

## Commission of Conservation CANADA

CLIFFORD SIFTON, K.C.M.G.

Chairman

JAMES WHITE

Assistant to Chairman and Deputy Head

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 the proper conservation of the same, together with timely articles covering town-planning and public health.

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### WEEDS

With the call for more production there may be a tendency to increase the acreage of high producing crops such as the root and no crops on the farm. In preparing for these crops this year it will be well to thoroughly bear in mind that no amount of cultivation after the crop is in can make up for a lack of cultivation before the crop is planted. If the ground is properly prepared for the seeding and planting, the battle is largely won. By thorough tillage of the soil before planting, thousands of tiny insects will be killed which would otherwise cause trouble in the growing crop. By preventing the weeds from growing the crops are given a better opportunity to develop and produce the food which is required by Canadians in Canada and the Allies in Europe.—F.C.N.

### PROTECTING THE STURGEON

A bill now pending in the New York State Legislature provides for the prohibition of sturgeon fishing, within the waters of Lake Erie, bounding the state of New York, for a period of three years. Pennsylvania has already passed a similar bill which, however, becomes operative only when the states of Ohio and New York and the province of Ontario impose restrictions of like effect. The history of the sturgeon fishery, not only in Ontario but throughout the Dominion, has been one of vigorous competition followed by extreme exploitation. Whether or not it is desirable, especially in view of the present call for increased food production, to immediately impose the restrictive measure suggested in New York state, there can be no question as to the necessity for taking effective steps to revive this fishery as circumstances permit.

## New Brunswick Forest Survey

### Good Progress Reported and Splendid Results Achieved

Plans are now being made for the resumption of field work on the New Brunswick forest survey, of which P. Z. Caverhill is in charge. A report recently submitted by Mr. Caverhill to the New Brunswick Government shows that, of a total of some 7,500,000 acres of Crown lands, 550,000 acres have been surveyed and examined by the field parties. The mapping and compilation have been completed for a total of 371,000 acres. Of this area, 76 per cent is covered with merchantable timber, less than 2 per cent with second growth of less than merchantable size, 11 per cent has been burned but now contains young forest growth in sufficient quantities to replace ultimately the former forest, and on 9 per cent of the area mapped, fires have caused such damage that satisfactory reproduction has been made impossible. Of the remaining 2 per cent, less than half represents the area of lands cleared or cultivated, and the balance is made up of caribou barrens, cranberry bogs, swamp land not supporting commercial growth, etc.

The cruise shows that the 252,064 acres of timbered land mapped to date contains 447 million feet of saw timber and 728,000 cords, equivalent to 364 million feet, of pulp wood, spool wood, etc. The grand total is thus 811 million feet, or an average of 2,900 board feet per acre.

If it be assumed that the 371,000 acres mapped to date is fairly representative of the 7,500,000 acres of Crown lands, the total stand will be in the neighbourhood of 16,220 million feet estimated to be worth in stumpage at least \$48,000,000. Mr. Caverhill estimates that the harvesting and marketing of this crop will distribute among the people of New Brunswick not less than \$300,000,000.—C.L.

## Greater Production

### Increased Output from Canada's Fisheries to be Undertaken

The Canadian Fisheries' Association is to be commended for its commercial enterprise and patriotic service in undertaking an extensive campaign for an increased output from Canada's fisheries. It is the intention of the Association to not only have the splendid fisheries of the Dominion contribute as largely as possible to the relief of the immediate grave shortage of food, but also to promote permanent development of our fisheries on a much greater scale. In serving the particular interests which it repre-

sents, the Canadian Fisheries' Association, like the Canadian Forestry Association, Canadian Mining Institute, Pulp and Paper Association, the great farmers' organizations and numerous other influential bodies identified with promoting and protecting primary production in its various phases, can at the same time be of great service in assisting more proportionate national development than Canada has been securing during the present century.

## The Electric Furnace

### Rapid Growth in its Use for the Production of Steel

The use of the electric iron and steel furnace has made exceptional progress under war conditions. When the demand for steel exceeds the supply, and junk piles are searched for available metal, the electric steel furnace experiences a boom because it is capable of making an excellent quality of steel from a comparatively poor quality of iron and steel scrap. As more natural resources becomes necessary, electrical processes steadily gain ground because of their greater economy in the use of raw materials.

At the beginning of 1916 there were 73 electric steel furnaces in the United States producing 100,000 tons per year; to-day there are over double this number with a yearly production exceeding 1,000,000 tons. These furnaces require in the neighbourhood of 150,000 h.p., one of the largest single installations having a total capacity of 70 tons in units of 15 and 20 tons.

The relative growth in Canada is even greater; the electric furnace steel production has increased from 61 tons in 1915 to 43,790 tons in 1916. In Montreal alone, according to figures supplied by the Civic Investment and Industrial Co., there are in operation, or being installed, 11 electric furnaces requiring a total of 17,000 h.p. The larger furnaces, when fed from high tension lines and properly controlled, offer no serious disturbances to their circuits, but a plant of less than 5,000 h.p. capacity should not attempt to carry single phase furnaces of 400 k.v. or over. The possibilities as an off-peak load are good as the usual length of heat is only about three hours, which condition would adapt itself excellently to a limited service operation. The furnaces can be operated economically at from 1c to 1½c per k.w.h. and such rates are now in force in many Canadian centres for ordinary service such as house lighting.—L.G.D.

There is no place where the spring clean-up is more necessary than on the farm, and in the farm home.

## Farming Co-operation

### Buying and Selling in Groups Not Being Taken Advantage Of

Co-operative selling and buying requires no argument to-day to sustain its advantages. The saving in cost of handling large orders instead of numerous small ones is recognized by every business house. The wholesale houses do business on this basis, and are consequently able to sell their goods at much lower prices. The retailer has to break bulk, has many packages to weigh out and parcel up, has many accounts to make out and many orders to record. Over and above these costs is the very large item of delivery. This item is a serious matter in urban centres, but it is much more so in the country, whether the dealer delivers them or the farmer drives in for his supplies, the cost is there.

In a recent rural survey by the Commission of Conservation, among 100 farmers in one township, it was found that 63 of them lived five miles or more from a shipping point. Of these 63 farmers, not one was either selling his produce or buying his supplies co-operatively. Each farmer was driving this ten miles (5 miles each way) to his market place, covering largely the same ground as his neighbours, using his team and wagon, his own time and energy. In many instances the great waste of time and energy and the monetary loss due to the smaller business transactions might be materially reduced by extension of the co-operative system.

## The Split Log Drag

Good Roads conventions are excellent. Much information and many helpful suggestions are to be obtained from attending them. Unfortunately very few country pathmasters attend them. We all hope that, eventually, good roads, with proper surface and under-drainage and foundation will become general. Meanwhile it would be well for us to exercise the proper care that should be given to many existing earth roads.

While travelling through Dundas county the middle of April, it was distinctly noticeable that the road upon which the split log drag had been used were in decidedly better condition than the undrugged roads. Do not wait until the road is to be reconstructed. Do something to keep it in good shape. If the split log drag is used in the spring, or, after rains, earth roads can be very much improved. Instead of having a road full of holes and ruts an earth road can be kept smooth and in much better condition than many of the undrugged roads of the present day. The cost is small but the improvement is great.—F.C.N.