

Co-operative Forest Fire Protection

St. Maurice Association Keeps
Damage down to .001 per Cent
of Timber Value

The second annual report of the St. Maurice Forest Protective Association, covering the season of 1913, demonstrates the admirable results in forest fire protection that may be secured by co-operative action. This Association is composed of seventeen limit-holders having lands in the basin of the St. Maurice river, Quebec. The Forest Protection Branch of the provincial Department of Lands, Forests and Mines co-operated with the Association and bore a part of the expense, though the greater portion of the cost was borne by an assessment of 25c. per 100 acres levied upon the limit-holders.

The co-operation was further extended to the Board of Railway Commissioners, the manager of the Association having received an appointment as Fire Inspector, in order to assist in enforcing the requirements of the Board in connection with railway fire patrols, right-of-way clearing, and the reporting and extinguishing of fires occurring along the lines of railway subject to the Board's jurisdiction within the St. Maurice watershed. The manager also acted in a similar capacity for the Quebec Public Utilities Commission, as to provincially chartered railways within the protected territory. Through this harmonious co-operation of all the agencies concerned with fire protection in this area, results were secured far exceeding in efficiency those secured in previous years.

The members of the Association control 7,279,000 acres in the St. Maurice drainage area. This figure does not include government lands not under license, or lots taken up by settlers, which latter were the greatest source of danger and the scene of 50 per cent of the fires. It is interesting to note that the area patrolled comprises approximately one-sixth of the whole area under license in the province. This area was divided into four divisions and twenty-five districts, sixteen of which were each patrolled by two men in a canoe, five each by one man on horseback or on foot, and four each by two men on railway power speeder.

The total number of fires extinguished was 306, of which 263 were extinguished by the patrolmen without extra labour. Had these fires been left unattended, many of them would undoubtedly have caused serious damage. Only 43 fires required extra labour to extinguish them. Although the summer of 1913 was the driest since 1908, the actual fire damage was less than one one-thousandth

of one per cent of the value of the timber on the territory patrolled.

The Association has had a steady growth, 102,000 acres having been added to its territory in 1913, and over 266,000 acres, thus far, in 1914. Still further extensions are anticipated.—C. L.

Laying up Domestic Furnaces

Precautions that will Lengthen
Life of Heating Plants

As this is the time of year owners of domestic furnaces prepare to lay them up for the summer season the following notes will prove of interest:—

(1) Care should be taken, when discontinuing the use of a heating system, to see that all radiators and pipes are thoroughly drained. To do this it is desirable to open the air vents on all the radiators.

(2) In order to prevent pitting, the boiler should also be emptied.

(3) If the boiler stands in a badly ventilated or damp place it is advantageous to give the exterior a coat of preservative paint.

(4) When the boiler has been drained, it should be cleaned out, as well as possible, internally. Any scale or sediment that may have collected within it should be removed. The boiler should be refilled and drained at least twice, after the water has been run off from it, and it should be washed out with a powerful stream of water from a hose, when this is possible. When it has been emptied for the last time it should be allowed to drain very thoroughly and any water that remains standing in it should be removed.

(5) When the boiler has been drained, the valve on the feed pipe should be examined to see if it is tight, and if there is any leakage at this point the valve should be repaired. The blow-off cock on the boiler should be left open; so that, if there be any leakage from the supply pipe, the water can flow out freely instead of accumulating inside.

(6) The boiler should be opened up as completely as possible, that there may be a free circulation of air through it. If it has a man-hole or hand-holes, these should be left open, and if the safety valve is of the lever type, it should be raised from its seat and fastened in the open position.

(7) After the boiler has been thoroughly freed from water and opened to the air, it is well to warm it a little for the purpose of drying off the moisture. This operation should be performed with extreme care and should not be done by building a fire upon the grate because there is danger of seriously damaging the boiler in this way. The safe way is to heat

it by placing a small single-burner kerosene stove in the furnace, and leaving it there until it burns out. If the boiler becomes damp during the summer the heating should be repeated whenever it seems desirable.

(8) The ash pit and smoke flue should be cleaned internally.

(9) All accessories of the boiler should be examined and any repairs that are needed should be made at once because this work is likely to be forgotten or it may be delayed until the late fall when many other boilers are being put up for service and the repair men are so busy that it is hard to get them when they are wanted.

(10) Don't throw waste papers or other combustible matter in the furnace during the summer months. Someone may set fire to it and damage the boiler.—W. J. D.

America's Work for Wild Birds

Humane Legislation of United
States Congress Strikes Deadly
Blow at Trade in Feathers

Dr. W. T. Hornaday, Director of the New York Zoological Park, gives, in the *Nineteenth Century*, some striking statistics illustrating the decline of the murderous feather trade since the passing of the American Act prohibiting the importation of feathers into the United States. The effectiveness of the Act, as also the wide extent of the slaughter of rare and beautiful feathered creatures that has been carried on, may be gauged from the following quotation:

"At the London feather sale of the 14th of October, 1913, the market suffered a tremendous decline. On account of bad prices and lack of buyers, one third of the lots offered had to be withdrawn. The exact number of lots offered was 1174, and the number withdrawn was 368. It is with much interest that we have made a complete summary of the offerings that could find no sale because the American market was tightly closed. The chief products that literally went begging on that occasion were as follows:—

- 1,203 skins of greater bird of paradise.
- 127 skins of rifle bird of paradise.
- 761 skins of emu.
- 1,212 skins of eared pheasant (Numidie)
- 1,257 skins of Lady Amherst pheasant.
- 790 skins of golden pheasant.
- 142 skins of Impney pheasant.
- 105 skins of pelican.
- 318 skins of marabout stork.
- 22,810 skins of kingfishers.
- 173 skins of scarlet ibis.
- 3,321 skins of terns (white sea swallows)
- 490 skins of gulls.
- 30 skins of owls.
- 308 skins of cockatoo.
- 1,759 skins of parrots.
- 2,494 ounces egret plumes—14,964 birds.
- 17,402 wing and tail feathers of condor.
- 1,993 wing and tail feathers of eagle.
- 34,681 wing and tail feathers of hawk.
- 544 wings of macaw.

The above list contains the principal items of the sales that could not be made. Multiply these totals by three, and the result should show a fair approximation of the whole product of world-wide bird-slaughter as offered in London on the 14th of October."

WORLD'S LARGEST FORESTRY ASSOCIATION

The St. Maurice Forest Protective Association is the second largest of its kind in the world, the largest being the Western Forestry and Conservation Association, the subsidiary associations of which last year provided for a patrol of 25,000,000 acres of timberland in the states of the Pacific Northwest. This area contains over 500 billion feet of timber, or a fifth of the entire supply of the United States. The fire loss last summer was one one-thousandth of the value of the timber on the area patrolled. The cost of patrolling varied between 50 cents and \$3.00 per 100 acres, according to conditions and the amount of improvement work done, such as trails, telephone lines, lookout stations, etc.—C. L.

Grand Rapids Reservation

Practical Conservation by the
Water Powers Branch

The Minister of the Interior has authorized the reservation of all the available Dominion lands contiguous to the Grand rapids of the Saskatchewan river, in the province of Manitoba, until such time as the Superintendent of the Dominion Water Power Branch is able to make a definite statement respecting the lands actually required for power purposes at this point. During the summer of 1913 an extensive topographical survey of this important power site was made by the Dominion Water Power Branch, to enable the engineers of the government interested in power and navigation to design a scheme of power development which would realize the best use of the power resources of the river without any impairment of future navigation. The hydrographic investigations that have been under way for the last couple of years show that the river varies from 4,200 second feet at low water to about 160,000 second feet at flood time. While this variation is very considerable it is thought that sufficient regulation can be provided to make a power development at Grand Rapids a profitable undertaking. In any event, the action of the engineers of the Dominion Water Power Branch in having a thorough survey made and in arranging for reservation of the Dominion land required for power shows that conservation is being carried out in practice as well as in theory.