

ing on the reserves between Lake Winnipeg and the Rockies. There was not nearly enough timber land reserved to supply the needs of this great region. The obvious thing to do was to create more reserves and protect not merely the mature timber but also the young trees as carefully as if they were dollar bills. "If the floor of this room were covered with dollar bills," Mr. Ross went on, "he would be judged insane who would let a fire get started amongst them, yet this is the very kind of thing that is going on in the case of young tree growth." In Europe it was said "It is only Turks and Americans (including Canadians) who burn the forest." In the case of the Dominion Forest Reserves, however, it was the policy of the Forestry Branch of the Department of the Interior to do everything in its power to protect the timber from fire, to lessen the amount of waste incident to lumbering operations, to stop timber thieving, and so to manage the reserves as to secure continuous crops of timber from them. Other nations had been able not only to secure but actually to improve both the quantity and quality of the crop—so why not Canada? So far the great difficulty had been to secure men with the necessary technical training and administrative ability to take charge of the work. In the United States the technically trained men were snapped up by the Federal and State Governments and the lumber and pulp companies as soon as they graduated. With the recently established forest schools at the University of Toronto and the University of New Brunswick, it was hoped that men would soon be available for this work.

Mr. Ross then took up in detail the different reserves in the three provinces showing the location, size and character of each and mentioning the problems connected with them. He noted that, the rainfall being only about one-third that of Ontario and the average velocity of the wind almost exactly twice as great, it was a difficult matter to fight fire in the western reserves. The only way in which they could be protected was to patrol them summer and winter; to have efficient fireguards and have roads that would enable the rangers to get quickly from one part of the reserve to another. In 1908 one hundred and fifty miles of roads were made along the

boundaries and through different parts of the reserves. This work should be continued.

In 1908 twenty-five squatters were removed from the Turtle Mountain Reserve in Manitoba and given land elsewhere. The same was true of Riding Mountain Reserve from which one hundred and twenty-five squatters had been removed. The removal of these required great tact on the part of the officers of the Forestry Branch, but without their removal it would have been folly to attempt to place the reserves under management. The great thing to be done now was to protect the young growth, have the dead timber removed and get tree growth started on the open spots. Citing the case of the Turtle Mountain Reserve where there was a bare patch of fifty-five square miles, Mr. Ross pointed out that it would cost \$264,000 to plant this with nursery stock so that it will be necessary to let Nature do her own seeding or find some cheaper method than planting. In 1908 Mr. Knechtel tried the experiment of placing tree seeds in the long grass and covering them with sand. The experiment had so far been successful.

On the Spruce Woods Reserve east of Brandon, there had been planted 35,000 Scotch pine grown from seeds at Indian Head Nursery Station. From the swamps of the reserve thousands of young tamarack seedlings had been obtained and planted at Indian Head and were making remarkable growth. In 1908 forty bushels of spruce cones were collected there and used for planting on the different reserves.

The Duck Mountain and Riding Mountain Reserves were important as regulators of streams in Northern Manitoba and as game covers, being the home of elk, moose, black and cinnamon bears and smaller game.

Referring to the Saskatchewan reserves as a whole, Mr. Ross noted that the area was only 740 square miles, poorly timbered, containing less than 60,000,000 feet of saw timber and about 700,000 cords of wood. That was not much for a population of 350,000. He asked if the people should not begin to agitate for the creation of more forest reserves in the northern part of the province. To create timber land by planting nursery stock would cost a million dollars for six townships. If