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CONTENTS

No. 1. - Social Service

Expanding social services under public administration foretell a broader field for the employment of professionally-trained workers in this class. This fact is borne out by the recent announcement by the Department of National Health and Welfare of the award of 115 scholarships worth over $40,000 to students attending the seven Canadian schools of social work. Records of the Dominion Bureau of Statistics reveal that just under 1,000 graduates in social service have been reported in the past 25 years, about 850 of them being women.

The universities of British Columbia and of Toronto have the largest number of social service scholarship holders with 24 and 23, respectively. In addition, 15 students held scholarships worth $1,770 at the University of Toronto's summer school. The awards at the University of Toronto for full-time students total $6,275, and at the University of British Columbia, $8,100.

Money for the scholarships is drawn from a fund provided by Parliament and divided among the seven schools on the basis of their past enrolment. The appropriation was passed as a means of overcoming the acute shortage of qualified social workers and instructors and of directly protecting Canada's investment in family allowance and veterans' welfare expenditures. The scholarships are granted by the Department of National Health and Welfare on recommendation of the school concerned. Payments are made in two instalments, with the second one contingent on an acceptable academic record in the first term. No scholarship exceeds $500 for a full year.

Six scholarships valued at $1,800 have been awarded at the Maritime School of Social Work, Halifax, and 13 worth $5,800 at the School of Social Work at Laval University, Quebec. In Montreal, 11 awards totalling $5,000 have been made at the School of Social Work of the University of Montreal and 15 worth $6,700 at the McGill School. At the University of Manitoba's School of Social Work, eight scholarships to a value of $3,055 have been awarded.

No. 2. - Asphalt

Asphalt is a natural mineral pitch which has found wide usage as a road surfacing material. Besides its use as a paving material, however, asphalt finds application in the manufacture of paints, varnishes, and cement, as an insulating or water-proofing material and for roofing purposes. Belonging to the bitumens, it is, therefore, allied to natural gas and petroleum.

Though deposits of nearly pure asphalt occur, more often it is mixed with earthy matter, or is distributed through the pores and cavities of rocks such as limestone and sandstone. In the latter case the material is known commercially as bituminous limestone or bituminous sandstone. The origin of asphalt is usually attributed to the decomposition of vegetable matter. In some cases its origin is connected with the distillation of petroleum, a theory which finds support in the fact that certain oils have an asphaltic base.

Asphalt is widely distributed in nature. One of the most remarkable deposits occur at Pitch Lake, Trinidad. The asphalt in this deposit is semi-solid, and firm enough to bear weight, but has a slow motion which closes up cavities made

by excavation. Similar deposits are found in Venezuela, Mexico, and the United States. Among European countries, the most productive are France, Switzerland, Italy, and on the eastern coast of the Adriatic Sea. In early times, asphalt was obtained from the Dead Sea.

No known deposits of natural asphalt occur in Canada, but it is an important by-product of the petroleum refining industry. Records maintained by the Dominion Bureau of Statistics show that 62,910,000 gallons of asphalt were produced in this manner in the Dominion in 1944 as compared with 45,880,000 in the preceding year; the values were $6,419,000 and $3,793,000, respectively.

No. 3. - Nickel

Nickel is a silver-white metal with a brilliant lustre which does not tarnish on exposure to air. It is used largely in coinage, and in the making of alloys, particularly nickel steel, monel metal, nickel silver, nickel bronze, and nickel molybdenum iron, in addition to others. It is used in certain types of storage batteries, as a catalyser for the production of edible oils and of soaps. However, its most common use is for plating other metals to protect them from oxidation.

Canada supplies a large percentage of the world's nickel needs from her famous Sudbury deposits. The span of this Canadian industry stretches over only half a centruy, but the history of nickel goes back to ancient times when primitive metal workers forged from nickel-iron meteorites implements superior to their best production from native ores.

Although occurrence of nickel ore in Canada was reported as early as 1848 and an authentic discovery was recorded in 1856, it was not until the uncovering in 1883 of an important outcropping of supposedly copper ore, in a cut being made for the Canadian Pacific Railway, that the foundation for Canada's nickel industry was laid. During the same period, demonstrations of nickel's important contribution to industry as an alloying element with steel opened a new and almost limitless market for the metal. As a result, Canada forged ahead as a producer, passing New Caledonia soon after the turn of the century.

Nickel production in Canada reached an especially high level during the war years, touching an all-time peak of 288,019,000 pounds in 1943. Reductions have been shown in subsequent years, and in 1946 the estimated figure stands at 190,811,000 pounds, according to the Dominion Bureau of Statistics.

No. 4. - Nickel as an Alloy

Although it had been used in natural alloys in ancient times, nickel, now commonly referred to in chemical laboratories as Ni, was unknown as an element until 1751. The traditional "Heaven-sent" swords of the ancient oriental warriors, probably were made from the nickel and iron which often occur together in metallic meteorites and, if so, owed their reputation for keeness to the toughening effect of nickel in the iron. The miners of Saxony, being less appreciative, regarded nickel as a trouble-maker among their metals. Because the metal they obtained from their copper-like ore was too hard to be hammered into useful articles, they superstitiously called it "Old Nick's Copper". When a Swedish scientist, experimenting with similar ores found in other places, concluded that they all contained a distinct metal hitherto unknown, he named his newly discovered element, "Nickel".

The uses for nickel were limited in those days largely to nickel plating, coinage and nickel silver for silver-plated ware in the Old World. Beautiful boxes and candlesticks were made of an alloy produced by the addition of zinc to the nickel-copper ore in China in early times and brought to Europe in the 17th century by the East India Company. Shortly after the discovery of nickel as an element, similar alloys such as German silver, later known as nickel silver, were produced in Europe. In 1844 electro-plating was introduced into England and articles made of German silver were plated with silver and were not only popular but less expensive than Sheffield plate.

Silver-plated articles today are still shaped from nickel-silver and then electro-plated with silver. Belgium, starting with copper alloy in 1860, pioneered the way for nickel coinage. Switzerland issued pure nickel coins in 1881. One country after another followed suit. By 1939 over 100 countries had coinage containing nickel. Nickel plating had been developed on a commercial basis about 1807. Although deposits had been discovered in Norway, previously the nickel mines opened up in New Caledonia, an island of the South Pacific, about 1877, became the chief source of supply until Canadian nickel succeeded in forcing its way into the limelight and securing the attention of the world.

No. 5. - Asbestos

Asbestos has been mined in Canada since 1878 following its discovery in the Thetford and Coleraine hills in the Eastern Townships of Quebec. Due to its fire-resistant qualities it has found wide usage in industry, the articles containing asbestos fibres that now are being manufactured being almost without number. These include insulating products, roofing materials, packings, brake linings, clutch facings, flame-proof clothing, mill-boards, etc.

Asbestos of commerce consists mostly of the three varieties known as chrysotile, amosite, and crocidolite or blue asbestos, the former being by far the most important and most widely used. The asbestos produced in Canada is practically all of the chrysotile variety and comes almost entirely from the areas of serpentinized rock in the Eastern Townships of Quebec, where the producing centres are Thetford Mines, Black Lake, East Broughton, Vimy Ridge, Asbestos, and St. Remi de Tingwick.

Mine production of asbestos in Canada in 1944 was recorded at about 420,000 tons with a value of $20,620,000, records of the Dominion Bureau of Statistics reveal. During the year, close to 396,000 tons were exported. The balance was retained for further processing in manufacturing industries which produce asbestos goods -- brake linings, boiler and pipe covering, clutch facings, asbestos packings, asbestos gaskets, cloth, yarn, dryer felt, cements -- to the value of $4,761,000.

Few recent figures on world production of asbestos are available, but it is believed that Canada has maintained her position as the principal asbestos-producing country. Other countries producing relatively large quantities of asbestos are Russia, Rhodesia, Union of South Africa, Swaziland, the United States and Cyprus. The world's largest market for asbestos is in the United States.

No. 6. - Aluminum

Aluminum is a white metal with a bluish tinge, and is the lightest of all commercial metals. It may be cast, rolled, or drawn with greater facility than the

majority of metals. It has a capacity for transmitting heat readily, and is a less expensive electric conductor than copper.

The first aluminum plant in Canada was started at Niagara Falls in 1895. Bauxite — a most important ingredient — is not found in commercial quantities in Canada, and has to be imported from British Guiana and the southern states. Plants for the treatment of these ores have been built near large hydro-electric power generating plants in Quebec at Shawinigan Falls, and at Arvida. The plant at Arvida is one of the largest of its kind in the world.

The uses of aluminum are ever increasing. Because of its lightness, strength of the metal, either in its pure form or in its alloys, it is useful for the manufacture of gasoline engines, motor-cars, motor-trucks, aeroplanes, and power boats. The metal may be worked into the shapes required without excessive weight. The all-metal plane is built almost entirely of duralumin, an alloy of aluminum. The chief application of aluminum as an electrical conductor is for overhead transmission lines.

On account of its high resistance to corrosive action, it is used for industrial chemical plants, for storage vessels used in breweries and large dairies. Doors, window frames and sills, roofs, and decorative plaques are made of aluminum. Its ready conductivity of heat and its resistence to corrosion combine to make it particularly suitable for the manufacture of kitchen utensils. Aluminum paint, made from powdered aluminum, maintains its brightness, and is used for street iron work and for factory ceilings and walls. Aluminum foil is fast replacing tin and lead foil in the wrapping of chocolates and cigarettes.

During 1944, the Aluminum Company of Canada Limited produced primary aluminum ingot at each of its five reduction plants located at Arvida, Shawinigan Falls, La Tuque, Isle Maligne, and Beauharnois, all situated in the Province of Quebec. Production of primary intot in 1944 totalled 924,130,000 pounds compared with the all-time high record of 991,499,000 pounds in 1943. The company reported that during the five years ending December 31, 1944, only six per cent of Canadian production was consumed in Canada, while the United Kingdom was the largest buyer, having purchased approximately 55 per cent of production. The United States was second with about 32 per cent of the total. Russia took 4.3 per cent, and Australia 1.2 per cent.

No. 7. - Oil Fields of Alberta

Canada obtains much of the greater part of its domestic output of crude petroleum from the Turner Valley Field in the foothills section of Alberta, and the remainder comes from wells in the plains of Alberta; from the Norman field in the Northwest Territories; from southwestern Ontario; and from the Moncton area in New Brunswick. Canadian production is sufficient to meet only a relatively small part of the requirements and large quantities must be imported.

The year 1942 was the peak for oil production in Alberta, when for the first time in history, the oil fields produced over 10,000,000 barrels. Since then there has been a steady decline in production. During the first half of 1945 the rate of decline was noticeably reduced, due to the encouraging performance of newly-completed wells in the Turner Valley, but the trend changed in the latter part of the year with the result that the output of Turner Valley in 1945 was 7,422,000 barrels, a decrease of about 11 per cent from 1944. Over 90 per cent of Alberta's oil production comes from the Turner Valley.

The situation was brighter in other producing fields of the province in which the total increased from 462,000 barrels in 1944 to 644,000 barrels in 1945, offsetting to some extent the decrease in the Turner Valley. Conrad, Princess, Lloydminster and Vermilion were the principal contributors to this increase.

Alberta, in its bituminous sand deposit at McMurray, has the greatest known oil reserve on the face of the earth. Estimates vary between that of Canadian geologists at 100,000,000,000 tons and that of the United States Bureau of Mines at 250,000,000,000 tons. Overburden covering the outcrop is very light at Bitumount and the product, being soft, lends itself more readily to separation than the harder outcrop in other parts of the reserve.

Production of crude petroleum and natural gasoline in Canada as a whole in 1945 totalled 8,483,000 barrels compared with 10,099,000 in 1944, according to the Dominion Bureau of Statistics. The decline amounted to 16 per cent. There was a further drop in 1946, the Bureau's advance estimate for the year standing at 7,668,000 barrels.

No. 8. - Mineral Production in 1946

Although hampered by a shortage of skilled labour, by strikes, and by a lack of essential equipment, Canada's mining industry continued at a high level of operation in 1946, the value of mineral production decreasing two per cent to $493.8 million as compared with $498.7 million in 1945, according to a preliminary estimate released by the Dominion Bureau of Statistics. Value of the year's output was higher than in any other peace-time year and only 13 per cent below the record of $566.7 million in 1942.

Output of fuels, structural materials and other non-metallic minerals was at record levels in 1946, but the gains in these groups were offset by declines in the more important base metals.

Estimated value of the metals in 1946 is $304.7 million, the lowest since 1936, in spite of higher export prices for base metals. This compares with $317.1 million in 1945 and the peak figure of $395.3 for this group in 1941. Tonnage of copper last year was down 22 per cent from 1945 to 185,543 tons, zinc dropped nine per cent to 235,917 tons, and nickel declined 22 per cent to 95,406 tons, while lead increased slightly to 177,222 tons. Gold production in 1946 totalled 2,807,000 fine ounces at $103 million, a gain of four per cent in quantity, but a decline of six per cent in value, while silver was down slightly in quantity but 75 per cent higher in value at 12,778,218 ounces worth $10.7 million.

Output of structural materials was greater in 1946 than in any other year, with an estimated value of $61.4 million as compared with $48.4 million in 1945, an increase of 27 per cent. Production of cement rose 13 per cent in quantity and 37 per cent in value to 11,415,167 barrels at $19.5 million, clay products advanced 37 per cent in value to $12.2 million, stone 11 per cent to $9.0 million, and sand and gravel 34 per cent to $14.1 million. Lime production was slightly lower at 324,609 tons valued at $6.5 million.

Coal production totalled 17,692,052 tons valued at $74.4 million, representing gains of seven per cent in quantity and 10 per cent in value over 1945. Output of natural gas at 46.9 billion cubic feet worth $11.3 million was down three per cent

in quantity and eight per cent in value. Crude petroleum declined nine per cent in quantity to 7,668,000 barrels, but its value was 10 per cent higher at $14.9 million. Value of the fuel group, including the minor item peat, was $100.7 million as against $93.5 million in 1945.

Other non-metallics rose six per cent to $42.0 million compared with $39.7 million in the preceding year. Asbestos advanced to 547,769 tons from 466,897 tons, gypsum to 1,833,717 tons from 839,781 tons, and peat moss to 87,531 tons from 83,963 tons. Salt, however, declined to 530,250 tons from 673,076 tons in 1945.

No. 9. - Wheat Championship

For the 28th time, a variety of wheat developed by plant breeders of the Experimental Farms Service, Dominion Department of Agriculture, won the annual world wheat championship at the recent International Live-stock Exposition and Grain and Hay Show at Chicago, Illinois, U.S.A. The 1946 winner was Mrs. A. Kelsey of Erickson, B.C., whose sample of Reward wheat topped the list of 127 entries.

The world wheat championship was first established at the International Land Show at New York in 1911, when Dr. Seager Wheeler, of Rosthern, Sask., captured the honour with Marquis wheat, a variety created by the late Sir Charles Saunders, Dominion Cerealist, from 1903 to 1922. From then on Canadian growers continued to win the championship with Marquis every year excepting 1921 and 1924 when Montana farmers were declared winners — but their winning samples were still Marquis!

In 1927 and 1928, a Montana farmer obtained the championship with a Montana variety, but in 1929 Canada resumed her winning streak with Reward, a variety developed by Dominion Experimental Farms plant breeders. With the exception of 1931, when a Canadian won with Durum, the Reward variety has been a consistent winner. And when the championship again became open to competition for the 32nd time with the resumption in 1946 of the Chicago International which had been cancelled since 1941, Canada again emerged the winner.

Behind the idea of wheat championships is recognition of the contribution of cereal breeders to agriculture. Marquis, with its superior yield and its resistance to lodging produced a flour which is the standard of quality for bread wheats. Its ability to combine these qualities with an earlier maturity than that of other wheats of its day, literally made possible the opening of a large part of Western Canada to wheat growing that was believed to be unsuitable. Reward, with its hard plump kernels, matures five to eight days earlier than Marquis and threshes easier.

Canada's 1946 wheat crop is placed at 418.8 million bushels, according to the Bureau's recent estimate. The outturn in Saskatchewan is now estimated at 216 million, in Alberta 137 million, and in Manitoba 63 million.

No. 10.- Oats Championship

Canadian farmers have also been accorded international fame with their oats, capturing the world oats championship in 15 of the 23 International Grain Shows held annually at Chicago. While in 1946, Gordon McArthur, of Stayner, Ont., joined the list of Canadian farmers who have brought the title to Canada in former years, he achieved success with a variety of oats — Beaver — never entered before at the International. Beaver, developed at the Central Experimental Farm, Ottawa, was the

result of years of effort to produce a variety of oats resistant to both stem and leaf rusts. During the 1930's rust had obtained such headway in Eastern Ontario that it had seriously reduced yields of oats. Farmers in the intensive dairy and mixed farming area of Eastern Ontario were gravely concerned.

Then came Beaver from the Experimental Farms Service, source of so many farm improvements. Product of a cross between Vanguard and Erban varieties, it combines moderate resistance to stem rust and some resistance to leaf rust, with high yield of good sized kernels and good strength of straw. It was first distributed to selected farmers in Ontario for seed production in 1944. In 1945 there was a more general distribution of Beaver oats and that year a sample exhibited at the Vankleek Hill Agricultural Fair won the first prize in the open class. Dr. L. H. Newman, Dominion Cerealist points out that the struggle to breed better cereals is never over. New races of rust continue to make their appearance and he and his colleagues are attempting to produce grains resistant to these additional manaces. But pre-occupied though they are with improving grains seeking to give them higher yields and usefulness, and greater resistance to disease and to insects, these scientists are naturally gratified at having their handiwork again win international fame.

Production of oats in Canada in 1946 is estimated at 399.5 million bushels, according to figures released by the Dominion Bureau of Statistics.

No. 11. - Fruit Production

The production of fruit in Canada on a commercial scale is confined to the Provinces of Nova Scotia, New Brunswick, Quebec, Ontario and British Columbia. Fruit production in each of these provinces is concentrated for the most part in fairly well defined sections. In Nova Scotia, for example, the Counties of Annapolis and Kings -- the Annapolis Valley -- and to a lesser extent Hants County are the main fruit-producing areas. In New Brunswick there are two chief centres for fruit growing, the most important being St. John River Valley, which includes the Counties of Queens, Kings, Sunbury and York. The other district is located in Westmorland County adjacent to Nova Scotia.

The fruit areas in Quebec can be roughly divided as follows: the Montreal area, including Montreal and Jesus Islands; the North Shore area including the Counties of l'Assomption, Terrebonne and Two Mountains; the Eastern Townships including Chateauguay, Huntingdon, St. Jean, Missisquoi and Rouville Counties, and the Quebec City district including the Counties of Portneuf, Montmorency, Levis, Bellchasse, L'Islet and Quebec.

In Ontario the fruit-producing area is much more widespread and is located in the counties adjacent to the St. Lawrence River and the Great Lakes, as far as Georgian Bay. The most famous fruit section is, of course, the Niagara district which includes Welland and Lincoln Counties. There are two other well-known sections; the north shore of Lake Ontario and the St. Lawrence including the Counties of Dundas, Grenville, Leeds, Hastings, Prince Edward, Lennox and Addington, Northumberland, Durham and Ontario; and the equally well-known section in the Georgian Bay District, including the Counties of Grey, Bruce and Simcoe.

In British Columbia there are four well-defined areas of fruit production, the most extensive and best known is, of course, the Okanagan Valley. In addition, there are the Fraser Valley, the Kootenay and Arrow Lakes section and Vancouver Island.

Total production of apples in Canada in 1946 has been placed at 16,739,000 bushels, being twice that of 1945, and 20 per cent greater than the 10-year, 1935-44 average. Pear production amounted to 867,000 bushels compared with 600,000 in 1945, plums and prunes, 680,000 compared with 486,000; peaches 2,111,000 bushels compared with 1,566,000; cherries 267,000 compared with 237,000; strawberries 16,001,000 quarts compared with 16,726,000; raspberries, 12,423,000 quarts against 12,548,000, and grapes, 66,216,000 pounds against 66,012,000.

No. 12. - Manufacturing in Canada

With a wealth of raw materials to supply her factories, and abundant supplies of electric power at her disposal, Canada has become a highly industrialized country. Within our borders lie expansive timberlands, mines of metal and of coal, fertile agricultural lands, and streams, rivers, and thousands of miles of coastal waters that yield abundant harvest in food fish. These are the sources that provide the raw materials that keep the wheels of our factories rolling -- the 28,000 factories which in 1943 gave employment to no less than one-tenth of our entire population, and produced goods with a selling value at the factory of $8,733,000,000.

The manufacturing industries of Canada are concentrated largely in the provinces of Ontario and Quebec. Ontario is the dominant manufacturing province. In 1943 with only 38 per cent of the total number of establishments reporting, plants in Ontario furnished employment to 46 per cent of the number of persons engaged in manufacturing and produced over 48 per cent of the entire output. Quebec ranks second with 33 per cent of the output, while British Columbia with seven per cent of the output ranks third.

A prominent feature of Canadian manufacturing development in recent years has been the growth of non-ferrous metal smelting and refining. This industry based on mineral resources has taken its place among the leading manufactures, along with the industries based upon forest, agricultural and live stock resources. The pulp and paper industry, although of comparatively recent development in Canadian industry, had by 1933 displaced flour milling as Canada's most important manufacturing industry. In spite of recent vicissitudes it held that position up to 1935, when it was displaced by the non-ferrous metal smelting and refining industry.

The incidence of the war resulted in a rearrangement in the rank of many industries. Industries producing supplies and equipment for the armed forces naturally advanced while those industries producing for the domestic consumers' market declined in importance. To supply the raw materials needed by the industries engaged principally in war production, it became necessary in many cases to restrict or prohibit the manufacture of many products such as pleasure cars, radios, washing machines, electrical equipment, household appliances, agricultural implements, etc. Many industries were thus forced to change over to war-time production. These changes, however, did not affect the value of the output of industries, and consequently their importance as producers of manufactured goods did not alter drastically.

In 1943 the following were the ten leading manufacturing industries of Canada in order of their importance as measured by the gross value of production: non-ferrous metal smelting and refining, miscellaneous chemical products, slaughtering and meat packing, shipbuilding and repairs, miscellaneous iron and steel products, automobiles, pulp and paper, aircraft, electrical apparatus and supplies, and primary iron and steel.

No. 13. - Manufactures of the Maritime Provinces

In Prince Edward Island the predominant agricultural and fishery resources make butter and cheese, fish-curing and -packing, and slaughtering and meat packing the leading manufactures of the Province. Nova Scotia is renowned for its coal mines and its fisheries, as well as extensive forests and agricultural lands and is favoured with easy access by sea to the high-grade iron-ore supply of Newfoundland. On these resources are based the leading manufactures of primary iron and steel, shipbuilding and repairs, fish-curing and -packing, sawmills, pulp and paper, and butter and cheese. In addition to this, important petroleum refineries and coke and gas plants add to the diversification of manufacturing in the Province. The forests of New Brunswick give a leading place to its pulp and paper and sawmilling industries, although fish and agricultural products add to the varied output. Sugar refining and the production of railway rolling-stock also form an important branch of manufacturing production.

In common with other sections of the Dominion, the manufacturing industries of the Maritime Provinces grew at a rapid rate during the war years. In 1939, there were 2,108 plants or establishments comprising the industry, but by the end of 1943, there were 2,370 in operation. Products were turned out in 1939 to the value of $152,741,404 and with successive annual advances, the value rose to $338,975,413 by the close of 1943. Employees in the pre-war year numbered 33,216, increasing to 62,222 in 1943, and payments in the form of salaries and wages rose from $30,928,792 to $86,955,005.

Manufacturing industries of Nova Scotia produced goods with a factory selling value in 1943 of $188,463,000. Manufacturing in this province is to a considerable extent dominated by the steel and forest products industries, although there is also a large sugar and petroleum refinery. The forest products industries dominate the manufacturing field in New Brunswick; the gross value of all manufactured products in 1943 was $140,954,879. In Prince Edward Island goods produced by the manufacturing industries in 1943 were valued at $9,577,446.

Saint John with an output valued at $41,988,274 was the leading manufacturing city in the Maritimes in 1943, followed by Halifax with $35,348,278, Sydney $29,482,649, Moncton $14,262,784, Trenton $12,230,900, and Amherst $11,462,414.

No. 14. - Manufactures of Quebec

Among the assets of Quebec that have tended to develop manufacturing industries in the Province may be mentioned its natural resources of forests, water power, minerals, and agricultural land, and also its geographic position astride the St. Lawrence estuary permitting sea-going shipping to reach its main centres of population. Added to these natural advantages, there is a stable and industrious population, which is an important factor in industries such as textiles, clothing, boots and shoes, etc., where a large labour force is required.

The most notable change among the manufactures of Quebec in recent years has been the development of the non-ferrous metal smelting industry. This industry first appeared among the forty leading industries of the Province in nineteenth place in 1927. It has been in second place since 1935, with the exception of 1942 when it was in first place.

Quebec, with about 33 per cent of the Dominion output, is the second largest manufacturing province. The production of pulp and paper is normally the dominant

industry, but in 1943 it was displaced by the miscellaneous chemical products industry for the premier position. In addition to supplying about six per cent of the gross value of Quebec manufactures, the pulp and paper industry furnishes about 48 per cent of the Dominion total for this industry. The value of tobacco products forms approximately 88 per cent, cotton yarn 75 per cent, women's factory clothing 68 per cent, leather boots and shoes 65 per cent, men's factory clothing 57 per cent, railway rolling-stock 54 per cent, and non-ferrous metal smelting and refining 51 per cent of the Dominion totals of these products. The Province of Quebec is thus an outstanding manufacturing province rather on account of her large individual industries than because of the diversification of her industrial activities.

The gross value of products manufactured by the 9,372 establishments which comprise the manufacturing industries of Quebec reached an all-time peak in 1943, totalling $2,852,192,000, according to figures compiled by the Dominion Bureau of Statistics. This was an impressive gain over 1939, when the 8,373 recorded establishments turned out goods to the value of $1,045,758,000. The 437,247 persons on the payrolls in 1943 received a total of $658,324,000 in the form of salaries and wages; in 1939, 220,321 persons were paid a total of $223,758,000 for services rendered.

No. 15. - Manufactures of Ontario

The gross value of the manufactured products of Ontario in 1943 represented about 48 per cent of the total for the whole Dominion, while that of Quebec amounted to about 33 per cent. This premier position in manufacturing has been fairly uniformly maintained by Ontario, as the following percentages show: 1926, 52 per cent; 1918, 53 per cent; 1910, 50 per cent; 1900, 50 per cent; 1890, 51 per cent; and 1880, 51 per cent. In spite of the rapid industrial development in recent years in other provinces, such as Quebec, British Columbia and Manitoba, Ontario is maintaining a manufacturing production roughly equal to that of the remainder of the Dominion.

The geographic position of Ontario on the Great Lakes waterway system, by means of which the iron ore of Minnesota and the coal of Pennsylvania are readily accessible; the wide range of natural resources of forest, minerals, water power, and agriculture; a large population and excellent water and rail transportation facilities to other parts of the country, have all encouraged industrial development. Other factors have been, proximity to one of the most densely populated sections of the United States and the establishment within the Province of branch factories of United States industries, as in automobile manufacturing.

Industries producing capital or durable goods, which constitute an important part in the manufactures of Ontario, were particularly hard hit during the early years of the depression preceding the war. Thus, production was disproportionately curtailed in such important industries as automobiles, electric equipment, machinery, agricultural implements, primary iron and steel, etc. This resulted in a lowering of the manufacturing production of the whole Province relative to that of other provinces less affected by these influences. With the recovery since 1933 and the expansion in production resulting from the war these industries in general have made a good recovery, and Ontario, which accounted for 49 per cent of the gross value of all products manufactured in the Dominion in 1933, had by 1942 increased the relative value to 50.5 per cent. In 1943 the percentage dropped again to 48.3 indicating a relatively greater expansion of war production in other provinces.

Ontario also has the greatest diversification of manufacturing production of any province. Outstanding among the industries in which this province is pre-eminent are those of automobiles, agricultural implements and starch factories which are carried on practically in this province alone. Other important industries in which Ontario leads, with the percentage which the production of each bears to that of the Dominion total, in 1943, are as follows: leather tanneries, 88 per cent; rubber goods, 77; electrical apparatus and supplies, 69; primary steel and iron, 71; electrical apparatus and supplies, 69; fruit and vegetable preparations, 62; castings, iron, 61; flour and feed mills, 58; furniture, 57; hosiery and knitted goods, 56 per cent.

The growth of the manufacturing industries during the war years was spectacular. In 1939, there were 9,824 firms comprising the industry, providing employment for 318,871 persons, producing goods with a factory value of $1,745,675,000. By 1943 the number of firms had increased to 10,587, the payroll had been increased to 570,017 persons, and the gross value of products had risen to $4,211,101,063.

No. 16. - Manufactures of the Prairie Provinces

The leading manufacturing industries of the Prairie Provinces are those based on agricultural resources — the grain-growing, cattle-raising, and dairying areas. Next in importance, generally, are industries providing for the more necessary needs of the resident population, such as the baking of bread, printing and publishing, etc. The extensive railway services require large shops for the maintenance of rolling-stock, especially in the Winnipeg area. The widespread use of motor-vehicles and power machinery on farms has given rise to petroleum refineries in each province. The greatly increased production of crude petroleum in Alberta seems likely to lead to further development of the refining industry. Manitoba, as the early commercial centre of the Prairies, has had a greater industrial development than either of the other provinces. Its natural resources of accessible water power, forest, and, more recently, minerals, have given rise to quite a diversification of industrial production.

Considering the three provinces as an economic group, slaughtering and meat packing had the largest gross production in 1943, amounting to $213,029,871 followed by flour and feed mills $61,866,161, butter and cheese $55,722,185, petroleum products $39,919,567, and railway rolling-stock, $21,559,745. These five industries accounted for 60 per cent of the total production of the Prairie Provinces. Other leading industries, were: bread and other bakery products, men's factory clothing, miscellaneous chemical products, breweries, sawmills, etc.

Under the impetus of war production, the manufacturing industries of the Prairie Provinces continued to advance to new high levels in 1943, the year's value of products amounting to $668,150,000 compared with $557,914,000 in 1942, and $282,418,000 in 1939. There were 3,354 plants in 1943, employing 69,299 persons with an aggregate payroll of $99,782,060.

Manitoba, the fourth largest manufacturing province of the Dominion, produced goods with a factory selling value of $304,868,000. Alberta was in fifth position in relation to the standing of other provinces with goods manufactured to the value of $211,159,000. Saskatchewan was in seventh place, following Nova Scotia with a total of $152,123,000.

The city of Winnipeg with an output valued at $174,523,234 is the most important manufacturing centre of the Prairie Provinces, followed by Edmonton at $82,896,502, St. Boniface next at $73,104,799, and Calgary $70,849,587. Other important manufacturing cities include Regina, Moose Jaw, Saskatoon, and Transcona.

No. 17. - Manufactures of British Columbia

British Columbia in 1943, was again the third most important manufacturing province of the Dominion. Normally its rich forests give the wood industries a preeminence in the Province. Due to the exigencies of the War which resulted in the establishment of a huge shipbuilding industry on the Pacific Coast, the iron and its products group displaced wood and paper as the dominant factor in British Columbia manufacturing production. As a result, the shipbuilding industry with a gross value of production of $155,536,396 contributed 24 per cent of the total output of the Province. This industry was sixth place in 1940 when the output was valued at $9,943,-941. It furnished employment to 31,238 persons or 30.6 per cent of the total number engaged in manufacturing in 1943.

Emphasizing the importance of the forests in the industrial life of the Province, the sawmilling industry ranked second with a gross value of production of $87,070,000, and the pulp and paper industry fourth with $28,882,000. Third in importance was fish-curing and packing, based principally on the estuarial salmon fisheries. British Columbia accounted for 50 per cent of the total production of this industry in Canada. Other important industries: slaughtering and meat packing, petroleum products, planing mills, fruit and vegetable preparations, sheet metal products, etc. The varied resources of the Province and its position on the Pacific Coast have resulted in a wide diversification of its manufactures.

Manufacturing production in British Columbia, which had been making steady progress during pre-war years, rose at a rapid rate during the years of war, rising from $247,949,000 in 1939 to $652,046,000 in 1943. The number of plants increased from 1,710 to 1,961, employees from 42,554 to 102,221, and payrolls from $53,882,000 to $185,712,000.

No. 18. - Population Growth - 1

Although Canada is the biggest country in the Americas, yet, due to her topography and surface characteristics, she is not capable of supporting an over-all population as dense as her size would imply. Certain areas such as the St. Lawrence Valley, parts of the Maritimes and the coastal plains of the Pacific are exceedingly fertile and situated in latitudes that invite a vigorous population growth, but, by and large, these areas are limited in extent and widely separated from one another. Vast areas are suited only to the growing of timber or are economically valuable as potential sources of mineral wealth. In either case, the permanent settlement in such areas will be of very limited proportions.

When Canada's first census was taken in 1666 to measure the advancement made by the colony since the founding of Quebec 58 years earlier, it was found that there were 3,215 inhabitants. About one hundred years later, that population, settled along the shores of the St. Lawrence River with its western outpost at Montreal, had increased to about 70,000; what is now the Maritime Provinces had another 20,000. The coming of the United Empire Loyalists and their settlement in the Eastern Townships and along the Upper St. Lawrence, Lake Ontario and the Niagara Peninsula in the last quarter of the eighteenth century, opened up new areas and Canada began the nineteenth century with a population of probably 300,000.

The year 1851 marks the beginning of the regular decennial census, so that there is a regular measure of population growth in Canada over the past 90 years. The 'fifties saw a very rapid development, especially in Ontario, and the 'sixties showed only less substantial gains. In the years following Confederation, from 1871 to 1881, there was a spurt, but the population of Canada as a whole showed a very significant drop in its rate of increase during the years from 1891 to 1900. The last half of the nineteenth century was characterized by large numbers of immigrant arrivals, by a large outward movement of native population from the more thickly settled parts of Quebec and the Maritimes to other parts of the country where the population was more thinly distributed.

No. 19. - Population Growth -- 2

It is within the first decade of the present century that the most spectacular expansion of the population of Canada has taken place. The outstanding feature was, of course, the opening to settlement of the West. The unorganized southern stretch of the Northwest Territories, ceded to the Dominion soon after Confederation, had been tapped and traversed by the Canadian Pacific Railway between 1875 and 1885. But, though the western population had roughly doubled in each of the decades ended 1881, 1891 and 1901, it was only with the discovery of the wheat-growing potentialities of the prairies and the launching of a large-scale immigration movement after 1900 that western settlement became a factor of first importance.

In the decade 1901-11 immigration exceeded 1,800,000 and, though at least a third of these were lost to Canada, it formed the chief factor in the gain of 34 p.c. which the total population registered in that period and which was larger than the relative growth of any other country during the same period. The movement was continued in the first three years of the second decade of the century after which a recession set in to which the outbreak of war gave a new and wholly unexpected turn. Nevertheless, Canada's relative gain for the decade was again among the largest in the world.

After the war of 1914-18, immigration never again reached anything like its former levels and during the depression years of the 1930's it was still further restricted by Government regulations as well as by economic necessity. The population increase in the decade 1921-31 amounted to 18.1 p.c. and in the decade 1931-41 to 10.9 p.c. During the latest decade, and even to some extent in the previous one, the trend of growth has come back from the west to the east.

The trend towards urban life in Canada is very striking. Early in the second half of the nineteenth century signs of an increase in the small urban proportion were beginning to be seen, and with the expansion of manufacturing industries and the increasing ease of transportation and communication, that proportion grew continuously. In 1871, 19.6 p.c. of the population were urban dwellers, in 1901 37.5 p.c., in 1921 49.5 p.c. and in 1941 54.3 p.c. The great advance of employment during the war years in the larger cities of Canada is evidence of the drain from country to city that has taken place since the 1941 census.

No. 20. - Our Indian Population

Indian affairs are administered by the Indian Affairs Branch of the Department of Mines and Resources under the authority of the Indian Act. Reserves have been set aside for the various bands of Indians in the Dominion and the Indians

located thereon are under the supervision of the local agents of the Branch. The activities of the Branch, on behalf of the Indians, include the control of Indian education, the care of health, the development of agriculture and other pursuits among them, the administration of their funds and legal transactions, and the general supervision of their welfare.

The Indian Act provides for enfranchisement of Indians. In the older provinces, where the Indians have been longer in contact with civilization, many are becoming enfranchised. Great discretion, however, is exercised by the Government in dealing with this problem as Indians who become enfranchised lose the special protection of the Indian Act.

According to the Dominion Census of 1941, the total number of Indians was 118,316 — 60,182 males and 58,134 females -- made up by provinces as follows: Prince Edward Island, 258; Nova Scotia, 2,063; New Brunswick, 1,939; Quebec, 11,863; Ontario, 30,336; Manitoba, 15,473; Saskatchewan, 13,384; Alberta, 12,565; British Columbia, 24,875; Yukon, 1,508; and the Northwest Territories, 4,052.

During the Second World War, the Indians of Canada served well, as they had done during the previous war. From 1939, enlistments in the Armed Forces numbered 2,576, 45 p.c. of whom were from Ontario.

No. 21. - Eskimos of Canada's Northland

The Eskimo in Canada are found principally north of the tree-line on the northern fringe of the mainland and around the coasts of many of the islands in the Arctic Archipelago and in Hudson Bay. Most of the Eskimo are essentially coastal dwellers, obtaining much of their food and clothing from the mammals of the sea. However, there are bands of Eskimo living in the interior of Keewatin District on the west side of Hudson Bay who are inland people, and who subsist chiefly on caribou.

The administrative care of Eskimo devolves upon the Lands, Parks and Forests Branch of the Department of Mines and Resources, which, by regulative measures, conserves the natural resources necessary to their subsistence. Contact with the Eskimo is maintained through permanent stations at a number of which medical officers are located — in the eastern, central, and western Arctic; by patrols of the Royal Canadian Mounted Police; by radio-communication; by means of the annual Canadian Eastern Arctic Patrol by steamship; and by auxiliary motor vessels.

The official returns of the Dominion Census of 1941 established the Eskimo population at 7,392, of which 5,404 were located in the Northwest Territories; 1,965 in Quebec; 4 in Nova Scotia; 3 in Ontario; 1 in Manitoba; 4 in Saskatchewan; 4 in Alberta; and 7 in British Columbia. In addition, a late return reported 247 for the Igloolik region of Northwest Territories, raising the total to 7,639.

No. 22. - Feeding the Dog

Whether of 'lap lineage', show type, hunter, or just 'plain pooch' the dog, through his canine personality, loyalty and outright usefulness has earned a place secure in the homes of many thousands of Canadians. What would the son and heir do without the constant companionship of his dog, or for that matter, how would the head-of-the-house get along on his annual hunting trip without his favourite hound? Farmers too, would be at a loss without the assistance of a good cattle dog, and

despite the greatly expanded use of the airplane, dog teams are still widely used in the north country for transportation purposes.

Much time has been devoted to the care and feeding of dogs. It is not so long ago that the dog's diet consisted chiefly of scraps and pieces of food left over at mealtime, supplemented perhaps by the bone from Sunday's roast. This may be true to some extent today, but during the past few years, commercial production of foods for domestic pets has increased at a remarkable rate. This would suggest that many owners of dogs now find it more convenient to serve the family pet out of a can, not forgetting, of course, the usual quota of dog biscuits.

Dogs, like humans, have likes, dislikes, fads and fancies. Some dogs, for instance, are very stylish individuals, and some are not so stylish. On cold days it is not uncommon to see them sport knitted coats of wool or other fabric especially made for them by the mistress. Of course it is taken for granted that the well-dressed dog must wear a collar, a demand which in itself has given rise to an industry of sizeable proportions. And when the household pet is taken for a walk on Sunday afternoon he must be tethered to a chain. Some dogs have been provided with houses for their special use, even though it may have been constructed or remodeled on various occasions by the household's budding carpenters. Then there is the inevitable dog tax which must be appended to the collar. So, all in all, this household pet really makes the wheels of industry turn in no small way.

Getting back to the matter of diet, here are some statistical facts about the preparation of dog foods. In 1936 Canadian manufacturers produced something in the neighbourhood of 2,400,000 pounds of these foods; four years later is was four times that figure, and by 1941 it had reached 18,000,000 pounds. During the next two years, however, due to restrictions placed on the canned varieties, there was an overall decline in output of 9,994,000 pounds.

No. 23. - Felt

Felt is a word which is derived from the Dutch "vilt", meaning a fabric made from wool, or wool and hair, of fur, without weaving, by rolling, beating and pressure. Legend ascribes the invention of felt to Saint Clement, who found that carded wool placed in his shoes to protect his feet, worked into a felt by pressure and moisture; but it has a much earlier origin, apparently being known in Homer's time. It was probably introduced into Europe at the time of the Crusades.

The first mechanical process for the manufacture of felt is said to have been developed by an American about 1820. Various refinements of the process have since been added, but the main principle remains the same. The wool is carded into laps of the length and breadth of the web to be made. Layers of these are placed one above another until the required thickness is secured, the outer layers being of finer texture than the interior. The whole is then passed between rollers partly immersed in water. In the machinery by which felt fabrics are produced, rollers with a rubbing and oscillating movement have generally an important action. The materials commonly used for felt hats are the furs of the rabbit and other animals and the wool of sheep.

Coarse varieties of felt are used for covering steam boilers and cylinders, steam pipes, and also as non-conductors. Asphalted felt is a coarse felt saturated with pitch, asphalt or coal tar, and used for roofing materials, and a superior kind used for lining damp walls. Another kind is asbestos felt. However, the principal

products are felt cloths, boot and shoe linings, upholstery felts, trimmings and lining felt, felt shirts and felts for paper manufacture.

Figures made available by the Dominion Bureau of Statistics show that there are large quantities of felt manufactured in Canada every year, preliminary valuation of the 1944 output being placed at $7,250,000.

No. 24. - Household Appliances

Canadian housewives who have waited patiently for the arrival of two very important domestic appliances -- washing machines and electric refrigerators -- can take heart from the fact that Canadian factories now are producing both of these items at a faster rate than in 1939. Further, production reached a higher level in October than in any month this year, according to figures released by the Dominion Bureau of Statistics.

No fewer than 11,433 domestic washing machines were turned out by Canadian manufacturing plants in October, or about 2,000 more than in September. The closest approach to this figure was shown for May when 11,377 units were made; in subsequent months the rate of output was lower, due no doubt to strikes in strategic industries, until October. October output included 9,640 electric models, 1,235 gasoline type and 558 hand-operated models. Production of all types during the first ten months of this year totalled 99,404 units.

Continuing the recovery from the low level of the mid-summer months, production of electric refrigerators showed a further increase in October when 5,920 units were made -- a high figure for the year. In September, 5,101 units were produced, and 3,633 in August. Nearest approach to the October output was posted in June with 5,670 units. Production for the ten months ended October aggregated 44,307 units.

Fewer domestic-type washers were imported in October -- 1,911 compared with 2,569 in September, while exports fell from 1,617 to 531. There were 1,839 electric refrigerators, domestic or store, imported during the month compared with 1,105 in September, while exports of this type rose from nil to 326.

No. 25. - Wood Pulp

Wood pulp is wood that is reduced to a mass of pulp and mixed with water -- the fundamental process in making paper from wood. There are three kinds of wood pulp -- groundwood, soda-process wood and sulphite-process wood; the latter two are not wood in either physical or chemical properties, but cellulose, similar to cotton fibre in appearance and nature. The name wood pulp is generally understood as designating mechanically ground pulp as distinguished from chemical pulp or cellulose.

Groundwood was developed in Germany in 1847 by Keller and perfected and patented by Henry Voelter, who constructed a machine which is in general use today. Pagenstrecher, of New York, bought and controlled the Voelter patent and introduced this industry in the United States in 1867 and 1868.

The introduction of this new process marked a new era in the manufacture of paper. It furnished a cheap and abundant raw material, simplified the former complicated methods of preparing stock for paper machines, and improved the quality of the

paper made, besides cheapening the cost of production. Without wood pulp it would be difficult to supply the demand for paper at the present rate of usage.

The introduction of ground wood pulp printing paper in rolls completely revolutionized modern methods of journalism. The absorbent quality of this wood pulp paper made the modern rapid printing practicable, eliminating the allowance for drying and limiting the printing speed only by the mechanical possibilities of the press, which were in no way dependent, as in the case of rag paper, upon the drying of each sheet. Such an improvement caused immediate changes in the making and printing of the newspaper, and as soon as the results of this new process became commercially practicable, the entire system of news gathering changed as well.

The introduction of this new process was made under many difficulties, the greatest of which was to overcome the prejudice of paper-makers, who believed that rags were the only suitable substance for paper making. At present every newspaper is composed largely of ground wood pulp, with a small percentage of chemical fibre. Many book, wrapping and other papers also contain a large percentage of ground wood pulp.

Wood pulp production has been maintained at a high level during the past few years, amounting to 5,271,000 tons in 1944. Over 58 per cent was ground wood pulp, and over 19 per cent unbleached sulphite fibre, these two being the principal components of newsprint paper. Bleached sulphite, bleached and unbleached sulphate, soda fibre and groundwood and chemical screenings made up the remainder.

No. 26. - Abalone — Edible Mollusk

Landed only from British Columbia shore waters, so far as Canadian fishing is concerned, the abalone is an edible mollusk which has a shell on the upper surface of its body but no shell at all on the under side. In technical terms, then, it is a univalve, or one-shelled mollusk, as contrasted with a bivalve, such as the oyster or the clam, which has its shell in two sections or "valves", one covering either side of the body. When stationary, though it is able to move about, the abalone clings to some piece of rock by means of its soft under side or, more explicitly, by means of the suction power of its relatively large "foot".

Though there are several different species of abalone, each with its own particular scientific name, only one is taken in British Columbia commercial fishing, states the Department of Fisheries. Landings have so far been small, but perhaps might have been increased if the fishing industry had not been more concerned with fisheries of greater importance. The range of this particular species extends from Alaska southward to Monterey, California, or thereabouts. At least four or five other species also occur on various parts of the Pacific coast between Alaska and Mexico. On the other side of the world, in the Channel Islands and on the coasts of France and perhaps some other sections of continental Europe, another member of the abalone group is also taken for food purposes.

Men fishing for abalone find them at extreme low-tide level, and below it. Sometimes the catch is taken simply by picking the abalone off the rocks by hand, sometimes a long knife is thrust down into the water and slipped between one of the abalone and the rock to which it is clinging. Until a few years ago some of the landings were made by divers working beyond low-tide level. More recently, however, that method has not been followed on the Canadian coast although commonly employed in California.

In British Columbia the abalone is found on the west coast of Vancouver Island, along the Queen Charlotte Island shores, and at some places on the mainland coast from Johnstone Strait northward. Quite possibly it occurs elsewhere. Its provincial whereabouts have not yet been the subject of complete study. Most of the British Columbia catch goes into cans, although across the border fresh abalone "steaks" are quite familiar. As indicated, the British Columbia catch is small. In one recent year, for instance, it was about 20,000 pounds, in another less than that.

No. 27. - Canned Foods

Let us "listen in" as a typical Canadian housewife orders a few groceries from the neighborhood merchant -- "and I would like three tins of soup -- tomato, celery and asparagus -- a tin of peas, and a can of corn. Let me see; oh yes! And three tins of tomato juice, and a bottle of pickles. That will be all, thank you." Quite commonplace isn't it? But such a conversation could not conceivably have taken place in the early days of the present century, because such a wide variety of canned foods just wasn't available then. Canada's large canning industry as we know it now was only in its infancy.

Canneries of fruits and vegetables appeared on the Canadian scene at a late date as compared with fish canneries, due to several factors. It was necessary, for example, for the pressure cooker and an improved tin can to be developed before large-scale commercial production could become feasible. Also of importance, in the sense of having a delaying action, was the rural nature of life in Canada, with very considerable quantities of fruits and vegetables being preserved in the home. There was, in addition, a widespread fear of canned foods which had to be overcome. With the advent of improvements in manufacturing techniques and the increase in urban populations, however, commercial canning expanded rapidly.

The canning industry has brought about a great change in the relation of foods to seasons. Fruits and vegetables of many kinds are obtainable at all times of the year, not always with all the flavour of the freshly gathered products, but with much of their original freshness and flavour. The producers in the country are provided with an enormously extended market for their products and the consumers in both city and country with wholesome food in great variety.

Figures available at the Dominion Bureau of Statistics illustrate the remarkable development of the Canadian canning industry since the start of the present century. Commercial production in 1900 did not exceed $8,250,000, but by 1930 it had increased to more than $55,000,000. In 1933 the value of production dropped to $33,000,000, and rose again to $69,500,000 in 1939. The war gave a great impetus to the industry, and to meet the greatly increased demand for canned foods of all kinds, production programs were expanded with the result that the value of canned foods in 1944 totalled about $146,000,000.

No. 28. - Canada's International Investment Position

Canada has traditionally been one of the prominent debtor nations. Liabilities to other countries in the form of external capital invested in Canada have exceeded Canadian owned assets abroad by very substantial amounts. Although the balance of Canadian indebtedness to other countries was materially reduced during the war, Canada was still a debtor nation at the close of the war; gross liabilities to investors in other countries being close to $7½ billion and gross external assets

amounting to about $3¾ billion when Canada's liquid reserves in United States dollars and gold and Canadian Government credits to other countries are added to privately owned Canadian investments abroad. The 1945 figure compares with a net external debt of over $5 billion at the end of 1939 and more than $6 billion in 1930.

Generally reflecting this debtor position, payments by Canada to other countries in the form of dividends and interest on bonds and debentures exceeded receipts of income from abroad by $177 million in 1945 as compared with $249 million in 1939 and $289 million in 1930.

With the reduction in net indebtedness during the war, there occurred some marked changes in the character and composition of Canada's international liabilities and assets and in the geographical pattern of the position. Estimated total value of British and foreign investments in Canada was $7,095 million at the end of 1945, close to the total of $6,913 million in 1939, but investments held in the United States had risen to an estimated $4,982 million in 1945 — about 70 per cent of the total — as compared with $4,151 million six years earlier, and British-owned investments had fallen to $1,776 million from $2,476 million. At the same time, holdings of United States securities by Canadians declined, while there was a large increase in Canadian official liquid reserves in United States dollars and gold.

As a result of these changes, the balance of Canadian indebtedness to the United States remained close to $3 billion, including gold and other liquid assets in the United States in the calculation, while the balance of indebtedness to the United Kingdom along with some investments held there for other countries was reduced to approximately $1 billion (excluding government indebtedness settled in the Settlement of War Claims of March, 1946, between Canada and the United Kingdom). At the same time, the value of Canadian assets in countries other than the United Kingdom and the United States, including export credits which had been disbursed by the end of 1945, exceeded by a considerable amount the identifiable investments in Canada owned by these countries.

There has been also a striking change in the composition of Canada's international assets. At the beginning of the war, privately owned assets abroad in the form of foreign securities and properties owned by Canadian companies and individuals constituted most of the total value of such assets. At the end of 1945 a major part of these assets was owned by the Canadian Government in the form of cash balances, gold and loans to other governments, the Canadian dollar value of these being $1,279 million, $388 million and $707 million, respectively. Direct investments of Canadian companies had a value of about $720 million and portfolio investments of Canadian individuals and corporations an estimated value of $621 million.

In the case of Canada's liabilities abroad, while a substantial portion is represented by non-resident holdings of the bonds of Canadian governments, as well as railway and corporation issues, there is no inter-governmental indebtedness.

No. 29. - Tourist Expenditures

Tourist travel represents in economic terms the disposition of national assets in which Canada is particularly rich — scenic beauty, invigorating climate, opportunities for summer and winter sports of all kinds, religious shrines and places of historical interest — and for the exploitation of which large capital expenditures have been made on hotel accommodation, improved highways, national parks and other attractions.

In 1946 — the first full year after the complete surrender of Germany and Japan — tourists from abroad expended in Canada an estimated record total of $212,-000,000, a gain of nearly $46,000,000 over the preceding year. The total for 1946 exceeded that for 1929 — the previous high record — by approximately seven per cent, when overseas travel to Canada was in much greater volume.

Canadian tourist expenditures abroad during 1946 may well have exceeded $127,000,000, so that the net currency gain or credit to Canada on international travel account, at about $85,000,000, registered only a minor advance from the revised net credit of $81,000,000 in 1945, when total Canadian tourist expenditures abroad amounted to a revised $84,500,000.

Of the $212,000,000 estimated to have been spent by foreign countries in Canada during 1946, approximately $207,000,000 is credited to travellers from the United States, with the balance of $5,000,000 accruing from tourists from Newfoundland and other overseas countries.

Overseas travel to Canada is still limited by shipping accommodation, currency restrictions on travel and other economic factors, but there has been an increase in the number of visitors from the United Kingdom compared with the war years. Immigration records for 1946 indicate that some 55 different countries were represented among the tourist arrivals from overseas at Canadian ocean ports and via United States ports enroute to Canada.

The number of automobiles entering Canada on tourist permits established a new record during 1946, totalling 1,492,000, an increase of 73.5 per cent over 1945. Reflecting the freer use of automobiles, the net number of tourists entering Canada by train declined 11 per cent during the year to 715,000; this total, however, was 84 per cent higher than in 1939. Tourist entries by long-distance bus are estimated at 310,000, more than double the 1941 traffic.

Tourists arriving in Canada by air numbered over 100,000 in 1946, nearly twice the preceding year's total and far exceeding all pre-war years. Tourist travel by boat suffered drastic curtailment during the war years, particularly along the eastern approaches, but 1946 entries, estimated at over 340,000, were well in excess of pre-war levels, with notable gains on the West coast and on inland lakes and rivers.

No. 30. - Honey

Beekeeping on a commercial scale really had its start in Canada during the decade following Confederation. In 1895, an apiary was established at the Central Experimental Farm in Ottawa. Later, apiaries were formed throughout the Dominion, and extensive research was carried out in wintering methods, swarming control, and diseases. Queen bees were imported from Italy, Austria, and Switzerland, and the different breeds studied.

Recent years have witnessed a remarkable expansion in the Canadian beekeeping industry. A survey conducted by the Dominion Bureau of Statistics, in co-operation with the Dominion and Provincial Departments of Agriculture, shows that there were no fewer than 45,400 beekeepers in the Dominion as a whole in 1946, compared with 43,300 in 1945, and an average of 26,900 during the pre-war years, 1935-39. There has been a corresponding rise in the number of colonies — 548,100 in 1946, compared with 522,500 in 1945, and 382,800, on the average, in the five pre-war years.

Canada's honey crop last year was not up to the average, in fact it was the smallest since 1929. Estimate for the year has been placed at 23,975,000 pounds, or about 27 per cent lower than in 1945. Alberta, British Columbia and New Brunswick were the only provinces to record increases. The small crop in Eastern Canada was the result of very dry weather during July and August, while the drop in Saskatchewan was due to heavy frosts in July which reduced the flow of nectar from the alfalfa. Average prices were two cents higher at 18 cents per pound, but the estimated value of the crop, at $4,315,000, was 21 per cent lower than in 1945.
