DEPARTMENT OF
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CANADA

A FACT A DAY ABOUT CANADA

FROM THE

DOMINION BUREAU OF STATISTICS

MARCH 1940

SIXTH SERIES

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No. 153. Fri., March 1, 1940 — Tile

Hark back to the days of the iron pot, the iron griddle and stewpan. Remember the bespattered walls of the old kitchen. A pot of porridge boiling merrily could throw a spot more than a yard away — "sparking" we called it, no doubt the same idea behind the word when we saw a young man quite evidently pursuing the maid of his dreams. The walls of the old kitchen had to be done over frequently to make them look nice.

Hark back for a moment. There are lots of people in Canada who can recall the Saturday night clean-up of the family. The bathing began with the youngest of the youngsters who were the earliest to be tucked in under the blankets. Big wooden tubs took care of the cleansing of the family in regular rotation. It was a messy business. On Monday morning these same tubs did duty with the week's washing.

After a while the family had an adventure. A bath tub was installed. It was made of zinc and painted a creamy white. A big kitchen range took the place of the wide open fireplace from whose scree had swung the boiling pots.

However, some of the messiness remained until the arrival of the Tile. It made its first appearance on the tiled hearth of the living room fireplace. After that it was installed on the bathroom floor. Then it covered the bathroom walls half way up. Now it has come all over the bathroom walls and descended to the kitchen, where Tile covers floors and walls and porcelain features all the cooking accoutrements.

A trade magazine describes the new idea as follows: The drab, uninspired haven of sink and stove has blossomed out as a show place. Everything has its virtue, even economic depressions, and when the home-owner became her own cook and serving-maid, she demanded a lovelier environment in which to toil — and a more efficient one. Peasant type kitchens use tile of Delft inspiration; sunny yellow kitchens bring perpetual spring to the home; cool green tiles moderate the heat of cooking; glossy black tiles charm those who favour the modern. Tile dealers can furnish tiles to suit every taste.

The making of tile is quite a large business in Canada. There are all sorts and descriptions of it. Feldspar and silica supply the basic materials. Glazed tiles are burnt in the high temperature of the pottery kiln. Some clay is imported, chiefly from the United Kingdom and the United States. The factory cost of the tile exceeds one million dollars.

No. 154. Sat. March 2, 1940 — Canadian Wool Clip

Last December great interest was manifested in the successes of Canadian farmers at the International Exhibition in Chicago with their remarkable grain and other farm products, and now comes along a very encouraging list of wins in Canadian fleece wool at the recent International Wool Show at San Francisco.

Canadian wool growers captured first and sixth prizes with Southdown; first,

second and fifth with Shropshire; first with Cheviot; second and third with Leicester; first, second and fourth with Kerry Hill. Southdown and Shropshire wins went to Ontario, Cheviot to Quebec, Leicester to Ontario and Quebec, and Kerry Hill to British Columbia.

The established breeds of sheep in North America are of British, Spanish and French origin. The British breeds predominate in Canada and constitute considerably more than half of the pure-bred sheep in the United States. Shropshires are the most numerous of any breed in the United States, so that the Canadian victory for wool in that class is of considerable interest.

The leading breeds of sheep in Canada from the standpoint of numbers are, in the order named, the Shropshire, the Oxford Down, the Rambouillet, the Hampshire, the Suffolk and the Southdown.

The Shropshire sheep is descended from the old native sheep of the Salopian hills, improved by the use of Southdown blood. Though heavier in fleece and a bulkier animal, the Shropshire resembles an enlarged Southdown. It has a darker face, however, woolled all over with the exception of the muzzle which is blackish brown as a rule, very neat ears, and has a more massive head. The Shropshire is the most popular mutton sheep in the corn belt and Great Lakes regions of the United States.

In Canada there are about 36,000 purebred Shropshires out of 122,000 purebred sheep of all breeds. Of the 36,000, over one half are in Ontario.

The Southdown was formerly known as the Sussex Down. In past times it did for the improvement of the shortwool breeds of sheep what the Leicester performed in the case of the longwool breeds. A pure Southdown has a small head, with a light brown or brownish grey face, fine boned and symmetrical, well-fleshed body. The legs are short and neat, and the lowset animal is smaller than other Down sheep. About 5,000 purebred Southdowns are reported in Canada, of which over 4,000 are in Ontario.

The Cheviot is a hardy border sheep with straight wool, of moderate length and very closely set. Crossed with the Border Leicester, it is said to be unsurpassed as a rent-paying, arable-land sheep. There are less than 2,000 purebred Cheviots in Canada and about half of these are on farms in Quebec.

The Kerry Hill is a brown and white speckled faced breed found along the Welsh border. Kerry Hills are hardy grass sheep. They are often crossed with Shropshires and Welsh Mountains to produce fat lambs. Kerry Hill sheep are relatively new in Canada and they probably number less than 100, most of which are located in British Columbia.

The total wool production of Canada in 1939 was approximately 18 million pounds and, in view of war needs, it is satisfactory to learn that an increase of over four per cent is forecast for 1940.

No. 155. Sun. March 3, 1940 -- Spreading Money Around

A very illuminating report on employment, wages, cost of materials and gross value of products by the manufacturing industries of Canada, is issued annually by the Dominion Bureau of Statistics. The list is tabulated in order from one to 40,

according to the gross value of the products. The first ten are placed as follows: Non-ferrous metal smelting and refining $318,278,000, Pulp and Paper $226,245,000, Slaughtering and Meat packing $181,419,000, Automobiles $134,810,000, Flour and Feed Mills $133,634,000, Butter and Cheese $124,935,000, Sawmills $104,850,000, Electrical Apparatus and Supplies $98,842,000, Petroleum Products $98,454,000, Railway Rolling Stock $93,855,000.

Quite an argument could be raised as to which of these industries distributes the most money among workers, but one would have to be very wary about reaching conclusions. There are pitfalls. Non-ferrous metal smelting and refining brings the greatest value for its gross products, namely $318,278,000 in 1937. It employed 11,570 persons and paid out in wages $17,991,000. That industry was 21st in the number of employees and 9th in wages paid to employees. But the cost of materials at $201,863,000 was by far the largest of any manufacturing industry.

On the other hand Pulp and Paper with a gross production value of $226,245,000 in 1937 had 33,205 employees and paid them $48,758,000. Comparatively speaking, the cost of materials was small, amounting to $91,122,000.

Sawmills had the largest number of workers, 33,917, but money paid to workers was much less, at $27,174,000, than by Pulp and Paper. The chief reason was that many of the workers were seasonal.

An example of comparatively few workers creating a large production value is Flour and Feed mills with 5,803 persons making $133,634,000. Money paid to these workers was $5,877,656, but the materials cost $92,706,000.

The forty leading manufacturing industries had 18,465 establishments, capital stock $2,589,000,000, employees 495,467, salaries and wages $542,121,000, cost of materials $1,648,000,000, and gross value of products $2,850,000,000. These forty leading industries had 78.7 per cent of the total output of all manufacturing in Canada.

No. 156. Mon. March 4, 1940 — Photo-Electric Planimeter

One of the outstanding new things about the present war is the efficiency of the Royal Air Force in making photographs of the German countryside and the movements of troops and battle preparations and equipment.

Air photography has made rapid development in recent years, which is a reminder that with a view to speeding up the preparation of forestry maps from air photographs, the Dominion Forest Service has developed the photo-electric planimeter, an amazing instrument which measures map areas two to three times as rapidly as the ordinary planimeter. Although only in the experimental stage the results of the photo-electric planimeter are highly accurate, and this accuracy will be still further increased when certain proposed improvements have been incorporated in the instrument.

The principle utilized in the photo-electric planimeter is based upon the action of photo-electric cells in producing an electric current when subjected to light. Light coming from an illuminated surface is measured by the current it produces in the photo-electric cells. The area to be measured is cut out of a map which has been blackened on the back, and the cut-out is placed between an illuminated surface and the photo-electric cells. Thus the light reaching the cells is reduced in proportion

to the size of the blackened area interposed, and the measurement of this reduced light enables computation of the size of the area.

This improved means of area measurement will have many fields of use, particularly with pulpwood and lumber companies, and government departments administering forest lands. It can also be utilized by engineering organizations to measure plotted profile areas, in laboratories for the testing of structural materials, and for many other uses in scientific industry.

No. 157. Tues. March 5, 1940 — Tent Caterpillars

This year of all years the Canadian people will have to be on the outlook for the destruction of insect pests. Our forests will have to be preserved as never before.

One of the most destructive pests is the Tent Caterpillar. An epidemic of Tent Caterpillars is a spectacular event. The trunks of trees become covered with hairy masses of caterpillars, often two and three deep, crawling up and down or clustering motionless, apparently to take a rest between feeding periods. After defoliating the trees in one area, the caterpillars descend to the ground and crawl in enormous numbers, often for long distances, in search of new sources of food, leaving behind them a forest as leafless as it would be in winter. In their migrations, the larvae may cause considerable inconvenience to travellers, campers and woodsmen.

A few years ago in northern Saskatchewan, a much-harassed cook for a fire-fighting crew bought, in an inspired moment, one hundred yards of cheesecloth with which to cover his tables, utensils and food. Notwithstanding his precautions, the occasional caterpillar found ways and means to defeat the cook's sanitary measures. Meanwhile, in the bush, the men walked in trails alive with the creatures, slithering and sliding in the midst of their carnage and dodging with slight success the caterpillars falling from above. They were forced to work with gloves, the better to hold the handles of their dangerously slippery tools. In the camp, tents, cots and baggage were swarming with caterpillars while all around the sound of falling excrement was like that of rain upon the forest floor.

Large migrations of Tent Caterpillars frequently stop trains, the driving wheels not being able to gain traction on the rails covered with the crushed bodies of the insects.

At the time of pupation, the caterpillars spin their cocoons in protected situations on underbrush, small growth, fences, eaves of houses and outbuildings, fire towers and even in the concavities of insulators of the bush telephone lines. Observers report that in some years conifers such as spruce and jack pine bore so many cocoons as to appear covered with a heavy snow.

Epidemics usually last about three years and reappear in more or less regular cycles. Some areas seem to be at the crossroads of several of these cycles and suffer attack year after year in a varying degree. After a heavy infestation, new leaves are usually formed, but they are noticeably fewer and smaller than under normal conditions.

The decline of infestations is usually very rapid and due to bacterial and

fungous diseases or to parasitic flies and wasps which use the caterpillar horde as a living larder for their offspring. By learning to control and guide such natural agencies of pest decimation, it may be possible some day either to check wholesale outbreaks in their beginnings or arrest their spread. This problem is under investigation at the Winnipeg Entomological Laboratory.

No. 158. Wed. March 6, 1940 -- First War Loan

Canada's first War Loan is an event to be remembered. It was over-subscribed, and a brief analysis of it reveals a war effort which brings the individual of small means into the picture.

There were 178,363 subscriptions, with an average of about $1,325 each. Of this total number of subscriptions, 172,331, or 96.6 per cent, were for amounts from $50 to $5,000, with an average of $665. Allotments on subscriptions from private individuals exclusive of corporations and dealers accounted for 63 per cent of the total amount of the Loan.

"The wide distribution of this Loan is a really remarkable achievement on the part of the Canadian people," said Col. J. L. Ralston, Minister of Finance, in commenting upon the figures. "Almost two-thirds of the $250,000,000 Loan came from private subscribers, as distinguished from corporations and dealers. As a result of our appeal to the subscriber of small or moderate means, we received no fewer than 121,407 orders for $500 and under, with an average of $235 each. It is this particular classification that gives me the greatest satisfaction. The response of smaller investors and the widespread distribution of the Loan among private individuals constitute a remarkable testimonial to the strength of Canada's economy and to the unity of the Canadian people behind the prosecution of the war. They are indeed a happy augury for Canada's war-time financing and a special confirmation of the wisdom of the Government's decision to make War Savings Certificates available in the near future for a systematic and continuing programme of savings and investment by the general public."

The offering of First War Loan bonds was over-subscribed in the first forty-eight hours, but the books were held open for an additional three days to permit acceptance of smaller subscriptions from the more distant communities. Final figures showed a total subscription of over $374,000,000, and the total amount allotted was $250,000,000. The figure of more than 178,363 separate subscriptions contrasts with 24,862 orders for the first war loan issued during the last Great War. Furthermore, nearly 46 per cent of the Loan was subscribed for in amounts of $5,000 or less, whereas even in the case of the second Victory Loan offered in 1918 at the close of the last war, only 40 per cent was accounted for by subscriptions of $5,000 or less.

No. 159. Thurs. March 7, 1940 -- Fishing Bears

Probably the majority of people have never seen a bear fishing for salmon. Nevertheless during the salmon runs bears in British Columbia put in considerable time fishing along the banks of various small creeks. They are successful, too, in so far as making heavy catches are concerned. As a matter of fact, the clever animals are far too successful and in more than one stream their depredations deplete the supplies of salmon reserved for spawning, to almost the vanishing point.

To combat this evil the Dominion Department of Fisheries has authorized its officers to destroy these salmon marauders when they are encountered during patrol work in the spawning areas. During 1939 seventy-two bears were killed by two patrolmen and an inspector in the course of their duties on Queen Charlotte Islands. Thirty-nine bears were killed at one point alone.

The animals do the most damage when the fish first start up the creeks. Standing along the banks or in the shallow reaches of the creeks the bears prove adept fishers as they scoop up the unfortunate salmon with their great paws and toss them to higher ground. More often than not the day's catch is not touched again. The bears apparently from sheer love of fishing capture fish far in excess of their immediate food needs.

The fisheries officers find bears troublesome in other ways too. How would you like to face four huge, shaggy grizzlies angered at being disturbed at their meal of fresh run salmon? Such was the experience of one inspector in British Columbia last fall at a remote point on the mainland. Discretion was the better part of valour and the inspector retired. Victory went to the grizzlies but not for long. The inspector returned armed for the fray and two of the savage animals "bit the dust" to feast no more on salmon.

Natural enemies including bears and wolves take a heavy toll from salmon breeding stocks. Where possible, measures of control are undertaken to curb the animals involved. Often the control exercised can only be of a limited nature. This is but one more reason emphasizing the care and supervision required in measures, regulatory and otherwise, designed for the preservation of the valuable fishery resources of Canada.

No. 160. Fri. March 8, 1940 -- Gypsies

There appeared in this morning's newspapers an unusual story emanating from Toronto. It said that King Frank Dimitro, ruler of the Gypsies in Canada and the United States, will ascend the Gypsy throne on April 25 and that he will form an army of Gypsies to fight for Canada. "Hitler is a bad man", he is quoted as saying. King Frank says there is in Toronto in a safety deposit box, a crown and badge which is one thousand years old and made of solid gold.

King Frank is a native of Winnipeg and has lived in Toronto for twenty years. His father, King Zlitcheo, reigned 25 years ago and, when he died a year ago, King Frank went into mourning, while King Peter Mitchell carried on. The period of mourning ended, King Frank is now ready for the coronation.

The problem of the origin of the Gypsies has never been solved. There is an old theory, by which the Gypsies first reached Europe in 1417, pariahs expelled from India by Tamarlane less than ten years before. Another theory is that about 430 A. D., the Jat ancestors of our Gypsies were summoned from India to Persia, and from Persia gradually wandered westward. Then there is the Prehistoric theory, by which there have been Gypsies in Europe for more than two thousand years, by which Europe, or a great portion of Europe, owes to the Gypsies its knowledge of metallurgy. In Britain they were often called "tinkers".

However, it seems to have been proved conclusively that the Gypsies did not spring from Egypt, as the popular name implies, but from India. Knowledge of dialects has supported that.

Towards the end of last century deep interest was shown in the wandering Gypsies. A Gypsy Folk Lore Society was formed, members of it hailing from many countries. Richard Haliburton was a member of that Society. The Romani became popular and there was a favourite song sung on the concert platform, "The Romany Lass."

Apparently the Gypsies did not receive much sympathy in North America. We are told that a colony of them was bundled off to French Louisiana and they promptly fraternized with the local Indians. They were among the earliest (enforced) colonists of some of the present Middle Atlantic states; they appeared quite early among the German settlers of Pennsylvania, and were in New York long before many of the present-day first Manhattan families landed. Indeed some of these first families can trace their lineage back to the Dutch Romanies.

A distinguished authority on Gypsy lore says: "The way to an understanding attitude towards Gypsies in America winds uphill. We lack that comfortable acceptance of Gypsies as part of the rural scene, which is so prevalent in England. Our motor-cycle police are, perhaps, more stoney-hearted than the country constables of England and Wales. We also lack the number of scholars who burn with unceasing ardour for Roms and their customs."

Our Canadian census does not list Gypsies separately as such. In this country they are almost entirely seasonal visitors from the United States. Probably the number in North America is somewhere between 50,000 and 100,000.

No. 161. Sat. March 9, 1940 -- Muskrat Restoration

One of the largest muskrat hunts in years will be held this spring by the Indian and half-breed population living in the Saskatchewan delta area, east of The Pas, Manitoba. This has been made possible through the huge muskrat restoration project started five years ago by the Manitoba Government with financial assistance from the Federal Department of Mines and Resources. The success of this ambitious undertaking inaugurated with a view to improving the economic welfare of the native population now seems assured, and marks up another triumph in the annals of Canadian wild life conservation.

At one time the Saskatchewan delta area was overrun with muskrats, statistics revealing that in 1902 approximately 800,000 muskrats were trapped here, but owing to drought and diminishing water levels the little animals had decreased to such an extent that in 1934 the catch was estimated at about 50,000 pelts.

As an initial step to replenish the muskrat population, a large tract of 135,000 acres in the delta marshes was selected for development as muskrat breeding grounds. Water levels were raised and regulated by the construction of dykes and dams, and a staff of game wardens was appointed to patrol the area. With the restoration of their natural habitat and the protection afforded them, the muskrats soon started to come back in the developed area, and within five years their numbers have increased from about 500 to more than 200,000.

No. 162. Sun. March 10, 1940 — University and College Revenues

The operation of universities and colleges is big business, far bigger than a casual glimpse at these institutions would indicate. A better appreciation of the significance of the amount of money involved may be gained by considering it in relation to support for some other educational or cultural institutions. It is equivalent to about one-half of the receipts of motion picture theatres, about one-third of the sum required to produce our newspapers and magazines, or one-eighth of the amount contributed to the support of elementary and secondary schools.

Current revenue for the institutions included, exclusive of income from board and lodging, was about $15,200,000 in 1939. This, however, does not all represent revenue for the purpose of higher education. Some of the colleges have preparatory departments, and most of the larger universities spend a considerable part of their income on extension services for the general public. Deduction of such sums, and addition of an estimate for the unreported institutions (with 20 per cent of total enrolment) would indicate that the total amount available for operation of places of higher education in Canada was between 17 and 18 million dollars for the academic year ending in 1939.

The institutions omitted from the calculation are mainly those conducted by religious orders, where teachers receive little or no salary, and the financial returns consequently do not present a comparable record. Those included have enrolled approximately 80 per cent of the full-time students of university grade throughout the period.

The sources of revenue vary somewhat as between different provinces, but considering the 17 million dollars for the Dominion as a whole, approximately one-third comes from provincial grants, and one-third from student fees, with the remaining third contributed in roughly similar proportions by endowment income and miscellaneous sources (including religious bodies).

No. 163. Mon. March 11, 1940 — War and Belgian Shipping

The war has played havoc with the commercial shipping of some countries, and an illustration of its results is furnished by what has happened to the shipping of Antwerp, the great port of Belgium.

During 1939 the number of sea-going vessels which entered the port of Antwerp numbered 9,524, totalling 19,387,970 Moorsom tons, as compared with 11,762 ships and 24,144,705 tons in 1938. This is a decrease of about one-fifth and is due, of course, to the outbreak of the war, since when no vessels flying the German flag have visited Antwerp. What this means may be realized when it is recalled that in 1938 the German ships accounted for 18 per cent of the total number entering that port and 25 per cent of the total tonnage. The number of British and French ships calling at Antwerp has been reduced, and Belgium at present has to rely to a greater extent on vessels of Dutch and Scandinavian nationality. The disappearance of German shipping results in a serious decrease in the transit trade through Antwerp. The total volume of goods in transit outward bound from Antwerp in 1938 was 5,546,620 metric tons, of which Germany contributed 60 per cent; Germany's share of the inward transit in 1938 was 42 per cent out of a total of 3,874,129 metric tons of merchandise.

During the first three months of the war ocean-borne traffic at Antwerp decreased

by 32.4 per cent as regards the number of ships and 30.4 per cent with respect to tonnage as compared with the same period in 1938. In the month of December, 1939, only 340 ships totalling 640,997 tons entered Antwerp as against 1,007 vessels totalling 2,096,886 tons in 1938.

Belgium is dependent to a very material extent on foreign sources for its requirements in foodstuffs and raw materials. Furthermore, Belgium's merchant fleet is relatively small, and only about 12 per cent of the total tonnage of merchandise imported via Antwerp is carried in Belgian bottoms. In 1938 out of a total of 31.6 million tons of merchandise imported into Belgium 11 million tons entered through the seaports, and out of a total of 22 million tons of goods exported eight million tons were shipped by sea.

Belgium's merchant fleet at the beginning of 1939 was composed of 94 ships totalling 365,000 tons gross. Since then six ships (totalling 20,000 tons) have been taken off the register, and in the course of the first three months of the war five vessels totalling 15,000 tons were destroyed. The Belgian fleet can transport about 2,100,000 metric tons of merchandise per annum, whereas the minimum and maximum requirements are from 3,500,000 to 8,000,000 tons.

At the beginning of hostilities, Belgium's transport capacity was adversely affected as a result of detention of ships at the contraband control bases reducing the number of voyages which a vessel could make during a year and increasing the necessity for more tonnage. The introduction of the navicert system has provided a remedy, as ships need not be held up under this method.

Not much Belgian tonnage comes to Canada. For the fiscal year ending March 31 1939, only two boats called, totalling 3,860 tons. In the previous year one boat with a tonnage of 41,640 reached a Canadian port.

No. 164. Tues. March 12, 1940 — Chemical Products

Every chemical product in use today is to some extent dependent upon the mineral industry and the vast majority of the more important of these products, especially the basic chemicals from which other products are made, are directly dependent for their production upon industrial minerals or their derivatives. All the products are based on the work of the physicist and chemist. The latter deals with and controls elementary atoms or groups of atoms derived from selected raw materials, and recombines them in another selected group of materials, making choice from an almost infinite number of possible selections. Such combinations in their final form constitute many well known products, such as sulphuric acid, nitric acid, ammonia, dynamite, coal tar colours and dyes, perfumes, flavourings, drugs, and even fabrics and solid products made from synthetic resins, gums or fibres.

Of the ninety chemical elements so far discovered, only eleven are of major importance in the manufacture of chemicals. These are hydrogen, oxygen, nitrogen, bromine, chlorine, fluorine, boron, carbon, silicon, and sulphur, all of which are non-metallic elements.

Chief sources of raw materials for the chemical industries are the air, the waters of the earth, and the solid earth itself. From the air the industrial chemist draws his supplies of oxygen with which to produce heat from fuels, and to make various acids. The nitrogen he uses in the manufacture of ammonia, nitric acid,

fertilizer chemicals, and certain organic chemicals, is also taken from the atmosphere. Several rare gases are taken from the air, the best known of which is neon which makes possible the flashing red signs seen in every city and town. Then comes water, required by every living plant and animal, and used by every industry in the world. Water also circulating in the upper porous parts of the earth's crust collects numerous mineral salts, which are separated from it and utilized for the service of man. These include common salt, iodine; bromine which is used to improve the quality of gasoline; borax and soda products for laundry purposes, and many others. Products derived from the solid part of the earth include a long list of industrial minerals.

Of outstanding interest among the transformations made by the chemists are those where coke and lime are converted into calcium carbide in an electric furnace. Calcium carbide and water yield acetylene gas, which is used for light and in oxy-acetylene equipment for cutting steel or for welding. This gas can be used also to make acetic acid and vinegar, or acetone for paint and varnish solvents, or to make resinous products. From some of these resins are made elastic rubber-like substances; from others come hard materials that can be moulded, and some can be drawn into silk-like filaments that are twisted into threads and spun or woven into anything from fish-lines to filter cloths or felts.

A vast number of articles made by chemists from common minerals are to be found on the counters of almost any store and in everyday use in many homes and buildings. Several of such items are used in the manufacture of motor cars and airplanes. The lengthy list includes buttons, buckles, hosiery, dresses, neckties, trays, lampshades, tumblers, tableware and many more, yet few users and buyers realize that these products are the result of the imagination, enthusiasm and skill of chemists and engineers working together on minerals.

No. 165. Wed. March 13, 1940 — Canadian Apples

It is known that apple trees were planted in Nova Scotia prior to 1633. In that particular year, however, Pierre Martin set out a number of trees in the Annapolis Valley, just opposite the town of Port Royal, now Annapolis Royal, and one of the varieties used by the French colonists, the Fameuse or Snow, has long been of commercial importance. A New England authority speaks of grafting methods devised hundreds of years ago. The practice was known among the Romans; it was adopted especially by the Flemish and English peoples, and the New England Fathers soon fell into the habit of improving their seedlings with grafts from England and France.

Canadian history relates that for many years the Canadian fruit industry developed with imported varieties. The English settlers in Nova Scotia imported from England, obtaining in that way a few well-known German, French and English varieties. Thus the Gravenstein was brought to Nova Scotia by the Hon. Charles R. Prescott from the London Horticultural Society, which had introduced it from its native home in Holstein, Germany. In addition to the European introductions, many new varieties were brought to Nova Scotia from the United States, where the majority of the varieties had originated as seedlings.

One of these American varieties, the Yellow Bellflower, was for many years a very popular apple and came to be known in Nova Scotia as Bishop's Pippin. Bishop Inglis, a Church of England prelate, was fond of gardening and fruit growing. He became famous for his apples and people referred to them generally as mentioned above. But the variety which came to be known locally as Bishop's

Pippin was the Yellow Bellflower.

In New Brunswick, one of the earliest ripening varieties, Crimson Beauty, was originated in that Province by the late Francis Peabody, and is now grown throughout the North American continent. The early settlers in Quebec, like their Acadian brothers, brought apple seeds from France and from them it is assumed that the Fameuse or Snow apple originated. Ontario, also a pioneer in the apple industry, originated the famous McIntosh Red at Dunela, in the St. Lawrence Valley south of Ottawa. The most recent commercial expansion of apple production has been in British Columbia, where, during the past 35 years, there has been a large development of the apple industry in the Okanagan Valley, the Kootenays and around Creston.

No. 166. Thurs. March 14, 1940 -- New Municipality in the North

The discovery of radium opened a new mining field in Canada and now the first municipal government has been set up in that area. The new municipality is at Yellowknife on Great Slave Lake in the southern part of the field. The municipal board of trustees began to function at the opening of 1940. It consists of five members, of whom three are appointive and two elective.

The administrative district of Yellowknife comprises approximately 40 square miles within a radius of three and a half miles of Yellowknife post office. There are at present about one thousand residents in the district.

The radium-bearing pitchblende is refined at Port Hope, Ontario, and the final loading into needles is done in England. Rich deposits of silver have been found associated with the pitchblende. Production figures for radium and uranium have not been issued since 1937, when output was 23,770 milligrams of radium and 546,000 pounds of uranium salts. Sodium uranate is used extensively in the ceramic field and is marketed in two forms, known as "yellow" and "orange." By using the black oxide of uranium red and black colorations are obtained. It is stated that about 5.2 tons of uranium salts are recovered per gram of radium. The gross income of the company in 1938 was $1,443,600 and the operating expenses $884,200.

The total value of mineral production in the Northwest Territories of Canada in 1938 was $568,600. Radium figures have not been published and the largest contribution to the value of production from the area was made by silver at $253,000, the output being 581,900 ounces. Gold production amounted to 6,800 ounces valued in Canadian funds at $239,200. Copper output was 75,600 pounds worth $7,500; and the total value of all metals was $499,700. Fuels were valued at $68,900 and consisted of 1,500,000 cubic feet of natural gas valued at $335, and 22,900 barrels of petroleum worth $68,600. The first gold producer in the Yellowknife area was the "Con" mine of Consolidated Mining and Smelting Company, which commenced production in September, 1938, while Negus Mines Limited began production in February, 1939. The production of petroleum comes from Fort Norman oil wells and is the chief source of power at the radium mines and at other mining properties in the neighborhood.

The presence of minerals in the Northwest Territories has been known for many years, but little development took place until the discovery of radium at Great Bear Lake in 1930. The 1938 report on Canadian mineral production shows production in the Northwest Territories from deposits of radium, uranium, gold, silver, copper, petroleum and natural gas. Lead was produced in earlier years.

No. 167. Fri. March 15, 1940 — Caribou Travel Farther South

Unusually large migrations of barren ground caribou are reported by the Indians living in the vicinity of Nelson House, Manitoba, a remote trading post about 400 miles north of Winnipeg. The caribou came farther south this year, with the result that the Indians secured an ample supply of meat and are better off than they have been for some years. The Indians, who depend on the fur resources of the country for a livelihood, also report a better than usual fur catch with the prices remaining fair.

The barren ground caribou, the most numerous of all caribou, range in summer over the barren lands of the Northwest Territories, and migrate south for the winter. These animals are now rare or missing from much of their former range along the Arctic coast. In some cases this shifting of range is caused by northern development and in others by the destruction of winter forage of lichens by fire. Until a few years ago it was impossible to get a very accurate idea of the actual range or numbers of the caribou as they wandered over wide areas, but with the large number of permanent white residents now in the North and airplanes passing over much of the region in summer and winter it is possible to make fairly dependable estimates, which place the number of barren ground caribou at about three million.

Within the past few years more caribou than usual have come into parts of northern Manitoba and Saskatchewan in winter, and quite recently barren ground caribou have crossed the Slave River into the Wood Buffalo Park and still farther south of the park in northeastern Alberta where the species was never known before. These caribou travel in great numbers, as in the early winter of 1935 when a herd estimated at 50,000 appeared in the Churchill district.

No. 168. Sat. March 16, 1940 — Whence the Polynesians?

Thor Heyerdahl, the Norwegian scientist and traveller, advances a theory that the Polynesian races, inhabiting the Hawaiian and other South Sea islands, migrated originally from the mountain-girt Bella Coola Valley of British Columbia.

Heyerdahl's theory may or may not be correct, but it is interesting enough to record here, always remembering that there have been other theories as to the origin of these superior people. Indeed the Polynesians have been called the lost ten tribes. However, Heyerdahl has fitted his reasons so closely together that he claims it is impossible to believe that the Polynesians originated anywhere else than in Bella Coola.

He suggests that the Polynesians were driven from their homes about 1,000 A.D. by the warlike Salish Indians of the lower Fraser Valley, about 300 miles farther south. He believes they fled in their dugout canoes until they reached the open seas where prevailing winds carried them 2,300 miles southwest to the Hawaiian Islands. Some spread onwards to the South Sea Archipelago and others went as far as New Zealand to found the Maori race.

Nearly two centuries ago Capt. James Cook and Capt. George Vancouver discovered in the Hawaiians 60 foot canoes made of American pine. The explorers thought the logs had drifted there but Heyerdahl believes this to be a support of his own theory.

Heyerdahl declares that stone carvings found in the Marquesas Islands are identical to those found in Bella Coola, and that there is a marked relation between the bark clothes worn in both regions. He found similarity in carved columns, instruments of war, and other peaceful utensils.

No. 169. Sun. March 17, 1940 -- Wartime Farming

In view of the fact that farm production is so important to Canada's war effort the best possible information on production methods is being made available to farmers. So that farmers may have this information in a brief and concise form, the Agricultural Supplies Board is issuing special pamphlets. These pamphlets, known as the War Time Production Series, are timely and practical and deal with phases of farming closely related to the war effort. They supplement the bulletins issued by the Dominion Department of Agriculture, through the Publicity and Extension Division.

The War Time Production Series pamphlets which are now available and obtainable by writing to Publicity and Extension Division, Dominion Department of Agriculture, Ottawa, are listed below with the identifying number which should be quoted:

Field Crops: No. 1, Flaxseed; No. 6, Soybeans; No. 15, Pasture Improvement for Cheaper Production; No. 20, The Use of Annual Forages; No. 21, Coarse Grains for Eastern Canada; No. 22, Hybrid Corn; No. 23, Field Corn -- Varieties and Hybrids for Eastern Canada; No. 29, Good Seed and Its Significance.

Crop Protection: No. 24, Diseases of Swede Turnips; No. 28, Weed Control in the Prairie Provinces.

Live Stock: No. 7, Production of Pure Milk; No. 11, The Hexagonal Pig Brooder House; No. 16, Control of Horse Bots and Cattle Warbles; No. 17, Care of the Fleece; No. 18, Canadian Fleece Wool.

Bees: No. 2, Bees, Spring Management; No. 3, Package Bees.

Food Conservation: No. 14, Control of Insects in Stored Grains.

Farm Management: No. 26, The Effective Use of Farm Machinery in Eastern Canada.

It is planned to have about 45 of these special pamphlets in the War Time Production Series.

No. 170. Mon. March 18, 1940 -- Paying for a College Education

The problem of a young man or young woman, endowed with very little in the way of financial resources, to acquire a college education is more difficult than it was twenty years ago, and the Education Branch of the Dominion Bureau of Statistics makes this very clear in an official report on the subject just issued.

The statistical picture of the sources of the revenues which keep the universities going is as follows:

	Percentage of total revenue contributed	
	1921	1939
Government grants	49.8	42.2
Student fees	20.1	32.7
Endowment	16.4	13.2
Miscellaneous	13.7	11.9
All sources	100.0	100.0

There follows the pronouncement that will cause some searching of hearts. It needs no elaboration.

"Students have been called upon to provide a decidedly increased proportion of the money required to operate the universities, while other sources of revenue -- provincial grants, interest, etc. -- have declined, relatively, at approximately equal rates. This is a trend which, unaccompanied by any substantial increase in funds available for student aid, tends to make financial means, rather than intellectual ability, the basic qualification for a university education in Canada.

"From the matriculation scholarships and bursaries at present available only one student per hundred of each year's high school graduating class can receive financial assistance, -- i.e. only one in seven or eight of those who enter university. The others must rely on private means, -- with some exceptions, such as those benefitting from student aid this year under the Dominion-Provincial Youth Training Programme.

"Even in provincial universities in Canada, in normal times, students have not been admitted without fees as is still the practice in some of the state universities in the United States and other countries. In the last ten years the increase in tuition fees for a year in the Arts course at the provincial universities has ranged from 37 per cent to 200 per cent, averaging about 80 per cent for the 7,000 students concerned.

"The prospect of equality in educational opportunity for persons of equal ability -- the generally-accepted ideal of democracy -- becomes more and more remote; and university administrators, concerned with the intellectual and cultural advancement of the country, grow increasingly apprehensive."

No. 171. Tues. March 19, 1940 -- The Atlantic Convoy - 1

People keep asking for more information regarding the activities of the Canadian forces in the Second Great War. It is obvious that not very much can be told. However, here is a story about that wonderful convoy system that has done so splendidly to take Canada's merchant ships safely across the Atlantic. It is written by a Canadian naval eye-witness, out with the Destroyer Patrol. It will be remembered that Mr. Winston Churchill's latest pronouncement says that only one in 800 ships are lost when merchantmen elect to travel the seas escorted by the convoys. The writer says:

I was about a week at sea in a destroyer on what I suppose was a pretty typical

convoy trip in the Atlantic, except that our weather wasn't so bad as it might have been. She was rather an aged ship, 20 years old to be precise, which as everyone knows isn't exactly juvenile for a destroyer. However, since the war started she's done about 73 per cent of her time at sea which is pretty good going, and a tribute to her engineering department. Generally speaking, the worse the weather the longer the time at sea. On one occasion she did a 13 day trip, followed by a day and a half in harbour, and then another 11 days at sea.

Our ship's company numbered about 140, counting officers. They were of all ages from twenty to fifty-five, some of them being pensioners and reservists who were at sea in the last war and before, later returned to the blessings of the land, and then came back to the Navy on mobilization. Their shore jobs were varied. We had several postmen, a poultry farmer, and a plate-layer, a commissionaire and crane driver, two builders, a boarding house keeper, bus driver, a licensee, gamekeeper, joiner and a mental nurse.

I spoke to all and sundry and never heard a grumble. I don't pretend they all loved coming to sea again, and in a small ship at that; but they were a cheery lot and were thinking of starting a band, if someone could scrounge a drum and a few tin whistles. Anyhow, I remember being on the bridge in the cold and chilly dawn out in the Atlantic, with the ship butting into a heavy westerly swell and everything rather cold and wet, and a rather raucous voice drifting up a voicepipe from the wheelhouse -- "Why does my heart go boom?"

I'm sure I couldn't tell him -- at that hour of the morning.

I can't be too explicit as to what we did, or where we went. But leaving one port and arriving at another we picked up our convoy and escorted it for about three days. Our weather was variable. We had a good deal of fog and some rain, and a stiff easterly breeze which superimposed a little breaking sea on top of a heavy swell and made the ship kick about quite a lot.

No. 172. Wed. March 20, 1940 -- The Atlantic Convoy - 2

Our convoy steamed along with their Commodore in charge, while we acted the part of a watchdog and made flag signals -- "Speed so-and-so. Close up" -- when they showed a tendency to straggle. As it's no longer a secret, I can say we were keeping a careful lookout on our asdics, those deadly devices used for submarine detection which have been described as unseen, impalpable fingers groping beneath the sea. Our depth charges were also ready for letting go at a moment's notice, and twice we did let one go on getting what is known as a 'contact'. It might have been a submarine; but wasn't.

Well, on we went, with our convoy gradually getting better at keeping station, even in thick weather, or at night without lights. Merchant Naval officers aren't accustomed to steaming in close order, and being drilled more or less, by flag signals and winking morse lamps. But after very little practice they might have been on the job for years, and their station keeping would have done credit to the Mediterranean Fleet. If ever there was a time when the Royal and Merchant Navies were interdependent and indivisible it's now.

Though a submarine was sunk in our vicinity while we were out, we were not actually in at the death. Indeed, there weren't too many submarines about, for attacking convoys these days is rather a risky business for the U-boats. We steamed

on without incident, reached our appointed rendezvous far out at sea, and turned our convoy over to the care of others. Then we parted company and sped off to another rendezvous, where we picked up another lot of ships we were to bring home. We'd managed to get a peep of the sun and some star sights, so knew our position pretty accurately. And next morning we picked up our convoy right ahead and plumb on time.

Sometimes, when it's blowing a gale and sights of the sun or stars have been unobtainable, escorts have great difficulty in picking up their convoys, and have to search for as long as 36 or 48 hours. But this time we were lucky. We joined up, took up our usual station, and turned our bows homeward. We had more thick weather on the way, and fog's always a bugbear at sea with a considerable number of ships in company. But they all got home safely, and so did we.

No. 173. Thurs. March 21, 1940 -- The Atlantic Convoy - 3

But this convoy work's no sinecure for the escorts, which, as I've told you, spend long periods at sea. And in those winter gales of the North Atlantic the motion is difficult to imagine -- a combined pitch and roll wholly disconcerting to the uninitiated. At one moment the bows'll be climbing to the advance of a steep, slate-coloured hummock crested with foaming white. They'll hang poised for a moment with the forefoot out of water, while the wave sweeps aft with its crest surging knee-deep along the low upper deck. Then the bows fall into the next hollow with a shock that jars the whole ship, while the stern, with its rudder and whirling propellers, is momentarily lifted in the air.

Sometimes the ship'll get out of step with the seas and take a whopper clean over the bows. A boiling cataract'll come roaring over the forecastle, to go sweeping aft past the bridge structure and down on to the upper deck in two cascading waterfalls. Spray'll be driving high over the bridge and funnel tops. Everything's cold and wet and abominable; but still the ship's cook, a seasoned veteran, is managing to produce some sort of a hot meal for the ship's company with his pots and pans skidding wildly across the red-hot top of his galley stove.

Having seen their work, I can give full marks to the officers and men of the Merchant Navy who are carrying the food and supplies upon which we depend. But having also been at sea in one of the convoying destroyers I can't help saying that their job's the toughest that can be imagined. They don't have the excitement of meeting U-boats every time they go to sea. More often than not it means day after day of discomfort in vile weather.

But there's no doubt that the Convoy System is an outstanding success, a success which is largely due to the close co-operation between the two Sea Services and the Royal Air Force, the endurance, grit and supreme skill of our seamen, and to the organization which directs them.

No. 174. Fri. March 22, 1940 -- The Interned in Canada

In this country, as in other British countries, the International Convention relative to the treatment of prisoners of war is interpreted in the broadest and most humane spirit. Readers of the "Fact a Day" will appreciate some extracts from letters by prisoners interned in Canada.

One letter from a prisoner in the internment camp at Petewawa epitomizes the sense and feeling of numerous others, however much the words may differ. He writes: "The treatment is very kindly and the food very good and be sure many got not so good to eat as they have here."

Another assures his relatives: "Here in the camp we are looked after all right. We have enough decent food and everything is going on smoothly. We are free all day to do what we like, either go for a walk or while away the time in the recreation hall. In some respects we are better off than the Militia as we have a German cook. Of course it is not as nice as to be with my darling -- however, it is not too bad at all."

One of the prisoners at Petewawa knew something of the last war and of the conditions then prevailing in his homeland, as this excerpt shows: "I have to give the authorities a lot of credit for the treatment they are giving us -- all of them from the Commandant down to a private are as pleasant as possible. Food is good and for sure better than we had it at home in Germany during the last war. Clothing also sufficient."

His evidence is supplemented by another who, thankful to be able to write in German, assures his people: "We get 3 good meals a day and enough also. If anybody should complain about the treatment, I would say that he is a big liar."

Constantly iterated in the letters is the refrain, "Do not send me any food. The food they give us here is excellent and plentiful." This is varied sometimes to, "Do not send me any more parcels, as I do not need anything."

Kananaskis Internment Camp prisoners are particularly emphatic in their assertions that the wants of the inner man are fully taken care of. One of them received in reply a letter stating: "I am glad to know that your huts are nice and warm and your officers are very nice to you. I must say that in Germany they would not be so nice to us. You know how they are treating us at home (Germany) in the police station. They shout at us over the least little thing."

Deeply impressed by the skill and care given to him while he underwent an operation, one appreciative prisoner had "at all times the feeling that everything was looked after well and that I personally could not have arranged matters better. I am hoping to be able to return my thanks to you by service to maintain order in this camp."

In Canadian eyes these internees are neither automata nor brutes. The fortunes of war have placed them where they are but it is evident on their own testimony that what can be done to mitigate their lot is done. The free and genial air fostered under our democratic system permeates even the confines of their prison camps, and the humanity and kindliness of their temporary jailers contrasts strikingly with what they could expect under similar conditions in their own land.

No. 175. Sat. March 23, 1940 -- Commander of Second Division

Major-General Victor Wentworth Odlum is the commander of the Second Canadian Overseas Division. Major-General Andrew McNaughton is commander of the First Division now in Europe. Canadian hopes and confidence in these men are high.

General Odlum was born in 1880 and started his military career at the age of 17 when he joined the 22nd Oxford Rifles at Woodstock, Ontario, as a private. In 1899 he went to South Africa with the Royal Canadian Regiment. He was at Paardeberg and saw action in other engagements. Returning to Canada, he took courses at Victoria College and the University of Toronto. He went back to South Africa as a lieutenant in the 3rd Canadian Mounted Rifles.

For a while he was with the 48th Highlanders of Toronto and in 1903 was transferred to the Duke of Connaught's Own Rifles at Vancouver. Later he was an officer in the Militia at Nelson and Winnipeg. In 1910 he was promoted captain, and returned to Vancouver. He was promoted Major in this unit on March 6, 1914. At the outbreak of the last war, he was appointed Major in the 7th Battalion, C.E.F., and saw active service in France. He became Lieutenant-Colonel and Officer Commanding this unit in April, 1915. On June 23, 1916, he was promoted Brigadier General and appointed to command the 11th Canadian Infantry Brigade. He was then 35 years of age. He was thrice wounded and has received many decorations.

Transferred to the Reserve of Officers on demobilization from the C.E.F., on December 12, 1919, he was appointed on September 10, 1920, Officer Commanding the 23rd Infantry Brigade at Vancouver. He was transferred to the Reserve of Officers at the expiration of his tenure of command and was appointed Honorary Colonel of the Irish Fusiliers of Canada, his old unit.

No. 176. Sun. March 24, 1940 -- An Enemy Trick

An order issued recently by the Department of National Defence brings back memories of a favorite enemy spy trick of the Great War. The order forbids soldiers to insert advertisements or letters in any publication inviting strangers to communicate with them. It forbids them to reply to such advertisements or invitations. They must not in any other way communicate with strangers concerning military matters.

A popular enemy strategem to obtain military information is to employ women spies to pose as "War Godmothers". The trick is a simple one and gave military authorities trouble during the last war.

The Department does not forbid members of the C.A.S.F. to have "war godmothers". On the contrary the practice is endorsed if done through persons of the soldier's family or of his family circle or through a responsible welfare agency.

By the way, a Prisoners of War Information Bureau has been organized. Enquiries regarding Canadian citizens in Germany or Poland, or Canadians who may be prisoners of war, should be sent to Colonel Hubert Stethem, Director, Prisoners of War Information Bureau, Department of the Secretary of State, Ottawa. Enquiries about Canadians who are interned in Belgium or other neutral countries, should be addressed to the Department of External Affairs, Ottawa, or the Canadian Legation or British Embassy concerned.

No. 177. Mon. March 25, 1940 -- Tomorrow's General Election

There will be a general election in the Dominion tomorrow, to decide who will represent the 245 constituencies in the House of Commons. It may be timely, therefore, to say a word or two about how Canada is governed.

The Dominion of Canada is a democracy. Parliament is composed of the King, represented by the Governor-General, the Senate and the House of Commons. The Governor-General is appointed by the King on the advice of the Government of Canada. Members of the Senate are appointed for life by the Governor-General in Council and members of the House of Commons are elected by the people.

As the result of the working out of the democratic principle, the part played by the King's Representative and the Upper Chamber of Parliament in the country's legislation has been, in Canada as in the United Kingdom, a steadily decreasing one, the chief responsibilities involved in legislation being assumed by the House of Commons.

The Governor-General can only exercise such authority as is expressly entrusted to him. He acts entirely by and with the advice of his Ministry, which is responsible to Parliament. The practice whereby the Governor-General served as the medium of communication between the Canadian and the British Governments was given up in 1927; there is now direct communication between His Majesty's Government in Canada and His Majesty's Government in Great Britain.

The Canadian system of government is based upon the British, by which a Cabinet or Ministry, composed of members of the House of Commons or the Senate, responsible to Parliament, holds office while it enjoys the confidence of the people's representatives. The Cabinet is actually a committee of the King's Privy Council for Canada. The members of the Cabinet are chosen by the Prime Minister. A parliamentary term is five years, and if a government remains in office for the full term, a general election takes place automatically.

The members of the House of Commons are divided provincially as follows, the basis of representation being area according to population. Quebec has 65 seats and the entire population of that province, divided by 65, makes the approximate number of people in each constituency throughout the rest of Canada. The seats by provinces are: Prince Edward Island four, Nova Scotia 12, New Brunswick 10, Quebec 65, Ontario 82, Manitoba 17, Saskatchewan 21, Alberta 17, British Columbia 16, Yukon one; total 245.

No. 178. Tues. March 26, 1940 -- European Corn Borer

The presence of the European corn borer in Quebec and Ontario has been the occasion for serious losses of crop in many districts, especially where control practices are not followed, and has provoked alarm in other districts where the borer is present but in which little or no injury to the crop has been suffered.

The widespread interest in the past has given rise to many suggestions from farmers, townsmen and some commercial concerns for its control. The suggestions have varied from spraying and dusting with poison and contact insecticides, or the clipping of the tassels, to burning the moths in crude oil flambeaux or torches. In regard to burning, torches were to be distributed in the corn fields and the moths were supposed to be attracted to the flame by the light. Most of these

methods of control were suggested by those who had little or no knowledge of the life-history or habits of the insect. Their actual value, before being offered to the public, was rarely if ever properly tested, and proved to have had little more evidence of usefulness than could be expected from the enthusiasm of an inventor for his own invention. As far as is known, none of the unofficial control practices has proved of any real value.

Unquestionably the only generally effective, the cheapest and simplest control for the corn borer yet found consists of the disposal or destruction of the corn crop remnants of one year before June 1st of the following year. This may be done either by feeding the corn stalks or ploughing them under clean, together with the destruction of the stubble by ploughing it under clean and finally completing the job of clean-up by the burning of the refuse corn cobs and stalks in barnyard, feeding paddock or such as were left unploughed in the field, not later than June 1st.

The Pest Control Products Act administered by the Plant Products Division, Dominion Department of Agriculture, prohibits the sale of preparations claimed to control corn borer so that any product for this purpose is illegal. Farmers are advised not to buy any such products and to notify the Plant Products Division if any such products should be offered to them.

No. 17). Wed. March 27, 1940 — Odd Notes

The war is upon us in all its fury and some odd notes from the Government's Bureau of Public Information should be of great interest to all good Canadians.

A vast expansion in the South African steel industry is at present under way. The South African Iron and Steel Corporation has a present capacity of 340,000 ingot tons at its Pretoria works, but these are now being expanded to a capacity of 440,000 ingot tons. In addition new works are to be established where capacity will eventually equal that of the present works.

The full significance of the above expansion will be particularly appreciated when it is realized that iron and steel manufacturing in South Africa began on a large scale only in 1934.

The recent offer of the New Zealand Bank to lend one million pounds sterling free of interest to its Government for war purposes has been gratefully accepted by the New Zealand Government. The loan is for the duration of the war and six months after. Commenting on this very generous offer, Mr. Fraser, Deputy Prime Minister of New Zealand, said that although this was the most spectacular offer of assistance received by the Government, it was only one of many.

"I am far from thinking that the wounds inflicted on our civilization need be mortal. But I do think that we are fighting for its life; and inasmuch as that life finally depends upon the ideals that inspire it, I think we have no choice but to resist and defeat by force the attack to which those ideals - yours as well as mine - are now exposed." -- Lord Halifax at Oxford.

The Department of National Defence announced recently that one hundred new cadets would be admitted to the Royal Military College September next. The academic year will be increased to last from September until the last week in July. Duration of courses is two years. The military standard will be maintained as before, while added emphasis is placed on the scientific and engineering education of the cadets. Cadets must be between the ages of sixteen and nineteen years.

Soldiers of the Canadian Active Service Force in Canada will be eligible for appointment as Commissioned Officers if they possess the primary qualifications for appointments in the Non-Permanent Active Militia of Canada. Qualifications as prescribed in the King's Regulations and Orders for the Canadian Militia include: recommendation from the commanding officer; residence within the recruiting area of his unit; certified physically fit; pass standard in matriculation examinations of a Canadian University or any Canadian province or pass in certain educational subjects at an examination set by the Department of National Defence. In addition candidates must be at least 18 years of age.

No. 180. Thurs. March 28, 1940 — Odd Notes

Up to March 2, 1940, the British Contraband Control had seized roughly 595,000 tons of goods consigned to Germany. Twenty-five German merchant vessels have been captured and twenty-eight scuttled or sunk. In addition the Germans have lost far more by their usual imports never having been shipped.

On some 50 deep reconnaissance flights made by night by the Royal Air Force, only four aircraft are known to have been lost through enemy action.

An Aircraft Inspection Detachment Inspectors' School has been established under the British Commonwealth Air Training Plan in Toronto. Flying Officer A. S. Suddes is in command. Training commences April 29 and the school will turn out ten inspectors each month after a three months' course.

Six representatives each of the Canadian Red Cross, the Salvation Army, the Knights of Columbus and the Y. M. C. A. are carried on active strength with Canadian troops overseas. They are charged with carrying on welfare activities of their organizations in cooperation with representatives of the Directorate of Auxiliary Services.

Contributions amounting to $177.00 were sent to the Canadian Government one day last week by Japanese citizens of British Columbia. Japanese employees of a lumber mill pooled $95.00 as their contribution to Canada's war effort, while the Nanaimo Japanese Association forwarded $77.00 for the same purpose. A Japanese individual of Bella Bella, B. C., sent along five dollars to help Canada carry on.

According to one of the American correspondents broadcasting from Berlin this week, the greeting "Heil Hitler!" which replaced the one-time "Gruss Gott!" is nowadays losing ground in Bavaria. "I hear that around Munich they are going back to God again."

An American pressman arranged with his monthly paper to send his reports from Germany in blue ink if true, and red ink if false. The first, written in blue ink, ran as follows:

"No grumbling; unity everywhere; conviction of victory. Food is plentiful; so are raw materials; red ink is the only commodity unobtainable."

No. 181. Fri. March 29, 1940 — Smoked Eel

Faced with the necessity of establishing new markets due to the loss of overseas business brought about by disturbed world conditions, the province of Quebec with a yearly production of some 20,000 hundredweights of eels is giving attention to new methods of preparation of these fish.

Germany, formerly one of the preferred markets for eels, now of course is no longer on the Quebec export list. The demand for fresh and frozen eel in Canada and the United States is limited. Smoked and canned eel, however, is favoured with a greater demand, and it is believed there is a possibility of greatly increasing the market for these products.

Prior to smoking, the eel is eviscerated, skinned, salted in concentrated brine for one-half hour and allowed to drain for 15 minutes. The smoking is done in a smoke house of "type B", as designed by the Fisheries Research Board of Canada. The smoke box for eel smoking is made of terra-cotta and the inlet and outlet trunkways are made of sheet iron. The only modification brought about is the installation of a pipe two feet long and eight inches in diameter between the fan and the smoke producer. This pipe is equipped with a damper and serves to lodge a heating system. The heating system might be a six to eight kilowatt electric heater, but a flame of a large gasoline torch serves the purpose quite well. Smoking is carried out for five hours at 75 degrees. The smoker is then shut off and the temperature is raised to 150 degrees for one hour and a half to two hours. This temperature renders a good quantity of oil from the eel. The eels are then cooled and cut up into appropriate pieces, and wrapped in gold coloured cellophane and kept in a cool place.

No. 182. Sat. March 30, 1940 — Increased Fish Catch

Canadian fishermen are making a valuable contribution to the war effort in the direction of increasing the supply of food. In four out of five sea fisheries provinces the February catch topped that of February, 1939, and was worth more to the fishermen at point of landing. Quebec, where fishing is never active at this time of year due to weather conditions, was the lone dissenter among advancing catches.

All told, the Dominion's landings of sea fish and shellfish during the month

amounted to 1,137,900 hundredweights and its landed value was $669,100. This represented a catch almost double that taken in February 1939, and a comparative increase in landed value.

British Columbia herring continued the biggest contributor to the increase in total catch. On the Atlantic coast, however, substantial gains were recorded in the cod catch in Nova Scotia, and smelt and scallops catches in New Brunswick also were up. An extension of the smelt fishing season granted in New Brunswick area also assisted in swelling the total catch, and in consequence the total landed value.

British Columbia's catch for February totalled 1,005,500 hundredweights, roundly stated, as compared with 645,800 hundredweights taken in February last year. In landed value to the fishermen at point of landing the catch was worth $342,600, while the same month last year produced a landed value of but $189,800.

Heavy herring runs continued throughout the month. In all 970,200 hundredweights of these fish were taken, with a landed value of $276,400. Last February's catch was worth $128,900 as landed. Grayfish landings were also up some 5,700 hundredweights, and the clam catch increased by some 2,400 hundredweights as compared with February 1939.

Nova Scotia was the major producer on the Atlantic coast. Total landings, all varieties taken in Nova Scotia during February, reached an aggregate of 87,800 hundredweights, a gain of some 33,400 hundredweights compared with February 1939. Landed value of the Nova Scotian catch was $217,200 as compared with $113,800. Cod was the major contributor to the advance with landings of 37,900 hundredweights, an increase of some 23,600 hundredweights, but better smelt and scallops catches also played a part in the advance.

The lobster catch for February, 649 hundredweights, was taken mainly in Nova Scotia. Landed value totalled $16,200. Last February 356 hundredweights of the shellfish worth $8,100 were landed. Total catch for the season reached 25,200 hundredweights as against 23,300 taken thus far last year. In value an increase is also shown, $420,500 as against $384,400, up to the corresponding date in 1939.

No. 183. Sun. March 31, 1940 — Rain for Grain

The amount of rain or other water required to make a satisfactory grain crop is a question of vast importance to the Prairie Provinces of Canada. In times of drought men pray in the churches for rain from Heaven and a shower brings blessing all over the land. It is life-giving.

So the scientists at the Soil Research Laboratory at the Swift Current Experimental Station in Saskatchewan have provided us with a very definite statement as to what an inch of water will do. From the data they have accumulated they have shown that from 1924 to 1939 wheat on summerfallow on the Prairies required 1,437 pounds of water for each pound of grain produced. Approximately 78 per cent of this was transpired by the plants and 22 per cent lost by evaporation.

One inch of rainfall over an acre is equivalent to 226,113 pounds of water which, on the basis of the above water requirements, is equal to 2.6 bushels of grain.

That is clear-cut information that will be of great service in estimating wheat and other grain crops.
