

JANUARY, 1901

10,000,000 acres of forest land in the States of Virginia, North and South Carolina, Georgia, Alabama and Tennessee, and appropriating five million dollars for the purpose. The reserves previously established have been in the northern Western States.

The setting apart of forest reserves and the adoption of a system of scientific forestry are questions which should at once be taken up by the Dominion and Provincial Governments. The proposal to establish a forestry department in connection with one or two of the leading universities of the country is a step in the right direction.

EDITORIAL NOTES.

It is not unlikely that the Dominion Government will be petitioned to remove the duty on cooperage stock coming into Canada from the United States. This duty is 25 per cent. on manufactured stock cooperage material in the high being admitted free. The reason for this exemption is claimed to be that the Canadian manufacturers of cooperage stock are unable to supply the local demand, and that it has been necessary to import considerable material from the United States. It is by no means certain that the government would accede to this request asked to do so, as while it would result to the advantage of one or two large Canadian firms who have mills across the border, it might seriously affect the smaller producers of cooperage stock in Canada. It is at least fair to point out that such action is under consideration, and to give all who are likely to be affected an opportunity to place their views before the Government.

In the past more or less reliable estimates have been made of the quantity of pine timber standing on the Crown lands of Ontario. The provincial estimate of 1893 showed the quantity to be 26,000,000,000 feet, of which 10,000,000,000 feet were under license. The territory explored for the purpose of this estimate did not include a large tract of country north of the height of land. Of the other varieties of timber owned by the Crown no estimate has ever been made. The necessity of securing a more accurate statement of the Crown timber has been felt by the Government of the province for some time. It was recently decided to make explorations with a view to securing the necessary data and accompanying maps, showing the quantity and location of both pine and spruce timber, the latter now having a merchantable value that it did not possess at the time previous estimates were made—due to the growth of the pulp industry in Canada. It is hoped that the plan of the Government will include also the collection of data concerning the hardwoods of the province. It is quite a common thing to receive inquiries regarding the location of hardwood timber of certain varieties, but the information which it has been possible to impart has been a very uncertain character. If more accurate data were available it would greatly assist the development of the hardwood industry.

WESTERN RETAIL LUMBERMEN'S ASSOCIATION.

Although the date has not been definitely arranged, it is expected that the annual meeting of the Western Retail Lumbermen's Association will be held in the city of Winnipeg on or about February 16th. Mr. Henry Byrnes, of Winnipeg, is president of the Association.

THE CULTIVATION OF FORESTS.

AN IMPORTANT MEETING IN TORONTO. INTERESTING ADDRESSES AND VALUABLE SUGGESTIONS REGARDING TREE PLANTING.

A meeting under the joint auspices of the Canadian Institute and the Canadian Forestry Association was held in the Canadian Institute, Toronto, on Saturday evening, January 12th. The meeting was very largely attended by members of the Institute and persons specially interested in the subject of forestry. Mr. James Bain, jr., presided, and after a few opening remarks called upon Mr. E. Stewart, Superintendent of Forestry for the Dominion, to give an address. His remarks in full are given below:

FORESTRY AS IT RELATES TO LANDS UNDER THE CONTROL OF THE DOMINION GOVERNMENT.

By E. STEWART, Dominion Superintendent of Forestry.

In the few remarks that I shall make I purpose confining myself to forestry as it relates to Dominion territory as distinct from that of those Provinces which control their own land and the timber growing thereon.

According to the agreement entered into at the time of Confederation, each of the Provinces, namely, Ontario, Quebec, Nova Scotia and New Brunswick, retained the ownership of any ungranted lands within its limits, and when Prince Edward Island and British Columbia subsequently came in they did so on the same conditions. Shortly after the union the Federal Government became possessed of the Hudson's Bay Territory, a district of vast extent in the interior of the Continent, which now forms the Province of Manitoba and the North-West Territories, the latter being now divided into a number of territorial districts. Subsequent to this the Province of British Columbia handed over to the Dominion as her contribution for the building of the Canadian Pacific Railway through the Province, a tract of 20,000 square miles of great value for its timber along the line of the railway. This tract is forty miles in width each side of the track. So that the territory of which the Dominion was first owner embraced these great areas, with the exception of a small percentage retained by the Hudson's Bay Company, and though the aggregate of land and timber that has so far been granted by the Crown to private parties, corporations, etc., is very considerable, yet in a relative sense it is a mere trifle as compared with the total area.

Let us endeavor to obtain some idea of the total area of this territory. I shall first give a few figures which must be taken as only approximately correct, though it is believed that the errors will be in under-estimating, not in over-estimating, both the area of the land and the timber thereon. The total area of Dominion lands, including that owned by the Hudson's Bay Company and that of the railway belt in British Columbia, is estimated at 2,456,500 square miles. The total area of the five Eastern Provinces and British Columbia, less the railway belt, is 860,000 square miles. That is, the total area of the territory under Dominion control is about three times that which is owned and controlled by the Provinces.

But our subject is confined to the timber and not necessarily to the extent of land that either the Dominion or the Provinces possess, and it will be said that inasmuch as we have included both the prairie lands of the Dominion and the barren treeless areas of the far north in our calculation, it is of no value for our purpose. This is true enough, and we must now attempt to ascertain as nearly as possible the extent of that land which is not timbered and deduct the same from the total area.

The general impression of those whose only information is derived from a trip across the Continent on the Canadian Pacific Railway will be that most of the North-West consists of prairie land, and that after leaving Ontario on the east till we reach British Columbia on the west, there is no timber worthy of notice. Now, this is not incorrect so far as the country through which the railway runs is concerned, but we must remember that this railway traverses the full length of the prairie section of the country. If, however, the traveller, instead of continuing straight on along that line, would at almost any point within this prairie section turn at right angles and go north, he would not be able to proceed more than two hundred or three hundred miles at most from the

United States boundary before he would have left the prairie behind and entered what is known as our great northern or sub-arctic forest belt, which extends from there far north to the limit of tree growth.

This prairie section may be roughly estimated at 250,000 square miles, and the treeless land of the far north at 1,000,000 square miles; and this taken from the total of 2,456,000 square miles will leave 1,186,000 square miles as the area of the timbered lands, or over 300,000 square miles more than the total area, both cleared and timbered, contained in the six Provinces above referred to.

It must not be inferred that this immense tract is a solid forest, but what is not covered by lakes or streams on the one hand, or is not too mountainous on the other, will be properly classed as wooded country, the prevailing species of the northern belt being the white and black spruce, tamarac, balsam fir, Banksian pine, poplar and birch. Of these the spruces are the most widely distributed, and considering the great number of uses to which wood pulp is now being applied, and that spruce is of all varieties the one best adapted for that purpose, it seems very probable that this timber will in the future take the place so long held by the white pine in this country as the chief variety sought after by the lumbermen. It should be borne in mind that a large part of this wooded area of the north is better fitted for the growth of timber than for any other purpose.

There is no one who has ever travelled through the woods of the Provinces of Quebec and Ontario, or in fact any of the Canadian provinces or territories, who has not been impressed with the immense destruction that has resulted in forest fires. It is not an extravagant estimate, but well within the mark, to place the proportion of pine trees destroyed by fire as compared with those cut by the lumbermen as ten to one, while the value of the timber which has thus gone up in smoke would be more than sufficient to pay our national debt. And this destruction will continue to render barren and worthless a large portion of that vast area above referred to as under the control of the Federal Government unless very great care and attention is bestowed on its preservation. In fact, the conditions existing in the northern region are such as to render forest fires most destructive. A large part of the country is rock with scarcely any soil covering, but covered with moss and also hanging from the branches of the coniferous trees are thick bunches of moss. In a dry time every particle of moisture is evaporated from the forest floor, the moss on the rocks and also that on the trees is as dry as tinder, while the gum on the trees helps to make a more lasting fire. With such conditions it is not difficult to imagine the immense destruction produced when a fire gets started in these woods. Now the question is, can anything be done to stop or even lessen the destruction from this cause.

The Royal Commission on Forestry in Ontario, appointed in 1897, in their reports say:

"While there have been even within recent years extensive and devastating fires, destroying large amounts of timber, the saving to the province effected by the system of fire-rangers adopted in 1886 has nevertheless been very great. During the course of their investigations, your commissioners had brought to their notice a great many instances in which incipient fires, that unchecked would have been disastrous in their consequences, were successfully fought and suppressed by the rangers.

"Wherever the system has been employed by the various limit-holders, the results have been very marked. It is to be noted, however, that as the employment of fire-rangers is optional with limit-holders, some of them have failed to take advantage of the system, at the risk not only of their own limits but of those of their neighbors in addition.

Again in the Interior report we find the following:

"All unregulated fires must be strictly guarded against and prohibited. Every acre of forest lands under license, and all government lands in their immediate vicinity, or wherever prospectors or tourists are allowed to go, should be under the supervision of competent fire rangers, strictly under government control, and clothed with full power to call to their aid needful assistance to extinguish fires."

"Young growing trees too small to cut profitably and often neglected by licensees as of no value, should be zealously guarded as the source of future wealth, and all isolated pine trees or small groups of trees still living after a fire has passed over a district, should be taken care of as the parents of future forests."

Mr. W. C. Edwards, one of the leading lumbermen of