INDEX VOL. VII

AGRICULTURE

INDEX VOL. VII

AGRICULTURE (CONT'D.)

INDEX VOL. VII

FIRE LOSSES AND PREVENTION

INDEX VOL. VII

FISHERIES AND GAME

FORESTRY

FORESTRY (CONT'D.)

MINES AND MINERALS

MINES AND MINERALS (CONT'D.)

MISCELLANEOUS

MISCELLANEOUS (CONT'D.)

MISCELLANEOUS (CONT'D.)

PUBLIC HEALTH AND TOWN PLANNING

PUBLIC HEALTH AND TOWN PLANNING (CONT'D.)

WATERS AND WATER-POWERS

ILLUSTRATIONS

Conservation

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Will Wood Fuel Take Place of Coal?

Wood Not so Cheap as Coal in Markets Far Removed from Supplies

During the current season, the unfortunate dependence of Canada on the United States for its supplies of coal has been brought into vivid prominence and, as a result, there has been much searching for possible substitutes. Naturally, wood was one of the substitutes to attract attention. The fuel value of good hardwood compares unfavourably with anthracite coal, a pound of such coal being equal to approximately two pounds of hardwood. For this reason, in markets that are far removed from sources of supply, wood is more expensive than anthracite, so long as the prices and available supplies remain as now.

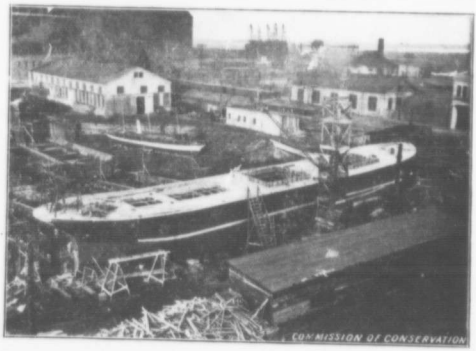
The southern portions of Manitoba, Saskatchewan and Alberta have no large supplies of wood. Up to a few years ago, wood, cut locally, was used to some extent, but, with the gradual exhaustion of these supplies, the demand for coal is increasing yearly. The cordwood used in the Prairie Provinces comes from the Rainy River district of Ontario, south-eastern Manitoba, the western shores of lakes Winnipeg and Manitoba, the Riding mountains, the vicinity of Prince Albert, the Kootenay district of British Columbia and Minnesota.

These sources of supply are at a considerable distance from the centres of population, and, as cordwood is bulky, the long freight haul to market largely increases the price. Even in certain of the areas mentioned, supplies of cordwood are becoming exhausted, and it is evident that, under present conditions of transportation, there is no likelihood of its being used to any greater extent than at present.

—*W.J.D.*

No less than 2,717 public and high school boys worked on Ontario farms last year.

New York state has passed a law requiring counties with a population of 35,000 or over to erect and maintain tuberculosis hospitals.



REINFORCED CONCRETE BOAT *S.S. Concretia*, PRIOR TO LAUNCHING AT MONTREAL

Electric Locomotives May Supersede Steam

Satisfactory Experiments on Mountain Sections of American Lines

Actual want of any commodity provides the most direct appeal possible for its conservation. The use of electricity, instead of steam, on those portions of Canada's railways adjacent to water-powers would materially reduce our dependence on the United States for coal. In 1916, the railways of Canada used 8,995,000 tons of coal, or about 61 per cent of our total production. In fact, the increased price of coal may soon compel us to use hydro-electric energy extensively as a railway motive power.

Certain American railway companies have carried out extensive experiments in electrification within the past two years and many of the results are of more than ordinary interest. On its Rocky Mountain division, the Chicago, Milwaukee & St. Paul replaced its steam locomotives by electric. Electricity is decidedly superior to steam in operating efficiency, especially in cold weather. Electric power made it possible to operate more trains over the same tracks and that, without the need for 'helper' locomotives. Again, there was a great saving in terminal and round-house facilities, and the roll-

(Continued on page 2)

Fires in Schools Mean Heavy Losses

Too Generally, Municipalities Vote for Cheap Construction

School buildings are just as susceptible to serious damage by fire as other structures, and should be as well built and protected as other buildings. The record of fires in schools in Canada shows that, during the last four years, a fire has occurred every week in a public school or residential college. The direct financial loss resulting from these fires amounts to more than $1,250,000. A careful study of conditions shows that less than one per cent of our schools are in any sense fire-resisting and that over 60 per cent are built of wood.

The safety from fire of the 28,000 public schools of Canada, in which over 1,500,000 children receive their education, has received little attention outside of cities and towns where building ordinances govern methods of construction.

The people, as a whole, favour efficient fire protection in schools but, when it comes to the question of a single building, the local public almost invariably votes for the cheapest type of construction. Up to the present, loss of life in the schools of Canada has not been such as to arouse a strong public sentiment in favour of improved construction.—*J.G.S.*

Concrete Ships To Increase Tonnage

Boats are Now Being Constructed in Canada. No Longer an Experiment

Ship building has received a tremendous impetus during the past year. The determination of Germany to wage unrestricted submarine warfare has made the question of providing ships to make good the wastage one of momentous importance. Months ago it became evident that a shortage of plates for steel ships and of suitable wood for wooden ships was well within the range of possibility. Substitutes were, therefore, sought. One of the most promising is ferro-concrete. This material has been in use in barges, launches and, even to some extent, in larger vessels for a number of years. Consequently, it was not without hope of success that attention was turned to the construction of concrete boats to take care of the traffic on the Great lakes and, thus, set free for coastal and ocean freighting, boats at present plying thereon.

A ship-building firm in Montreal has commenced the construction of such vessels. One of these is a 125-feet single screw steamer having structural steel ribs and keel with a hull of reinforced concrete. The shell is from three to five inches in thickness. It is, of course, thicker than a steel plate ship, but it is claimed that the weight of the hull is less than of a wood ship of similar dimensions. One of the outstanding advantages of this method of construction is the great speed that may be obtained in building. Thus, work on the vessel in question was commenced early in September and the boat was launched November 14th.

—*A.D.*

Expressed in terms of wheat, the value of the field crops destroyed annually in Canada by insect pests is sufficient to feed our entire population for a year.

The Alberta Government has extended the close season for antelope, which expired this year, until 1925. The species is all but extinct. Saskatchewan has a permanent close season for antelope.

Carbon Briquettes Would Save Money

Plant Could be Operated With Profit for Both Producer and Consumer

To save from 45 cents to $2.50 per ton is a possibility for the anthracite coal users of the Prairie Provinces. In 1916, Canada imported 4,570,000 tons of anthracite coal, nearly all of which was used for domestic purposes. Of this, about 400,000 tons were shipped to destinations in Manitoba and west thereof for domestic use. As the eastern portion of Saskatchewan forms the competitive area between supplies of United States coal on the one hand and the high grade bituminous coal of the Rocky mountains on the other, the cost of coal in that portion of the province is high.

An investigation undertaken by the Commission of Conservation in co-operation with the Advisory Council for Scientific Research shows the economic possibility of manufacturing a high-grade fuel from the lignites of Saskatchewan. The results are published in the pamphlet "Carbonizing and Briquetting of Lignites." Carbonized lignite briquettes are stated to be practically equal in heating value to anthracite coal. They will, therefore, stand comparison very closely on the basis of cost. An examination of the accompanying table will show that the difference in favour of briquettes as compared with anthracite coal varies from 45 cents per ton at Portage la Prairie to $2.50 per ton at Moose Jaw. This allows a profit of $1.00 per ton to the producing plant having a capacity of 30,000 tons per annum. With a capital cost of $400,000, this would return 7½ per cent on the investment. The lower price of carbonized briquettes would mean a large saving to consumers in western Manitoba and Saskatchewan and a plant such as that referred to would save some $225,000 to the country annually which is now being paid to American coal producers.—*W.J.D.*

Factors in Production

1. Importance of Good Seed

Now is the Time to Prepare Seed for Spring Sowing

It has been many times clearly demonstrated that it pays to sow good seed. This applies with equal force to grain, root, vegetable and garden seeds. Some of the seeds required on the farm may have to be purchased, and only the very best should be obtained. If there is one thing, however, that is largely in the farmer's own hands, it is the quality of the grain used for seed. Under ordinary conditions, the farmer should not find it necessary to buy seed grain, once he has secured a variety suitable to his farm.

The time to select most intelligently and profitably is when the grain is still standing uncut. The best part of the best field should be marked and from it the seed should be kept. Those who have not done this should, however, do the next best thing, and thoroughly clean the grain for the spring sowing. *Now* is the time to do it. Do not wait until the day the seed is required for sowing. Use the fanning mill *now*. Put the grain through the mill two or three times, or until all dirt, shrunken kernels and weed seeds are cleaned out. This is the season when labour is most plentiful and when time will permit carrying out these operations. Clean seed grain will mean larger yields. Strict attention to this matter is a part of the 'bit' expected of the farmer.—*F.C.N.*

A CORRECTION.—The article on 'Famine or Food' in our December issue inadvertently stated that the statistics of production given were for wheat, whereas it should have said they were for cereals—wheat, corn, oats, barley and rye.

	Price of U.S. anthracite per ton f. o. b.*	Carbon Briquettes			Difference in favour of carbon briquettes
		Freight rate and switching from B'enfait	Estimated cost f. o. b. cars	Selling price profit of $1.00 per ton f.o.b. cars	
Winnipeg	$ 9.50 to $10.00	$1.90	$9.15	$10.15	
Portage la Prairie	10.00 " 10.50	1.80	9.05	10.05	.45
Carberry	10.65 " 11.15	1.60	8.85	9.85	.80 to $1.30
Brandon	10.60 " 10.85	1.50	8.75	9.75	.85 " 1.10
Virden	10.80 " 12.15	1.60	8.85	9.85	.95 " 2.30
Moosomin	11.00 " 12.25	1.80	9.05	10.05	.95 " 2.20
Wolseley	11.50 " 11.75	1.80	9.05	10.05	1.45 " 1.70
Regina	11.50 " 12.25	1.60	8.85	9.85	1.75 " 2.40
Moose Jaw	11.45 " 12.35	1.50	8.75	9.75	1.70 " 2.50

*Owing to the steady exhaustion of the anthracite resources of the United States, these prices will increase year by year.

Nature of Insurance

Combination of Interests Distributes Individual Losses

Experience may show that, of 10,000 dwellings having an aggregate value of $50,000,000, fifty are damaged by fire every year and a loss of $250,000 entailed. Experience does not indicate, however, which 50 of the 10,000 will be burned next year nor the proportion of damage that will be done in any one. Consequently, each individual owner, where there is no system of insurance, is liable at any time to the total loss of his investment. But, assuming that these 10,000 property owners combine into one group, it is clear that they substitute for individual uncertainty a definite knowledge. Upon the basis of past experience, the annual loss upon the whole group will amount to $250,000, and it, therefore, follows that an assessment of one-half of one per cent upon the valuation of each individual's property will provide sufficient funds to reimburse the loss of the entire group. The element of probability, when distributed over a group, becomes a certainty, and the larger the group the greater the certainty.

In its commercial aspect, fire insurance is an accumulation of funds to meet future eventualities by applying the law of average to losses by fire. Damage to any given building, in any given location, within any given space of time, is a matter of uncertainty. With the combination of a number of separate buildings into a group, the element of probability is introduced. It is in the application of this principle that a distinct gain to society is apparent in the institution of insurance.—*From 'Fire Waste in Canada,' soon to be published by the Commission of Conservation.*

NEW FOREST SERVICE FOR NEW BRUNSWICK

The Government of New Brunswick is now considering the entire reorganization of the various lines of forestry and fire protection work with a view to combining them under a single head. This would mean the establishment of a genuine provincial forest service with a co-ordinated staff handling fire protection, scaling, enforcement of cutting regulations on Crown lands and continuation of the forest survey and land classification. It would also mean a permanent fire-fighting staff with adequate financial support, partly derived from assessments on timber owners, as is done in other provinces. Such re-organization would mark a new era in forest conservation in New Brunswick, and it is to be hoped favourable action will not be delayed.

How to Make Your Coal Burn Longer

Hints on the Firing of Furnaces that will Reduce Coal Bills

Keep the fuel bed thick so that it will not burn through in spots and admit a large excess of air. If there is a bright bed of coals over the entire grate, as there should be before a heavy charge is fired, some of the burning coal should be pushed to one side or end of the grate—the part nearest the opening where the gases leave the fire pot—and the bed of live coals made thicker there. Then fire the fresh charge so as to make the bed approximately of uniform thickness and yet leave visible a bright spot of live coal to ignite the combustible gases coming off the freshly fired fuel.

If the fire is low, take care not to put it out by throwing on too much fresh coal. Fire lightly and allow each firing to become ignited before fresh coal is thrown on. Use small sizes of coal if they are available.

When preparing the fire to last over night or for a similar length of time, push some of the burning coal aside and fire the fresh charge so as to leave a bright spot visible to ignite the distilled gases. The drafts should then be allowed to stand open for a short period, possibly half an hour, before they are closed for the night, so that a part of the volatile matter or gases in the coal can be driven off before the air supply is greatly reduced.—From *Saving Fuel in Heating a House*, issued by the United States Bureau of Mines.

Electric Locomotives

(Continued from page 1)

ing stock was not subjected to as much wear and tear as when steam was used. This latter fact was largely due to the superior braking qualities of electric-drawn trains. Air brakes were not used on grades except in cases of emergency. In fact, it was found that as much as 11.3 per cent of the power consumed during the period of the test was generated by the trains themselves on the down grades. The experiment was so satisfactory that the company has decided to instal electric equipment on its Cascade division as well.

In a region so lacking in coal and so rich in water-power as is Central Canada, we may expect that, in time, the increase in the cost of coal will, in favourable situations, induce the electrification of part of our steam railway mileage. If the coal now consumed by railway locomotives could be turned to other productive uses, an important step would be taken in making Canada more independent of the American coal market. Concurrently with that advantage, the country's trade balance would be considerably improved.—*A.D.*

Commission of Conservation
CANADA

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Chairman

JAMES WHITE
Assistant to Chairman and Deputy Head

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OTTAWA, JANUARY, 1918

Third Largest Dam In World in Quebec

Makes Nearly a Million Horse-power Available. Exceeded Only by Assuan and Gatun Dams

The most important water conservation work thus far undertaken in Canada is that undertaken by the Quebec Government and now nearing completion at La Loutre on the St. Maurice river. It will store up the waters of the St. Maurice for the benefit of its many water powers and will double the low-water flow.

This work had been projected for many years as the regulation of the river is of the greatest value to the important developed water powers at La Tuque, Grand'mère and Shawinigan Falls, but no construction work was undertaken. After full investigation of the project, both from the engineering and financial view-point, the Quebec Streams Commission let the contract for construction in the summer of 1915.

The work has progressed steadily since in spite of the great difficulties in transportation. It is now 80 per cent completed and will cost about $1,500,000. When finished, it will create a reservoir of 160,000 million cu. ft., forming the third largest artificial reservoir in the world, being exceeded only by the Assuan reservoir on the Nile and the Gatun lake on the Panama canal. From the owners of the power-sites already developed, the Commission will receive a revenue of upwards of $130,000.

Between the reservoir and the mouth of the St. Maurice there are 17 power sites with heads of from 10 feet to 150 feet. The aggregate descent at these sites totals 800 feet, but the dams erected in developing the various sites will increase this total head to 900 feet. Under present conditions, these sites have a total capacity of approximately 350,000 theoretical h.p., but it is estimated that some 900,000 h.p. will be available when the flow is regulated from the reservoir. At Shawinigan, Grand'mère and La Tuque alone, the three sites at present utilized on the St. Maurice, the potentiality will be raised from an aggregate of some 190,000 theoretical h.p. to over 400,000 h.p.

THE RED PLAGUE OF FIRE

DURING 1917, fire losses in Canada amounted to $23,251,604. The loss in each month of the year was as follows:

January	$2,176,594	July	$1,450,073
February	2,487,766	August	1,628,233
March	2,766,431	September	1,755,104
April	1,804,422	October	1,002,969
May	1,235,767	November	1,284,517
June	1,392,448	*December	4,267,340

The number of fires reported totalled 14,092, but over $15,500,000 of damage resulted from 76 fires. One hundred and ninety-eight persons were burned to death during the year, exclusive of lives lost by fire in the Halifax disaster. Over eighty per cent of the fires in Canada are easily preventable. Will you help to reduce their number in 1918?—*J.G.S.*

*Losses during last week of December incomplete.

PREVENTION OF FOREST FIRES IN QUEBEC

The co-operative forest protective associations in the province of Quebec have been remarkably successful in reducing the damage by forest fires throughout large areas of that province. The pioneer in this movement was the St. Maurice Forest Protective association, organized in 1912. The success with which it met resulted in the organization of other associations, until now there are four such, protecting a total of nearly 70,000 square miles of forest land. These associations are maintained and administered primarily by timber owners, although the provincial Government contributes to their support in consideration of the protection afforded unlicensed Crown lands. Approximately 80 per cent of the licensed Crown timber lands of the province are now under this form of forest fire protection. Each association has a manager, staff of inspectors, and force of fire-rangers, all selected on the sole basis of fitness for the work in hand. The accompanying table shows the approximate areas of the several classes of land receiving protection by each of the associations.—*C.L.*

FOREST PROTECTIVE ASSOCIATIONS IN QUEBEC, 1917

Name of association	Licensed Crown land (acres)	Crown granted land (acres)	Unlicenced Crown land (acres)	Total area patrolled (acres)
Ottawa River	16,906,720	.....	4,060,800	20,967,520
St. Maurice	8,049,645	.....	1,000,000	9,049,645
Laurentian	6,002,634	239,710	1,344,000	7,586,344
So. St. Lawrence (East)	3,464,493	225,018	4000,000	4,089,511
So. St. Lawrence (West)	1,557,960	1,115,027	.....	2,672,989
Totals, acres	35,981,452	1,579,757	5,804,800	44,366,009
Totals, sq. miles	56,221	2,468	10,632	69,321

RESTORING RETURNED SOLDIERS

With commendable enterprise and foresight, Canada is carrying on an extensive work in restoring her invalided soldiers. At the close of the year there were 113 institutions (of which the Military Hospitals Commission conducted 71) caring for convalescent soldiers. In these, there were 11,395 beds, in addition to 2,500 beds used in clearing depots. There were 10,000 men under treatment, 3,000 men enrolled for vocational training and 869 men being taught new trades. These numbers are constantly increasing and the Military Hospitals Commission is expanding its activities to meet the growing needs adequately.

FRENCH CONTROL OF METAL

France is taking steps to ensure the economic development and control of her mineral and metal industries after the war. A company has been formed, entitled the *Société Minerais et Métaux*, with a capital of $2,000,000 for the purpose of fostering and protecting the metal industries of the country. The company, which is representative of existing interests, is not a profit-making enterprise so much as an organization which has for its object the improvement and extension of the methods of distribution, treatment, and marketing of the metals produced in France and her colonies.—*W.J.D.*

Food Conservation In Logging Camps

At the Pacific Logging Congress held recently, Mr. W. B. W. Armstrong of the British Columbia Loggers' Association made some very pointed remarks in connection with the present wastage of foodstuffs in logging and lumber camps. Something like a competition has developed among the several companies in providing luxurious food for their employees, with the definite object of attracting men to their employ. It was stated that: 'now the foods served in our logging camps are more expensive and more varied than those used in our own homes or in the average hotel.' Mr. Armstrong attributed the present 'great waste of food' in the camps to the general and lavish use of canned fruits and vegetables. This waste he classified as follows:

(1) The labour cost of canning fruits and vegetables is greater than that of drying or evaporating.

(2) The heavy syrup in which fruits are put up is very expensive—and this class of fruit is used almost exclusively in the camps.

(3) The material of which the containers is made is expensive and scarce, and is, moreover, very necessary for the conduct of the war.

(4) It has been demonstrated that the food values of evaporated fruits are equal, if not superior, to those of the same materials put up in a heavy syrup.

No class of men, he pointed out, requires better food than the logger if he is to be efficient, 'but, of late years, the selection of his food has been wrong in theory and wasteful in practice.' As a remedy, Mr. Armstrong urged that this mistaken competition should be stopped by the companies co-operating and working out a standard diet of palatable, body-building foods for their employees. He urged that legislation be had enforcing such standardization, at least for the period of the war.

It is most desirable that the men should be given plenty of wholesome food prepared in sanitary kitchens and served in clean, bright dining rooms, but this may be done without 'the tremendous waste that now prevails.'

SUPPLIES OF GASOLENE

In 1915, Canada consumed over 43,000,000 gallons of gasolene. Of this amount about 5 per cent was produced from Canadian crude, while the remainder was either imported direct or produced from imported crude. This fact shows the dependence of Canada upon supplies of gasolene and petroleum from United States and strengthens the argument used in a previous issue wherein it was stated that 20 per cent of the gasolene used in Canada was produced from Canadian crude oil.

PATRONAGE HINDERS PROGRESS IN FORESTRY

The Dominion Government was the pioneer in advanced forestry practice in Canada, but it is now being out-distanced by the provinces. The Dominion Forestry Branch is an efficient institution manned by well-qualified technical men appointed on the merit system, but the field service by which it administers forestry on Dominion lands has always been appointed under the party patronage system. Year after year the Commission of Conservation and the Canadian Forestry Association have urged upon the Government that the merit system be adopted in the outside forestry service, but no change has been made. The new Union Government, however, has declared for the abolition of the patronage system, and we confidently look forward to an important betterment in the Dominion forestry administration. The country's resources are wasted by the retention of such a system, which every one condemns. Every year, instances have come to the notice of the Commission of Conservation where valuable forest property has been destroyed because a ranger or some other official was appointed because he was a politician and not a competent forester.

FOUL AIR AND DISEASE

'Free as the air we breathe' is not applicable to foul air. Like most other commodities the latter exacts a toll from everyone who uses it. Lowered vitality, with a consequent predisposition to such diseases as colds, pneumonia and tuberculosis, is the price that is paid for breathing impure air. It is probably true that a large percentage of the homes in countries possessing a climate similar to Canada's are, to a greater or less extent, breeding places for such diseases, especially during the winter months. This is the outstanding reason for the marked prevalence of such diseases in Canada, diseases for which fresh air is the most potent remedy.

Tightly closed rooms constructed for the sole purpose of retaining heat, soon become filled with poisonous gases exhaled by the inmates. The remedy is, of course, better ventilation. It can only be a question of time when our governments will insist that scientific ventilating systems be installed in all new buildings. Public health and public opinion will demand it. In older buildings, where the only ventilation is obtained from windows, the air may be 'flushed' by opening the windows at intervals for a few moments. This means a loss of some heat, but, if the windows are not left open too long, the saving in doctor's bills will more than offset the extra cost of fuel.—*A.D.*

FLOOR OF A BRITISH COLUMBIA SALMON CANNERY DURING 'THE YEAR OF A BIG RUN'

"The Run of the Big Year"

Romantic Aspect of the Salmon Fishery of Fraser River has Disappeared

BRITISH Columbia salmon is a staple product the world over. The superior quality of the sockeye salmon, especially, has created a market for them wherever there is a demand for canned fish. This world-wide reputation has naturally led to an extensive exploitation of the fishery, and, in spite of a measure of restrictive legislation and artificial propagation, there has been a steady decline in the catch during the past twenty years. This is especially true of the Fraser River fishery. The international character of the stream has made it impossible, up to the present, to secure adequate restrictions and regulations.

As is well known, the life history of the sockeye salmon extends over a period of four years and, each year, the fish that were spawned in the upper waters of the Pacific Coast rivers four years before, come in from the sea to deposit their spawn in turn and then die. It is during these seasons of inward migration that the fishermen gather their harvests. One of the strange and romantic features of these migrations is that every fourth year the run of fish is many times larger than during any of the three years preceding or following it. This phenomenon has occurred so regularly that it is commonly spoken of as 'the run of the big year.' The explanation most generally accepted is that, at some period, before the advent of the white man, the fish were overtaken by some disease, or other calamity, which either prevented spawning or destroyed much of the spawn during a period of three years. As if to confirm this theory, the enormous rock slide in the Fraser in 1913—a big year—which prevented the salmon getting up the river to spawn, caused a tremendous falling off in the catch of 1917. Thus, in 1913, 2,401,488 cases were packed by Fraser river canners, while a close estimate of the total pack of 1917 is only 429,600 cases,*or only about 18 per cent of the pack of 1913.* Such a decline is a calamitous one and only the most carefully enforced restrictions over a period of years can restore, or even save, the fishery.

At the Ninth Annual Meeting of the Commission of Conservation, Mr. J. P. Babcock, Assistant Commissioner of Fisheries, British Columbia, said:

'The history of the fishing in the Fraser River district in the past fourteen years is a record of depletion—a record of excessive fishing in the lean years; a record of failure on the part of the authorities of the state of Washington to realize the necessity of conserving a great fishery, notwithstanding the convincing evidence submitted to them by agents of their own creation that disaster was impending to one of their great industries.

'The Canadian authorities, on the other hand, have, by their representations and acts, evinced, in unmistakable manner, their willingness to deal squarely and adequately with conditions that foretold depletion, and to join with the state of Washington or the United States Government in legislation to prevent it.'

If this can be done there should be no reason why in the course of time 'every year should not be a big year.' On the other hand, a continuance of the present wasteful methods of fishing, especially by American fishermen, can only result in the complete depletion of this valuable fishery.—*A.D.*

ONTARIO FOREST BRANCH SHOULD CONTROL CUTTING

Ontario should not delay in placing cutting operations on Crown timber lands under its new Forestry Branch, which has a technically trained staff and is proving itself very efficient. Such a step would avoid duplication and would secure scientific regulation of logging operations with a view to securing reproduction of the forest on cut-over lands. Trained foresters are now in charge of cutting operations on Crown lands in Quebec and British Columbia and probably soon will be in New Brunswick under the scheme of forest service reorganization now in contemplation.

REFORESTATION IN QUEBEC

Reforestation of denuded lands in Quebec continues to make progress, though on a small scale. The provincial forest nursery at Berthierville is to be materially extended. The reforestation work of the Laurentide Company is particularly notable. Planting also has been done by the Riordan Company and the Pejepscot Company.

So far, practically all of the forest planting has been done on private-owned lands, but the provincial government has now under consideration the question of systematic reforestation of denuded Crown lands. Obviously, the question is one of the highest possible importance.

It is savings that Canada needs to prosecute the war.