

Reliable Statistics of the Fur Trade

First Essential to Conservation of Wild Life—Large Increases in Quantities Taken

The problem of securing accurate statistics regarding various phases of the fur industry was one of the important questions discussed at a Convention held recently in Montreal under the auspices of the Commission of Conservation and the Advisory Board on Wild Life Protection. If effective steps are to be taken to guard against the depletion of fur-bearing species, it is essential to secure reliable figures as to the numbers of fur-bearing animals that are being taken from year to year. The Province of Quebec has adopted a system of controlling the fur trade that has given, among other results, invaluable statistical information.

In addressing the Convention, Mr. J. A. Bellisle, Inspector General of Fisheries and Game for Quebec, gave the following data: "The comparative table which follows shows the quantities of each kind of furs stamped and on which royalty was paid for: each of the two fiscal years 1917-18 and 1918-19 respectively, which were the first and second years of the operation of the law:

Species of furs	Quantity for 1917-18	Quantity for 1918-19	Increase per cent
Otter	2,602	3,151	21
Beaver	20,576	31,624	54
Bear	1,283	1,679	30
Lynx	3,621	4,010	10
Wolverine	14	14	
Marten	9,846	13,611	38
Fisher	2,083	2,539	21
Skunk	7,453	13,625	74
Mink	5,964	10,008	70
Black Fox	138	546	300
Silver Fox	30	91	300
Red Fox	8,297	12,969	56
Badger	32	153	36
White Fox	1,287	12,238	850
Cross Fox	875	2,110	141
Raccoon	1,182	1,989	68
Muskrat	192,241	208,652	9
Weasel	33,306	30,392	51
Carlin	3	3	
Moose	164	218	32
Deer	7,350	5,746	28 decrease

"There was then a total for the first year 1917-18 of 317,050 skins, which represented a value of \$1,548,348.25, on which we collected 82,676.92. For the year 1918-19, the total number of skins stamped was 395,736, representing a total value of \$3,828,383.75, on which we collected \$81,830.26 of royalty."

WATER-POWERS—Continued from p. 14

The 7,398,160 h.p. available for new development in the populated area is derived from an estimated total possible of 9,781,400 h.p., of which 2,383,240 h.p. has already been developed.

Under the rate of growth assumed, all the available water-powers within the populated portion were to be developed in twenty years. It is self-evident, however, that, as new development becomes dependent on less accessible sites, it will proceed much more slowly.—L. G. Denis.

Swallowed a Match to Avoid Explosion

Instances of Fire Dangers Caused by Matches—How One Inspector met the Situation

Matches are the immediate cause of many of our largest fire losses and probably the majority of smaller fires could be traced to this same source.

More than one factory in Canada has gone down to ruins; many employees have been thrown out of employment, and their families have suffered want; many employees have seen the result of their life-work crumble—all the result of carelessness with matches. The number of fires in business places shortly after closing time is remarkable. Investigation has shown that these are nearly always due to employees dropping unextinguished matches after lighting pipes or cigarettes. Especially is this the case during the cold weather, when employees, regardless of "no smoking" rules, will "light up" before buttoning up their overcoats.

Many cases may be cited of fires caused by matches.

For instance, the coat and vest of an employee were hanging in a draught, and the swaying of the clothes against the wall lighted the matches in the vest pocket.

During the war, an inspector, inadvertently, carried a match into an explosives plant, but, knowing the danger, he chewed the match up and swallowed it.

If but a fraction of this recognition of the danger of matches could be impressed upon workers, much of our fire waste would be avoided, and the work necessary to replace this loss could be devoted to more productive efforts.

Preventive for Typhoid Fever

Inoculation Undoubtedly Saved Lives of Many Canadian Soldiers Exposed to Typhoid Conditions

One striking example of the efficacy of modern medicine is the marked result obtained in the prevention of typhoid fever in the European armies. In former wars, this disease wrought havoc both in field and camp. Two instances will serve to illustrate: In the South African war, the deaths totalled over 8,000 in 57,000 cases of the disease; in the Spanish-American war, of an army of over 100,000 men, practically one-fifth (20,734) was attacked. During the recent war, there were only scattered cases of the fever and occasional small groups of cases in different units. The deaths among the troops, while under the most severe of active service conditions, were slightly below that of the civil population of similar ages and for the same period, in England and Wales, where the typhoid death rate is always low.

The marked change brought about by inoculation has made the world, at least, familiar to the public, although, possibly, few

understand the method. The anti-typhoid vaccine is a liquid containing large numbers of dead typhoid bacilli and the toxins formed in bacillus cultures, and is administered by being inserted under the skin by means of a hypodermic needle. The effect is either to counteract or prevent typhoid fever, thus acting as a preventive or prophylactic.

Inoculation against typhoid was early adopted in the Canadian forces, 23,000 of the first contingent voluntarily receiving treatment at Valcartier. Its success has been amply demonstrated. Reports received clearly show that the non-inoculated soldier is much more liable to contract typhoid fever than is the inoculated; also, should the disease be contracted, the non-inoculated case is between three and four times more liable to terminate fatally. It has been found that the severity of the attack is generally much lessened, and that inoculation protects against relapses and complications, while convalescence is more rapid. When inoculation is performed early after infection, it reduces the virulence of the attack.

The experience of the French army is similar to that of the British. It is authoritatively stated that the number of cases of typhoid in the German army at once declined when inoculation was carried out, and so marked was the result that, by 1915, all the armies of the central powers had been inoculated against typhoid fever.—C. A. Hodgetts, M.D.

Value of Forestry is Appreciated

Private Companies Undertaking Measures to Ensure Continuation of Industry

There is a steadily increasing movement toward the employment of trained foresters by private concerns, principally pulp and paper companies. Fourteen such companies in eastern Canada now employ foresters for exploration, mapping, cruising, surveying, inspection of woods operations, forest research, forest nursery work, tree planting, or some combination of these activities. While this is a splendid development and one most promising for the future, it must still be recorded that only to a very limited extent have foresters in private employ yet been used in the actual supervision of the woods operations, and that their influence has not yet been felt to any great extent in modifying the methods of conducting such operations with a view to increasing the productiveness of cut-over lands. Developments along these lines must be gradual; it will increase with increasing shortage of timber supplies and consequently higher stumpage values, and as the forestry profession demonstrates its worth.

The reduction of unnecessary waste in logging operations opens a large field to thoroughly practical men with forestry training; only a beginning has yet been

made. Adequate action along this line would greatly lengthen the period of operation in virgin supplies of most concerns. Aside from more complete utilization of merchantable material in the trees—by cutting lower stumps and higher up into the tops—it is well known that great amounts of cut timber have been carelessly left to rot in the woods or left stranded in the smaller streams. More careful supervision would correct a great deal of this abuse, though considerable loss by sinkage and stranding in stream-driving seems unavoidable.

Another field of large possibilities lies in the better control of jobbers' operations, with a view to ensuring the removal of all merchantable material on areas being cut over. There is evidence that, in some cases, lack of supervision results in jobbers being given a larger area than they require for the cutting of the number of logs contracted for. The result is that the jobber is likely to pick and choose, taking the best and most accessible trees, and leaving behind much merchantable material which should have been taken, but is too small in amount to justify a later operation. This is likely to be lost through windfall, insects, decay or fire before the undersized timber makes sufficient growth to justify another operation.

Among the pulp and paper companies which have undertaken programmes of reforestation, the pioneers are the Laurentide Company, Ltd., and the Riordon Pulp and Paper Company, both in Quebec. Both these concerns are working toward an annual planting of 2,000,000 trees.

During the past year the Abitibi Company has organized a forestry department in connection with its limits in Northern Ontario. In addition to other lines of forestry work, this company has established a forest nursery, with a view to undertaking planting operations.

That the field for private forestry is increasing rapidly is clearly indicated by the increasing number of foresters who are going into the work on a consulting basis. Forest surveys, mapping, cruising and exploration are, at present, the principal lines open to such men.

ADVERSE EXCHANGE AND PRODUCTION

The fluctuating rate of exchange, inconvenient as it may be, is on the whole an accurate barometer of the international trade situation. A dollar bill is only a promise to pay and is valueless unless redeemable. Gold, however, is not the only commodity with which it can be honoured. It can be redeemed with wheat, pulp, paper, lumber, fish, coal, anything at all of which the country issuing the note produces a surplus for export. The way to right adverse exchange is to speed up production, so that we can pay for all the goods imported with other goods exported. Retrenchment, that is, cutting down expenditure on unnecessary articles of luxury, will help.