Conservation

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

VOL. IX MAY, 1920 NO. 5

Improvement of the Home Surroundings

Little Work and Small Expense Give an Attractive and Inviting Exterior to our Homes.

The attraction of home is not exclusively within the four walls of the building. Its surroundings should be agreeable, especially in the summer, when so much of our time is spent in the open.

To make the home and grounds attractive does not require much effort, and the expense is inconsiderable. What can be accomplished at a minimum of expenditure is shown in the accompanying illustration. The willingness to do so, accompanied by the expenditure of a few cents on morning glory seed, transformed the ugliness of the first picture into the beauty of the second. The surroundings in the first photo have a "nobody-cares" appearance and are far from inviting. In the second picture, the foliage gives the cottage an attractive, inviting and restful appearance.

Improvement of home grounds can also be accomplished by the expenditure of very little time and money, and the effort will be amply repaid by increased attractiveness. In many portions of Canada wild shrubs, vines and flowers may be secured, which, under cultivation, rapidly improve. For shade trees, the hard maple and beech may be secured, and the cooling effect of these will be appreciated during warm weather.

The present season should be utilized to give attention to this feature of making home a real home, and an asset to the community. The initiation of an improvement by one resident is very often the incentive to many, with the result that the entire district is benefited.

The Commission of Conservation

The Commission of Conservation is a national clearing-house for information on Canada's natural resources. In field and library its trained investigators have been working for a decade, assembling the facts and figures needed by the man who wants to help himself by helping his country to develop her natural wealth intelligently and economically. It has means of obtaining this information which no Canada's lands, fisheries, game, minerals, forests and water-powers, the facilities of this information-gathering body are at your service.

DARK WALLS WASTE LIGHT

The colour selected for walls and ceilings has a decided effect upon the lighting of rooms and upon our light bills. Even where the darker shades are used for artistic or other reasons, information as to the exact value of each colour to reflect light is useful.

The illumination required in a room depends largely upon the amount of light absorbed by the walls and other surfaces. Dark surfaces absorb light, while light surfaces reflect a good proportion of the light back into a room. If the source of light is not changed, the effective illumination will vary with the reflection factors of the surfaces in the room. If, on the other hand, it is desired to maintain a fixed intensity of illumination, then the amount of light reflected by the walls on which the different colours are used will be in the following percentages of the light used: Enameloid, white, 80; flat tone, white, 79; flat tone, ivory white, 76; flat tone, cream, 71; enameloid, ivory, 64; flat tone, buff, 59; enameloid, pink, 51; flat tone, tan, 37; enameloid, tan, 27; enameloid, sky blue, 31; enameloid cardinal red, 27; flat tone, forest green, 21; enameloid, wine, 12; enameloid, grass green, 10.—*L. G. Denis.*

FARMING OF SMALLER FUR-BEARERS.

The rearing in captivity of fur-bearing animals is largely a question of the price of fur. Twenty years or more ago, when the earliest attempts were made to engage in fur farming, the silver fox was about the only animal whose pelt offered sufficient inducement to experimenters to face the many difficulties and the risk of loss. Some of these men succeeded, however, and reaped considerable pecuniary rewards for themselves, besides establishing a new Canadian industry.

To-day, the breeding of smaller fur-bearers presents opportunities to men with a liking for the business who are willing to "take a chance." The recent spectacular rise in fur prices has been mainly in the cheaper grades—muskrat, raccoon, mink, skunk, etc. The stimulus thus given to trapping threatens these animals with extermination, in spite of close seasons. Fur farming must come to the rescue and assure Canada's great fur industry a continuance of its raw material.

Application for oil and gas leases covering upwards of 200,000 acres in the northern Alberta were filed during February.

Apparent Waste Is Conservation

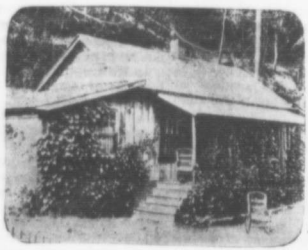
Aeroplane Spruce being Used for Pulpwood—Sawmills Unable to Use all this Splendid Timber.

What on the surface would appear as almost criminal waste, and yet is a conservation measure, is taking place in the pulp-mills on the Pacific coast. Prior to the close of the war upwards of 100 million feet of the finest spruce logs for the manufacture of aeroplanes was cut in northern British Columbia, principally on Queen Charlotte islands. As the timber was not required for its original purpose, and, as the logs lying in the woods would decay and those in the water would soon be destroyed by teredoes, it was dispossed of for commercial uses to the best advantage.

The limited capacity of the lumber mills in that portion of the province prevented the utilization of the greater portion of the supply of logs for lumber. The pulp-mills, however, which during the war had been producing large quantities of aeroplane lumber, purchased much the larger proportion of the logs, and will convert them into pulp. The large timber on the British Columbia coast has to be sawn before it can be used in the pulp-mills, and as several of the pulp companies also manufacture lumber, material suitable for aeroplane construction can and is being saved to the extent warranted by the demand.

Though it is regrettable that such fine timber must be used for pulp, true conservation dictates its use for the purpose for which a market exists rather than to have it wasted. It is also claimed that larger financial returns are secured from its manufacture into pulp instead of into lumber.—*R. D. Craig.*

Cut 119. The Morning Glory makes the difference.



The result was surely worth the effort. Cut 120

Cut 122
Shrubs and creepers secured from native woods make home inviting.

The Alfalfa Weevil

Alfalfa Crop Subject to Insect Attack —Precautions Should be Taken

Alfalfa is becoming one of Canada's important pasture and forage crops. This is especially so in Ontario, where its merits appear to be better recognized, although some of the other provinces are rapidly increasing the acreage devoted to this legume. A statement of the acreage in this crop during the past five-year period shows this increase:

—	Acres 1915.	Acres 1919.
New Brunswick	.....	1,178
Quebec	2,860	28,488
Ontario	60,000	146,790
Manitoba	3,671	5,181
Saskatchewan	2,620	11,526
Alberta	17,207	21,553
British Columbia	12,100	13,331

With the acreage increasing so rapidly it is but natural that the plant will be subjected to insect attack. The alfalfa weevil (*phytonomus pasticus*) is the most serious of these pests. The injuries caused by the weevil are most apparent on the first crop of the season, when the larval feeding is at the maximum, and again after the cutting of the first crop, when the larvæ attack the stubble and prevent the second crop from starting. At this time, seen at a little distance, the field has a distinctly whitened appearance, caused by the leaves being more or less riddled and whitened owing to the killing of the tissues between the veins.

Various methods have been tried in an endeavour to eradicate the alfalfa weevil, such as dry harrowing until the surface was covered with a fine dust, but this was only partially successful, and the second crop was delayed and reduced. The Utah division of the Entomological Branch of the United States Department of Agriculture, after careful investigation, recommends the use of a solution of arsenate of lead, in the proportion of two pounds of arsenate of lead to 100 gallons of water. This, they claim, has been successfully used; it is cheap and easily applied. One hundred gallons of the solution per acre, finely sprayed on the first crop of growing plants, has been found effective in destroying the insects and protecting the crop.

As the weevil is migratory, it may become a pest in the alfalfa fields of Canada at any time. It would be wisdom on the part of alfalfa growers to be on guard during the coming season, as a little precaution may mean the saving of the crop.

GROWING SWEET PEA SEED FOR ENGLAND

At the recent meeting of the Canadian Seed Growers' Association, Mr. Geo. H. Clark, Dominion Seed Commissioner, stated that the climate and soil of British Columbia were such that he anticipated the western province would become a large seed-growing centre.

As an evidence of this a recent report states that British seed houses have entered into contracts with seed-growers on Vancouver island, to undertake the cultivation of ten acres of sweet peas for seed. The British seed houses are supplying the seed, which represents the very newest and rarest varieties. It is further stated that the quality of the Vancouver Island seed is so superior that an unlimited number of contracts could be made by responsible growers.

Salmon Shortage on Yukon River

Future Supply may be Menaced—Floating Cannery Established

Officials of the Department of Indian Affairs report that the catch of salmon at Yukon Indian centres last year was much smaller than usual, although, fortunately, the shortage has not been sufficiently acute to create serious conditions. The decrease in the catch of salmon is attributed to the operations of a floating cannery at the mouth of the Yukon river. The most disturbing feature is that the establishment of a large cannery at this point is likely to seriously effect the future fish supply in the upper waters of the Yukon. Last year's scarcity of salmon in the Yukon did not result in extreme hardship to the Indians, but it is pointed out that, had game been scarce at some of the centres, as occasionally happens, the situation would have been a very serious one. The effect was most pronounced at Rampart House, situated 200 miles up the Porcupine river, where there was almost a total lack of salmon last season and the Indians were unable to dry any for winter use. It is essential that the food supply of the Yukon Indian centres, of which salmon is a very important item, be not endangered by cannery operations of such a nature as to imperil this means of subsistence.

CRIMINAL CARELESSNESS

"The fire, which started in a waste-paper basket, is supposed to have been caused by a cigarette butt."

The above summarizes the cause. But for the fortunate discovery by a passing policeman at 11 o'clock at night, a valuable manufacturing plant would have been in ruins, a large number of employees would have been out of work, and considerable time would necessarily have elapsed before operations could be renewed.

Criminal carelessness was only offset by fortunate circumstances. A few minutes later and the fire would have made sufficient headway to ensure a complete loss.

The 1919 amendment to the Criminal Code provides that "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."

Grasshoppers in Western Canada

Outbreak Threateaed in Prairie Provinces—Co-opcration to Successfully Overcome the Pest

In the Prairie Provinces of Western Canada, particularly in certain sections of Southern Saskatchewan and Southern Manitoba, millions of dollars worth of grain was destroyed by locusts in 1919. Following this outbreak, one of the most important of which we have record, enormous numbers of eggs of locusts were deposited by females of destructive species in late summer and autumn. These eggs have remained in the ground all winter. With favourable weather conditions for the hatching of these eggs during the approaching spring, there is every reason to expect an even greater and more widespread outbreak of locusts in the western provinces in the present year. Towards the end of March numbers of young grasshoppers were noticed in Southern Saskatchewan, but these were of coloured-winged species, which are not of economic importance. The two species, the eggs of which are expected will hatch in early May, are known as the Lesser Migratory Locust and the Pellucid Locust.

Both federal and provincial officials are in close touch with conditions generally, and, with prompt action from all concerned when the threatened outbreaks occur, there is no reason why the pest should not be kept within bounds.

In 1919, applications of poisoned bait saved thousands of dollars worth of growing crop. The poisoned bait which was largely used consisted of: Bran, 50 pounds; Paris green or white arsenic, 2 pounds; molasses, 4 quarts; oranges or lemons, 6 fruits; water, 5 to 6 gallons. In preparing the mixture the bran and poison are mixed thoroughly while dry. The juices of the oranges or lemons are squeezed into the water and to this is also added the pulp and peel after cutting into fine pieces. The molasses should then be added and, when dissolved, the mixture should be poured on the dry bran and poison, stirring the whole constantly so as to dampen the bran thoroughly. In the preparation of the bait it is wise to guard against breathing in the fine particles of poison. This may be avoided by tying a handkerchief loosely over the mouth and nose.

The bait should be scattered thinly by hand from a waggon or light rig, care being taken to prevent any large lumps forming. Early morning is the best time to spread poisoned bait so that the locusts will be attracted to it before they feed to any extent on growing crops. As they feed very little during cloudy, cold, or rainy days, bright, warm days should be chosen for scattering the bait. In badly infested areas it is frequently necessary to spread the bait at regular intervals of four or five days before the insects are finally brought under control. In locust-infested areas, farmers should organize early in the season, so that when the young grass-hoppers appear in large numbers, poisoned bait may be prepared quickly and widespread application made at the same time. Prompt community action is of the utmost importance in dealing with an insect like the locust, which occurs in such enormous numbers and over widespread areas. As an instance of the value of community action, we have only to cite an experience in 1915, when about 30,000 acres of growing crop in St. Etienne-de-Gras and adjoining parishes were treated with poisoned bait within a period of two or three days, and as a result 95 per cent of the locusts were killed, and crops saved in some fields where, owing to continued outbreaks of these insects, nothing of value had been harvested for several years.

The Entomological Branch, Dominion Department of Agriculture, has issued a circular on *Locust Control in the Prairie Provinces*, copies of which may be had on application to the Chief of the Publications Branch, Department of Agriculture, Ottawa. This publication, which has been prepared by Mr. Norman Criddle, Entomologist-in-charge for Manitoba, discusses the kinds of locusts which are destructive in the Prairie Provinces, their habits, control and natural enemies.—*Arthur Gibson.*

The Shelter Belt

The value of the shelter afforded by trees on a farm is not fully appreciated. Too frequently the settlers in a wooded district are not satisfied until all the trees are removed, and only when the country becomes generally cleared and the soil loosened up by cultivation do they realize the ill effects of the wind on their crops, live stock and personal comfort. Many who have made this mistake have later had to resort to planting and to wait several years to replace the shelter which nature had provided.

Belts of trees, judiciously placed, protect the soil from drifting and drying, afford desirable shade for stock, especially for young animals, and make it possible to grow many fruit trees and ornamental plants which cannot otherwise be grown in the open. This is especially true in the Prairie Provinces. The production of fuel can be made an important function of a shelter belt without reducing its value as a wind-break.

Settlers, especially in the wooded portion of the Prairie Provinces and Northern Ontario, should be strongly advised to leave strips of bush at least along the western sides of their farms, unless other locations are more suitable to the topography. Shelter belts should also be left around the buildings and gardens. A space of at least 200 feet should be left between the shelter belt and the buildings, to prevent the drifting of snow around the buildings.

Commission of Conservation
CANADA

HON. W. C. EDWARDS
Acting Chairman

JAMES WHITE
Assistant to Chairman and Deputy Head

CONSERVATION is published monthly. 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 housing and townplanning.

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

OTTAWA MAY, 1920

Let Us be Glad We are Canadians

We are asked for increased production. This does not mean for the individual more work or harder work, but it does mean more efficient work and a new attitude towards work, a desire to make every stroke tell to the utmost. In a word it means willing, painstaking, and well-directed effort, backed by capital and guided by science, to bring our acres to the fullest fertility, to build up and utilize adequately our forest resources, our fisheries and our mines, to develop and co-ordinate our transportation systems, to develop our water-powers advantageously and to distribute widely the resulting power, to check reckless waste and encourage the effective use of all our resources, to the end that we may establish better and more satisfying types of rural life.

The waste of lumber is deplorable. Take pine; the value of resin, turpentine, ethyl alcohol, pine tar, charcoal, lost in this waste, represents three or four times the value of the lumber produced, but, great as is this loss, it is modest compared with our colossal fire waste. We have been prodigal wasters, reckless destroyers, mere skimmers of cream. If we are to meet our national needs, and build up sanely our superstructure on safe and sound foundations, we must change the policy which has guided us in the past. Unrestricted individualism must now give way to controlled co-operation guided by a constructive economic policy which shall be nation-wide in scope. We must bring to the solution of peace problems the unity and cohesive power developed throughout the war. Let us be a nation of builders, creators, and distributors. Let us be proud of our country. It is time to build, time to unite, time for trade and for brotherhood. Let us be glad we are Canadians and let us stand for Canadian institutions. Let us have a little more patience, a little more charity for all, a little more devotion, less bowing down to the past and more looking forward to the future when Canada will be ripe for a great burst of light and life.—*Extract from speech by S. F. Glass, M.P., in House of Commons, March 24, 1920.*

Our Natural Resources

Their Protection and Conservation a Debt we Owe to Future Canadians

The country which would guard its future must exercise the greatest care in the utilization of natural resources. Prodigality has too often been mistaken for development. The fact that capital comes to a country for profitable investment is not an unmixed benefit, and may mean that greedy eyes are seeking new fields to conquer after home industry has been "developed" to a standstill. The supply of some resources cannot, of course, be maintained forever, as in the case of coal, the formation of which is beyond human power. But our forest resources, our fisheries and the fertility of our agricultural areas must be preserved. That such has not been done in the past is indicated by the fact that the older wheat-growing districts of the West must now be used for mixed farming, some of our fisheries have declined greatly in value, and good lumber has increased enormously in price.

The protection of these resources assumes a consideration of the future, too distant to permit of the problem being handled in the ordinary political field. *The connection between ordinary government departments and the demands of the public is too close to allow them to handle the problem.* It is for this reason that conservation can be best carried on by a body such as the Commission of Conservation in Canada, which was established for the purpose.—*The Monetary Times.*

Are We Wasting Too Much Timber?

Cutting Shorter Logs and use of Tops to Smaller Diameter would Increase Pulpwood Supply

In the virgin pulpwood forests of Ontario, a balsam tree 10 inches in diameter at breast height is, on an average, 90 years old, with a total volume of 14.6 cubic feet. White spruce of the same diameter is 114 years old, with a total volume of 14.9 cubic feet. Black spruce is 144 years old, and has volume of 14.7 cubic feet. Seedlings grown in a nursery, and transplanted in the open, will make a much better growth than those in the virgin forest, but, even if they reach a diameter of 10 inches in 40 years less time, it would still make the total age 50 years for balsam, 74 years for white spruce, and 104 years for black spruce. It is advisable, therefore, that, in all logging operations, the fullest utilization possible be made of every tree cut, and that every precaution be taken to avoid injury to those left standing, in order that they may produce a second crop in the shortest possible time.

Where logs of only one length, 16 feet, are being cut for pulpwood, there is a loss, due to waste in stumps and tops, of 25 per cent of the total volume of the tree in balsam, 14 per cent in white spruce, and 20 per cent in black spruce. These figures are based on actual measurements, where the stump height averages about 18 inches. Where winter cutting is done, stumps cannot be cut much below 18 inches, owing to the depth of the snow, but the waste in tops can be reduced by cutting to smaller top diameters. This would necessitate the cutting of different lengths of logs, say, 10, 12, 14 and 16 feet, the increased cost of which would be more than offset by the greater production per acre. A 3-inch top diameter makes a gain over the 4-inch of one cord for every 223 trees, a gain over the 5-inch diameter of one cord for every 89 trees, and over the 6-inch diameter of one cord for every 53 trees.

The short logs in the water will not support a man's weight, and may, therefore, be harder to drive, but, on the other hand, because they dry out more quickly, they float higher in the water than the long lengths and are not so liable to form jams.

Cutting shorter log-lengths increases the number of cords which may be cut per acre; it lengthens the cut of any given area; it gives the unmerchantable trees that much more time in which to grow to a size sufficient to enable the area to be cut a second time, and it decreases the fire hazard through the fuller utilization of the tops.—*C. R. Mills.*

Sugar Beets

Shortage of Sugar Supply and High Prices Warrant Increasing Production

A recent bulletin by the Department of Trade and Commerce on the sugar industry in Canada states that 204,017 tons of sugar beets was used in sugar manufacture in 1918. The cost of the beets at the works was $2,593,715, or $12.22 per ton.

In 1918, Canada had 18,000 acres in sugar beets, which yielded 10 tons per acre, at a value of $10.25 per ton. In 1919, the acreage was increased to 24,500, the yield averaged 9·80 tons per acre, and the price advanced to $10.85 per ton.

In 1919, sugar was approximately 11 cents per pound; at present, granulated sugar is 23 cents per pound and may be higher. The enormous demand for sugar, and the fact that Europe will not for some years produce anything approaching her pre-war quota of sugar beets, promises to continue a serious shortage in the world supply.

Conditions in the beet-growing countries of Europe have materially changed since the close of the war. Previously, large holders of land devoted much of the acreage to beets. The large estates in Russia, Poland, Hungary and in many parts of Germany have been in many cases broken up into small holdings, which will be used by their new owners for growing other crops. The small farmers are not so well equipped with implements and tools, and the lack of fertilizers is also being severely felt. These conditions will have a serious bearing upon the production. There thus appears to be a good opportunity for Canada to again this year largely increase the acreage devoted to this crop.

A by-product in the manufacture of beet sugar is the residue known as beet pulp. When mixed with residual molasses, a by-product of the refining process, this beet pulp makes an excellent cattle food.

Fur Farming

RAISING MINK

At the recent fur auctions in Montreal, the price of mink skins averaged $20. The better skins sold for $30 upwards to $75 for one very choice lot.

Mink is a handsome, durable fur. It has been demonstrated that minks can be kept in captivity. They require little space and can be cheaply fed, provided one can obtain fresh fish or fresh meat practically all the time. Persons who live near the sea-coast would appear to be in an advantageous position for the rearing of this animal. Once the difficulty of obtaining stock, which, for purposes of domestication, must be taken young, has been overcome, the prospective raiser of minks ought to be in a fair way to success.

The principal diet of minks should always be meat or fish. English sparrows, mice, frogs, rabbits, scraps of butcher's meat, small or coarse fish and fish heads, may be mentioned as examples of the sort of feed for minks. They will also learn to eat cereals readily and they may be given well-cooked graham mush with milk, together with ground meat or meat broth. In feeding cereals, however, care should be taken not to cause diarrhœa. In winter the food is best served warm. As to quantity, about 4 ounces of meat daily is sufficient for an adult.

Cages may be about 4 feet by 8 feet and 16 inches high. They can be made of 1-inch mesh, No. 16 gauge, poultry netting. These cages are to serve as a runway. The dens should be quite warm. A good den can be made by putting a box about 12 in. x 12 in. x 12 in. inside a similar, but larger box, and packing the intervening space with straw. The entrance should be in the form of a passage sloping downwards toward the outside. Fine hay should be provided for the nests.

The mating season is in February and March. The young are born in April and May, about 4 to 6 in a litter. The females, while with young should always be kept separate from the males.

Getting the Most Out of the Woods

Examples of Close Utilization of Timber—Finding Markets for Hardwoods

The emphasizing of the wasteful lumbering methods of the past is of little service unless the practicability of better measures can be shown. Where economical logging methods are being used they should be given full recognition by all conservationists, and given earnest consideration by operators. An instance of close utilization is evidenced on the limits of a company operating in a modest way in the Parry Sound district. This company secured a block of timber, consisting of mixed hardwoods and conifers, situated near the mill of another company. The first mentioned company let out its woods operations to a sub-contractor and is proceeding to log the area very cleanly. The thoroughness of the operation is shown in the disposal of the products. The softwood logs go to the neighbouring mill; the hemlock ties (hewn) to the railway company; the spruce and balsam pulpwood to a pulp-mill at a considerable distance; the basswood logs, as also any good balm-of-gilead logs, go to New Jersey for match stock; the birch logs go to Montreal for export to Europe, for use as veneer, and the other hardwoods, including white oak, ash and elm, are also disposed of. In addition, cedar poles are taken out, the hemlock bark is shipped to tanneries near Toronto, and hardwood waste is used as fuel in its camps. This operation, therefore, may be said to represent the maximum of close utilization. This timber license, of course, is close to a railway, but there must be many opportunities for other such intensive operations throughout Ontario.

Close utilization is also adopted by some of the chemical companies. They operate saw-mills in conjunction with their wood distillation plants, and have logging railways, one of which is 13 miles long. They saw both softwoods and hardwoods into lumber, carbonize smaller hardwoods for chemicals, and use inferior cordwood and slabs from the mill for fuel to heat their ovens. One company at least is about to experiment with the carbonizing of hardwood slabs.

These examples include the logging of hardwoods, which is necessary to solve present forestry problems. It seems probable that more companies could be operating logging railways and removing hardwoods, when the present prices of finished products are considered. If logging railways are not feasible further experiments with driving hardwood logs might be carried out. Many companies have already successfully driven hardwoods for short distances, after leaving the logs in the bush for a year to dry out.—*A. V. Gilbert.*

Latent Value of our Straw Stacks

Increasing Values of Products Make Utilization of Western Straw Feasible

Burning straw-stacks are a familiar sight to the western traveller. At present there is seemingly no other method of disposing of this by-product of the grain harvest.

Investigations as to the possibility of using the straw as a raw material in manufacture were undertaken some years ago by different interests, but the same conclusion was reached in each case. The cost of transporting the straw to a central point was more than the traffic would bear, the cost of manufacturing precluded competition in the open market, and, consequently, the use of the western straw under the transportation handicap was not a commercial proposition. This was especially the case in the manufacture of strawboard. In 1913, strawboard prices ranges from $25 to $26 per ton. There was little demand for this product in the west, and, at the above price, it could not compete in the east. One leading eastern paper industry, which, some years ago, carefully considered the possibilites of establishing a strawboard mill in the west, recently stated that, under present conditions, with strawboard selling at $85 to $90 per ton, such a factory could be made a profitable industry.

The rising cost and the necessity for conserving our pulpwood supply suggest that any material capable of being used as a substitute should be developed. Strawboard is a short-fibred material and is unsuitable where strength or folding qualities are required, but there are many uses for which it is entirely satisfactory. In 1918 Canada imported 4,850 tons of strawboard, equal to the output of a mill producing 15 tons per day.

Non-Canadians manufactured the strawboard we imported; we paid them for doing so, while we burned our own straw.

Building Bylaws Should be Enforced

In most of our cities and towns a building code exists. The ostensible purpose is the regulation of building, prevention of fire danger to life and property, and the conservation of health.

It is interesting to note, from the report of the last annual meeting of the Dominion Association of Fire Chiefs, the efforts which are made to evade the provision of the building code and the success which attends these efforts. Many of these fire chiefs, experts in fire prevention, gave their experiences.

One fire chief said: "Your municipal council will sit for hours and draw up building and fire prevention by-laws, and, in the next 24 hours, when they meet again the by-laws are all cast aside that some building may be erected in contravention of the by-laws. . . There are lots of aldermen who do not want to break these by-laws, but simply because Mr. Smith or Mr. Jones is a friend of theirs, they do it." Another ex-chief said: "There was a rooming house that I did not approve of. The aldermen even said they would not sleep in the building, but, before my time, a license had been granted, and they said if I did not approve of it, it would bankrupt the man who built it. I pointed out that they were putting dollars ahead of lives. I was then dismissed from the city for not approving of that."

In interpreting the amendment to the Criminal Code passed at the last session of Parliament, Mr. G. D. Findlayson, Superintendent of Insurance, speaking at the meeting of the Dominion Fire Prevention Committee, said: "Under the first clause, any person upon whose premises fire occurs is deemed to have caused the fire by negligence if he has failed to comply with any regulations designed to prevent fire. Non-compliance is the proof of negligence, and this is a question of fact to be determined by a jury. Notification of a breach of the law is not provided for, as every person is presumed to be familiar with the law."

In view of the experience of the fire chiefs above noted, well may it be said, as expressed by Mr. W. H. Shapley, Chairman of the Fire Prevention Committee, that "the change that has been made in the Criminal Code should have a good effect *if we can find anyone loyal enough to the interests of the Dominion to enforce the law.*"

Canning of Whale Is Discontinued

The commercial effect of the war and its cessation is strikingly exemplified in the whale fisheries of the Pacific coast. Due to the food shortage and the demand for oils and fats, whale fishing was actively carried on. During the 1918 season, over 500 whales were taken by three fishing stations; the catch of one station alone was 246. During the same year 30,000 cases of whale meat was canned and met a ready market.

The close of the war, however, meant the complete cessation of the whale-canning industry; no whale meat was put up in 1919. Only one whaling station was in operation, and but 166 whales were taken.

Whale-meat is a nutritious food product, in taste being similar to beefsteak. It was placed on the market at a price of 20 cents per pound tin, and filled a requirement for a food supply at low cost. As a war measure the taking of 500 whales in one season could be justified, but a continuance of killing on this extensive scale would result in the annihilation of this great mammal.

Natural Resources

A California dredging company is placing a large plant on the Peace river to conduct placer mining operations for gold.

The Province of Quebec, in 1919, had 518 lakes and 49 rivers leased for fishing purposes, providing a revenue of $76,248.

It is reported that a British company is to establish an iron and steel industry in British Columbia to utilize the native ores of the Province.

Investigation of the Dauphin oil field may be undertaken by the Manitoba Government, if the reports of experts on its possibilities are satisfactory.

The demand for furs and the slaughter of fur-bearers necessary to meet this demand may be judged from the fact that at the London April fur auction sale 8,780,582 pelts were offered.

British Columbia crabs are again being canned and offered on the local market. It is some years since this industry was discontinued, California and Japanese competition rendering the British Columbia industry unprofitable.

In 1919 Quebec produced 12,353,667 pounds of maple sugar and 1,470,275 gallons of maple syrup, the whole estimated at $6,396,535. taking as a basis the sugar and the syrup converted into sugar, at an average price of 25 cents per pound.

The Imperial Oil Co. will spend $2,000,000 for oil explorations in Alberta this year. One well will be drilled south of Pincher Creek and one each at Fort Norman and Great Slave Lake. A well is being put down in the Czar district and the Brazeau region may be examined.

The Gouin (La Loutre) dam on the upper waters of the St. Maurice river, Quebec, has a storage capacity of 160,000,000,000 cubic feet and a water area of 300 square miles, forming the second largest storage reservoir in the world. It is exceeded in size only by that of Gatun lake, on the Panama canal. The storage at Gouin will permit a regulated permanent flow of over 12,000 cubic feet per second at Shawinigan, rendering 1,000,000 horse-power now available on the St. Maurice.

In the fiscal year, 1918-19, 12,723,000 pelts were imported into the United States from Canada. These imports included large numbers of rabbit skins from Australia and New Zealand and also about 250,000 sheep skins from Australia, New Zealand, India and Peru. These figures demonstrate that Canada is exporting more furs than ever before in her history, and that the number of fur-bearers taken in 1918-1919 was in excess of the annual increment, thus trenching upon our capital stock.