Conservation

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Closed Season for Alaska Fur Seal

Interesting Data on its Effects—Views of Dr. Evermann

The Japanese fur seal herd is found on Robben reef in the sea of Okhotsk and the Kurile islands and numbers about 7,000. The Russian herd breeds on the Bering and Copper islands off the coast of Kamchatka and was estimated in 1911 to contain about 24,000 seals. The Alaska fur seal breeds on the Pribilof islands in Bering sea and its pelt is regarded as superior to either the Japanese or Russian. In 1918, there were 530,492 seals in the Pribilof herd as compared with 127,745 in 1911 and 2,250,000 to 2,500,000 in 1873.

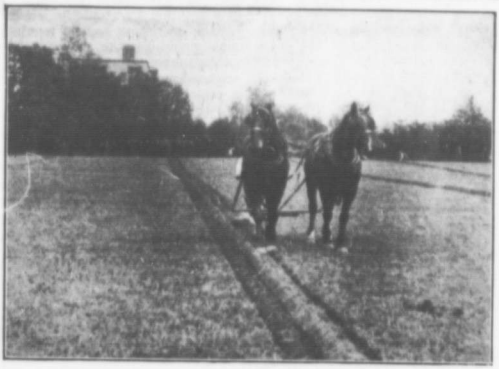
From the discovery of the Pribilof islands in 1786 till they passed under the control of the Russian-American Co. in 1799, the seal herd was exploited without any thought of conservation. This company carried on its operations until Alaska was sold to the United States in 1867. From 1870 to 1890, the Alaska Commercial Co. leased the privilege of killing a maximum of 100,000 seals per annum. In 1890, the islands were leased to the North American Commercial Co., without any limitation as to number killed except that, in 1890, it was not to exceed 60,000.

The Alaska seal spends the winter on the coast of California, migrating in the spring to its breeding grounds on the Pribilof islands and returning to California in the autumn.

In the late "eighties" it was discovered that the Alaska seal could be profitably hunted during its northward migration. It has been estimated that, from 1890 to 1897, about 5,700,000 seals were killed in this pelagic sealing and 450,268 were killed on the Japanese, Russian and Pribilof islands, a total of about 6,050,000. While the estimate of the number killed in pelagic sealing may be too high, there can be no doubt as to the reduction of the seal population of the Pribilofs.

In 1893, the Paris Tribunal drew up regulations prohibiting British and United States subjects from killing seals within a radius of 60 miles from the Pribilofs. Other nations, particularly Japan, howe-

(Continued on page 48.)

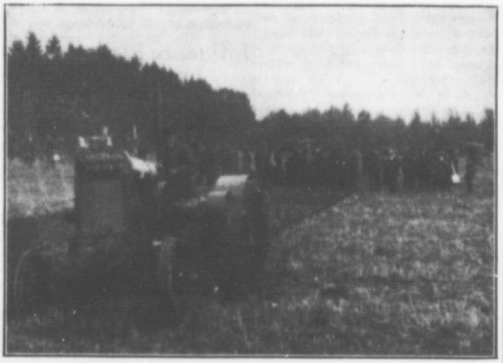


Cut No. 196

A Straight Furrow. Expert Ploughmen Showed their Skill at Chatham, Ont., Ploughing Match

PLOUGHING MATCH IN WESTERN ONTARIO

The genuine revival of interest in ploughing competitions was clearly demonstrated by the very successful match recently held at Chatham for the benefit of Western Ontario. The large attendance of 30,000 augurs well for the future of the agricultural interests of this Province. Very great interest was manifested in the tractor demonstration. No doubt the fact that a certain degree of novelty still attaches to this up-to-date method of ploughing, also that the business instincts of prospective purchasers of tractors were awake, had much to do with this comparative turning aside from the work of the horse-drawn ploughs. Nevertheless, the skill displayed by the men between the handles showed that the old art of ploughing is still alive. The accompanying illustrations show scenes taken at the Chatham match in both tractor and horse-drawn classes.



Cut No. 197

At Chatham, Ont., a Large Crowd of Farmers Took Keen Interest in the Demonstration of Modern Ploughing Machinery

Unearned Increment Tax is Suggested

Four Alberta Cities Propose Levy of One Half of Rise in Price of Outlying Land

As a result of proposals submitted to the Alberta cities of Edmonton, Calgary, Lethbridge and Medicine Hat by the Town Planning Adviser of the Commission of Conservation, definite progress has been made by these cities in formulating city planning schemes to deal with the problems of assessment and taxation in their outlying subdivisions. The matter is very complicated and involves discussion of numerous overlapping details in connection with city administration. In spite of this fact a clear and definite policy has been settled between the four cities. Should their views prevail and schemes be inaugurated on the lines they have approved, they will be responsible for carrying out an interesting experiment of far-reaching importance.

The question now rests with the Public Utilities Commissioners of the Province and it is hoped that they will have the courage to put the matter to the test.

The proposals of the four cities are outlined in resolutions, passed by each city, which may be summarized as follows:

1. Each city is to be divided into an inner, or residential, area and an outer, or agricultural, area; the boundaries of these areas are to be fixed by the city, with due regard to present and future development and subject to the approval of the Utilities Board.

2. No new plans of subdivisions are to be permitted in the agricultural area except in cases where land is ripe for building, the idea being to encourage cancellation of existing subdivisions where they have been promoted for purely speculative purposes; no utilities except those required for engineering or general public reasons are to be extended into the agricultural area; the lands in the agricultural area are to be assessed at their real value for agricultural or similar purposes; such assessment is not to exceed $200 per acre for a period of five years. Further, a reduction of not more than 40 per cent is to be made in the tax rate for lands in the agricultural area, no reduction on back taxes being made, although an extension of

(Continued on page 48)

New Garden Suburb near Lincoln, Eng.

Engineering Firm Lays out Large Estate for Workpeople on Co-operative Lines

The contention that it is the 'duty' of large employers of labour to provide decent housing for their workers has been freely combatted. Another argument is coming to the fore, that is likely to be more convincing because it is based on practical considerations, namely, that it is greatly to their advantage. One manufacturer who has adopted this method of 'prosperity sharing' has confessed that whereas before housing accommodation was provided the labour turnover was 400 per cent, at present it is practically nil and labour unrest is a thing of the past.

It is being proved also that the new method of housing workers is susceptible of important economies and the creation of amenities and conveniences for home life such as have been hitherto the privilege of the rich.

The engineering firm of Ruston and Hornsby, Lincoln, Eng., have acquired an estate of 370 acres, near Lincoln, in the vicinity of a lake, known as the Swanpool, and are there building an industrial garden suburb with provision for 3,000 houses. The estate is being laid out on 'garden city' lines, with ample provision for shops, schools, institutes, recreation grounds, allotment gardens and other amenities. The housing will be managed on co-partnership principles and will not be confined to the employees of the firm.

One feature has special interest. It is proposed to carry out from a central station a communal supply of electricity and hot water for domestic purposes. It is claimed by the engineers that great economy may be secured by combining the production of electricity with the utilization of waste heat from the generating plant for the supply of hot water, which will be circulated among all the houses throughout the area. The development has already begun and some of the houses are ready for occupation. —*A. Buckley.*

English Scheme for Second Garden City

Not to be Suburb but Complete Industrial Town with Permanent Agricultural Area

A new project in industrial town building to be called the Second Garden City is in course of formation in England and the development will be on the lines of the First Garden City, which was established at Letchworth in Hertfordshire fifteen years ago.

The estate chosen is in Hertfordshire, about ten miles from Letchworth and twenty-one miles from London. Provision will be made for a population of from 40,000 to 50,000.

While the offshoots from the Letchworth experiment have been many, they have taken the form of garden suburbs with the idea of providing better housing accommodation for the workers in the city and, to that extent, have served a useful purpose. But no single development has embodied the principles of the First Garden City, which postulate a highly organized industrial town complete in itself and surrounded by a permanent agricultural belt, that shall not suffer disintegration by the expanding needs of the urban centre. The idea is that a chain of small towns properly equipped for all the uses and amenities of life and permanently in touch with agricultural areas is better for public welfare than a few large and overgrown cities constantly destroying the land areas that should feed the population of the cities. It also includes the idea of public ownership of land and public services so that the increments in value of the land and the profits of public utilities shall be conserved for the people who create them.—*A. Buckley.*

Alaska Fur Seal

(Continued from page 47)

ver, were not bound by this treaty and could kill seals anywhere outside the three-mile limit. In 1897, under the terms of the *modus vivendi*, the United States reduced its land killings to 7,500 annually.

In 1911, the herd had decreased to 127,745, only 12,006 seals being killed on the Pribilofs in that year. Leasing was discontinued by the United States in 1911 and a treaty negotiated between Great Britain, Russia, Japan and the United States, the signatory Governments agreeing to prohibit the pelagic killing of seals and sea otters. As compensation, the United States agreed that Great Britain and Japan should receive 15 per cent of all the seal skins taken by the United States and Russia on their respective territories. Similarly, Japan gives Great Britain, Russia and the United States 10 per cent of the land catch from her herd.

As soon as the treaty became effective, the United States enacted a law prohibiting all killing on the Pribilofs for the five-year period, 1912 to 1917, and Great Britain, Russia and Japan, therefore, received no skins during that term. During this five-year period, the Alaska herd increased from 127,745 to 530,492.

Dr. B. W. Evermann, Director of the Museum, California Academy of Sciences, states that prohibiting all killing during 1912-17 "was not only unnecessary, it was actually harmful" in that the presence of surplus male seals about the rookeries "always results in severe fighting," causing injury to the female seals and tramping young seals to death. In 1918, more than 2,000 young seals were killed, most of which had been trampled to death.

Dr. Evermann estimates that the close-season law has caused a loss of more than $3,000,000 to the United States and great injury to the herd, and that the loss to Great Britain and Japan has been at least $450,000 each.—*James White*

Progressive Forest Policy in Quebec

Need for Change in Cutting Regulations Recognized—Reforestation of Denuded Crown Lands

The progressive attitude of the Quebec Government toward the conservation of its forest resources is indicated by a recent conference at Quebec between the Minister of Lands and Forests and representatives of the Woodlands and Technical Sections of the Canadian Pulp and Paper Association and the Quebec Limit Holders' Association. This meeting discussed the whole question of the revision of regulations governing the methods of cutting timber on provincial Crown lands. Arguments were advanced favouring the adoption of some substitute for the present diameter limit method of regulation, which does not work out satisfactorily inasmuch as it does not leave the cutting area in a condition to produce a second crop of wood.

The question of the conditions under which denuded Crown lands might be reforested, through co-operation between the Provincial Government and the limit-holders, was also discussed. The pulp and paper companies are particularly concerned with this aspect of the problem, in view of their heavy investments in plant and equipment, which necessitate the adoption of a long-time viewpoint.

Following this meeting, a committee was appointed to prepare definite recommendations to the Provincial Government. The members of this committee are W. Gerard Power, of the River Ouelle Pulp and Lumber Company, Robt. P. Kernan, of the Donnacona Pulp and Paper Company, and Ellwood Wilson, of the Laurentide Company. This committee has submitted a draft bill relative to reforestation and further developments are expected.

This definite recognition of the need for change in present methods of operating the timber lands of the province, as well as for a comprehensive programme of reforestation on denuded Crown lands, is most encouraging.—*Clyde Leavitt.*

Influenza Plague Invades Australia

Spanish "Flu" was Rife in Commonwealth during Recent Winter —Will it Return to Canada?

Reports from Australia indicate that a recrudescence of the influenza epidemic occurred during the recent winter (which synchronizes with our summer). There were from 1,200 to 1,500 cases as a daily hospital average in Victoria. The mortality in Melbourne was from 10 to 12 deaths daily. In Sydney, a severe outbreak occurred in June, the mortality assuming serious proportions for one or two weeks. With milder weather in mid-July, the outbreak rapidly subsided.

We, in Canada, will soon be sustaining a prolonged cold spell, hence the necessity for the public to bear in mind that there is the danger of a recurrence of the disease in Canada. Every individual should take precautions against infection. Keep the body warm and guard against sudden changes of temperature. Guard also against fetid air. The more the bodily heat can be kept up by natural and the less by artificial means, the better. As 'natural means' we include heavy clothing, nourishing food, air well supplied with oxygen and physical exercise. Artificial heat is secured by fire through the various heating systems.

A person who is well fed and well clothed and who moves briskly can easily support prolonged exposure to the severest cold. The greatest danger in Canada is the shock to the system produced by getting over-heated indoors and then going outside in zero weather. This is also a prolific cause of colds.

Most Canadian houses are overheated in winter. Their average temperature is often higher than during the summer months and certainly higher than in spring and autumn. This is unnecessary, it wastes fuel and it endangers health. Women are prone to wear too light clothing in winter. It would be much safer for them to dress more warmly and have their houses ten degrees cooler.—*C. A. Hodgetts.*

(See also the article on *House Ventilation* on page 49 of this issue.)

Unearned Increment Tax

(Continued from page 47)

time for payment is given.

3. Provision is to be made for collecting the unearned increment on suburban lands in the following manner: On the first sale after the date of assessment on the basis of land in an unsubdivided area, a calculation is to be made of the increase in value, if any, by comparing the original assessment with the sale price and with the average of the annual assessments during the intervening period. On each subsequent sale a similar calculation will be made of the increase since the previous sale. One half of the increments thus shown is to be collected by the city. This process is to continue until the land becomes included in the urban area or is assessed as urban land.

One or two of the cities differ with regard to parts of the above scheme so far as they relate to the reduction of the assessment in the agricultural area but there does not appear to be any difference with respect to the principles of the scheme or the application of the unearned increment tax.

There is some difference of opinion, however, with regard to the amount of the 'unearned increment' tax, some citizens taking the view that 50 per cent is too high and others that it is too low.

If the scheme is carried out it will be of interest to watch the effect of applying the tax on unearned increment on land in such a city as Edmonton which has previously experimented with the system of confining taxes to land values only.—*Thomas Adams.*

Commission of Conservation
CANADA

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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 town-planning and public health.

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OTTAWA, DECEMBER, 1919

CONTROL OF SPREADING FIRES

The measures popularly advocated to control the spread of fire are four in number, namely, fire prevention, fire limits, fireproof construction and fire departments. None of these alone can prevent a conflagration, and records show that together they have failed in almost every instance.

Fire prevention is the attempt to reduce the frequency of fires. The preponderance of disasters from unknown and trivial causes appears to forbid hope of controlling conflagrations by strictly fire prevention methods. It has been previously pointed out that, on the average, only one in 20,000 fires has reached the magnitude of a conflagration. That one fire is the problem demanding solution. If fire prevention successfully reduced the occurrence of fires in Canada to 100 per annum, there is no assurance that the spreading fire would not be one of the hundred. That depends largely upon the location of the outbreak and the character of its environs. When a small frame dwelling in Hull, Que., caught fire, that was the identical place where Hull and Ottawa began to burn. A similar occurrence in an isolated farm dwelling in a country district would have been equally serious so far as the individual building was concerned but it could not have resulted in the partial destruction of two cities. To debar conflagrations, therefore, fire prevention must not only diminish the frequency of fires, but also establish the confines of the occasional outbreaks that occur.—*J. Grove Smith.*

HOUSE VENTILATION

The aim of any ventilation system should be to achieve a constant circulation of air, without causing a direct cold draught. There must be an entrance for fresh air from outside and a means of egress for the foul air. Circulation is readily accomplished by the difference in temperature between the inside and the outside air. The greater this difference, the stronger is the current, so that a very small aperture in winter may secure as much ventilation as a wide-open window in summer.

In English houses, with their open fire grates, the chimney serves as an excellent channel for the removal of foul air. In Canada, where we have a furnace in the cellar and cook by gas, we have, while immensely improving the efficiency of our heating systems, not generally provided any means by which ventilation is combined therewith. Every furnace ought to have a pipe connecting with the outside air, which would bring in fresh air and warm it for distribution through the house. Then, if exits for the foul air were also provided, we should have an ideal ventilation system.

Unfortunately, we must, in the majority of existing houses, fall back on the windows to let in clean air. Although they are, at best, unsatisfactory, they can very often be improved. To begin with, the type of double window which has no aperture except three little holes or a slit, invariably choked with snow and ice, should be discarded. A sliding or hinged pane should always be provided. Then, if the upper inside window be opened, the air must circulate between the two windows before entering the room and thus a direct draught is avoided, while the volume of new air is readily regulated to suit the coldness of the day and the strength and direction of the wind.

FUR FARMING IN P.E.I.

The recognition of Prince Edward Island as the centre of fur-farming as an established and scientific industry is constantly in evidence. The fame of the island has spread not only throughout this continent but has crossed both the Atlantic and the Pacific. Norway has drawn upon Prince Edward Island breeders for black foxes with which to establish a fur-farming industry in that country. Japanese business men, now investigating industrial conditions in Canada and the United States, are paying a special visit to the island to get first-hand information of fur-farming methods.

Fur-farming is a pursuit which can and will be carried on extensively and profitably in many sections of Canada. But Prince Edward Island has achieved a unique reputation for the industry and is likely to become permanently as renowned for its furs as British Columbia is for its salmon or the Prairie Provinces for their wheat.

SAVED BY SPRINKLERS

On the night of Nov. 7, fire broke out in a large planing mill and sash and door factory at Ottawa. The building has a complete sprinkler system and, though the very inflammable nature of the contents enabled the blaze to reach the roof, the fire inside was quickly extinguished by the sprinklers and without any important damage. The fire on the roof was soon overcome by a single stream from a fire hydrant. But for the effective work of the sprinkler system this large factory would have been a total loss. The sprinkler installation saved a valuable plant for the Company and continuous employment and a regular pay envelope for the employees.

UNITED STATES FOREST CENSUS

The fourteenth decennial census of the United States will include statistics on forestry and forest products, which have not been specifically covered by any previous census. The compilation of these statistics will be in charge of a special force of experts and the accurate and comprehensive figures concerning this vital natural resource thus obtained will doubtless prove very interesting and exceedingly valuable.

In this connection it may be noted that the Canadian Lumbermen's Association, at its last annual meeting passed a resolution urging that similar work be undertaken in Canada and that the Commission of Conservation be clothed with power and equipped with the means to carry on this work.

The Commission of Conservation has already published certain forestry statistics in its reports on *Forest Conditions of Nova Scotia*, *Forest Protection in Canada*, *Trent Watershed Survey* and *Forests of British Columbia*. These reports have dealt with such subjects as the classification of lands, the available forest areas, the rate of tree reproduction, the extent of burned and cut-over areas, etc. The whole country has, however, not yet been covered and there are, moreover, many things which it is very desirable to know about our forests which still await expert investigation.

SAFE STORAGE OF SOFT COAL

At a meeting of the Toronto School Board on October 30th, the building superintendent reported: "If it had not been for the concrete ceiling and floor and the brick walls of the basement, we should have had no Williamson Road school to-day. The 270 tons of soft coal stored in the basement heated and caught fire. The coal was piled ten feet high." At the same meeting it was reported that there had been six or eight fires from soft coal heating in bins in the schools.

Spontaneous combustion of bituminous coal has been the cause of many serious fire losses. Users of this coal who are sufficiently fortunate to have a substantial amount on hand can reduce the fire risk by seeing that the coal piles are not over five feet in depth, by inserting ventilating pipes and by regularly examining the coal bins to ascertain whether the coal is heating.

WHITE PINE GROWTH

Mr. Hill, lockmaster at Buckhorn, Ont., experimented with a pine tree to determine improved growth which may be secured by proper care. Fifteen years ago, he pruned all the lower branches off a 4-inch white pine sapling, removed other saplings from its vicinity, dug up the earth around it and applied manure to its base. It is now 19 inches in diameter at its base and has a long, clean bole. Thus, during the 15 years, the growth in diameter has averaged one inch annually.

Insect Damage to Spruce and Balsam

Commission of Conservation and N. B. Forest Service Co-operate in Operations at Miramichi

One of the many enemies of the forest, particularly active in Quebec and New Brunswick during the last few years, is the balsam bud worm. This insect has caused great damage to the balsam over considerable areas, and, to a much lesser degree, the spruce, by defoliating the trees, causing them to die or to become so greatly weakened as to succumb readily to the attacks of bark beetles or other destructive forest insects.

An examination, made in September by the Dominion Entomological Branch, showed that all the balsam on the Miramichi Fish Hatchery lot, near South Esk, N.B., had been killed through successive defoliations by the balsam bud worm, and that the spruce had been heavily attacked by the same insect. The extent to which the spruce will be killed cannot be determined until next summer. The Miramichi Fish Hatchery lot contains some 240 acres, for the most part covered with spruce and balsam, with smaller quantities of hemlock, yellow birch, white pine and larch.

In view of this serious damage to the forest, the Fisheries Branch, Department of the Naval Service, has decided to make a sale of the bulk of the merchantable timber in order to salvage that which is already dead, while it is still in merchantable condition, as well as to check the further attacks of the bud worm, by taking out the trees already affected.

To this end, the co-operation of the Commission of Conservation was secured, aided by the Provincial Forest Service of New Brunswick. A careful cruise of the timber was made in October, by representatives of these two organizations, under Mr. W. M. Robertson of the Commission of Conservation. Cutting regulations have been drafted with a view to leaving the area in the best possible condition to produce a new forest, thus preserving its value as a watershed. In removing the merchantable timber, the greatest care is to be taken to avoid destruction of the young forest growth. No white pine is to be cut, in order to leave seed trees of this valuable species. All logging slash resulting from the operation is to be piled and burned under the direction of a forest officer, to reduce the fire hazard.

Four sample plots of one acre each are to be left uncut, to serve as a basis for future study and observation by the Commission of Conservation, the Entomological Branch, and the Provincial Forest Service. It is expected that observations will be made on this area periodically for many years, with a view to securing specific information as to the best methods of forest management as well as protection from insect enemies of the forest. —*Clyde Leavitt.*

Value of Aircraft for Forest Patrols

Experience of Past Season Proves that Improved Methods of Conservation are still Necessary

One direction in which forest protection will probably be improved is through the use of aircraft. During the past season, an experiment along this line has been maintained by the St. Maurice Forest Protective Association, in co-operation with the Quebec Government, using seaplanes loaned by the Royal Canadian Naval Air Service. Similarly, in the Northwestern states, forest patrols by aircraft have been maintained, through co-operation of the U.S. War Department with the National Forest service.

While these experiments have not yet produced absolutely conclusive results, they at least indicate clearly that aircraft will have an important place in forest protection in the future, provided the question of expense can be met. One point seems very clear, and that is that no matter what the cost may be, within reason, it will be much less than the average annual loss sustained by forest fires. In the United States, the proposal is that the Federal Government adopt definitely the policy of full co-operation with state and private forest protective agencies. It being assumed that a National Air Service is to be maintained in any event, assignment to forest patrol would constitute an extremely useful activity when personnel and equipment are not needed for national defense. Under such an arrangement, with the Federal Government assisting through the assignment of aircraft and aviators, the additional cost for an effective aerial patrol could be brought well within reason. Existing agencies can well afford to incur more expense in forest protection than they are now doing, provided the results are commensurate with the increased costs, and that this would be the case with aerial patrol now seems reasonably well established. It is probable that smaller machines than those thus far used for this purpose would prove preferable, because much cheaper in first cost as well as in maintenance and operation. Full co-ordination between the air force and the ground staff would of course be a prime essential. Look-out towers have many times proved their value in the detection of fires; an aeroplane or seaplane would take the place of many such towers.

The systematic mapping of the country, by aerial photography, is another closely related activity, the possibilities of which are receiving consideration in both Canada and the United States. In Canada, it is receiving the attention of the Royal Canadian Naval Air Service, the Geodetic Survey and the Geological Survey. The St. Maurice Forest Protective Association, using the machines loaned by the Naval Air Service, and with the co-operation of the Geological Survey, is now experimenting along this line.—*Clyde Leavitt.*

AN EXPENSIVE LUXURY

Do You Require 20 Times Your Weight of Water per Day?

In Montreal, the daily quantity of water consumed weighs 12 times as much as the entire population of the city. In other words, every individual may be said to consume 12 times his own weight of water. In Toronto, the weight of water consumed is 10 times that of its population; in Hamilton, 13 times; in Ottawa, 17 times; in Quebec, 15 times; in Halifax, 17 times; in St. John, 21 times.

As a contrast with the above figures, the daily weight of water used in Winnipeg is less than 5 times that of its population; in Brandon, 7 times; in Regina, 4 times; in Saskatoon, 6 times and in Moose Jaw, nearly 5 times.

One of the commonest causes of over-consumption is the policy adopted by our eastern cities of supplying water on the flat rate with absolutely no control of the individual consumption or waste. In the Prairie Provinces, on the other hand, we find a much lower consumption which, of course, is due to the fact that, in that section, the charges are usually made on the meter basis.—*L. G. Denis.*

Canning and Drying with Electricity

Electric Ovens and Fireless Cookers Prove Economical

Experiments have recently been carried out by the United States Department of Agriculture to ascertain the best methods of using electricity in the home for preserving, canning and drying fruit and vegetables.

By using the hot plate of an electric range in exactly the same way as a coal or gas stove an excellent product was obtained but the cost was too high. A second series of tests was made, in which the oven of the electric range was used, thus obtaining the sterilization temperature by baking instead of boiling. The water bath was omitted and the cans were placed on a rack in the oven. By these means a reduction in the cost was effected.

The electric fireless cooker proved the most efficient method of all, the cost being only one half that of the oven method. When employing this apparatus, the material is blanched and packed as usual, the jars are placed in the cooker and the electricity is turned on full strength until the thermometer registers 180 deg. The switch may then be turned down to the lowest heat, as 40 watts has been found sufficient to keep the jars at the sterilizing temperature.

The reason for the much more economical operation of electric ovens and fireless cookers is to be found in the fact that the source of heat and the articles being cooked can be enclosed together in an air-tight space, while with fuel ranges a large amount of heat is unavoidably lost into the air.

Drying of vegetables was also tried, using first the oven of an electric range, then a combination of range and electric fan and, finally, the fan alone. The cheapest way is to make use of the residual heat left in the oven following some cooking operation. This is sufficient to start the drying process, then, when the oven is nearly cool, the door is opened and an ordinary electric fan is placed near by. This soon finishes the drying process and also prevents the oven from rusting.—*L. G. Denis.*

French Legislation Aids Water Powers

Coal Scarcity in France Leads to Vigorous Policy of Hydro-electric Development

Long before the war, the French Government realized the great value of water-power resources and undertook a thorough investigation of the 'white coal' of that country. War conditions had the effect of further accentuating the importance of water-powers to the nation. Several large hydro-electric developments were rushed to completion and proved invaluable in assisting war production.

The proposed new French law respecting new or dormant water-power possibilities is of interest as it shows that the measures now in force in Canada are far from being too drastic in maintaining public control over the utilization of our water-powers. This is especially the case because in Canada hydro-electric power is essential to the full development of some of our other valuable resources.

The new French law provides the same treatment for all water-powers, including power from tides, and the importance of the purpose for which the power is to be used is the primary consideration in determining the relation between private rights and public authority. As compared with the old law, the water-power lessees on state-owned streams are given additional facilities in return for the rentals paid to the public treasury. Private streams are subjected to state authority so far as power utilization is concerned and the lessees are given certain rights in derogation of the privileges of riparian owners. The law applies to water-power utilization of 500 k.w. and over, the leases being for a period of 75 years, the works and buildings becoming state property at the end of said period on payment of adequate compensation.

In support of the new Act, it was urged that, owing to the serious shortage of coal in France, nothing should be left undone to secure the maximum amount of power from streams. In the coalless provinces of Ontario and Quebec the displacement by hydro-electric energy of coal imported from the United States reduces the unfavourable balance of trade which is so heavily against us.—*L. G. Denis.*

Lumbermen Favour Survey of Forest

Pledge Support to Commission Conservation in Taking Inventory of Timber Resources

The Canadian Lumbermen's Association represents one of Canada's greatest primary industries—an industry directly dependent upon the exploitation of a natural resource. As a business organization it clearly recognizes that its permanent prosperity is bound up with an administrative policy that will ensure continuous production of raw material on our forest areas. One of the first essential steps is to ascertain as definitely as possible the extent and character of our existing timber stand. At its last annual meeting, therefore, the Association passed the following resolution extending its strongest approval and support of the forest survey now being conducted by the Conservation Commission.

Whereas an accurate survey of all standing timber in Canada, showing the various kinds of lumber, the quality, location and accessibility, together with available means of transporting same to the nearest market, also a report of all cut-over lands which are suitable only for forest growth, with the extent and location of same, would be most valuable information, not only to lumber operators, but to the various Dominion and Provincial governments, thus enabling said governments to develop to the fullest extent a permanent forest policy which would have the effect of conserving the great natural resources contained in Canada's forests;

Be it therefore resolved: That the Canadian Lumbermen's Association assembled in St. John, N.B., at its eleventh Annual Convention urge upon the proper governmental authorities to provide adequate financial assistance, and clothe the Commission of Conservation with the necessary authority, for the purpose of accomplishing the end in view.

The greatest factor in the adoption of practical conservation methods is to have the unqualified support of public opinion. It is extremely encouraging to know that the business interests engaged in the exploitation of Canadian forests are not desirous that either governmental or commercial policies should be of a hand-to-mouth character. Our forest areas must be kept productive in perpetuity.

FARMER'S ACCOUNT BOOK

Mr. Farmer, if you require a book which will give you a complete, yet simple, method of keeping your accounts, with blank forms already ruled, apply to the Commission of Conservation for the "Farmer's Account Book". If you have never kept books before, this book will teach you. There is no better time than the beginning of the year. Start now.