

is problematical, there can be no doubt of its direct influence in the regulation of flow and prevention of extreme floods, including loss, damage and waste of water power. The water powers of our country are second to none, their importance in view of the developments that have been made in the transmission of electric power is far reaching and this, with the great saving in cost of electric power over power generated by steam, should, with our enormous natural resources, place Canada in time in the front rank as a manufacturing and exporting country.

Mr. Thos. Southworth, formerly Director of Forestry for Ontario, submitted a paper on "Forest Reserves and their Management." After sketching the history of the forest reserves, which in Ontario are set apart on legislative authority, Mr. Southworth estimated the area that should be kept permanently in timber at forty million acres, which at a return of 150 feet, or 75c. to the acre, would mean a revenue of \$30,000,000 per year. To achieve this result, something more than harvesting the most valuable sorts of trees in the most economical way is required. That system is converting Algonquin Park from a mixed pine and hardwood forest to a hardwood one. Working plans must be laid down covering a hundred years or more, plans that will provide for harvesting the present crop of various sorts of trees in such a manner as to secure the after growth of the right kind of trees and to regulate the cutting so as to secure evenness of supplies and of revenue.

Mr. M. J. Butler, Deputy Minister of Railways and Canals quoted from the Railway Gazette the instructions to drivers of railway locomotives, requiring care in keeping equipment in repair so that the escape of sparks may be prevented. The leading railways are using engines with extension fronts and screens with a quarter-inch mesh, and compound engines, with a softer exhaust, are being introduced.

Mr. E. G. Joly de Lotbiniere, suggested as an additional precaution, that it would be well to have a patrol along the line of railway.

Mr. Aubrey White, Deputy Commissioner of Lands and Mines for Ontario, outlined the system on which the forest protection service of Ontario is organized, and urged the necessity of protecting the forest we now possess. In connection with the building of railroads, the Canada Atlantic and the Temiscaming railways were instanced as examples of what could be done in the construction of such roads without destroying the forest by fire. Mr. White made a strong declaration in favor of reserving for timber production lands that are unfit for settlement.

Dr. B. E. Fernow pointed to the government as the great sinner in connection with the administration of the forests, and