

Conservation

A monthly bulletin published by the
Commission of Conservation, Ottawa, Canada.

VOL. VIII

OCTOBER, 1919

NO. 10

Perpetuating the Supply of Pulpwood

Pulp and Paper Companies Co-operate with the Commission of Conservation in studies of Tree Growth

Canada produces annually about \$100,000,000 worth of pulp and paper products. During the past ten years, especially, the industry has made rapid progress, until it is now one of the most important in the country. The three outstanding requisites for the maintenance of the industry are large accessible forest areas, particularly of spruce and balsam, adequate cheap power, preferably water-power, and a plentiful supply of labour. As to the two former, nature has been prodigal in her gifts to Canada. Water-power is not only abundant but is widely distributed. The virgin coniferous forests of Eastern Canada were of vast extent, and it is perhaps not entirely surprising that the early settlers and explorers considered them to be all but illimitable.

But, for at least thirty years, keen observers have foreseen the possibility and, indeed, the probability, of exhausting the natural supply of pulpwood. The rapid growth of the paper industry has brought the time within measurable distance. The larger producers of paper, particularly in Quebec and Northern Ontario, where the industry is mainly centred, have scented the danger and have taken initial steps to put the pulpwood forests on a permanent basis.

It goes without saying that it is a great advantage to have an adequate supply of pulpwood forests at the "back door" of the mills. Consequently, extensive planting of cut-over lands has already been undertaken.

What is of at least equal significance and importance, scientific studies of forest conditions are being carried out as quickly as possible; guesswork is to cease. Even expert estimates, valuable as they are in the absence of more exact data, are to be supplemented by both extensive and intensive studies of tree growth, the relations that exist in forest stands between different species of trees, the effect of different methods of cutting and slashing on the future forest crop, the range and control of injurious insects and plant diseases, and the influence of climate on the reproduction of forests.

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Photo by G. A. Maltby.

Cat No. 192

MAKING PERMANENT RECORDS OF FOREST GROWTH

The man in the picture is determining the position of the trees by means of an alidade attached to a plane-table. Each tree has a number painted on its trunk and corresponding numbers are placed on the map. This is a material assistance in keeping a permanent record of the trees and simplifies the study of the progress made by them under different conditions from year to year. The portion of the plot shown in the picture has been slashed and the slash burned. For purposes of comparison the remainder of the plot has only been slashed.

A WORD OF CAUTION

"Lest we forget" were the words of caution which went far and wide about a year ago when the epidemic of influenza cut a swath through Canada and brought suffering and distress and carried away tens of thousands of our loved ones. A timely word or two may not be out of place to health authorities and the public generally.

The benefits of fresh air, healthy living and the early medical attention to colds and catarrhs should not be forgotten as some of the preventive measures which should claim our personal attention.

Let each one of us, like a good scout, "Be prepared" against what may happen and the worst may never materialize.—C.A.H.

RECORD CATCH ON SKEENA

On the Skeena river, which enters the Pacific just below the city of Prince Rupert, the salmon run is the greatest in the history of the salmon fisheries. For some days the average take of fish on the Skeena was approximately 140,000 to 150,000, about evenly divided between the sockeye and the humpback.

The canneries and cold storage plants are finding it difficult to take care of the fish. Prices paid the fisherman are the highest ever known and with the increase in the cost of cans it is apparent that canned salmon will necessarily sell at a high figure.—U. S. Commerce Report.

Where hygiene is practically applied, crime diminishes.

Imitating Nature in Hatching Salmon

B. C. Fish Culture Expert Incubates Fry in Gravel—Good Results Obtained

The Commission of Conservation, through its publications, has repeatedly drawn attention to the diminishing resources of sockeye salmon in the Fraser river. The depletion is, in fact, so serious that these fish are threatened with extermination in that locality. To meet the situation two things are necessary. First, there must be a drastic limitation of the fishing for a term of several years, which can only be accomplished by international agreement. (An article on this subject appeared in the July number of *Conservation*.) Second, the sockeye must be aided, by artificial hatching, to regain their former numbers.

The great difficulty with the hatchery system has been that, although very efficient as regards the proportion of eggs that are hatched, the fry have proved to be much less fitted to take care of themselves than those hatched naturally. On the other hand, in natural spawning, a great many eggs are lost by less thorough fertilization, by being left high and dry when the water goes down, by destruction owing to freshets and by falling a prey to their natural enemies.

Mr. A. Robertson, superintendent of the Harrison Lake, B.C., fish hatchery has devised a method of incubating salmon spawn in gravel, which, it is claimed, combines the advantages of both the natural and the artificial methods of hatching.

Mr. Robertson's method consists, essentially, of placing layers of gravel and soft eggs in a box through which a constant supply of spring water is made to circulate. When carefully laid, the soft eggs adapt themselves to the shape of the interstices in the gravel. The fry being hatched in the dark, are light-shy, and have consequently developed their natural hiding instinct. Nor have they become accustomed to the movements of the hatchery attendants and they are therefore more alert than fry bred in a hatching trough. Fry hatched in gravel instinctively burrow down and remain till the sac is absorbed and often make considerable growth before they emerge.

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Co-operative Soldier Settlements in B.C.

Experiment Initiated by Veterans Themselves Makes Promising Progress

Three hundred officers and men returning for demobilization on the Empress of Asia evolved a scheme for co-operative settlement on the lands of British Columbia. They elaborated their scheme and presented it to the authorities. For a time they received little encouragement but eventually they found sympathy and encouragement from the Government of British Columbia. The Dominion authorities agreed to endorse the project and now four soldier settlements in the province of British Columbia are in course of development by soldier labour.

In the development of the estates, returned soldiers only are employed. Thus the problem of their employment is settled at once. When the lands are cleared and ready for occupation they will be sold to the soldiers, who will receive a \$500 rebate on the purchase price. The Land Settlement Board has provided the lands.

Camp stores have been established by the Board and the profits of the stores are to be divided among the soldier settlers. When development has sufficiently proceeded, the stores will be taken by the settlers and run on co-operative principles.

Among the friends of the soldiers in British Columbia the movement is arousing the greatest interest. To the soldiers themselves it has all the fascination of creation. They have found what William James called "The moral equivalent of war." There is something to overcome—the sternness and strength of nature—something to civilize and, for their inspiration, as in the days of war, are the strong human affections—love of wives and children and comrades. They are delighted to work together and congratulate themselves that they have escaped the isolation of the old-time settler.—A.B.

Imitating Nature in Hatching Salmon

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In a paper before the American Fisheries Society, Mr. Robertson expressed the belief that when fry are thus hatched in gravel the loss from fungus is negligible, and the removal of infertile eggs unnecessary.

It is important to note that this method cannot be used with hardened eggs, as placing them in the gravel would destroy them. It is essential to pack the box in such a manner as to prevent all movement of the eggs due to the flow of the water.

In 1915, Mr. Robertson had one container in operation, as an experiment. Encouraged by favourable results, 70 boxes were put into use in 1916 and 90 in 1917. Their combined capacity is over 2,000,000 eggs. All hatched successfully except those in two boxes, which had been constructed of faulty material.

Wise Household Clean the Chimneys

Severe Penalties are Provided for Causing Fires through Negligence

Cooler weather demands the lighting of heaters and furnaces. Before this is done, however, chimneys, flues and stove-pipes should be thoroughly cleaned out and made safe. This is not a difficult matter, and is much preferable to being turned out of the house on a cold night by a fire caused by dirty pipes or chimneys.

Some surprise might be caused to the owner of a building damaged by fire from such a cause if the insurance company declined to pay the loss. This the company has a perfect right to do, as it is distinct, if stated on all fire insurance policies that the company is not responsible for fires caused by negligence on the part of the assured.

The "Act to Amend the Criminal Code Respecting Prevention of Fire," passed at the last session of Parliament, distinctly states:

"Every one is guilty of an indictable offence and liable to two years' imprisonment who by negligence causes any fire which occasions loss of life, or loss of property."

With the possible loss of insurance and two years' imprisonment as a penalty, it is not wise for the householder to neglect his stove-pipes and chimneys.—J.D.

Use of Chemicals to Improve Combustion

Oxygen of the Air and Attention to Firing give better Results

The Fuels and Fuel Testing Division of the Department of Mines has recently issued a pamphlet on "Economic Use of Coal for Steam-Raising and House-Heating," by John Bizard, B.Sc., in which the following remarks are made on the use of chemicals to improve combustion:

"Compounds appear on the market from time to time, under various names, which are supposed to cause the coal to give out more heat. The sellers of some of these articles recommend that they be sprinkled in small quantities, about one pound to a ton, on the coal before firing, or on the ashes after their removal and before returning them to the furnace. Since coal burnt completely in air gives out all the heat it contains, and since it is impossible to burn the ash in the coal, these articles can neither increase the heat energy in the coal nor endow ash with heat energy. If these compounds contained a large percentage of oxygen, the amount would not be sufficient for the combustion of half their weight of good coal. Would-be purchasers are strongly advised not to listen to the extravagant claims made by agents for their sale, and to devote their attention to the scientific combustion of their coal with the oxygen of the air, which may be easily obtained free of cost."

If the experiments now under way in both Canada and the United States should prove successful, and the cost not be prohibitive, a large development is to be anticipated in connection with the protection of forest lands by means of aircraft.

Coal Conservation in Great Britain

Technical Research in England Promotes Economic Use of Inferior Coal

The benefits of technical research are being once more illustrated in England, where a committee appointed by the Institute of Petroleum Technologists has been investigating methods for the economical use of bituminous coals, slack, colliery waste, etc., more particularly with reference to the production of by-products and the generation of power. The technical advisers of the committee have carefully studied various types of retorts and producers, the supply of retortable material, the output of the collieries, the possibility of using seams now unworked, the market for products, etc., and have assembled an immense amount of valuable data.

A company has now been formed with a capital of \$500,000, to produce oil from bituminous coal, to prepare fuel—e.g., gas, coke, and briquettes—for domestic and industrial purposes, and to extract various by-products in the process of manufacture. These will probably include ammonium sulphate or crude ammonia, and coal tar with its derivatives, which are so important in the manufacture of aniline dyes and numerous drugs and explosives.

A site for an experimental research station has been acquired in the centre of the Midland coalfield, with good railway connections and adjacent to three shafts which are now bringing up a true cannel, an inferior cannel, and a soft caking coal. It is not only intended to test material for the particular company concerned, but to co-operate with colliery owners in any part of the world in promoting more efficient utilization of coal resources. The company is receiving no Government assistance, nor is it in any way interested in any particular type of retort or process.

Timber Scarcity in U.S. and in Canada

Need of Lumber and Pulpwood in U.S., makes Increasing Demands for Canadian Supplies

The progressive diminution of timber supplies in the United States is reflected in the constantly increasing demands for the importation of forest products from Canada. For example, the United States in 1918 imported a total of 1,370,027 cords of pulpwood, valued at \$13,362,566. Practically all of this came from Canada, and represents an increase of 47 per cent over the number of cords imported in 1910, and an increase of 119 per cent in the value of the material. The importations of wood-pulp, from Canada and other countries, have also been very heavy, aggregating in 1918, some 516,258 tons, valued at \$31,477,175.

Chief Forester Graves, of the United States Forest Service, im-

pressed the seriousness of the approaching timber shortage, particularly in the eastern and southern states, has issued an appeal for the adoption of an adequate national forestry policy, involving drastic action by the Federal Government and by the several states. The need for action with reference to privately-owned timber lands is particularly emphasized.

Exhaustion of local forest supplies, the closing industries dependent on them, the embarrassment for supplies of the pulp mills and other consumers using special classes of forest products, the generally mounting prices to consumers, and its factors which are calling sharp attention to the effect of forest destruction, and are causing increasing public uneasiness.

Forest depletion is injurious long before the last tree is out, and long before all but the last centre of production is exhausted.

Leaders of the southern pine manufacturers state that the bulk of the original supplies of yellow pine in the South will be exhausted in 10 years and that in the next 5 to 7 years more than 3,000 manufacturing plants will go out of existence.

Hundreds of communities are suffering, because the resources supporting their chief industry has been exhausted. Sawmills and woodworking establishments close, subsidiary interests can no longer exist, the population moves away, the schools are abandoned, and other public improvements deteriorate, and whole townships and even counties are impoverished.

Few individuals may have realized handsomely from the speculative enterprise. The community has been gutted of its principal capital.

This is an occasional occurrence. It is the history of millions of acres of land unproductive and now an economic desert.

We have been discussing these problems for many years, but we have made little progress in securing the right handling of private lands.

I urge that those interested in the forest problem take action, without some definite and conclusive action.

Perpetuating the Supply of Pulpwood

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Each of these problems has a vital bearing on reforestation, and only the lack of trained workers, coupled with man's faith in his unproved assumptions, prevented the study of them a generation ago.

The studies are now being conducted under joint governmental and private auspices. Some of the larger pulp companies have entered into a co-operative arrangement with the Commission of Conservation to carry on such studies on their limits, which have been cut over at various periods, some of them three or four times. The investigation, which is under the general supervision of Dr. C. D. Howe, Acting Dean of the Faculty of Forestry of the University of Toronto, will require several years to complete. A start was made three years ago on the limits of the Laurentide Company.

Two years ago work was also commenced on the limits of the Riordon Company, and this year on the limits of the Abitibi Power and Paper Company. Such research is well worthy of a more general application and will doubtless prove to be a factor of no small importance in perpetuating and possibly extending the great pulpwood forests of Central Canada.—A.D.

Commission of Conservation CANADA

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CONSERVATION is published the first of each month. Its object is the dissemination of information relative to the natural resources of Canada, their development and proper conservation, and the publication of timely articles on town-planning and public health.

The Newspaper edition is printed on one side of the paper only, for convenience in clipping for reproduction.

OTTAWA, OCTOBER, 1919

CANADA AND THE U.S.

The conclusion of a treaty between Canada and the United States to ensure adequate protection of the Pacific salmon fisheries affords another instance of the common-sense "get together" policy which has been developing rapidly in recent years. The formation of the International Joint Commission to secure proper administration and use of boundary waters was hailed as a splendid achievement. More recently community interest again asserted itself when Canada and the United States took concerted measures to protect and conserve the migratory bird life of North America. Now we have similar steps with a view to rehabilitating the salmon fisheries which have been such a productive asset to British Columbia and the state of Washington.

In these and other cases Canada and the United States are building up a system of practical co-operation in the protection of mutual interests. As new occasions for parallel action arise, the difficulties should prove easier of solution in the light of the successes already attained.—O.M.

THE NEED FOR THRIFT

Saving is not always looked upon as a saving grace. If it were, there would not be over five per cent of the inhabitants of the United States and probably an equally large percentage of Canadians who are dependent upon public charity. During the past five years practically all commodity prices have risen steadily yet vast sums in the aggregate are now being spent for goods that the purchasers could very well do without. The production of luxuries requires the labour of thousands of men and the use of capital and materials that could be turned to better account in producing and distributing necessities. It is surely obvious that such needless expenditures influence in a marked degree the trend of prices in general.

No right-thinking nation or individual desires to become a pauper, but to avoid such a fate thrift is a prime essential. At no other time in the history of Canada has thriftiness been more imperative. At no other time has prodigality been so much the rule. It may be only a reaction following the

enforced frugality of the later war years. It may be due to the surplus currency which war industries brought into being. But in any case, the general result is baneful and tends toward pauperism. If the discount on Canadian currency abroad is to be wiped out and the prices of necessities reduced, national and personal thrift is a precept which must be put into practice.—A.D.

KEEP IMPLEMENTS UNDER COVER

If one travels through the country at the present time, the haying and harvesting machinery on many farms may be seen standing in the field where last used. It may have been drawn out into the lane somewhere or may even be at the barn but not inside it. In the Prairie Provinces there seems to be a sort of reckless abandon regarding the use of machinery. When a binder breaks down it is often drawn off to one side of the field and forsaken when it could be easily repaired and made to serve for a season or two longer.

The prices of all kinds of farm implements have gone up and it is poor business to neglect the machinery by leaving it exposed to the weather. The wooden parts soon rot away and the metal parts rust out. It takes longer also to get a rusty implement into working order again.

It is frequently stated that the farmer is and must be to-day more of a business man than formerly. Men in other lines of business where machinery is employed see that it is oiled and properly cared for in order to keep down production costs. The farmer should do the same. When he pays the price that he has to pay to-day for machinery he should take good care of it. Cost of production can be reduced in this way, which means increased profits. Try it.—F.C.N.

GOOD PLOUGHING

Ploughing matches in years gone by were common and very interesting events. They became less popular as two-furrow and power ploughs came into use, until ploughing threatened to become a decadent art. The aim seemed to be to plough the greatest possible area regardless of how the work was performed. Efforts are now being made to revive interest in better ploughing. Junior Farmers' competitions and local matches are being held in many places and an Interprovincial Ploughing Match and Tractor and Machinery Demonstration is being held at Ottawa on October 14th, 15th and 16th. Classes are open to boys, young men and mature ploughmen. This will be an educational event, intended to stimulate interest in better ploughing and better farming. Good ploughing nearly always means better farming throughout. Attention should and can be paid to the quality as well as to the quantity of the work done.—F.C.N.

CO-OPERATION IN RESEARCH

In his recent presidential address before the American Institute of Electrical Engineers, Mr. C. A. Adams touched on a subject which is of particular interest in Canada, namely, co-operation in industrial research. Much research work in this country has to be on a comparatively small scale and, to derive the full benefit from these efforts, co-operation is imperative.

In considering the advantage of co-operative research, Mr. Adams observes that "few individual corporations except the very large ones can afford either a suitable research laboratory or competent men to conduct the work. The result is that most of the research work is superficial and much of it misleading. The total cost is many times greater than a comprehensive co-operative research led by the foremost experts in the particular field. Moreover, some of the most vital and fundamental researches are either beyond the capacity of even the largest corporation laboratories or have to be postponed for those offering more chance of immediate returns. Thorough-going co-operation in industrial research would mean not only a reduction of the cost of research to a small fraction of its present figure, a much more rapid industrial development of the country as a whole and a material increase in the productivity of labor, but also an increase in the profits of every intelligent party to the co-operation."

CONSTRUCTION COST REDUCED

Examples of the economic advantages of using electricity are daily brought to notice, and are of special interest in Canada, where approximately 85 per cent of the electric power is derived from water-power and is, therefore, usually available at low rates.

The saving effected by electric operation in construction work is demonstrated in a recent article in "The Engineering News-Record." The plant referred to is for the construction of a nine-span concrete bridge in Ohio. Electric energy is supplied to some 13 motors varying in size from five horse-power to sixty-five horse-power. These are used for such machines as the saw-mill, belt conveyor, concrete mixers, derricks, pumps, pile driver, cable-way and concrete hoist towers. The cable-way is equipped with a sixty-five horse-power motor, the conveyor with a fifteen horse-power motor, while a mixer one cubic yard capacity has a twenty horse-power motor. In determining the reduction in power costs by using electricity, it is stated that the work can be carried out with an average power bill of \$450 monthly, while the single boiler plant which is to be used for steam hammer costs \$10 per day. If steam were used throughout, separate plants would be required for all machines, owing to their wide separation, and it is estimated that each would cost as much as the steam-hammer operations.—L.G.D.

"DELILAH"

A True Story for the Boys and Girls

Delilah was one of a family of four wild ducklings. She was hatched, however, by a domestic hen who acted as her foster-mother. Her place of birth was on the farm of Jack Miner, at Kingsville, Essex Co., Ont.

Delilah's sisters were Polly, Susan and Helen. They were wild enough little creatures at first, but soon learned to eat custard and were so tame that a tap on a tin pan would bring them all running up for food.

Now, Mr. Miner had often been asked the question, "Do birds return to their homes?" He felt sure they did, but he had no proof. Here was a fine chance to make an experiment. So he marked each of these four ducks with an aluminum tag with the words, "Box 48, Kingsville, Ont."

They migrated on or about December 10, 1912. Helen got shot at Lake St. Clair. On March 14, 1913, Polly came home, on March 18, Delilah returned, and on March 30 Susan appeared, though wounded in the wing and foot. So the question as to the return of birds was answered.

In the autumn of 1913, they migrated again, and in the spring of 1914, back came Polly and Delilah and brought their mates with them too. The young drakes were shy at first, but the two ducks coaxed them down. They raised families that year, and, in the autumn, away they went again.

In the spring of 1915, Delilah arrived on March 13 and Polly three days later. A shot had grazed across her beak and cut the side off, leaving it hanging. She just stood around with her mouth open. Jack Miner gave her custard and porridge and, in two days, he had her in his hands. In about a week or so, he took both ducks to a photographer, stood them on a table and got a picture of them.

Notice how birds know their enemies and their friends. These ducks had been shying around trying to keep clear of people lying in ambush for them, and now they were entering out of a man's hands. These creatures are not so silly as we are apt to think them.

Polly stayed the winter of 1915-16 on Mr. Miner's place, but in the spring of 1916 she was shot. Delilah, however, migrated regularly every autumn and returned the following spring, returning thus six times in all.

During the six seasons, she has raised five families, two of eight, two of nine, and one of twelve—forty-six ducklings in six years.

This shows that, if we protect the mother birds, we need have no fear of the extermination of our wild life. But it also shows what fearful destruction can be wrought by indiscriminate shooting, especially in the spring.

Remember that, though shooting may give you a little pleasure, it is well to limit your bag that, in future years, the birds may not have disappeared.

Canning Vegetables and Fruits at Home

Every Housewife can Preserve Foods in Jars, if Care is Used to Have Product Thoroughly Sterilized

"Canning," as the term is employed nowadays, is commonly applied to the preservation of food not only in tin cans, but also in glass jars. The cans are better for commercial use because they are cheaper and can be discarded after being opened, but for domestic use the jars are better, as they are more easily handled and can be used, if not clipped, year after year, only the rubber rings requiring to be replaced annually.

Decay of food products is brought about by minute forms of vegetable life—moulds, yeasts and bacteria. Canning preserves food by destroying these and then by excluding them. Their destruction is brought about by subjecting the products and containers for a certain period to a high temperature (at least 212° Fahr.) and their exclusion is achieved by hermetically sealing the containers immediately after sterilization. If the sterilizing and sealing have been properly done, the foods should keep in good condition for months or even years.

STEPS IN THE CANNING PROCESS

1. Prepare the canning utensils and jars. Have everything thoroughly clean and see that the tops of the jars fit properly.
2. Wash the fruits or vegetables carefully.
3. Blanch the product by putting it into a cheesecloth and by dipping in boiling water till the skins are loosened. This step may be dispensed with for berries and soft fruits.
4. Immediately after blanching, plunge the product into cold water.
5. Pack the fruit or vegetables into the jars, which should be clean and hot.
6. Add hot water and salt seasoning to the vegetables or hot syrup to the fruits till the jars are full.
7. Put on the tops, but do not seal tightly.
8. Sterilize. This may be done in an ordinary wash-boiler provided with a false bottom, which should also be equipped with rims and handles so as to serve as a tray for removing the jars. The boiler should be filled with water about half-way up the sides of the jars and the cover of the boiler should be tightly shut to retain the steam. The time of sterilization should be counted from the time the water begins to boil actively and it should be kept on the jump till the process is finished. The periods for various food products are as follows: Strawberries, 8 minutes; peaches, 17 minutes; other soft fruits, 12 minutes; hard fruits 20 minutes; tomatoes, 30 minutes; greens, beets and carrots, 1½ hours; peas, beans and corn, 3 hours.
9. Seal tightly immediately after removal from the sterilizing bath. Invert to test for leaks. If a leak is discovered, sterilization should



WRONG WAY TO "STORE" IMPLEMENTS
(See article on page 41)

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Australian Federal House-Building Plan

Commonwealth to Aid Returned Soldiers and Dependents to Erect Homes—Scarcity of Materials

The Federal Housing Commissioner of the Commonwealth of Australia states that operations for building houses for returned soldiers and dependents of deceased soldiers will be commenced very soon and will be pushed as rapidly as possible. The shortage of dwellings is serious and there is an unfortunate scarcity of building materials.

Before the war, in the city of Melbourne, an average of 75 houses were begun every week. It is estimated that the yearly construction for the Commonwealth must be at least 25,000 houses. To build that number of 4-roomed cottages would require 875,000,000 bricks, which is more than the annual pre-war production. Hence the manufacture of bricks will have to be greatly increased. It is also estimated that a minimum of 200,000,000 feet of lumber will be required annually to relieve the present congestion.

Soldiers are to be encouraged to build new houses rather than to purchase places already built. The deeds will be retained by the Government until 25 per cent of the price has been paid off, when they may be handed to the buyer. The Commissioner hopes to be able to build at 15 per cent below the market price asked by private contractors.

be repeated, though not necessarily for the same length of time. Trouble may be saved by making sure that jars are tight before using.

10. Protect the products from light by wrapping the jars in thick brown paper. Label and date. Store in a dark and not too warm place.

More detailed information on food preservation may be had on application to the Ontario Department of Agriculture, Toronto; the Macdonald College, Ste. Anne de Bellevue, Que.; the Manitoba Agricultural College, Winnipeg; or the Commission of Conservation, Ottawa.

Salmon Fisheries Treaty Concluded

New Convention between Canada and U.S. will Endeavour to Save Sockeye from Extinction

High commendation is due the Canadian fisheries authorities who have been instrumental in securing joint action by Canada and the United States to prevent the threatened extermination of the salmon of the Fraser river. Negotiations to this end have been taken up from time to time since 1905, but had not been successful in reaching an agreement.

At last, however, a treaty has been concluded, which will provide for a yearly close season of 12 days (July 20 to 31 inclusive). The treaty also specifies the number of licenses to be issued to take salmon in the waters of the Fraser river and its approaches, lays down regulations for traps and purse seines, and provides for a weekly close period.

The treaty will be operative from 1920 to 1926, both years inclusive. An important provision is the creation of a permanent international commission to study the question of the conservation of the salmon, to observe the effect of the new regulations and to recommend such alterations as added knowledge and experience may show to be desirable.

The Fraser River sockeye have of recent years, been most seriously depleted. There can be no doubt, however, that the treaty marks a great advance over the conditions of the past. It shows that fishing interests, on both sides of the line, are at last awake to the necessity of severe restrictions if the very valuable and once numerous sockeye are not to be finally exterminated.

Conservation of our resources was never so necessary as to-day. During the war we have necessarily been wasteful, as all considerations of expense were subordinated to one supreme object. But this waste not only cannot continue, it must be made good so far as possible.

Model Garden Suburb Proposed for Quebec

Canada's Diamond Jubilee to be Celebrated by Monument of Social Importance

A group of influential citizens of Quebec city, including university professors, lawyers, journalists, medical and other professional men and government officials, have presented a memorial to the Mayor of Quebec asking for encouragement to form a housing company on the lines of the Co-partnership Tenants of England with a view to building a model garden suburb in Quebec, to commemorate the Diamond Jubilee of a Canadian Confederation, July 1, 1927.

The committee wish to proceed under the Federal Housing Act and declare their willingness to accept its provisions. They propose to incorporate a housing company in the interests of better housing for working people, with a limited dividend of 6 per cent the capital to be redeemed in a thirty years' period. They undertake to supply private capital to the extent of \$225,000 (15 per cent of the estimated cost) and ask assurance from the city of Quebec that a loan will be granted from the Quebec apportionment under the Federal housing grant equal to \$1,275,000 (85 per cent of the estimated cost). The committee estimate that the cost of the project is approximately \$1,500,000. The allocation to the province of Quebec under the Federal grant is \$7,000,000.

The memorial includes a plan of a "confederation garden village" with all streets and boulevard converging to a circular civic centre named "Canada" with provision for "places" named after the principal cities of the Dominion such as "Toronto Place". A special district is set aside for manufacturing purposes so as to prevent the familiar encroachment of manufacture into residential districts with the consequent impairment of the amenities of domestic life. The garden suburb is surrounded by four playgrounds named Unga, Kwatin, Newfoundland and Alaska. This plan is intended as a guide in the development of the project.

The annual rent of the house will be fixed at 10 per cent of the total cost of the house and lot and the rents will be from \$10 upwards. A determined effort will be made to supply houses for families of small incomes though there is no intention of segregating any one class of residents.

The project has qualities of idealism, but such projects are no longer "castles in the air." They have been built on solid ground in other countries and they are the deliberately chosen methods for the restoration of the devastated regions of France and Belgium. They are admitted to be economically sound by all serious students of sociology and the best solution for the multitude of social evils attendant upon the uncontrolled development of cities.—A.J.