

rapidly re-clothe the ground were fires prevented. In the hardwood forests of the Appalachians fire does but little harm to mature forest, there being but little underwood to feed it. In autumn and spring the dead leaves that cover the ground are sometimes run over by fire, but the damage done is not serious. The case, however, is different on an area that has been logged. All the best trees have, of course, been removed, but the young growth and saplings have been left, and these would rapidly furnish another crop of timber if they were allowed to remain. But it seldom happens that cut-over land is spared by fire, with the result that enormous tracts of country are now little better than a wilderness.

In the Government Report on forest fires in Canada in 1908 it is stated that "The scarcity of valuable timber in Canada is due more to its destruction by forest fires than to any other cause," and certainly a visitor to the Dominion is much impressed by this waste.

The eastern forests of Canada extend nearly to Winnipeg, but west of that city the prairie almost monopolizes Manitoba, Saskatchewan and a large portion of Alberta. The numerous settlers who annually set up homes there have to fetch building timber from long distances, much of it now coming by the Canadian Pacific Railway from British Columbia. Although it is undesirable, even if possible, to create forest on prairie land, still much interest is taken in tree planting for fencing, shelter, and firewood; and at Regina, the capital of Saskatchewan, I had the pleasure of attending a two-days' Conference of the Canadian Forestry Association.

Some two hundred people took part in the meeting, and the interest and enthusiasm were unmistakable. The Department of Agriculture for the Dominion established an Experimental Farm at Indian Head in 1888, and since then the propagation of trees capable of growing in this district of low rainfall has been an important

feature of this work. During recent years about 100,000 young trees\* have been distributed annually, free to settlers, and already many homesteads are surrounded by well-grown shelter belts. The *Acer Negundo* and American Ash have proved most suitable amongst the hardwoods, while as regards conifers it was interesting to find that Norway Spruce, Scotch Pine and European Larch had done quite as well as any native species. But in this country of low rainfall success can be secured only by ploughing the land before planting, and by keeping it tilled for some years afterwards.

Between Lake Superior and Winnipeg the conifers that one sees most are *Picea mariana (nigra)*, *Pinus Banksiana (divaricata)*, and *Larix americana*; but when one enters the Rockies the first is replaced by *Picea Engelmanni*, and the second by *P. contorta*, var. *Murrayana*, while the larch gets scarce, and finally disappears. I cannot be sure that I saw *Larix occidentalis* at all, although its northern limit is about the Canadian Pacific Railway, but on the mountain above Lake Louise, at an altitude of some 5,000 feet, I got amongst numbers of Lyall's larch (*L. Lyallii*), a very poor tree, and one of no economic value. *Picea Engelmanni* is the chief spruce of the mountains, while the Western Hemlock (*Tsuga heterophylla (albertiana)*) and the Giant Thuya form a large proportion of the other conifers, to which, lower down, are to be added Douglas fir, *Pinus monticola*, and *Picea sitchensis*. Above Glacier, at an altitude of some 7,000 feet, *Tsuga Mertensiana (Pattoniana)* and *Pinus albicaulis* were met with, associated with *Abies lasiocarpa*. The lower slopes of the mountain were largely clothed with the Western Hemlock,

\*These figures refer to the free tree distribution from the Experimental Farm at Indian Head. The number of trees sent free from the Forest Nursery Station at the same place to settlers throughout the prairie provinces has for years averaged from two million to two and a half million per annum.—ED.