Years ended March 31, 1920-1924; (b) for the Fiscal Year ended March 31, 1925; (c) for the Fiscal Year ended March 31, 1926

Item	Imports			Exports		
	5-yr average fiscal years 1920–1924	Fiscal year ended March 31, 1925	Fiscal year ended March 31, 1926	5-yr average fiscal years 1920–1924	Fiscal year ended March 31, 1925	Fiscal year ended March 31, 1926
(a) By Commodities	$	$	$	$	$	$
ACIDS						
Inorganic acids—						
Acid, boracic in packages not less than 25 pounds	60,896	47,567	54,995	–	–	–
Acid, hydrofluosilicic	403	156	480	–	–	–
Acid, muriatic	6,276	4,585	6,769	–	–	–
Acid, nitric	12,766	12,544	19,101	–	–	–
Acid, sulphuric	25,580	6,594	9,858	99,690	116,608	300,926
Organic acids—						
Acid, acetic and pyroligneous	3,664	4,799	3,147	357,994	–	–
Acid, citric	–	78,684	102,191	–	–	–
Acid, cresylic	–	–	13,204	–	–	–
Acid, oxalic	41,722	13,073	12,634	–	–	–
Acid, stearic	36,087	51,375	104,796	–	–	–
Acid stearic when imported by manufacturers of candles for use only in their own factories in the manufacture of candles	–	2,218	9,086	–	–	–
Acid, tannic	20,676	18,471	18,490	–	–	–
Tartaric acid, crystals	205,679	95,654	102,202	–	–	–
Acids, others, n.o.p.	283,520	146,162	153,599	365,605	1,969,517	1,887,546
Total acids	697,269	481,882	610,552	823,289	2,086,125	2,188,472

Table 20.—Imports into Canada and Exports of Chemicals and Allied Products (a) Five-Year Average for the Fiscal Years ended March 31, 1920-1924; (b) for the Fiscal Year ended March 31, 1925; (c) for the Fiscal Year ended March 31, 1926—Continued

Item	Imports			Exports		
	5-yr average fiscal years 1920–1924	Fiscal year ended March 31, 1925	Fiscal year ended March 31, 1926	5-yr average fiscal years 1920–1924	Fiscal year ended March 31, 1925	Fiscal year ended March 31, 1926
(a) By Commodities—Continued	$	$	$	$	$	$
ALCOHOLS—INDUSTRIAL						
Amyl alcohol or fusel oil	2,239	26,530	109	–	–	–
Ethyl alcohol	496,803	19,394	17,869	–	–	–
Methyl alcohol	14,406	110	133	298,896	150,456	91,499
Rum when imported by the Department of Customs and Excise or by a person licensed by the Minister of Customs and Excise to be denatured for use in the arts and industries	–	1,954	11,199	–	–	–
Other non-potable spirits, n.o.p.	–	–	–	11,304	437	200,720
Total alcohols	513,448	47,988	29,310	310,200	150,893	292,219
CELLULOSE PRODUCTS						
Celluloid, xylonite, xyolite, or manufactures of	1,038,60	1,099,222	1,847,545	–	–	–
Collodion for use in films for photo-engavings and for engraving copper rollers when imported by photo-engravers and manufacturers of copper rollers	2,809	2,735	3,747	–	–	
Pyroxylin and wood naphtha, preparations of, for coating imitation leather and for the manufacture of leather belting	84,541	56,638	87,988	–	–	–
Total cellulose products	1,125,950	1,158,595	1,939,280	–	–	–
DRUGS, MEDICINAL AND PHARMACEUTICAL PREPARATIONS						
Alkaloids and their salts—						
Caffeine and salts of	34,107	14,293	18,282	–	–	–
Cocaine	25,779	5,390	11,131	–	–	–
Codeine and salts of	15,486	17,213	39,066	–	–	–
Morphine	56,138	25,241	32,164	–	–	–
Nicotine sulphate	20,562	34,494	28,848	–	–	–
Opium crude	42,021	6,329	7,733	–	–	–
Opium powdered	1,490	1,774	1,989	–	–	–
Quinine, salts of	113,131	55,191	67,194	–	–	–
Strychnine and salts of	99,097	33,645	25,725	–	–	–
Other medicinal and pharmaceutical preparations	2,455,253	2,423,671	2,769,018	604,837	526,024	501,923
Total drugs, medicinal and pharmaceutical preparations	2,863,064	2,617,241	2,992,150	604,837	526,024	501,923
DYEING AND TANNING MATERIALS						
Coal tar products—						
Aniline dyes in packages of less than one pound in weight	1,559	–	–	–	–	–
Aniline and coal-tar dyes soluble in water in bulk or packages of not less than 1 pound weight including alizarine and artificial alizarine	2,447,734	1,461,684	1,535,801	–	–	–
Aniline and coal-tar dyes, n.o.p.	3,653	7,588	10,487	–	–	–
Aniline oil crude	70,594	38,502	26,328	–	–	–
Aniline salts	5,978	747	2,107	–	–	–
Coal tar base or salt for use in the manufacture of coal tar dyes	37,337	39,494	57,535	–	–	–
Other dyeing and tanning materials—						
Annatto, liquid or solid	20,900	18,289	13,800	–	–	–
Camwood and sumac and extract thereof	14,759	17,081	15,471	–	–	–
Chemical compounds composed of two or more acids or salts soluble in water adapted for dyeing or tanning	50,035	149,997	129,271	–	–	–
Extract of hemlock bark	–	–	–	33,645	1,213	2,467
Indigo paste and extract of	83,820	24,153	15,799	–	–	–
Iron liquor, being solution of acetate or nitrate of iron adapted for dyeing and calico printing	4,764	6,861	3,118	–	–	–
Logwood and fustic ground and ground oak bark	8,504	1,851	5,509	–	–	–
Logwood and fustic, extract of	43,013	48,671	50,392	–	–	–
Logwood, fustic, oak and oak bark, and quebracho, extract of	756,965	–	–	–	–	–

Table 20.—Imports into Canada and Exports of Chemicals and Allied Products (a) Five-Year Average for the Fiscal Years ended March 31, 1920-1924: (b) for the Fiscal Year ended March 31, 1925: (c) for the Fiscal Year ended March 31, 1926—Continued

Item	Imports			Exports		
	5-yr average fiscal years 1920–1924	Fiscal year ended March 31, 1925	Fiscal year ended March 31, 1926	5-yr average fiscal years 1920–1924	Fiscal year ended March 31, 1925	Fiscal year ended March 31, 1926
(a) By Commodities—Continued	$	$	$	$	$	$
DYEING AND TANNING MATERIALS—*Conc.*						
Other dyeing and tanning materials—*Con.*						
Oak bark and quebracho, and similar extracts, n.o.p.	745,614	1,573,037	1,260,352	–	–	–
Red liquor being a crude acetate of aluminium prepared from pyroligneous acid and adapted for dyeing and calico printing	442	14,874	10,153	–	–	–
Terra japonica gambier or cutch	34,167	31,779	37,382	–	–	–
Turmeric	4,925	7,027	8,560	–	–	–
All other dyeing and tanning materials	383,217	79,392	154,778	–	–	–
Total dyeing and tanning materials	4,717,977	3,521,027	3,336,933	33,645	1,213	2,457
EXPLOSIVES						
Binitrotoluol, trinitrotoluol and perchlorate of ammonia when imported by manufacturers of explosives for use exclusively in the manufacture of such articles in their own factories	36,140	38,476	37,152	–	–	–
Nitrate compounds, n.o.p., adapted for use in the manufacture of explosives	150,569	37,843	20,639	–	–	–
Blasting and mining powder	12,304	1,274	65	–	–	–
Dynamite	–	–	–	103,663	248,607	129,225
Dynamite and nitro-glycerine	13,340	19,366	6,686	–	–	–
Explosives and fulminates, n.o.p.	–	–	–	1,228,779	31,940	26,463
Fireworks, firecrackers and torpedoes, all kinds	55,869	52,428	53,293	–	–	–
Fuses non-metallic	79,297	1,456	1,199	–	–	–
Gun, rifle, sporting, cannon, musket and canister powder	106,730	54,560	76,237	–	–	–
Giant powder nitro and other explosives, n.o.p.	118,472	131,107	168,800	–	–	–
Total explosives	572,721	336,510	364,071	1,332,442	280,547	155,688
FERTILIZERS						
Ammonia, sulphate of	22,054	10,315	96,603	1,219,240	548,891	877,691
Basic slag, crushed or ground	–	85,027	65,262	–	–	–
Cyanamide or lime nitrogen (From May 12, 1923)	15,300	318	7,096	2,896,809	3,460,845	4,419,110
Kainite and other crude German potash salts	43,331	60	3	–	–	–
Potash, muriate of, crude	176,527	289,268	402,774	–	–	–
Potash, sulphate of, crude	4,637	12,657	25,980	–	–	–
Potash, muriate and sulphate	225,091	–	–	–	–	–
Soda nitrate of or cubic nitre	857,924	1,051,697	1,462,424	–	–	–
Fertilizers, superphosphate or acid phosphate of lime	389,880	464,372	820,812	–	–	–
Fertilizers, compounded or manufactures, n.o.p.	664,556	465,256	538,670	360,626	186,465	102,287
Total fertilizers	2,399,390	2,387,970	3,419,624	4,476,675	4,196,201	5,399,088
PAINTS, PIGMENTS AND VARNISHES						
Chemical pigments, lead—						
Litharge	165,842	87,483	195,017	–	–	–
Lead, red dry, and orange mineral	87,462	44,564	79,995	–	–	–
Lead, white, dry	7,222	16,168	3,010	†69,646	†53,997	37,432
Lead white ground in oil	7,293	18,746	12,287	–	–	–
Other chemical pigments—						
Black, carbon	–	248,863	386,958	–	–	–
Blacks, lamp, bone, ivory and carbon	401,599	114,608	118,269	–	–	–
Blanc fixe	2,087	23,143	20,140	–	–	–
Blanc fixe and satin white	69,203	–	–	–	–	–
Brocade and bronze powders	51,709	42,634	49,262	–	–	–
Colours metallic viz.: Oxide of cobalt tin and copper, n.o.p.	81,221	87,828	141,236	–	–	–
Lithopone	–	333,919	454,309	–	–	–
Oxides, fire proofs, rough stuffs, fillers and colours dry, n.o.p.	480,067	394,000	478,174	–	–	–
Paris green, dry	19,239	28,454	20,172	–	–	–
Satin white	9,828	20,587	22,272	–	–	–
Ultramarine blue, dry or in pulp	74,850	58,048	66,715	–	–	–
Zinc white	1,325,452	927,702	909,169	–	–	–

Table 20.—Imports into Canada and Exports of Chemicals and Allied Products (a) Five-Year Average for the Fiscal Years ended March 31, 1920-1924; (b) for the Fiscal Year ended March 31, 1925; (c) for the Fiscal Year ended March 31, 1926—Continued

Item	Imports			Exports		
	5-yr average fiscal years 1920–1924	Fiscal year ended March 31, 1925	Fiscal year ended March 31, 1926	5-yr average fiscal years 1920–1924	Fiscal year ended March 31, 1925	Fiscal year ended March 31, 1926
(a) By Commodities—Continued	$	$	$	$	$	$
PAINTS, PIGMENTS AND VARNISHES—con.						
Mineral earth pigments—						
Mineral pigments, iron oxides, ochres, etc.	–	–	–	58,532	38,841	34,930
Ochres, ochrey earths, siennas and umbers	92,621	75,651	77,938	–	–	–
Putty	19,904	17,335	21,230	8,574	5,810	4,651
Other paints and varnishes	730,083	760,778	941,459	827,618	374,511	414,171
Total paints, pigments and varnishes	3,625,772	3,300,511	3,997,612	964,370	473,159	491,184
PERFUMERY, COSMETICS AND TOILET PREPARATIONS						
Alcoholic perfumes and perfumed spirits, bay rum, Cologne and lavender waters, hair, tooth and skin washes	248,013	188,805	185,860	–	–	–
Pomades French or flower odours, etc., imported in tins of not less than 10 pounds each	1,024	796	116	–	–	–
Hair oil, tooth and other powders and washes, pomatums, pastes and all other perfumed preparations, n.o.p., used for the hair, mouth or skin	748,945	821,743	843,202	–	–	–
Total perfumery, cosmetics and toilet preparations	997,982	1,011,344	1,029,178	–	–	–
SOAPS						
Castile soap	59,812	72,932	84,762	–	–	–
Common laundry soap	653,137	747,410	627,813	–	–	–
Common soft soap	7,312	–	–	–	–	–
Harness soap	955	1,207	867	–	–	–
Liquid soap	–	8,108	10,387	–	–	–
Soap, n.o.p.	–	–	–	263,332	36,705	33,066
Soap powders and powdered soap	–	31,663	40,068	–	–	–
Toilet soap, n.o.p.	497,831	237,902	235,804	198,164	557,354	572,589
Whale oil soap	3,979	3,523	460	–	–	–
Soap, n.o.p., including pumice, silver and mineral soaps, saponio and like articles	94,288	70,376	67,906	–	–	–
Pearline and other soap powders	37,557	–	–	–	–	–
Total soaps	1,354,871	1,173,121	1,068,067	461,496	594,059	605,655
INORGANIC CHEMICALS, N.O.P.						
Alum and compounds of aluminium and iron—						
Alum in bulk ground or unground but not calcined	144,971	88,381	93,023	–	–	–
Chloralum and chloride of aluminium	366	490	541	–	–	–
Sulphate of iron (copperas)	16,359	8,847	9,124	–	–	–
Sulphate of alumina or alum cake	331,797	354,490	417,565	–	–	–
Ammonia and its compounds—						
Ammonia, nitrate of	162,768	149,853	213,813	–	–	–
Sal aommoniac and sal ammoniac skimmings	122,069	111,088	122,445	–	–	–
Antimony, arsenic, copper, tin and zinc compounds—						
Antimony salts viz: tartar emetic, chloride and lactate (antimonine)	6,433	3,653	7,038	–	–	–
Arsenic, sulphide of	19,964	2,528	2,937	–	–	–
Arsenic	–	–	–	263,591	206,378	72,367
Arsenious oxide	27,673	6,152	25,482	–	–	–
(a) Copper sulphate of (blue vitriol) and (b) copper sulphate of, dehydrated for agricultural or spraying purposes from May 12, 1923	163,052	161,440	151,610	–	–	–
Tin bichloride of or tin crystals	16,719	25,587	63,648	–	–	–
Zinc, sulphate and chloride of	30,235	47,366	51,304	–	–	–
Copper sub-acetate of or verdigris dry	599	198	812	–	–	–
Bismuth and lead compounds—						
Bismuth salts	33,210	42,226	55,616	–	–	–
Lead acetate of, not ground	9,758	4,085	8,409	–	–	–
Lead, nitrate of, not ground	9,707	11,914	12,624	–	–	–
Bromine, Chlorine and Iodine Compounds—						
Bromine	197	146	1,749	–	–	–
Bromides crude	36	35	–	–	–	–
Chlorine liquid	180,128	261,007	230,203	–	–	–
Iodine crude	41,457	38,228	45,167	–	–	–

Table 20.—Imports into Canada and Exports of Chemicals and Allied Products (a) Five-Year Average for the Fiscal Years ended March 31, 1920-1924; (b) for the Fiscal Year ended March 31, 1925; (c) for the Fiscal Year ended March 31, 1926—Continued

Item	Imports			Exports		
	5-yr average fiscal years 1920–1924	Fiscal year ended March 31, 1925	Fiscal year ended March 31, 1926	5-yr average fiscal years 1920–1924	Fiscal year ended March 31, 1925	Fiscal year ended March 31, 1926
(a) By Commodities—Continued	$	$	$	$	$	$
INORGANIC CHEMICALS, N.O.P.—con.						
Calcium compounds—						
Calcium, acetate or acetate of lime (from Dec. 22, 1923)	–	–	–	166,179	143,460	117,871
Calcium chloride	61,835	89,595	142,354	–	–	–
Calcium carbide	–	–	–	2,720,062	1,199,248	1,566,407
Chloride of lime and hypochlorite of lime in packages	586,500	272,183	256,303	–	–	–
Potash and potassium compounds, n.o.p.—						
Cream of tartar in crystals or argols	242,053	135,244	114,993	–	–	–
Potash and pearl ash in packages	11,240	5,586	8,709	–	–	–
Potash bicarbonate of	3,134	1,376	895	–	–	–
Potash bichromate of	12,690	23,133	5,225	–	–	–
Potash caustic in packages	28,886	18,272	28,852	–	–	–
Potash chlorate of not further prepared or ground	64,397	48,071	89,581	–	–	–
Potash, red and yellow prussiate of	13,410	4,370	3,209	–	–	–
Saltpetre or nitrate of potash	56,051	78,375	69,743	–	–	–
Potash compounds, n.o.p.	52,846	94,515	118,457	–	–	–
Potash crude	–	–	–	8,070	1,120	4,995
Soda and sodium compounds, n.o.p.—						
Baking powder	13,180	8,610	17,594	71,379	109,471	91,667
Borax in bulk of not less than 25 pounds	184,215	117,811	123,878	–	–	–
Salts, glauber	8,158	12,250	8,431	–	–	–
Soda, arseniate, binarseniate and stannate of	3,423	107	1,871	–	–	–
Soda ash or barilla	344,522	44,980	21,573	–	–	–
Soda, bicarbonate of	172,330	176,109	199,229	–	–	–
Soda, bichromate of	136,329	100,449	121,042	–	–	–
Soda, bisulphate of, or nitre cake (from May 12, 1923)	–	83,421	64,827	–	–	–
Soda, bisulphite of	52,164	28,294	30,507	–	–	–
Soda, caustic in packages or in solution	395,489	308,485	330,606	–	–	–
Soda, chlorate of	1,397	1,291	3,280	–	–	–
Soda, hyposulphite	34,130	20,747	21,959	–	–	–
Soda, nitrite of	2,454	791	1,745	–	–	–
Soda, peroxide of	32,028	48,572	57,164	–	–	–
Soda, prussiate and sulphite of	80,429	33,440	–	–	–	–
Soda, prussiate of	–	–	36,186	–	–	–
Soda, sulphite of	–	–	11,708	–	–	–
Soda, cyanide of	–	–	118,160	–	–	–
Soda sal	168,618	149,843	126,206	–	–	–
Soda, silicate of, in crystals or in solution	255,527	232,738	260,790	–	–	–
Soda, sulphate of, crude known as salt cake	711,981	607,781	472,454	–	–	–
Soda, sulphide of	93,225	49,251	66,798	–	–	–
Sodium compounds, n.o.p.	283,709	470,853	587,429	–	–	–
Soda and sodium compounds	–	–	–	1,751,412	3,641,659	3,682,103
Other inorganic chemicals—						
Acid, phosphate not medicinal	266,624	224,317	212,018	–	–	–
Barium, peroxide of	26,907	9,259	6,252	–	–	–
Carbon, dioxide or carbonic acid gas	1,054	103	1,640	–	–	–
Cobalt oxide and cobalt salts	–	–	–	780,674	1,119,109	991,921
Hydrogen, peroxide, solutions of	43,312	45,364	63,139	–	–	–
Lye	–	–	–	23,543	9,063	8,360
Magnesia, (magnesium oxide)	78,136	20,100	23,419	–	–	–
Magnesium, sulphate or Epsom salts	52,459	50,667	40,755	2,796	–	–
Mercury salts	13,647	11,137	17,022	–	–	–
Phosphorus	47,636	56,452	34,472	–	–	–
Radium	45,509	12,522	26,740	–	–	–
Thorium nitrate	15,788	27	–	–	–	–
Total inorganic chemicals, n.o.p.	6,015,019	5,014,205	5,460,430	5,787,706	6,429,508	6,535,691
OTHER DRUGS, DYES AND CHEMICALS, N.O.P.						
Acetone and amyl acetate	9,392	7,981	6,031	–	–	–
Blacking, shoe, and shoe makers' ink, shoe, harness and leather dressing, n.o.p.	252,863	214,092	289,664	–	–	–
Blueing, laundry	114,688	42,681	24,098	–	–	–
Camphor	94,545	47,004	50,377	–	–	–
Carbon bisulphide	7,243	4,065	31,972	–	–	–
Carbon tetrachloride	7,516	14,377	20,589	–	–	–
Chloroform and sulphuric ether	87,067	72,427	–	–	–	–
Chloroform	–	–	29,952	–	–	–
Creosote oil	–	–	–	155,157	146,460	143,739
Cyanide of potassium, cyanide of sodium and cyanogen bromide	354,485	306,018	–	–	–	–

Table 20.—Imports into Canada and Exports of Chemicals and Allied Products (a) Five-Year Average for the Fiscal Years ended March 31, 1920-1924; (b) for the Fiscal Year ended March 31, 1925; (c) for the Fiscal Year ended March 31, 1926—Continued

Item	Imports			Exports		
	5-yr average fiscal years 1920–1924	Fiscal year ended March 31, 1925	Fiscal year ended March 31, 1926	5-yr average fiscal years 1920–1924	Fiscal year ended March 31, 1925	Fiscal year ended March 31, 1926
(a) By Commodities—Concluded	$	$	$	$	$	$
OTHER DRUGS, DYES AND CHEMICALS, N.O.P. —concluded						
Cyanide of potassium and cyanogen bromide	–	–	229,739	–	–	–
Formaldehyde	2,386	95	321	–	–	–
Glycerine	361,719	560,765	719,661	*42,246	*112,574	109,674
Ink printing	201,279	210,996	226,555	–	–	–
Ink writing	40,107	41,036	38,208	–	–	–
Naphthalene, refined flakes and balls	28,401	19,801	27,218	–	–	–
Polish or composition, knife and other, n.o.p.	330,329	366,026	344,937	–	–	–
Sulphuric ether	–	–	61,025	–	–	–
All other drugs, dyes, chemicals, n.o.p., (including nitrous ether, sweet spirits of nitre and aromatic spirits of ammonia)	2,112,866	1,801,579	2,056,722	1,480,543	1,213,057	1,072,338
Total other drugs, dyes and chemicals, n.o.p.	4,004,886	3,709,843	4,157,069	1,677,946	1,472,091	1,325,751
Total chemicals and allied products	**28,888,349**	**24,760,237**	**28,404,276**	**16,472,606**	**16,209,820**	**17,498,128**
(b) By Countries						
BRITISH EMPIRE						
United Kingdom	4,255,555	4,146,061	4,282,489	2,705,980	3,805,628	3,318,614
Irish Free State	–	–	912	–	9,676	18,415
Africa British, East	–	–	–	2,642	855	1,433
Africa British, South	16,950	–	–	156,929	39,782	48,505
Africa British, West	–	–	–	3,625	1,446	2,914
Bermuda	2	340	–	25,770	16,054	15,915
British East Indies—						
British India	8,788	17,919	13,823	54,931	58,163	67,197
Ceylon	–	–	–	10,941	524	763
Straits Settlements	130,166	1,701	3,318	88,626	1,820	7,489
Other	776	488	563	–	–	–
British Guiana	–	–	–	197,653	42,362	75,190
British Honduras	–	825	–	2,013	5,670	5,801
British West Indies—						
Barbados	107	–	–	279,876	172,892	136,738
Jamaica	538	6,285	5,177	48,844	42,911	52,384
Trinidad and Tobago	40	–	–	77,482	43,921	55,811
Other	22	588	290	41,684	44,724	51,179
Gibraltar	–	–	–	–	–	–
Hong Kong	80,122	70,729	75,211	29,509	3,525	40,519
Malta	–	–	–	319	–	4
Newfoundland	329	9	747	510,259	697,602	526,800
Oceania—						
Australia	3,487	2,456	1,792	124,058	98,687	120,303
Fiji	–	39	–	4,696	18	143
New Zealand	15	–	340	160,740	139,638	161,312
Other	–	–	1,141	373	–	1,221
Palestine	–	–	–	15	–	–
Total British Empire	4,496,897	4,247,440	4,385,803	4,526,971	5,225,898	4,706,650
FOREIGN COUNTRIES						
Argentina	91,035	135,162	274,850	45,276	71,585	43,444
Austria	452	730	635	208	–	–
Belgium	214,473	292,939	209,396	81,834	31,600	35,569
Bolivia	–	–	–	28,929	825	7,748
Brazil	2	–	–	4,907	11,970	5,320
Chile	84,974	392,255	661,976	89,162	37,782	106,842
China	13,986	16,431	15,660	52,353	42,697	108,362
Colombia	–	–	–	3,688	5,709	14,579
Costa Rica	–	–	–	3,065	18,452	12,753
Cuba	29,116	80	5	126,594	315,643	393,186
Czecho-Slovakia	2,337	440	1,208	–	–	–
Denmark	538	376	489	340	56	100
Danish West Indies	–	–	–	–	–	–
Ecuador	–	–	–	3,725	7,531	12,118

*Glycerine, crude only.

Table 20.—Imports into Canada and Exports of Chemicals and Allied Products (a) Five-Year Average for the Fiscal Years ended March 31, 1920-1924; (b) for the Fiscal Year ended March 31, 1925; (c) for the Fiscal Year ended March 31, 1926—Concluded

Item	Imports			Exports		
	5-yr average fiscal years 1920–1924	Fiscal year ended March 31, 1925	Fiscal year ended March 31, 1926	5-yr average fiscal years 1920–1924	Fiscal year ended March 31, 1925	Fiscal year ended March 31, 1926
(b) By Countries—concluded	$	$	$	$	$	$
FOREIGN COUNTRIES—concluded						
Egypt	–	–	46	78	3,096	462
Esthonia	–	–	–	1,407	–	–
Finland	–	2,431	17,885	–	–	–
France	1,089,262	943,836	905,230	93,403	33,263	35,504
French Africa	–	–	–	–	165	–
French East Indies	–	–	–	209	–	–
French Guiana	–	–	–	34	–	–
French Oceania	–	–	–	35	–	–
French West Indies	–	–	–	24,334	6,054	63
St. Pierre and Miquelon	7	135	–	6,105	3,637	5,774
Germany	620,318	1,330,282	1,990,607	21,333	15,713	–
Greece	1,481	–	–	4,229	–	–
Guatemala	–	–	–	345	1,049	576
Hayti	–	–	–	345	733	665
Honduras	–	–	–	12,755	43,657	37,248
Italy	39,893	50,743	65,068	18,003	–	1,420
Japan	59,834	83,413	134,619	512,906	368,634	605,470
Korea	–	–	–	5,511	17,198	–
Lettonia	–	–	–	20,220	–	–
Mexico	–	–	489	861,876	1,730,052	1,531,630
Morocco	–	–	–	–	148	–
Netherlands	432,234	671,706	673,027	63,586	33,946	23,609
Dutch East Indies	5,567	–	676	91,397	2,984	16,170
Dutch Guiana	–	–	–	2,745	452	508
Dutch West Indies	–	–	–	569	2,734	1,124
Nicaragua	–	–	–	10,627	16,055	5,406
Norway	36,757	615	794	1,598	48	–
Panama	–	–	211	7,206	4,359	5,246
Paraguay	–	26,281	–	–	–	–
Persia	3,764	–	–	–	–	–
Peru	–	–	–	22,849	1,069	14,274
Portugal	2,248	–	–	2,940	–	–
Portuguese Africa	–	–	–	37,599	179,379	419,752
Roumania	–	–	–	41,025	–	40
Russia	–	–	–	5,426	–	522
Salvador	–	–	–	3,376	13,845	13,760
San Domingo	–	–	–	5,622	19,048	14,871
Siam	–	–	–	2	17	–
Spain	16,222	3,638	6,681	40,989	28,910	27,496
Canary Islands	–	–	–	298	–	–
Sweden	40,283	17,261	12,965	19,826	18,850	701
Switzerland	186,524	144,443	203,176	4,004	–	256
Syria	13	–	–	–	–	–
Turkey	1,085	612	34,877	1,931	57	–
United States	21,418,770	16,366,165	18,754,942	9,505,252	7,826,076	9,204,155
Alaska	186	–	38	2,159	16	70
American Virgin Islands	91	76	–	326	574	–
Hawaii	–	–	–	9,337	1,319	741
Philippine Islands	–	32,737	–	11,730	20,810	8,797
Porto Rico	–	–	–	17,190	21,337	33,307
Uruguay	–	–	5,138	3,324	5,162	4,157
Venezuela	–	–	–	9,493	19,626	30,780
Other foreign countries	–	–	47,785	–	–	6,903
Total foreign countries	24,391,452	20,512,797	24,018,473	11,945,635	10,983,922	12,791,478
Total	**28,888,349**	**24,760,237**	**28,404,276**	**16,472,606**	**16,209,820**	**17,498,128**

Table 21.—Alphabetical List of Materials Used in the Chemicals and Allied Products Industry in Canada, 1925

Item	Industry number (See list on page 49)	Unit of measure	Quantity	Value
				$
Acetone	4–5–11	lb.	286,268	44,588
Acetylene	3–4	cu. ft.	17,072,311	89,116
Acid, acetic	11–20–27	lb.	678,225	41,059
Acid, boracic	3–20–28	lb.	6,858	670
Acid, carbolic	17	lb.	250	137
Acid, cresylic	2	–	–	2,270
Acid, gallic	17	lb.	200	128
Acid, hydrochloric (muriatic)	3–11	lb.	9,091	313
Acid, nitric	3–5–6–11–21	lb.	9,850,183	671,389
Acid, oxalic	3–24	lb.	4,147	378
Acid, phosphoric	3–28	lb.	61,944	3,699
Acid, sulphuric 50° Bé	3–9	lb.	3,864,540	16,242
Acid, sulphuric 60° Bé	3	lb.	2,644,695	27,277
Acid, sulphuric 66° Bé	3	lb.	3,723,277	35,936
Acid, sulphuric 100%	3	lb.	1,831,518	13,736
Acid, sulphuric, n.e.s.	5–11–18–20	lb.	13,833,300	144,573
Acid, tannic	17	lb.	8,000	4,002
Acid, tartaric	10–23–26	lb.	72,626	15,205
Acids, fatty	12–14–24	lb.	2,652,239	190,902
Acids, n.e.s.	5	lb.	2,990,981	13,372
Albumen, egg	26	lb.	380	491
Alcohol, acetone	21	gal.	336	374
Alcohol, butyl (butanol)	11	gal.	12,771	37,866
Alcohol, denatured	15–16–21–24	gal.	5,576	4,993
Alcohol, ethyl	5–6–7–10	gal.	284,187	636,939
Alcohol (not specified)	11–14–20–21–23–24–28	gal.	209,161	275,216
Alumina, hydrate	16	lb.	16,960	3,048
Aluminium (metal)	6–7	lb.	4,354	1,530
Aluminium sulphate	3–11–20–26	lb.	250,538	7,433
Ammonia, anhydrous	3–15–27	lb.	54,211	11,569
Ammonium hydroxide	3–4–5–7	lb. NH_3	1,343,571	115,167
Ammonium nitrate	5	lb.	4,234,913	250,661
Ammonium oxalate	7	lb.	100	17
Ammonium perchlorate	5	lb.	44,722	2,804
Ammonium phosphate	8–9	lb.	418,479	17,554
Ammonium sulphate	3–9–10–18	lb.	2,582,365	69,159
Amyl acetate	21	gal.	48	281
Antimony	0–11	lb.	29,720	4,232
Antimony oxide	11	lb.	212,803	32,843
Antimony, sulphide	6	lb.	3,214	386
Asbestine	11	lb.	2,692,334	36,977
Asbestos	1	lb.	27,912	204
Asphalt	6	lb.	159,916	5,689
Asphaltum	11	lb.	595,860	19,380
Arsenic, white	3–11–27	lb.	359,500	23,526
Barium carbonate	28	lb.	20,000	500
Barium chloride	27	lb.	6,600	389
Barium peroxide	3–10	lb.	69,068	8,058
Barytes	11–24	–	–	72,489
Benzine	11–16–24	gal.	51,321	11,576
Bismuth metal	10	lb.	3,280	7,917
Blanc fixe	11–16	lb.	219,850	2,900
Blankets, rubber	16	–	–	1,970
Blood, dried	9	lb.	610,300	18,309
Blue, prussian	11	lb.	79,091	8,260
Bone ash	9	lb.	130,900	355
Bone flour	9	lb.	96,000	1,200
Bone meal	9	lb.	1,419,680	18,955
Bristles	21	–	–	7,000
Bronze powder	11	lb.	458	498
Buttons	21	–	–	161
Butyl acetate	11	gal.	28,100	83,662
Butyl phthalate	11	gal.	17,052	10,463
Caffeine	10	lb.	2,649	8,435
Calcium acetate	3–11–18	lb.	2,196,338	55,028
Calcium carbide	3–4	lb.	190,085,550	7,659,030
Calcium carbonate	3–5–8–11–20–21	lb.	544,442,080	605,143
Calcium chloride	3–11–13–25	lb.	1,032,577	21,651
Calcium cyanamide	3–9	lb.	39,338,582	836,913
Calcium fluoride	3	lb.	4,949,760	36,167
Calcium hydroxide (slack lime)	3–18	lb.	4,934,303	26,946
Calcium oxide	3–4–11–13–18–20–27	lb.	148,171,971	648,627
Calcium sulphate	26	lb.	4,875	231
Carbon black	16	lb.	167,550	12,789
Celluloid	11–21	–	–	126,429
Charcoal	3–5–6–7–28	lb.	410,272	7,390

Table 21.—Alphabetical List of Materials used in the Chemicals and Allied Products Industry in Canada, 1925—Continued

Item	Industry number (See list on page 49)	Unit of measure	Quantity	Value
				$
Chemicals, n.e.s.	7-8-17-20-21-28	–	–	168,247
Chlorine, liquid	13	lb.	110,144	7,800
Clay, china	6-8	lb.	106,336	1,273
Clock movements	21	–	–	2,000
Coal, anthracite (not fuel)	3	ton	2,319	15,790
Coal, bituminous (not fuel)	3	ton	900	3,589
Cobalt salts	11	lb.	4,949	4,475
Cocoa	23	lb.	8,410	655
Coke (not fuel)	3-4	ton	89,886	759,391
Colour, butter	15	–	–	10,862
Colours in oil	11	gal.	20,162	54,437
Copper	6-21	lb.	110,117	19,752
Copper sulphate (blue vitriol)	3-27	lb.	736,594	35,574
Cordite	5-6	lb.	27,798	37,452
Cork	20	lb.	15,200	876
Corn meal	5	lb.	245,539	7,071
Cotton	6-7-20-24	–	–	118,992
Creosote	11-27	–	–	23,969
Cups, brass, cartridge and shot shell	6	No.	274,234	67,604
Cups, copper	6	No.	194,944	54,783
Cups, iron	6	No.	30,798	5,295
Dextrine and glucose	20-22-24	lb.	755,046	38,258
Dinitrotoluene	5-7	lb.	330,853	33,980
Driers, linolate	11	–	–	11,667
Driers, liquid	11	gal.	4,458	2,084
Driers, resinate	11	–	–	35,325
Dye mixtures	15	–	–	29,242
Dyes, aniline	15	lb.	18,250	14,241
Dyes and colours	8-17-20-21-24	–	–	35,501
Electrodes, carbon	3	lb.	6,695,808	329,379
Ether, sulphuric	21	lb.	11,249	2,249
Ethyl acetate	11	gal.	31,365	34,151
Extracts	10	gal.	144	339
Extracts, tanners'	22	lb.	142,332	1,412
Feldspar	12	ton	703	21,959
Felts	1-6	lb.	7,914,193	321,150
Flour	5-11-20-23	–	–	28,920
Flowers, insect	27	ton	21	12,500
Flowers, japanese	27	lb.	13,942	5,937
Fluorspar	3	ton	1,228	30,700
Foils, elaton	21	–	–	1,186
Foots (cottonseed, olive, etc.)	12-13-14	–	–	186,333
Formaldehyde	3-8-28	–	–	1,812
Gasoline	20-24	gal.	32,539	8,430
Gelatine	23	lb.	223,306	62,997
Glass	8-21	–	–	7,566
Glue	6-8-11-16-20-24	–	–	131,150
Glycerine, crude	12-14-28	lb.	2,809,813	343,397
Glycerine, refined	12-14	lb.	200,435	63,610
Glycerine (not specified)	5-10-11-16-17-24	lb.	4,413,069	773,887
Graphite	3-5-11	lb.	192,140	8,518
Greases	3	–	–	44,574
Gum	8-10-11-17	lb.	1,733,131	387,992
Hardwood	18	cord	49,514	463,616
Hexite	5	lb.	321	177
Hops	26	lb.	27,043	8,917
Hydrogen sulphide	3	lb.	55,000	4,881
Inks, printing	16	lb.	10,815	1,082
Iodine, crude	10	lb.	17,340	75,480
Iodine, resublimed	10	lb.	350	1,926
Iron oxide ore	11	lb.	142,479	6,751
Iron sulphate (copperas)	3	ton	8	160
Iron sulphide	3-8	ton	15,117	76,825
Japans and lacquers	11-24	gal.	32,416	54,487
Kainit and other crude potash salts	9	lb.	100,000	1,252
Kaolin	11	lb.	986,724	13,188
Keiselguhr	5-8	lb.	3,615	154
Kerosene	22-27	gal.	28,418	4,956

Table 21.—Alphabetical List of Materials Used in the Chemicals and Allied Products Industry in Canada, 1925—Continued

Item	Industry number (See list on page 49)	Unit of measure	Quantity	Value
				$
Lacquers, dipping	21	gal.	180	392
Lakes, coal tar (all colours)	11	lb.	24,290	14,472
Lampblack	11	lb.	390,541	60,338
Lead	6	lb.	507,135	44,515
Lead, basic carbonate, white, dry	11	lb.	6,712,696	805,088
Lead, basic carbonate, white in oil	11	lb.	1,918,277	222,967
Lead, basic sulphate, white	11	lb.	134,890	15,969
Lead, pig	11	lb.	20,149,285	1,686,003
Lead, red	11	lb.	673,390	77,514
Lead, sublimed, blue	11	lb.	1,357	156
Liquor, mother	9	lb.	2,463,840	10,903
Litharge	3-11-21-27	lb.	1,258,796	141,485
Lithopone	11-24	lb.	6,244,774	339,764
Lumber	6-7-8	–	–	368,793
Magnesium carbonate	5-7	lb.	4,906	476
Magnesium sulphate (epsom salts)	3-10	lb.	68,362	1,921
Malt	15	bush.	1,460	3,262
Manganese salts	11	lb.	52,723	4,069
Marble	11	lb.	181,500	2,032
Menthol	14	lb.	508	6,610
Methyl hydrate	2-18	imp. gal.	346,386	235,597
Methyl hydrate, pure	18	lb.	92,020	78,217
Methyl salicylate	27	lb.	12,525	5,570
Mononitronaphthalene	7	lb.	28	112
Myrbane	25	lb.	6,286	838
Naphtha (coal-tar), and benzol	11-20-21-24	gal.	388,298	92,358
Nickel sulphate	3	lb.	27,432	2,126
Nicotine sulphate	27	lb.	198	168
Nitrobenzene	5-7	lb.	7,550	938
Nitrocellulose	11	lb.	13,007	5,853
Nitrocotton (pyrocotton)	5-11	lb.	170,086	84,597
Nitrogen	3	M cu. ft.	1,208,814	–
Nitroglycerine	5	lb.	9,039,492	1,611,924
Nitrotoluene	7	lb.	50	8
Ochres, siennas, umbers	11	lb.	1,572,260	53,557
Oil, castor	12-14-21-22	lb.	275,549	45,583
Oil china wood	11	gal.	47,896	400,446
Oil, cocoanut	12-13-14	lb.	8,678,451	879,017
Oil, corn	12	lb.	35,714	3,449
Oil, cottonseed	12	lb.	176,961	15,981
Oil, codliver	10	gal.	8,144	11,797
Oil, flux	1	gal.	36,861	3,560
Oil, linseed, raw	11-12-13-14	gal.	1,218,970	1,272,276
Oil, linseed, boiled	11	gal.	291,271	321,288
Oil, olive	12-14	lb.	166,857	18,063
Oil, palm	12	lb.	6,642,200	641,979
Oil, peanut	12-14	lb.	699,316	72,895
Oil, paint and elixirs	11	gal.	15,546	13,214
Oil, soya bean	11-12	gal.	277,887	252,216
Oils, essential	12-13-14-23	–	–	465,844
Oils, fish	11	gal.	66,356	53,985
Oils, stand, blown and enamel	11	gal.	36,626	55,131
Oils (not specified)	2-3-11-16-17-24-25-27-28	–	–	390,258
Oleum	5	lb.	7,487,729	76,850
Orris	14	lb.	5,895	809
Oxygen	3	cu. ft.	1,661	35
Palm, nut, cake meal	5	lb.	365,427	7,939
Pancreas	10	–	–	2,954
Paper, carbon	17	lb.	12,598	3,262
Paper, transfer	16	–	–	1,506
Paper, n.e.s.	5-6-7	–	–	142,730
Paints, mixed	11-22	–	–	57,925
Paints, paste	11	lb.	42,661	9,114
Paints, asphaltic and tar	11	gal.	698	1,396
Paradichlorobenzol	2	lb.	19,000	3,069
Paris black	8	lb.	3,852	501
Paste	20	–	–	196
Paste, electrode	3	ton	327	8,500
Peppermint	14	lb.	429	1,778
Perfumes	12-13-14	–	–	67,252
Peroxide	10	lb.	34,929	2,096
Petrolatum	5-6-12-14	lb.	324,381	35,770
Petroleum distillate	11	gal.	1,449,936	367,598
Petroleum products	5-6	gal.	404,723	25,835

Table 21.—Alphabetical List of Materials Used in the Chemicals and Allied Products Industry in Canada, 1925—Continued

Item	Industry number (See list on page 49)	Unit of measure	Quantity	Value
				$
Phosphate, acid (superphosphate)	9-23-26	lb.	30,123,615	338,463
Phosphorus, crude	3	lb.	9,000	1,287
Phosphate, di-sodium	11	lb.	11,189	599
Phosphate rock	3-9	ton	13,664	179,100
Phosphate, sodium	22	lb.	6,000	250
Phosphate, tri-sodium	22-26	lb.	925,381	39,805
Phosphorus, sesqui sulphide of	8	lb.	69,746	37,392
Pigments, iron oxide	11	lb.	1,758,738	59,962
Pigments, all other	11-16-21-24	lb.	4,542,568	867,172
Pitch	16	lb.	23,006	796
Pitch, coal tar	11	lb.	257,989	23,370
Plaster, lime or land	9	lb.	3,891,514	6,139
Potassium bicarbonate	28	lb.	1,476	236
Potassium carbonate	2-4-9-24	lb.	663,910	14,723
Potassium chlorate	5-6-7-8	lb.	1,042,361	72,061
Potassium chloride	9	lb.	6,104,772	105,765
Potassium hydroxide	12-13-14-28	lb.	237,345	13,357
Potassium nitrate (saltpetre)	5-7	lb.	152,789	8,717
Potassium sulphate	9	lb.	460,655	11,501
Powder, insect	27	lb.	300	285
Powder, n.e.s	7	–	–	1,614
Pyrolin	21	lb.	47,406	30,816
Pyroxylin jelly	21	lb.	404,413	52,440
Pyroxylin products	11	–	–	190,223
Pyroxylin solution	11	lb.	4,210	1,358
Quartz, ground	8	lb.	65,300	1,422
Rennets	28	–	–	35,624
Rhinestones	21	gross	8,626	2,979
Resin	1-5-6-7-8-11-12-13-14-16-24	lb.	13,536,584	664,858
Rochelle salts	22	lb.	475	120
Rubber	20-21	lb.	664,911	90,596
Rubber substitute	6	lb.	12,686	1,219
Rye	26	lb.	346,569	8,304
Sand	25	ton	1,000	1,506
Satin white or gypsum	11	lb.	391,659	5,354
Sawdust	25	–	–	1,080
Scrap, fish, dried	9-20	lb.	908,000	20,290
Seed, annatto	28	lb.	36,703	7,043
Shellac	15-16-20-24	–	–	30,110
Shellac, spirits	11	gal.	2,469	2,144
Shot	6	lb.	1,221,166	130,482
Silica, silex and infusorial earth	3-11-12-13-24	ton	7,727	106,546
Silver, bar	21	ounce	19,981	13,987
Silver, bullion	10	ounce	32,650	24,209
Slag, basic	9	lb.	10,857,200	50,379
Soap	2-3-10-12-14-24-27-28	–	–	19,087
Sodium	22	lb.	224	112
Sodium biborate (borax)	5-10-20-27	lb.	167,611	8,687
Sodium bicarbonate	5-10-11-24-26	lb.	2,442,729	55,031
Sodium bichromate	3-11-27	lb.	173,893	14,400
Sodium bisulphate	3	lb.	782,380	1,760
Sodium carbonate	1-3-5-7-11-12-13-20-22-27	lb.	10,814,101	198,771
Sodium chlorate	3	lb.	216	12
Sodium chloride, dry (common salt)	3-5-10-12-14-18-21-22-28	lb.	84,339,875	125,055
Sodium chloride, brine	3	lb.	131,434,000	25,829
Sodium cyanide	3	lb.	9,256	1,574
Sodium fluoride	2	lb.	3,726	335
Sodium hydroxide (caustic soda)	1-3-12-13-14-18-22-26-27-28	lb.	12,916,435	473,667
Sodium nitrate (Chile saltpetre)	3-5-9	lb.	31,241,073	802,737
Sodium nitrite	3	lb.	64,000	2,460
Sodium silicate (water glass)	3-6-12-13-14-22-28	lb.	13,326,839	133,931
Sodium sulphate	3	lb.	1,366,562	9,979
Sodium sulphite	3-21	lb.	19,048	834
Soda, yellow prussiate of	11	lb.	34,327	2,793
Sodium salts (kind not specified)	3	–	–	1,796
Solvents	21-24	–	–	24,692
Spirits, white	24	gal.	9,871	3,549
Starch and glucose	17	–	–	3,050

Table 21.—Alphabetical List of Materials Used in the Chemicals and Allied Products Industry in Canada, 1925—Concluded

Item	Industry number (See list on page 49)	Unit of measure	Quantity	Value
				$
Starch, corn	5-6-20-23-26	lb.	6,625,105	261,720
Steel	24	lb.	29,740	2,825
Steels, manicure	21	–	–	1,200
Stone, pumice	8-24-27	–	–	1,107
Strychnine	27	ounce	125	137
Sugar and its derivatives	5-10-23-28	lb.	2,279,811	146,135
Sugar, grape	15	lb.	92,000	4,140
Sulphur	3-5-6-7-8-27	ton	27,209	387,892
Syrup, corn	28	brl.	359	14,052
Talc	12-14	lb.	1,041,104	21,008
Tallow	12-13-14-24	–	–	3,353,783
Tankage	9	lb.	5,524,107	71,192
Tar-coal, water gas, and coke oven	1	imp. gal.	1,326,070	105,183
Tar, crude coal	1	imp. gal.	13,044,964	787,120
Tar, crude oil	1	imp. gal.	75,531	6,045
Tar, pine	11	–	–	1,572
Textiles	17-21	–	–	542,751
Thymol	14	lb.	308	1,363
Tin	6	lb.	6,914	3,851
Toluol	11	gal.	28,878	13,278
Trimmings, bone and hide	20	ton	5,548	110,323
Trinitrotoluene	6	lb.	136	88
Tubes, lead	24	–	–	1,156
Turpentine, gum spirits	11-24	gal.	352,287	429,419
Turpentine, wood	2-11	gal.	124,916	46,560
Ultramarine	11-24	lb.	254,772	39,485
Vanilla beans	23	lb.	9,832	73,893
Vanillin	23	lb.	873	5,742
Varnishes, all kinds	11-16-21	–	–	1,603,520
Vinegar	24	gal.	960	206
Wax	8-11-24	lb.	1,622,885	137,366
Wine	10	gal.	10,650	14,098
Wire, copper	6	lb.	76,597	19,886
Wire, iron	6	lb.	13,227	1,088
Wood meal	5	lb.	647,538	6,163
Wood pulp	5-6	lb.	1,696,140	104,128
Xylol	11	gal.	9,196	5,491
Yarn, jute	6	lb.	205,393	34,946
Zinc	3-11-21	lb.	806,935	50,371
Zinc ashes	27	ton	30	356
Zinc ore	11	lb.	49,988	5,829
Zinc oxide	8-11-14-24	–	11	169,652
Zinc oxide, leaded and zinc leads	11	lb.	2,063,266	148,366
Zinc sulphate	3-20	lb.	84,708	2,615
Containers	–	–	–	6,500,284
All other materials	–	–	–	5,825,444
Total	–	–	–	**56,299,219**

Table 22.—Alphabetical List of Products Made in all the Industries Classified under Chemicals and Allied Products, in Canada, in 1924 and 1925

(Includes intermediate products made for use)

Commodity	Producing industry numbers (See list at end of table)	Unit	1924		1925	
			Quantity	Total selling value	Quantity	Total selling value
				$		$
Acetate (grey) of lime, 80%	18	lb.	10,889,845	283,990	8,851,270	391,329
Acetone	18	lb.	993,278	176,584	346,478	65,821
Acetone oils	18	lb.	216,361	39,378	81,107	14,599
Acetylene (compressed or dissolved)	3–4	cu. ft.	167,678,509	1,210,839	178,163,651	1,334,029
Acid hydrochloric (muriatic) 20°Bé	3	lb.	5,190,032	79,697	7,128,821	101,859
Acid, mixed	5	lb.	2,342,043	79,105	–	–
Acid, nitric	5	lb.	7,616,979	510,128	7,747,311	533,771
Acid, nitric (40°–42° or 1·4 sp. gr.)	3	lb.	771,668	72,918	–	–
Acid, nitric, 100%	3	lb.	–	–	435,186	38,079
Acid, nitric, 38°	3	lb.	51,412	4,385	411,236	34,560
Acid, n.e.s. (includes phosphoric, hydrofluosilicic and sulphurous)	3–27–28	–	–	81,379	–	130,474
Acid, recovered	5	lb.	9,475,721	150,134	10,545,967	133,202
Acid, sulphuric fuming 20% (oleum)	3	lb.	52,303,329	494,897	434,068	1,352
Acid, sulphuric, 50° Bé	3–9	lb.	18,246,400	76,619	27,824,000	102,718
Acid, sulphuric, 60° Bé	3	lb.	12,859,213	101,446	11,830,000	117,181
Acid, sulphuric, 66° Bé	3	lb.	64,596,885	615,382	81,412,758	723,864
Acid, sulphuric, 100%	3	lb.	51,799,655	494,419	52,658,808	415,299
Amount received from custom work and repairs	6–16–28	–	–	24,057	–	20,806
Bismuth, salts of	10	lb.	2,834	6,346	–	10,750
Blue, laundry	12–13	–	–	16,310	–	13,141
Bone, dissolved	9	lb.	210,344	2,412	–	–
Bullets, shot, dropped and moulded, and shot shell wads	6	–	–	334,824	–	231,995
Calcium oxide (quicklime)	3	lb.	133,324,360	568,618	140,798,000	596,970
Calcium compounds, n.e.s. (includes arsenate carbide, cyanamide, bisulphite and hypochlorite and hydroxide)	3–27	–	–	12,858,330	–	13,580,950
Carbon dioxide	4	lb.	3,428,953	356,679	3,650,547	372,060
Cement, granite	20	–	–	1,643	–	400
Cement, roofing, and preservatives	1	lb.	2,724	107,144	–	–
Cement, rubber	20	gal.	72,277	73,355	68,610	70,408
Charcoal	18	bus.	2,892,404	715,351	2,422,490	535,720
Chemicals, n.e.s	3	–	–	2,725	–	–
Chlorine, liquid	3	lb.	9,338,850	299,897	–	388,397
Cleaner, hand	12–24–27	–	–	178,680	–	14,858
Collodion	21	gal.	3,966	11,898	4,002	12,006
Colouring, butter and cheese	15–28	–	–	58,737	–	55,002
Colours, dry	11–16	lb.	–	374,270	2,865,621	540,730
Colours, food and show card	11–16–28	–	–	3,106	–	3,141
Colours in oil or japan	11	lb.	1,284,319	310,984	–	388,435
Colours, straw hat	15	–	–	11,020	–	8,830
Columnian spirits	18	gal.	3,372	5,597	–	4,521
Compounds, boiler	22	–	–	211,221	–	239,633
Compounds, sweeping	11–24–25–27–28	–	–	73,360	–	75,049
Compounds, washing	12–13–24–26–27	–	–	169,030	–	267,532
Compounds, welding, and case hardening	28	–	–	12,031	–	14,838
Confectionery, licorice and chocolate	10	–	–	184,667	–	–
Containers, boxes, etc	5–6	–	–	295,707	–	–
Copper compounds, n.e.s., including carbonate, cyanide, and sulphate	3	–	–	–	–	18,802
Cotton, rubberized	20	–	–	10,675	–	11,363
Creosote, cresylic	1	gal.	1,478,680	245,761	526,544	77,373
Creosote, wood	18	lb.	327,279	71,347	213,612	42,723
Disinfectants	1–2–10	–	–	132,588	–	127,462
Driers, linoleate	11	gal.	139,181	244,793	5,084	9,082
Driers, resinate	11	gal.	67,841	85,809	99,493	103,411
Dyes, n.e.s	15–24	–	–	404,594	–	373,285
Dynamites, Div. I, Class III	5	lb.	9,172,523	1,390,960	12,538,660	1,897,005
Dynamites, gelatine, Div. I, Class III	5	lb.	18,381,624	2,911,295	18,965,696	2,977,139
Enamels	11–24	gal.	–	1,018,891	295,375	1,115,118
Extracts, flavouring, and essences	23	gal.	65,157	590,546	–	649,007
Explosives, n.e.s. (includes monobels, coalites, cordite, dried amatol, gunpowder, chlorate mixtures, nitrate mixtures, mercury fulminate and propellant powders)	5	–	–	682,277	–	789,350
Feeds, poultry and stock	9	–	–	51,754	–	86,592
Felts, tarred and sheathings	1	–	–	493,085	–	613,054
Fertilizers, complete	9	lb.	61,422,923	1,086,806	81,580,802	1,142,510
Fireworks, manufactured	7	–	–	123,201	–	128,684
Fish scrap	9–20	lb.	382,000	13,518	–	5,650
Fluids, embalming	2–28	–	–	1,080	–	1,449
Flour, bone (steamed)	9	lb.	338,160	8,840	479,543	9,322
Flour, corn, malt, doughnut and cake mix	15–20–23	lb.	220,482	31,915	–	31,252

Table 22.—Alphabetical List of Products Made in all the Industries Classified under Chemicals and Allied Products, in Canada, in 1924 and 1925—Continued

(Includes intermediate products made for use)

Commodity	Producing industry numbers (See list at end of table)	Unit	1924		1925	
			Quantity	Total selling value	Quantity	Total selling value
				$		$
Formaldehyde	18	lb.	1,398,989	200,395	1,157,700	173,655
Fuses, safety and electric, primers, safety cartridges, percussion caps and detonators	6	–	–	1,502,035	–	1,103,003
Glue, liquid (see glue, mucilage and paste)	20	gal.	31,198	40,086	–	–
Glue, mucilage and paste	17–20	–	–	998,643	–	975,278
Glycerine, crude, sold as such	12	lb.	3,250,408	347,574	3,288,092	385,939
Glycerine refined	12	lb.	3,367,899	690,295	3,401,722	687,711
Greases	20	lb.	928,413	59,691	702,000	49,181
Gums and paste powder	20	–	–	60,338	–	66,431
Hydrogen peroxide	3–10	–	–	54,266	–	43,332
Ink, printers'	11–16	–	–	1,351,008	–	1,442,512
Ink powder	17	–	–	1,537	–	370
Ink, writing, and adhesives	17–24	–	–	237,684	–	226,049
Innersoling, box toe goods, and shoecloth top facings	20	–	–	21,479	–	–
Insecticides, n.e.s.	2–3–27	–	–	493,940	–	239,392
Iodine, resublimed	10	lb.	3,501	17,183	3,814	18,941
Japans and lacquers	11	gal.	294,225	417,326	303,548	658,305
Kalsomine and muresco	11	lb.	3,078,320	206,851	–	224,804
Lead arsenate	3–27	"	449,085	93,865	422,006	82,678
Lead, basic carbonate, white, dry	11	"	6,662,478	625,231	8,345,879	710,697
Lead, basic carbonate, white, in oil	11	"	14,406,356	1,656,244	14,226,941	1,519,520
Lead, red and litharge	11	"	6,174,850	547,996	–	632,116
Lye	12–13–26	–	–	411,472	–	387,975
Matches	8	–	–	1,674,001	–	2,054,640
Medicines, patent, and proprietary preparations	10	–	–	6,265,526	–	5,837,150
Methyl hydrate, crude, 95%	18	imp. gal.	461,919	309,001	373,974	242,687
Methyl hydrate, pure	18	lb.	428,458	306,531	434,640	420,837
Mops and parts	24	–	–	82,800	–	101,519
Mucilage (see glue, mucilage and paste)	17	–	–	9,725	–	–
Nitroglycerine	5	lb.	8,317,487	1,500,180	9,039,492	1,611,924
Oil, core	11	gal.	38,185	27,493	36,154	26,031
Oil, creosote and special	1	gal.	1,991,287	395,733	2,158,804	369,570
Oils, boiled linseed	11	gal.	–	295,330	98,837	123,780
Oil, stand, blown or enamel	11	gal.	39,447	78,002	96,338	109,362
Oils, sulphonated	3	–	–	–	–	79,855
Oil, n.e.s., including animal, vegetable, cod, lard, etc	3–17–23–28	–	–	149,188	–	139,144
Oxygen	4	cu. ft.	68,331,575	893,688	68,685,153	897,942
Paints, asphaltic and tar	11	gal.	98,259	115,580	292,537	244,015
Paints, cold water	11	gal.	–	–	844,373	70,786
Paints, mixed ready for use	11	gal.	2,398,109	6,903,281	2,639,839	7,303,436
Paints, n.e.s., and enamels	11–16	lb.	1,928,492	156,965	–	70,689
Paints, paste	11	lb.	5,383,839	824,200	6,153,135	690,861
Paints, protective	11	–	–	–	–	115,550
Paint oil	11	–	–	–	–	201,725
Paper, carbon	17	–	–	20,698	–	18,230
Pastes (see glue, mucilage and paste)	11–16–17	lb.	186,300	12,853	–	–
Perfumes	12–14	–	–	276,038	–	373,346
Phosphate, acid (superphosphate)	9	lb.	7,150,222	73,140	11,190,734	131,378
Pigments, iron oxide	11	lb.	380,300	19,063	364,863	18,286
Pitch	1	lb.	50,594,779	369,188	42,717,074	335,949
Polish, furniture	20–22–24	–	–	195,658	–	187,380
Polish, harness	24	–	–	11,768	–	10,282
Polish, metal	24	–	–	16,836	–	75,291
Polish, pastes and shoe dressings	24	–	–	485,591	–	453,242
Polish, stove	24	–	–	181,888	–	178,253
Polish, n.e.s.	24	–	–	48,626	–	31,528
Potassium iodide	10	lb.	6,523	23,529	8,577	32,635
Powder, ammonia	12–13–28	–	–	143,379	–	154,963
Powder, baking	23–26	lb.	6,825,212	1,774,381	6,669,031	1,663,535
Powder, ice cream	23	lb.	42,464	12,961	–	11,826
Powder, jelly	23	lb.	1,998,485	484,547	–	576,566
Powder, lemonade and orangeade	23–28	–	–	7,202	–	11,338
Powder or preparations, other cleaning and scouring	12–13	lb.	1,556,901	172,129	–	544,679
Powder, prepared pudding, custard and junket	23–28	–	–	31,502	–	34,664
Powder, soap	12–20	lb.	12,442,762	984,976	11,607,570	920,766
Preparations, pharmaceutical	2–10–23	–	–	3,785,504	–	5,049,116
Preparations, toilet and tooth paste	10–12–14–23	–	–	3,738,092	–	4,028,065
Products, celluloid	21	–	–	711,241	–	674,979

Table 22.—Alphabetical List of Products Made in all the Industries Classified under Chemicals and Allied Products, in Canada, in 1924 and 1925—Concluded

(Includes intermediate products made for use)

Commodity	Producing industry numbers (See list at end of table)	Unit	1924		1925	
			Quantity	Total selling value	Quantity	Total selling value
				$		$
Products, not separately itemized	1-2-3-5-6-9-10-11-12 13-14-16-17-20-21-23-24-26-27-28	–	–	2,569,612	–	3,215,896
Putty and other fillers	11	lb.	5,951,563	322,315	7,344,331	370,448
Pyroxylin compounds and thinners	11	–	–	102,259	–	655,723
Removers, paints and varnish	11	–	–	34,921	–	44,505
Resin, prepared and size	11-20	–	–	125,983	–	211,751
Rollers, printers'	16	–	–	205,774	–	214,222
Shellac	11	gal.	130,654	532,446	159,313	525,283
Shells, dynamite, cartridge, primed cartridge, empty shot, loaded shot	6	–	–	1,240,197	–	507,985
Signals, railway	6-7	–	–	126,303	–	93,009
Silver nitrate	10-21	lb.	3,657	28,273	–	26,936
Soap, foots	12	lb.	137,287	11,426	130,210	10,470
Soap, household	12	lb.	41,675,620	3,107,893	46,920,389	3,538,591
Soap, laundry and soap chips	12-13	lb.	43,026,334	4,150,022	39,386,350	3,924,003
Soap, liquid	2-12-13-14-27	–	–	50,425	–	45,393
Soap, polishing and scouring	12-13	lb.	2,189,883	166,717	847,347	57,514
Soap, all other hard	12-14	lb.	3,262,558	249,288	–	285,213
Soap, soft	12-13-14	lb.	909,961	60,501	1,351,148	77,517
Soap, toilet	12-14	lb.	15,905,020	2,642,719	16,040,634	2,692,699
Soap, n.e.s.	3-28	lb.	238,861	26,369	–	60,811
Sodium bisulphate (nitre cake)	3-5	lb.	5,198,087	8,641	2,855,151	4,833
Sodium sulphate (saltcake)	3	–	–	42,402	5,826,702	40,878
Sodium sulphate (glauber's salt)	3	lb.	2,916,622	36,602	2,883,158	33,559
Sodium compounds, n.e.s. (includes arsenate, bisulphite, carbonate, cyanide, hydroxide and silicate)	3-5-11-17-26-27	–	–	5,440,181	–	5,565,636
Solution, anti-freeze	11-24-28	gal.	–	7,773	6,280	5,916
Solution, lime-sulphur	27	–	–	59,074	220,300	62,785
Stains	11-16-24	–	–	673,871	–	642,582
Substitute, egg, including powdered albumen	23	lb.	65,226	52,816	–	146,827
Tallow, refined	12-14	lb.	–	26,040	15,273	1,083
Tankage	9-20	–	–	6,800	–	51,534
Tar, refined	1	gal.	1,602,140	113,913	2,168,606	189,423
Tar, road	1	gal.	1,178,258	103,544	–	758,407
Tar, tarvia and protective covering	1	lb.	1,068,029	420,021	–	
Varnishes, all kinds	11-16-24	–	–	4,351,956	–	4,660,337
Water, javelle	13-25-26	–	–	186,647	–	218,702
Wax, floor and polishes	11-24	–	–	237,889	–	310,476
Wines, medicated	10	–	–	46,533	–	51,740
Wire, connecting and covered for fuses	6	–	–	71,912	–	–
Zinc compounds, n.e.s., including carbonate, chloride, chlorite and cyanide	3	–	–	–	–	1,921
Zinc, zinc oxide and zinc dust	11-21	–	–	22,422	–	22,797
Products, all other (includes acetaldehyde, acetylene black, acetic acid, aqua and anhydrous ammonia, ammunition, aluminium paint, arsenical solution, barium sulphate, beverages, borax, carbolic acid, cakes, casein spreader, catsup, chlorine, copperarsenic distillate, cream of tartar, dextrimaltose, deoxidine, food colours, fabrikoid products, glycerine prepared, icings, iron phosphide, mortar colours, nitrous ether, machine fluids, nitrogen, nickel salts, nitrated iron, phosphorus paraldehyde, paris green, radiator neverleak, rubber goods, rennet, pie and cake fillings, prepared mustard, starch, sealing wax, stearine, syrups, sylkraft, serums and antitoxins, yeast and other products)	–	–	–	5,522,750	–	5,929,740
Total	–	–	–	**108,217,237**	–	**112,906,746**

Key to the Numbered Industries

Coal Tar and its Products—
1. Coal Tar Distillation.
2. Disinfectants.

Acids, Alkalies, Salts and Compressed Gases—
3. Acids, Alkalies and Salts.
4. Compressed Gases.

Explosives, Ammunition, Fireworks and Matches—
5. Explosives.
6. Ammunition.
7. Fireworks.
8. Matches.
9. Fertilizers.
10. Medicinal and Pharmaceutical Preparations.
11. Paints, Pigments and Varnishes.

Soaps, Washing Compounds and Toilet Preparations—
12. Soaps.
13. Washing Compounds.
14. Toilet Preparations.

Inks, Dyes and Colours—
15. Dyes and Colours.
16. Printing Ink.
17. Writing Ink.

Wood Distillates and Extracts—
18. Wood Distillation.
19. Wood Extracts.

Miscellaneous Chemical Products—
20. Adhesives.
21. Celluloid Products.
22. Boiler Compounds.
23. Flavouring Extracts.
24. Polishes and Dressings.
25. Sweeping Compounds.
26. Baking Powder.
27. Insecticides.
28. Chemical Products, not elsewhere specified.

Table 23—Wholesale Prices of Certain Chemicals in Canada, 1913-1925

Coal Tar, Crude

Price per barrel, f.o.b. factory, in straight or mixed car lots—Monthly quotations from The Barrett Co. Ltd., Montreal

Averages				1925			
1913	$4.00	1920	$7.42	Jan.	$8.50	July	$9.25
1914	4.00	1921	8.50	Feb.	8.50	Aug.	9.50
1915	4.00	1922	8.50	March	8.50	Sept.	9.50
1916	4.00	1923	8.81	April	9.25	Oct.	9.50
1917	4.00	1924	9.01	May	9.25	Nov.	9.50
1918	5.44	1925	9.16	June	9.25	Dec.	9.50
1919	6.50						

Sulphuric Acid 66° Baumé

Price per cwt., ex warehouse Montreal and Toronto, in lots of 5-24 carboys

Averages				1925			
1913	$1.30	1920	$2.68	Jan.	$2.25	July	$2.25
1914	1.45	1921	2.53	Feb.	2.25	Aug.	2.25
1915	1.65	1922	2.35	March	2.25	Sept.	2.25
1916	1.85	1923	2.35	April	2.25	Oct.	2.25
1917	2.35	1924	2.34	May	2.25	Nov.	2.25
1918	2.85	1925	2.25	June	2.25	Dec.	2.25
1919	2.48						

PAINTS, ETC.

White Lead, Ground in Oil

Price per cwt. at Toronto, in ton lots—Monthly quotations from Hardware and Metal

Averages				1925			
1913	$ 8.229	1920	$19.818	Jan.	$16.20	July	$16.20
1914	8.375	1921	14.687	Feb.	16.20	Aug.	14.20
1915	9.546	1922	13.32	March	16.20	Sept.	14.20
1916	13.229	1923	14.42	April	16.20	Oct.	14.20
1917	16.825	1924	14.75	May	16.20	Nov.	14.20
1918	16.871	1925	15.367	June	16.20	Dec.	14.20
1919	16.534						

Pure Linseed Oil Putty

Price per cwt. at Montreal—Monthly quotations from Hardware and Metal and other sources

Averages				1925			
1913	$3.167	1920	$10.28	Jan.	$6.00	July	$6.00
1914	3.196	1921	8.218	Feb.	6.00	Aug.	6.00
1915	3.158	1922	6.67	March	6.00	Sept.	6.00
1916	3.562	1923	6.063	April	6.00	Oct.	5.50
1917	4.921	1924	6.00	May	6.00	Nov.	5.50
1918	7.492	1925	5.875	June	6.00	Dec.	5.50
1919	8.725						

Shellac, Pure Orange, in Barrels

Price per gallon, Montreal—Monthly quotations from Brandram-Henderson, Ltd.

Averages				1925			
1913	$1.65	1920	$7.71	Jan.	$4.25	July	$4.10
1914	1.81	1921	4.02	Feb.	4.25	Aug.	4.10
1915	1.90	1922	4.75	March	4.25	Sept.	4.10
1916	2.15	1923	5.30	April	4.10	Oct.	4.10
1917	3.76	1924	4.78	May	4.10	Nov.	4.10
1918	4.39	1925	4.13	June	4.10	Dec.	4.10
1919	5.15						

Table 23—Wholesale Prices of Certain Chemicals in Canada, 1913-1925—Continued

SOAP

Soap, Common Laundry

Price per case of 100 Toronto—Monthly quotations from Manufacturer

Averages			1925		
1913	$3.85	1920	$8.93	Jan.	$5.40	July	$5.40
1914	3.85	1921	6.78	Feb.	5.40	Aug.	5.40
1915	3.85	1922	6.10	March	5.40	Sept.	5.40
1916	3.87	1923	6.08	April	5.40	Oct.	5.40
1917	4.98	1924	5.88	May	5.40	Nov.	5.40
1918	6.68	1925	5.40	June	5.40	Dec.	5.40
1919	7.42						

MISCELLANEOUS INORGANIC CHEMICALS

Alum, Lump

Price per cwt. in bags—Monthly quotations from Montreal dealers and other sources

Averages			1925		
1913	$1.59	1920	$4.83	Jan.	$2.80	July	$2.60
1914	1.725	1921	3.90	Feb.	2.80	Aug.	2.60
1915	3.146	1922	3.883	March	2.80	Sept.	2.60
1916	6.383	1923	3.17	April	2.70	Oct.	2.60
1917	6.00	1924	2.80	May	2.70	Nov.	2.60
1918	6.00	1925	2.666	June	2.60	Dec.	2.60
1919	5.41						

Calcium Carbide

Price per ton, car lots, f.o.b. works, Welland—Monthly quotations from Union Carbide Co. of Canada, Ltd.

Averages			1925		
1913	$65.00	1920	$ 90.83	Jan.	$85.00	July	$85.00
1914	65.00	1921	102.50	Feb.	85.00	Aug.	85.00
1915	65.00	1922	92.00	March	85.00	Sept.	85.00
1916	62.50	1923	86.17	April	85.00	Oct.	85.00
1917	67.50	1924	85.00	May	85.00	Nov.	85.00
1918	84.17	1925	85.00	June	85.00	Dec.	85.00
1919	85.00						

Bleaching Powder, 35-37 Per Cent Available Chlorine

Price per cwt. f.o.b. works, Montreal—Monthly quotations from dealers

Averages			1925		
1913	$1.025	1920	$3.646	Jan.	$2.00	July	$2.00
1914	0.985	1921	3.168	Feb.	2.00	Aug.	2.00
1915	1.205	1922	1.83	March	2.00	Sept.	2.00
1916	1.365	1923	1.846	April	2.00	Oct.	2.00
1917	1.525	1924	1.87	May	2.00	Nov.	2.00
1918	1.645	1925	2.00	June	2.00	Dec.	2.00
1919	2.125						

Soda Ash, 58 Per Cent Light

Price per cwt. f.o.b. Toronto, carload lots—Monthly quotations from sales agents for manufacturer

Averages			1925		
1913	$0.696	1920	$2.89	Jan.	$1.94	July	$1.89
1914	.95	1921	2.65	Feb.	1.89	Aug.	1.89
1915	.90	1922	2.17	March	1.89	Sept.	1.89
1916	.89	1923	2.03	April	1.89	Oct.	1.89
1917	2.29	1924	1.94	May	1.89	Nov.	1.89
1918	2.54	1925	1.89	June	1.89	Dec.	1.89
1919	2.41						

Table 23—Wholesale Prices of Certain Chemicals in Canada, 1913-1925—Concluded

CAUSTIC SODA, SOLID, 76-78 PER CENT

Price per cwt., f.o.b. works—Monthly quotations from dealers in Montreal

Averages				1925			
1913	$1.80	1920	$5.08	Jan.	$3.25	July	$3.25
1914	1.80	1921	4.56	Feb.	3.25	Aug.	3.25
1915	1.85	1922	3.83	March	3.25	Sept.	3.25
1916	1.90	1923	3.45	April	3.25	Oct.	3.25
1917	2.11	1924	3.25	May	3.25	Nov.	3.25
1918	3.02	1925	3.25	June	3.25	Dec.	3.25
1919	3.35						

OTHER CHEMICALS

GLYCERINE, REFINED

Price per pound Toronto—Monthly quotations from manufacturer

Averages				1925			
1913	$0.205	1920	$0.30	Jan.	$0.215	July	$0.215
1914	.234	1921	.223	Feb.	.215	Aug.	.215
1915	.217	1922	.197	March	.215	Sept.	.215
1916	.531	1923	.205	April	.215	Oct.	.215
1917	.629	1924	.208	May	.215	Nov.	.23
1918	.641	1925	.221	June	.215	Dec.	.275
1919	.236						

WOOD ALCOHOL, 97 PER CENT

Price per gallon in barrels—Monthly quotations from Standard Chemical, Iron and Lumber Co., Toronto

Averages				1925			
1913	$0.695	1920	$3.23	Jan.	$0.87	July	$0.87
1914	.674	1921	1.267	Feb.	.87	Aug.	.87
1915	.674	1922	1.01	March	.87	Sept.	.87
1916	.838	1923	.973	April	.87	Oct.	.87
1917	1.428	1924	.87	May	.87	Nov.	.87
1918	1.67	1925	.87	June	.87	Dec.	.87
1919	1.836						

Table 24.—Index Numbers of Prices for Chemicals and Allied Products in Canada, 1920-1925

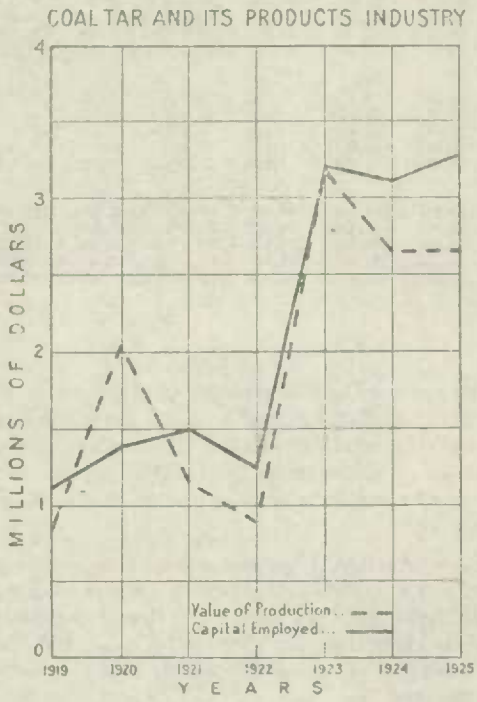
(Average Prices in 1913 = 100)

Item	1920	1921	1922	1923	1924	1925
CHEMICALS AND ALLIED PRODUCTS—						
Coal tar	185·5	212·5	212·5	220·3	225·3	229·2
Coal tar, crude	185·5	212·5	212·5	220·3	225·3	229·2
Sulphuric acid	200·1	194·5	180·8	180·8	180·0	173·1
Sulphuric acid, 66°	200·1	194·5	180·8	180·8	180·0	173·1
Paints, pigments and varnishes	270·2	191·5	178·4	191·2	194·3	196·6
White lead, ground, in barrels	240·8	178·5	161·9	175·2	179·2	191·0
Putty, pure linseed oil	324·6	259·5	210·6	191·4	189·5	185·5
Shellac, pure orange	407·2	243·7	287·9	321·2	321·2	250·8
Soap	231·9	176·2	158·4	157·9	152·7	140·3
Soap, common laundry	231·9	176·2	158·4	157·9	152·7	140·3
Miscellaneous inorganic chemicals	194·9	197·9	170·9	158·6	151·1	153·4
Alum, lump	303·8	245·3	244·2	199·4	176·1	167·7
Calcium carbide	139·7	157·7	141·5	132·6	130·8	130·8
Bleaching powder	355·7	209·1	178·5	180·1	182·4	195·1
Soda ash, 58% light	414·8	380·2	311·8	292·0	278·7	272·0
Caustic soda, 76-78% solid	282·4	253·5	212·8	191·7	180·6	180·6
Other chemicals	275·9	138·5	116·0	116·0	111·0	114·9
Glycerine, refined	146·3	108·8	96·1	99·8	101·5	107·9
Wood alcohol, 97%	464·7	182·3	145·3	139·9	125·2	125·2
Average	**223·3**	**184·7**	**168·4**	**164·8**	**161·8**	**157·1**

CHAPTER TWO

COAL TAR AND ITS PRODUCTS

General.—Production from the "Coal Tar and Its Products" industry in Canada was well maintained during 1925. In that year, the output of coal-tar distillation plants was valued at $2,502,629 and manufactured disinfectants, etc., were worth $120,192 making a total value for the industry of $2,622,821 as compared with a corresponding figure of $2,637,573 in 1924.



Reports were received from 15 plants in 1925; capital employed stood at $3,281,332; employees numbered 190 to whom $275,416 was paid in salaries and wages, and raw materials delivered at the works cost $1,418,892. In 1924, only 14 plants were in operation, employees numbered 208 and materials cost $1,137,497.

Of the 15 plants classified under this industrial group, 9 establishments were engaged in the distillation of crude coal tar while 6 plants made disinfectants and similar commodities. The present chapter shows separate data for each of these industries as well as for the group as a whole.

(a) Coal Tar Distillation.—This field is dominated by 2 companies which have plants located at various points across the Dominion. In 1925 reports were received from 9 establishments distributed as follows: 2 in Quebec, 4 in Ontario, and 1 in each of the provinces of Nova Scotia, Manitoba and British Columbia. One new plant in Ontario was in operation during the entire year. Production from these plants was valued at $2,502,629 and employees numbered 150. The main products were refined tar, road tar, pitch, creosote and tarred felts and sheathings.

(b) Disinfectants.—In 1925, returns were received from 6 firms engaged chiefly in the manufacture of disinfectants of various kinds. Of these firms, 4 were in Ontario and 2 in Quebec. One small plant in Manitoba and 1 in Ontario went out of business during the year but returns were received from 2 new firms in the latter province. Output was valued at $120,192 and employment was given to 40 persons throughout the year.

Table 25.—Principal Statistics of the Coal Tar and Its Products Industry in Canada by Provinces, 1924-1925

Province	1924				1925			
	Number of plants	Number of employees	Salaries and wages	Selling value of products	Number of plants	Number of employees	Salaries and wages	Selling value of products
			$	$			$	$
Coal Tar Distillation—								
Ontario	3	43	66,179	748,366	4	40	70,181	811,845
Canada[1]	8	176	242,292	2,519,489	9	150	235,558	2,502,629
Disinfectants—								
Ontario	3	19	25,395	53,788	4	24	29,675	68,752
Canada[2]	6	32	38,436	118,084	6	40	39,858	120,192
Total—								
Quebec	**4**	**84**	**109,259**	**922,003**	**4**	**79**	**103,336**	**1,109,262**
Ontario	**6**	**62**	**91,574**	**802,154**	**8**	**64**	**99,856**	**880,597**
Canada	**14**	**208**	**280,728**	**2,637,573**	**15**	**190**	**275,416**	**2,622,821**

[1] Includes also data for 1 plant in Nova Scotia, 2 in Quebec, 1 in Manitoba and 1 in British Columbia.
[2] Includes data for 2 plants in Quebec and 1 plant in Manitoba in 1924 and for 2 plants in Quebec in 1925.

Table 26.—Summary Statistics of the Coal Tar and Its Products Industry in Canada, 1921-1925

Year	Number of plants	Capital employed	Number of employees	Salaries	Wages	Cost of fuel and *electricity	Cost of materials	Selling value of products	Value added by manufacturing
		$		$	$	$	$	$	$
Coal Tar Distillation—									
1921	4	1,411,618	88	33,433	92,288	69,694	420,498	1,088,789	668,291
1922	3	1,122,929	62	24,118	53,503	40,330	269,146	792,923	523,777
1923	8	3,087,937	213	78,355	223,206	102,342	1,351,498	3,088,411	1,736,913
1924	8	2,926,297	176	55,991	186,301	89,542	1,090,421	2,519,489	1,429,068
1925	9	3,101,951	150	58,317	177,241	82,785	1,365,314	2,502,629	1,137,315
Disinfectants—									
1921	5	91,052	26	19,782	8,196	410	35,976	94,341	58,365
1922	5	115,048	28	22,852	9,553	543	44,195	93,435	49,240
1923	6	117,843	26	25,085	8,319	1,116	30,226	77,689	47,463
1924	6	173,698	32	20,352	18,084	1,146	47,076	118,084	71,008
1925	6	179,381	40	26,622	13,236	1,160	53,578	120,192	66,614
Total—									
1921	**9**	**1,502,670**	**114**	**53,215**	**100,484**	**70,104**	**456,474**	**1,183,130**	**726,656**
1922	**8**	**1,237,977**	**90**	**46,970**	**63,056**	**40,873**	**313,341**	**886,358**	**573,017**
1923	**14**	**3,205,780**	**239**	**103,440**	**231,525**	**103,458**	**1,381,724**	**3,166,100**	**1,784,376**
1924	**14**	**3,099,995**	**208**	**76,343**	**204,385**	**90,688**	**1,137,497**	**2,637,573**	**1,500,076**
1925	**15**	**3,281,332**	**190**	**81,939**	**190,477**	**83,945**	**1,418,892**	**2,622,821**	**1,203,929**

*Electricity not included in 1921 and 1922.

Capital Employed.—(a) Coal Tar Distillation.—Capital employed in this industry in 1925 was the highest on record; the 9 plants in operation reported a capital investment of $3,101,951 of which $1,610,851, or about one-half the total, represented the worth of lands, buildings and equipment, $614,266 the value placed on materials on hand and in process, and $876,834 the value of cash, trading and operating accounts. Capital stood at $2,926,297 in 1924, at $3,087,937 in 1923 and only $1,122,029 in 1922.

(b) Disinfectants.—Plants engaged in the manufacture of disinfectants are comparatively small. Capital employed by the 6 plants in 1925 was $179,381. Plant investment was reported at $67,482 which was a small increase over the figure for 1924 while the value of materials on hand and in process at $75,799 was also slightly higher than for the previous year, and the value of cash and open accounts was placed at $36,100 as against $36,248 in 1924. Ontario plants accounted for slightly over two-thirds of the total.

Table 27.—Capital Employed in the Coal Tar and Its Products Industry in Canada, by Classes and by Provinces, 1924 and 1925

Province	1924				1925			
	Capital employed as represented by				Capital employed as represented by			
	Lands, buildings, fixtures, machinery and tools	Materials on hand, and stocks in process	Cash trading and operating accounts	Total	Lands, buildings, fixtures, machinery and tools	Materials on hand, and stocks in process	Cash, trading and operating accounts	Total
	$	$	$	$	$	$	$	$
Coal Tar Distillation—								
Ontario	582,366	120,384	94,486	797,236	861,833	236,080	171,431	1,269,344
Canada[1]	1,808,683	518,797	598,817	2,926,297	1,610,851	614,266	876,834	3,101,951
Disinfectants—								
Ontario	44,360	34,764	34,010	113,131	48,360	41,898	34,265	124,523
Canada[2]	62,570	74,880	36,248	173,698	67,482	75,799	36,100	179,381
Total—								
Quebec	**730,191**	**259,288**	**417,833**	**1,407,315**	**392,606**	**224,149**	**604,921**	**1,221,676**
Ontario	**626,726**	**155,145**	**128,496**	**910,367**	**910,193**	**277,978**	**205,696**	**1,393,867**
Canada	**1,874,253**	**593,677**	**635,065**	**3,099,995**	**1,678,333**	**690,065**	**912,934**	**3,281,332**

[1] Includes also data for 1 plant in Nova Scotia, 2 in Quebec, 1 in Manitoba and 1 in British Columbia.
[2] Includes also data for 2 plants in Quebec and 1 plant in Manitoba in 1924 and for 2 plants in Quebec in 1925.

Employment.—(a) COAL TAR DISTILLATION.—In spite of the fact that 1 additional plant was in operation during 1925, the number of persons employed was slightly lower than in the previous year. Salaried employees numbered 24 as against 27 in 1924, while only 126 wage-earners were employed as compared with an average of 149 in the previous year. In January 110 wage-earners were employed and by May the maximum of 159 was attained; thereafter a decline set in until, in October, only 96 names were on the wage rolls after which the number increased to 134 by the end of the year.

Salaries totalled $58,317 and payments in wages to the 126 wage-earners was $177,241 making thus an average yearly earning of $1,407 to each wage-earner.

(b) DISINFECTANTS.—The disinfectant industry gave employment to 19 salaried workers and an average of 21 wage-earners, making a total of 40 employees as compared with 32 in the previous year. Payments in salaries and wages totalled $39,858 of which $13,236 was in wages and $26,622 in salaries.

Table 28.—Employment, Salaries and Wages Paid in the Coal Tar and Its Products Industry in Canada, 1924 and 1925

	1924			1925		
	Coal tar distillation	Disinfectants	Total	Coal tar distillation	Disinfectants	Total
(a) NUMBER OF EMPLOYEES—						
Salaried employees	27	11	38	24	19	43
Wage-earners, by months—						
January	132	16	148	110	11	121
February	145	19	164	131	11	142
March	159	26	185	130	21	151
April	190	26	216	158	19	177
May	214	23	237	159	21	180
June	170	18	188	135	10	145
July	152	18	170	123	10	133
August	111	22	133	104	20	124
September	144	20	164	113	10	123
October	140	23	163	96	21	117
November	135	26	161	114	21	135
December	110	16	126	134	11	145
Average	149	21	170	126	21	147
Total employees	176	32	208	150	40	190
(b) SALARIES AND WAGES—						
Salaries $	55,991	20,352	76,343	58,317	26,622	84,939
Wages $	186,301	18,084	204,385	177,241	13,236	190,477
Total $	242,292	38,436	280,728	235,558	39,858	275,416
(c) AVERAGE YEARLY EARNING of each wage-earner $	1,250	861	1,202	1,407	630	1,290
(d) AVERAGE NUMBER OF DAYS on which plants in this industry operated during the year	304	225	270	301	249	282

Table 29.—Distribution of Employment in the Coal Tar and Its Products Industry in Canada, according to the Average Number of Hours Worked per Day, by Provinces, 1925

Province	Number of wage-earners working			
	8 hours or less per day	9 hours	10 hours	Over 10 hours
Nova Scotia	25	2	–	21
Quebec	11	59	–	22
Ontario	33	–	–	26
Manitoba	–	16	–	–
British Columbia	–	11	–	–
Canada	69	88	–	69

Table 30.—Fuel and Electricity Used in the Coal Tar and Its Products Industry in Canada, 1924 and 1925

Kind	Unit of measure	1924		1925	
		Quantity	Value	Quantity	Value
		No.	$	No.	$
Anthracite coal	short tons	1,027	15,662	2,846	14,367
Bituminous coal	short tons	7,304	46,383	6,474	42,282
Coke	short tons	–	–	369	1,127
Fuel oil	gallon	244,364	17,703	241,038	16,019
Gas	M cu. ft.	20	23	20	23
Wood	cord	1,813	6,253	1,767	2,935
Electric power	k.w.h.	179,503	4,664	204,074	7,192
Total	–	–	**90,688**	–	**83,945**

Table 31.—Power Employed in the Coal Tar and Its Products Industry in Canada, 1924 and 1925

Description	1924		1925	
	Number of units	Total h.p. according to manufacturers' rating	Number of units	Total h.p. according to manufacturers' rating
Steam engines and turbines	10	130	10	130
Total primary power	10	130	10	130
Electric motors driven by purchased power	22	207	29	243
Total power equipment employed	**32**	**337**	**39**	**373**
Electric motors driven by power generated by the primary power of the industry	–	–	–	–
Total electric motors	**22**	**207**	**29**	**243**
Boilers installed	15	1,671	18	1,976

Materials Used.—(a) Coal Tar Distillation.—In 1925, the coal tar distillation plants in Canada used 13,044,964 gallons of crude tar worth $787,120 as compared with a quantity of 13,257,122 gallons valued at $683,057 in 1924. Water gas tar, coke oven tar and crude oil tar were also used in small quantities. Dry felts and sheathings, flux oils, sulphuric acid, asbestos, and various other miscellaneous materials made up the remainder.

(b) Disinfectants.—Materials used in the manufacture of disinfectants, etc., in 1925 cost $53,578 as compared with $47,076 in 1924 and $30,226 in 1923. Extensive use was made of creosote oils, lubricating oils, mineral and vegetable oils. Materials were of such a variety and used in such small quantities as to make it impossible to prepare a detailed list.

Table 32.—Materials Used in the Coal Tar and Its Products Industry in Canada, 1924 and 1925

Materials used	Unit of measure	1924		1925	
		Quantity	Cost at works	Quantity	Cost at works
			$		$
Coal Tar Distillation—					
Coal tar, crude	gal.	13,257,122	683,057	13,044,964	787,120
Other materials	–	–	407,364	–	578,194
Total[1]	–	–	1,090,421	–	1,365,314
Disinfectants—					
Total[2]	–	–	47,076	–	53,578
Total	–	–	**1,137,497**	–	**1,418,892**

[1] Includes crude oil tar, dry felt and sheathings and other materials.
[2] Includes essential oils, vegetable oils, mirbane oil, creosote oil, lubricating oil, mineral oils, petrol oil, potash, wood turpentine, cresylic acid, soap, paradichloro benzine, sodium fluoride, zinc chloride and other materials.

Products.—(a) Coal Tar Distillation.—The 9 tar distilling units in operation in 1925 produced over 2 million gallons of creosote and special oils, 42·7 million pounds of pitch, 2·2 million gallons of refined tars, 5 million gallons of road tar, tarvia, etc., which with considerable quantities of tarred felts and sheathings, cresylic acid and other products aggregated a total value of $2,502,629. Many products reported by less than 3 plants cannot be shown separately in the accompanying table.

(b) Disinfectants.—The disinfectant industry again showed improvement with an output valued at $120,192 as compared with $118,084 in 1924 and $77,689 in 1923. Disinfectant preparations were worth $78,133 and the less important products such as soap, insecticides, polishes, etc., were valued at $42,059. It should be remembered that only those firms which report disinfectants as the main product are included in this group; similar preparations are made also in other industries, the total for all being shown in Table 22.

Table 33.—Products of the Coal Tar and Its Products Industry in Canada, 1924 and 1925

Product	Unit of measure	1924		1925	
		Quantity	Selling value	Quantity	Selling value
			$		$
Coal Tar Distillation—					
Creosote oils and special oils	gal.	1,091,287	395,733	2,158,804	369,570
Pitch	lb.	50,594,779	369,188	12,717,074	335,949
Refined tar	gal.	1,602,140	113,913	2,168,606	189,423
Other tars	gal.	2,591,731	575,381	5,010,373	754,407
All other products[1]	–	–	1,065,274	–	853,280
Total	–	–	2,519,489	–	2,502,629
Disinfectants—					
Disinfectants	–	–	77,052	–	78,133
Liquid soaps	gal.	32,027	24,411	–	19,577
All other products[2]	–	–	16,621	–	22,482
Total	–	–	118,084	–	120,192
Total	–	–	**2,637,573**	–	**2,622,821**

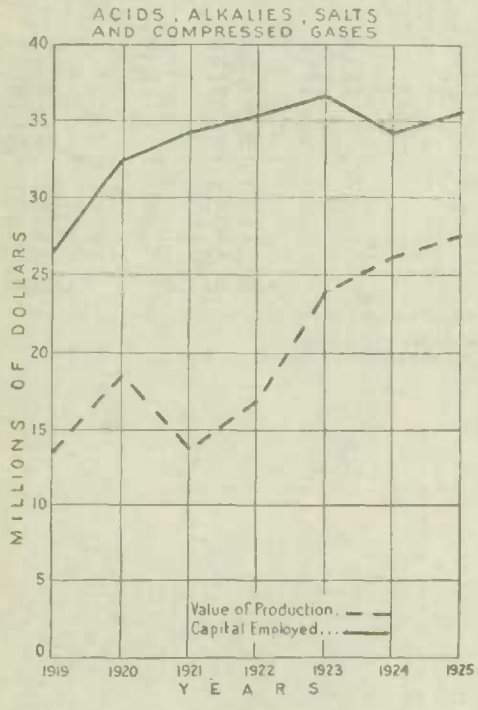
[1] Includes cresylic acid, tarred felt, roofing cement, and various other products.
[2] Includes insecticides, polishes, machine oils, pharmaceutical preparations and embalming fluid.

CHAPTER THREE

ACIDS, ALKALIES, SALTS AND COMPRESSED GASES

General.—Production of industrial chemicals such as sulphuric, hydrochloric and nitric acids, caustic soda, salt cake, calcium carbide, cyanamide, phosphorus, and compressed gases such as oxygen, hydrogen, carbon dioxide and acetylene, is the most important of the chemical industries in Canada. In 1925, the 40 plants in this industrial group representing a capital investment of $35,656,528 furnished employment to 2,409 workers during the year and converted $12,843,256 worth of raw materials into finished products valued at $27,483,395, an advance of more than a million dollars over the corresponding figure for 1924. Of the total output in 1925, acids, alkalies and salts amounted in value to $25,396,782 and compressed gases were worth $2,086,613. Statistics for each of these industries and for the group as a whole, are presented in this chapter. It should be noted, however, that throughout this report only those plants are included in a given industry whose major product places them in that category. Complete production figures are given in Table 22.

(a) Acids, Alkalies and Salts.—Probably the greatest single event of importance in this industry was the opening of a new plant in Ontario to produce sulphuric acid from waste smelter gases; this plant commenced operations about November 1st. But one plant in Quebec formerly engaged chiefly in the manufacture of sulphuric and nitric acids did not operate during the year. The 20 plants in operation during 1925 were located as follows: 10 in Ontario, 6 in Quebec, 3 in British Columbia and 1 in Nova Scotia.



Sulphuric acid was manufactured in 8 separate plants in 1925; 2 plants produced acid for the manufacture of ammonium sulphate as a by-product in connection with the operation of by-product coke installations; 4 made sulphuric acid for commercial distribution; 1 plant in British Columbia made acid for use in metallurgical processes in the treatment of zinc ores, and 1 other company in that province made its own sulphuric acid for use in the manufacture of fertilizer. Hydrochloric acid was made in 3 plants, nitric acid in 2 different plants, and phosphoric acid in only 1 plant. Calcium carbide for sale was produced in 2 establishments while 1 other plant made this commodity for its own use in the manufacture of cyanamide. Bleaching powder, soda ash, liquid chlorine, caustic soda, glacial acetic, acetaldehyde, paraldehyde, phorsphorus, cyanamide and sodium cyanide were each made in only 1 plant in Canada during 1925.

Output from the 20 plants in operation during 1925 reached a total value of $25,396,782 and as raw materials cost $12,472,687 the value added by manufacturing processes amounted to $12,924,095. Capital employed stood at $32,236,424 and employment was given to 2,084 persons to whom $2,992,695 was paid in salaries and wages.

(b) Compressed Gases.—Production of compressed gases in 1925 totalled $2,086,613 in value as compared with $2,051,448 in the preceding year. Capital employed amounted to 3·4 million dollars; employment was given to 325 persons and expenditures in salaries and wages amounted to $481,595.

Of the 20 firms in operation in 1925, two were located in Nova Scotia, 4 in Quebec, 8 in Ontario, 3 in Manitoba, 1 in Alberta and 2 in British Columbia. Acetylene was made in 12 different

plants, carbon dioxide in 6 plants, oxygen in 9 plants, and aqua and anhydrous ammonia in 1 plant only.

It may be stated here that 3 plants in Canada produced hydrogen for the hydrogenation of oils in their own works, while 1 other extracted nitrogen from the air for use in the manufacture of cyanamide. Oxygen is obtained as a by-product in each of these plants. Data for these outputs are not available at present and are not included in the present report. Nor are there included here, figures of production of pintsch gas for use in lighting railway coaches, and acetylene for commercial heating and lighting; these latter are included in the Bureau's report on artificial gas.

Of the plants in this industry, 10 had a production valued in excess of $100,000 each; 6 others showed sales in excess of $50,000 each; and 4 were below this latter figure. Only 1 plant employed an average of more than 50 persons during the year; 4 others gave employment to more than 25 workers in each, 6 employed 10 or more people and the remaining 9 establishments employed fewer than 10 persons each.

Table 34.—Summary Statistics of the Acids, Alkalies, Salts, and Compressed Gases Industry in Canada, 1921-1925

Year	Number of plants	Capital employed	Number of employees	Salaries	Wages	Cost of fuel and electricity*	Cost of materials	Selling value of products	Value added by manufacturing
ACIDS, ALKALIES AND SALTS—		$		$	$	$	$	$	$
1921	24	29,945,120	1,496	576,609	1,919,407	495,200	5,034,729	11,867,268	6,832,539
1922	21	30,811,922	1,880	650,918	1,786,926	516,516	5,885,803	14,970,998	9,085,195
1923	24	31,963,419	2,488	683,867	2,634,812	1,957,997	11,147,442	21,747,547	10,600,105
1924	20	30,182,113	2,121	701,801	2,324,197	1,747,137	11,214,092	24,190,274	12,975,582
1925	20	32,236,424	2,084	687,797	2,304,898	1,819,602	12,472,687	25,396,782	12,924,095
COMPRESSED GASES—									
1921	26	4,218,484	318	295,673	213,259	35,405	301,839	2,001,898	1,700,059
1922	25	4,351,232	309	300,071	179,446	31,057	280,666	1,908,269	1,627,603
1923	23	4,472,896	300	279,456	182,308	92,541	488,879	2,165,445	1,676,566
1924	21	4,115,958	292	276,682	166,640	89,614	401,951	2,051,448	1,649,497
1925	20	3,420,104	325	313,563	168,032	83,309	370,569	2,086,613	1,716,044
Total—									
1921	**50**	**34,163,604**	**1,814**	**872,282**	**2,132,666**	**530,605**	**5,336,568**	**13,869,166**	**8,532,598**
1922	**46**	**35,163,154**	**2,189**	**950,989**	**1,966,372**	**547,573**	**6,166,469**	**16,879,267**	**10,712,798**
1923	**47**	**36,436,315**	**2,788**	**963,323**	**2,817,120**	**2,050,538**	**11,636,321**	**23,912,992**	**12,276,671**
1924	**41**	**34,298,071**	**2,413**	**978,483**	**2,490,837**	**1,836,751**	**11,616,043**	**26,241,722**	**14,625,079**
1925	**40**	**35,656,528**	**2,409**	**1,001,360**	**2,472,930**	**1,902,911**	**12,843,256**	**27,483,395**	**14,640,139**

* Electricity not included for 1921 and 1922.

Table 35.—Principal Statistics of the Acids, Alkalies, Salts and Compressed Gases Industry in Canada, by Provinces, 1924 and 1925

	1924				1925			
	Number of plants	Number of employees	Salaries and wages	Selling value of products	Number of plants	Number of employees	Salaries and wages	Selling value of products
			$	$			$	$
Acids, Alkalies and Salts—								
Quebec	7	580	782,945	5,513,596	6	549	717,513	4,356,818
Ontario	10	1,503	2,176,593	18,363,178	10	1,490	2,186,020	20,047,439
Canada[1]	20	2,121	3,025,998	24,190,274	20	2,084	2,992,695	25,396,782
Compressed Gases—								
Quebec	4	62	94,314	600,040	4	59	93,960	596,354
Ontario	8	143	213,654	885,534	8	164	239,401	817,327
Manitoba	4	32	53,252	206,606	3	44	62,267	289,333
Canada[2]	21	292	443,322	2,051,448	20	325	481,595	2,086,613
Total—								
Quebec	**11**	**642**	**877,259**	**6,113,636**	**10**	**608**	**811,473**	**4,953,172**
Ontario	**18**	**1,646**	**2,390,247**	**19,248,712**	**18**	**1,654**	**2,425,421**	**21,464,766**
Manitoba	**4**	**32**	**53,252**	**206,606**	**3**	**44**	**62,267**	**289,333**
British Columbia	**4**	**50**	**85,311**	**389,828**	**5**	**68**	**110,873**	**452,480**
Canada[3]	**41**	**2,413**	**3,469,320**	**26,241,722**	**40**	**2,469**	**3,474,290**	**27,483,395**

[1] Includes also data for 1 firm in Nova Scotia and 2 firms in British Columbia in 1924 and for 3 plants in British Columbia and 1 in Nova Scotia in 1925.
[2] Includes also data for 2 plants in Nova Scotia, 1 in Alberta and 2 in British Columbia.
[3] Includes also data for 3 plants in Nova Scotia and 1 in Alberta.

Capital Employed.—(a) Acids, Alkalies and Salts.—In 1925, the capital invested in this industry amounted to $32,236,424, a record for the industry and over 2 million dollars above the figure for 1924. Investment in lands, plants and equipment reached nearly 23 million dollars. The industry is centered in Ontario and Quebec, the former province accounting for 24·1 million dollars or 75 per cent of the total capital invested in the industry, while Quebec accounted for the greater part of the remainder.

(b) Compressed Gases.—The 20 plants manufacturing compressed gases in 1925 represented a capital investment of $3,420,104, marking a decline of over half a million dollars from 1924. The value of plants, lands and equipment was reported at $2,218,238; materials on hand and in process were worth $585,763, and the cash, trading and operating accounts, bills receivable, etc., totalled $616,103. The 8 plants in Ontario employed a capital of 1·9 million dollars or 56 per cent of the total.

Table 36.—Capital Employed in the Acids, Alkalies, Salts and Compressed Gases Industry in Canada, by Classes and Provinces, 1924 and 1925

Province	1924				1925			
	Capital employed as represented by				Capital employed as represented by			
	Lands, buildings, fixtures, machinery and tools	Materials on hand, and stocks in process	Cash trading and operating account	Total	Lands, buildings, fixtures, machinery and tools	Materials on hand, and stocks in process	Cash trading and operating account	Total
	$	$	$	$	$	$	$	$
Acids, Alkalies and Salts—								
Quebec	6,106,527	1,653,231	365,762	8,125,520	5,627,881	1,613,649	371,121	7,612,651
Ontario	15,561,855	2,445,252	3,541,153	21,548,260	16,841,854	2,708,184	4,464,716	24,104,754
Canada[1]	22,118,851	4,156,347	3,906,915	30,182,113	22,952,302	4,448,285	4,835,857	32,236,424
Compressed Gases—								
Quebec	604,364	184,904	77,335	866,603	601,340	62,474	85,868	749,682
Ontario	1,004,097	651,899	345,271	2,001,867	1,015,878	479,390	397,678	1,892,946
Manitoba	403,534	127,053	28,308	558,895	266,755	15,144	50,909	332,808
Canada[2]	2,359,989	1,239,117	516,852	4,115,958	2,218,238	585,763	616,103	3,420,104
Total—								
Quebec	6,710,891	1,838,135	443,097	8,992,123	6,229,221	1,676,123	456,989	8,362,333
Ontario	16,566,552	3,097,151	3,886,424	23,550,127	17,857,732	3,277,574	4,862,394	25,997,700
Manitoba	403,534	127,053	28,308	558,895	266,755	15,144	50,909	332,808
British Columbia	456,232	154,760	24,499	635,491	480,332	48,011	26,599	554,942
Canada[3]	24,478,840	5,395,464	4,423,767	34,298,071	25,170,540	5,031,048	5,451,940	35,656,528

[1] Includes also data for 1 firm in Nova Scotia and 2 firms in British Columbia in 1924 and for 3 firms in British Columbia and 1 in Nova Scotia in 1925.
[2] Includes also data for 2 firms in British Columbia, 1 in Alberta and 2 in Nova Scotia.
[3] Includes also data for 1 firm in Alberta and 3 in Nova Scotia.

Employment.—(a) Acids, Alkalies and Salts.—In 1925, plants in Canada engaged primarily in the production of acids, alkalies and salts gave employment to 2,084 persons of whom 331 were salaried employees and 1,753 were wage-earners. Employment was fairly steady throughout the year. In January there were 1,629 wage-earners on the rolls, after which the number steadily increased to a maximum of 1,824 in July and then fell off to 1,788 by the end of the year. During the year $687,797 were paid in salaries and $2,304,898 in wages, making a total disbursement of nearly 3 million dollars in salaries and wages.

(b) Compressed Gases.—An average number of 120 wage-earners and 205 salaried employees were engaged in the preparation of compressed gases in 1925. Salaries and wages paid during the year totalled $481,595. In 1924 a total of 292 employees were paid $443,322 in salaries and wages. All plants in this industry operated full time during the year.

Table 37.—Employment, Salaries and Wages Paid in the Acids, Alkalies, Salts and Compressed Gases Industry in Canada, 1924 and 1925

	1924			1925		
	Acids, alkalies and salts	Compressed gases	Total	Acids, alkalies and salts	Compressed gases	Total
(a) Number of employees—						
Salaried employees	321	171	492	331	205	536
Wage-earners, by months:						
January	1,866	123	1,989	1,629	108	1,737
February	1,840	121	1,961	1,647	112	1,759
March	1,755	119	1,874	1,663	118	1,781
April	1,750	120	1,870	1,702	120	1,822
May	1,759	128	1,887	1,751	129	1,880
June	1,786	126	1,912	1,796	127	1,923
July	1,864	125	1,989	1,824	127	1,951
August	1,834	126	1,960	1,821	125	1,946
September	1,782	120	1,902	1,795	127	1,922
October	1,789	118	1,907	1,790	117	1,907
November	1,816	114	1,930	1,795	117	1,912
December	1,747	111	1,858	1,788	119	1,907
Average	1,800	121	1,921	1,753	120	1,873
Total employees	**2,121**	**292**	**2,413**	**2,084**	**325**	**2,409**
(b) Salaries and wages—						
Salaries $	701,801	276,682	978,483	687,797	313,563	1,001,360
Wages $	2,324,197	166,640	2,490,837	2,304,898	168,032	2,472,930
Total $	**3,025,998**	**443,322**	**3,469,320**	**2,992,695**	**481,595**	**3,474,290**
(c) Average yearly earnings of each wage-earner $	1,291	1,377	1,297	1,315	1,400	1,320
(d) Average number of days on which plants in this industry operated during the year	330	306	318	319	307	313

Table 38.—Distribution of Employment in the Acids, Alkalies, Salts and Compressed Gases Industry in Canada, according to the Average Number of Hours Worked per Day, by Provinces, 1925

Province	Number of wage-earners working			
	8 hours or less per day	9 hours	10 hours	Over 10 hours
Nova Scotia	14	–	2	4
Quebec	177	282	70	8
Ontario	798	518	63	45
Manitoba	10	2	2	6
Saskatchewan and Alberta	5	–	–	–
British Columbia	41	–	5	2
Canada	**1,045**	**802**	**142**	**65**

Table 39.—Fuel and Electricity Used in the Acids, Alkalies, Salts and Compressed Gases Industry in Canada, 1924 and 1925

Kind	Unit of measure	1924		1925	
		Quantity	Value	Quantity	Value
		No.	$	No.	$
Anthracite coal	short ton	1,233	8,329	1,510	12,498
Bituminous coal	short ton	89,010	450,697	89,377	407,367
Coke	short ton	9,240	74,871	7,878	53,799
Fuel oil	gallon	68,893	6,222	88,266	8,053
Gasoline	gallon	15,534	3,970	23,024	5,786
Gas*	M cu. ft.	255	228	228	220
Wood	cord	7	14	48	103
Other fuel	.....	–	173	–	39
Electric power	k.w.h.	555,276,553	1,292,247	610,222,405	1,415,046
Total	.....	–	**1,836,751**	–	**1,902,911**

Table 40.—Power Employed in the Acids, Alkalies, Salts and Compressed Gases Industry in Canada, 1924 and 1925

Description	1924		1925	
	Number of units	Total h.p. according to manufacturers' rating	Number of units	Total h.p. according to manufacturers' rating
Steam engines and turbines	39	7,630	37	7,625
Oil and gasoline engines	1	225	1	225
Total primary power	40	7,855	38	7,850
Electric motors driven by purchased power	1,018	23,655	976	21,795
Total power equipment employed	**1,058**	**31,510**	**1,014**	**29,645**
Electric motors driven by power generated by the primary power of the industry	159	2,523	181	3,112
Total electric motors	**1,177**	**26,178**	**1,157**	**24,907**
Boilers installed	41	7,989	34	8,019

Materials Used.—(a) ACIDS, ALKALIES AND SALTS.—In 1925, materials used including purchased materials and intermediates reached a total cost of $12,472,687 as compared with $11,214,692 in the previous year. Intermediates, which include products made and used again in the producing plants, increased in value to $8,516,699 from $7,425,916 in 1924, and purchased materials cost $3,955,988 as compared with $3,788, 776, in the previous year. The principal purchased materials were coke, limestone, sulphur, carbon electrodes, pyrites, chile saltpetre, calcium carbide and phopshate rock. Intermediates included sulphuric acid, calcium carbide, cyanamide and nitre cake.

(b) COMPRESSED GASES.—In 1925 raw materials valued at $370,569 were used to produce $2,086,613 worth of industrial gases. The principal materials listed were acetylene, calcium carbide, coke, acetone, ammonia liquor and lime.

Table 41.—Materials Used in the Acids, Alkalies, Salts and Compressed Gases Industry in Canada, 1924 and 1925

Materials used	Unit of measure	1924		1925	
		Quantity	Cost at works	Quantity	Cost at works
ACIDS, ALKALIES AND SALTS		No.	$	No.	$
Purchased materials used—					
Acids—					
Hydrochloric	lb.	3,520	157	1,595	144
Nitric	lb.	20,524	1,453	48,316	3,388
Sulphuric, 66° Be'	lb.	2,457,699	30,207	2,965,244	36,605
Other acids[1]	-	-	259	-	5,813
Ammonia anhydrous and ammonia liquor	lbs. NH_3.	199,764	31,183	164,658	25,510
Ammonium sulphate	lb.	872	32	1,218	45
Barium peroxide	-	-	1,393	11,409	1,393
Calcium carbonate (limestone)	ton	223,107	417,151	266,966	487,722
Calcium oxide and hydroxide (quick and slaked lime)	ton	3,106	34,168	3,170	33,005
Calcium compounds, n.o.s.[2]	-	-	685,195	-	616,449
Carbon electrodes	lb.	5,827,316	303,783	6,695,808	329,379
Coke	ton	73,156	624,533	84,679	724,292
Coal	ton	2,238	16,366	3,219	19,379
Charcoal	lb.	732,785	7,943	115,400	1,082
Copper sulphate	lb.	48,506	2,517	47,230	2,242
Iron sulphite (pyrites)	ton	19,706	91,302	15,114	76,487
Silica	ton	14,283	49,839	4,091	16,377
Sodium carbonate (soda ash)	lb.	608,804	10,643	1,097,411	11,804
Sodium chloride, including brine	ton	-	111,538	105,942	128,814
Sodium hydroxide	ton	146	11,189	128	9,304
Sodium nitrate (Chile saltpetre)	ton	854	62,806	938	57,919
Sodium sulphate (salt cake)	lb.	33,559	699	15,348	238
Sodium sulphate (Glauber's salt)	lb.	-	-	20,814	392
Sodium compounds, n.e.s.[3]	-	-	6,627	-	23,342
Sulphur (brimstone)	ton	15,880	290,276	26,202	359,519
Containers	-	-	561,251	-	548,586
All other materials[4]	-	-	436,336	-	436,758
Total	-	-	3,788,776	-	3,955,088
Intermediate products used as materials—					
Sulphuric acid, 50° Be'	lb.	1,074,400	3,990	1,600,000	6,070
Sulphuric acid, 66° Be'	lb.	4,275,021	37,697	2,962,391	26,608
Sulphuric acid, 100%	lb.	503,674	478	1,831,518	13,736
Materials, n.e.s.[5]	-	-	7,383,751	-	8,470,285
Total	-	-	7,425,916	-	8,516,699
Total	-	-	11,214,692	-	12,472,687
COMPRESSED GASES					
Acetylene	cu. ft.	9,825,956	60,514	12,084,307	72,332
Acetone	lb.	65,342	17,173	89,709	16,463
Calcium carbide	ton	1,068	85,507	1,414	110,180
Coke	ton	4,434	39,606	5,207	35,099
Cylinders purchased during year	No.	3,331	72,763	775	11,039
Other containers, boxes, carboys, etc.	-	-	500	-	-
All other materials[6]	-	-	125,888	-	125,456
Total	-	-	401,951	-	370,569
Total	-	-	**11,616,643**	-	**12,843,256**

[1] Includes oxalic, phosphoric, arsenious, boric, etc.
[2] Includes calcium acetate, chloride, carbide, cyanamide, fluoride, and hypochlorite.
[3] Includes bichromate chlorate, cyanide, nitrite, silicate, sulphide, etc.
[4] Includes iron sulphate, nickel sulphate, zinc sulphate, phosphate rock, oils, greases, acetylene, litharge, and other materials.
[5] Includes nitre cake, crude phosphorus, lime, calcined salt cake, nitric acid, hydrogen sulphide, calcium carbide calcium cyanamide, nitrogen and electrode paste.
[6] Includes ammonia liquor, potassium carbonate, lime and other materials.

Products.—(a) ACIDS, ALKALIES AND SALTS.—Products made in the acids, alkalies and salts industry in 1925 reached a total value of $25,396,782, an increase of 1·2 millions over the previous year. Products made for sale were valued at 16·9 million dollars as against 16·8 millions in 1924 and intermediates were worth 8·5 million dollars, about a million dollars above the figure for the previous year. More sulphuric acid was made in 1925; hydrochloric acid showed an increase of 2 million pounds, and liquid chlorine was up 34 per cent in quantity. A great many of the commodities made were the product of only one or two firms and therefore cannot be itemized separatley but must be grouped with other items or included under the general heading "other products."

(b) Compressed Gases.—Production of compressed gases in 1925 was valued at $2,086,613. The output of acetylene at 24,384,431 cubic feet was 27 per cent higher than in 1924, while carbon dioxide at 3,650,547 pounds and oxygen at 68,685,153 cubic feet were also slightly above the corresponding figures for the previous year.

Table 42.—Products of the Acids, Alkalies, Salts and Compressed Gases Industry in Canada, 1924 and 1925

Product	Unit of measure	1924		1925	
		Quantity	Selling value	Quantity	Selling value
		No.	$	No.	$
Acids, Alkalies and Salts					
Products made for sale—					
Acids—					
Hydrochloric—20° Bé	lb.	5,190,032	79,697	7,218,821	101,859
Nitric (40–42° or 1·4 sp. gr.)	lb.	771,668	72,918	743,408	63,982
Sulphuric, 50° Bé	ton	8,323	64,619	13,059	96,472
Sulphuric, 60° Bé	ton	6,081	95,356	5,925	117,181
Sulphuric, 66° Bé	ton	30,341	577,695	39,225	697,257
Sulphuric, 100%	ton	25,900	494,419	25,414	401,563
Sulphuric, fuming, 20%	ton	–	–	217	1,352
Calcium compounds[1]	–	–	5,917,146	–	5,733,279
Chlorine, liquid	lb.	9,306,000	296,012	12,454,070	388,397
Sodium sulphate (Glauber's salts)	ton	1,458	36,602	1,442	33,559
Sodium sulphate (salt cake)	ton	1,648	32,948	2,248	31,529
Sodium compounds, n.e.s.[2]	–	–	5,259,637	–	5,563,634
All other products[3]	–	–	3,826,162	–	3,644,426
Total	–	–	16,753,201	–	16,874,490
Intermediate products made for use—					
Sulphuric acid, 66° Bé	ton	2,425	43,787	2,029	36,057
Sulphuric acid, 100%	ton	252	478	916	13,736
Products, n.e.s.[4]	–	–	7,392,808	–	8,472,499
Total	–	–	7,437,073	–	8,522,292
Total	–	–	24,190,274	–	25,396,782
Compressed Gases					
Acetylene	cu. ft.	19,229,042	485,839	24,384,431	620,007
Carbon dioxide	lb.	3,428,953	356,679	3,650,547	372,060
Oxygen	cu. ft.	68,331,575	893,888	68,685,153	897,942
Other products[5]	–	–	315,242	–	196,604
Total	–	–	2,051,448	–	2,086,613
Total	–	–	**26,241,722**	–	**27,483,395**

[1] Includes bisulphite, oxide, cyanamide made by American Cyanamide Co., hypochlorite (bleach) made by the Canadian Salt Co., and carbide made by Canada Carbide Co. and the Union Carbide Company of Canada, Ltd.
[2] Includes nitre cake, bisulphite, carbonate, hydroxide, and cyanide, each of which was made by only 1 firm.
[3] Includes aluminium sulphate, acetaldehyde, acetylene, acetic acid made by Grasselli Chemical Co., Ltd., acetic glacial made by Canadian Electro Products Co., phosphorous made by the Electric Reduction Co., Ltd., hydrofluosilicic acid, phosphoric acid, sulphurous acid, copper sulphate, copper cyanide, iron, phosphide, paraldehyde, hydrogen peroxide, acetylene black, filter alum, nitrated iron, ferro-silicon, lead arsenate, insecticides, zinc chloride, zinc chlorite, zinc cyanide, sulphonated oil, nickel salts, and various other products.
[4] Includes nitre cake, crude phosphorus, lime, calcined salt cake, nitric acid, calcium carbide, nitrogen, and crude cyanamide.
[5] Includes ammonia aqua, ammonia anhydrous, nitrogen and other products.

Electrochemical Plants.—The output of electric furnace products in Canada again showed an increase during 1925; a summary for that year shows that the various electrochemical plants in Canada manufactured commodities valued at $39,152,258 as compared with $35,515,168 in 1924. During 1925 there were 14 plants in operation and employment was given to 3,167 people to whom nearly 4·5 million dollars were paid in salaries and wages. Capital employed was reported at nearly 34 million dollars and a little over 3 million dollars was expended for electric power. Carbide, cyanamide, artificial abrasives, and artificial graphite were the main products. In the Bureau's classification, electrochemical plants are classified in the same way as other industries, i.e., according to the chief component material of their principal product. The foregoing summary, and the next following table constitute a consolidation of data on the electro-chemical industry, drawn from several different sections of this report.

Table 43.—Principal Statistics Pertaining to Electro chemical Plants in Canada, 1924 and 1925

	1924	1925
Number of plants	15	14
Capital employed $	36,591,993	33,919,855
Number of employees	3,490	3,167
Salaries and wages $	4,720,910	4,485,794
Cost of materials $	18,319,260	20,839,775
Value of products $	35,515,168	39,152,258
Electricity used—Quantity k.w.h.	956,593,258	1,313,376,858
Value $	2,298,021	3,159,438

Notes on Several Leading Products.—Sulphuric acid.—Production of sulphuric acid 66° Bé, in Canada amounted to 166,791,926 pounds in 1925 as compared with 143,981,962 pounds in 1924. During the year a new plant in Ontario commenced producing sulphuric acid from waste smelter gases making a total of 8 different plants in Canada in which this acid was produced in 1925. Exports of acid during 1925 amounted to 38,358,600 pounds practically all of which went to the United States. Imports totalled only 103,340 pounds which with the production of 166,791,926 pounds made an available supply of 166,895,266 pounds. By subtracting the exports from this figure an estimate of the amount consumed may be obtained; in 1925 the apparent consumption of sulphuric acid in Canada was 128,536,666 pounds. An analysis of this last figure by industries is shown in the accompanying table.

Table 44.—Consumption of Sulphuric Acid (66°Be) in Canada, by Industries 1923-1925

—	1923	1924	1925
	Pounds	Pounds	Pounds
Production	174,300,512	143,981,962	166,791,926
Imports	582,400	93,621	103,340
Total	**174,882,912**	**144,075,583**	**166,895,266**
Exports	24,406,400	15,355,700	38,358,600
Available for consumption	**150,476,512**	**128,719,883**	**128,536,666**
Consumption by Industries			
1. Acids, alkalies and salts	18,030,412	7,999,002	8,260,057
2. Explosives	13,6[illegible]3,547	15,277,947	13,970,620
3. Fertilizers	500,378	464,223	1,451,288
4. Wood distillation	473,296	469,020	516,780
5. Electrical apparatus	1,331,250	1,549,064	1,641,455
6. Wire and wire goods	14,732,146	11,422,678	12,917,414
7. Sheet metal products	7,[illegible]53,216	2,672,405	3,073,469
8. Coke and by-products	21,2[illegible]5,341	19,720,000	25,245,520
9. Petroleum refining	65,923,858	57,693,733	42,813,604
10. *Other	7,161,068	11,461,711	18,610,459
Total	**150,476,512**	**128,719,883**	**128,536,666**

* Obtained by deducting the aggregate of items 1 to 9 from amount made available for consumption.

Ammonium Sulphate.—All of the ammonium sulphate made in Canada is produced as a by-product from the coke and artificial gas industries. The total output from this source in 1925 amounted to 18,251 tons as compared with 17,343, tons in 1924. The bulk of the Canadian production is exported to foreign countries for use as fertilizer; Japan, United States, Barbadoes British Guiana, Hong Kong and China were the principal markets during 1925. Considerable quantities are also imported largely from the United States; during 1925 about 398 tons were brought into Canada.

Table 45.—Production in Canada, Imports and Exports of Ammonium Sulphate during the Calendar Years 1919-1925

Year	Quantity	Value
PRODUCTION—	Pounds	$
1919	38,644,152	1,423,545
1920	39,912,723	1,475,542
1921	34,680,248	1,183,776
1922	27,201,332	667,934
1923	43,037,062	1,268,146
1924	34,685,134	865,538
1925	36,502,275	909,097
IMPORTS—		
1919	203,408	12,129
1920	624,659	31,495
1921	313,354	11,513
1922	826,000	24,659
1923	517,629	18,577
1924	776,643	27,111
1925	795,792	27,544
EXPORTS—		
1919	38,331,200	1,846,713
1920	36,658,500	1,896,660
1921	29,296,100	784,628
1922	20,570,000	532,983
1923	34,640,000	1,044,681
1924	26,714,100	681,809
1925	25,120,700	637,310

HYDROCHLORIC ACID.—Production of hydrochloric acid in Canada in 1925 amounted to 3,609 tons worth $101,859, as compared with 2,595 tons valued at $79,697 in 1924 and 3,351 tons at $101,872 in 1923. Only 3 plants in Canada made hydrochloric acid during 1925. Imports during the calendar year 1925 totalled 40 tons worth $5,820, all of which came from the United States. In 1924 imports amounted to 30 tons valued at $4,974, and to 42 tons at $7,665 in 1923. Export data are not available.

Table 46.—Production in Canada, Imports and Exports of Hydrochloric Acid, 1922-1925

—		1922	1923	1924	1925
Production	lb.	5,006,429	6,702,437	5,190,032	7,218,821
	$	82,668	101,872	79,697	101,859
Imports	lb.	154,605	84,391	59,853	80,759
	$	5,320	7,665	4,974	5,820
Exports	-	Not available—included in general item "other acids, n.o.p."			

SODIUM SULPHATE.—Natural deposits of sodium sulphate in the province of Saskatchewan were worked during 1925. The total quantity of the natural salt sold during the year was 3,876 tons valued at $19,380. In addition, artificial sodium sulphate was produced in 2 different plants in Canada and the total production from this source amounted to 3,690 tons, worth $65,088. Imports of salt cake and Glauber's salt in 1925 totalled 34,733 tons, worth $480,108. Export data are not available as there is no separate Customs' classification for this commodity.

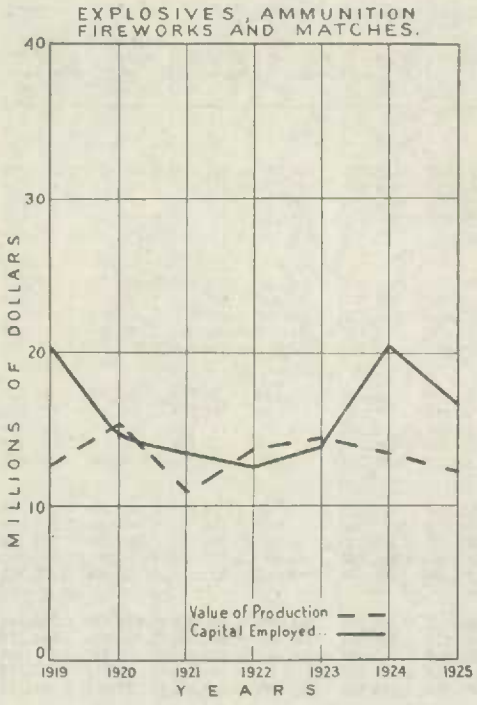
Table 47.—Production and Imports of Sodium Sulphate, 1922-1925

—	1922		1923		1924		1925	
	Tons	Value	Tons	Value	Tons	Value	Tons	Value
		$		$		$		$
PRODUCTION—								
Natural Sodium Sulphate—								
Crude	164	1,000	210	1,050	965	4,825	3,876	19,380
Refined	340	10,880	523	9,139	118	1,179	-	-
Artificial Sodium Sulphate—								
Sodium sulphate	2,583	59,804	2,376	57,621	1,648	32,948	2,248	31,529
Glauber's salt	1,905	54,899	2,315	61,446	1,458	36,602	1,442	33,559
IMPORTS—								
Soda, bisulphate of, or nitre cake—(From May 12, 1923)	-	-	20,152	91,940	18,859	87,961	21,873	72,939
Soda, sulphate of, crude, known as salt cake	39,472	830,515	30,967	684,604	36,022	673,322	34,215	471,931
Glauber's salt	172	5,554	521	11,542	906	14,684	518	8,177

CHAPTER FOUR

EXPLOSIVES, AMMUNITION, FIREWORKS AND MATCHES

General.—Production of explosives, ammunition, fireworks and matches in Canada in 1925 amounted in value to $12,313,155 as compared with a value of $13,310,315 in 1924. Capital employed in this industrial group amounted to $16,827,321, employees numbered 2,072, and expenditures for salaries and wages totalled $1,903,769. Materials used were worth $6,848,921 and fuel and electricity cost $253,008. In 1924, the capital investment stood at $20,457,440 and employment was given to 2,174 persons to whom $2,059, 642 was paid in salaries and wages.



This industrial group includes those firms engaged in the manufacture of (a) explosives (b) ammunition (c) fireworks and (d) matches. In the present chapter separate data for each of these industries are given, as well as statistics for the group as a whole.

(a) Explosives.—In 1925, the explosives industry in Canada covered the operations of 5 firms of which 2 were located in Quebec, 2 in Ontario, and 1 in British Columbia. Only 1 firm produced chlorate mixtures, 1 manufactures mercury fulminate and the other 3 made nitrate mixtures, dynamites, monobels, etc., as primary products. In 1924, there were 7 firms in this industry; 1 small plant in Ontario did not operate during 1925 and in British Columbia the interests of the Canadian Explosives Limited with plant at James Island and the Grant Powder Company of Canada with works at Nanoose Bay were amalgamated under the name of Canadian Giant Limited, although both plants were kept in operation throughout 1925.

Production in 1925 was valued at $7,999,856, While this figure is half a million dollars below the output value given for 1924, the decline was partly due to more rigid editing of the returns from the manufacturers resulting in the elimination of certain duplications in values which previously had not been changed. It is probable that the actual volume of output in 1925 was considerably above that for 1924.

(b) Ammunition.—Only 3 firms in Canada produced ammunition in 1925. All were located in Quebec. The Government Arsenal at Quebec produced small arms and 12 and 14-pounder, Q.F. ammunition; another plant made only safety fuse for blasting and the third produced safety cartridges, fog signals, shot shells, fusees, etc.

Representing a capital of 3·2 million dollars these firms had a total output worth $2,129,975. Employees numbered 618 and payments in salaries and wages amounted to $620,028. There was but little change from 1924 when the same 3 plants were in operation.

(c) Fireworks.—Fireworks were manufactured in 3 plants in Canada in 1925; all were situated in Ontario. Two plants operated full time while 1 small plant employing no one but the owner, worked only for a few months during the year. One plant in Quebec that produced railway fog signals and railway fusees in 1924 did not operate during 1925.

Production in 1925 totalled $128,684 in value as compared with $196,672 in 1924.

(d) MATCHES.—Production of matches in Canada in 1925 reached a total value of $2,054,640 an increase of 23 per cent over the output value in 1924; these figures do not include the Government excise tax. (See note.) The same 4 plants were in operation as in the previous year; 2 were in Ontario and 2 in Quebec.

NOTE.—MATCHES.—The Excise Regulations provide that there shall be placed on every package of matches manufactured or imported, a stamp of the value of one cent for each 100 matches or portion of 100.

When matches are put up in packages containing not more than sixty and not less than thirty matches each, the tax shall be payable at the rate of one-half of one cent for each package, and when in packages containing less than thirty, the tax is one-fourth of one cent per package.

No matches shall be sold or imported unless they are in packages.

Table 48.—Summary Statistics of the Explosives, Ammunition, Fireworks and Matches Industry in Canada, 1921-1925

—	Number of plants	Capital employed	Number of employees	Salaries	Wages	Cost of fuel and electricity*	Cost of materials	Selling value of products	Value added by manufacturing
		$		$	$	$	$	$	$
Explosives—									
1921	10	6,265,010	455	169,377	452,740	180,218	4,294,118	6,401,452	2,107,334
1922	9	6,826,513	498	154,336	498,059	87,726	6,076,366	7,963,225	1,886,859
1923	7	5,371,865	548	159,092	558,449	106,195	5,333,969	7,540,730	2,206,761
1924	7	12,203,156	570	235,036	558,222	135,056	6,007,787	8,502,682	2,494,895
1925	5	8,377,067	519	191,685	475,795	125,365	4,873,904	7,999,856	3,125,952
Ammunition—									
1921	5	4,503,012	825	132,471	614,305	129,610	777,160	2,285,373	1,508,213
1922	3	3,202,561	592	84,786	502,844	50,400	1,329,824	2,708,342	1,378,518
1923	3	3,707,397	664	95,974	548,713	52,814	2,540,611	3,929,902	1,389,891
1924	3	3,385,076	631	154,237	503,324	64,975	1,699,024	2,936,960	1,237,936
1925	3	3,238,367	618	162,841	457,187	62,567	888,856	2,129,975	1,241,119
Fireworks—									
1921	5	173,508	52	39,593	32,900	2,833	74,879	194,233	119,354
1922	4	147,417	47	38,884	28,290	2,838	68,535	193,093	124,558
1923	4	163,518	49	38,298	28,703	4,191	93,105	242,808	149,703
1924	4	127,026	47	33,390	28,777	2,427	66,193	196,672	130,479
1925	3	10,430	33	29,793	22,779	1,173	33,729	128,684	94,955
Matches—									
1921	2	2,706,327	439	58,903	331,073	43,404	1,055,043	2,118,786	1,063,743
1922	4	2,168,775	986	86,367	637,311	54,082	1,419,615	2,923,998	1,504,383
1923	4	4,577,322	1,029	132,639	559,229	65,864	1,303,556	2,714,950	1,411,394
1924	4	4,742,182	926	65,447	481,209	75,096	1,014,388	1,674,001	659,613
1925	4	5,101,457	902	122,835	440,856	63,903	1,052,432	2,054,640	1,002,208
Total—									
1921	**22**	**13,641,857**	**1,771**	**400,344**	**1,431,018**	**356,065**	**6,201,200**	**10,999,844**	**4,798,644**
1922	**20**	**12,345,296**	**2,123**	**364,373**	**1,666,504**	**195,046**	**8,893,740**	**13,788,658**	**4,894,918**
1923	**18**	**13,820,102**	**2,290**	**426,903**	**1,705,094**	**229,064**	**9,270,641**	**14,428,390**	**5,157,749**
1924	**18**	**20,457,440**	**2,174**	**488,110**	**1,571,532**	**277,554**	**8,787,392**	**13,310,315**	**4,522,923**
1925	**15**	**16,827,321**	**2,072**	**507,154**	**1,396,615**	**253,008**	**6,848,921**	**12,313,155**	**5,464,234**

* Electricity not included for 1920, 1921 and 1922.

Capital Employed.—(a) EXPLOSIVES.—Capital employed by firms in the explosives industry in 1925 amounted to $8,377,067, of which $4,774,644 was tied up in lands, buildings and plant equipment, $1,702,698 in materials on hand and in process and $1,899,725 in cash, trading and operating accounts. In 1924 the total capital employed amounted to $12,203,156; the decline in 1925 is due to the amalgamation of the assets of 2 leading plants in British Columbia. Plant investment was largest in Quebec with British Columbia next; Ontario's plants were small. The decrease in capital shown for 1925 was almost entirely accounted for by the decline of 4·3 million dollars in the value of cash, trading and operating accounts.

(b) AMMUNITION.—Capital employed in the 3 plants in this industry in 1925 was reported at $3,238,367 and at $3,385,076 in 1924. In the former year $2,097,680 or 65 per cent of the total, represented primary investment in lands, buildings and plant equipment.

(c) FIREWORKS.—In 1925, there was a slight decline in working capital due to the fact that the 1 plant in Quebec did not operate during the year. Capital employed amounted to $110,430 in 1925 as against $127,026 in 1924. The value of plants and equipment was given at $40,359.

(d) MATCHES.—Value of lands, plant and equipment for the manufacture of matches in 1925 was reported to be $3,372,892; supplies on hand and in process were worth $860,638 and cash, trading and operating accounts totalled $867,927 making thus a total investment of $5,101,457 for the year as against $4,742,182 in 1924.

Table 49.—Capital Employed in the Explosives, Ammunition, Fireworks and Matches Industry in Canada, by Classes and by Provinces, 1924 and 1925

Province	1924				1925			
	Capital employed as represented by				Capital employed as represented by			
	Lands, buildings, fixtures, machinery and tools	Materials on hand, and stocks in process	Cash, trading and operating account	Total	Lands, buildings, fixtures, machinery and tools	Materials on hand, and stocks in process	Cash, trading and operating account	Total
	$	$	$	$	$	$	$	$
Explosives—								
Ontario	67,415	14,361	745	82,521	–	–	–	–
Canada[1]	4,584,085	1,369,220	6,249,851	12,203,156	4,774,844	1,702,698	1,899,725	8,377,067
Ammunition—								
Quebec	2,249,013	991,817	144,246	3,385,076	2,097,680	967,626	173,061	3,238,367
Canada	2,249,013	991,817	144,246	3,385,076	2,097,680	967,626	173,061	3,238,367
Fireworks—								
Ontario	40,359	28,788	34,889	104,036	40,359	24,757	45,314	110,430
Canada[2]	55,071	28,788	43,167	127,026	40,359	24,757	45,314	110,430
Matches—								
Canada[3]	3,325,009	585,920	831,253	4,742,182	3,372,892	860,638	867,927	5,101,457
Total—								
Quebec	**6,968,047**	**2,883,372**	**3,361,486**	**12,412,905**	**7,778,728**	**2,770,017**	**1,527,984**	**12,076,729**
Ontario	**902,629**	**336,076**	**602,242**	**1,840,947**	**877,119**	**275,863**	**558,549**	**1,711,531**
Canada	**10,213,178**	**2,975,745**	**7,268,517**	**20,457,440**	**10,285,575**	**3,555,719**	**2,986,027**	**16,827,321**

[1] Includes also data for 2 firms in Quebec and 2 in British Columbia in 1924, and 2 in Ontario, 2 in Quebec and 1 in British Columbia in 1925.
[2] Includes also data for 1 firm in Quebec in 1924.
[3] Includes also data for 2 firms in Ontario and 2 in Quebec.

Employment.—(a) EXPLOSIVES.—In 1925 there were 70 salaried employees and 449 wage-earners on the rolls as compared with 94 and 476 respectively in 1924, giving a net decrease of 51 employees or 9 per cent from the previous year. The number of wage-earners employed in the various factories attained a maximum of 480 in May and the minimum of 377 was reached in July. Four of the plants worked the year round while 1 plant in Ontario employing a staff of 75 to 80 persons operated during only part of April, May, September and October.

Payments for salaries and wages totalled $667,478 in 1925 as compared with $793,258 in 1924.

(b) AMMUNITION.—Manufacturers of small arms and military ammunition in Canada employed an average of 618 persons in 1925, as against 631 in the previous year. The first months of the year marked the period of maximum employment; in February there were 403 male and 192 female wage-earners on the rolls after which there was a gradual decline in number until in December only 343 male and 158 female workers were employed. On the average, 366 male and 178 female wage-earners received $457,187 in wages, while the 74 salaried employees were paid $162,841 during the year.

(c) FIREWORKS.—In 1925, the average number of wage-earners in the fireworks industry was 26, of whom 12 were males and 14 females; 7 salaried employees brought the total to 33 as against 47 in 1924. Payments in salaries and wages totalled $52,572 of which $22,779 was for wages and $29,793 for salaries.

(d) MATCHES.—The matches industry afforded employment to 902 persons in 1925, of whom 65 were salaried workers and 837 wage-earners. Of the latter, 358 or 43 per cent of the total were female workers.

All plants operated full time during the year and monthly figures on labour indicated that employment was fairly steady. In January 894 wage-earners were employed, in April 871, in May 751, in June 612, in August 934, and in December, 816.

Table 50.—Employment, Salaries and Wages Paid, in the Explosives, Ammunition, Fireworks, and Matches Industry in Canada, 1924

—	Explosives		Ammunition		Fireworks		Matches		Total
	Male	Female	Male	Female	Male	Female	Male	Female	
(a) Number of employees—									
Salaried employees	86	8	63	6	6	3	40	9	221
Wage-earners, by months—									
January	403	7	403	188	20	17	392	411	1,841
February	395	8	416	200	20	17	400	407	1,863
March	426	9	421	198	20	14	374	394	1,856
April	431	9	396	199	21	14	423	395	1,888
May	504	5	388	195	22	14	406	377	1,911
June	506	6	385	195	23	13	426	404	1,958
July	484	8	380	192	24	12	453	413	1,966
August	475	8	358	192	25	14	427	389	1,898
September	477	7	339	177	22	11	428	360	1,821
October	448	7	346	154	11	9	206	172	1,353
November	408	7	352	154	12	10	209	327	1,539
December	390	7	352	161	13	11	265	446	1,645
Average	467	9	378	184	23	15	430	447	1,953
Total employees	**570**		**631**		**47**		**926**		2,174
(b) Salaries and wages—									
Salaries $		235,036		154,237		33,390		65,447	488,110
Wages $		558,222		503,324		28,777		481,209	1,571,532
Total $		**793,258**		**657,561**		**62,167**		**546,656**	2,059,642
(c) Average yearly earnings of each wage-earner $		1,173		896		757		549	805
(d) Average number of days on which plants in this industry operated during the year		201		264		246		278	239

Table 51.—Employment, Salaries and Wages Paid in the Explosives, Ammunition, Fireworks and Matches Industry in Canada, 1925

—	Explosives		Ammunition		Fireworks		Matches		Total
	Male	Female	Male	Female	Male	Female	Male	Female	
(a) Number of Employees—									
Salaried employees	64	6	70	4	5	2	46	19	216
Wage-earners, by months—									
January	414	7	382	185	11	17	517	377	1,910
February	423	5	403	192	10	16	503	346	1,898
March	396	5	400	194	10	13	26	350	1,894
April	395	5	377	185	11	13	531	340	1,857
May	475	5	374	184	12	13	436	315	1,814
June	380	4	372	180	14	12	378	234	1,574
July	373	4	361	177	14	12	508	379	1,828
August	397	4	353	173	14	12	541	393	1,887
September	458	4	342	175	13	11	467	388	1,858
October	470	4	338	171	10	15	455	381	1,844
November	404	4	345	162	11	15	429	363	1,733
December	398	4	343	158	12	18	450	366	1,749
Average	444	5	366	178	12	14	479	358	1,856
Total employees	**519**		**618**		**33**		**902**		2,072
(b) Salaries and wages—									
Salaries $		191,685		162,841		29,793		122,835	507,154
Wages $		475,793		457,187		22,779		440,856	1,396,615
Total $		**667,478**		**620,028**		**52,572**		**563,691**	1,903,769
(c) Average yearly earnings of each wage-earner $		1,060		840		876		527	753
(d) Average number of days on which plants in this industry operated during the year		234		272		243		270	253

Table 52.—Fuel and Electricity Used in the Explosives, Ammunition, Fireworks and Matches Industry in Canada, 1924 and 1925

Description	Unit of measure	1924		1925	
		Quantity	Value	Quantity	Value
		No.	$	No.	$
Anthracite coal	short ton	7,864	53,389	7,177	46,999
Bituminous coal	short ton	16,842	113,355	15,729	99,272
Coke	short ton	180	2,611	578	6,815
Fuel oil	gallon	750,047	40,931	466,685	31,502
Gasoline	gallon	1,718	526	1,434	388
Gas	M cu. ft.	28,140	10,429	38,375	12,123
Wood	cord	798	2,566	8	145
Other fuel	....	–	9,257	–	5,664
Electricity	k.w.h.	3,538,837	44,490	4,184,668	50,100
Total	....	–	**277,554**	–	**253,008**

Table 53.—Power Employed in the Explosives, Ammunition, Fireworks and Matches Industry in Canada, 1924 and 1925

Description	1924		1925	
	Number of units	Total h.p. according to manufacturers' rating	Number of units	Total h.p. according to manufacturers' rating
Steam engines and turbines	15	2,928	14	2,287
Gas engines	–	–	1	6
Oil and gasoline engines	2	21	–	–
Hydraulic turbines and water wheels	1	200	2	250
Total primary power	18	3,149	17	2,543
Electric motors driven by purchased power	273	3,167	257	3,064
Total power equipment employed	**291**	**6,316**	**274**	**5,607**
Electric motors driven by power generated by the primary power of the industry	166	1,622	132	798
Total electric motors	**439**	**4,789**	**389**	**3,862**
Boilers installed	25	4,809	21	4,286

Materials Used.—(a) Explosives.—Materials used in the manufacture of explosives in 1925 reached a total cost of $4,873,904 of which $2,586,389 represented the cost of purchased materials and $2,287,515 the value of intermediate products made and used as materials by the reporting plants. Among the more important of the purchased materials were the following items: glycerine worth $738,381; Chile saltpetre valued at $666,361; oleum worth $76,850; sulphuric acid 66°Bé at $68,295; nitric acid, $69,822; dinitrotoluene, $33,974; nitrocotton, $81,108; paper, $110,330; mercury and alcohol. Intermediate products made and used by the producers included nitric acid, recovered acids and nitroglycerine.

(b) Ammunition.—Purchased materials used in the manufacture of ammunition included powder, shot, cordite, cartridge cups, cotton, mercury fulminate, etc., which reached a total cost of $888,856 in 1925 as compared with $905,190 in 1924. In the latter year intermediate products used as materials were reported at $793,834 but in 1925 these items are not included.

(c) Fireworks.—Among the principal materials used in the making of fireworks were potassium salts, strontium salts, sulphur, powder and paper. Many other materials were used in small quantities. In 1925 the cost of materials aggregated $33,729 as against $66,193 in the previous year.

(d) Matches.—Lumber and splints reaching a total value of $359,168 made up about one-third of the total cost of materials used in the manufacture of matches which in 1925 amounted to $1,052,432 and in 1924 reached $1,014,388. Ammonium phosphate, potassium chlorate and phosphorus sesquisulphide were the principal chemicals used.

Table 54.—Materials Used in the Explosives, Ammunition, Fireworks, and Matches Industry in Canada, 1924 and 1925

Materials used	Unit of measure	1924		1925	
		Quantity	Cost at works	Quantity	Cost at works
			$		$
EXPLOSIVES					
Purchased materials used—					
Ammonium hydroxide	lb. NH_3	78,509	8,937	27,606	3,078
Ammonium nitrate	lb.	2,283,806	132,397	4,132,417	242,043
Ammonium perchlorate	lb.	47,100	4,773	44,722	2,804
Calcium carbonate	lb.	323,627	2,225	366,600	1,974
Charcoal	lb.	281,254	7,837	239,027	5,083
Corn meal	lb.	155,743	4,280	245,539	7,071
Corn starch	lb.	268,696	13,262	246,849	13,163
Dinitrotoluene (DNT)	lb.	156,879	16,493	330,753	33,974
Flours	lb.	815,724	15,628	725,946	16,465
Glycerine	lb.	3,702,854	620,757	4,243,990	738,381
Graphite	lb.	3,238	292	3,915	280
Keiselguhr	lb.	20,729	591	–	–
Mixed acids	lb.	–	–	3,000	180
Nitric acid	lb.	382,126	32,537	1,163,290	89,822
Nitrocotton (Pyrocotton)	lb.	1,233,635	252,668	162,315	81,108
Oleum	lb.	9,538,349	118,139	7,487,729	76,850
Paper	–	–	89,971	–	110,330
Petrolatum	lb.	12,935	841	13,638	830
Petroleum products (chiefly paraffine wax)	lb.	185,256	10,236	351,733	21,748
Potassium chlorate	lb.	181,453	6,771	49,000	3,675
Potassium nitrate	lb.	335,055	19,090	135,317	7,153
Sawdust	lb.	754,820	3,616	647,538	6,163
Sodium carbonate (soda ash)	lb.	292,855	6,467	334,058	6,907
Sodium chloride (salt)	lb.	434,367	3,442	434,621	3,316
Sodium biborate (borax)	lb.	28,550	1,777	28,031	1,711
Sodium nitrate (Chile salpetre)	lb.	25,465,414	660,228	26,451,178	666,361
Sulphur	lb.	590,566	7,985	977,946	11,722
Sulphuric acid (66° Be)	lb.	4,677,457	61,562	5,935,539	68,295
Trinitrotoluene (TNT)	lb.	109,774	20,383	–	–
Wood pulp	lb.	1,236,880	28,675	1,371,646	31,604
Containers, boxes, cartons, etc.	–	–	154,052	–	131,206
All other materials[1]	–	–	201,091	–	223,092
Total	–	–	2,507,003	–	2,586,389
Intermediate products used as materials[2]	–	–	3,500,783	–	2,287,515
Total	–	–	6,007,786	–	4,873,904
AMMUNITION					
Purchased materials used[3]	–	–	905,190	–	888,856
Intermediate products used as materials	–	–	793,834	–	–
Total	–	–	1,699,024	–	888,856
FIREWORKS					
Total	–	–	66,193	–	33,729
MATCHES					
Ammonium phosphate	lb.	53,931	7,233	48,479	5,498
Glue	lb.	152,533	35,462	362,375	70,921
Lumber and splints	ft.	5,692,454	353,391	5,254,000	359,168
Phosphorus sesquisulphide	lb.	15,023	1,278	69,746	37,392
Potassium chlorate	lb.	841,025	54,532	970,031	66,043
Powdered glass	lb.	265,818	6,541	204,659	5,224
Wax	lb.	963,124	45,605	1,272,088	71,408
Containers, boxes, cartons, etc.	–	–	170,476	–	217,812
All other materials	–	–	339,870	–	218,966
Total	–	–	1,014,388	–	1,052,432
Total	–	–	**8,787,392**	–	**4,919,277**

[1] Includes ammonium sulphate, magnesium oxide, magnesium carbonate, sodium perchlorate acetone, alcohol, amatol, cordite and various other materials.
[2] Includes nitric acid, mixed acids, recovered acids, ammonium nitrate and nitroglycerine.
[3] Includes wax, potassium chlorate, mercury fulminate, cotton, yarn, powder, shot, paper, cordite and various other materials.

Products.—(a) EXPLOSIVES.—Production of explosives in 1925 totalled $7,999,856 in value. Of this total $2,287,515 represented the value of such intermediate products as nitric acid, nitroglycerine and recovered acids, which were used again in the manufacture of the commodities for sale. Explosives made for sale in 1925 totalled $5,712,341 in value as compared

with $5,001,899 in 1924. In 1925 only half as much gunpowder was made as in the previous year, but the output of straight dynamites showed an increase of about one-third in quantity. Gelatine dynamites, monobels, propellant powders and other products showed but little change from the production in 1924.

(b) AMMUNITION.—Safety cartridges, safety fuses for blasting, railway signals, loaded shot shells, electric fuses and detonators were the principal products of this industry which in 1925 had a total output valued at $2,129,975. As each of these commodities was made in only 1 or 2 plants in Canada, the quantities and values of each cannot be shown separately. In general there was but little change from the previous year.

(c) FIREWORKS.—Manufactured fireworks to a value of $109,020 were the main product of this industry in 1925. This item was 11 per cent below the corresponding figure for 1924.

(d) MATCHES.—Production of matches in 1925 amounted in value to $2,054,640 as compared with $1,674,001 in 1924. This value does not include the government excise tax. (See page 68.)

Table 55.—Products of the Explosives, Ammunition, Fireworks, and Matches Industry in Canada, 1924 and 1925

Product	Unit of measure	1924		1925	
		Quantity	Selling value	Quantity	Selling value
EXPLOSIVES			$		$
(a) Products made for sale.					
Class I—					
Gun powder	lb.	1,439,843	242,429	730,409	108,280
Class II—					
Nitrate mixtures	lb.	490,875	48,400	817,175	71,911
Class III—Nitro compounds—Division 1—					
Dynamites	lb.	9,172,523	1,390,960	12,538,660	1,897,005
Gelatine dynamites	lb.	18,381,624	2,911,295	18,965,696	2,977,139
Monobels	lb.	1,587,036	257,155	1,731,436	282,571
Propellant powders	lb.	25,321	43,046	54,890	93,314
Total powder and blasting explosives in bulk	-	-	4,893,285	-	5,430,220
Other products and by-products[1]	-	-	108,614	-	282,121
Total	-	-	5,001,899	-	5,712,341
(b) Intermediate products made for use.					
Ammonium nitrate	lb.	2,612,273	208,779	102,495	8,618
Nitric acid	lb.	7,616,979	510,128	7,747,311	533,771
Nitroglycerine	lb.	8,317,487	1,500,180	9,039,492	1,611,924
Recovered acids	lb.	8,747,777	147,405	10,545,967	133,202
All other intermediate products	-	-	1,134,291	-	-
Total	-	-	3,500,783	-	2,287,515
Total	-	-	8,502,682	-	7,999,856
AMMUNITION					
(a) Products made for sale[2]	-	-	2,143,126	-	2,129,975
(b) Intermediate products made for use	-	-	793,834	-	-
Total	-	-	2,936,960	-	2,129,975
FIREWORKS					
Class VII—Fireworks—Division 2—					
Manufactured fireworks	-	-	123,201	-	109,020
All other products	-	-	73,471	-	19,664
Total	-	-	196,672	-	128,684
MATCHES					
Total	-	-	1,674,001	-	2,054,640
Total	-	-	**13,310,315**	-	**12,313,155**

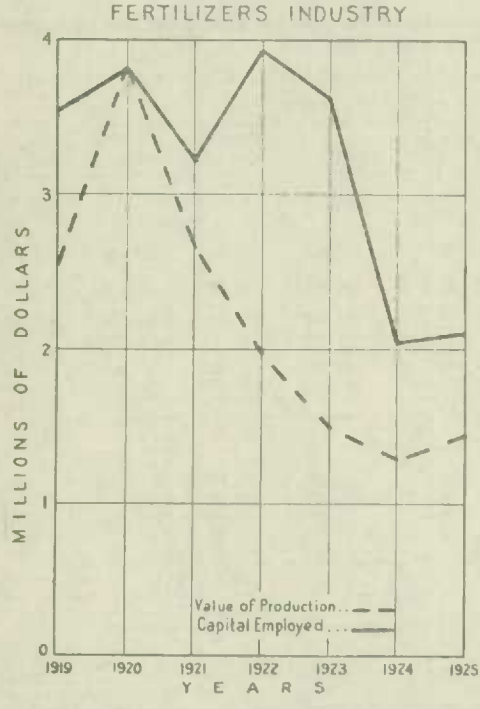
[1] Includes recovered acids, nitre cake, chlorate mixtures, mercury fulminate and other products.
[2] Includes safety cartridges, safety fuses for blasting, railway fog signals, percussion caps, loaded and empty shot shells, electric fuses, small arms ammunition, detonators, railway fuses and other products.

CHAPTER FIVE

FERTILIZERS

General.—This chapter presents statistics pertaining to those plants in Canada engaged primarily in the manufacture of complete fertilizers. In 1925 there were 13 plants in this industry distributed as follows: 6 in Ontario, 3 in Nova Scotia, 2 in British Columbia and 1 in each of the provinces of New Brunswick and Manitoba. Representing a capital investment of slightly more than 2 million dollars, these plants gave employment to 201 people and produced $1,437,787 worth of fertilizers from materials costing $1,045,294. In 1924 there were 14 plants in operation but the value of production amounted to only $1,277,145.

Only 1 plant in this industry produced fertilizers valued at more than a quarter of a million dollars; the outputs of 4 other establishments each exceeded $100,000 in value; 3 more factories each had a production worth more than $50,000, 2 exceeded $25,000, 1 other was above $10,000 in value and the outputs of the remaining 2 concerns were below this figure. Three plants employed more than 25 people each, 4 gave work to more than 10 persons, while 6 establishments each carried less than 10 names on their pay-rolls.



Mixed fertilizers are made by mixing the required amounts of materials containing nitrogen, phosphorus and potash, in order that sufficient quantities of these plant foods may be present to meet the particular needs of the soil for the crop to be grown. Nitrogen may be present in the inorganic form as in nitrate of soda, cyanamide, sulphate of ammonia, or in the organic state as found in dried blood, tankage, fish scrap and other waste materials from the slaughtering and meat-packing and fish-curing industries. Phosphorus is supplied in the form of bones, mineral phosphates, and basic slag from smelters. Potash is obtained from the crude natural salts and wood ashes.

As has been pointed out, the present review covers only those plants producing fertilizersa as the major product. Other plants in Canad produced such commodities as ammonium sulphate, cyanamide, tankage, dried blood, etc., which are extensively or even primarily used as fertilizing materials, but the major product of these plants is such that they must be classified in other industries.

Table number 65 shows the production of fertilizers and fertilizer materials in those industries other than the one now under review.

Table 56.—Summary Statistics of the Fertilizers Industry in Canada, 1921-1925

Year	Number of plants	Capital employed	Number of employees	Salaries	Wages	Cost of fuel and electricity*	Cost of materials	Selling value of products	Value added by manufacturing
		$		$	$	$	$	$	$
1921	15	3,209,240	274	152,608	217,045	46,039	1,696,205	2,677,735	981,530
1922	17	3,935,467	344	148,214	200,665	42,353	1,098,230	1,981,418	883,188
1923	18	3,616,001	329	152,134	158,307	39,638	831,470	1,487,244	655,774
1924	14	2,072,488	166	64,176	95,134	24,872	730,158	1,277,145	546,987
1925	13	2,095,608	201	79,417	125,756	21,369	1,045,294	1,437,787	392,493

* Electricity not included in 1921 and 1922.

Table 57.—Principal Statistics of the Fertilizers Industry in Canada, by Provinces, 1924 and 1925

Province	1924				1925			
	Number of plants	Number of employees	Salaries and wages	Selling value of products	Number of plants	Number of employees	Salaries and wages	Selling value of products
			$	$			$	$
Nova Scotia	–	–	–	–	3	72	73,421	349,412
Ontario	7	80	73,911	636,984	6	97	92,449	976,778
British Columbia	3	19	27,897	164,704	–	–	–	–
Canada*	**14**	**166**	**159,310**	**1,277,145**	**13**	**201**	**205,173**	**1,437,787**

* 1924 totals also includes data for 1 plant in Nova Scotia, 2 in New Brunswick and 1 in Manitoba; 1925 totals also include data for 1 plant in New Brunswick, 1 in Manitoba and 2 in British Columbia;

Capital Employed.—Firms in this industry reported a capital of $2,095,608 as tied up in fixed and current assets at the end of 1925. This figure was but slightly above the $2,072,488 reported for 1924 which in turn showed a distinct falling away from the previous year when the capital investment stood at $3,616,001. The 3 plants in Nova Scotia accounted for $1,011,202 or nearly one-half of the total capital employed in the industry, while Ontario with 6 plants accounted for 78 per cent of the remainder.

Table 58.—Capital Employed in the Fertilizers Industry in Canada, by Classes and by Provinces, 1924 and 1925

Province	1924				1925			
	Capital employed as represented by				Capital employed as represented by			
	Lands, buildings, fixtures, machinery and tools	Materials on hand, and stocks in process	Cash, trading and operating account	Total	Lands, buildings, fixtures, machinery and tools	Materials on hand, and stocks in process	Cash, trading and operating account	Total
	$	$	$	$	$	$	$	$
Nova Scotia	–	–	–	–	336,760	246,271	428,171	1,011,202
Ontario	294,763	101,325	242,386	638,474	314,782	174,292	279,019	768,093
British Columbia	100,322	79,520	8,176	188,018	–	–	–	–
Canada[1]	**567,284**	**445,261**	**1,059,943**	**2,072,488**	**829,988**	**538,647**	**726,973**	**2,095,608**

[1] 1924 total includes data for 1 plant in Nova Scotia, 2 in New Brunswick and 1 in Manitoba. 1925 total includes data for 1 plant in New Brunswick, 1 in Manitoba and 2 in British Columbia.

Employment.—An average number of 46 salaried employees and 155 wage-earners were employed during 1925 in those plants manufacturing complete fertilizer and these people were paid $79,417 in salaries and $125,756 in wages. In 1924, there were 51 salaried employees and 115 wage-earners on the rolls of the various companies and payments in salaries and wages totalled $159,310.

The year 1925 opened with only 91 wage-earners employed but by May the number had reached the maximum of 257. Thereafter a considerable decline took place until in November only 104 wage-earners were working steadily. In the previous year, 1924, the maximum of 166 was attained in April and the minimum of 85 was reached in July.

Table 59.—Employment, Salaries and Wages Paid in the Fertilizers Industry in Canada, 1924 and 1925

—	1924			1925		
	Male	Female	Total	Male	Female	Total
(a) Number of employees—						
Salaried employees	38	13	51	35	11	46
Wage-earners, by months—						
January	91	–	91	91	–	91
February	108	–	108	121	–	121
March	165	–	165	208	–	208
April	166	–	166	251	–	251
May	137	–	137	257	–	257
June	104	–	104	178	–	178
July	85	–	85	128	–	128
August	86	–	86	126	–	126
September	110	–	110	152	–	152
October	95	–	95	110	–	110
November	114	–	114	104	–	104
December	102	–	102	117	–	117
Average	115	–	115	155	–	155
Total employees	153	13	166	190	11	201
(b) Salaries and wages—						
Salaries $	–	–	64,176	–	–	79,417
Wages $	–	–	95,134	–	–	125,756
Total $	–	–	159,310	–	–	205,173
(c) Average yearly earnings of each wage-earner $	–	–	827	–	–	811
(d) Average number of days on which plants in this industry operated during the year	–	–	257	–	–	248

Table 60.—Distribution of Employment in the Fertilizers Industry in Canada, according to the Average Number of Hours Worked per Day, by Provinces, 1925

Province	Number of wage-earners working			
	8 hours or less per day	9 hours	10 hours	Over 10 hours
Nova Scotia	–	80	50	6
New Brunswick	2	–	–	–
Ontario	18	–	94	27
Manitoba	4	–	–	–
British Columbia	23	–	–	–
Canada	47	80	144	33

Table 61.—Fuel and Electricity Used in the Fertilizers Industry in Canada, 1924 and 1925

Kind	Unit of measure	1924		1925	
		Quantity	Value	Quantity	Value
			$		$
Anthracite coal	short ton	123	1,657	89	937
Bituminous coal	short ton	1,710	14,135	1,549	12,986
Coke	short ton	–	–	1	12
Gasoline	gallon	3,800	1,045	3,600	1,080
Wood	cord	230	954	106	338
Other fuel	–	–	225	–	79
Electric power	k.w.h.	221,405	6,856	265,900	5,937
Total	–	–	24,872	–	21,369

Table 62.—Power Employed in the Fertilizers Industry in Canada, 1924 and 1925

Description	1924		1925	
	Number of units	Total h.p. according to manufacturers' rating	Number of units	Total h.p. according to manufacturers' rating
Steam engines and turbines	3	90	4	725
Oil and gasoline engines	2	8	1	2
Total primary power	5	98	5	727
Electric motors operated by purchased power	25	475	23	325
Total power equipment employed	**30**	**573**	**28**	**1,052**
Electric motors operated by power generated by the primary power of the industry	3	75	4	85
Total electric motors	**28**	**550**	**27**	**410**
Boilers installed	2	55	4	655

Materials Used.—The cost of all raw materials used in the fertilizer industry was $1,045,294 in 1925 as compared with $730,158 in 1924. This was an increase of 43 per cent, but the value of production in the same time was only 13 per cent higher. Ammonium phosphate, ammonium sulphate and sodium nitrate were used in larger quantities than in 1924. Consumption of phosphate rock at 2,893 tons was almost double the quantity used in 1924, but the amount of superphosphate used was less by a million pounds. Potassium carbonate, lime and basic slag were used more extensively, but cyanamide, wood ashes and tankage were used in smaller quantities than in the previous year.

Table 63.—Materials Used in the Fertilizers Industry in Canada, 1924 and 1925

Materials used	Unit of measure	1924		1925	
		Quantity	Cost at works	Quantity	Cost at works
			$		$
Acid phosphate (superphosphate)	lb.	29,762,555	205,029	28,007,532	161,777
Ammonium phosphate	lb.	54,300	568	370,000	12,056
Ammonium sulphate	lb.	2,188,643	50,899	2,543,664	67,984
Basic slag	lb.	940,920	1,216	10,857,200	50,379
Bone ash (char)	lb.	414,108	1,214	130,900	355
Bone flour, and bone dissolved	lb.	604,920	6,008	96,000	1,200
Bone meal (crude)	lb.	930,151	13,931	1,419,080	18,955
Calcium cyanamide	lb.	399,458	11,863	328,582	9,621
Dried blood	lb.	486,290	11,053	610,300	18,309
Fillers	lb.	1,563,189	1,705	–	–
Fish scrap, dried and acidulated	lb.	482,325	7,994	60,000	1,500
Kainit and other crude potash salts	lb.	88,050	526	100,000	1,252
Lime or land plaster	lb.	2,166,818	2,865	3,891,514	6,139
Potassium carbonate or wood ashes	lb.	898,690	8,098	603,465	10,694
Potassium chloride (muriate)	lb.	4,052,470	69,820	6,104,772	105,765
Potassium sulphate	lb.	362,457	9,778	460,655	11,501
Phosphate rock (crude)	lb.	2,969,328	17,803	5,785,408	43,704
Sodium nitrate	lb.	1,827,049	35,419	2,913,015	78,457
Sulphur	lb.	370,000	4,825	–	–
Sulphuric acid, 50° Bé	lb.	695,570	5,250	2,174,540	10,142
Tankage	lb.	6,499,349	77,164	5,524,107	71,192
All other materials	–	–	135,201	–	309,803
Containers, etc	–	–	53,329	–	54,509
Total	–	–	**730,158**	–	**1,045,294**

Products.—Products made in the fertilizers industry in 1925 had a sales value of $1,437,787 as compared with $1,277,145 in 1924. These totals do not include commodities from the fisheries, slaughtering and meat-packing and other industries which make products and by-products that find extensive use for fertilizing purposes.

Complete fertilizers is the main product of this industry. In 1925 this product constituted about 90 per cent of the total production and amounted to nearly 82 million pounds as compared with 61 million pounds in 1924.

Several manufacturers sold superphosphate after treatment or dilution with a filler to meet requirements. Over 11 million pounds of superphosphate were sold for $131,378 in 1925 as contrasted with 7 million pounds with a selling value of $73,140 in 1924.

One firm in British Columbia made sulphuric acid and used part of its output in the manufacture of fertilizers and marketed the remainder as 50° Bé acid.

Supplementing the table on production is a compilation showing the production of fertilizers in other industries. In 1925, the value of this output was $6,259,496 as against $5,421,957 in 1924.

Table 64.—Products of the Fertilizers Industry in Canada, 1924 and 1925

Product	Unit of measure	1924		1925	
		Quantity	Selling value	Quantity	Selling value
			$		$
Acid phosphate (superphosphate)	lb.	7,150,222	73,140	11,190,734	131,378
Bone flour and meal	lb.	338,160	8,840	479,543	9,322
Bone dissolved	lb.	219,344	2,412	–	–
Complete fertilizer	lb.	61,422,923	1,086,806	81,580,802	1,142,510
All other products[1]	–	–	105,947	–	154,577
Total	–	–	**1,277,145**	–	**1,437,787**

[1] Includes acidulated fish scrap, agricultural lime, poultry and stock feeds, wheat pickle, sulphuric acid and various other products.

Table 65.—Production of Fertilizers and Fertilizer Materials, in other Industries 1924 and 1925

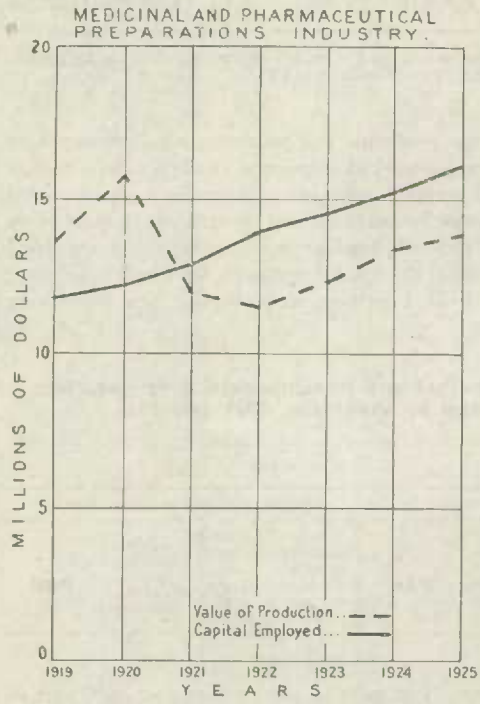
Industry	Product	Unit of measure	1924		1925	
			Quantity	Selling value	Quantity	Selling value
				$		$
Cyanamide	Calcium cyanamide	ton	72,491	3,303,984	90,612	3,839,363
Slaughtering and meat packing	Animal tankage	ton	15,594	537,151	17,830	666,153
	Bone, raw, ground	ton	3,677	130,601	4,911	165,224
	Complete fertilizer	ton	7,415	452,197	6,286	520,619
Fisheries	Fish and whale fertilizers	–	–	132,486	–	159,040
Coke and gas	Ammonium sulphate	ton	17,343	865,538	18,251	909,097
Total		–	–	**5,421,957**	–	**6,259,496**

CHAPTER SIX

MEDICINAL AND PHARMACEUTICAL PREPARATIONS

General.—Production from plants in Canada engaged primarily in the manufacture of patent and proprietary medicines, pharmaceutical preparations and associated products amounted in value to $13,987,849 in 1925, an increase of more than half a million dollars over the figure for 1924.

In 1925, reports were received from 120 concerns as against 104 in the previous year. There were 2 new plants in Quebec, 11 in Ontario and 1 in each of the provinces of Saskatchewan, British Columbia and New Brunswick. The industry is centred in Ontario there being 77 plants in that province, 30 in Quebec, 6 in Manitoba, 2 in each of the provinces of British Columbia, New Brunswick and Nova Scotia, and 1 in Saskatchewan.



This industry is of such a nature as to lend itself to operations on a small scale with limited capital and plant equipment. Firms reporting in this group therefore ranged from small one-man concerns compounding certain patent medicines in private homes to firms with an output valued in excess of a million dollars. A perspective of the industry may be obtained from the following analysis: of the 120 plants reporting to the Bureau in 1925, only 2 had an output valued at more than a million dollars each; 4 others each exceeded half a million dollars; 8 more were above a quarter million; 20 above $100,000; 23 above $50,000; 18 over $25,000; 18 over $10,000 and 27 establishments each produced less than $10,000 worth of goods during the year. An examination of employment returns shows that only 2 firms employed more than 200 persons each; 2 other plants gave work to more than 100 people; 7 plants employed between 50 and 100 workers; 9 between 25 and 50 employees; 37 between 10 and 25 persons; and 63 concerns employed fewer than 10 hands the year round.

Table 66.—Summary Statistics of the Medicinal and Pharmaceutical Preparations Industry in Canada, 1921-1925

Year	Number of plants	Capital employed	Number of employees	Salaries	Wages	Cost of fuel and electricity*	Cost of materials	Selling value of products	Value added by manufacturing
		$		$	$	$	$	$	$
1921	103	12,903,071	2,230	1,347,716	1,182,182	63,008	4,466,001	11,945,435	7,479,434
1922	109	13,995,461	2,302	1,517,488	1,235,192	66,456	4,145,298	11,532,536	7,387,238
1923	104	14,655,699	2,271	1,541,560	1,126,181	91,895	4,474,487	12,256,608	7,782,121
1924	104	15,156,479	2,193	1,444,005	1,222,992	93,391	4,895,352	13,350,347	8,454,995
1925	120	16,037,286	2,273	1,525,593	1,367,382	94,820	4,798,120	13,987,849	9,189,729

*Electricity not included for 1921 and 1922.

Table 67.—Principal Statistics of the Medicinal and Pharmaceutical Preparations Industry in Canada, by Provinces, 1924 and 1925

Province	1924				1925			
	Number of plants	Number of employees	Salaries and wages	Selling value of products	Number of plants	Number of employees	Salaries and wages	Selling value of products
			$	$			$	$
Quebec	28	531	655,126	2,996,562	30	570	667,266	2,777,680
Ontario	66	1,503	1,842,951	8,617,695	77	1,526	2,017,506	9,223,383
Manitoba	6	119	134,368	1,537,100	6	124	143,325	1,732,348
Canada[1]	**104**	**2,193**	**2,666,997**	**13,350,347**	**120**	**2,273**	**2,897,975**	**13,987,849**

[1] Includes also data for 2 firms in Nova Scotia, 1 in New Brunswick and 1 in British Columbia in 1924 and for 2 plants in Nova Scotia, 2 in New Brunswick, 1 in Saskatchewan and 2 in British Columbia in 1925.

Capital Employed.—Capital employed in the medicinal and pharmaceutical preparations industry in 1925 amounted to $16,037,286 which represented an increase of nearly a million dollars over the figure for 1924 when there were 16 fewer plants in operation. Approximately one-third of the total or $5,552,830 was given as the value of lands, plant and equipment; materials on hand and in process were worth $4,188,037, and the cash, trading and operating accounts stood at $6,296,419. Ontario accounted for 10·8 millions of the total investment, Quebec 2·9 millions, Manitoba 1·9 millions, and the remainder was divided between Nova Scotia, New Brunswick and British Columbia.

Table 68.—Capital Employed in the Medicinal and Pharmaceutical Preparations Industry in Canada, by Classes and by Provinces, 1924 and 1925

Province	1924				1925			
	Capital employed as represented by				Capital employed as represented by			
	Lands, buildings, fixtures, machinery and tools	Materials on hand, and stocks in process	Cash, trading, and operating accounts	Total	Lands, buildings, fixtures, machinery and tools	Materials on hand, and stocks in process	Cash, trading and operating accounts	Total
	$	$	$	$	$	$	$	$
Quebec	1,227,572	722,635	806,785	2,756,992	1,150,968	877,668	905,688	2,934,324
Ontario	3,390,715	2,449,378	3,939,462	9,779,555	3,735,197	2,412,355	4,684,021	10,831,573
Manitoba	691,368	838,913	1,003,674	2,533,955	587,696	752,965	566,099	1,906,760
Canada*	**5,331,381**	**4,034,966**	**5,790,132**	**15,156,479**	**5,552,830**	**4,188,037**	**6,296,419**	**16,037,286**

* Includes also data for 2 firms in Nova Scotia, 1 in New Brunswick and 1 in British Columbia and for 2 firms in Nova Scotia, 2 in New Brunswick and 1 in Saskatchewan and 2 in British Columbia in 1925.

Employment.—In 1925, the 120 plants in this industry afforded employment to 764 salaried employees and an average of 1,509 wage-earners making a total of 2,273 workers as compared with 2,193 in 1924. Much of the work is of such a nature as to permit employment of a large number of girls and women. In 1925 female employees numbered 1,061 or 47 per cent of the total; 240 were on a salary basis and 821 were earning wages.

Employment was steady throughout the year. Returns by months showed that the number of wage-earners was at a minimum in January with 1,477 names on the rolls and at a maximum in October when 1,648 wage-earners were working in the various plants. Salaries during the year totalled $1,525,593 and $1,367,382 was paid to 1,509 wage-earners. The average income to each wage-earner was $906 in 1925 as against $798 in 1924.

Table 69.—Employment, Salaries and Wages Paid in the Medicinal and Pharmaceutical Preparations Industry in Canada, 1924 and 1925

	1924			1925		
	Male	Female	Total	Male	Female	Total
(a) Number of Employees—						
Salaried employees	439	222	661	524	240	764
Wage-earners, by months—						
January	639	848	1,487	659	818	1,477
February	646	849	1,495	677	898	1,575
March	668	891	1,559	676	880	1,556
April	634	858	1,492	673	875	1,548
May	632	849	1,481	672	877	1,549
June	621	829	1,450	671	841	1,512
July	628	862	1,490	677	844	1,521
August	635	870	1,505	682	838	1,520
September	661	964	1,625	695	901	1,596
October	658	962	1,620	707	941	1,648
November	648	919	1,567	695	944	1,639
December	639	862	1,501	675	901	1,576
Average	645	887	1,532	688	821	1,509
Total employees	1,084	1,109	2,193	1,212	1,061	2,273
(b) Salaries and Wages—						
Salaries $	–	–	1,441,095	–	–	1,525,593
Wages $	–	–	1,222,992	–	–	1,367,382
Total $	–	–	2,666,997	–	–	2,892,975
(c) Average yearly earnings of each wage-earner $	–	–	798	–	–	906
(d) Average number of days on which plants in this industry operated during the year	–	–	257	–	–	275

Table 70.—Distribution of Employment in the Medicinal and Pharmaceutical Preparations Industry in Canada, according to the Average Number of Hours Worked per Day, by Provinces, 1925

Province	Number of wage-earners working			
	8 hours or less per day	9 hours	10 hours	Over 10 hours
Nova Scotia	5	3	–	–
New Brunswick	22	–	–	–
Quebec	283	148	35	3
Ontario	757	477	1	
Manitoba	92	23	1	3
Saskatchewan	3	–	–	–
British Columbia	8	–	–	–
Canada	1,170	651	37	8

Table 71.—Fuel and Electricity Used in the Medicinal and Pharmaceutical Preparations Industry in Canada, 1924 and 1925

Kind	Unit of measure	1924		1925	
		Quantity	Value	Quantity	Value
			$		$
Anthracite coal	short ton	1,194	11,308	741	10,007
Bituminous coal	short ton	6,302	44,581	6,859	47,565
Coke	short ton	4	48	35	489
Fuel oil	gallon	28,501	2,939	24,836	2,653
Gasoline	gallon	1,076	269	1,240	313
Gas	M cu. ft.	11,355	3,866	12,268	4,215
Wood	cord	251	516	153	877
Other fuel	-	-	2,005	45	270
Electric power	k.w.h.	1,397,877	27,859	1,399,825	28,431
Total	-	-	**93,391**	-	**94,829**

Table 72.—Power Equipment Employed in the Medicinal and Pharmaceutical Preparations Industry in Canada, 1924 and 1925

Description	1924		1925	
	Number of units	Total h.p. according to manufacturers' rating	Number of units	Total h.p. according to manufacturers' rating
Steam engines and turbines	5	290	4	210
Gas engines	2	7	2	7
Total primary power	7	297	6	217
Electric motors operated by purchased power	325	1,228	452	1,480
Total power equipment employed	**332**	**1,525**	**458**	**1,697**
Electric motors operated by the primary power of the industry	8	29	1	3
Total electric motors	**333**	**1,257**	**453**	**1,483**
Boilers installed	-	-	27	1,817

Materials Used.—Materials used in the preparation of the many medicinal and pharmaceutical compounds on the market are of such a variety that it is impossible to provide for the various items on the schedules. This results in the bulk of the materials used, being reported under the general item, "other materials."

In 1925, the total cost of all materials was $4,798,120 as compared with $4,895,352 in the previous year. Probably the most striking item on the list is that of "containers, boxes, etc.," which represents such a high proportion, 27 per cent, of the total cost. This is due to the fact that most of the products are sold in small packages and bottles.

Table 73.—Materials Used in the Medicinal and Pharmaceutical Preparations Industry in Canada, 1924 and 1925

Materials used	Unit of measure	1924		1925	
		Quantity	Cost at works	Quantity	Cost at works
			$		$
Barium peroxide	lb.	54,319	6,382	57,659	6,665
Bismuth metal	lb.	3,937	8,161	3,280	7,917
Caffeine	lb.	8,489	26,013	2,649	8,435
Ethyl alcohol (65, o.p.)	proof gal.	145,240	377,902	181,079	572,170
Iodine crude	lb.	11,219	44,205	17,340	75,480
Iodine, resublimed	lb.	-	-	350	1,926
Silver bullion	oz.	16,040	11,454	32,650	24,209
Other materials	-	-	2,846,122	-	2,821,098
Shipping containers (boxes, cartons, bottles, etc.)	-	-	1,575,080	-	1,280,220
Total	-	-	**4,895,352**	-	**4,798,120**

Products.—The products of this industry are also of a great variety and are largely marketed under individual trade names. Patent and proprietary preparations were valued at $5,837,150 in 1925; medicinal and pharmaceutical preparations came next at $5,048,456, while toilet preparations were worth $943,631 and other products brought the total output value to $13,987,849 which was 5 per cent above the figure for 1924. It may be pointed out once more, that similar products (particularly toilet preparations) are also made in other industries. For the complete production of any commodity in the chemicals and allied industries reference should be made to Table 22.

Table 74.—Products of the Medicinal and Pharmaceutical Preparations Industry in Canada, 1924 and 1925

Product	Unit of measure	1924		1925	
		Quantity	Selling value	Quantity	Selling value
			$		$
Patent medicines and proprietary preparations	–	–	6,265,526	–	5,837,150
Medicated wines	–	–	46,533	–	51,740
Pharmaceutical preparations	–	–	3,783,044	–	5,048,456
Toilet preparations (including perfumes, hair tonics, etc.)	–	–	1,503,594	–	943,631
Disinfectants	–	–	55,536	–	47,189
Hydrogen peroxide	–	–	49,510	–	38,576
Iodine resublimed	lb.	3,501	17,183	3,814	18,941
Potassium iodide	lb.	6,523	23,529	8,577	32,635
Silver nitrate	lb.	1,639	12,733	1,353	10,351
All other products[1]	–	–	1,593,159	–	1,959,180
Total	–	–	**13,350,347**	–	**13,987,849**

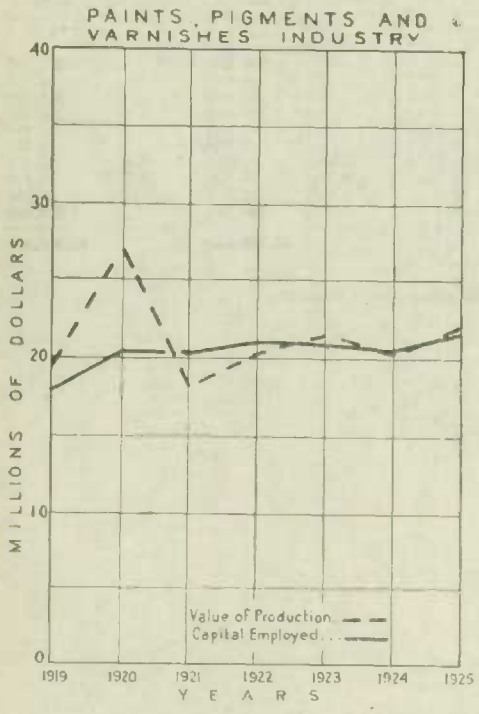
[1] Includes barium sulphate, bismuth salts, nitrous ether, and various other products.

CHAPTER SEVEN

PAINTS, PIGMENTS AND VARNISHES

General.—Among the industries classified as belonging to the "Chemicals and Allied Products Group," the paints, pigments and varnishes industry in Canada ranks next in importance to the manufacture of acids, alkalies and salts. Products of this industry find wide application and are essential for the protection and preservation of all building materials such as wood, concrete or metal, as well as to decorate and beautify the surfaces. They are used also in the making of printing inks, oilcloths for table and floor, linoleum, leather dressing, wall papers, window shades and rubber goods.

In 1925, there were 62 plants in Canada engaged in the manufacture of paints, pigments and varnishes of which 17 were in Quebec, 29 in Ontario, 4 in Manitoba, 10 in British Columbia and 1 in each of the provinces of Alberta and Nova Scotia. Of these, 7 had productions valued at more than a million dollars each, 10 others exceeded half a million dollars, the output of 11 other plants were each above a quarter million, 10 more above $50,000 each, 17 above $10,000 each; and outputs from 7 other establishments were each valued at less than $10,000. Only 1 factory employed more than 200 persons the year round, 4 others gave work to 100 or more people, 13 more than 50 workers, 17 more than 10 persons and 27 plants employed less than 10. In the previous year, 1924, there were 55 plants in operation in this industry distributed as follows: Quebec 14, Ontario 26, Manitoba 4; British Columbia 9 and Nova Scotia and Alberta 1 each. Only 4 establishments had a production in excess of a million dollars, while 13 others were above half a million, and 9 were better than the quarter-million mark.



Only a few paint manufacturers in Canada make any of their own pigments or colours. For the most part they purchase all ingredients ready made and devote their attention to grinding, blending and mixing and to the treatment of the different vehicles used. In 1925, four plants in Quebec corroded pig lead to produce basic carbonate white lead; over 20 million pounds of lead were used for this purpose last year.

Table 75.—Summary Statistics of the Paints, Pigments, and Varnishes Industry in Canada, 1921-1925

Year	Number of plants	Capital employed	Number of employees	Salaries	Wages	Cost of fuel and electricity*	Cost of materials	Selling value of products	Value added by manufacturing
		$		$	$	$	$	$	$
1921	49	20,330,951	2,231	1,893,278	1,406,311	248,446	9,714,521	18,044,325	8,329,804
1922	53	21,073,706	2,451	1,899,135	1,522,081	244,567	11,354,903	20,230,545	8,875,642
1923	57	20,806,909	2,591	2,050,381	1,615,442	288,617	10,754,273	21,553,158	10,798,885
1924	55	20,587,856	2,287	1,632,342	1,411,886	282,654	11,674,837	20,200,824	8,525,987
1925	62	21,460,431	2,355	1,628,885	1,464,306	293,893	12,613,905	22,234,268	9,620,273

*Electricity not included in 1921 and 1922.

Table 76.—Principal Statistics of the Paints, Pigments and Varnishes Industry, by Provinces, 1924 and 1925

Province	1924				1925			
	Number of plants	Number of employees	Salaries and wages	Selling value of products	Number of plants	Number of employees	Salaries and wages	Selling value of products
			$	$			$	$
Quebec	14	1,077	1,308,947	8,925,660	17	1,073	1,329,513	9,217,135
Ontario	26	843	1,288,857	8,676,155	29	902	1,345,976	9,660,171
Manitoba	4	151	209,978	1,538,943	4	173	209,180	1,725,878
British Columbia	9	141	169,105	1,034,436	10	136	142,194	1,158,176
Canada[1]	**55**	**2,287**	**3,044,228**	**20,200,824**	**62**	**2,355**	**3,093,191**	**22,234,268**

[1] Includes also data for 1 plant in Alberta and 1 in Nova Scotia.

Capital Employed.—Capital employed in the paint industry in 1925 amounted to $21,460,431, an increase of nearly a million dollars over 1924 and the highest on record for the industry. Fixed assets as represented by lands, buildings, fixtures, machinery and tools valued at $8,845,642 showed an increase in value of a quarter million dollars over 1924; a similar gain was shown in the value of stocks on hand and in process which amounted to $5,995,512, and the cash, trading and operating accounts at $6,619,277 was nearly half a million dollars above the corresponding figure for 1924. Each province reported an increase in capital employed. Quebec's 17 plants represented an investment of $11,856,253 or 56 per cent of the total, while Ontario accounted for 73 per cent of the remainder.

Table 77.—Capital Employed in the Paints, Pigments, and Varnishes Industry in Canada, by Classes and by Provinces, 1924 and 1925

Province	1924				1925			
	Capital employed as represented by				Capital employed as represented by			
	Lands, buildings, fixtures, machinery and tools	Materials on hand, and stocks in process	Cash trading and operating accounts	Total	Lands, buildings, fixtures, machinery and tools	Materials on hand, and stocks in process	Cash trading and operating accounts	Total
	$	$	$	$	$	$	$	$
Quebec	4,517,619	2,987,397	3,709,318	11,214,334	4,674,188	3,284,328	3,897,737	11,856,253
Ontario	2,698,899	1,807,358	2,185,580	6,691,837	2,883,882	1,821,485	2,288,477	6,993,844
Manitoba	467,075	399,200	21,491	887,766	468,400	441,424	54,700	964,524
British Columbia	587,854	364,339	243,098	1,195,291	613,427	331,537	305,206	1,250,170
Canada[1]	**8,616,235**	**5,741,253**	**6,230,368**	**20,587,856**	**8,845,642**	**5,995,512**	**6,619,277**	**21,460,431**

[1] Includes also data for 1 firm in Nova Scotia, and 1 in Alberta.

Employment.—The total number of persons in Canada employed in the manufacture of paints, pigments and varnishes was 2,355 in 1925 as compared with 2,287 in 1924. In the former year employment was given to 795 salaried employees and 1,560 wage-earners as compared with 774 and 1,513 respectively in the latter year. In 1925 female workers numbered 181 or 12 per cent of the total. Salaries and wages totalled $3,093,191 in 1925 and $3,044,228 in 1924.

Judging from monthly data, employment was fairly steady during the year. The number of wage-earners for the year attained a maximum in May when there were 1,651 wage-earners on the rolls, and the minimum was reached in October when 1,486 wage-earners were employed. A somewhat similar trend was noted in 1924 when the peak of employment was reached in March with 1,621 names on the wage-roll and the low point came in September when only 1,395 people were working in the various plants.

Factories in Quebec employed 1,073 people, including both salaried workers and wage-earners, while Ontario's plants gave work to an average of 902 employees the year round.

Table 78.—Employment, Salaries and Wages Paid in the Paints, Pigments and Varnishes Industry in Canada, 1924 and 1925

	1924			1925		
	Male	Female	Total	Male	Female	Total
(a) Number of employees—						
Salaried employees	599	175	774	612	183	795
Wage-earners, by months—						
January	1,328	175	1,503	1,333	167	1,500
February	1,382	176	1,558	1,350	186	1,542
March	1,429	192	1,621	1,399	188	1,587
April	1,413	185	1,598	1,429	194	1,623
May	1,415	178	1,593	1,460	191	1,651
June	1,393	178	1,571	1,434	182	1,616
July	1,365	175	1,540	1,386	171	1,557
August	1,260	169	1,429	1,333	155	1,488
September	1,241	154	1,395	1,328	182	1,510
October	1,261	154	1,415	1,315	171	1,486
November	1,286	164	1,450	1,322	176	1,498
December	1,288	165	1,453	1,327	180	1,507
Average	1,340	173	1,513	1,379	181	1,560
Total employees	**1,939**	**348**	**2,287**	**1,991**	**364**	**2,355**
(b) Salaries and wages—						
Salaries $	–	–	1,632,342	–	–	1,628,885
Wages $	–	–	1,411,886	–	–	1,464,306
Total $	–	–	3,044,228	–	–	3,093,191
(c) Average yearly earnings of each wage-earner. $	–	–	933	–	–	939
(d) Average number of days on which plants in this industry operated during the year	–	–	300	–	–	303

Table 79.—Distribution of Employment in the Paints, Pigments and Varnishes Industry in Canada, according to the Average Number of Hours Worked per Day, by Provinces, 1925

Province	Number of wage-earners working			
	8 hours or less per day	9 hours	10 hours	Over 10 hours
Nova Scotia	–	55	–	–
Quebec	224	601	63	10
Ontario	144	368	24	38
Manitoba	62	4	43	–
British Columbia	103	–	–	–
Canada	**533**	**1,028**	**130**	**48**

Table 80.—Fuel and Electricity Used in the Paints, Pigments and Varnishes Industry in Canada, 1924 and 1925

Kind	Unit of measure	1924		1925	
		Quantity	Value	Quantity	Value
			$		$
Anthracite coal	Short ton	670	5,217	1,983	15,448
Bituminous coal	Short ton	18,008	131,434	17,033	117,414
Coke	Short ton	2,556	29,841	2,562	29,349
Fuel oil	gallon	478,461	27,518	419,521	30,707
Gasoline	gallon	9,982	2,965	19,570	5,102
Gas	M cu. ft.	1,703	1,114	1,711	932
Wood	cord	530	2,124	536	2,163
Other fuel	–	–	4,279	–	8,217
Electric power	k.w.h.	5,604,649	78,132	5,341,556	84,561
Total	–	–	**282,654**	–	**293,893**

Table 81.—Power Employed in the Paints, Pigments, and Varnishes Industry in Canada, 1924 and 1925

Description	1924		1925	
	Number of units	Total h.p. according to manufacturers' rating	Number of units	Total h.p. according to manufacturers' rating
Steam engines and turbines	20	1,908	21	1,948
Hydraulic turbines or water wheels	1	90	1	90
Total primary power	21	1,998	22	2,038
Electric motors driven by purchased power	317	3,657	365	3,950
Total power equipment	**338**	**5,655**	**387**	**5,988**
Electric motors driven by power generated by the primary power at the establishment	21	293	16	252
Total electric motors	**338**	**3,950**	**381**	**4,202**
Boilers installed	38	2,797	37	2,872

Materials Used.—Raw materials used in manufacturing rose in cost to $12,613,995 from $11,674,837 in 1924. The cost of purchased materials at $9,974,106 was only 2 per cent above the corresponding figure for 1924, but the cost of intermediate products used as materials increased to $2,639,889 from $1,896,312 in the previous year.

The same 4 lead-corroding plants were in operation during 1925 and the quantity of pig lead used was 20,241,326 pounds as compared with 18,420,212 in 1924. The cost delivered at the plants was $1,696,468 in 1925 and $1,375,346 in 1924.

Basic carbonate of white lead was the most important pigment used but the quantity consumed in 1925 was only 8·5 million pounds, as against 10·4 million pounds in the previous year. Pure zinc oxide used amounted to 1·8 million pounds as compared with 1·9 million in 1924 but the consumption of leaded zinc oxide and zinc leads was higher at 2 million pounds as against 1·7 million in the previous year. More lithopone was used in 1925, the amount being 6,192,774 pounds as against 4,839,934 pounds in 1924.

Linseed oil was most extensively used as a pigment carrier. In 1925 the various plants used in the neighbourhood of 1·4 million pounds as against 1·8 million pounds in 1924. China wood oil, petroleum distillate, turpentine and alcohol were of next importance.

Gums and resins were the more important of the driers used. In 1925 some 1,620,202 pounds of gums and 5,469,259 pounds of resins were used for this purpose.

Intermediate products used as materials included 3·8 million pounds of basic carbonate white lead made by firms corroding pig lead and used by them in the manufacture of paints, and 701,064 gallons of varnishes worth $1,435,588 which were used in further processes in the different plants.

Table 82.—Materials Used in the Paints, Pigments and Varnishes Industry in Canada, 1924 and 1925

Materials used	Unit of measure	1924		1925	
		Quantity	Cost at works	Quantity	Cost at works
PURCHASED MATERIALS			$		$
PIGMENTS, COLOURS AND FILLERS—					
Asbestine	lb.	2,513,168	34,018	2,692,334	36,977
Barytes	lb.	3,322,059	64,364	3,536,468	62,081
Basic carbonate white lead, dry	lb.	4,577,681	432,332	3,265,416	350,138
Basic carbonate white lead, in oil	lb.	1,571,135	172,757	1,516,674	174,703
Basic sulphate white lead (sublimed lead)	lb.	208,805	23,615	134,890	15,969
Blanc fixe	lb.	88,347	5,056	206,850	2,350
Coal tar lakes (all colours)	lb.	67,542	15,320	24,290	14,472
Graphite	lb.	184,260	7,861	187,924	8,218
Kaolin or china clay	lb.	1,172,649	14,543	986,724	13,188
Iron oxide ore	lb.	64,609	3,514	142,479	6,751

Table 82.—Materials Used in the Paints, Pigments and Varnishes Industry in Canada, 1924 and 1925—Concluded

Materials used	Unit of measure	1924		1925	
		Quantity	Cost at works	Quantity	Cost at works
PURCHASED MATERIALS—*Concluded*			$		$
Pigments, colours and fillers—*Concluded*					
Iron oxide pigments	lb.	1,790,097	59,451	1,758,738	59,962
Lampblack, and other carbon blacks	lb.	275,300	46,031	390,541	60,338
Leaded zinc oxide and zinc leads	lb.	1,737,363	128,585	2,063,266	148,366
Litharge	lb.	788,442	73,501	955,372	107,158
Lithopone	lb.	4,839,934	308,309	6,192,774	335,864
Ochres, siennas and umbers	lb.	1,490,582	63,818	1,572,260	53,557
Pig lead	lb.	18,420,212	1,375,346	20,241,326	1,696,468
Prussian blue	lb.	15,930	6,510	79,091	8,260
Red lead	lb.	587,344	55,915	673,390	77,514
Satin white or gypsum	lb.	333,438	4,294	391,659	5,354
Silica, silex or infusorial earth	lb.	901,214	17,059	899,286	20,523
Ultramarine	lb.	113,364	24,363	128,772	24,615
Whiting or chalk	lb.	9,033,362	98,409	10,522,617	112,144
Zinc and zinc ore	lb.	398,200	16,970	832,873	53,108
Zinc oxide, pure	lb.	1,940,250	182,915	1,756,303	163,159
All other pigments and dry colours	–	–	389,336	–	389,555
DRIERS—					
Cobalt salts	lb.	2,642	2,016	4,949	4,475
Gums	lb.	1,413,588	314,847	1,620,202	372,982
Linoleate driers	lb.	8,851	5,686	–	7,932
Manganese salts	lb.	39,348	3,698	52,723	4,069
Resins	lb.	4,452,111	150,252	5,469,259	301,083
Resinate driers	lb.	55,306	8,363	–	7,701
Waxes	lb.	45,546	10,363	47,605	10,959
Other driers	–	–	–	–	2,084
OILS AND SOLVENTS—					
Alcohol	proof gal.	108,921	101,423	148,613	148,269
Acetone	lb.	–	40,170	181,648	25,520
Asphaltum	lb.	1,569,899	52,608	595,860	19,380
China wood oil (tung oil)	gal.	625,557	670,559	470,896	400,446
Coal tar naphtha and benzol	gal.	252,699	61,998	273,856	65,444
Coal tar pitch	lb.	187,301	4,063	257,989	23,370
Creosote	gal.	65,143	21,762	63,121	21,778
Fish oils	gal.	41,034	34,741	66,356	53,985
Linseed oil, raw	gal.	1,480,936	1,494,332	1,168,314	1,253,790
Linseed oil, boiled	gal.	320,622	335,423	280,359	307,259
Petroleum distillate	gal.	1,127,712	264,564	1,449,936	367,598
Soya bean oil	gal.	38,101	44,214	14,825	14,654
Turpentine (gum spirits)	gal.	230,068	267,843	329,829	403,822
Wood turpentine	gal.	140,873	62,104	123,962	46,032
Other oils and solvents	–	–	78,611	–	261,233
Cans, cases, barrels, etc	–	–	1,433,708	–	1,251,232
All other materials	–	–	691,045	–	598,217
Total	–	–	9,778,525	–	9,974,106
INTERMEDIATES USED AS MATERIALS					
Basic carbonate white lead, dry	lb.	3,702,526	291,488	3,355,239	444,485
Basic carbonate white lead, in oil	lb.	529,177	57,374	401,603	48,264
All other pigments and dry colours	lb.	323,783	68,671	997,463	222,391
Japans and lacquers	gal.	12,671	32,634	25,171	49,608
Lead, babbitt, etc	lb.	64,952	4,382	–	–
Coal tar pitch	lb.	14,000	280	–	–
Enamels	gal.	3,546	12,496	–	–
Linoleate driers	lb.	16,753	42,891	–	3,735
Linseed oil, boiled	gal.	17,535	22,202	10,912	14,029
Mixed paints	gal.	12,860	19,006	28,658	55,265
Paste paints	lb.	75,260	7,963	42,661	9,114
Resins	lb.	86,301	5,196	102,963	7,213
Resinate driers	lb.	30,069	22,697	–	27,624
Varnishes	gal.	576,789	1,206,179	701,064	1,435,588
Stand, blown and enamel oils	–	–	–	33,626	55,131
Colours in oil	–	–	–	20,162	54,437
Pyroxylin products	–	–	–	–	190,223
Other intermediates	–	–	102,853	–	22,782
Total	–	–	1,896,312	–	2,639,889
Total	–	–	**11,674,837**	–	**12,613,995**

Products.—The total production of the paints, pigments and varnishes industry in 1925 amounted in value to $22,234,268 an increase of 2 million dollars over the output value of 1924, and the highest on record since 1920 when over 27 million dollars' worth of similar commodities were produced. The value of products made for sale totalled $19,530,082 as compared with $18,187,681 in 1924 and the value of intermediates made and used in further manufacture was also higher at $2,704,186 as against $2,013,143 in the previous year.

Mixed paints, ready for use was the chief product made and accounted for nearly one-third of the total output value for the industry; 2,611,181 gallons worth $7,248,171 were made in 1925 and 2,385,249 gallons valued at $6,878,367 in 1924. Varnishes of all kinds were of next importance with basic carbonate white lead, enamels, paste paints, stains, japans and lacquers, and shellac following in order. Colours in oil, dry colours, putty, and red lead were also among the important products.

In 1925, the 4 firms corroding pig lead produced 8,345,879 pounds dry basic carbonate, 13,677,622 pounds of basic carbonate in oil, 1,695,037 pounds of red lead and 4,694,144 pounds of litharge. All the dry basic carbonate was made in these 4 establishments but some plants bought the dry carbonate, ground it in oil and sold it as basic carbonate in oil bringing the total production of this commodity for sale and for intermediate use to 14,226,941 pounds.

Table 83.—Products of the Paints, Pigments and Varnishes Industry in Canada, 1924 and 1925

Product	Unit of measure	1924		1925	
		Quantity	Selling value	Quantity	Selling value
			$		$
PRODUCTS MADE FOR SALE—					
Asphaltic and tar paints	gal.	97,509	113,705	291,839	238,273
Basic carbonate white lead, dry	lb.	2,917,053	273,581	2,947,741	161,703
Basic carbonate white lead, in oil	lb.	13,920,078	1,603,589	13,868,237	1,481,498
Colours in oil and japan	lb.	1,269,109	306,877	–	334,558
Dry colours	lb.	1,388,205	242,623	1,797,573	291,746
Enamels	gal.	251,205	971,314	287,895	1,077,062
Floor waxes and polishes	lb.	113,855	36,849	189,663	63,916
Inks, printing	gal.	1,484	2,158	–	–
Iron oxide pigments	lb.	380,300	19,063	364,863	18,286
Japans and lacquers	gal.	281,554	384,233	274,588	606,484
Linoleate driers	gal.	118,359	199,360	–	–
Linseed oil, boiled	gal.	86,758	107,164	87,925	109,751
Mixed paints, ready for use	gal.	2,385,249	6,878,367	2,611,181	7,248,171
Red lead	lb.	1,416,135	126,643	1,704,737	168,565
Resinate driers	gal.	37,632	62,946	67,176	79,797
Paste, paints	lb.	5,308,579	813,716	6,110,474	681,747
Paint and varnish removers	–	–	34,921	–	–
Putty and other fillers	lb.	5,949,286	322,231	7,315,041	369,888
Stand, blown or enamel oils	gal.	9,695	33,374	39,712	54,241
Shellac	gal.	129,521	525,648	158,341	520,570
Stains	gal.	357,601	650,249	344,233	610,083
Varnishes, all kinds	gal.	1,572,047	3,013,782	1,529,631	3,085,676
All other products[1]	–	–	1,465,288	–	2,328,067
Total	–	–	18,187,681	–	19,530,082
INTERMEDIATE PRODUCTS MADE FOR USE—					
Basic carbonate white lead, dry	lb.	3,745,425	351,650	5,398,138	518,821
Basic carbonate white lead, in oil	lb.	486,278	52,655	358,704	38,022
Colours in oil and japan	lb.	–	–	20,162	54,437
Colours, dry	lb.	323,783	68,671	997,363	222,383
Japans and lacquers	gal.	12,671	33,093	28,960	51,821
Linoleate driers	gal.	20,822	45,433	2,859	3,735
Linseed oil, boiled	gal.	17,535	22,202	10,912	14,029
Paints, mixed ready for use	gal.	–	–	28,658	55,265
Resinate driers	gal.	30,209	22,863	32,317	25,614
Stand, blown or enamel oils	–	–	–	36,626	55,131
Varnishes, all kinds	gal.	594,765	1,246,705	701,064	1,435,588
All other intermediates[2]	–	–	169,871	–	229,340
Total	–	–	2,013,143	–	2,704,186
Total	–	–	**20,200,824**	–	**22,234,268**

[1] Includes litharge, lampblack and other carbon blacks, pyroxylin compounds and thinners, kalsomine, cold water paint, shot dropped and moulded, paint oil, paste, size, satin white, solvent, aluminum paint, graded leads, roofing cement and preservative, core oil, antifreeze, waterglass and other products.

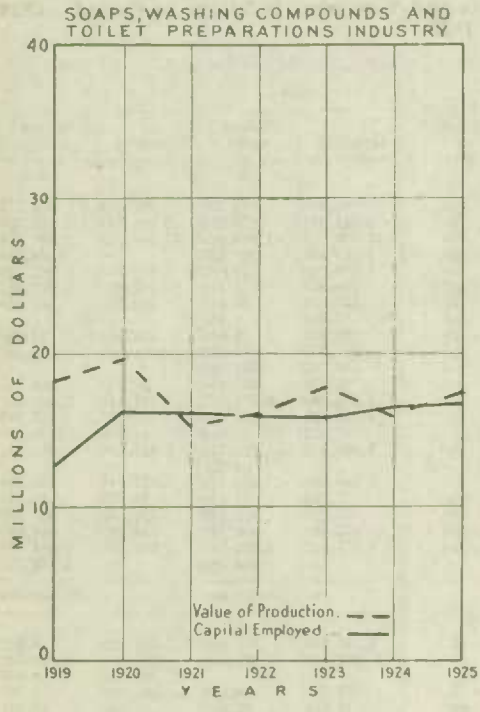
[2] Includes putty and other fillers, paste paints, enamels, shellac, asphaltic and tar paints, pyroxylin compounds, resins and other products.

CHAPTER EIGHT

SOAPS, WASHING COMPOUNDS AND TOILET PREPARATIONS

General.—Statistics for the soaps, washing compounds and toilet preparations industry in 1925 cover the operations of 88 different establishments which reported a combined working capital of $16,731,558, gave employment to 2,050 persons and produced commodities having a total selling value of $17,388,506. This group includes 36 plants manufacturing soaps of various kinds as the major products, 21 establishments producing washing compounds and 31 concerns engaged in the preparation of perfumes, cosmetics and other toilet essentials. For statistical purposes, these three allied industries are included under one clasification but in the present report, separate data are shown for each industry.

(a) Soaps.—The 36 plants in Canada engaged primarily in the manufacture of soaps were distributed by provinces as follows: Ontario, 19; Quebec, 9; Manitoba, Alberta and British Columbia, 2 each; and New Brunswick and Saskatchewan 1 each. Production from these factories in 1925 was valued at $13,568,252 as compared with output values of $13,187,267 in 1924 and $14,939,786 in 1923 when there were only 33 plants in operation. Ontario with 19 plants accounted for 67 per cent of the total output in Canada, while Quebec reported 43 per cent of the remainder. During the year, 2 new plants in Ontario commenced business and 1 other small concern in that province resumed operations after a year of idleness.



Of the 36 plants in operation in 1925, only 4 had individual productions valued in excess of $1,000,000; 4 other concerns each reported outputs valued at more than half a million dollars; 13 others were each above the $100,000 mark; while 9 more were each better than $10,000; and 6 others each produced less than $10,000 worth of commodities for sale. Only 1 plant gave employment to more than 300 persons; 3 other establishments employed more than 100 workers in each; 11 others each carried more than 25 names on the rolls; while 21 concerns each gave work to fewer than 25 people.

(b) Washing Compounds.—The number of firms operating in this industry in 1925 stood at 21 as compared with only 9 in the previous year; plants were located as follows: 5 in Quebec, 10 in Ontario, 3 in Manitoba, 2 in British Columbia and 1 in Alberta. During the year, reports were received from 3 new plants in Quebec, 2 in Manitoba, 1 in British Columbia, 5 in Ontario and 1 concern in the latter province which did not operate in 1924 again commenced to produce. The active plants manufactured articles for sale having a total selling value of $500,126 which was an increase of nearly 50 per cent over the value in 1924 and the highest on record for the industry. Employment was given to an average of 107 people and $173,529 were paid in salaries and wages during the year. Ontario and Quebec accounted for 85 per cent of the total production. For the most part the plants were comparatively small as only 8 exceeded the $10,000 mark in individual production, while 13 were below this figure. Only 3 concerns gave work to more than 10 people while 18 plants employed fewer than 10 persons in each. Javelle water, and ammonia powder were the main products of this industry.

(c) Toilet Preparations.—Although considerable quantities of perfumes, cosmetics and toilet preparations are made as minor products of several other industries; in 1925 these commodities represented the principal products of 31 establishments in Canada distributed as follows: 18 in Ontario; 9 in Quebec; 2 in Manitoba and 1 in each of the provinces of Alberta and British Columbia. Output from these plants in 1925 was valued at $3,320,128, an increase of 36 per cent over the corresponding value for 1924 and 27 per cent over the previous high figure for the industry in 1923. Ontario and Quebec each accounted for about 43 per cent of the total for Canada.

Capital employed was placed at 2·2 million dollars and the number of employees averaged 497 the year round.

Only 4 plants exceeded the quarter million dollar mark in unit value of production; 11 others each made more than $50,000 worth of commodities for sale; the outputs of 11 more concerns were each valued at more than $10,000, while only 5 had productions valued below the latter figure. Only 2 plants gave employment to more than 50 persons the year round; 4 other establishments each had more than 25 names on their rolls; 9 others gave work to more than 10 people in each; while 16 different factories employed fewer than 10 persons in each.

Table 84.—Summary Statistics of the Soaps, Washing Compounds, and Toilet Preparations Industry in Canada, 1921-1925

Year	Number of plants	Capital employed	Number of employees	Salaries	Wages	Cost of fuel and electricity*	Cost of materials	Selling value of products	Value added by manufacturing
Soaps—		$		$	$	$	$	$	$
1921	28	14,499,010	1,456	780,263	956,826	334,783	7,695,474	13,211,414	5,515,940
1922	32	13,881,099	1,447	776,877	975,539	336,538	7,534,475	13,132,290	5,597,815
1923	33	13,774,170	1,591	885,508	1,080,407	332,071	8,455,229	14,939,786	6,484,557
1924	33	14,497,596	1,464	810,087	1,038,282	264,451	7,824,844	13,187,267	5,362,423
1925	36	14,127,348	1,446	852,145	1,074,132	252,377	8,774,532	13,568,252	4,793,720
Washing Compounds—									
1921	15	256,111	77	55,929	49,044	2,175	117,230	340,107	222,877
1922	13	274,660	85	75,966	47,711	2,180	124,625	354,328	229,703
1923	11	283,851	83	66,583	46,671	2,040	103,725	348,801	245,076
1924	9	251,829	67	82,636	52,981	3,494	108,295	334,470	226,175
1925	21	382,194	107	108,783	64,766	4,459	174,968	500,126	325,158
Toilet Preparations—									
1921	20	1,359,544	338	179,382	138,622	6,444	670,000	1,756,300	1,086,300
1922	23	1,625,485	341	174,602	164,621	9,659	825,576	2,355,287	1,529,711
1923	26	1,610,571	408	193,456	187,030	13,533	841,798	2,620,424	1,778,626
1924	24	1,617,644	373	200,772	174,302	12,159	848,946	2,443,581	1,594,635
1925	31	2,242,016	497	279,232	239,469	13,846	1,144,241	3,320,128	2,175,887
Total—									
1921	**63**	**16,114,665**	**1,871**	**1,015,574**	**1,144,492**	**343,402**	**8,482,704**	**15,307,821**	**6,825,117**
1922	**68**	**15,781,244**	**1,873**	**1,027,445**	**1,187,871**	**348,377**	**8,484,676**	**15,841,905**	**7,357,229**
1923	**70**	**15,668,592**	**2,082**	**1,145,547**	**1,314,108**	**347,644**	**9,400,752**	**17,909,011**	**8,508,259**
1924	**66**	**16,367,069**	**1,904**	**1,093,495**	**1,265,565**	**280,104**	**8,782,083**	**15,965,318**	**7,183,233**
1925	**88**	**16,731,558**	**2,050**	**1,240,140**	**1,378,367**	**270,682**	**10,091,741**	**17,388,506**	**7,296,765**

*Electricity not included in totals for 1921 and 1922.

Table 85.—Principal Statistics of the Soaps, Washing Compounds and Toilet Preparations Industry in Canada, by Provinces, 1924 and 1925

Province	1924				1925			
	Number of plants	Number of employees	Salaries and wages	Selling value of products	Number of plants	Number of employees	Salaries and wages	Selling value of products
Soaps—			$	$			$	$
Quebec	9	235	292,718	1,855,240	9	260	350,231	1,903,988
Ontario	16	951	1,175,057	8,723,103	19	920	1,209,620	9,124,418
Canada[1]	33	1,464	1,848,369	13,187,267	36	1,446	1,926,277	13,568,252
Washing Compounds—								
Quebec	3	39	105,135	183,083	5	47	110,596	213,383
Ontario	4	25	28,022	148,990	10	40	41,019	215,290
Manitoba	–	–	–	–	3	10	12,664	33,398
Canada[2]	9	67	135,617	334,470	21	107	173,529	500,126
Toilet Preparations—								
Quebec	8	204	182,628	1,410,085	9	185	192,463	1,530,770
Ontario	13	162	187,692	1,017,400	18	299	315,205	1,752,497
Canada[3]	24	373	375,074	2,443,581	31	497	518,701	3,320,128
Total—								
Quebec	**20**	**478**	**580,481**	**3,448,408**	**23**	**492**	**653,290**	**3,648,141**
Ontario	**33**	**1,138**	**1,390,771**	**9,889,493**	**47**	**1,259**	**1,565,844**	**11,092,205**
Manitoba	**3**	**110**	**161,378**	**838,114**	**7**	**123**	**165,771**	**828,930**
Alberta	**4**	**50**	**64,332**	**384,368**	**4**	**48**	**65,210**	**335,333**
British Columbia	**4**	**67**	**80,544**	**473,223**	**5**	**72**	**88,342**	**489,469**
Canada	**66**	**1,904**	**2,359,060**	**15,965,318**	**88**	**2,050**	**2,618,507**	**17,388,506**

[1] Includes data for 1 plant in each of the provinces of New Brunswick and Saskatchewan and 2 in each of the provinces of Manitoba, Alberta and British Columbia in 1924, and for 2 plants in each of the provinces of Manitoba, Alberta and British Columbia and 1 plant in each of the provinces of New Brunswick and Saskatchewan in 1925.

[2] Includes also data for 1 plant in Alberta and 1 in British Columbia in 1924 and for 1 plant in Alberta and 2 in British Columbia in 1925.

[3] Includes also data for 1 plant in each of the provinces of Manitoba, Alberta and British Columbia in 1924 and for 2 plants in Manitoba and 1 in each of the provinces of Alberta and British Columbia in 1925.

Capital Employed.—(a) Soaps.—In 1925, the capital employed in this industry as represented by fixed assets, materials on hand and in process, and cash, trading and collectable accounts amounted to $14,127,348, a decrease of $370,248 from 1924 although there were 3 more plants in operation. The value of lands, plant and equipment alone was placed at slightly more than 8 million dollars. Ontario continued to lead with 19 plants employing $9,628,774 or 68 per cent of the total capital invested. Quebec was next with an investment of $1,825,905 in its 9 factories.

(b) Washing Compounds.—Plants in this group employed working capital of $362,194 in 1925 as compared with $251,829 in the previous year. These plants were all comparatively small as is evidenced by the fact that the total value of all lands, buildings and equipment was slightly below a quarter million dollars.

(c) Toilet Preparations.—Capital employed at $2,242,016 in 1925 represented an increase of 39 per cent over the corresponding figure for 1924. The value of lands, buildings and equipment was placed at $562,446 as compared with $479,648 in 1924; materials on hand and in process were worth $968,401 as against $715,953 in the previous year, and cash, trading and other accounts at $711,169 was 68 per cent above the figure for 1924. Investments in Ontario's plants represented about 58 per cent of the total for Canada.

Table 86.—Capital Employed in the Soaps, Washing Compounds, and Toilet Preparations Industry in Canada, by Classes and by Provinces, 1924 and 1925

Province	1924				1925			
	Capital employed as represented by				Capital employed as represented by			
	Lands, buildings, fixtures, machinery and tools	Materials on hand, and stocks in process	Cash trading and operating accounts	Total	Lands, buildings, fixtures, machinery and tools	Materials on hand, and stocks in process	Cash, trading and operating accounts	Total
	$	$	$	$	$	$	$	$
Soaps—								
Quebec	1,119,025	371,376	483,918	1,974,319	1,091,981	375,457	358,467	1,825,905
Ontario	5,445,553	3,216,549	1,331,692	9,993,794	5,500,817	2,878,233	1,249,724	9,628,774
Canada[1]	8,013,298	4,329,609	2,154,689	14,497,596	8,058,040	4,091,098	1,978,210	14,127,348
Washing Compounds—								
Quebec	123,637	12,536	1,320	137,493	132,217	15,590	3,633	151,440
Ontario	47,686	36,847	28,953	113,486	73,522	46,086	20,948	140,556
Manitoba	–	–	–	–	25,532	24,264	3,038	52,834
Canada[2]	171,673	49,733	30,423	251,829	237,147	96,695	28,352	362,194
Toilet Preparations—								
Quebec	244,889	430,997	217,778	893,664	266,487	406,472	245,860	918,819
Ontario	232,967	278,775	202,917	714,659	294,363	550,960	461,549	1,306,872
Canada[3]	479,648	715,953	422,043	1,617,644	562,446	968,401	711,169	2,242,016
Total—								
Quebec	1,487,551	814,909	703,016	3,005,476	1,490,685	797,519	607,960	2,895,164
Ontario	5,726,206	3,532,171	1,563,562	10,821,939	5,868,702	3,475,279	1,732,221	11,076,202
Manitoba	774,751	260,092	146,839	1,181,682	811,294	373,431	187,573	1,372,301
Alberta	254,580	118,910	33,430	406,950	255,252	129,709	23,513	408,474
British Columbia	198,252	128,502	81,981	408,735	206,288	133,745	100,208	440,241
Canada	8,661,619	5,095,295	2,607,155	16,367,069	8,857,633	5,156,194	2,717,731	16,731,558

[1] Includes data for 1 plant in each of the provinces of New Brunswick and Saskatchewan and 2 in each of the provinces of Manitoba, Alberta and British Columbia in 1924 and for 1 firm in New Brunswick, 2 in Manitoba, 1 in Saskatchewan, 2 in Alberta and 2 in British Columbia in 1925.

[2] Includes data for 1 plant in Alberta and 1 in British Columbia in 1924 and for 1 firm in Alberta and 2 firms in British Columbia in 1925.

[3] Includes data for 1 plant in each of the provinces of Manitoba, Alberta and British Columbia in 1924 and for 2 firms in Manitoba and 1 in each of the provinces of Alberta and British Columbia in 1925.

Employment.—(a) Soaps.—In 1925, employees in this industry numbered 1,446 of whom 409 were salaried employees and 1,037 were wage-earners. The total for the year was slightly below that for 1924 when 1,464 persons were employed. Salaries and wages amounted to $1,926,277 as compared with $1,848,369 in 1924. The average yearly earnings of each wage-earner was $1,036.

Monthly figures indicate that business was steady throughout the year. The number of wage-earners employed was at a minimum in May when 993 names were on the rolls and the maximum was reached in October when 1,075 workers were employed. Female workers averaged 222, or 21 per cent of the total number of wage-earners.

(b) Washing Compounds.—Plants in operation in this group during 1925 gave employment to 107 persons, an increase of 60 per cent over 1924 when there were 67 names on the rolls of the various companies. Female employees numbered 66 or about 60 per cent of the total. Salaries amounted to $108,763 and wages totalled $64,766 making a total disbursement for the year of $173,529 in salaries and wages.

(c) Toilet Preparations.—In 1925, there were 172 salaried employees and an average of 325 wage-earners employed in this industry. Female workers far outnumbered the male and comprised nearly 67 per cent of the total number on the pay-rolls. Payments for salaries and wages amounted to $518,701. In the previous year 1924, the 373 workers received $375,074 in salaries in wages.

Table 87.—Employment, Salaries and Wages Paid in the Soaps, Washing Compounds and Toilet Preparations Industry in Canada, 1924 and 1925

—	1924				1925			
	Soaps	Washing compounds	Toilet preparations	Total	Soaps	Washing compounds	Toilet preparations	Total
(a) Number of employees—								
Salaried employees	469	22	110	**601**	409	41	172	**622**
Wage-earners, by months—								
January	1,087	43	241	**1,371**	1,012	64	313	**1,389**
February	1,047	44	251	**1,342**	1,003	67	312	**1,382**
March	1,050	45	266	**1,361**	1,013	69	315	**1,397**
April	992	46	278	**1,316**	1,006	67	320	**1,393**
May	958	45	258	**1,261**	993	69	314	**1,376**
June	942	45	249	**1,236**	1,032	68	307	**1,407**
July	978	46	247	**1,271**	1,037	67	302	**1,406**
August	980	45	245	**1,270**	1,066	66	311	**1,443**
September	991	46	277	**1,314**	1,060	63	332	**1,455**
October	988	46	274	**1,308**	1,075	65	344	**1,484**
November	954	45	266	**1,265**	1,065	63	329	**1,457**
December	943	45	260	**1,248**	1,044	59	321	**1,424**
Average	995	45	263	**1,303**	1,037	66	325	**1,428**
Total employees	**1,464**	**67**	**373**	**1,904**	**1,446**	**107**	**497**	**2,050**
(b) Salaries and wages—								
Salaries $	810,087	82,636	200,772	**1,093,495**	852,145	108,763	279,232	**1,240,140**
Wages $	1,038,282	52,981	174,302	**1,265,565**	1,074,132	64,766	239,469	**1,378,367**
Total $	**1,848,369**	**135,617**	**375,074**	**2,359,060**	**1,926,277**	**173,529**	**518,701**	**2,618,507**
(c) Average yearly earnings of each wage-earner $	1,043	1,177	663	**971**	1,036	981	737	**965**
(d) Average number of days on which plants in this industry operated during the year	297	258	282	**286**	298	273	292	**290**

Table 88.—Distribution of Employment in the Soaps, Washing Compounds and Toilet Preparations Industry in Canada, according to the Average Number of Hours Worked per Day, by Provinces, 1925

Province	Number of wage-earners working			
	8 hours or less per day	9 hours	10 hours	Over 10 hours
New Brunswick	–	40	–	–
Quebec	90	171	94	7
Ontario	330	577	9	–
Manitoba	92	4	–	–
Saskatchewan and Alberta	33	–	–	1
British Columbia	60	–	–	–
Canada	**605**	**792**	**103**	**8**

Table 89.—Fuel and Electricity Used in the Soaps, Washing Compounds and Toilet Preparations Industry in Canada, 1924 and 1925

Kind	Unit of measure	1924		1925	
		Quantity	Value	Quantity	Value
		No.	$	No.	$
Anthracite coal	short ton	579	5,999	493	4,615
Bituminous coal	short ton	37,476	224,591	36,092	218,532
Lignite coal	short ton	21	189	23	221
Coke	short ton	167	655	209	1,134
Fuel oil	gal.	10	3	3,600	396
Gasoline	gal.	10,445	3,244	8,945	2,672
Gas	M cu. ft.	511	419	868	807
Wood	cord	83	412	72	453
Other fuel	.....	–	7,761	–	7,103
Electric power	k.w.h.	3,561,738	36,831	2,602,932	34,749
Total	.....	–	**280,104**	–	**279,682**

Table 90.—Power Employed in the Soaps, Washing Compounds and Toilet Preparations Industry in Canada, 1924 and 1925

Description	1924		1925	
	Number of units	Total h.p. according to manufacturers' rating	Number of units	Total h.p. according to manufacturers' rating
Steam engines and turbines	15	832	21	855
Oil and gasoline engines	2	18	2	18
Total primary power	17	850	23	873
Electric motors operated by purchased power	394	2,522	426	2,729
Total power equipment employed	**411**	**3,372**	**449**	**3,602**
Electric motors operated by power generated by the primary power of the industry	14	112	20	146
Total electric motors	**408**	**2,634**	**446**	**2,875**
Boilers installed	50	6,948	53	5,781

Materials Used.—(a) SOAPS.—Materials used in the soap industry in 1925 reached an aggregate value of $8,774,532 as compared with a corresponding figure of $7,824,844 in 1924. Tallow, grease and other fats are used in greater quantities than other materials since they naturally yield hard soap on saponification with caustic soda; in 1925, over 3·3 million dollars were paid out for these materials. Cocoanut oil also finds extensive use as a base for soap making and 8·6 million pounds worth $877,773 were used in 1925. Essential oils, palm oil, soya bean oil, crude glycerine, resin, caustic soda and soda ash were among the more important of the other materials used during the year. Shipping containers cost over a million dollars.

(b) WASHING COMPOUNDS.—Soda ash and soap stock such as tallow and grease are the major raw materials specified in the washing compounds industry. In 1925 purchased materials cost $174,968 as compared with $108,295 in the previous year. The cost of shipping containers of all kinds amounted to $45,022 or 26 per cent of the total.

(c) TOILET PREPARATIONS.—A great variety of raw materials is used in the manufacture of toilet preparations and as a result the bulk is reported under the general item "other materials." Essential oils, refined glycerine and petrolatum are the chief items that are specified. The total cost of materials was $1,144,241 in 1925 as compared with $848,946 in 1924. In this industry, also, the cost of containers constitutes a large part of the total and in 1925 amounted to $523,562 or over 45 per cent of all the raw materials used.

Table 91.—Materials Used in the Soaps, Washing Compounds and Toilet Preparations Industry in Canada, 1924 and 1925

Materials used	Unit of measure	1924		1925	
		Quantity	Cost at works	Quantity	Cost at works
			$		$
SOAPS—					
Castor oil	lb.	3,251	595	3,403	696
Cocoanut oil	lb.	9,431,213	868,115	8,669,331	877,773
Corn oil	lb.	156,478	16,387	35,714	3,449
Cottonseed oil	lb.	144,570	11,981	176,961	15,981
Essential oils	...	-	152,397	-	181,923
Fatty acids—stearic, etc	lb.	878,948	60,952	2,572,104	174,489
Feldspar	ton	700	23,082	-	21,959
Foots (cottonseed, olive, etc.)	...	-	179,794	-	186,227
Glycerine, crude, purchased	lb.	2,597,854	290,906	2,659,342	313,139
Glycerine, refined, purchased	lb.	35,751	7,294	136,370	28,020
Linseed oil	gal.	47,381	21,000	47,338	17,496
Olive oil	lb.	3,485	361	166,409	17,935
Palm oil	lb.	2,605,204	216,272	6,642,200	641,979
Peanut oil	lb.	358,271	35,357	698,136	72,666
Perfumes	...	-	108,118	-	60,689
Petrolatum	lb.	55,582	2,260	100,036	2,499
Potash, caustic	lb.	123,484	8,400	217,113	11,624
Resin	lb.	8,508,417	266,016	7,716,628	347,495
Silica sand	ton	2,599	72,049	2,883	63,898
Soap powder	lb.	37,373	4,748	47,212	6,391
Soda ash	lb.	6,971,436	135,277	6,516,821	121,894
Soda, caustic, dry	lb.	5,834,054	216,295	7,606,789	269,308
Soda, caustic, in solution	lb. soda	4,931,965	178,512	2,581,697	119,508
Sodium chloride (common salt)	lb.	2,381,653	14,273	3,003,148	15,065
Sodium silicate (waterglass)	lb.	9,132,675	83,315	12,440,057	107,116
Soya bean oil	lb.	2,247,504	167,545	2,630,625	237,562
Talc	lb.	262,292	3,495	346,853	4,993
Tallow, grease, and other soap stock	lb.	41,630,805	3,322,277	36,665,730	3,334,237
All other materials	...	-	241,520	-	400,514
Shipping containers (boxes, cartons, etc.)	...	-	1,115,351	-	1,118,007
Total	...	-	7,824,844	-	8,774,532
WASHING COMPOUNDS—					
Calcium chloride	lb.	524,403	12,438	740,727	16,684
Lime	lb.	-	-	60,770	1,982
Petrolatum	lb.	5,625	450	-	-
Resin	lb.	7,660	230	-	273
Silica sand	ton	-	-	255	5,570
Soda ash	lb.	1,308,720	26,442	1,672,638	33,052
Soda, caustic, dry	lb.	80,000	3,200	263,410	9,918
Sodium silicate (water glass)	lb.	13,530	183	133,457	1,857
Tallow, grease, and other soap stock	lb.	135,147	13,464	-	17,939
All other materials	...	-	22,589	-	42,671
Shipping containers (boxes, cartons, etc.)	...	-	29,299	-	45,022
Total	...	-	108,295	-	174,968
TOILET PREPARATIONS—					
Cocoanut oil	lb.	9,865	1,196	8,376	1,143
Ethyl alcohol	proof gal.	13,199	9,012	14,458	11,333
Essential oils	...	-	104,670	-	143,280
Fatty acids—stearic, etc	lb.	62,112	10,209	72,895	15,762
Glycerine, refined	lb.	258,732	54,278	70,065	35,590
Glycerine, crude, purchased	lb.	-	-	147,011	29,828
Perfumes	...	-	3,181	-	6,349
Petrolatum	lb.	198,276	34,278	210,589	32,430
Potash, caustic	lb.	11,669	907	15,872	1,337
Soda, caustic	lb.	1,342	86	1,000	30
Talc	lb.	346,384	7,637	694,251	16,015
Tallow, grease, and other soap stock	lb.	22,208	6,091	8,677	883
All other materials	...	-	255,291	-	326,699
Shipping containers (boxes, cartons, etc.)	...	-	362,110	-	523,562
Total	...	-	848,946	-	1,144,241
Total	...	-	**8,782,085**	-	**10,093,741**

Products.—(a) SOAPS.—Products of the soap industry in Canada in 1925 reached a total value of $13,568,252, an increase of 3 per cent over the output value of the previous year. Among the primary products were 47 million pounds of household soaps worth 3·5 million dollars; 39 million pounds of laundry soap at a total selling value of 3·9 million dollars and nearly 16 million pounds of toilet soap worth 2·5 million dollars. Other principal products included soap powder worth $919,848, refined glycerine valued at $687,711, crude glycerine at $385,939, toilet preparations at $299,421 and cleaning preparations worth in the neighbourhood of $680,000.

In addition to the output here shown there was a production of soaps in other industries amounting in value to about $258,392. For complete data, reference should be made to Table 22.

(b) Washing Compounds.—Javelle water worth $216,002 made up 43 per cent of the entire production of this industry. The total output in 1925 amounted in value to $500,126, as compared with $334,470 in the previous year. Production of washing compounds in other industries amounted in value to $209,075.

(c) Toilet Preparations.—Toilet preparations made for sale by firms in this industry are many and varied so it is impossible to list them in detail. Therefore, only the main groups are shown in the accompanying tables. In 1925, the entire production amounted in value to $3,320,128 of which toilet essentials made up about 84 per cent, soaps 5 per cent, and miscellaneous products 11 per cent. The manufacture of toilet preparations is by no means confined to the plants classed in this industry; other establishments produce similar commodities as minor products. For complete data on output, reference should be made to Table 22 of this report.

Table 92.—Products of the Soaps, Washing Compounds and Toilet Preparations Industry in Canada, 1924 and 1925

Product	Unit of measure	1924		1925	
		Quantity	Selling value	Quantity	Selling value
Soaps—			$		$
Hard soaps—					
Household soaps	lb.	41,075,620	3,107,893	46,920,388	3,538,591
Laundry soaps and soap chips	lb.	43,026,334	4,150,022	39,300,100	3,917,206
Toilet soaps	lb.	15,766,134	2,495,248	15,786,178	2,527,139
Polishing and scouring soap	lb.	2,189,883	166,717	845,547	57,214
Soap powder	lb.	12,440,062	984,814	11,601,433	919,848
Foots soap	lb.	137,287	11,426	130,210	10,470
All other hard soaps	lb.	3,254,558	248,488	3,346,248	283,715
Liquid soaps	lb.	280,275	22,713	260,805	23,612
Soft soaps	lb.	901,461	59,651	1,347,243	76,347
Cleaning preparations—					
Ammonia powder	lb.	1,125,497	71,967	1,331,230	83,106
Lye	lb.	724,101	96,925	637,262	86,783
Washing compounds	lb.	2,134,345	57,979	1,542,082	34,284
Other cleaning preparations	lb.	1,343,041	159,249	–	475,148
Glycerine, crude, sold as such	lb.	3,250,408	347,574	3,288,092	385,939
Glycerine, refined	lb.	3,367,899	690,295	3,461,772	687,711
Toilet preparations		–	213,279	–	299,421
Perfumes		–	46,443	–	94,451
All other products*		–	256,584	–	67,267
Total		–	13,187,267	–	13,568,252
Washing Compounds—					
Ammonia powder	lb.	1,094,326	69,100	–	71,857
Javelle water		–	183,083	–	216,002
Washing compounds	lb.	202,940	47,167	–	58,457
All other products		–	35,120	–	153,810
Total		–	334,470	–	500,126
Toilet Preparations—					
Toilet preparations, including hair tonics, perfumes, tooth paste, etc.		–	2,243,045	–	2,776,791
Toilet soaps	lb.	138,886	147,471	254,456	165,560
Liquid soaps	lb.	16,280	2,244	–	1,130
Perfumes		–	–	–	278,895
All other products		–	50,821	–	97,752
Total		–	2,443,581	–	3,320,128
Total		–	**15,965,318**	–	**17,388,506**

*Includes laundry blue, hand cleaner, borax, refined tallow and various other products.

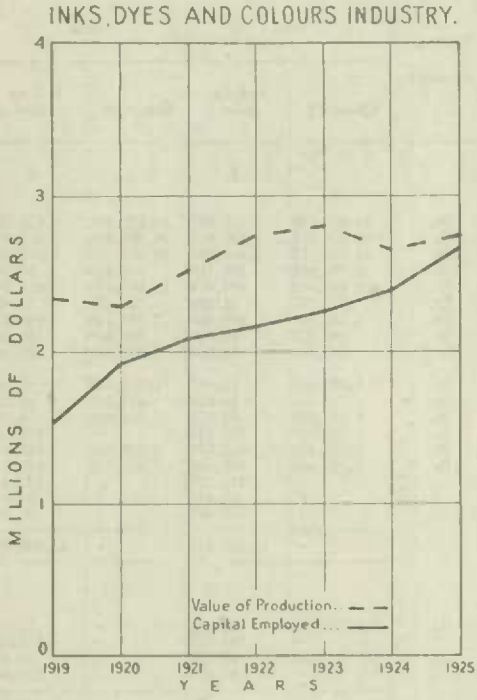
CHAPTER NINE

INKS, DYES AND COLOURS

General.—Production of inks, dyes and colours in Canada during 1925 reached a total value of $2,749,807, an increase of 3 per cent over the total of $2,656,400 for the previous year. Capital employed by plants in this group amounted to $2,669,720 and employment was given to an average of 403 persons during the year.

This industrial group includes 3 distinct but allied industries, namely: dyes and colours, printing inks and writing inks. In the present chapter is given a brief review of each industry as well as for the group as a whole.

(a) Dyes and Colours.—The opening of a new plant in Ontario for the production of food colours, butter colour, carbolic acid and other commodities was the principal item of importance in this industry in 1925. The 4 plants previously reporting, were also in operation during 1925, but the value of production for the industry was only $434,575 or 5 per cent lower than in 1924.



(b) Printing Inks.—Printing inks and printers' rollers, were the main products of this industry. In 1925, there were 13 plants in operation of which 4 made printers' rollers only, and 9 made printing inks, rollers and minor products. The plants were distributed as follows: 7 in Ontario, 2 in Quebec and 1 in each of the provinces of New Brunswick, Manitoba, Alberta and British Columbia. Production amounted in value to $2,032,940 as compared with $1,889,242 in 1924. Of the reporting firms only 1 had an output valued in excess of half a million dollars and 5 others were above the $100,000 mark. Two plants employed more than 60 hands the year round, 3 others gave work to more than 20 persons and 8 showed 10 persons or fewer on the pay-roll.

(c) Writing Inks.—During 1925, writing inks were made in Canada in 9 different plants distributed as follows: 4 in Ontario, 2 in British Columbia, and 1 each in Alberta, Manitoba and Quebec. There were 7 active plants in 1924; 1 establishment in Ontario which was closed in 1924 operated during 1925 and a small plant in Alberta commenced production. Only 1 company employed more than 10 people throughout the year and only 2 plants had outputs valued at more than $50,000. Production for the industry totalled $282,292 and employment was afforded to 64 workers the year round.

Table 93.—Summary Statistics of the Inks, Dyes and Colours Industry in Canada, 1921-1925

Year	Number of plants	Capital employed	Number of employees	Salaries	Wages	Cost of fuel and electricity*	Cost of materials	Selling value of products	Value added by manufacturing
		$		$	$	$	$	$	$
Dyes and Colours—									
1921	7	468,358	79	66,109	25,807	3,710	203,688	459,207	255,519
1922	6	409,780	74	67,979	30,186	3,574	227,581	531,469	303,888
1923	5	446,168	68	40,939	32,184	4,600	208,571	591,125	382,554
1924	4	372,613	46	38,099	27,154	3,482	140,120	457,726	317,606
1925	5	601,348	64	47,913	37,861	3,448	129,232	434,575	305,343
Printing Inks—									
1921	12	1,399,468	210	241,589	178,322	8,418	720,777	1,764,933	1,044,156
1922	12	1,521,956	262	294,547	197,474	9,602	703,942	1,896,605	1,192,663
1923	13	1,538,624	272	296,999	206,430	10,711	826,310	1,955,467	1,129,157
1924	13	1,741,378	268	272,921	225,111	22,421	652,746	1,889,242	1,236,496
1925	13	1,861,816	275	270,221	252,512	20,239	717,231	2,032,940	1,315,709
Writing Inks—									
1921	7	215,871	64	35,997	34,206	2,158	129,136	309,340	179,610
1922	8	215,217	80	40,672	37,861	1,961	138,764	327,932	189,168
1923	8	267,581	75	44,334	38,450	1,682	106,221	329,755	223,534
1924	7	277,868	63	36,807	32,515	2,846	149,459	309,432	159,973
1925	9	206,556	64	41,654	27,516	2,603	122,367	282,292	159,925
Total—									
1921	**26**	**2,083,697**	**353**	**343,695**	**238,515**	**14,286**	**1,051,195**	**2,533,480**	**1,479,285**
1922	**26**	**2,146,953**	**416**	**403,198**	**265,521**	**15,200**	**1,070,287**	**2,756,006**	**1,685,719**
1923	**26**	**2,252,370**	**415**	**382,272**	**277,064**	**22,993**	**1,141,102**	**2,876,347**	**1,735,245**
1924	**24**	**2,391,859**	**377**	**347,827**	**284,780**	**28,749**	**942,325**	**2,656,400**	**1,714,075**
1925	**27**	**2,669,720**	**403**	**359,788**	**317,889**	**26,350**	**968,830**	**2,749,807**	**1,780,977**

* Does not include electricity in 1921 and 1922.

Table 94.—Principal Statistics of the Inks, Dyes and Colours Industry by Provinces, 1924 and 1925

	1924				1925			
	Number of plants	Number of employees	Salaries and wages	Selling value of products	Number of plants	Number of employees	Salaries and wages	Selling value of products
			$	$			$	$
Dyes and Colours—								
Canada[1]	4	46	65,253	457,726	5	64	85,777	434,575
Printing Inks—								
Ontario	7	251	472,440	1,785,650	8	259	497,249	1,916,079
Canada[2]	13	268	498,032	1,889,242	13	275	522,733	2,032,940
Writing Inks—								
Canada[3]	7	63	69,322	309,432	9	64	68,570	282,292
Total—								
Quebec	**6**	**77**	**96,215**	**556,093**	**6**	**75**	**87,786**	**499,405**
Ontario	**11**	**284**	**515,178**	**1,984,887**	**14**	**311**	**568,334**	**2,133,548**
British Columbia	**3**	**4**	**4,532**	**53,471**	**3**	**5**	**5,226**	**63,506**
Canada	**24**	**377**	**632,607**	**2,656,400**	**27**	**403**	**677,077**	**2,749,807**

[1] Includes data for 3 firms in Quebec and 1 in Ontario in 1924 and for 3 firms in Quebec and 2 in Ontario in 1925.

[2] Includes data for 2 firms in Quebec and 1 in each of the provinces of New Brunswick, Manitoba, Alberta and British Columbia in 1924 and for 2 firms in Quebec and 1 in each of the provinces of New Brunswick, Manitoba and British Columbia in 1925.

[3] Includes data for 3 firms in Ontario, 1 in each of the provinces of Quebec and Manitoba and 2 firms in British Columbia in 1924 and for 1 firm in Quebec, 4 in Ontario, 1 in Manitoba, 1 in Alberta and 2 in British Columbia in 1925.

Capital Employed.—(a) Dyes and Colours.—The 5 plants manufacturing dyes and colours as major products in 1925 employed a capital of $601,348, an increase of 62 per cent over the corresponding figure for 1924. The value placed on all lands, plant and equipment was $329,264.

(b) Printing Inks.—With a value of $1,008,336 placed on lands, plant and equipment, $385,085 on materials on hand and in process, and $468,395 on cash, trading and operating accounts, etc., the capital employed in the production of printing inks and rollers in 1925 was $1,861,816 as compared with $1,741,378 in 1924. The 8 firms in Ontario represented over 96 per cent of the total capital investment for the industry.

(c) Writing Inks.—Capital employed in this industry in 1925 amounted to $206,556 as compared with $277,868 in 1924.

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

Province	1924				1925			
	Capital employed as represented by				Capital employed as represented by			
	Lands, buildings, fixtures, machinery and tools	Materials on hand, and stocks in process	Cash, trading and operating accounts	Total	Lands, buildings, fixtures, machinery and tools	Materials on hand, and stocks in process	Cash, trading and operating accounts	Total
	$	$	$	$	$	$	$	$
Dyes and Colours—								
Canada[1]	137,802	62,183	172,628	372,613	329,264	89,083	183,001	601,348
Printing Inks—								
Ontario	917,612	345,278	401,482	1,664,372	970,828	370,978	443,827	1,785,633
Canada[2]	959,434	358,676	423,268	1,741,378	1,008,336	385,085	468,395	1,861,816
Writing Inks—								
Canada[3]	98,175	106,662	73,031	277,868	85,992	79,248	41,316	206,556
Total—								
Quebec	140,955	113,763	167,287	422,005	169,700	111,184	147,041	427,925
Ontario	1,016,027	376,242	490,246	1,882,515	1,217,435	415,437	532,160	2,165,032
British Columbia	4,440	10,981	5,149	20,270	3,968	10,260	6,642	20,870
Canada	1,195,411	527,521	668,927	2,391,859	1,423,592	553,416	692,712	2,669,720

[1] Includes data for 3 firms in Quebec and 1 in Ontario in 1924 and for 3 firms in Quebec and 2 in Ontario in 1925.
[2] Includes data for 2 firms in Quebec and 1 in each of the provinces of New Brunswick, Manitoba, Alberta and British Columbia in 1924 and for 2 firms in Quebec and 1 in each of the provinces of New Brunswick, Manitoba and British Columbia in 1925.
[3] Includes data for 3 firms in Ontario, 1 in each of the provinces of Quebec and Manitoba and 2 firms in British Columbia in 1924 and for 1 firm in Quebec, 4 in Ontario, 1 in Manitoba, 1 in Alberta and 2 in British Columbia in 1925.

Employment.—(a) Dyes and Colours.—In 1925 the 5 firms operating in this industry gave employment to 22 salaried workers and 42 wage-earners, a total of 64 to whom $85,774 were paid in salaries and wages. On the average there were 20 females and 22 male wage-earners on the rolls. In the previous year, 1924, some $65,253 were paid to 15 salaried employees and 31 wage-earners.

(b) Printing Inks.—The number of employees in the printing ink industry during 1925 showed but little change from 1924; in the former year there were 275 hands employed as compared with 268 in the latter year. Plants in Ontario reported a total of 259 employees or about 94 per cent of the total for Canada. Payments in salaries and wages totalled $522,733 in 1925 and $498,032 in the previous year. Employment was steady throughout the year and the plants operated full time.

(c) Writing Inks.—Employees in the 9 writing ink factories in 1925 numbered 64 of whom 22 were on salaries and 42 were wage-earners. Of the latter 24 were male and 18 female workers. Salaries and wages paid out during the year amounted to $68,570.

Table 96.—Employment, Salaries and Wages Paid in the Inks, Dyes and Colours Industry in Canada, 1924 and 1925

—	1924				1925			
	Dyes and colours	Printing inks	Writing inks	Total	Dyes and colours	Printing inks	Writing inks	Total
(a) Number of employees—								
Salaried employees	15	81	18	114	22	88	22	132
Wage-earners, by months—								
January	37	185	46	268	48	181	41	270
February	33	186	47	266	41	183	43	267
March	34	187	48	269	40	191	45	276
April	38	190	48	276	51	188	44	283
May	34	186	46	266	47	187	46	280
June	30	186	46	262	41	191	43	275
July	24	185	47	256	38	190	43	271
August	26	185	43	254	36	179	39	254
September	32	184	46	262	38	180	42	260
October	32	185	50	267	39	185	41	265
November	29	188	42	259	38	190	39	267
December	29	186	41	256	43	192	37	272
Average	31	187	45	263	42	187	42	271
Total	**46**	**268**	**63**	**377**	**64**	**275**	**64**	**403**
(b) Salaries and wages—								
Salaries $	38,099	272,921	36,807	347,827	47,913	270,221	41,054	359,188
Wages $	27,154	225,111	32,515	284,780	37,861	252,512	27,516	317,889
Total $	**65,253**	**498,032**	**69,322**	**632,607**	**85,774**	**522,733**	**68,570**	**677,077**
(c) Average yearly earnings of each wage-earner $	876	1,204	723	1,083	901	1,350	655	1,173
(d) Average number of days on which plants in this industry operated during the year	307	294	274	291	260	302	251	277

Table 97.—Distribution of Employment in the Inks, Dyes and Colours Industry in Canada, according to the Average Number of Hours Worked per Day, by Provinces, 1925

Province	Number of wage-earners working			
	8 hours or less per day	9 hours	10 hours	Over 10 hours
Quebec	28	33	1	–
Ontario	148	81	–	–
Manitoba	1	9	–	–
British Columbia	3	–	–	–
Canada	**178**	**123**	**1**	**–**

Table 98.—Fuel and Electricity Used in the Inks, Dyes and Colours Industry in Canada, 1924 and 1925

Kind	Unit of measure	1924		1925	
		Quantity	Value	Quantity	Value
			$		$
Anthracite coal	short ton	161	2,524	202	3,019
Bituminous coal	short ton	1,314	9,299	1,156	8,623
Coke	short ton	110	1,550	95	1,234
Gas	M. cu. ft.	452	495	387	431
Wood	cord	17	142	18	65
Other fuel	.....	–	161	–	32
Electric power	k.w.h.	919,530	14,578	690,810	12,946
Total	.....	–	**28,749**	–	**26,350**

Table 99.—Power Employed in the Inks, Dyes and Colours Industry in Canada, 1924 and 1925

Description	1924		1925	
	Number of units	Total h.p. according to manufacturers' rating	Number of units	Total h.p. according to manufacturers' rating
Steam engines and turbines	1	40	1	40
Internal combustion engines	1	4	1	4
Total primary power	2	44	2	44
Electric motors driven by purchased power	96	1,038	100	1,009
Total power equipment employed	**98**	**1,082**	**102**	**1,053**
Electric motors driven by power generated by the primary power of the industry	1	28	5	28
Total electric motors	**97**	**1,066**	**105**	**1,037**
Boilers installed	7	265	5	215

Materials Used.—(a) Dyes and Colours.—Materials used in the dyes and colours industry included such substances as aniline dye, dye mixtures, grape sugar, malt, ammonia and benzol, but as each of these was reported by only 1 or 2 firms, the data cannot be published separately. In 1925, the total cost of materials was $129,232 as against $140,120 in 1924. The cost of containers amounted to about 20 per cent of the total.

(b) Printing Inks.—Dry colours and pigments worth $291,950 and oils and varnishes costing $185,318 were the principal raw materials used in the manufacture of writing inks in 1925. Altogether materials cost $717,231 at the works as compared with a corresponding figure of $652,746 in 1924.

(c) Writing Inks.—Materials used in this industry in 1925 cost $122,367 and of this total $74,000 or 60 per cent represented the cost of containers. Dyes and colours, dextrine and gums, tannic acid, starch, carbon paper and ribbon cloth were the more important of the materials used in manufacture.

Table 100.—Materials Used in the Inks, Dyes and Colours Industry in Canada 1924 and 1925.

Materials used	Unit of measure	1924		1925	
		Quantity	Cost at works	Quantity	Cost at works
			$		$
Dyes and Colours—					
Raw materials[1]		-	94,522	-	102,278
Containers (boxes, bags, packages, etc.)		-	45,598	-	26,954
Total		-	140,120	-	129,232
Printing Inks—					
Carbon black	lb.	131,499	11,316	167,550	12,769
Dry colours and pigments	lb.	531,681	245,408	796,321	291,950
Oils and varnishes		-	168,627	-	185,318
Glue	lb.	56,334	12,247	57,558	15,049
Glycerine	lb.	99,696	19,395	100,379	21,610
Methylated spirits, benzine, naphtha, coal oil and turpentine		-	13,360	-	7,118
Resin and gums	lb.	172,943	8,137	158,086	6,211
Shellac	lb.	14,900	9,000	10,000	6,000
Pitch	lb.	2,775	103	23,006	796
Alumina hydrate	lb.	14,590	3,035	16,960	3,048
Blanc fixe	lb.	10,030	426	13,000	550
Containers (boxes, etc.)		-	44,172	-	42,483
All other materials[2]		-	117,580	-	124,329
Total		-	652,746	-	717,231

Table 100.—Materials Used in the Inks, Dyes and Colours Industry in Canada, 1924 and 1925—Concluded

Materials used	Unit of measure	1924		1925	
		Quantity	Cost at works	Quantity	Cost at works
			$		$
WRITING INKS—					
Starch, dextrine and gums	lb.	40,258	5,277	31,400	4,302
Dyes and colours	lb.	–	6,976	617	1,891
Oils	gal.	9,502	2,288	740	407
Silicate of soda	lb.	75,000	1,800	–	–
Carbon paper, ribbon cloth, ribbon spools, and brushes		–	11,464	–	3,862
Tannic acid, gallic acid and carbolic acid		–	4,216	–	4,267
All other materials[3]		–	41,891	–	33,638
Containers (boxes, etc.)		–	75,613	–	74,000
Total		–	149,459	–	122,367
Total		–	**942,325**	–	**958,830**

[1] Includes grape sugar, ammonia, malt, aniline dye and dye mixtures, alcohol, shellac and various other materials.
[2] Includes dyes, transfer paper, rubber blankets and various other materials.
[3] Includes glycerine and various other materials.

Products.—(a) DYES AND COLOURS.—Although there was 1 additional plant in operation in 1925, production amounted to $434,575 which was 5 per cent below the output value of the previous year. Products of the industry include dyes, sugar colouring, butter colours, straw hat colour, malt flour and carbolic acid, but only the first mentioned can be shown as the others were products of 1 firm only.

(b) PRINTING INKS.—Printing and lithographic inks worth $1,442,512 and printers' rollers valued at $214,222 constituted the bulk of output of this industry which also made small quantities of miscellaneous commodities such as paints, varnishes, enamels and dry colours. The total value of production in 1925 was $2,032,940 an increase of more than a hundred thousand dollars over 1924 and the highest output value since 1920. The 8 plants in Ontario made products with a selling value of $1,916,079 or 94 per cent of the total for Canada.

(c) WRITING INKS.—Writing inks and adhesives were the chief products of this industry. It is difficult to obtain accurate data for each of these commodities as some firms keep no separate records. In 1925, the selling value of all products made was $282,292 which was 9 per cent below the output value for 1924.

Table 101.—Products of the Inks, Dyes and Colours Industry in Canada, 1924 and 1925

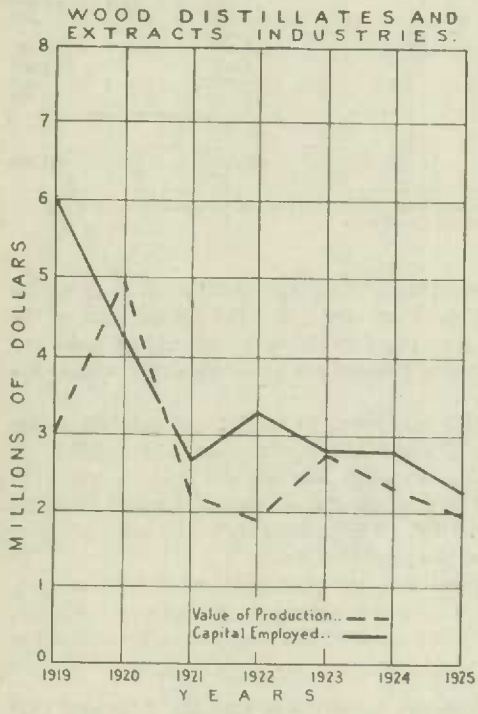
Product	Unit of measure	1924		1925	
		Quantity	Selling value	Quantity	Selling value
			$		$
DYES AND COLOURS—					
Dyes		–	393,894	–	360,785
All other products		–	63,832	–	73,790
Total		–	457,726	–	434,575
PRINTING INKS—					
Printing and lithographic inks	lb.	–	1,348,850	4,981,364	1,442,512
Printers' rollers and composition		–	206,574	–	214,222
Dry colours and showcard colours		–	64,170	–	63,435
Paints, varnishes, stains and enamels	lb.	–	127,002	704,396	119,053
All other products[2]		–	142,640	–	193,718
Total		–	1,889,242	–	2,032,940
WRITING INKS—					
Writing inks		–	236,784	–	225,149
Mucilage and paste		–	20,156	–	17,050
Ink pellets, ink powders and miscellaneous inks		–	1,537	–	1,370
Carbon paper, inked ribbon and stamp pads		–	30,288	–	27,192
All other products[3]		–	20,667	–	11,531
Total		–	309,432	–	282,292
Total		–	**2,656,400**	–	**2,749,807**

[1] Includes malt flour, food colour, hat colour, butter colour, caramel and various other products.
[2] Includes paste, padding cement and various other products.
[3] Includes waterglass, polish, castor oil and various other products.

CHAPTER TEN

WOOD DISTILLATION AND WOOD EXTRACTS

General.—Production of wood distillates and extracts in Canada during 1925 amounted in value to $1,989,996, a decrease of $300,000 or 13 per cent from the output value in 1924. The number of employees was also lower at 309 as compared with 367 in 1924, and capital employed totalled $2,287,109 as against $2,784,681 in the previous year. Only 49,514 cords of hardwood were used in 1925 as against 57,131 cords in 1924.



In 1925, statistics for this group covered the operations of 10 plants of which 8 were engaged in the distillation of hardwoods for the production of methyl hydrate, acetate of lime, charcoal and wood creosote, while 1 plant was operated only as a refinery to make pure methyl hydrate, acetic acid, formaldehyde, etc., and 1 confined its operations to the extraction of turpentine from resinous woods. There were 5 plants in Ontario and 5 in Quebec. In 1924, reports were received from 12 plants in this group; 1 distillation plant in Ontario did not operate in 1925 and 1 plant in Quebec in which charcoal was made for use in the manufacture of explosives was closed during the year.

In Canada, the destructive distillation of wood for the production of chemicals reached its height in 1920 when there were in operation 17 plants which employed 604 persons and had an output of $4,982,283. Thereafter the industry suffered a considerable decline and in 1922, the selling value of products was only $1,902,243 or less than half that of 1920. Output was valued at $2,743,295 in 1923, at $2,283,422 in 1924 and $1,989,996 in 1925.

Table 102.—Summary Statistics of the Wood Distillation and Wood Extracts Industry in Canada, 1921-1925

Year	Number of plants	Capital employed	Number of employees	Salaries	Wages	Cost of fuel and electricity*	Cost of materials	Selling value of products	Value added by manufacturing
		$		$	$	$	$	$	$
1921	12	2,694,824	276	53,741	273,530	221,950	1,110,697	2,202,314	1,091,617
1922	12	3,265,882	295	46,747	245,482	196,258	932,667	1,902,243	969,576
1923	9	2,814,045	344	43,796	288,230	277,556	976,621	2,743,295	1,766,674
1924	12	2,784,681	367	41,382	342,668	248,816	1,055,658	2,283,422	1,227,764
1925	10	2,287,109	309	36,454	202,394	191,584	847,063	1,989,996	1,142,333

*Does not include electricity for 1921 or 1922.

Table 103.—Principal Statistics of the Wood Distillation and Wood Extracts Industry in Canada, by Provinces, 1924 and 1925

Province	1924				1925			
	Number of plants	Number of employees	Salaries and wages	Value of products	Number of plants	Number of employees	Salaries and wages	Value of products
			$	$			$	$
Quebec	6	128	127,453	1,045,106	5	125	101,584	1,198,182
Ontario	6	239	256,597	1,238,316	5	184	137,264	791,814
Canada	**12**	**367**	**384,050**	**2,283,422**	**10**	**309**	**238,848**	**1,989,996**

Capital Employed.—Capital employed in the wood distillation and extracts industry in 1925 amounted to $2,287,109, of which nearly 2 million dollars were tied up in extensive buildings and plant equipment. In 1924, the total capital was reported at $2,784,681 and the value of lands, buildings, equipment, etc., was given at 2·5 million dollars. The decline in 1925 was due chiefly to the closing of a large plant in Ontario.

Table 104.—Capital Employed in the Wood Distillation and Wood Extracts Industry in Canada, by Classes and by Provinces, 1924 and 1925

Province	1924				1925			
	Capital employed as represented by				Capital employed as represented by			
	Lands, buildings, fixtures, machinery and tools	Materials on hand and stocks in process	Cash trading, and operating accounts	Total	Lands, buildings, fixtures, machinery and tools	Materials on hand and stocks in process	Cash trading, and operating accounts	Total
	$	$	$	$	$	$	$	$
Quebec	1,201,536	182,321	3,215	1,387,072	1,193,211	135,097	2,337	1,330,645
Ontario	1,251,509	140,371	5,729	1,397,609	772,933	172,816	10,715	956,464
Canada	**2,453,045**	**322,692**	**8,944**	**2,784,681**	**1,966,144**	**307,913**	**13,052**	**2,287,109**

Employment.—In 1925, the industry under review afforded employment to 23 salaried workers and to 286 wage-earners making a total of 309 persons to whom $238,848 were paid in salaries and wages during the year. This was the lowest employment figure for the industry since 1922 when 295 names were on the pay-roll as against 344 in 1923, and 367 in 1924. Monthly figures indicate a seasonal trend with greater activity shown in the fall and winter months. In January, there were 306 wage-earners employed but by August the number had dropped to 134, the low point for the year. Succeeding months showed a gradual increase until at the end of the year there were 274 names on the rolls. Nearly all employees worked 10 hours a day and 60 hours per week.

Table 105.—Employment, Salaries and Wages Paid in the Wood Distillation and Wood Extracts Industry in Canada, 1924 and 1925

	1924			1925		
	Male	Female	Total	Male	Female	Total
(a) Number of employees—						
Salaried employees	23	1	24	22	1	23
Wage-earners, by months—						
January	433	1	434	305	1	306
February	361	1	362	293	1	294
March	271	1	272	261	1	262
April	332	1	333	262	1	263
May	290	1	291	263	1	264
June	292	1	293	231	1	232
July	326	1	327	225	1	226
August	301	1	302	133	1	134
September	334	1	335	143	1	144
October	374	1	375	249	1	250
November	387	1	388	277	1	278
December	397	1	398	273	1	274
Average	342	1	343	285	1	286
Total	**365**	**2**	**367**	**307**	**2**	**309**
(b) Salaries and wages—						
Salaries $	–	–	41,382	–	–	36,454
Wages $	–	–	342,668	–	–	202,394
Total $	–	–	384,050	–	–	238,848
(c) Average yearly earnings of each wage-earner $	–	–	999	–	–	708
(d) Average number of days on which plants in this industry operated during the year	–	–	187	–	–	180

Table 106.—Distribution of Employment in the Wood Distillation and Wood Extracts Industry in Canada, according to the Average Number of Hours Worked per Day, by Provinces, 1925

Province	Number of wage-earners working			
	8 hours or less per day	9 hours	10 hours	Over 10 hours
Quebec	2	–	38	–
Ontario	–	–	227	–
Canada	**2**	**–**	**265**	**–**

Table 107.—Fuel and Electricity Used in the Wood Distillation and Wood Extracts Industry in Canada, 1924 and 1925

Kind	Unit of measure	1924		1925	
		Quantity	Value	Quantity	Value
		No.	$	No.	$
Bituminous coal	short ton	35,030	229,937	22,531	154,639
Coke		2,014	8,052	2,651	13,086
Wood	cord	477	1,928	3,066	14,389
Electric power	k.w.h.	330,830	8,899	581,160	9,470
Total		**–**	**248,816**	**–**	**191,584**

Table 108.—Power Equipment Employed in the Wood Distillation and Wood Extracts Industry in Canada, 1924 and 1925

Description	1924		1925	
	Number of units	Total h.p. according to manufacturers' rating	Number of units	Total h.p. according to manufacturers' rating
Steam engines and turbines	9	343	7	263
Internal combustion engines	1	6	1	6
Total primary power	10	349	8	269
Electric motors driven by purchased power	16	455	17	505
Total power equipment employed	**26**	**804**	**25**	**774**
Electric motors driven by power generated by the primary power of the industry	2	40	1	25
Total electric motors	**18**	**495**	**18**	**530**
Boilers installed	35	4,475	32	4,065

Materials Used.—Materials used in the wood distillation industry in 1925 were valued at $846,287 of which $485,668 was the cost of primary materials such as hardwood and lime and $360,619 was the value placed on intermediates such as acetate of lime and methyl hydrate which were used by the producers in the manufacture of acetone, formaldehyde, acetic acid, etc. In 1925 hardwoods made up 95 per cent of the total cost of primary materials used, and lime about 4 per cent; 49,514 cords of wood cost $463,616 and 44,391 bushels of lime were worth $17,911. In 1924, some 57,131 cords of hardwoods and 55,190 bushels of lime were used in this industry. Salt, sulphuric acid and caustic soda were used in small amounts. The total cost of materials used in the wood extracts industry were $1,376.

Table 109.—Materials Used in the Wood Distillation and Wood Extracts Industry in Canada, 1924 and 1925

Materials used	Unit of measure	1924		1925	
		Quantity	Cost at works	Quantity	Cost at works
			$		$
WOOD DISTILLATION—					
Primary materials:					
Hardwood	cord	57,131	562,525	49,514	463,616
Lime	bush.	55,190	22,816	44,391	17,911
Salt	lb.	32,800	328	7,400	68
Sulphuric acid, 60° Bé	lb.	469,020	4,867	516,780	3,259
Caustic soda	lb.	34,300	1,470	15,100	638
Other materials	.....	-	26	-	176
Total	.....	-	592,032	-	485,668
Intermediates used:					
Gray acetate of lime	lb.	5,895,108	150,730	1,869,023	47,010
Methyl hydrate, crude, 95%	gal.	334,964	227,161	346,165	235,392
Methyl hydrate, pure	gal.	96,740	85,380	92,020	78,217
Total	.....	-	463,271	-	360,619
TOTAL	.....	-	1,055,303	-	846,287
WOOD EXTRACTS—					
Total	.....	-	355	-	1,376
Total	.....	-	**1,055,658**	-	**847,663**

Products.—Wood distillates and extracts produced in Canada in 1925 reached a total value of $1,989,996 as compared with $2,283,422 in 1924 and $2,743,295 in 1923. Primary production consisted of 2,422,490 bushels of charcoal worth $535,720; gray acetate of lime, 8,851,270 pounds, valued at $391,329, and 373,974 gallons of 95 per cent methyl hydrate with a selling value of $242,687, this being an average yield of 48 bushels of charcoal, 179 pounds of lime acetate and 7·55 gallons of alcohol for every cord of wood used. About one-third of the output of lime acetate and 45 per cent of the alcohol were treated further to produce 346,478 pounds of acetone, 1,157,700 pounds of formaldehyde and 939,935 pounds of 28 per cent and 238,255 pounds of 80 per cent, acetic acid. In almost every instance the output figure was below that of the previous year.

Table 110.—Products of the Wood Distillation and Wood Extracts Industry in Canada, 1924 and 1925

Product	Unit of measure	1924		1925	
		Quantity	Selling value	Quantity	Selling value
			$		$
WOOD DISTILLATION—					
Products made for sale—					
Charcoal	bush.	2,892,404	715,351	2,422,490	535,720
Gray acetate of lime, 80%	lb.	5,045,948	127,685	6,584,369	350,434
Methyl hydrate, 95%	gal.	154,542	101,719	101,766	65,753
Methyl hydrate, pure	gal.	331,718	311,151	342,620	342,620
Columnian spirits	gal.	3,372	5,597	3,014	4,521
Acetone	lb.	939,278	176,584	346,478	65,821
Acetone oils	lb.	216,361	39,378	81,107	14,599
Wood creosote	gal.	327,279	71,347	213,612	42,723
Acetic acid, 28%	lb.	977,034	43,188	939,935	40,417
Acetic acid, 80%	lb.	177,520	31,122	238,255	38,121
Formaldehyde	lb.	1,398,989	200,395	1,157,700	173,655
Total	.....	-	1,823,517	-	1,674,384
Intermediates made for use—					
Gray acetate of lime, 80%	lb.	5,843,897	156,305	2,266,901	40,895
Methyl hydrate, crude, 95%	gal.	307,377	207,282	272,208	176,934
Methyl hydrate, pure	gal.	96,740	85,380	92,020	78,217
Total	.....	-	448,967	-	296,046
TOTAL	.....	-	2,272,484	-	1,970,430
WOOD EXTRACTS—					
Total	.....	-	10,938	-	19,566
Total	.....	-	**2,283,422**	-	**1,989,996**

Table 111.—Imports into Canada and Exports of Certain Chemical Products during the Calendar Years 1924 and 1925

Item		1924		1925	
		Imports	Exports	Imports	Exports
Wood alcohol	gal.	18	155,335	45	153,419
	$	85	134,166	137	138,956
Charcoal	$	98,325	428	176,853	335
Acetone and amyl acetate	$	8,307	–	7,036	–
Acetic acid	gal.	–	35,120	–	–
	$	–	323,514	–	–
Acetic and pyroligneous acid	gal.	4,801	–	2,206	–
	$	4,821	–	2,845	–
Formaldehyde	$	99	–	341	–

Table 112.—Consumption of Hardwood and Lime in the Wood Distillation Industry in Canada, 1919-1925

Year	Hardwood	Lime
	cords	bushels
1919	69,958	67,100
1920	100,347	98,647
1921	58,662	53,231
1922	59,169	38,990
1923	56,310	52,903
1924	57,131	55,190
1925	49,514	44,391

Table 113.—Primary Products of the Wood Distillation Industry in Canada, 1919-1925

Year	Charcoal		Gray acetate of lime		Methyl hydrate 95%	
	Total output	Yield per cord of wood carbonized	Total output	Yield per cord of wood carbonized	Total output	Yield per cord of wood carbonized
	bushels	bushels	pounds	pounds	gallons	gallons
1919	3,589,275	51·3	13,886,165	198·5	571,703	8·2
1920	5,116,171	51·0	18,230,899	181·7	835,626	8·3
1921	2,960,280	50·5	–	–	587,087	10·0
1922	3,019,167	51·6	–	–	497,930	8·4
1923	2,780,707	49·4	11,246,337	199·7	504,945	8·9
1924	2,892,404	50·6	10,889,845	190·6	461,919	8·1
1925	2,422,490	48·9	8,851,270	118·2	373,974	7·6

The following data on monthly output have been abstracted from the *"Oil, Paint and Drug Reporter"* and, while in some cases the figures do not check with Bureau returns, the totals are sufficiently close to the Bureau figures to justify their inclusion for the purpose of showing the monthly trend of production in this industry.

Table 114.—Methanol and Lime Acetate Statistics for Canada, by Months, 1925
(From the *Oil, Paint and Drug Reporter.*)

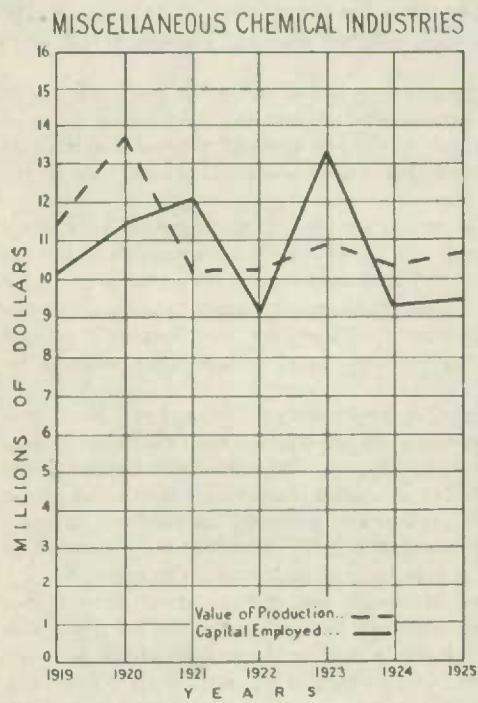
Month	Acetate of lime production	Crude methanol production	Wood consumed	Capacity—Cords per day	
				Reporting companies	Shut down
January	1,030,740	41,780	5,240	460	120
February	1,487,000	59,775	7,466	460	168
March	800,607	33,507	4,154	460	264
April	804,418	33,045	4,141	460	264
May	793,435	31,849	3,976	460	264
June	516,571	20,992	2,720	460	336
July	403,860	16,889	2,060	460	336
August	47,852	2,161	260	400	360
September	59,430	2,558	492	400	332
October	824,409	39,254	4,724	400	192
November	1,040,358	47,283	5,867	400	144
December	1,118,841	44,685	5,806	400	164
Total	**8,927,521**	**373,778**	**46,906**	–	–

CHAPTER ELEVEN

MISCELLANEOUS CHEMICAL INDUSTRIES

General.—A number of firms operating in Canada produce chemicals or allied products which do not naturally fall in any of the groups previously considered, so a miscellaneous group has been made and the industries therein divided into nine classes, namely: (a) adhesives; (b) baking powder, (c) boiler compounds; (d) celluloid products; (e) flavouring extracts; (f) insecticides; (g) polishes and dressings; (h) sweeping compounds, and (i) chemical products not elsewhere specified. The total cost of materials used by all the firms in this group in 1925 amounted to $4,820,507, and the selling value of the various products and by-products was $10,699,162 giving thus $5,878,655 as the value added by the process of manufacturing. In 1924 materials used, cost $4,689,966, the products had a selling value of $10,294,171, and the value added by manufacturing was $5,604,205.

In 1925 there were 120 firms in the miscellaneous group; of these, 67 were located in Ontario; 38 in Quebec; 4 in New Brunswick; 2 in Nova Scotia; 3 in Manitoba; 2 in Alberta and 4 in British Columbia.



Each industry is briefly reviewed in this chapter, and separate statistics are shown for each in the accompanying tables.

(a) Adhesives.—In 1925, there were 16 plants in Canada primarily engaged in the manufacture of glue or other adhesives; 8 were located in Quebec, 7 in Ontario and 1 in New Brunswick. Two plants in Ontario did not operate during 1925, but returns were received from 1 plant in that province which did not report in the previous year. The 1 plant in Nova Scotia was transferred to the "Fish-Curing Industry" as the glue was simply a by-product of the larger operations of curing fish.

Of the 16 plants included in this industry, 2 plants each produced over a quarter of a million dollars' worth of commodities for sale; the outputs of 3 other plants each exceeded $100,000, and 4 of the remainder manufactured more than $25,000 worth of products each. One plant made sealing wax only, 2 produced rubber cements, 1 made resin size only, 1 made only flour paste, 1 made granite cement and furniture polish, etc., and the remaining 10 plants made glue, mucilage, paste, etc., as the major products.

In addition to the $954,475 worth of glue, mucilage and paste made in this industry there was a production of liquid glue valued at $13,200 as a by-product from fish-curing establishments and an output of more than $17,000 worth of such adhesives in the inks, dyes and colours industry.

Products and by-products of the adhesives industry had a total selling value of $1,443,356 in 1925, or only slightly above the output value of the previous year. Employees numbered 196 as against 247 in 1924 and payments in salaries and wages totalled $282,012 as against $303,696 for 1924.

(b) Baking Powders.—Only 4 plants in Canada, 2 in Ontario and 2 in Quebec, were engaged primarily in the production of baking powders in 1925; 2 plants in Quebec did not operate during the year, but returns were received from 1 new plant in that province. Capital employed in this

ndustry amounted to $1,403,530, of which by far the greater portion was invested in Ontario plants. Employees numbered 416 of whom 99 males and 81 females were on salaries and an average of 140 male and 96 female workers were earning wages. Payments in salaries and wages totalled $474,075 during the year. In 1924, there were 424 persons employed and salaries and wages reached a total of $464,155.

Production of baking powders in this industry amounted to 6,584,806 pounds worth $1,653,674 as compared with 6,727,206 pounds valued at $1,761,875 in 1924. In addition there was an output of 84,225 pounds worth $9,861 from plants classified in other industrial groups.

(c) Boiler Compounds.—Production of boiler compounds in Canada amounted in value to $241,928 as compared with $212,554 in 1924. The same 5 plants were in operation as in the previous year. All were located in Ontario and 4 worked full time and 1 operated only part of the year. Employment was given to 31 workers throughout the year and payments in salaries and wages totalled $54,797. In 1924 there were 32 persons on the pay-rolls of these establishments and $47,933 were paid out in salaries and wages.

Caustic soda, soda ash, sodium silicate, and sodium phosphate were the more important of the materials used.

(d) Celluloid Compounds.—This industry includes those establishments which manufactured such articles as French-ivory toilet articles, toys and novelties, artificial leather goods, combs, hair ornaments, etc. Silver nitrate, collodion, polished zinc, and polished copper were also made in considerable quantities.

In 1925, there were 10 firms included in this group, 4 were located in Quebec and 6 in Ontario. These firms employed 332 persons during the year and produced goods with a selling value of $2,014,723. In the previous year 317 employees made $1,805,843 worth of celluloid and artificial leather articles. Materials used in manufacture included textiles, celluloid, pyralin, rubber, bar silver, varnishes, paints, pigments, lacquers and dyes.

(e) Flavouring Extracts.—The bases of all flavouring extracts and essences are organic products either naturally or synthetically produced. So far as is known these products are not made in Canada, but are purchased by some firms and used as raw materials in the preparation of the various extracts and essences. Alcohol, gelatine, starch, sugar, vanilla beans, and various other materials are also used in the Canadian industry. Jelly powders and flavouring extracts are the main products, but ice cream powders, egg substitutes and various other products are made in large quantities.

In 1925, there were 22 plants in Canada engaged in this industry distributed as follows: 8 in Quebec, 9 in Ontario, 2 in British Columbia and 1 in each of the provinces of New Brunswick, Alberta and Nova Scotia. Reports were received from 1 new plant in each of the provinces of British Columbia, Ontario and Quebec, and 1 other plant in Quebec was again in operation after being idle in 1924. The 22 plants in operation employed 268 workers and produced commodities having a total selling value of $1,686,743 from materials worth $995,667. In 1924, the output of 18 operating plants was valued at $1,501,207 and 241 persons were employed the year round.

(f) Insecticides.—Insecticides manufactured in Canada include Paris green, lime sulphur solution, lead arsenate, lime arsenate and various other compounds and liquids for fumigation and disinfectant purposes. In 1925 there were 14 plants making these commodities as major products; 4 were located in Quebec; 6 in Ontario and 1 in each of the provinces of New Brunswick, Manitoba, Alberta and British Columbia. These plants represented a capital investment of $827,124, employed an average of 96 workers during the year, and produced $523,221 worth of insecticides or similar commodities. In 1924, there were 15 plants in operation and the aggregate output was $735,130.

(g) Polishes and Dressings.—The 35 plants in Canada engaged in the manufacture of polishes and dressings in 1925 were distributed as follows: 23 in Ontario, 11 in Quebec, and 1 in Nova Scotia. These plants employed an average of 285 persons of whom 147 were salaried employees and 138 were wage-earners. In 1924 there were 27 establishments employing 255 workers.

Production in 1925 amounted in value to $1,624,391; shoe polishes and dressings worth $453,212, floor wax valued at $246,326, furniture polish at $184,030, and stove polish at $178,253 were among the main products of this industry.

(h) Sweeping Compounds.—Only 5 establishments in Canada produced sweeping compounds as the principal product; 2 were in Ontario, and 1 in each of the provinces of Quebec, Manitoba and New Brunswick. These plants employed 25 persons and paid out $37,905 in

salaries and wages. Products made, had a selling value of $65,806 and raw materials used in manufacture cost $27,161. In 1924, only 4 plants were in operation and the production totalled $64,208 in value.

(i) Chemical Products, n.e.s.—This group included 7 plants in Ontario; 1 in Manitoba and 1 in British Columbia which manufactured such miscellaneous products as welding compounds, anti-freeze mixtures, dextri-maltose, cheese rennet and other chemical compounds which do not naturally fall within another classification. In 1925, the 9 plants in this industry furnished employment to 40 people and produced commodities having a total selling value of $351,450.

Table 115.—Summary Statistics of the Miscellaneous Chemical Industries in Canada, 1921-1925

Year	Number of plants	Capital employed	Number of employees	Salaries	Wages	Cost of fuel and electricity*	Cost of materials	Selling value of products	Value added by manufacturing
Adhesives—		$		$	$	$	$	$	$
1921	17	1,898,848	222	90,410	161,592	60,951	598,932	1,474,754	875,822
1922	17	2,108,688	529	115,637	236,487	83,390	643,917	1,537,649	893,732
1923	17	1,492,927	228	120,511	179,066	57,795	694,507	1,486,807	792,300
1924	18	1,648,678	247	111,907	191,789	57,350	635,538	1,434,883	799,345
1925	16	1,481,916	196	115,035	166,977	43,475	660,702	1,443,356	782,654
Baking powder—									
1921	7	1,461,477	375	194,531	214,930	11,559	1,079,505	2,481,565	1,402,060
1922	6	1,637,770	409	218,776	202,814	13,086	869,608	2,712,894	1,843,286
1923	6	1,484,115	416	244,095	239,317	16,369	804,045	2,702,633	1,898,588
1924	5	1,579,295	424	244,672	219,483	13,602	921,288	2,751,061	1,829,773
1925	4	1,403,530	416	257,456	216,619	15,271	917,633	2,747,544	1,829,911
Boiler compounds—									
1921	6	200,702	29	35,198	12,354	2,025	77,137	255,896	178,759
1922	5	175,122	29	44,702	10,774	1,489	53,368	213,223	159,855
1923	4	188,561	30	31,776	12,478	2,068	64,265	248,727	184,462
1924	5	194,889	32	33,751	14,182	2,823	68,546	212,554	144,008
1925	5	225,802	31	40,910	13,887	2,586	70,904	241,928	171,024
Celluloid products—									
1921	9	1,670,561	267	87,461	163,451	28,815	608,997	1,418,903	749,906
1922	10	1,746,117	333	80,162	250,237	27,002	915,571	1,794,395	878,824
1923	10	6,491,147	352	139,100	234,039	41,545	952,924	1,854,748	901,824
1924	10	2,028,203	317	127,717	216,329	37,650	963,373	1,805,843	842,470
1925	10	2,161,783	332	161,957	234,031	34,857	1,049,085	2,014,723	965,638
Flavouring extracts—									
1921	19	1,473,632	261	225,277	89,560	7,956	896,188	1,501,380	605,192
1922	19	1,233,969	269	240,351	77,072	6,830	832,732	1,430,093	597,361
1923	20	1,077,587	267	226,589	70,010	11,713	873,595	1,562,536	688,941
1924	18	1,206,930	241	186,032	88,186	7,656	868,084	1,501,207	633,123
1925	22	1,320,079	268	206,805	106,159	7,207	995,667	1,686,743	691,076
Insecticides—									
1921	10	142,152	24	17,688	9,302	679	71,975	149,060	77,085
1922	12	459,721	100	42,951	47,302	6,549	203,911	536,274	242,363
1923	14	671,077	118	51,906	84,875	24,161	491,272	938,782	447,510
1924	15	845,222	135	58,869	91,305	24,837	473,526	735,130	261,604
1925	14	827,124	96	45,114	57,939	15,335	229,062	523,221	294,159
Polishes and dressings—									
1921	33	1,399,445	266	205,519	123,897	10,173	744,607	1,445,526	703,619
1922	31	1,521,563	289	251,345	119,594	8,583	736,517	1,670,243	933,776
1923	30	1,628,251	334	360,263	112,053	10,835	671,263	1,765,161	1,093,958
1924	27	1,448,747	255	238,846	108,356	10,896	583,751	1,464,975	881,224
1925	35	1,589,238	285	253,391	121,243	12,088	683,801	1,624,391	940,590
Sweeping compounds—									
1921	5	67,304	16	6,883	7,932	615	56,660	118,691	62,031
1922	4	74,770	20	34,915	8,094	611	42,087	107,991	65,904
1923	4	89,067	21	17,483	8,848	604	34,779	102,682	67,903
1924	4	73,447	25	27,690	8,769	514	26,666	64,208	37,542
1925	5	77,865	25	28,674	9,231	537	27,161	65,806	38,645
Miscellaneous chemical products, n.e.s.—									
1921	8	178,326	38	30,114	16,360	3,443	213,238	325,605	112,367
1922	6	123,514	23	22,821	9,465	1,466	72,646	142,437	69,791
1923	7	138,996	34	33,038	12,805	1,610	94,081	248,925	154,844
1924	7	254,336	31	35,152	15,552	2,143	149,194	324,310	175,116
1925	9	349,118	40	31,826	22,657	3,599	186,492	351,450	164,958
Total[1]									
1921	**120**	**12,060,910**	**1,735**	**975,101**	**1,045,792**	**126,216**	**1,827,225**	**10,138,297**	**5,311,072**
1922	**110**	**9,081,213**	**2,001**	**1,051,660**	**961,839**	**149,006**	**1,160,357**	**10,145,249**	**5,684,892**
1923	**112**	**13,261,668**	**1,800**	**1,167,761**	**923,491**	**166,697**	**1,770,671**	**10,911,011**	**6,140,340**
1924	**109**	**9,279,747**	**1,707**	**1,064,636**	**953,951**	**156,871**	**1,689,966**	**10,294,171**	**5,604,205**
1925	**120**	**9,436,455**	**1,689**	**1,141,168**	**948,743**	**134,955**	**1,820,507**	**10,699,162**	**5,878,655**

* Electricity not included in 1921 and 1922.
[1] Includes artificial abrasives in 1921.

Table 116.—Capital Employed in the Miscellaneous Chemical Industries in Canada, by Classes and by Provinces, 1924 and 1925

Province	1924				1925			
	Capital employed as represented by				Capital employed as represented by			
	Lands, buildings, fixtures, machinery and tools	Materials on hand, and stocks in process	Cash, trading and operating accounts	Total	Lands, buildings, fixtures, machinery and tools	Materials on hand, and stocks in process	Cash, trading and operating accounts	Total
	$	$	$	$	$	$	$	$
ADHESIVES—								
Quebec	450,416	46,900	52,553	549,869	443,219	326,040	57,302	548,572
Ontario	540,061	295,377	225,524	1,060,962	429,659	326,040	165,410	921,109
Canada*	1,016,046	351,799	280,833	1,648,678	878,541	380,163	223,212	1,481,916
BAKING POWDER—								
Quebec	10,294	80,577	1,540	92,411	–	–	–	–
Canada*	577,825	508,344	493,126	1,579,295	569,379	440,111	394,040	1,403,530
BOILER COMPOUNDS—								
Ontario	79,021	27,715	88,153	194,889	81,182	38,991	105,629	225,802
Canada	79,021	27,715	88,153	194,889	81,182	38,991	105,629	225,802
CELLULOID PRODUCTS—								
Quebec	399,041	147,334	78,186	624,561	404,744	115,727	66,065	586,536
Ontario	939,550	277,633	186,459	1,403,642	982,673	354,785	237,789	1,575,247
Canada	1,338,591	424,967	264,645	2,028,203	1,387,417	470,512	303,854	2,161,783
FLAVOURING EXTRACTS—								
Quebec	127,607	253,208	169,920	550,735	108,486	289,477	160,570	618,533
Ontario	219,583	195,919	188,920	604,422	219,151	237,732	192,681	649,564
Canada*	374,709	467,563	364,658	1,206,930	417,504	547,486	355,089	1,320,079
INSECTICIDES—								
Quebec	233,865	79,162	11,756	324,783	232,935	95,652	18,001	346,588
Ontario	213,629	111,648	139,557	464,834	207,810	98,415	144,842	451,067
Canada*	487,419	205,116	152,687	845,222	453,988	208,405	164,731	827,124
POLISHES AND DRESSINGS—								
Quebec	150,569	105,653	49,973	306,195	218,915	143,463	66,426	428,804
Ontario	484,903	349,091	297,558	1,131,552	510,971	344,744	295,119	1,150,834
Canada*	637,472	459,744	351,531	1,448,747	731,886	492,807	364,545	1,589,238
SWEEPING COMPOUNDS—								
Canada*	25,058	13,854	34,535	73,447	28,146	13,488	36,231	77,865
MISCELLANEOUS CHEMICAL PRODUCTS, N.E.S.—								
Ontario	142,460	63,190	44,886	250,536	201,323	82,654	56,972	340,949
Canada*	143,360	63,890	47,086	254,336	206,223	83,554	59,341	349,118
Total—								
Nova Scotia	**22,507**	**13,802**	**6,881**	**43,190**	**2,600**	**6,000**	**3,450**	**12,050**
New Brunswick	**33,103**	**16,377**	**3,382**	**52,862**	**31,104**	**18,163**	**546**	**52,813**
Quebec	**1,372,092**	**713,274**	**364,528**	**2,449,894**	**1,183,553**	**709,628**	**372,163**	**2,565,344**
Ontario	**3,201,532**	**1,761,754**	**1,673,804**	**6,637,090**	**3,202,076**	**1,919,702**	**1,602,140**	**6,723,918**
Manitoba	**35,364**	**1,250**	**25,423**	**62,037**	**10,564**	**500**	**25,674**	**36,738**
Saskatchewan	**500**	**300**	**–**	**800**	**–**	**–**	**–**	**–**
Alberta	**1,278**	**1,625**	**2,109**	**5,012**	**3,744**	**5,476**	**1,089**	**10,309**
British Columbia	**13,125**	**14,610**	**1,127**	**28,862**	**17,625**	**16,048**	**1,610**	**35,283**
Canada	**4,679,501**	**2,522,992**	**2,077,254**	**9,279,747**	**4,754,266**	**2,675,517**	**2,006,672**	**9,436,455**

*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 117.—Number of Employees, Salaries and Wages Paid in the Miscellaneous Chemical Industries in Canada, 1924

Industry	Average number of employees					Salaries and wages		
	Salaried employees		Wage-earners		Total	Salaries	Wages	Total
	Male	Female	Male	Female				
						$	$	$
Adhesives	43	13	182	9	247	111,907	191,789	303,696
Baking powder	91	76	145	112	424	244,672	219,483	464,155
Boiler compounds	12	5	15	–	32	33,751	14,182	47,933
Celluloid products	40	14	190	73	317	127,717	216,329	344,046
Flavouring extracts	97	31	41	72	241	186,032	88,186	274,218
Insecticides	26	5	91	13	135	58,869	91,305	150,174
Polishes and dressings	95	40	69	51	255	238,846	108,356	347,202
Sweeping compounds	12	4	9	–	25	27,690	8,769	36,459
Miscellaneous chemical products, n.e.s.	11	4	10	6	31	35,152	15,552	50,704
Total	**427**	**192**	**752**	**336**	**1,707**	**1,064,636**	**953,951**	**2,018,587**

Table 118—Number of Employees, Salaries and Wages Paid in the Miscellaneous Chemical Industries in Canada, 1925

Industry	Average number of employees					Salaries and wages		
	Salaried employees		Wage-earners		Total	Salaries	Wages	Total
	Male	Female	Male	Female				
						$	$	$
Adhesives	46	9	139	8	196	115,035	166,977	282,012
Baking powder	99	81	140	96	416	257,456	216,619	474,075
Boiler compounds	12	6	13	–	31	40,910	13,887	54,797
Celluloid products	46	17	108	71	332	161,957	234,031	395,988
Flavouring extracts	103	37	43	85	268	206,805	106,159	312,964
Insecticides	20	4	61	11	96	45,114	57,939	103,053
Polishes and dressings	98	49	81	57	285	253,391	121,243	374,634
Sweeping compounds	12	4	9	–	25	28,674	9,231	37,905
Miscellaneous chemical products, n.e.s.	11	4	17	8	40	31,826	22,657	54,483
Total	**441**	**211**	**701**	**236**	**1,689**	**1,141,168**	**948,743**	**2,089,911**

Table 119.—Distribution of Employment in the Miscellaneous Chemical Industries in Canada, according to the Average Number of Hours Worked per Day, 1925

Province	Number of wage-earners working			
	8 hours or less per day	9 hours	10 hours	Over 10 hours
Nova Scotia	7	1	–	–
New Brunswick	7	4	–	–
Quebec	239	86	74	–
Ontario	237	312	163	48
Manitoba	6	–	–	–
Saskatchewan and Alberta	1	–	–	–
British Columbia	1	7	–	–
Canada	**498**	**410**	**237**	**48**

Table 120.—Fuel and Electricity Used in the Miscellaneous Chemical Industries in Canada, 1924 and 1925

Kind	Unit of measure	1924		1925	
		Quantity	Value	Quantity	Value
		No.	$	No.	$
Anthracite coal	short ton	452	6,158	345	5,508
Bituminous coal	short ton	17,537	108,060	15,060	88,906
Coke	short ton	7	84	58	698
Fuel oil	gal.	–	38	25	25
Gasoline	gal.	784	223	3,345	964
Gas	M cu. ft.	3,449	3,197	3,409	2,842
Wood	cord	309	1,502	353	1,533
Other fuel	.....	–	438	–	670
Electric power	k.w.h.	2,445,072	37,171	1,922,686	33,809
Total	.....	–	**156,871**	–	**134,955**

Table 121.—Power Employed in the Miscellaneous Chemical Industries in Canada, 1924 and 1925

Description	1924		1925	
	Number of units	Total h.p. according to manufacturers' rating	Number of units	Total h.p. according to manufacturers' rating
Steam engines and turbines	24	567	20	426
Gas engines	1	6	1	22
Oil and gasolene engines	1	32	–	–
Hydraulic turbines or water wheels	1	110	1	130
Total primary power	27	705	22	578
Electric motors operated by purchased power	267	1,919	281	2,133
Total power equipment employed	**294**	**2,624**	**303**	**2,711**
Electric motors operated by power generated by the primary power of the industry	15	201	12	134
Total electric motors	**282**	**2,120**	**293**	**2,267**
Boilers installed	39	3,239	40	3,024

Table 122.—Materials Used in the Miscellaneous Chemical Industries in Canada, 1924 and 1925

Materials used	Unit of measure	1924		1925	
		Quantity	Cost at works	Quantity	Cost at works
			$		$
ADHESIVES—					
Acetic acid	lb.	11,806	1,466	7,448	359
Bones and hide trimming	ton	8,013	156,239	5,548	110,323
Boracic acid	lb.	3,050	358	1,455	143
Borax	lb.	90,520	4,417	97,748	4,624
Cotton and other fabrics	lb.	–	18,2-5	–	19,785
Dextrine and glucose	lb.	508,753	27,979	732,616	36,960
Fish skins and waste	ton	1,615	21,386	424	18,790
Flour	.....	–	4,437	–	8,095
Gasoline	gal.	48,923	12,402	30,009	7,772
Glue stock	.....	–	46,330	–	39,873
Gums	.....	–	1,431	–	–
Lime	ton	297	3,336	243	2,483
Rubber and rubber substitute	lb.	45,542	13,734	33,892	20,137
Resin, pitch, wax, gums, etc	lb.	2,392,601	57,323	–	112,706
Shellac	.....	–	5,300	–	5,600
Soda ash	lb.	300,800	5,369	364,824	6,279
Starch	lb.	359,936	16,358	297,115	15,947
Containers	.....	–	76,917	–	80,079
All other materials	.....	–	162,471	–	170,747
Total	.....	–	635,538	–	660,702
BAKING POWDER—					
Bicarbonate of soda	lb.	1,922,276	47,805	1,853,101	42,027
Calcium acid phosphate	lb.	2,035,191	175,597	2,085,370	174,549
Corn starch	lb.	2,474,336	125,060	2,721,734	145,594
Containers, boxes, packages, etc	.....	–	329,675	–	324,564
All other materials	.....	–	155,083	–	138,836
Caustic soda	lb.	2,412,460	88,068	2,007,787	58,311
Trisodium phosphate	lb.	–	–	761,545	33,752
Total	.....	–	921,288	–	917,633

Table 122.—Materials Used in the Miscellaneous Chemical Industries in Canada, 1924 and 1925—Concluded

Materials used	Unit of measure	1924		1925	
		Quantity	Cost at works	Quantity	Cost at works
			$		$
BOILER COMPOUNDS—					
Castor oil		-	3,833	-	2,262
Mercury		-	10,806	-	6,977
Sodium carbonate (soda ash)	lb.	310,238	7,433	464,721	10,833
Sodium hydroxide (caustic soda)	lb.	108,932	5,448	113,336	5,667
Sodium silicate	lb.	608,999	7,579	705,297	8,379
Trisodium phosphate	lb.	120,352	4,683	169,836	6,303
Containers, (boxes, packages, etc.)		-	6,719	-	6,478
All other materials		-	21,145	-	24,005
Total		-	68,546		70,904
CELLULOID PRODUCTS—					
Celluloid, pyralin and pyroxylin		-	288,396	-	183,632
Textiles		-	446,099	-	542,151
All other materials		-	228,878	-	323,302
Total		-	963,373	-	1,049,085
FLAVOURING EXTRACTS—					
Alcohol	gal.	-	104,666	38,272	107,661
Corn starch	lb.	284,729	15,162	406,766	20,691
Essences, essential oil, etc.		-	97,862	-	140,596
Flour	lb.	93,557	2,368	97,545	2,885
Gelatine	lb.	162,072	53,294	223,306	62,997
Sugar	lb.	1,646,434	142,751	2,119,707	135,460
Tartaric acid	lb.	23,705	5,742	34,076	7,399
Vanilla beans	lb.	12,159	62,003	9,832	73,893
Containers, boxes, etc.		-	161,006	-	212,039
All other materials		-	223,230	-	232,046
Total		-	868,084	-	995,667
INSECTICIDES—					
Acetic acid	lb.	830,091	44,500	566,923	25,071
Copper sulphate	lb.	1,287,802	65,232	689,364	33,332
Insect flowers	lb.	45,210	27,128	42,000	12,500
Lime	lb.	1,225,703	7,655	1,026,000	14,010
Litharge	lb.	384,657	35,027	184,428	20,288
Soda ash	lb.	487,470	10,573	307,200	6,635
Sulphur	lb.	1,312,330	16,938	984,000	10,558
White arsenic	lb.	878,633	73,527	268,250	16,278
Containers, (boxes, etc.)		-	92,921	-	55,922
All other materials		-	100,025	-	34,468
Total		-	473,526	-	229,062
POLISHES AND DRESSINGS—					
Carbon black and graphite	lb.	190,245	13,828	293,041	17,809
Dyes and colours	lb.	-	14,432	-	16,164
Methylated spirits	lb.	2,300	2,055	1,320	1,198
Naphthas	gal.	55,000	11,000	74,000	15,300
Resin	lb.	6,840	273	15,120	458
Shellac	lb.	38,039	21,800	32,902	17,071
Turpentine	gal.	25,215	29,457	221,974	24,910
Wax	lb.	-	50,525	303,192	54,999
Containers		-	268,352	-	277,175
All other materials		-	172,031	-	258,708
Total		-	583,751	-	683,801
SWEEPING COMPOUNDS—					
Oils, citronella, myrbane, cocoanut, essential, etc.		-	9,880	-	9,887
Sand		-	1,051	-	1,506
Sawdust		-	1,091	-	1,080
Containers, (boxes, etc.)		-	13,777	-	13,780
All other materials		-	867	-	908
Total		-	26,666	-	27,161
MISCELLANEOUS CHEMICAL INDUSTRIES, N.E.S.—					
Total		-	149,194	-	186,492
Total		-	**4,689,966**	-	**4,820,507**

Table 123.—Products of the Miscellaneous Chemical Industries in Canada, 1924 and 1925

Product	Unit of measure	1924		1925	
		Quantity	Selling value	Quantity	Selling value
			$		$
ADHESIVES—					
Glue, mucilage, paste and liquid fish glue		-	1,038,729	-	954,475
Gums, dextrine and paste powders		-	61,045	-	66,431
Size, including paper sizing	lb.	-	131,231	5,096,985	197,521
Rubber and other cements		-	62,398	-	70,808
All other products and by-products[1]		-	141,480	-	154,121
Total		-	1,434,883	-	1,443,356
BAKING POWDER—					
Baking powder	lb.	6,727,206	1,761,875	6,584,806	1,653,674
All other products[2]		-	989,186	-	1,093,870
Total		-	2,751,061	-	2,747,544
BOILER COMPOUNDS—					
Boiler compounds		-	211,221	-	239,633
All other products[3]		-	1,333	-	2,295
Total		-	212,554	-	241,928
CELLULOID PRODUCTS—					
Celluloid products		-	711,241	-	674,979
All other products[4]		-	1,094,602	-	1,339,744
Total		-	1,805,843	-	2,014,723
FLAVOURING EXTRACTS—					
Baking powder	lb.	98,016	12,506	86,300	10,931
Egg substitute and egg powder	lb.	98,256	78,558	173,414	145,757
Flavouring extracts and essences	gal.	65,157	590,546	-	649,007
Ice cream powders	lb.	42,464	12,961	-	11,826
Jelly powders	lb.	1,998,485	484,547	-	576,568
Prepared pudding powders		-	299,806	-	265,405
All other products[5]		-	22,283	-	27,251
Total		-	1,501,207	-	1,686,743
INSECTICIDES—					
Insecticides, rat exterminator, paris green, lead arsenate and calcium arsenate		-	581,444	-	431,633
Lime sulphur solution		-	59,074	-	62,785
All other products[6]		-	94,612	-	28,803
Total		-	735,130	-	523,221
POLISHES AND DRESSINGS—					
Furniture polish		-	195,658	-	184,030
Floor wax		-	201,040	-	246,326
Harness polish		-	11,768	-	10,282
Metal polish		-	16,836	-	38,751
Polishes, n.e.s.		-	42,350	-	59,571
Shoe polishes, pastes, and dressings		-	485,591	-	453,212
Stove polish		-	181,888	-	178,253
Varnishes, stains, and enamels		-	81,685	-	96,104
All other products[7]		-	248,159	-	357,862
Total		-	1,464,975	-	1,624,391
SWEEPING COMPOUNDS—					
Sweeping compounds		-	61,508	-	63,106
All other products		-	2,700	-	2,700
Total		-	64,208	-	65,806
MISCELLANEOUS CHEMICAL PRODUCTS, n.e.s.—					
Total[8]		-	324,310	-	351,450
Total		-	**10,294,171**	-	**10,699,162**

[1] Includes sealing wax, fish scrap, silver polish, cork filler, rubberized cotton, grease, tankage, shoe cloth, top facings and innersoling and box toe goods.
[2] Includes yeast, lye, washing powder, starch, and other products.
[3] Includes grates and other products.
[4] Includes fabrikoid, collodion, silver nitrate and other products.
[5] Includes toilet preparations, pie filling, crushed fruit, icings, fruit oils, terpeneless oils, doughnut flour, beverages and other products.
[6] Includes liquid soap, hand cleaner, washing compounds and sweeping compounds.
[7] Includes mops, sweeping compounds, washing compounds, hand cleaner, oil spray and other products.
[8] Includes dextro maltose, soaps, cheese rennet and colour, sulphanated oils, and welding compounds.

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

Coal Tar and its Products

Name	Head Office Address	Location of Plant
COAL TAR DISTILLATION—		
Nova Scotia—		
Dominion Tar and Chemical Co., Ltd.	354-5 Salisbury House, London Wall, E.C. 2, London, England.	Sydney.
Quebec—		
The Barrett Co., Ltd.	2001 St. Hubert St., Montreal	Montreal.
Consolidated Products Ltd.	184 St. Margaret St., Montreal	Montreal.
Dominion Tar and Chemical Co., Ltd.	354-5 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 and Chemical Co., Ltd.	354-5 Salisbury House, London Wall, E.C. 2, London, England.	Sault Ste. Marie.
Dominion Tar and Chemical Co., Ltd.	354-5 Salisbury House, London Wall, E.C. 2, London, England.	Toronto.
Hamilton Tar Products Co., Ltd.	Sheaffe St., Hamilton	Hamilton.
Manitoba—		
The Barrett Co., Ltd.	2001 St. Hubert St., Montreal, Que.	Winnipeg.
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.	16 Barn St., Long Island City, New York	301-303 Casgrain St., Montreal.
Ontario—		
Canadian Germicide Co., Ltd.	1 Howard Park Ave., Toronto	Toronto.
Hayner, Norman C., Co.	Rochester, N.Y., U.S.A.	Warehouse, 183 Huron St., Toronto.
Polusterine Products Co. of Canada, Ltd.	168-170 Ontario St., Toronto	Toronto.
The O. and W. Thumb Co.	Grand Rapids, Michigan	Walkerville.
Wodehouse Zenoleum Ltd.	22 Ainslie St., S. Galt	Galt.
Woods Chemical Co., Ltd.	45 Colborne St., Toronto	Toronto.

Acids, Alkalies, Salts and Compressed Gases

ACIDS, ALKALIES AND SALTS—		
Nova Scotia—		
Dominion Iron and Steel Co., Ltd.	Sydney	Sydney.
Quebec—		
Canada Carbide Co., Ltd.	611 Power Bldg., Craig St., Montreal	Transmission Ave., Shawinigan Falls.
Canadian Electro Products Co., Ltd.	611 Power Bldg., Craig St., 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.	20 St. Paul St., West, Montreal	Montreal.
Montreal Water and Power Co.	11 Place d'Armes Square, Montreal	20 Charlevoix St. 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 and Van Winkle Co., Ltd.	2 Silver Avenue, Toronto	15-25 Morrow Ave., Toronto.
Canadian Salt Co., Ltd.	719 Sandwich St., W., Windsor	Riverfront St., Sandwich.
Graeselli Chemical Co., Ltd.	Burlington St., Hamilton	Hamilton.
Mond Nickel Co., Ltd.	Coniston	Coniston.
Nichols Chemical Co., Ltd.	222 St. James St., Montreal, Que.	Sulphide.
Trenton Chemical Co.	Bay St., Trenton	Trenton.
Union Carbide Co. of Canada, Ltd.	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, Que.	Tadanac St., Trail.
Nicholas Chemical Co., Ltd.	222 St. James St., Montreal, Que.	Barnet.
The Triangle Chemical Co., Ltd.	Box 1011, New Westminster	New Westminster.
COMPRESSED GASES—		
Nova Scotia—		
Canadian Carbonate Ltd.	1 Hadley St., Côte St. Paul, Montreal, Que.	Stairs St., Dartmouth.
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., Côte St. Paul, Montreal	Montreal.
Dominion Oxygen Co., Ltd	46 King St. West, Toronto, Ont	225 Bourgeois St., Montreal.
Dry Ice Co., Ltd	263 St. James St., Montreal	Montreal.
L'Air Liquide Society	285 Beaver Hall Hill, Montreal	Viau and Rouen Sts., Montreal.
Prest-O-Lite Co. of Canada, Ltd	46 King St. W., Toronto, Ont	Transmission Ave., Shawinigan Falls.
Ontario—		
Canadian Ammonia Co., Ltd	65-87 Heward Ave., Toronto	Toronto.
Canadian Carbonate Ltd	1 Hadley St., Côte St. Paul, Montreal, Que	Simcoe St., Hamilton.
Canadian Carbonate Ltd	1 Hadley St., Côte St. Paul, Montreal, Que	6 Wabash Ave., Toronto
Dominion Oxygen Co., 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	16 Boler St., West Toronto.
L'Air Liquide Society	285 Beaver Hall Hill, Montreal, Que	Sudbury.
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., Côte St. Paul, Montreal, Que	Archibald St., St. Boniface.
L'Air Liquide Society	285 Beaver Hall Hill, Montreal, Que	1207 Pine St., Winnipeg.
Prest-O-Lite Co. of Canada, Ltd	46 King St. West, Toronto, Ont	Taché Ave., St. Boniface.
Alberta—		
L'Air Liquide Society	285 Beaver Hall Hill, Montreal, Que	201 First Ave. E., Calgary.
British Columbia—		
Canadian Carbonate Ltd	1 Hadley St., Côte St. Paul, Montreal, Que	Cor. 11th Ave. and Yew St., 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	Canada Cement Bldg., Philips Sq., Montreal	Beloeil.
Northern Explosives Ltd	623 Drummond Bldg., Montreal	Dragon.
Ontario—		
Canadian Explosives Ltd	Canada Cement Bldg., Phillips Square, Montreal, Que.	Nobel.
National Explosives Co., Ltd	71½ Sparks St., Ottawa	Camp Mohawk.
North Star Explosives Co., Ltd., c/o J. J. Heney.	40 Elgin St., Ottawa	Prescott.
British Columbia—		
Giant Powder Co. of Canada, Ltd	916 Birks Building, Vancouver	Nanoose Bay.
AMMUNITION—		
Quebec—		
Canadian Safety Fuse Co., Ltd	Canada Cement Bldg., Phillips Square, Montreal	Brownsburg.
Dominion Cartridge Co., Ltd	Canada Cement Bldg., Phillips Square, Montreal	Brownsburg.
Dominion Arsenal	8 Carlton St., Quebec	Quebec.
Ontario—		
Dominion of Canada Arsenal	Lindsay	Lindsay.
FIREWORKS—		
Quebec—		
Central Railway Signal Co	230 Boylston St., Boston, Mass	Iberville.
Ontario—		
Bottieri, Henry	800 Congress St., Schenecteday, N.Y	London.
The T. W. Hand Firework Co., Ltd	611 King St. W., Hamilton	Hamilton.
Dominion Ruffo	8th St. West, Cornwall	Cornwall.
Toronto Fireworks Co., Ltd	28 James St., South, Hamilton	Islington.
MATCHES—		
Quebec—		
Eddy, E. B. 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.	Nesbitt St., Windsor.
Cross Fertilizers, Ltd.	Prince St., Sydney	Sydney.
Jack Fertilizer Co.	Halifax	Halifax.
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—		
Roy, Léon	Lévis	Lévis.
Paraguay Limitée	48 St. Paul St., Quebec	116-120 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.
Ontario Fertilizers, Ltd.	Harris 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 Aniline Works, Ltd.	Room 9, Board of Trade, Winnipeg	379 Provencher Ave., St. Boniface.
British Columbia—		
Globe Fertilizer Co.	Campbell Road, 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—		
Evangeline Mfg. Co.	Middleton	Middleton.
Gates, C., Son & Co.	Middleton	Middleton.
Minard's Liniment Co., Ltd.	7 Jenkins St., Yarmouth	Yarmouth.
New Brunswick—		
Baird Co., Ltd.	60 King St. Woodstock	Woodstock.
Brayley Drug Co., Ltd.	13-15 Mill St., St. John	St. John.
Quebec—		
Arex Company, The	Bienville	Bienville.
Audet E. Co.	549 Iberville St., Montreal	Montreal.
Centaur Co.	80 Varick St., New York City, N.Y.	442 St. James, Montreal.
Central Pharmacy of Canada Ltd.	35 rue St. François Xavier, Montreal	Montreal.
Crétien, Alphonse	Ste. Eulalie	Ste. Eulalie.
Cie. de Produits Chimiques, Dr. Varrain, Enreg.	39 Notre Dame St. E., Montreal	Montreal.
Cie Pharmaceutique Remeau, Ltée	310 St. Catherine E., Montreal	Montreal.
Daniels, Dr. A. C. Co. of Canada Ltd.	172 Milk St., Boston, Mass.	Knowlton.
Davis and 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, N.Y.	107 Lagauchetière St., W., Montreal.
Devins, R. J., Ltd.	7 Convent St., Montreal	Montreal.
Farmely Medicine Co.	Victoriaville	Victoriaville.
Frasier, Thornton and Co., Ltd.	Cookshire	Cookshire.
Frosst, Charles E. and Co.	851 St. Antoine West, Montreal	Montreal.
Gauvin, J. A. E.	851A St. Catherine St. E., Montreal	273 Maisonneuve St., Montreal.
Hanford, G. C. Mfg. Co., Ltd.	133 Youville Square, Montreal	Montreal.
Hervay Chemical Co. of Canada, Ltd.	St. Basile	St. Basile.
Horner, Frank W. Ltd.	18 St. Urbain St., Montreal	Montreal.
Hurtubise, B.	4702 Papineau St., Montreal	Montreal.
Ideal Medicine Co.	Victoriaville	Victoriaville.
Laboratoire Nadeau, Ltée	110 St. Paul St. West, Montreal	Montreal.
Lambert, Dr. J. O., Ltée	396 St. Antoine St., Montreal	Montreal.
Laurentian Laboratories	230 De Courcelles St., Montreal	Montreal.
Mathieu, J. L., Compagnie	14 Albert St., Sherbrooke	Sherbrooke.
Menley and James Ltd. of Canada	45 St. Alexander St., Montreal	Montreal.
Morin, Dr. Ed. and Cie, Ltée	113 Cote de la Montagne, Quebec	Quebec.
Mowatt & Moore, Ltd.	109-192 Burnside Place, Montreal	Montreal.
National Licorice Co.	106 John St., Brooklyn, N.Y., U.S.A.	1211 Rouen St., Montreal.
Paula Co., Ltd., The	328 Christophe-Colomb, Montreal	Montreal.
Polson, N. C. and Co., Ltd.	311 Notre Dame St. W., Montreal	Montreal.
Rawleigh, W. T. & Co.	135 Richelieu St., Montreal	Montreal.
Robin and Cie.	139 St. Elizabeth St., Montreal	Montreal.
Routhier, P.	517 Mont Royal E., Montreal	Montreal.
Trudel, J. E.	46-6th Ave., Quebec	Quebec.

Medicinal and Pharmaceutical Preparations—Continued

Name	Head Office Address	Location of Plant
Nova Scotia—Concluded		
Watson, D. and Co	35 St. François Xavier St., Montreal	Montreal.
White, A. J. and Co., Ltd	45 St. Alexander St., Montreal	Montreal.
Wingate Chemical Co., Ltd	468 St. Paul St. W., Montreal	Montreal.
Wyeth, John and Bro., Inc	1118 Washington Ave., Philadelphia, P.A., U.S.A.	46 Prince St., Montreal.
Ontario—		
Allen and Hanburys Co., Ltd	64–66 Gerrard St. E., Toronto	65 King St. E., Lindsay.
Arner Co., Ltd	Niagara St., Fort Erie	Fort Erie.
Bauer and Black, Ltd	96 Spadina Ave., Toronto	Toronto.
Bayer Co., Ltd	501 Dominion Bank Building, Toronto	907 Elliott St., Windsor.
Bell, Dr., Wonder Medicine Co	110–112 Clarence St., Kingston	Kingston.
Bennett and Messecar Co., Ltd	Mille Roches	Mille Roches.
Briggs, G. C. and Sons	122 King St. W., Hamilton	162 Sandford Ave. N., Hamilton.
Buckley, W. J., Ltd	142 Mutual St., Toronto	Toronto.
Canada Pharmacal Co., Ltd	447 Talbot St., London	London.
Canadian Gunnagathon Ltd	750B Yonge 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.
Cummings, J. H. (Carter Cummings and Co.).	107 Duke St., Toronto	Toronto.
Coleman and Co., Canada, Ltd	67 Portland St., Toronto	Toronto.
Connaught Laboratories	University of Toronto, Toronto	Toronto.
Crossman, L	439 Booth St., Ottawa	Ottawa.
D. D. D. Co	27 Lyall Ave., Toronto	67 Portland St., Toronto.
Diffin, C. W	Bridgeburg	Bridgeburg.
Dionol Co., (Canada) Ltd	152 Duchess St., Toronto	Toronto.
Douglas and Co	Napanee	Napanee.
Druggists Corporation of Canada	35 Britain St., Toronto	Toronto.
Eaton, The T., Drug Co., Ltd	190 Yonge St., Toronto	Toronto.
Edmanson, Bates and Co., Ltd	244 Adelaide St. W., Toronto	Toronto.
Emerson Drug Co., Ltd	1266 Queen St. W., Toronto	Toronto.
Fleming Bros., Ltd	422 Wellington St. W., Toronto	Toronto.
Foster Dack Co., Ltd	377 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. and Son	63 Sheridan Ave., Toronto	Toronto.
Gaskin, H. M. Co., Ltd	420 Yonge St., Toronto	Toronto.
Hartz, J. F. and Co., Ltd	24–26 Hayter St., Toronto	Toronto.
Howard Bros. Chemical Co	243 Jarvis St., Bridgeburg	Bridgeburg.
Hygiene Kola, Ltd	28 Dundas St. W., Toronto	Toronto.
International Druggists' and Chemists' Laboratories, Inc.	280 Pearl St., New York, N.Y., U.S.A	147 Carling S., London.
Jefferis, E. G	442 Quebec Ave., Toronto	Toronto.
Karn, F. E. Co., Ltd	415 Spadina Road, Forest Hill, Toronto	Toronto.
Lambert Pharmacal Co	2101 Locust St., St. Louis, Mo., U.S.A	263 Adelaide St. W., Toronto.
Lavoris Chemical Co., Ltd	92 Jarvis St., Toronto	Toronto.
Lewis, A. H. Medicine Co	319 S. Fourth St., St. Louis, Mo., U.S.A	67 Crawford Ave., Windsor.
Lyman Bros. and Co., Ltd	71 Front St. E., Toronto	183 Front St. E., Toronto.
Muhans, Dr., Compass Oil Co	18 Garfield Ave., London	London.
Marlatt, J. W. and Co., Ltd	211 Gerrard St. E., Toronto	Toronto.
McHale Pyorrhea Remedy Co. of Can. Ltd	82 Adelaide St. E., Toronto	Toronto.
Mentholatum Co	Wichita, Kansas, U.S.A	Lewis St., Bridgeburg.
Merner & Merner	121 Strange St., Kitchener	Kitchener.
Merrill Co., Ltd	93½ Church St., Toronto	Toronto.
Milburn, The T. Co., Ltd	643 King St. W., Toronto	Toronto.
Mulveney, R. I	211 Ossington Ave., Toronto	Toronto.
Noll, Geo. M. (The Pinex Ltd.)	424 Wellington St. W., Toronto	Toronto.
Northrop and Lyman Co., Ltd	462–6 Wellington St. W., Toronto	Toronto.
Pabst Chemical Co	1115 Franklin St., Chicago, Ill	179 Parliament St., Toronto.
Parke Davis and Co	Joseph Campeau Ave., Detroit, Mich., U.S.A	Walker & Sandwich Sts. Walkerville.
Parke & Parke, Ltd	18 Market Square, Hamilton	Hamilton.
Paris Medicine Co	St. Louis, Mo., U.S.A	Toronto.
Penslar Co., Ltd	Walker Power Bldg., Walkerville	Walkerville.
Pepsin Syrup Co., Ltd	Caldwell Bldg., 76 Stafford St., Toronto	Toronto.
Pinkham, Lydia E. Medicine Co	271 Western Ave., Lynn, Mass., U.S.A	University Ave., Cobourg.
Powell, H., Chemical Co	40 Dundas St. E., Toronto	Toronto.
Ross Medicine Co., Ltd., The	61 Jarvis St., Toronto	Toronto.
Rundle, Geo. H. and Son Co., Ltd	Cor. Pitt and Dougal Ave., Windsor	Windsor.
Sanderson, John H	Richmond Hill	Richmond Hill.
Saunders, W. E. and Co., Ltd	184–188 King St., London	London.
Scott and 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 Ave., W. Toronto	Toronto.
Stearns, Frederick and Co. of Canada, Ltd	345 Sandwich St. W., Windsor	Windsor.
Sterling Products, Ltd	907 Elliott St., Windsor	Windsor.
Sutcliffe and Bingham of Canada, Ltd	81 Peter St., Toronto	Toronto.
Synthetic Drug Co., Ltd	243 College St., Toronto	Toronto.

Medicinal and Pharmaceutical Preparations—Concluded

Name	Head Office Address	Location of Plant
Toronto Pharmacal Co., Ltd.	20 Brockton Ave., Toronto	Toronto.
United Drug Co., Ltd.	Boston, Mass.	68 Broadview Ave., Toronto.
Vanderhoof and Co., Ltd.	Louis & Wyandotte St., Windsor	Windsor.
Van Camp, T. & Son	1152a Danforth Ave., Toronto	Toronto.
Vinvi Co.	336 Pine St., San Francisco, Cal.	Windsor.
Wampole, Henry K. and Co., Ltd.	Perth	Perth.
Warner, William R. and Co., Ltd.	727 King St. W., Toronto	Toronto.
Will, Chas. R. & Co., Ltd.	17 King St., London	London.
Ontario—Concluded		
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 Ave., Winnipeg	Winnipeg.
Eaton, The T. Co., Ltd.	190 Yonge St., Toronto, Ont.	Winnipeg.
Fahrney, Dr. Peter and Sons Co.	2501 Washington Blvd., Chicago, Ill., U.S.A.	256 Stanley St., Winnipeg.
Macdonald Medicine Co. of Canada, Ltd.	310 Notre Dame Ave., Winnipeg	Winnipeg.
Rawleigh, W. T. Co., Ltd.	Freeport, Ill., U.S.A.	587-589 Henry Ave., Winnipeg.
Watkins, The J. R. Co.	158-170 Liberty St., Winona, Minnesota, U.S.A.	E. Higgins and Annabella Sts., Winnipeg.
Saskatchewan—		
Fairview Chemical Co., Ltd.	1355 St. John St., Regina	Regina.
British Columbia—		
British Columbia Pharmacal Co., Ltd.	329 Railway St., Vancouver	Vancouver.
Tepoorten, J. A. Ltd.	308 Water St., Vancouver	Vancouver.

Paints, Pigments and Varnishes

Nova Scotia—		
Brandram-Henderson Ltd.	2984 St. Urbain St., Montreal	230-240 Kempt Road, Halifax.
Moseley Bros.	North St., Dartmouth	Darthmouth.
Quebec—		
Army and Navy Mfg. Products	26 Jurors St., Montreal	Montreal.
Brandram-Henderson, Ltd.	2984 St. Urbain St., Montreal	Montreal.
Canada Paint Co.	572 William St., Montreal	Montreal.
Carter White Lead Co. of Canada, Ltd.	1195 Delorimier Ave., Montreal	Montreal.
Desoray Laboratories, Ltd.,	231 Carriere St., Montreal	Montreal.
Dominion Putty Reg'd.	177 de la Reine, Quebec	Quebec.
Excelsior Varnish and Color Works, Ltd.	84 Wellington St., Montreal	Montreal.
Holland Varnish Co., Ltd.	6700 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 and Varnish Co., Ltd.	195 Dorchester St. E., Montreal	305 Casgrain St., Montreal.
Murphy Varnish Co. of Canada, Ltd.	305 Manufacture St., Montreal	Montreal.
National Varnish Co. of Canada, Ltd.	389 Craig St. W., Montreal	Montreal.
Ramsay, A. and 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.	1272 Notre Dame St., Montreal.
Thorp-Nambrock Co., Ltd.	Park and Hopper Avenues, Montreal	Montreal.
Ontario—		
Arco Co., Ltd.	16 Liberty St., Toronto	Toronto.
Berry Brothers, Incorporated	Walker Rd., Walkerville	Walkerville.
Boulton Paint Co., Ltd., The	167 King St. E., Toronto	Toronto.
Brandram-Henderson, Ltd.	2984 St. Urbain St., Montreal, Que.	377 Carlaw Ave., Toronto Biggar Ave., Hamilton.
Cooke, Geo. Co., Ltd.	174 King St. E., Toronto	Toronto.
Cosmos Chemical Company	Cavan St., Port Hope	Port Hope.
Crystal, H. S. & T. Co., Ltd.	169 Yonge St., Toronto	Seventh St., New Toronto.
Dominion Paint Works, Ltd.	28 Ottawa St., Walkerville	Walkerville.
Flint Varnish and Color Works of Canada, Ltd.	Canada Cement Building, Montreal, Quebec	Cor. Perth and Kingsley Ave., Toronto.
Glidden Varnish Co., Ltd.	370-382 Wallace Ave., Toronto	Toronto.
Hamilton Paint and Varnish Works	Biggar Ave. and Lottridge St., Hamilton	Hamilton.
Hannan Varnish Co.	Glen Morris	Glen Morris.
Imperial Varnish and Color Co., Ltd.	2-20 Morse St., Toronto	Toronto.
International Varnish Co., Ltd.	Gerrard St. & Carlaw Ave., Toronto	Toronto.
Langmuir, James and Co., Ltd.	Oakville	Oakville.
Lowe Brothers, Ltd.	263 Sornuren Ave., Toronto	Toronto.
Moore, Benjamin and Co., Ltd.	Mulock and Lloyd Sts., West Toronto 9	Toronto.

Paints, Pigments and Varnishes—Concluded

Name	Head Office Address	Location of Plant
Ontario—Concluded		
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.	678 Wellington St., Ottawa	Ottawa.
Penfound Varnish Co.	25 Caribou Ave., Toronto	Toronto.
Pratt and Lambert, Inc.	79 Townawanda St., Buffalo, N.Y.	Bridgeburg.
Sanderson Pearcy and Co., Ltd.	272 Van Horne St., Toronto	Toronto.
Scurfe and Co., Ltd.	35 Greenwich St., Brantford	Brantford.
Standard Paint and Varnish Co., Ltd.	Cor. Wyandotte St. and C.P. Railway, Windsor	Windsor.
Sturgeon's Ltd.	330 Carlaw Ave., Toronto	Toronto.
Toronto Putty Co.	2 North View Terrace, Toronto 5	Toronto.
Watts Chemical Co.	80 Don Esplanade, Toronto	Toronto.
Manitoba—		
International Laboratories, Ltd.	490 rue des Meurons, St. Boniface	St. Boniface.
Martin-Senour Co., Ltd.	Box 2992—Winnipeg	Winnipeg.
Sherwin-Williams Co. of Canada, Ltd.	897 Centre St., Montreal, Que.	112 Sutherland Ave., Winnipeg.
Stephens, G. F. and Co., Ltd.	172 Market St. East, Winnipeg	Winnipeg.
Wyers, C. J.	763—13th St., Brandon	Brandon.
Alberta—		
Herbert Paint and Varnish Co., Ltd.	9th Ave. and 3rd St. W., Calgary	Calgary.
Rocky Mountain Paint Co., Ltd.	921-9th Ave. East, Calgary	Calgary.
British Columbia—		
Appleton and MacRae Paint Co., Ltd.	Surf Inlet	Surf Inlet.
Ayres Varnish and Paint Co., Ltd.	950 Raymur Ave., Vancouver	Vancouver.
British America Paint Co., Ltd.	Box 548, Laurel Pt., Victoria	Victoria.
Crown Paint Co., Ltd.	24 Cordova St. E., Vancouver	Vancouver.
Darling, Henry and Son	28 Powell St., Vancouver	Vancouver.
Impermen Sales Corp., Ltd.	1445 Venables St., Vancouver	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.
Superior Paint and Shingle Stain Co.	Chilliwack	Chilliwack.
Williams and Harte, Ltd.	1302 Wharf St., Victoria	Victoria.

Soaps, Washing Compounds and Toilet Preparations

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.	1600 Delorimier Ave., Montreal	Montreal.
Darling and Brady, Ltd.	159 Richardson St., Montreal	Montreal.
Gold Dust Corporation, Ltd.	115 Youville Square, Montreal	St. Patrick St., Ville La Salle.
La Savonnerie du Lion	3651 St. Hubert St., Montreal	Montreal.
Marx and Rawolle of Canada, Ltd.	516 St. Ambroise St., Montreal	Montreal.
Robertson, J. T. Co. of Canada, Ltd.	147 Notre Dame St., Pointe aux Trembles	Pointe aux Trembles.
Sewards Ltd.	Cor. 8th Ave. and Maple St., Ville St. Pierre	Ville St-Pierre.
Snap Company Ltd.	91 Reading St., Montreal	Montreal.
Ontario—		
Cudahy Packing Co.	Chicago, Ill., U.S.A.	64 Macaulay Ave. West, Toronto.
Diamond Cleanser Ltd.	376 Dufferin St., Toronto	Toronto.
Elliott, J. & R.	Water St., S. Galt	Galt.
Guelph Soap Co., Ltd.	12-20 Waterloo St., Guelph	Guelph.
Jergens, Andrew Co., Ltd.	Herriott St., Perth	Perth.
Judd, W. H. & Co.	101 Bay St., N. Hamilton	Hamilton.
Lever Bros., Ltd.	Eastern Ave., Toronto	Toronto.
Liquid Soap and Sanitary Products, Ltd.	320 Bay Street, Toronto	114 Jarvis St., Toronto.
London Soap Co., Ltd.	197 South St., London	London.
Morton, D. and Sons, Ltd.	77 Emerald St. S., Hamilton	Hamilton.
Ontario Soap and Oil Co.	45 Dickens Ave., Toronto	Toronto.
Palmolive Company of Canada, Ltd.	64 Natalie St., Toronto	Toronto.
Proctor and Gamble Co. of Canada, Ltd.	6th and Main Sts., Cincinnati, Ohio, U.S.A.	Burlington St. E., Hamilton.
Pugsley, Dingman and Co., Ltd.	Cor. Eastern and Davies Aves., Toronto	Cawthra Ave., Toronto.
Sapon Soaps of Canada, Ltd.	164 Strachan St. E., Hamilton	Hamilton.
Soaps-Perfumes Ltd.	84 Front St. E., Toronto	Toronto.
Standard Soap Co., Ltd.	219-21 Front St. E., Toronto	Toronto.
Vegetable Oil Soap Co.	Box 103, Marmora	Marmora.
Wilson, E.	Baden	Baden.
Manitoba—		
Beaver Soap Co., Ltd.	1377 Winnipeg Ave., Winnipeg	Winnipeg.
Royal Crown Soaps Ltd.	King and Henry Sts., Winnipeg	Winnipeg.

Soaps, Washing Compounds and Toilet Preparations—Continued

Name	Head Office Address	Location of Plant
SOAPS—Concluded		
Saskatchewan—		
Chemical Novelty Products Co	529-20th Street W., Saskatoon	Saskatoon.
Alberta—		
Hubley, E. (Acme Soap Works)	9272—110th Ave., North Edmonton	North Edmonton.
Royal Crown Soaps Ltd	Winnipeg, Man	Calgary.
British Columbia—		
Pendray, W. J. and Sons, Ltd	Belleville and Montreal Sts., Victoria	Victoria.
Royal Crown Soaps, Ltd	Winnipeg, Man	308 Georgia St. E., Vancouver.
WASHING COMPOUNDS—		
Quebec—		
Dalglish & Co	2927 St. Urbain St., Montreal	Montreal.
Demontigny & Ponlot Enr	1 Rue des Bains, Quebec	Quebec.
Fyon and Fyon, Ltd	Cor. Papineau and Masson Sts., Montreal	Montreal.
Imperial Chemical Works	1510 Cadieux St., Montreal	Montreal.
Levesque, Lionel J	164 Roche St., Three Rivers	Three Rivers.
Robillard, J. J. et Cie	204 Fabre St., Montreal	Montreal.
Ontario—		
Alpha Chemical Co., Ltd	Kitchener	Kitchener.
Bleachol Products, Ltd	4 Clinton Place, Toronto	Toronto.
Canada Colors and Chemicals, Ltd	1090 King St. W., Toronto	Toronto.
Chamberlain Desolvo Co., Ltd	522 Hamilton Road, London	London.
Eze Mfg. Co., Ltd	253 Huron St., Toronto	Toronto.
Gold Rock Chemical Co	8 Bellwoods Place, Toronto	Toronto.
Macks Laundry Specialty Co	Reserve St., Almonte	Almonte.
Magic White Laboratories, Ltd	393a Dundas St. E., Toronto	Toronto.
Williamson, F. A. Mfg. Co., Ltd	455-7 Wellington St., Ottawa	Ottawa.
Wilson, William and Son	49 Niagara St., Toronto	Toronto.
Windsor Sapoline Co	99 Sandwich St., Walkerville	Walkerville.
Manitoba—		
Dainty White Mfg. Co	335 Ross Ave., Winnipeg	Winnipeg.
Ideal Products, Ltd	78-80 Higgins Ave., Winnipeg	Winnipeg.
Old Sol Manufacturing Co., Ltd	805 Erin St., Winnipeg	Winnipeg.
Saskatchewan—		
Van Kel Cleaners, Ltd	Swift Current	Swift Current.
Alberta—		
The Wash Out Co	10249—95th St., Edmonton	Edmonton.
British Columbia—		
Western Cleansers, Ltd	2632—13th Ave. W., Vancouver	Vancouver.
The White Wizard Co	1238 Pender St. E., Vancouver	Vancouver.
TOILET PREPARATIONS—		
Quebec—		
Bellefontaine, Albert	1670 St. Denis St., Montreal	Montreal.
California Perfume Co. of Canada, Ltd	31 Park Place, New York, N.Y., U.S.A.	35 St. Alexander St., Montreal.
Chesebrough Mfg. Co., Cons'd	17 State St., New York, N.Y., U.S.A.	5520 Chabot Ave., Montreal.
Colgate and Co., Ltd	72 St. Ambrose St., Montreal	Montreal.
Forluns 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.
Murceau, J. A., Ltée	2 Rodney St., Montreal	Montreal.
The Mennen Co., Ltd	325 Craig St., Montreal	Montreal.
Palmers Limited	100 Latour St., Montreal	Montreal.
Ontario—		
Armand, Ltd	269 Talbot St., St. Thomas	St. Thomas.
Calsodent Co., Ltd	33 Front St. E., Toronto	Toronto.
Canadian Booster Co., Ltd	435 Sandwich St., Windsor	Windsor.
Corson Ralph, Ltd	46 Brock Ave., Toronto	Toronto.
Elcaya Company of Canada, Ltd	Aylmer	Aylmer.
Herpicide Company	63 W. Milwaukee Ave., Detroit, Mich., U.S.A.	30 Goyeau St., Windsor.
Hudnut, Richard	727 King St. W., Toronto	Toronto.
Ingram, Frederick F. Co	1565 W. Lafayette Blvd., Detroit, Mich., U.S.A.	801-3 Sandwich St. W., Windsor.
Klotz, H. and G	204 King St. E., Toronto	Toronto.
Maison Blanche Toilet Co	52 West Chippewa St., Buffalo, N.Y.	Bridgeburg.
Marion Perfume Co	424 Wellington St. W., Toronto	Toronto.
McLarty, R. W. Ltd	432 Wellington St. W., Toronto	Toronto.
Misner Mfg. Co	Waterloo St., Goderich	Goderich.
Parfumerie Rigaud, Inc	75 Barrow St., New York, N.Y., U.S.A.	107 Duke St., Toronto.
Partin, L., Ltd	12 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.	414 Windsor Ave., Windsor.
Seely Mfg. Co., Ltd	15 Church St., Windsor	Windsor.
West, E. G. and Co	80 George St., Toronto	Toronto.

Soaps, Washing Compounds and Toilet Preparations—Concluded

Name	Head Office Address	Location of Plant
TOILET PREPARATIONS—Concluded		
Manitoba—		
Klen-O Chemical Co., Ltd.	310 Ross Ave., Winnipeg	Winnipeg.
Pulford Drug Co., Ltd.	52 Albert St., Winnipeg	Winnipeg.
Alberta—		
Roberta Chemical Co.	10434 Jasper Ave., Edmonton	Edmonton.
British Columbia—		
Henrietta Toilet Preparations	732 Richards 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, Bydwell and Co.	24-26 St. Dizier St., Montreal	Montreal.
Wells and Richardson Co., Ltd.	200 Mountain St., Montreal	Montreal.
Ontario—		
Dye and Chemical Co. of Can., Ltd.	Kingston	Kingston.
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.	45 Kennedy St., St. John	St. John.
Quebec—		
Frontenac Ink Works	243 William St., Montreal	Montreal.
Robertson, J. S.	119 Lagauchetiere St. W., Montreal	Montreal.
Ontario—		
Ault and Wiborg Co. of Canada, Ltd.	19-23 Charlotte St., Toronto	Toronto.
Bush, Charles, Limited	105 Davenport Rd., Toronto	Toronto.
Canada Printing Ink Co., Ltd.	15 Duncan St., Toronto	Toronto.
Canadian Fine Colour Co., Ltd.	125 Bolton Ave., 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 Can., Ltd.	233 Richmond St. W., Toronto	Toronto.
Manitoba—		
Printers' Roller Co.	175 McDermot Ave., Winnipeg	Winnipeg.
Alberta—		
Little, W. J.	2412-1a St. E., Calgary	Calgary.
British Columbia—		
Columbia Printing Ink and Roller Co., Ltd.	1063 Hamilton St., Vancouver	Vancouver.
WRITING INKS—		
Quebec—		
Carter's Ink Co.	239 First St. East, Cambridge, Mass., U.S.A.	655 Drolet St., Montreal.
Ontario—		
Blue Bird Ink Co.	124 Richmond St. W., Toronto	Toronto.
Cutler Ink Co.	61 Richmond St. W., Toronto	Toronto.
Poole, J. E. and Co.	18 Holly St., Toronto	Toronto.
Stafford, S. S., Ltd.	9 Davenport Rd., Toronto	Toronto.
Manitoba—		
Reliance Ink Co., Ltd.	520 McGee St., Winnipeg	Winnipeg.
Alberta—		
Jewel Products Co., Ltd.	Main St., Drumheller	Drumheller.
British Columbia—		
Peerless Products Ltd.	1642 Pandora St., Vancouver	Vancouver.
Walmsley, Frank	2741—11th Ave. W., Vancouver	Vancouver.

Wood Distillation and Wood Extracts

Name	Head Office Address	Location of Plant
WOOD DISTILLATION—		
Quebec—		
Canadian Explosives, Ltd.	Canada Cement Bldg., Phillips Sq., Montreal	Windsor Mills.
Standard Chemical Co., Ltd.	Brock Chambers, 200 Bay St., Toronto	Fassett.
Standard Chemical Co., Ltd.	Brock Chambers, 200 Bay St., Toronto	524 St. Ambroise St., Montreal.
Standard Chemical Co., Ltd.	Brock Chambers, 200 Bay St., Toronto	Lac Mercier.
Standard Chemical Co., Ltd.	Brock Chambers, 200 Bay St., Toronto	Weedon.
Ontario—		
Dominion Wood and Lumber Co., Ltd.	410 King St. W., Kitchener	Trout Creek.
Hodgson Bros. Chemical Co.	89 St. Paul St., Lindsay	Lindsay.
Standard Chemical Co., Ltd.	Brock Chambers, 200 Bay St., Toronto	Longford Mills.
Standard Chemical Co., Ltd.	Brock Chambers, 200 Bay St., Toronto	Parry Sound.
Standard Chemical Co., Ltd.	Brock Chambers, 200 Bay St., Toronto	Thornbury.
Standard Chemical Co., Ltd.	Brock Chambers, 200 Bay St., Toronto	Donald.
Standard Chemical Co., Ltd.	Brock Chambers, 200 Bay St., Toronto	South River.
Standard Chemical Co., Ltd.	Brock Chambers, 200 Bay St., Toronto	Sault Ste. Marie.
WOOD EXTRACTS—		
Quebec—		
Brown Corporation	71 St. Peter St., Quebec	La Tuque.

Miscellaneous Chemical Industries

(a) Adhesives

New Brunswick—		
Russia Cement Co.	Gloucester, Mass., U.S.A.	Gilberts Lane, St. John.
Quebec—		
Auld Mucilage Co., Reg.	8 Chenneville St., Montreal	Montreal.
Boston Blacking Co.	3rd and Potter Sts., East, Cambridge, Mass., U.S.A.	Cabot St., Cote St. Paul, Montreal.
Dominion Flour Pasto Co.	2135 Maisonneuve St., Montreal	2122½ rue Champlain, Montreal.
Fox, T. M. and Sons, Limited	Cote St. Paul, Montreal	Montreal.
Marquis, F. Canac	Guyart St., Quebec	Quebec.
Quality Glue Co., Ltd.	Papineauville	Papineauville.
Russia Cement Co.	Gloucester, Mass., U.S.A.	2155 Pius IX Ave., Montreal.
Vol-Peek Mfg. Co.	30 St. François Xavier St., Montreal	Montreal.
Woodward, F. E. and Sons	17th Avenue, Lachine	Lachine.
Ontario—		
Arabol Manufacturing Co. of Canada, Ltd.	13 King St. West, Toronto	Brampton.
Canada Glue Company, Ltd.	Box 630, Brantford	Brantford.
Canadian Adhesive Co.	29 Queenston St., St. Catharines	Thorold.
Cannon Canadian Co., Ltd.	361 Sorauren Ave., Toronto	Toronto.
Delaney & Pettit Ltd.	133 Jefferson Ave., Toronto	Toronto.
Dominion Glue Ltd.	1 Strange St., Kitchener	Kitchener.
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—		
McLaren, W. D. Ltd.	641 St. Paul St. W., Montreal	Montreal.
Moulin Orean Ltd.	257 de Lanaudiere, Montreal	Montreal.
Royal Baking Powder Co.	100 E. 42 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.	121-133 Perth St., Brockville	Brockville.
Egg-O Baking Powder Co., Ltd.	198 Gage Avenue South, Hamilton	Hamilton.
Gillett, E. W. Co., Ltd.	Fraser Ave. & Liberty Sts., 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.
Electric Boiler Compound Co., Ltd.	12-20 Waterloo St., Guelph	Guelph.
Perolin Co. of Canada, Ltd.	858 Dupont St., Toronto	Toronto.
Shell-Bar Boico Supply Ltd.	1-15 Saunders Ave., Toronto	Toronto.
Woodward Chemical Co.	225 Barton St. E., Hamilton	Hamilton.

Miscellaneous Chemical Industries—Continued

(d) Celluloid Products

Name	Head Office Address	Location of Plant
Quebec—		
Arlington Co. of Canada, Ltd.	Canada Cement Bldg., Philips Square, Montreal	103 Beaubien St. W., Montreal.
Dominion Comb and Novelty Co.	Warwick	Warwick.
Granby Mfg. Co.	39-41 Court St., Granby	Granby.
McComiskey, R. B. and Co.	47 Alexander St., Granby	Granby.
Ontario—		
Austin, Carl W.	266 King St. W., Toronto	Weston.
Broad Novelty Co.	38 Clifford St., Toronto	254 Niagara St., Toronto.
Canadian Fabrikoid Ltd.	Canada Cement Bldg., Philips Square, Montreal, Quebec.	15th St., New Toronto.
French Ivory Products Ltd.	1475 Queen St. W., Toronto	Toronto.
Latimer, H. B.	7 Widmer St., Toronto	Toronto.
Rideau Specialty Co.	19 Main St., Smith's Falls	Smith's Falls.

(e) Flavouring Extracts

Nova Scotia—		
Crouse, Fred. O. and Co.	La Have, Bridgewater	Bridgewater.
New Brunswick—		
Wilson Chemical Co., Ltd.	23-27 Water St., St. John	St. John.
Quebec—		
Bee Products Ltd.	291 St. Paul St. West, Montreal	Montreal.
Bush, W. J. and Co. (Canada), Limited	10 St. Helen St., Montreal	Montreal.
Chaput, L. Fils et Cie, Ltée	12 rue DeBresoles, Montreal	Montreal.
Corrizo Extract Co.	211-215 W. 20th St., New York City, N.Y.	2033 Bleury St., Montreal.
Jonas, Henri and Co.	173-177 St. Paul St. W., Montreal	Montreal.
Rose and Laflamme Ltd.	500 St. Paul St. West, Montreal	Montreal.
Stuart Brothers	41-43 Youville Square, Montreal	Montreal.
Trembley, Thos., c/o Moulin Economique	5020 Bordeaux St., Montreal	Montreal.
Ontario—		
Canadian Extract & Supply Co.	12 Mercer St., Toronto	Toronto.
Cressy, John R. Co.	296 Gladstone Ave., Toronto	Toronto.
Jell-O Company of Can. Ltd.	Le Roy, N.Y.	Niagara St., Bridgeburg
Horne, Harry Co., Ltd.	1297 Queen St. W., Toronto	Toronto.
Imperial Extract Co.	10 Matilda St., Toronto	Toronto.
Kuntz Brewery	Park St., Waterloo	Waterloo.
Lowe, Joe. Co., Ltd.	100 Stirling Road, Toronto	Toronto.
Ottens, Henry H. and Co., Limited	129 S. Front St., Philadelphia, U.S.A.	3 Jarvis St., Toronto.
Patrick, W. G. and Co., Limited	51 Wellington Street West, Toronto	Toronto.
Wilson & Warden	58 Duchess St., Toronto	Toronto.
Alberta—		
Pure Standard Products, Ltd.	10865-96 St., Edmonton	Edmonton.
British Columbia—		
Grantham, F. C. Co., Ltd.	700-716—16th Ave. West., Vancouver	Vancouver.
Spencer, David, Ltd.	1254 Hornby St., Vancouver	Vancouver.

(f) Insecticides

New Brunswick—		
Bug Death Chemical Co.	St. Stephen	St. Stephen.
Empire Chemical Co., Ltd.	8 Bentley St., St. John	St. John.
Quebec—		
Auto Roach Killer Co.	1359 St. Hubert St., Montreal	Montreal.
Canada Paint Co., Ltd.	572 William St., Montreal	19 Hunter St., Montreal.
Cowan, John, Chemical Co.	9 Dalhousie St., Montreal	Montreal.
The Kennedy Mfg. Co.	588 Henri Julien Ave., Montreal	Montreal.
Parisien, Wilfrid	525 rue Amherst, Montreal	Montreal.
Ontario—		
Bonner Columbian Insecticide	258 George St., Toronto	Toronto.
Canada Rex Spray Co., Ltd.	Ontario St., Brighton	Brighton.
Common Sense Mfg. Co.	393 Queen St. W., Toronto 2	Toronto.
Deloro Chemical Co., Ltd.	Deloro	Deloro.
Niagara Brand Spray Co., Ltd.	Burlington	Burlington.
Radam's Microbe Killer Co.	30 Victor St., London	London.
The Williams Chemical Co., Ltd.	Russell	Russell.

Miscellaneous Chemical Industries—Continued

(f) Insecticides—Concluded

Name	Head Office Address	Location of Plant
Manitoba—		
Charles Riess and Co.	386 Colony St., Winnipeg	Winnipeg.
City Chemical Co.	152 Henry Ave., Winnipeg	Winnipeg.
Alberta—		
Dominion Bait Co.	P.O. Box 171, Lethbridge	Lethbridge.
British Columbia—		
Oliver Chemical Co., Ltd.	Suite No. 1, 407 Hastings St. W., Vancouver	Penticton.

(g) Polishes and Dressings

Nova Scotia—		
Blacking and Mercantile Co., Ltd.	Station St., Amherst	Amherst.
Quebec—		
American Metal Polish Co.	89 Winslow Ave., West Somerville, Mass., U.S.A.	2396 Moreau St., Montreal.
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.
Coleman Engineering Co.	392 St. James St., Montreal	159 Richardson St., Montreal.
Ducharme, M. J.	2171 rue St. Laurent, Montreal	Montreal.
Hall Thompson Co.	3150 Jeanne Manse St., Montreal	Montreal.
Hindle Mfg. Co. (Maurice Hindle)	219 Notre Dame St. W., Montreal	Montreal.
La-Lo Manufacturing Co., Ltd.	365 Aqueduct St., Montreal	Montreal.
Manufacturers Sales Corp. Ltd.	46-48 Bronsden Lane, Montreal	Montreal.
Sta-Brite Products, Ltd.	660 Frontenac St., Montreal	Montreal.
Star Dressing Co.	Rear 2099 Hutchison St., Montreal	Montreal.
Sultana Limited	102 Amherst St., Montreal	Montreal.
Ontario—		
American Chemical Paint Co.	1118 So. Eleventh St., Philadelphia, Pa., U.S.A.	425 Pierre Ave., Windsor.
Buffalo Specialty Co.	375 Elliott St., Buffalo, N.Y., U.S.A.	Bridgeburg.
Bull, John, Mfg. Co.	1 O'Reilly St., Hamilton	Hamilton.
Capo Polishes Co.	58 Catherine St. N., Hamilton	Hamilton.
Channell Limited	361 Sorauren Ave., Toronto	Toronto.
The Commercial Oil Co., Ltd.	420 Jackson St. W., Hamilton	Hamilton.
Cross Products Ltd.	66-68 Dundas St. W., Toronto	Toronto.
2 in 1 Polishes Ltd.	75 Hughson St. N., Hamilton	Hamilton.
Dandy Specialties Co.	58 James St., Ridgetown	Ridgetown.
Damon Specialty Co.	29 Temperance St., Toronto	Toronto.
Hawes, Edward and 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.
Instant Polish Co., Ltd., The	Barrie	Barrie.
Johnson, S. C. and Son, Ltd.	Frank St., Brantford	Brantford.
Lacon-Finish Co. of Canada, The	75 Oak Ave., Hamilton	Hamilton.
Lion Polish Co., Ltd.	5 Wellington St. E., Toronto	Toronto.
Lord, Richard	130 Kensington Ave. N., Hamilton	Hamilton.
National Chemical Compounds, Limited.	4 Clinton Place, Toronto	Toronto.
The Nonsuch Mfg. Co., Ltd.	257 Logan Ave., Toronto	9 Busy St., Toronto.
Norwesco of Canada, Ltd.	1293 Dundas St. W., Toronto	Toronto.
The Permanent Ink Co., Ltd.	302 Cumberland Ave., Hamilton	Hamilton.
Protex Co. of Canada, Ltd.	Dundas St., Whitby	Whitby.
Solient Mfg. Co.	12 Simcoe St. S., Oshawa	Oshawa.
Tilley, Chas. and Son	90 Richmond St. W., Toronto	Toronto.
Wills and Kemp Products Mfg. Co.	183 Logan Ave., Toronto	Toronto.
Windsor Polish Co.	73 Roseberry Place, St. Thomas	St. Thomas.
New Brunswick—		
No-Dust Mfg. Co.	8 Marsh Bridge, St. John	St. John.

(h) Sweeping Compounds

Quebec—		
Conway Mfg. Co.	16 Jenckes Lane, Sherbrooke	Sherbrooke.
Ontario—		
Dustbane Manufacturing Co., Ltd.	Ottawa	Ottawa.
Soclean Limited	444 King St. W., Toronto	Toronto.
Manitoba—		
Dustbane Western Ltd.	Ottawa	325 Elgin Ave., Winnipeg.

Miscellaneous Chemical Industries—Concluded

(i) Miscellaneous Chemical Products, N.E.S.

Name	Head Office Address	Location of Plant
Ontario—		
American Chemical Paint Co.	Ambler, Pa., U.S.A.	425 Pierre St., Windsor.
Anti-Borax Compound Co.	918 McDougall St., Windsor	Windsor.
Carbonex of Canada, Ltd.	Gerrard St., Hamilton	Hamilton.
Hansen's Chr. Canadian Laboratory	Little Falls, New York, U.S.A.	201 Church St., Toronto.
Mead Johnson and Co. of Canada, Ltd.	Evansville, Indiana, U.S.A.	Belleville.
Quaker City Chemical Co. of Canada, Ltd.	Birmingham St. & Whitfield Ave., Hamilton	Hamilton.
Richardson-Hansen Co., Ltd.	St. Marys	St. Marys.
Manitoba—		
Robinson and Webber Co., Ltd.	57 Victoria St., Winnipeg	Winnipeg.
British Columbia—		
British American Chemical Co., Ltd.	431 Seymour St., Vancouver	Vancouver.