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# A FACT A DAY ABOUT CANADA

FROM THE

## DOMINION BUREAU OF STATISTICS

TWELFTH SERIES

1946

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## No. 32. -- Households and Families

The number of buildings used for habitation purposes at the date of the 1941 Census was 2,181,564, or one for every five of Canada's population, according to final figures released by the Dominion Bureau of Statistics. Averages ranged from one for every eight of population in Quebec, to one building used for habitation for every four persons in British Columbia. On the basis of number of dwellings, however, the range diminishes to between one dwelling for roughly every five persons in the Maritimes and Quebec, and one for every four persons in Ontario, the Prairie Provinces and British Columbia. Such differences in the number of building and dwelling units in relation to population are largely determined by the variable factors to type of dwelling, tenure, size of household and families, type of locality, etc.

Dwellings occupied by owners constituted 55 per cent of all dwellings in Canada. The proportion was higher in rural localities where three-fourths of the dwellings were owner-occupied. In urban localities, however, only 40 per cent of the dwellings were occupied by owners. Rented dwellings outnumbered owner-occupied dwellings in urban localities of all provinces, with the exception of Prince Edward Island, Nova Scotia and British Columbia.

An analysis of rents paid by tenant households in the larger cities shows that close to one-half of tenant households in Montreal were paying low monthly rentals of between \$10 and \$19 at the date of the 1941 Census, about one-third in Quebec City, Winnipeg and Vancouver, one-fourth in Windsor and Hamilton, and one-fifth in Ottawa and Toronto. However, it should be noted that 93 per cent of all Montreal tenant households and 87 per cent of those in Quebec were living in apartments and flats, whereas in Winnipeg and Vancouver, where a large proportion of households also were in the low rental levels, over half were living in single homes.

Monthly rents for single homes were lowest in Winnipeg and Vancouver and highest for households in Ontario cities, notably Ottawa and Toronto. Approximately 75 per cent of urban tenant households in the former cities paid less than \$30 a month for rent, as compared with about 50 per cent in Ottawa and Toronto. A similar comparison of urban tenant households living in apartments and flats shows that roughly one-third of such households in Ottawa and Toronto were paying less than \$30 a month, with proportions in other large cities ranging upward to three-fourths in Montreal and Quebec City.

Households consisting of two and three persons in 1941 were more numerous than those of any larger size in urban localities. For Canada as a whole, urban households of two persons amounted to 22 per cent of the total, and three persons slightly lower at 21 per cent. The number of households fell off more sharply between the four and five person groups from 18 per cent to 12 per cent, with a continuing drop to three per cent for households of 10 persons and over.

In urban centres, households living in four, five or six rooms were most numerous, with the largest number in the last group. Percentages of total households in these room-per-household groups were 17 per cent, 18 per cent, and 22 per cent, respectively, with a drop in the number of households with seven rooms to 10 per cent, and those with 10 rooms or more, to three per cent.

#### No. 33. -- Rosefish

One of the interesting facts about rosefish is that they are viviparous. Which means, in every day language, that they produce their young alive. In this

respect they are different from the great majority of fish, which are oviparous, their young hatching in the sea or stream or lake from eggs placed in the water by the spawning females. Salmon, herring, cod, among many others, are examples from this latter group. Perhaps the most familiar fish in Canadian areas bearing their young alive are the dogfish.

Rosefish belong to a family with rather forbidding scientific name -- Scorpoenidae -- but they're none the worse for that and rank as a very good food fish. Another Canadian commercial fish in the same family, but belonging to another division of it, is the Red cod of British Columbia. Quite a number of other British Columbia fish, none of them of much importance, also belong in Scorpoenidae but the rosefish is the only Atlantic Coust member of the family. It does not occur in Pacific waters.

Known sometimes by a half a dozen other names -- Ocean perch, Norway haddock, as two examples -- rosefish have wide distribution, occurring on European coasts northward from the British Channel to Iceland and Spitzbergen and in North America ranging southward from Greenland and Labrador to areas off New Jersey, including waters of Atlantic Canada.

Rosefish take this name from their exterior colouring which varies from pale red to orange-red to bright red. They are quite similar to perch in general appearance. All of the Canadian catch of rosefish — up to the present (1945) the landings have been small though they could be increased — is taken by Nova Scotia steam trawlers fishing on the banks of that province.

In the United States, the production of rosefish by fishing craft operating out of New England has risen enormously in the past ten or twelve years and the catches have found ready market in the filleted form. In summer, rosefish move offshore to the deeper and colder waters and in winter months they frequent shallower depths. Incidentally, they are bottom-feeding creatures and make their meals off small fish, crustaceans, and mollusks. Young rosefish, in their turn, are favourite food of cod, halibut, and some other species.

Most of the Canadian catch -- averaging under 70,000 pounds during the three years 1942 to 1944 -- goes to market in the form of fillets, either fresh or frozen.

## No. 34. -- The Soya Bean - 1.

The soya bean or soy bean as it is called by Americans and Canadians, stepped into the limelight in the years preceding World War II. The widespread attention it secured in that period was due in part, at least, to the fact that it is a centuries—old oriental crop which had been successfully transplanted to North America. Regarded by the peoples of the Far East, where it had been cultivated since long before written records were kept, as their most important legume, it seemed destined to become a crop of economic importance in the United States.

For hundreds of years in China and Japan, the soya bean had been valued for its oil and nutritious cake. Regarded as a staple food, soya flour, bread, milk and cheese were produced from it. Considerable oil was exported for use in candle and soap manufacture and for edible purposes. The results obtained from utilization of the soya bean in these Asiatic countries for food and industries led Europeans to a study of its possibilities with a view to its availability in the rationing of armies.

The soya bean was introduced into the United States in 1804 but did not become important until recent years. Because it requires about the same temperature and soil constituents as maize, farmers found that it could be easily cultivated in the Corn Belt. It began to be grown generally over the eastern half of the United States for pasture, hay and silage and rapidly increased in importance as a rich source of vegetable oil with a residue of meal which provided a highly nutritious protein food relished by all kinds of livestock.

The culture of the soya bean was confined almost entirely to China, Japan, Manchukuo (Manchuria), Chosen (Korea) and the United States although a limited amount of space was allotted to it in Italy, France, Southern Russia, Hawaii, Egypt, South Africa and a few countries of South America. Manchuria was the greatest soya bean producing area in the world and used about one-quarter of her arable land for their cultivation. It was her most valuable crop and soya bean oil was her greatest export. Great Britain was a large importer and Germany was a big consumer.

## No. 35. -- The Soya Bean - 2.

It was during the dark days of war that the opportunity to become a valuable factor in the agriculture of North America came to the soy bean. Farmers, responding to the patriotic appeal to increase their acreage of oil seed crops, agreed to permit it to play an important role as a source of vegetable oil. It, in turn, provided them with needed protein for their beef cattle and other livestock. Today we find the world's food problems far from solved and the soy bean and its producers doing their utmost to alleviate the situation insofar as fats and oils and meat are concerned.

It was in the Corn Belt of the United States that farmers became well acquainted with the soy bean. When its acreage was increased to offset the shortage of fats and oils caused by termination of imports of vegetable oil from the Orient, they were surprised to find that they were faced with a shortage rather than a surplus of meal. Since the majority of cereal grain crops are high in carbohydrate content, the addition of protein is usually necessary to balance the rations fed to livestock. Soybean oil meal became the bargain protein feed throughout the war period and, as the chief constituent of many rations, was found to be the most versatile of protein feeds available for different classes of livestock.

When soybeans are marketed, they are usually processed by extracting the valuable vegetable oil from the seed. In addition to its use as an edible oil in shortenings and salad oils, it is utilized extensively in the manufacture of soap and of paints. The soybean oil meal residue left after oil extraction contains the valuable protein so important in livestock feeds and to a lesser extent in human foods. Much of it enters industry where it is becoming increasingly valuable.

In Canada, producers are being urged to maintain their production of the soy bean for oil and to continue to give it a place of increasing prominence in Canadian agriculture. Where it can be grown, it fits well into the agriculture of the district, having a generally favourable effect upon soils and providing a crop which may either be utilized on the farm or be marketed as a cash crop.

The total production of soybeans for beans in Canada in 1945 is estimated at 832,000 bushels, an increase of almost 20 per cent over the preceding year. Again in 1945, as in other years, the commercial production was virtually confined to the Province of Ontario. Imports of soybeans in 1945 amounted to over 1,300,000 bushels, mostly from the United States.

## No. 36. -- Rapeseed

A wartime shortage of an important ingredient of marine engine oil has been the principal factor underlying the development of commercial rapeseed production in western Canada. Yields have been good and the acreage devoted to this crop in the Prairie Provinces has shown a marked increase in each of the past three years. The total acreage seeded to rapeseed in Canada in 1945 is now estimated at 20,400 acres, about equal to the goal proposed for that year by the Dominion-Provincial Agricultural Objectives Conference and almost 70 per cent above the acreage planted in 1944.

In 1943 Quebec cultivated a small acreage on an experimental basis only. Since results were disappointing, no further attempt has been made in that province to grow rapeseed for commercial purposes. From the above it will be noted that cultivation of this crop is concentrated in the two provinces of Manitoba and Saskatchewan, where over 85 per cent of the total acreage is located. Alberta, however, has increased her acreage of this crop from 22 acres in 1943 to 2,300 acres in 1945. Yields in the latter province last season were disappointing owing to the drought conditions prevailing in the areas where rapeseed is grown.

Rapeseed crushing operations, which did not get underway until late in the season of 1944-45, were resumed early in the fall of the current crop year. During the five-month period ending December 31, 1945 about 3.7 million pounds of rapeseed were crushed, an amount slightly above that crushed during the entire 1944-45 season. Imports of rapeseed oil during the 1945 calendar year totalled 695,200 pounds, which is the equivalent of about 2.3 million pounds of seed.

Reports coming from Saskatchewan indicate an increased interest in rapeseed production in that province, and it is felt that the 1946 acreage objective should be easily reached. If the demand for this crop remains near its present level the production of rapeseed, at least on a moderate scale, may well become a permanent factor in Western agriculture.

## No. 37. -- Eel Grass

Eel grass, useful marine plant, is making a "come-back" on the Atlantic coast. Reports to the Dominion Department of Fisheries from its local officers in the Maritime Provinces are to the effect that in a number of coastal waters the eel grass is at least showing real signs of recovery from the mysterious disease which virtually wiped it out some 12 or 14 years ago.

Restoration of normal growth will mean that once again the insulating and upholstering industries can look forward to obtaining stocks of the grass for use in their operations. At one time it was estimated that two or three thousand tons a year were used by the insulation people. Restoration will mean, too, that coast farmers will be able to count on obtaining eel grass for fertilizing their fields and "banking" their houses against winter's cold.

Word that the plant is coming back will likewise come as good news to wild geese and brant, though, truth to tell, perhaps they don't need Man to tell them the news. Eel grass is one of their favourite foods and when it disappeared along the Atlantic coast of Canada and the United States in the early '30's the birds became a good deal less numerous in shore areas they had formerly frequented. Which is understandable if the United States authority was anywhere near correct who estimated that eel grass normally constituted 80 per cent of the food of the American brant, and an important food of wild Canada geese in coastal regions.

The disease which made the trouble in Canadian and United States areas spread also to eel grass in at least some parts of Europe, and growth recovery has been a slow process. Now, so far as the situation in Canadian districts is concerned, the Fisheries Department's field people report that in Cape Breton Island waters the growth this year was almost back to normal where there is fresh water influence, as for example, in estuaries. On the eastern mainland of Nova Scotia the plant is re-establishing itself in nearly all localities where it formerly thrived. In western Nova Scotia it seems to be doing well along quite a stretch of shore, and making progress elsewhere though more slowly.

Except in Bay Chaleur "the recovery in growth was good this year", so far as northeastern New Brunswick was concerned, and a passing comment by the district fisheries supervisor that brant and geese were reported more plentiful than for some time past bears out the fact of relationship between eel grass abundance and the presence of these game birds. In Prince Edward Island there was "improvement generally in the growth ... and the grass appears to be of a more hardy variety than in former years". Only in the Bay of Fundy section of New Brunswick is no improvement of note reported.

## No. 38. -- Washday and the Electric Washer

Many of us remember the old-fashioned weekly washday with its warmed-up meals, its untidy kitchen and its fatigued housewife before the advent of the modern washing machine. It gradually became less dreaded as one time-and-labour saving device after another was brought forth by inventors in an attempt to lighten this, the heaviest job of the household. Tracing their origin to the first crude tub revolved on an axis and propelled by hand and to the stick with a tin pan or cup attached at one end that was plunged up and down in a tub, they have culminated in the electric clothes washing machine with all its up-to-date accessories and companions.

Now as in the past, however, soap and soft water are essential to good washing. Soap is not only soluble in water but is the best substance for weakening the surface of the water so that it can penetrate the spaces between the fibres of a fabric and wet it. The dirt which is loosened by the soap solution getting between the particles of dirt and the fibres of the fabric, is removed by the movement of the fabric and the liquid brought about either by rubbing, kneading and squeezing by hand or by gentle motion of the washing. Keeping the dirt in suspension in the liquid is difficult but highly important. The danger in this last step of the process, especially in hard water districts, is that in rinsing to get rid of the soap, the dirt will cease to be held in suspension in the solution and will be thrown back upon the fabric with a certain amount of soap which cannot be rinsed away. When the fabric has been successfully rinsed, the process of washing is complete.

There is some difference of opinion among household economists as to the proper operation of the washing machine. It is generally agreed, however, that clothes should be sorted into four major groups to be washed separately. They consist of white clothes, clothes of fast colour, clothes of "fugitive" colours that require low temperature in washing and rinsing and rapid drying, and miscellaneous pieces including silks, woollens, blankets and rugs which require individual attention. All desired operations including soaking, washing, bleaching, sterilizing, rinsing, blueing and starching may be done conveniently in the modern machine.

Production of domestic type washing machines in January, 1946 amounted to 8,942 units, including 7,722 electric, 468 gasoline and 752 hand operated models, according to figures released by the Dominion Bureau of Statistics. Monthly production figures for earlier years were not compiled by the Bureau, but on the basis

of annual totals the January, 1946 output would appear to be running close to the average output recorded in pre-war months. Imports of domestic washing machines in January totalled 545 units, and exports 156 units.

#### No. 39. -- Public Libraries of Canada

Evidence of progress as well as confirmation of the problems occasioned by wartime restrictions and conditions is contained in summarized statistics of the work of public libraries for the year 1943, according to the biennial survey conducted by the Dominion Bureau of Statistics. There has been a consistent decrease in the circulation of adult recreational reading since the first year of the war, but this is the only item which does not record progress. The book stock has been maintained and increased in the face of difficulties affecting supply; the number of registered borrowers has increased; and expenditures are \$300,000 in excess of those in 1939.

Expenditures on public library service rose from \$2,131,000 in 1939 to \$2,485,000 in 1943. About 10 per cent of the increase in total expenditures is the responsibility of Quebec province. Since 1941, educational and municipal authorities have been promoting the establishment of improved library facilities in Quebec. Provincial financial assistance has also increased in other provinces, where it is given, since the last survey. Ontario has increased the grants to individual libraries, based on progress and community service, by 16 per cent. Alberta and Saskatchewan have advanced slightly over 10 per cent. More than 79 per cent of the total expenditure for 1943 were the responsibility of the larger cities.

The number of registered borrowers in the public libraries in the Dominion increased from 1,045,521 in 1939 to 1,105,990 in 1943. There was, however, a decrease in the number of books circulated, the total falling from 20,728,151 in 1939 to 20,056,094, the decrease being due to a reduction in the circulation of books for adults and the closing of a number of small libraries in the West. Circulation of adult fiction volumes fell from 10,225,813 in 1939 to 9,120,203, and adult non-fiction from 3,997,336 to 3,726,994. In the juvenile class, the number of books circulated increased from 5,707,948 in 1939 to 6,227,433. The number of books on the shelves of public libraries increased from 5,175,811 in 1939 to 5,681,291.

Ontario, the prairie provinces and British Columbia report from 22 to 30 per cent of the population as registered borrowers. This includes children. The cities of Ontario that segregate the membership of boys and girls from adults, report 36 per cent of their borrowers as juveniles. The prairie provinces report 33 per cent and British Columbia 25 per cent.

Recent recommendations for the establishment of new libraries propose two books per person in cities of 10,000 to 200,000 and suggest three books per person to provide a more adequate selection. The book stock per capita for cities of 100,000 and over is 0.9; for cities 25,000 to 99,999 it is 1.08; and for the smaller cities, 10,000 to 24,999, the rate is 1.3.

## No. 40. -- Antimony

Antimony is an important metal which found wide use during the war years. It is used largely in alloys for storage-battery plates, bearing and babbitt metals, and solder, and it is also used in the manufacture of rubber goods, paints, and fixtures. The greatest single gain in use in 1944 was of antimony oxide in the

flameproofing of textiles, principally duck for military purposes. The use of antimony in the manufacture of chemicals increased considerably during the past few years.

The principal compound is the oxide of antimony, which is employed extensively as a pigment in sanitary enamelware and in nitrocellulose enamels. Demand for antimony in the post-war years will possibly exceed that of the pre-war level partly because of the large requirements for storage batteries and other metal products and partly because of the new applications developed during the war.

Most of the world's production of antimony has come from China, although Bolivia and Mexico have been important producers for years. In recent years, there has been a marked increase in output from Bolivia, Mexico, Yugoslavia, and Algeria and, to a lesser extent, from several other countries. In 1939 Bolivia produced 29 per cent of the world output of antimony; Mexico, 23 per cent; China, only 20 per cent; and Yugoslavia, 10 per cent. Prior to the war, most of the refined antimony was produced in the United States, Great Britain, France, and Belgium from ores of foreign origin.

Production of antimony metal in Canada during 1945 totalled 1,680,000 pounds valued at \$293,000 as compared with 1,226,000 pounds valued at \$151,000 in 1939, all of which came from British Columbia, according to figures compiled by the Dominion Bureau of Statistics.

#### No. 41. -- Women's Shoes

"When you see a lady with a very fine hat, look at her shoes", is what our greatgrandfathers used to say. To those connoisseurs of femininity, a woman's shoes reflected her knowledge of correct attire and served as an index to her wardrobe. Through the years, the best dressed women have always been well shod. As a result of their observations, modern women have been educated to purchase good shoes in the interests of health, efficiency and economy, as well as appearance.

The footwear offered by our shops in the pre-war years reached a standard never dreamed of by the queens of old. There had always been a covering for the foot, it is true, because it satisfied a creature need. The amount of protection required in early times, however, depended upon the climate and the mode of life. On the one hand there was the sandal which was simply a sole of woven grass attached to the foot by leather strings; on the other hand, there was the rude shoe made out of a single piece of untanned hide, which when laced with a thong, formed a complete covering for the foot. Out of these two elements, the sole without an upper and the upper without a sole, was developed the modern shoe which is a combination of both, comprising as it does a somewhat stiff sole and top of lighter material.

The trend in the present century toward lighter and more elaborate footwear was made possible by the development of transportation facilities which have
resulted in less walking on rough roads particularly in wet weather. This tendency,
manifest in women's shoes in the years immediately preceding the outbreak of World
War I, led the trade to describe their fine merchandise as "shoe millinery", but
was not fully developed until after the war. With it came a demand for softer and
more pliable skins with unusual grains and colours, the increased popularity of
patent leather and the dressing of reptile, ostrich and fish skins for the shoe
trade.

One of the Pilgrim Fathers was a shoemaker who brought a supply of hides with him on the Mayflower. By the end of the 17th century, shoemaking flourished

in New England. It was strictly a cobbler's job, however, until it was revolutionized by the introduction of machinery in the middle of the 19th century. The many improvements in machinery for shoe manufacture made in the United States helped the Americans to build in their shoe industry a splendid monument to the foresight of the pioneer cobbler of their country.

Canadian women give credit for the fact that they have been comparatively well shod during the war years not only to the efforts of shoe manufacturers but also to the suppliers who cooperated with them. They realize that a great many items including cotton, linen, silk, brass, steel and leather go into the making of a pair of shoes. It is clear to them, therefore, that because the footwear industry is a secondary industry dependent on allied industries for its supplies, it continues to have more than one shortage problem to cope with in its task of supplying fastidious women with this creature comfort in these days of reconversion to peacetime standards.

There were 16,195,000 pairs of women's shoes produced in Canada in 1944, as compared with 15,852,000 in the preceding year, according to figures compiled by the Dominion Bureau of Statistics.

#### No. 42. -- Soap

Our resourceful great-grandmothers made soft soap of the consistency of soft jelly by saving greasy substances from their kitchens, boiling them down and treating them with lye which they distilled from hard wood ashes. Many of them knowing how to continue the process further, produced hard soap by using brine which is salt in solution. The potassium in the soft soap was thus replaced by the sodium in the brine. The part that was soap rose to the top of the receptacle and was cut into the large shapeless cakes remembered as "home-made soap."

According to an early Roman writer, the Gauls also knew the secret of soap-making. They used tallow and wood ashes and converted the resulting soft potash soap into hard soda soap by treating it repeatedly with salt. In view of the fact that a soap factory was discovered in the excavations of Pompeii, the ancient Italian city buried by the disastrous eruption of Mount Vesuvius in 79 A.D., it is believed that soap-making as an industry originated in Italy in the days of the Roman Empire.

Because the very essence of a soap in its industrial relations is solubility, it is customary to use the term "soap" for the compounds of fatty acids with potash, soda and ammonia. Soft soap is that which contains potassium treatment in the making and hard soap is a sodium compound. Hard soaps constitute all varieties used for household purposes - laundry, toilet and bath, and kitchen use the following kinds being well known: rosin or laundry soap, perfumed and silicated soaps, pumice soaps, washing powders, granules and flakes.

Canadians use up a lot of soap in a year, and in 1944 the production amounted to 237,000,000 pounds, according to figures compiled by the Dominion Bureau of Statistics. A small percentage of the annual output, however, is exported.

#### No. 43. -- Lima Beans

The Lima bean is a friend in time of need. During the depression years it came to the aid of those who had well balanced meals to plan at low cost. Then,

again, in the days of meat rationing, it did and still is doing its part to alleviate the situation by serving as a satisfactory substitute for meat in many homes on meatless days.

This "aristrocrat of the bean family" is a native of South America, but due to the fact that one variety has been found growing wild in Brazil, there is some difference of opinion as to the country of its origin. The majority, however, believe that Peru can claim it for her cwn. In any case, it appropriately bears the name of Lima, the capital of Peru, which is famous as the former capital of all Spanish South America and which was founded in 1535 and named the "city of kings" by Pizarre, the Spanish conqueror.

Limas are grown most successfully where the climate is warm and the humidity high. Although they were cultivated by the Indians in the southern United States in the early days, they were not well known there until after an American naval officer brought some seed from Lima, Peru, to his farm in New York State. It is interesting to note that production advanced rapidly with the opening up of California, a state similarly situated in North America to the country of Peru in South America on the Pacific coast where the atmosphere is warm and damp. It has been said that limas will "make a crop out of fog".

The lima bean provides nitrogen for the soil but it is as an important vegetable food for man that it is valued. Being rich in starch and in vitamin B complex, having a high protein content for the building and repairing of body tissue, containing fats and minerals and when used green vitamins A and C, it falls into the category of one of our most nearly perfect foods. In addition to being nutritious, it is highly palatable and is considered by many to be one of the most delicious of vegetables.

## No. 44. -- Tin

As most of us know, tin is used chiefly in the manufacture of tin plate, mainly for use in the making of tin cans and of containers of all kinds. It is a necessary ingredient of solder and is a component part of most babbitt and other anti-friction metals, without which manufacturing and transportation would be impossible. Smaller quantities are used in foil, which in turn is used for wrapping food, tobacco, etc.; in terne-plate, pipe and tubing; type metal; bronze; galvanizing; and in bar tin.

In British Columbia the small cassiterite content of the silver-lead-zinc ore of the Sullivan mine at Kimberley now being recovered from the zinc tailing is the source of Canada's production of tin. Stannite is present in the ore of the Snow-flake property near Revelstoke, and cassiterite and stannite have been noted at several other places in the province. Cassiterite occurs also in many other places in Canada, but no commercial deposits have been found. In the unglaciated parts of Yukon, stream tin has been found in small quantities, but no serious attempt seems to have been made to test the gravels thoroughly for tin. During the past few years it has become apparent that the gold-bearing placers in many creeks in the Mayo district contain some crystalline cassiterite. Some evidence has been gathered showing the likelihood of there being from 200 to 300 tons of tin available as cassiterite in the placers of Dublin Gulch and Haggart Creek.

The tin produced at Kimberley and the small domestic recovery of secondary tin are far from sufficient to meet the Canadian requirements, which in peacetime amounted to about 3,000 tons a year and are now much larger. These requirements were

formerly obtained mostly from smelters in the Straits Settlements. The position of the Allied countries in respect to tin became critical with the capture by Japan of these smelters and of the Malayan tin mines, and the civilian use of the metal has been greatly curtailed. The search for commercial deposits of tin in Canada was continued and some occurrences of possible economic interest were found by a Geological Survey party in the Yellowknife area, Northwest Territories. Elsewhere, the results were not encouraging.

The only other tin smelter on the North American Continent is at Texas City, Texas. This Government-sponsored smelter was built by Tin Processing Corporation of New York and had originally a capacity of 50,000 long tons of concentrate or 18,000 long tons of tin a year. Built to treat the portion of Bolivian ores made available to the United States (50,000 long tons of concentrate), it was ready for operation in April, 1942. Subsequent enlargements raised the capacity of the smelter to 90,000 long tons a year. In 1944 it was producing at the rate of 30,000 long tons of metal a year. Following its entry into the war, the United States took over all the supplies of the metal in that country and specific allocation of tin was taken over by the Director of Priorities.

Production of tin in 1944 was 516,626 pounds valued at \$299,643, compared with 776,937 pounds valued at \$450,623 in 1943. Imports of tin in the form of blocks, pigs, tin foil, and collapsible tubes in 1944 were valued at \$2,178,118, compared with \$1,766,334 in 1943.

## No. 45. -- Tellurium

Metallic tellurium, until a few years ago, was of little industrial importance. Formerly it was used to a small extent in some radio work and also in the photographic arts and for blackening art-silverware. Small quantities are used as a colouring agent in the ceramic industry. When alloyed with lead, the tensile strength and toughness of the lead is increased greatly. Lead alloys containing from 0.1 to 0.5 per cent tellurium have been in use for some time in applications requiring resistance to vibration and corrosion. The use of small quantities of tellurium as a substitute for tin in the lead used for sheathing electric wire cables is reported to improve the resistence of the cables to heat and corrosion. It has also been used for improving the machining qualities of certain steels. Very finely powdered tellurium is used as rubber-compounding material. Its presence is stated to shorten the time of curing and to greatly improve the resisting qualities of the product.

Tellurium occurs native and as an essential constituent of several minerals, none of which has been found in commercial quantities. Tellurium-bearing minerals also occur in minute quantities in association with other metallic ores, and the element may be recovered from residues in the refining of copper or lead, and also when sulphuric acid is manufactured from certain varieties of pyrites. The potential recovery and production of tellurium are great, but the demand remains small so that the quantity of refined metal produced is small. Ores containing tellurium occur in British Columbia, Saskatchewan, Manitoba, Ontario, and Quebec.

Canadian production of tellurium in 1944 was 10,661 pounds valued at \$18,657, compared with 8,600 pounds valued at \$15,050 in 1943 and 11,084 pounds valued at \$17,735 in 1942. Exports of tellurium are not recorded separately.

World production is estimated at 150 short tons a year, or about double the pre-war figure, and Canada and the United States appear to be the main sources of supply.

#### No. 46. -- Vanilla

Vanilla, the delicate food flavouring which is so popular with Canadians, has been aptly called the "Queen of Spices". It is provided by a tropical species of climbing orchid, native of the countries of North and South America between Mexico and Peru. This plant is cultivated for the beans which grow out of its flowers and is of commercial value as a source of the extract so widely used in confectionery and perfumery.

The commercial extract is prepared from the pulp of the long narrow bean-like pod. The pods, or beans as they are usually called, contain vanillin but they also contain many other extractive matters which are necessary to make pure vanilla what it is. It is true that vanillin is responsible for the peculiar fragrance of vanilla and is widely used as a substitute.

Madagascar is an important producer of vanilla beans. The peasants of Dominica, that beautiful and mountainous island of the West Indies are interesting rivals of the Mexicans in the vanilla industry today. They all have a few vines in their back yards and look on their vanilla crop as gold because the income derived from it is important to their livelihood.

Imports of crude vanilla beans into Canada in 1945 amounted to 36,000 pounds valued at \$227,000, of which Madagascar accounted for 14,000 pounds, and French Oceania 13,000 pounds, according to figures compiled by the Dominion Bureau of Statistics.

## No. 47. -- Protection of Plant Life

Were it not for the constant vigilance of the Dominion Department of Agriculture, Canada would undoubtedly be the happy hunting ground of many kinds of foreign insects and diseases affecting the plant life of the Dominion. These insects and diseases assail the borders of Canada by road, rail, sea and air.

"Keeping Canada's plant life free from external attack of enemies involves the department in a multifarious catalogue of operations, each an extensive undertaking in itself. There are, for instance, the formulation and enforcement of the various regulations of the Destructive Insect and Pest Act, the inspection of imported plants and plant products for the presence of insects and diseases harmful to vegetation; the treatment of affected shipments, or their refusal of entry or of export as required; the operation of fumugation research; the maintenance of domestic quarantines; the carrying out of surveys in connection with the spread, control, or eradication of new pests; the issuance of health certificates covering the export of plant material to meet the requirements of importing countries; the establishment of standards governing the production of seed potatoes, the supervision of their production and shipment by inspection in the field, in storage and at shipping point —to mention only a few of the main activities.

Inspectors are stationed at all the main points of entrance and exit in the Dominion. In the latest report of the Dominion Minister of Agriculture, it is recorded that even under war conditions no fewer than 15,468,879 plants were inspected during the year under review. These plants were in 19,355 containers imported from five different countries, under 1,970 standard and 197 emergency permits, requiring 6,049 separate inspections. Eight hundred and five of the inspections dealt with parcel post importations, covering 35,896 plants in 850 containers. Fifteen importations were refused entry because of infractions of the regulations under the Destructive Insect Pest Act.

The Department's inspectors attended 1,970 boats to examine plant material arriving in passengers' baggage. There were 4,038 inspections of plant products from 24 countries, involving 1,541,534 containers, plus 71 carloads. In the export of plants and plant products, 2,305,252 plants were inspected and certified for export. During the year 445 ocean boats were examined before being loaded with foodstuffs. One hundred and seventy-two lake boats were also inspected.

Then there were inspections of dehydration plants; fumigation of infested plant products in a thousand railway cars, and the numerous field projects for supressing and controlling destructive pests like the Dutch elm disease, Japanese beetle, and pear psylla.

### No. 48. -- Diamonds

The diamond, described by an ancient writer as "the most valuable of gems, known only to Kings", is recognized universally as chief among precious stones. It is the hardest and, therefore, the most imperishable of substances, it is brilliant when cut and polished by contact with other diamonds, and it is rare. The famous stones of rare quality and great size usually become the property of states and royal personages.

The remarkable luster of the diamond is due to its power to break up light. It is never fully displayed, however, until after the stone has been faceted by the art of lapidary which was scarcely developed before the middle of the 18th century. A diamond can be made to glow in the dark by rubbing, or after having been placed in sunlight or in the presence of radium. Because it is the most brilliant of the minerals, it has reigned supreme as a jewel for personal adornment from early times.

The gems, not considered suitable for jewellery, are valuable in industry for cutting, drilling and engraving other hard substances such as glass and porcelain. Points made from them are durable, withstand great weight and pressure and do the work with speed and accuracy. It is not surprising, therefore, that diamonds have found their way into the motor, armament, electric and drilling industries. Dust saved from cutting, is used for fine polishing. The diamond cannot be dissolved by acids and it cannot be cut, engraged or polished by any material except itself.

Canada imported unset diamonds in 1945 to the value of nearly \$3,300,000, of which the United Kingdom supplied about one-half, the remainder coming chiefly from British South Africa, Palestine, Belgium, Brazil and the United States. Diamonds for borers were imported in 1945 to the value of \$1,985,000, the United States contributing about two-thirds of the total; the United Kingdom, British South Africa, Belgian Congo and Brazil accounted for the remainder.

#### No. 49. -- Turkeys

The domestic turkey, fattened to be the king of the feast for Christmas and New Year's, considers itself an American — an American proud of its historical background and of the role it has played in the family life of its country. According to tradition, the Pilgrim Fathers shot wild turkeys and gathered wild cranberries for their First Thanksgiving dinner in America over 300 years ago. The Governor of the little New England colony had set a day apart for thanksgiving after the first harvest and the safe arrival of friends and supplies from the old land.

In the wild state, the turkey is a member of a group of game birds related to the pheasants. There are three distinct species of wild turkey. The common wild turkey had for its breeding ground the Northern and Central United States, or that part extending from Maine to Missouri and southward to Virginia and northern Texas. The Mexican turkey roamed over Mexico and southern Texas, while the Central American turkey inhabited Central and Southern America.

It is generally supposed that the domestic turkey originated from the common American wild turkey, which was the largest of the wild family, although some writers claim that the Bronze variety came from the Mexican turkey, because of its brilliancy of colour and white markings on tail and tail coverts. It cannot be denied, however, that there has been considerable infusion of blood of the American wild turkey due to crossing of wild toms with domestic hen turkeys.

The three most important breeds of turkeys are the Bronze, White Holland, and Narragansett. Other breeds are Bourbon Red, Black and Slate. There was a decrease in the number of turkeys on the farms of Canada in 1945 of 22 per cent, or from 3,275,000 in 1944 to 2,555,500, according to figures compiled by the Dominion Bureau of Statistics.

### No. 50. -- Sports

In the realm of sporting activities Canada occupies an enviable position. With abundant forests and streams at the disposal of the hunter and angler it provides an inexhaustible source of recreation and pleasure. In other branches of sport also there are abundant facilities for indulgence in healthy exercise both indoor and outdoor for young and old of both sexes, all the year around.

Athletic sports, in contrast to the activities planned by gymnasium instructors for the exercise, development and posture of the body, are usually thought of as field games based on feats of physical strength or skill rather than on "form" and are conducted along competitive lines. The world "athlete", by the way, is derived from the Greek "athlon", meaning one contending for a prize.

Many of Canada's sports can trace the roots of their family tree to other lands. Golfers and curlers alternate their favourite games with the seasons and proudly identify them with Scotland; tennis players trace their more strenuous pastime back to the old French game of court tennis; baseball "fans" watch their boys play the "national game" of our good neighbour to the South who invented it, and skiers "brush the cobwebs out of their brains" by gliding down natural or artificial ski runs at terrific speed on their "Norwegian snowshoes".

Canada has adopted all these games and many more; she has also added one that is distinctively Canadian — ice hockey — said to be the fastest game on earth. The interest of Canadians in sports has given rise to an industry of considerable size. In 1944 manufacturers produced the requisite sporting equipment, supplies and accessories to the extent of over five million dollars, according to figures compiled by the Dominion Bureau of Statistics.

## No. 51. -- Gardens

There is something about a garden that makes it worth learning to love.

Those who take kindly to its cultivation have a hobby which they can turn to for relaxation and inspiration. Some garden lovers prefer to experiment with a few

potted plants in a city apartment while others take their exercise with a spade in their own backyard. As they learn to grow plants they experience the sense of satisfaction that comes only from creative work, they become more appreciative of the rights of others to the fruits of their labours and they gain experience and knowledge of an occupation which they can turn to in a period of financial stress.

It is thought that the first gardens in the world just grew up. The credit for first discovering the miracle of the seed and later planning a garden from the aesthetic as well as the utilitarian point of view, however, is probably due to primitive women who were obliged to stay at home where they raised a few chickens and wanted to enjoy as much as possible the beauty of nature in their necessarily limited environment. The Greeks, who have given us so much, fell somewhat behind other encient civilizations in garden craft. They did, however, bring the beauty of nature back to the city where it had been replaced by buildings and streets. Their gardens provided a retreat where they could rest, think and converse quietly with their friends in the midst of their town civilization. The Italians learned gardening from the Greeks but, due to the fact that their aristocrats were landowners, developed it further. They gave us many of our best gardening ideas and we find their influence reflected in our fine British gardens.

In Canada, backyard and vacant lot gardens were popular in this country first during World War I, later in the depression years and finally during World War II. What they can do for the individual and for the public in time of need if intelligently cultivated has been proved. In the future, as in the past, the emphasis will no doubt be placed more and more upon intensity rather than extensiveness, upon quality rather than quantity.

## No. 52. -- "Voice from Afar"

The extent to which the telephone - significantly called the "voice from afar", from the Greek "tele" meaning "afar" and "phone" meaning "voice" - would serve the public was quite unsuspected less than a century ago. Its fame spread rapidly after it was demonstrated at the Centennial Exposition held at Philadelphia, but people in general remained indifferent to it and regarded it merely as a scientific toy for a considerable time. Little did they realize that the "telephone habit" would eliminate rural isolation, speed up or stream-line business, community and social life and revolutionize military communication. From a primitive beginning the telephone has been steadily developed to such perfection that it is today taken for granted in its automatic working so aptly described as "the nearest approach of machinery to the human brain".

Telephony, the general term including the entire art of speech transmission with the many accessories and operating methods which research, development and invention have supplied to facilitate and extend conversation at a distance by electrical means, is synonymous with the name of Alexander Graham Bell. Despite the fact that there were other pioneers in the field, that there were contemporary aspirants for his achievement and that there were those who improved upon his apparatus, the honour of being acknowledged universally as the inventor of the telephone was reserved for him. Because he was a Scotsman by birth, an immigrant to Canada in search of health by a change of climate but a resident of Boston where he was a teacher of the deaf at the time of his contribution to humanity in 1876, three proud English-speaking countries claim him. Bell's experiments on the telephone are said to have been brought to a successful conclusion on his father's farm at Brantford, Ontario.

Professor Bell visited England and Scotland on his wedding trip in the hope of developing a demand for his invention in his native country. Queen Victoria's congratulations and Bell's gift to Her Majesty of a pair of telephones especially made for her in ivory assisted in bringing the telephone to public attention. The United States has led the world in the development of the telephone, and most developments in other countries have been in the nature of modifications in American practice to meet local conditions.

There were 1,752,000 telephones in Canada in 1944, an increase of 3.5 per cent over the preceding year, and an advance of 46 per cent over 1943. Dial telephones, or those on automatic switchboards accounted for 56 per cent of all telephones. The estimated number of telephone conversations or completed calls, including a count of 56,678,000 long distance calls and an estimate of local calls based on counts made by the large systems on representative days in 1944 aggregated 3,012,653,000.

## No. 53. -- Honey, an Old Food

Honey is one of the oldest and most interesting foods known to mankind. Its importance in ancient times accounts for the fact that it signified abundance to those who were to be led to "a land flowing with milk and honey". In our own time, with the emphasis upon proper nutrition, honey is sought in rationed quantities as a very satisfactory supplement to sugar allotments.

This popular syrupy substance has the distinction of being the only contribution of the insect world to man's diet. Its manufacturers, the busy little "workers" of the honey-bee family, obtain their raw material chiefly from flowers, pay for it by their service of cross-pollination made possible by a systematic gathering of nectar from plants of one species before passing on to those of another and carry it home in their crop-like honey-bags in which they apparently put it through a process of transformation from nectar to honey before depositing it in the cells of the "combs" prepared for the storage of their food.

There is considerable variation in the quality of honey. That produced early in the flowering season is usually superior although there are exceptions. Flavour and colour naturally depend to a large extent upon the flower from which the nectar is obtained. In North America considerable quantities of honey are derived from clover and alfalfa.

Canada's honey crop in 1945 has been estimated by the Dominion Bureau of Statistics at 30,683,000 pounds. Due chiefly to the unusually small crops in Ontario and Quebec, the outcome of adverse spring and early summer weather, there was a decline of about 12 per cent from the crop of 1944.

#### No. 54. -- Volcanic Ash

The word, "volcano", is the term applied to a mountain from whose summit or sides or both, steam, solid fragments and molten rock or lava are thrown out. Nevertheless, the mountain, with its vent to the summit, is merely the cone which has been built around the opening in the earth's crust by outflowing lava and ashes during periods of eruption. Volcano is from the Latin "Vulcan" the name of the Roman god of the fiery elements.

Due to the unstability of the earth's crust, there is great pressure in certain places. This pressure, coupled with the friction caused by the movement

of rocks upon each other, is responsible for the heat that melts rocks. Molten rock, reaching the surface, flows out as lava. The powerful eruptions, however, take place when water, coming in contact with molten rock, is changed instantly to steam which by its pressure bursts the walls of rock confining it. Volcanic ash is the powder to which the rocks are ground by the force of the explosion.

Volcances usually occur along the lines of weakness of the earth's crust and, therefore, are to be found in the ocean basins and in the ranges of mountains near the coastlines of continents. The ring of volcances, both active and dormant, which encloses the Pacific Ocean, for instance, takes in those of Japan, New Zealand, Australia, and Western South and North America. Volcanic dust is widely distributed over the floor of the oceans and the surface of the continents. The dust, which was thrown into the air and floated and blown around the globe after the explosion of the volcance of Krakatca in 1883, was an outstanding contribution to this universality.

Deposits of volcanic dust are found in Saskatchewan, Alberta, and British Columbia. There has been intermittent production from Waldeck, near Swift Current, and at Rockglen, 125 miles southest of Swift Current in Saskatchewan, and from near Williams Lake in British Columbia. There was no production in 1944, but in 1943 about 60 tons were shipped from the Rockglen deposit for insulation purposes.

## No. 55. -- Ice Cream, Favourite Dessert

Ice cream occupies a happy position in the Canadian diet. Based on a dairy product or on a combination of dairy products such as cream, milk, condensed milk or milk powder, it is regarded as a highly nutritious and valuable food. In hot weather young people seek its refreshment at the nearby soda fountain and take some home for supper. The suitability and convenience of this popular dessert renders it a boon to hostesses and restaurateurs throughout the year.

There are but two general classes of ice cream -- "Philadelphia Ice Cream" end "French Ice Cream". The first is the plain uncooked variety consisting of cream, sugar and flavouring; the second, a cooked product containing eggs, may be thought of in contrast as a frozen custard. However, the general term is usually extended to include kindred frozen desserts such as sherbets and parfaits. The usual freezing mixture is salt and ice in proportions necessary to secure the desired result. When sufficient heat has been withdrawn by the melting ice and dissolving salt, a solution colder than water resulting from melting ice, the ice cream mixture becomes solid.

Very little of the history of ice cream has been recorded but its production is said to bave originated in Italy as long ago as 1600. Water ices were probably brought to France from that country about 1550 but ice cream itself evidently was not used in Paris until 1775. It appeared in England and in Germany about the same time and was advertized in New York in 1786 for the first time. Ice cream was introduced in Washington at a dinner in honour of President Jackson. Ice cream making in Canada is an important branch of the dairy and confectionery industries and is also carried on by the baking industry.

When Canadian boys and girls and their elders were unable to gratify their desire for a cone, a dish or a brick of ice cream back in 1944, as was frequently the case, it was not due to smaller supplies of this popular food. On the contrary, the output in 1944 was the highest on record, topping slightly the previous high in 1943, which was well above the output for the preceding war years and far above production in any pre-war year. Per capita consumption in each of

these years was substantially above previous years. As calculated by the Bureau, it was 1.28 gallons for all Canada in 1944 and 1943, as compared with 1.17 gallons in 1942, 1.11 in 1941, 0.85 gallons in 1940 and 0.72 gallons in 1939.

## No. 56. -- Modern Dentistry

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Modern dentistry is a new profession comprising a body of skilled practitioners whose degree usually is designated as Doctor of Dental Surgery (D.D.S.). The mechanical training necessary to insure manual skill distinguishes it from all other branches of the healing art. Though not an accredited specialty of medicine, it concerns itself not merely with keeping the teeth in good working order but also with the relationship of dental health to general health.

The birth of dentistry as a distinct and definite profession took place in the United States in 1839 when the first college in the world for the systematic education of dentists was incorporated. This movement was the result of an agitation for a higher professional plane for dentists which led to an unsuccessful attempt to found dental chairs in medical schools where facilities for the required specialized training were inadequate and where there were, what seemed to be, more vital problems demanding attention. Thus it was that the ancient art of treating the dental ills of humanity and medicine, the mother science, so closely interwoven in their history, came to the parting of the ways in the United States — the country which is the acknowledged leader of the world in modern dentistry and whose dental profession has the honour of having given to surgery the first practical method of obtaining complete anaesthesia — that great boon to mankind for the relief of suffering.

In Canada, modern dentistry is as old as the Dominion itself, and as in the friendly country to the South, the itinerary dentist with his uncertain training, obtained by the faulty apprenticeship system, is but a subject for tales of pioneer and colonial days. The dentists of Ontario organized in the year of Confederation with a view to the establishment of professional qualifications and obtained at the first session of the Ontario legislature in 1868 the incorporation of the Royal College of Dental Surgeons of Ontario. A school of dentistry, which was later made an integral part of the pioneer school and finally became the faculty of dentistry in the University of Toronto, was founded in Toronto in 1875. Quebec was the next province to grant professional standing to dentists. Training may now be obtained in Nova Scotis and in Alberta. The majority of Canadian dentists receive their education at home but some, particularly in the western provinces, attend United States' Schools of Dentistry.

In the first five-year interval after World War I, 1922-1926, over 1,200 or an annual average of over 240 men graduated to help to care for the dental needs of Canadians. For the two five-year periods of the thirties, 1932-1936 and 1937-1941, the annual average dropped to 110.

# No. 57. -- New Dwelling Units in 1945

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The number of dwelling units created by new building construction and by conversion or reconversion of existing buildings in 1945 is estimated at 46,960 according to a survey conducted by the Dominion Bureau of Statistics. Of this total, 41,032 or 87.4 per cent were created by new building construction, and 5,928 or 12.6 per cent by the conversion or reconversion of existing buildings.

On the basis of different types of new buildings, the greatest number of

dwelling units were created by the construction of single dwellings. Second in importance were those created by conversions. The new dwelling units completed in 1945 included 31,970 in single dwellings, 1,784 in semi-detached or doubles, 235 in rows o or terraces, 1,890 in duplexes, 1,044 in triplexes, 2,965 in apartments, 966 in buildings containing business premises and apartments or flats, 178 unclassified, and 5,928 conversions.

The economic and social significance underlying the development of suburban or metropolitan areas focusses attention on these localities. Although few cities escape it entirely, there are 12 principal cities in Canada in which this type of development is particularly prevalent. These 12 areas comprise 117 municipalities with an aggregate population of 3,901,000, in which a total of 17,748 new dwelling units were completed in 1945, including 4,797 in Montreal, 3,458 in Toronto, 2,875 in Vancouver, 1,497 in Ottawa, 1,259 in Winnipeg, 1,054 in Quebec, 747 in Windsor, 650 in Victoria, 613 in Hamilton, 446 in London, 189 in Halifax, and 163 in Saint John.

The total number of new buildings completed in 1945 was 35,537, of which 22,524 or 63.4 per cent were of wood frame with wood siding or shingle construction, 3,983 or 11.2 per cent wood frame and brick veneer, 4,264 or 12 per cent wood frame with stucco or lath, 1,795 or 5.1 per cent solid brick, and 2,970 or 8.3 per cent other types of construction.

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## No. 58. -- Frozen Vegetables and Fruits

The popularity of frozen fruits and vegetables has been increasing at a rapid pace recently. Housewives in particular and the consuming public in general are realizing the many advantages of these products, both from the standpoint of ease of preparation and the ultimate palatability. As with many processes which are new, many errors are being made which lead to disappointment in the taste and quality of the frozen fruits or vegetables.

Many of the errors frequently noted are easy to correct. Delays between harvest and freezing result in loss of much of the fresh aromatic flavours associated with freshness. The ideal procedure is to commence the processing as soon as the fruit and vegetables are harvested.

Vegetables, and some fruits, should be blanched before freezing, which is done by placing the product in boiling water or a steam cabinet for a short time. The purpose is to arrest chemical reactions, often referred to as enzymatic activity, which will cause taints or off-flavours.

The choice of package for frozen produce is important. Rectangular packages, with the contents clearly marked, permit a convenient arrangement in the locker with a minimum of space. The package should also prevent the material from drying out. For this purpose, heavily waxed cellophane or rubber materials are very satisfactory. A well sealed glass container is good but is liable to break with freezing.

After being placed in containers, the fruits or vegetables should be frozen before being placed in the locker. Most locker plants have available sharp, fast, or preferably pre-freezers for this purpose. If an extra charge is necessary for this service it is usually found to be a good investment.

It is important, also, to see that the locker storage is maintained at zero degrees F. at all times. At higher temperatures the products deteriorate at a much faster rate even if still frozen.

If these principles are followed, success in freezing fruits and vegetables should be assured.

## No. 59. -- Beware of Poison Ivy

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In choosing the locale for a holiday camp or a picnic or a temporary resting place in a day's outing, the precaution should be taken to make sure that no poison ivy is around. This unpleasant weed can grow anywhere but is rarely met with on cultivated ground. It may be found in dense patches about a foot high, or as a small clump, or as a climbing plant twining around trees or crawling along fences. The leaves are in groups of three, glossy green, and in the fall assume autumnal colours. In June the flowers appear. They are small, greenish and hidden by the leaves. In winter they take the form of hard, round whitish berries. However, no matter what time of the year, the plant is poisonous in every part - leaves, stem and roots which are permeated by an oil. On breakage of any part of the plant, the oil is released and contact is made.

The initial stage of poisoning is a mild itching sensation, followed by the development of blisters which become painful ozzing sores. Poisoning may also result through anything that has touched the ivy - clothing, kit, shoe laces, tools, picnic baskets, or even a pet dog or cat. Many treatments have been proposed and used, but when possible the immediate scrubbing of the contacted part with strong laundry soap will effect a cure, if the soap has been used before the oil has penetrated the skin. A common treatment is daubing the affected parts with a three per cent solution of potassium permanganate or tincture of iodine. Once blisters have been formed, all rubbing should be avoided.

If the attack is severe a doctor should be consulted. Care should be taken to localize infection by painting iodine round the edges of sores, or by using compresses soaked in a two per cent solution of aluminium acetate or any other cooling substance like soda or boracic acid powder. No application should be made when the sores are obving because they may seal over and aggravate conditions.

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