A Fact a Day about Canada

from the

Dominion Bureau of Statistics

No. 305. Mon. Aug. 1, 1938 -- Beausoleil

During these hot summer days one can get away for a moment from the grind of getting out statistical information to tell a story. It is a beautiful story concerning Beausoleil Island in the Georgian Bay, a rare place that only a comparatively few have visited in person but many of us have seen only in our dreams. It is the largest of the Georgian Bay Islands Na[illegible] Park and is about 2,700 acres in extent, more than four square miles.

In connection with Beausoleil Island and the region as a whole there are many interesting legends, one of which concerns an Indian Windigo or medicine man by the name of Kitchikewana who as a result of internal strife in the tribe left the Algonquins and wandered south to Georgian Bay where he associated himself with the Beaver Indians. This tribe was in great distress owing to lack of food and taking pity on them Kitchikewana decided to make suitable waterways from which they might procure an adequate supply of fish. With his great strength he scooped out the Great Lakes system. While in the process of excavating Lake Huron and Georgian Bay, huge boulders which impeded his work were tossed by him toward the mainland. Some of these boulders falling short splashed into the water, thus creating the famous Thousand Islands.

During his labours in the construction of this great waterway Kitchikewana is supposed to have made Beausoleil island in order that he might have a place to rest, and the imaginative [illegible]ter may see depressions where his shoulder blades and hips rested while he lay down to sleep. Legend further relates that when Kitchikewana fell ill and later died, the Indians not knowing how to bury such a huge body towed it to another island close by, where they heaped dirt up over it instead of digging a grave. This is supposed to account for the curious elevation of land some 150 feet high near Beausoleil Island, which is known as the Giant's Tomb.

No. 306. Tues. Aug. 2, 1938 -- Green Gables

Yesterday we had a day-dream holiday to the Georgian Bay; today let us travel to Prince Edward Island where Scots abound and prohibition is the order. We learn that next year visitors to Prince Edward Island National Park will be afforded an opportunity to enjoy the royal and ancient game in one of the most attractive and romantic settings to be found in North America. Work on the new eighteen-hole golf links at Green Gables is just starting, and it is expected that at least nine holes will be ready for play by next summer.

Skirting the sand dunes of the Cavendish region along the gulf of St. Lawrence and stretching back into the beautiful pastoral landscape of the Island, the links at Green Gables will present a delightful combination of seaside and inland course resembling some of the original links of Scotland. All the artifices of modern golf architecture are being employed by the designer, Stanley Thompson, internationally known golf architect, who is weaving into the layout of the links many of the points of interest portrayed in "Anne of Green Gables," and associate novels by L. M. Montgomery.

The route of play, the location of tees, and the selection of greens have been carefully arranged to preserve the natural features associated with the popular stories. The farm house at Green Gables will be used as a lounge, tea room and caretaker's quarters, while the use of the barn, with slight alterations, as locker-rooms for players, wash rooms, and professional's shop and office, will help maintain the farmstead atmosphere. The surroundings are also being landscaped with the same note in evidence. Starting off on the first tee, located about a hundred yards to the east of the farm house, play leads north to the sand dunes from the Haunted Wood, circles the Lake of Shining Waters, and comes back inland behind the farm buildings, skirting Lovers' Lane, past the spring known as Dryad's Bubble, and then home to the eighteenth green, situated about a hundred feet southeast of the farm house.

No. 307. Wed. Aug. 3, 1938 -- Much Gypsum

The production of gypsum during the first half of 1938 was 331,000 tons, which reflects activity in the construction industry.

The gypsum industry in Canada dates back to 1770 when gypsum was quarried in Nova Scotia and was considered a standard article of commerce. There are records of shipments to the United States a number of years before the Revolutionary War. The growing tendency in construction to make building as nearly fireproof as possible has greatly stimulated activity in the industry.

Special gypsum products such as gypsum laths, wall-board, roofing, slabs, blocks, hardwall plasters, and insulating and acoustic plasters, with their fire-resisting and insulating qualities, are finding increasing use in residential and office construction. In the field of sound-deadening products the market for acoustic plasters made from gypsum is being rapidly extended.

No. 308. Thurs. Aug. 4, 1938 -- Syllabarium

Included in the varied cargo taken North aboard the R. M. S. Nascopie by this year's Eastern Arctic Patrol were 4,000 sets of the syllabarium to be distributed to the Eskimos at every port of call. These were the gift of R. P. Isbister, of Hamilton, Ontario, and were welcomed by the natives, who are being taught to read and write in the syllable characters.

The syllabarium was first brought to the Eskimos some twenty years ago by Rev. Dr. E. J. Peck, Anglican missionary, and developed by Roman Catholic and Anglican missionaries since, notably Bishop Arsene Turguetil, of the Roman Catholic diocese of Hudson Bay. Originally designed for the Cree Indians, the syllabarium makes use of some sixty phonetic characters, and it has been found simpler to form Eskimo words by the use of these characters than by the English alphabet which often makes their words cumbersomely long.

The natives of the Eastern Arctic are rapidly learning to read and write the syllabarium and are now able to send notes to relatives, of which they are quite proud. It is also used by the Royal Canadian Mounted Police stationed in the North, and at almost every post in the Eastern Arctic notices in syllable characters about conserving game and other advice to the Eskimos occupy prominent positions.

No. 309. Fri. Aug. 5, 1938 -- Century-old Fish

Here is some more information about the great sturgeon that was captured this year in the Fraser River in British Columbia. Examination of the ear-rings of that 767-pound sturgeon proclaimed the fact that the big fish had seen a century come and go.

A fish with ear-rings? Of course. Not exterior adornments, to be sure, but concentric rings on the otolith or ear-bone or, as some put it, the ear-stone.

Counting otolith rings is the method of determining the age of some fish. In the case of the big Fraser sturgeon the rings were counted by an inspector on the British Columbia staff of the Dominion Department of Fisheries, among others, and he vouches for the statement that there were more than a hundred of them. Age, by the way, hadn't made this fish decrepit, not by a good deal; it put up a hard battle with every one of its 767 pounds when it found itself trapped in a fisherman's net.

Sturgeon are taken in both sea and freshwater fisheries of Canada but the larger catches are landed in inland waters of Quebec and Ontario. All of the catch -- it totalled 656,300 pounds in 1936 -- is marketed fresh.

Sometimes called "the royal fish," the sturgeon is perhaps best known to most people as the source of caviar, which is prepared from the roe of the fish. Canadian production of caviar is small, however, something like a couple of thousand pounds a year and nearly all of it is put up by Ontario fishermen.

Several different species of sturgeon occur in Canadian waters but all of them belong to the same family, one with a long scientific name, Acipenseridae. They're not very important commercially, taken by a few hundred thousand pounds a year as compared with catches of many millions of pounds in the case of some other fish, but their presence adds a bit more emphasis to the wonderful range of fish foods obtainable by Canadians from their fishing industry.

No. 310. Sat. Aug. 6, 1938 -- Turner Valley Oil

The production of crude petroleum and natural gasoline in Canada during the six months ending June advanced 175 per cent from the output in the corresponding period of 1937; the totals were 2,919,425 barrels and 1,062,046 barrels, respectively. Increased production in the Turner Valley field, Alberta, was responsible for this sharp advance.

Drilling for oil and gas in Turner Valley dates back to 1913, but no developments of importance occurred until late in 1924, when gas with a content of one imperial gallon of naphtha per thousand cubic feet was obtained in a well drilled in the upper part of the limestone. Between then and 1936 more than 130 wells were drilled for naphtha, in a large percentage of which commercial yields were obtained. In June, 1936, a well drilled on the west flank, toward the southern end of the field, reached the top of the productive limestone horizon at a depth of 6,396 feet and obtained a crude oil yield of 850 barrels daily at a depth of 6,828 feet. The success of this well led to extensive drilling in this portion of the field with results as noted above.

Oil is now moving by tank car from Calgary to refineries in Moose Jaw and Regina, and as the available supply increases it will probably move still farther east to replace imported petroleum.

No. 311. Sun. Aug. 7, 1938 -- Youth Hostels

There are thousands and thousands of people in this Dominion who have hiked, but it has been mainly in the outlook for work. Somehow or other this is not a country of walkers or hikers for pleasure. We build highways for cars but leave the pedestrian out of account, and a walk along a country road is robbed of much of its pleasure in dodging automobiles.

Despite the handicaps, however, hikers and cyclists appear to be increasing in numbers -- so much so that the movement for youth hostels is on the way. New impetus is being given to hiking in Canada by a movement known as the Youth Hostels Association, already registered in a number of countries. The aim of youth hostels is everywhere the same -- to enable young people to enjoy hiking and cycling in the beautiful outdoors of Europe and North America; to enable youth to find wholesome companionship along the road, travelling inexpensively, and acquiring a knowledge of their neighbour's land and customs as well as their own. One of the codes of the hikers is that they pledge themselves to leave the countryside unmarred as a result of their travel in it.

The youth hostels idea began in Europe in 1911, as the practical dream of a German schoolmaster. Since its inception, youth in millions upon the open roads of Europe have advanced youth hostelling from a national to an international influence. In 1930 hostels were opened in England; in 1933 one opened in Canada, and in 1934 the movement spread to the United States. Today there are thousands of hostels in forty different countries with several millions of members. As youth hostels concern themselves not at all with the religious or political beliefs, or social positions of members, the movement more and more is lessening racial distinctions.

So far Canada has but a dozen or more hostels and a scant hundred members. The first youth hostel in Canada was opened in the foothills of Alberta, and a total of twelve now forms a chain from the E. P. Ranch to the town of Banff in Banff National Park. In 1937 Canada was the twentieth country to be admitted to the International Youth Hostels Association, and extensive organization work is now being carried on to extend the movement from the Maritimes to British Columbia.

No. 312. Mon. Aug. 8, 1938 -- Transportation to the Mines

The Mines and Resources Department gives us the interesting information that the Government's scheme of assisting in improving transportation facilities into mining areas is being continued. An allocation of $1,300,000 has been provided, to be spent mainly on the construction and improvement of roads into remote mining areas where transportation costs are so high as to retard development. Present arrangements, which are subject to revision, call for the expenditure by the Dominion Government during the current fiscal year of $25,000 in Nova Scotia; $250,000 in Quebec; $250,000 in Ontario; $225,000 in Manitoba; $125,000 in Saskatchewan; $50,000 in Alberta; $240,000 in British Columbia; and a total of $93,000 in Yukon and the Northwest Territories. Under the scheme, agreements are made with the Provinces concerned whereby the work is to be carried out under the direction of the Provincial Government, with the understanding that two-thirds of the total expenditure in each case will be contributed by the Dominion Government and one-third by the respective provinces. All projects are subject to the final approval of the Department of Mines and Resources, Ottawa, which also finances and carries out all work undertaken in the Yukon and Northwest Territories.

Initiated in the fiscal year 1936-37, the joint programme has been of material

aid in expanding the tonnage treated daily in gold and other metallurgical plants throughout Canada during the past two years. Upwards of one hundred producing or soon-to-be producing gold mines have been given improved road assistance essential to profitable operation, and active development has been encouraged in many promising mineral areas hitherto devoid of suitable transportation facilities.

No. 313. Tues. Aug. 9, 1938 -- Aeroplanes in the North

Just as the covered wagon and pack train of pioneer days carried the tide of civilization westward on the North American continent, so the aeroplane of today is opening up a new mining frontier in the Canadian Northwest Territories. Long regarded only as a region of ice and snow, this vast expanse, which embraces more than one-third of all Canada, is now destined to play an important role in the economic life of the Dominion. Many areas once almost inaccessible are now within a few hours' flying time from large centres of population, and regions rich in minerals of economic importance -- radium, copper, nickel, gold, lead, zinc and silver -- await the prospector.

The year 1929 was the turning point in the affairs of the Northwest Territories, when mineral-exploration companies demonstrated that the aeroplane could be used to advantage in these northern latitudes. The range of the prospector's activities had previously been restricted mainly to lands in close proximity to rivers and lakes, and little was known of the country back from navigable waters. With the advent of aerial transportation the movement of the prospector became more widespread and the necessity arose for maps far more detailed than those then available.

Previous to 1929 the principal mineral developments in the Northwest Territories were the location and partial development of lead-zinc deposits near Pine Point, Great Slave Lake, and the discovery of oil at a point about fifty miles below Norman on the Mackenzie River, where there are now two producing wells. As a result of aerial explorations carried out in 1929 copper-sulphide deposits were discovered in the area between Great Bear Lake and the Coppermine River, and this was followed by the notable discovery of pitchblende-silver deposits, from which radium is obtained, at LaBine Point, on the eastern side of Great Bear Lake, in May, 1930.

In 1935 gold was discovered near the mouth of Yellowknife River and on Outpost Island, and also in the vicinity of Taltson River on the south shore of Great Slave Lake. In the fall of 1936 a gold strike was reported at Gordon Lake, fifty miles northeast of Yellowknife Bay, which seems likely to rank as one of the most important finds in recent years.

A nickel and cobalt-bearing mineral deposit has been located a few miles east of the point where the Francois River enters the eastern arm of Great Slave Lake, and a nickel deposit has also been discovered and staked on the north shore of Rankin Inlet on the west coast of Hudson Bay.

According to recent reports Canada's northern mineral front continues to be the scene of great activity, and aerial transportation companies are busily engaged in carrying freight, supplies, and men to remote areas.

No. 314. Wed. Aug. 10, 1938 -- Phalaropes

Phalaropes, which are among the most delightful of Canadian shore birds, have some unusual characteristics. First they differ from most other shore birds in being expert swimmers. Their tarsi, sometimes erroneously called the lower leg joints, are compressed; their toes are bordered with web-lobes; and these features coupled with the fact that the under plumage is heavy as in the gulls, and the under down is much like that of a duck, make the phalaropes very well adapted to life on the water.

The second unusual feature about phalaropes is their home life. The female phalarope takes the initiative in courting rites, and makes the first advance toward the shy and modestly coloured prospective mate. The females are larger, handsomer, and wear brighter plumage than the males. After Mrs. Phalarope lays her eggs, madam betakes herself to pursue her favourite pastimes, more than often to join other ladies of leisure of her own kind in small sociable flocks, while the obedient and faithful Mr. Phalarope incubates the eggs and shoulders practically all of the cares and worries of the household.

Three species of phalaropes occur in Canada, the Red, the Northern, and Wilson's Phalaropes. The first two mentioned nest in the Arctic and far northern regions, but may be looked for particularly on both coasts and on the prairies during migration. The Wilson's Phalarope is a more southern nesting species and, in Canada, breeds chiefly in the prairie regions, where it is one of the commonest inhabitants of the sloughs and marshes.

Phalaropes are in no way harmful, and while they are as a whole probably not of any very great economic importance they do consume insects. Phalaropes are protected at all times under the Migratory Birds Convention Act.

No. 315. Thurs. Aug. 11, 1938 -- Surplus Buffalo

Two thousand or so buffalo were slaughtered late last fall. They were the surplus of the great herds at Wainwright, Alberta and had to be disposed of because of the annual increase. More will be marketed this year.

As a result of the annual reductions to Canada's buffalo herds, high quality buffalo skins suitable for the manufacture of coats, motor robes, floor rugs, and other articles are again on the market at the lowest prices in fifty years. These skins may be purchased from leading furriers or in quantity lots from the National Parks Bureau, Department of Mines and Resources, Ottawa, Canada. Thanks to improved fur-dressing methods and the fact that these animals are slaughtered only when the fur is prime, the buffalo products of today are considered superior to those of years gone by when a pair of buffalo robes were believed necessary for a complete winter driving turnout. The careful dressing of the green hides has resulted in a skin that is very pliable and light in weight, and which, after tanning, may be tailored into excellent outdoor garments. Experiments in shearing the long hair from dressed skins have produced fur resembling plucked beaver in appearance.

Canada's success in saving the buffalo from extinction has been heralded as one of the outstanding achievements in the history of wild life conservation. Over sixty years ago the buffalo inhabited the western plains of Canada and the United States in countless thousands, but the advance of civilization and the improvidence of hunters brought about one of the greatest slaughters in wild life history, all

but wiping out of existence this most interesting species. In 1907 the Government of Canada purchased a herd of 716 pure-bred buffalo, of which 631 were placed in Buffalo National Park and the balance in Elk Island National Park. The growth of the herds was rapid and it soon became necessary to take various measures to reduce their numbers. During the four-year period 1925 to 1928 a total of 6,673 buffalo were shipped to Wood Buffalo Park near Fort Smith in the Northwest Territories to relieve crowding at Buffalo National Park. Periodic reductions have also been carried out from time to time by supervised slaughter.

No. 316. Fri. Aug. 12, 1938 -- The Famous Bluenose

Most Canadians when they think of the schooner Bluenose may think of a racer but the fact is that the ship is a working fisherman -- a typical Nova Scotia deep sea fishing vessel, making her regular trips to the "Banks" or offshore fishing grounds. Not long ago the Bluenose came back to her home port of Lunenburg after making a trip to the banks and in her hold were more than 2,000 quintals of fish ready to be processed for the dried fish trade.

It's in between fishing trips and not very often as it happens, that the Bluenose is a racer. Next October the schooner will meet a Massachusetts fishing vessel, the Gertrude L. Thebaud, which has challenged for the championship trophy that the Canadian boat has held for a number of years as the fastest fishing schooner of the North Atlantic. This will be the first race in some years.

Except that she has proven faster than others, the Bluenose is typical of Nova Scotia bank fishing vessels. They are all sturdy sailing vessels, capable of withstanding the stormiest kind of weather. They range in size from roughly seventy tons to more than 125. When they're fishing they carry crews numbering up to, say, twenty-five. For the most part they use the "long line" method of making their catches, which means that they do their fishing from two-man dories which are put overboard on the banks and from which "long" lines, each with five or six hundred short lines attached, are set. The catches consist, in the main, of cod, haddock, hake and pollock. At certain times of the year the "bankers" seek fares for use in the dried fish trade, at other seasons numbers of them go "fresh fishing," which is another way of saying that their landings are intended for use on the fresh fish markets.

No. 317. Sat. Aug. 13, 1938 -- Doing Away with the Warp

It is typical of the laborious effort which Canada is making to improve the quality of her products that many years of research and many millions of dollars have been devoted to problems connected with the lumber industry. From these quiet efforts there emerges from time to time a discovery of far-reaching importance. One particularly important line of research is aiming at the drying of timber. If the drying is not done carefully losses of 20 per cent or more in the value of lumber may result from warping and what is known as bowing. On the other hand, for commercial purposes it is not desirable to remove all the water, and precisely what degree of drying is required for various timbers for various purposes is a matter of close and patient investigation.

In the old days a year's operations in Canada would lose between $5,000,000 and $10,000,000 if seasonable conditions were not favourable. The Forest Products

Research Laboratory of the Department of Mines and Resources has therefore brought about many improvements in the design and operation of dry-kilns, in which temperature, humidity, ventilation and air circulation are accurately controlled, and their respective influences on warping duly noted.

A drying treatment must be worked out for each species as no two kinds of timber contain the same amount of moisture. For example, a thousand feet of Canadian yellow birch when freshly sawn weighs about 4,700 pounds, of which about 2,000 pounds is water. When this wood is dried for use such as furniture, the 2,000 pounds of water is reduced to about 190 pounds. Some species contain even higher proportions of water and some, much lower proportions. Douglas fir, a particularly dry wood in the standing tree, contains only about 900 pounds of water per thousand feet.

No. 318. Sun. Aug. 14, 1938 -- Trail Riders

Here is a story of the Trail Riders. For the past fourteen years the Trail Riders of the Canadian Rockies have held an annual outing in Canada's mountain parks. Reflecting the glamour and colour of the Canadian West, this widely-know organization of horsemen and nature-lovers is co-operating with officials of the National Parks of Canada in making known the trails through forest and above timberline, through alpine meadows and rocky canyons, over sleepy passes, where no automobile can enter. The annual trail ride for 1938 was held from July 29 to August 2, and the route was in a section of Banff National Park containing Devil's Gap, the Ghost River and Aylmer Pass. The old Indian trail through Devil's Gap was much traversed in the days of the fur traders, but is now not so well known. The five-day ride was through some of the most scenic parts of the mountain country, passing through range after range of mountains capped with snow and intersected by deep chasms or wooded valleys, and clear mountain lakes.

The annual jaunt of the Trail Riders is always carried out with a definite itinerary and the riders travel with a pack-horse outfit, carrying tents and cooking equipment. Camp is set up each night and meals are served around a roaring campfire. Members come from all parts of Canada, the United States and Europe to "ride trail" and enjoy to the full the beauty and grandeur of this mountain area. Mileage is counted to qualify for buttons and insignia, and bulletins with maps are issued for the guidance and instruction of those who wish to follow this sport.

More than 2,500 miles of standard trails in the National Parks of the Canadian Rockies beckon to lovers of outdoors who wish to get off the beaten track, and many visitors avail themselves of the facilities provided for independent trips either on horseback or on foot over well-marked routes.

No. 319. Mon. Aug. 15, 1938 -- Shanty Days

Logging in Canada, except on the coast of British Columbia, is mostly a winter operation, and each autumn, when activities slacken up in other lines such as agriculture, building, road and railway construction and maintenance, witnesses a large exodus of workers to shanty-land. Logging provides employment for about 240,000 workers on a part-time basis, or for an average of about 84,000 men yearly.

Logging operations are generally conducted in unsettled or sparsely settled

country at considerable distances from the ordinary routes of travel. In the typical logging camp in eastern Canada there are usually from thirty to seventy-five men. The buildings are of a temporary nature, built of logs or rough boards, and usually include a cookhouse, sleep camp, stable, storehouse, and blacksmith's shop. The built-in bunks filled with boughs or hay are now being replaced by iron double-deck bunks with springs, mattresses and blankets. The houses are heated with large wood-burning stoves, and though the regulations call for provision for ventilation, the lumber-jacks are not very fussy about this item, evidently being satisfied with the fresh air they get during the day. But they do want heat, and since fuel is cheap and abundant, they get it.

The food is generally excellent and varied, including fresh meat, salt and smoked pork, potatoes and fresh vegetables, canned and dried fruit, eggs, beans, and a great variety of pies and cakes. The quantity is limited only by a man's capacity to take it, and hard work in the cold fresh air produces remarkable powers in this line.

In British Columbia many of the camps consist of cabins which can be moved on railway cars. They hold only four to six men each, and are furnished with single beds, blankets, sheets and pillows, and tables and chairs. Hot and cold water showers are often provided and the meals are a revelation to the visitor. The men pay for their board and lodging and so can have what they are prepared collectively to pay for. In the East the men are paid for the most part by the month, with board provided. As log transportation in British Columbia does not depend on the presence of snow, the camps operate throughout the year, usually about two hundred days.

Life in the logging camps, though not luxurious, is wholesome and far from unpleasant. The work is hard but healthful, and the men usually come out of the woods in the spring in better condition than when they went to the shanty in the fall.

No. 320. Tues. Aug. 16, 1938 -- Community Pastures

Development of community pastures is one of the many comprehensive schemes included in the programme of rehabilitation under the Prairie Farm Rehabilitation Act. The development of community pastures in Saskatchewan may be taken as typical of all phases of rehabilitation and is in itself a programme of substantial proportions and possibilities. For example, the 1938 programme includes a list of more than twenty pastures running approximately into 945,070 acres. The tremendous amount of work entailed in a project of this magnitude can best be visualized when it is realized that within every pasture area it becomes necessary to move or rehabilitate anywhere from ten to twenty families, and they have to be assisted in moving and in other ways to become re-established. Just to mention a detail, fencing operations will cover 1,266 miles, but before that work can be commenced, land control must be secured, possible watering places developed, and a careful survey made of the fence lines.

The development of community pastures has followed well laid and executed plans, and in the spring of 1938 a scientific grass survey of the sixteen community pastures (175,000 acres) established in 1937 in Saskatchewan under the P. F. R. A. programme was made to determine the carrying capacity of each pasture. The pastures went into operation in the spring of this year (1938) and have produced a grass covering which will make it possible for them to hold the snow during the coming winter and give good protection to the grass in the spring of 1939. Through proper control in these pastures, over-grazing and the subsequent ruination of grass lands, will, it is hoped, be a thing of the past.

Further benefits from the survey are that areas where soil drifting was most serious before the inauguration of the rehabilitation scheme have now good grass coverage. These drifting or "go-back" weed infested lands were reseeded with crested wheat grass, sweet clover, and brome. All the pastures have made a wonderful growth of grass.

No. 321. Wed. Aug. 17, 1938 -- Treated Fence Posts

In the 1938 development of 945,070 acres of community pastures in Saskatchewan under the Prairie Farm Rehabilitation Act programme, 1,266 miles of fencing were required for the huge undertaking.

An interesting feature is the use of bluestone-treated poplar posts, as exemplified by the Dominion Experimental Station at Manyberries in their experiments over the past twelve years. During that time the bluestone treatment has proved very satisfactory in preventing decay. In March 80,000 posts were ordered from the northern areas and after delivery at the shipping point were treated in May and June under an experienced inspector with copper sulphate (bluestone).

The method of treatment consisted of peeling the butts of the posts three to four feet and one strip of bark completely up the post. The post is then placed in an upright position on its butt in a wooden tank which contained about twelve inches of a saturation solution of copper sulphate. The posts absorb from one to two quarts of the solution, the colour of the bluestone showing at the top when the treatment is complete. The posts are then set aside to dry and can either be completely peeled or left to the weather. The posts last longer if peeled immediately after treatment. The time necessary to complete the treatment depends upon the weather. On hot days the solution will follow the sap to the top in six or seven hours. On dark cool days it may take twelve hours longer.

The sizes of the poplar posts used in the community pastures are 5-inch top, 7 feet long; corner-posts 8-inch top, 8 feet long. Standard community pastures have barbed wire strands with posts one rod apart. Reserve areas and irrigation canals are fenced with three to four strands of barbed wire with posts also one rod apart.

No. 322. Thurs. Aug. 18, 1938 -- Ski-ing in the Rockies

Most people take their vacations in the summer months, but the numbers of those who holiday in winter are increasing. These warm days, therefore, they are planning what they will do, what winter playground they will visit.

Hundreds of skiers, both young and old, now flock into the mountains for the joyous pastime, and reports from the Banff National Park show that it is a favourite resort when winter comes.

Mount Norquay is the haven of local skiers, and on week-ends it is also visited by hosts of gay excursionists from other points. A spectacular ski jump, fine down-hill ski runs and a slalom course have been built on the glistening slopes of Mount Norquay within sight of the town of Banff, which forms the outfitting centre and starting point for many of the popular routes now open to skiers. The down-hill run,

starting 7,500 feet up the mountain, drops 3,000 feet in a travelled distance of a mile and a half, while the slalom course has an angle of from thirty to forty degrees.

Three developed, high-country ski areas in Banff National Park boast establishments that for want of a better name are called camps. All the cabins are constructed of logs, and range in size from small private shacks to beautiful main lodges, one of which has a lounge fifty-six by twenty-five feet -- cheered by the burning logs which crackle in an enormous stone fireplace. Electric lights, modern plumbing and leather chesterfields are luxuries that one is surprised to find in these camps, which are accessible only by pack horse in summer and ski in winter. These camps are located at Mount Assiniboine, about thirty miles south of Banff; in the Sunshine Valley, fifteen miles southwest of Banff; and in the Skoki Valley, ten miles north of Lake Louise.

No. 323. Fri. Aug. 19, 1938 -- More Fish Protection

Albertans may like to have their automobiles looking spick and span but if they get the cars dirty on a fishing trip, or any other kind of a trip for that matter, they mustn't wash them in any provincial stream where fish are dwelling. If they do, they may be unwilling later listeners as a magistrate says "So many dollars and costs," for one of the sections recently added to the fisheries regulations effective in Alberta provides that "the washing of any motor vehicle in any stream of the province frequented by fish is prohibited."

The new regulation is intended to supply an additional safeguard against higher rates of fish mortality. Grease and oil and grime washed off a car that has been travelling here, there and perhaps everywhere about the country aren't good for fish. On the contrary, they may cut fish life short.

Other provisos against the pollution of waters frequented by fish have applied everywhere in Canada for years past, and are still in effect, but the new Alberta regulation is the first one to have specific reference to pollution from dirty automobiles. All the anti-pollution laws or regulations, of course, spring from the fact that Canada's fisheries resources are so valuable either from the dollars-and-cents or recreational point of view that it is essential in the general public interest that adequate steps be taken to conserve them.

No. 324. Sat. Aug. 20, 1938 -- Prairie Province Fisheries

Fisheries production value increased in all three Prairie Provinces last year. Combined production in the three amounted in value to $2,756,000, roundly stated, or about $412,000 more than in 1936.

By provinces, the 1937 totals, with odd figures dropped, were as follows: Manitoba, $1,796,000, a gain of $128,600; Saskatchewan, $527,200, a gain of over $160,000; and Alberta, $433,350, or nearly $123,500 more than in the preceding year. As the totals indicate, Manitoba is the biggest producer.

In each province, too, more men were at work in the fisheries than in 1936. All told, there were 7,603 of them -- an increase of about 1,400 and, relatively, that was a big jump. The landed value of the catches to the fishermen totalled close to $1,924,000.

In Manitoba the pickerel is more valuable than any other single species of fish, rated according to the amount of money obtained for the catch. In Saskatchewan and Alberta, however, the whitefish is well ahead of all the rest. Other species of importance in the prairie fisheries include trout, tullibee, saugers, and pike.

No. 325. Sun. Aug. 21, 1938 -- Forest Fire Research

In a country with forest and climatic conditions like Canada the problem of how to reduce looses from forest fires is ever in the foreground. Statistics collected by the Forest Service of the Department of Mines and Resources reveal that the total area burned over in 1936 exceeded three million acres, representing a direct loss in timber and property values of over $6,080,000 and a cost in actual fire fighting of more than $1,200,000 without making any allowance for loss in soil fertility, loss in scenic value and through floods, soil erosion, and the lowering of water levels in streams, all of which are the inevitable results of extreme forest denudation.

Forest protection authorities have long recognized the need of a unit for measuring cumulative forest-fire hazard, which varies with the weather and forest types. There are many things which the forest officer can plan better and more economically if he knows the degree of fire hazard which exists each day in his territory and can predict the probable conditions for the next day.

As a result of research work at the Forest Experiment Stations of the Dominion Forest Service a method has been developed for computing an index of fire hazard from daily records of rainfall, evaporation, wind, and relative humidity. The index is computed from tables which must be prepared for each forest type and climatic area by methods developed by the technical officers engaged on this research work.

This method of computing the daily index of fire hazard and forecasting the hazard for the next day is now in wide use in the provinces of Quebec and New Brunswick where it is known as the Wright System, named after the inventor. Some sixty forest weather stations use the system for the following purposes: In detailing the work of forest employees so they will be available for fire duty if the fire hazard warrants; in determining the number of men to send to a fire; to regulate the issuance or cancellation of burning permits issued to settlers and others, so that the burning may be confined to safe periods; to regulate and control travel in and use of the forest by the public; to regulate the frequency of forest patrols and to know when it is safe to allow lookout tower men off duty. In the past, decisions on most of the above points have had to depend on individual judgment, and in some cases needless expense has occurred owing to faulty estimates of the degree of hazard which existed. Now all these points may be safely settled on a scientific basis.

No. 326. Mon. Aug. 22, 1938 -- Gold Mining in Quebec

Gold mining in Quebec has made notable progress in the past decade, the production of the metal having increased in value from $172,217 in 1927 to $24,365,321 in 1937. Quebec is now Canada's second largest gold producer with practically the entire output coming from the mines in the northwest section of the province. The copper-gold ores of the Noranda mine have been the chief source of Quebec's gold

output but production from the lode gold properties has been steadily increasing, and whereas in 1933 they contributed only twenty per cent of the province's output they are now contributing about fifty per cent.

Among the regions reporting outstanding developments is the Dubuisson-Bourlamaque area which is rapidly becoming one of the leading gold-producing camps in the Dominion. Gold production was commenced early in 1929, and since then it has increased from an annual rate of $307,000 to the present rate of approximately $9,500,000 with expectations of a further increase in 1938. This area adjoins the Cadillac-Malartic area on the east, and forms part of the gold belt which extends from the Ontario boundary eastwards a known distance of about 120 miles. In addition to the Siscoe mine, the first and for several years the only gold producer in the area, there are now four other properties - Lamaque, Sigma, Sullivan Consolidated, and Shawkey -- contributing to the output.

No. 327. Tues. Aug. 23, 1938 -- A Fishway

A fishway, or "ladder" has been built this year in Ingram Creek, B. C. By overcoming 18-foot falls in Ingram Creek, which drains from the Ingram Lake system at the head of Ellerslie Channel, this particular fishway will open up some six and a half miles of good spawning grounds which salmon coming up the stream have hitherto been unable to reach. That should mean increasing runs of fish to Ellerslie Channel as future seasons go by and successive generations of salmon come to maturity and ascend the creek to spawn. Below the falls there are only some thirty yards of spawning grounds, but if the grounds in the lake's system above are opened up successfully by the fishway the Ingram Lake spawning area will be larger, with one exception, than any other in the Bella Bella district.

The falls concerned make their abrupt drop of eighteen feet in a distance of only forty-five feet of stream and although all varieties of salmon come up the creek none of them, so far as can be ascertained by the local fisheries officer, have ever succeeded in getting beyond the obstruction. Numbers of them try to ascend the falls, of course, but they are thrown back by the force of the water, badly bruised and battered. Salmon are game and vigorous fish, but there's mighty power in water which comes tumbling eighteen feet down a comparatively narrow ledge between steep rock-side hills.

Up to the present season the salmon fishing in Ellerslie Channel has not been on a very large scale, since the size of the runs did not warrant greater fishing effort, but development of the runs as a result of the fishway's construction will enable the fishermen to expand their operations.

No. 328. Wed. Aug. 24, 1938 -- Co-operative Organizations

Co-operative organizations have gained an important place in the field of Canadian business. The activities of the larger organizations, such as the wheat pools, the livestock, and the fruit co-operatives, have reached a high state of development and have received world wide recognition. In addition to these, there are hundreds of comparatively small organizations which are working quietly and effectively in serving local areas. Compared with Canada's fifteen leading manufacturing industries, which include the pulp and paper industry, central electric stations, automobiles, and petroleum products, the farmers' business organizations rank first in number of

establishments, fourth in capital invested, and third in gross sales value of products.

During 1937, there were 1,024 co-operative organizations in Canada, with 2,963 branches, which combined make a total of 3,987 places of business engaged in the marketing of farm products and the purchase of supplies for farmers. Shareholders and members financially interested number 396,918, and patrons were estimated to number 451,231. Total assets, after deducting provision for bad debts and depreciation amounted to $87,938,453, of which the book value of plant and equipment was $36,338,952.

The members' equity amounted to $51,252,828 consisting of paid-up share capital $9,265,747 and reserves and surplus $41,987,081. This was an increase of $166,137 in net worth over 1935. Current assets amounted to $29,990,700, compared with current liabilities of $10,293,661, or in other words the co-operatives as a whole had $2.91 of assets which could be readily turned into cash covering each dollar of current debt. From 1935 to 1936, total working capital increased from $17,541,304 to $19,697,039. The favourable relation of net worth to total assets was maintained at 58 per cent. These tests indicate a sound financial structure both from a current and a long-time point of view.

No. 329. Thurs. Aug. 25, 1938 -- Sea Lions

Sea lions do considerable harm to fisheries and damage to fishing equipment on the Pacific coast and the Dominion Department of Fisheries is setting out to determine whether the herds are increasing in size or diminishing. Inspectors on the federal fisheries staff in British Columbia are counting sea lion noses at the rookeries and the "hauling-out places" where the animals congregate in numbers. On some parts of the coast where the rookeries are not readily accessible to the inspectors the census taking will be done by captains of the department's fisheries protection steamers.

Sea lions are big and powerful. More than that, they have greedy stomachs and they like to fill them. Wise creatures, too, they know that fish are good food and when runs of salmon, for instance, come along the lions prey eagerly upon them, with consequent loss to the fishermen's catches. Nor is destruction of fish the only quarrel the fishermen have with the marauders. When a salmon run moves nearby the lions do not bother going around any nets that may be between them and their next meal. They smash their way straight for the salmon, ripping through any nets that chance to be in their course. Thus, then, they cause the fishermen twofold loss -- loss of fish to catch with their gear and loss of gear with which to catch fish.

In order to give the fishing industry some protection against the sea lions' ravages the Department of Fisheries, for some years past, has been conducting annual hunts at several of the larger rookeries which lie at points where important salmon runs pass by and where the herds have been especially destructive. The hunts are carried on by men from departmental steamers. Their purpose, of course, is to exercise control of the size of the herds, which otherwise might work too great havoc.

No. 330. Fri. Aug. 26, 1938 -- Fish in the Movies

"Food for Thought", a sound motion picture illustrative of the Canadian fishing industry and indicative of the merits of Canadian fish foods, was seen and heard by more than 57,000 people in a travelling theatre in Western Canada between July, 1937 and July, 1938. Of course, it was seen, too, by a great many more than 57,000 people in other parts of the Dominion during the same period, as it was shown in something like 400 motion picture houses in the various provinces. The travelling theatre, however -- a transformed railway car -- brought the picture and its story to scattered rural communities in the west who otherwise could not have been reached effectively. The English edition of the picture was shown to 291 audiences in the car and the French edition to 54 more. It gave them all a new realization of the national importance of the fishing industry, and made the value of fish food much better known.

The picture was prepared by a Canadian motion picture company for the Dominion Department of Fisheries, which is using it to increase popular interest in the fisheries and thus to help the fishermen and fish dealers. It was shown in the theatre car under arrangements made by the department with the Canadian Forestry Association, which operates the car for educational purposes. Not only was the picture shown, but the officials in the car distributed departmental cookery booklets to women in the audiences and pamphlets relative to the Dominion's fisheries resources and fishing industry were distributed to school pupils and teachers.

No. 331. Sat. Aug. 27, 1938 -- Fall Ploughing

A good grain crop is one of the best forms of farm insurance and may well determine the difference between success and failure in our farming operations. One factor that has a direct bearing on the yield secured is the time of seeding. In normal years, the earlier the crop can be seeded, the better chance there is for a satisfactory yield. To seed early, the land must be partially prepared the previous fall, particularly sod land.

Experiments have been conducted at the Dominion Experimental Farm at Nappan, N.S. during the past fifteen years comparing various methods of soil preparation for the grain crop, states S. A. Hilton, Assistant to the Superintendent.

Comparisons are made of oat yields following sod land ploughed at different times. August ploughing, followed by top-working, has given an average yield per acre of 49.6 bushels. The same treatment followed by ribbing late in the autumn has averaged 52.9 bushels; ploughing in September and top-working, 51.9 bushels; October ploughing with top-working, 50 bushels and without top-working, 50.5 bushels; ploughing shallow in August, top-working and reploughing late in autumn averaged 51.6 bushels; and ploughing in the spring, (no autumn treatment), averaged 48 bushels.

The results indicate that on medium clay loam soil, fall ploughing is preferable to spring ploughing. Top-working of fall ploughed land does not appear to be an economical practice, except for weed control. Early ploughing and frequent top-working aids in the control of perrenial weeds such as sow thistle and couch grass and also annual weeds, as mustard, wild radish, hemp, nettles, etc.

No. 332, Sun. Aug. 28, 1938 -- Wild Life in National Parks

Substantial increases in wild animal life in the National Parks of Canada are reported. Observations indicated gains in wapiti or elk, and moose, which were more abundant in Banff and Jasper National Parks in Alberta and Yoho National Park in British Columbia. Rocky Mountain sheep, the picturesque "bighorn" of Canada's western mountains also were more numerous in Banff Park, particularly in the vicinity of the Town of Banff. Increases in deer, elk and bear were reported in Waterton Lakes National Park, Alberta; Prince Albert National Park, Saskatchewan; and Riding Mountain National Park, Manitoba.

To conserve and perpetuate species native to the plains region of Western Canada, the Dominion Government some years ago set aside four wild animal parks in Alberta, three of which have been fenced. These areas include Buffalo and Elk Island National Parks, which contain large herds of buffalo as well as numbers of deer, elk and moose, and Nemiskam and Wawaskesy National Parks which provide sanctuaries for pronghorned antelope. Increases in these species, particularly among the buffalo and pronghorned antelope, were registered during the year.

Small exhibition herds of wild animals are also maintained as tourist attractions in enclosures at Banff, Alberta, and in Riding Mountain Park, Manitoba. During the past year these exhibition herds were extended to Prince Albert National Park, Saskatchewan, where five buffalo from Elk Island were placed in a fenced area which is accessible to visitors from the main Park highway.

While a census of game animals in the larger scenic and recreational parks of Canada is not practicable owing to the extensive area over which they may roam, an estimate of species enclosed in the wild animal parks on March 31, 1937, disclosed a total of 375 antelope; 6,616 buffalo; 3,618 elk; 900 moose and 1,507 deer, in addition to a number of mammals such as four-horned sheep, Rocky Mountain sheep and goat, white-tailed deer and elk.

No. 333, Mon. Aug. 29, 1938 -- Tagging Cod

Captured in the Sable Island Bank area off Nova Scotia on May 30, 1937, a cod was tagged by a Canadian fisheries research worker and then set free, unharmed, to follow its own devices again. It kept away from trouble for a little more than a year. Then it made a mistake. On June 20, 1938, it grabbed at an enticing bit of food off Gabarouse, Cape Breton. That ended its earthly, or watery, career. The bit of food concealed a fisherman's hook. The cod went to market.

The fisherman returned the identification tag to the federal Fisheries Research Board. A glance at the number on the tag and another glance at tagging records told the investigator concerned when and where the fish had first been caught and tagged and freed. It had ended up at Gabarouse, and taken a little over a year to get there.

The movement of a single fish wouldn't tell anybody very much, of course, about the migratory habits of cod. The case is different, however, if a large number of cod are tagged and substantial numbers of them recaptured later on. In that case an analysis of the tagging records may reveal what travel course the fish, as a group, usually follow. If that is found out it will be possible for fishermen to know where catches are most likely to be made.

That, in brief, is why the fisheries scientists in the federal service have been tagging large numbers of codfish off Nova Scotia in the past few years. It's a step taken with a view to obtaining information that can be passed on to the fishermen to their practical advantage.

No. 334. Tues. Aug. 30, 1938 -- From Hunter to Farmer

Progress in Indian rural rehabilitation in Canada is indicated in a recent report on crops and livestock on Indian Reserves for the period 1934 to 1937. The total area under field crops on the reserves in 1937 is reported as 229,718 acres, compared with 222,291 acres in 1936; 213,938 acres in 1935, and 209,261 acres in 1934. Holdings of farm livestock for 1937 are reported as: horses 27,104, milch cows 7,307, other cattle 42,986, sheep 2,090, hogs 5,612, hens and chickens 92,456, turkeys 6,668, geese 2,001, and ducks 4,039.

Originally the Indians subsisted in moderate comfort upon the harvest that nature provided, mainly without human aid, but with the advance of settlement and the depletion of game resources that followed in its wake, the Indians in settled areas were faced with the necessity of turning to other means and methods to support themselves. Progress is being made in the transformation of the Indian from hunter to farmer though necessarily slow, as such a change in the life and habits of a people can only be brought about by patient, sympathetic and consistent effort and instruction. Education and the response of the Indians to the efforts to advance them to a position of independence and self-support have been major factors in the success of the work.

Indians in Canada are the wards of the Department of Mines and Resources, which, through the Indian Affairs Branch, has control of Indian education, 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.

No. 335. Wed. Aug. 31, 1938 -- Many Birds Winter in Canada

Contrary to the popular belief that a general exodus of Canadian bird life takes place in the fall, many birds remain in this country even in mid-winter, as is shown by the annual surveys held in Christmas week by observers in various parts of the Dominion. The greatest variety for any area was found about Toronto, where the survey parties discovered no fewer than 9,234 birds, of 58 different kinds, on December 26th last. These included seven kinds of wild ducks, six kinds of hawks, a snipe, four kinds of gulls, five kinds of owls, four kinds of woodpeckers, two robins, two meadowlarks, eight cardinals, and twenty-five song sparrows. Hamilton, Ontario, with 9,511 birds, of 57 different kinds, was in second place for variety. Especially interesting birds noted near this city were a winter wren and brown thrasher. Both Toronto and Hamilton have the advantage of a comparatively southern position and of having large areas of open water near them so that their winter bird population includes large numbers of both water birds and land birds.

An unusually large wintering population of northern finches, in addition to the usual chickadees, nuthatches, and woodpeckers was reported from many points in Eastern Canada. An unusual invasion of cultivated areas in central Alberta by

Canada jays and a large number of waterfowl and shore birds in the mild region of southwestern British Columbia were the outstanding items in the reports from Western Canada.

These surveys were taken at a time when the birds were stationary -- the southward movement was over and the northward flight was not yet under way. Some of the birds noted in Toronto and Hamilton, such as the snipe, robins, meadowlarks, wren, and brown thrasher, normally winter farther south, and those seen in Canada during Christmas week may be regarded as stragglers left behind. A winter population of ducks, hawks, gulls, owls, woodpeckers, cardinals, and song sparrows, on the contrary may be regarded as normal along the shores of the more southern Great Lakes.