

with all pessimists who say: 'Oh, you can never reduce the fire-danger sufficiently to make forestry worth while.' It is true that the dry interior climate here and high winds make the danger rather greater for us than it is in Europe; but not seriously so, and over there, except in Russia, the annual fire loss is now an entirely negligible quantity.

The Forestry Branch is this very winter adopting active measures to install, extend and buttress the patrol system on all the reserves, with special attention to the Riding Mountains. Some fifteen good look-out hills were located around that reserve, and as fast as possible towers will be erected on these and men installed in the danger season, with telephone connection to the Chief Ranger. Trail extension and improvement is being pushed. The 262 miles of boundary line round this reserve has practically all been cut out eight to sixteen feet wide and will be turned into a road or bridle-path, as the local topography will best permit. This boundary trail will also have some value as a fire line.

To safeguard this reserve still further against insweeping settler and prairie fires, a plowed guard is now being made along the south and west, twelve to sixteen feet wide. As a start 35 miles was done last summer, with two team of oxen on a breaking plow. If the public will but grant its sympathetic co-operation and a decent amount of money, the Forestry Branch will undertake to adequately protect the reserves.

Renewing the Forest.

Mr. Warren, a forester from the United States, who visited over 150 German coniferous forests in 1911 reports that on only three of them was natural reproduction being depended upon; that is to say, in ninety-eight per cent. of German forests natural regeneration has been discarded as being too uncertain.

Planting gives them straight, uniform trees, which have a market value right from the first thinning to the final cut.

In our case, however, the fact that we have on these western reserves such large areas to re-clothe, as compared with Germany, coupled with the further fact that labor here costs three to five times as much as there, makes it obligatory for us in Canada to continue diligent experiments, looking first toward developing, if possible, satisfactory methods of natural reproduction of existing timber as it is cut away, or, failing that, the successful sowing of seed on a large scale. It looks at present as though the planting out of nursery-grown trees might be too costly an operation for general adoption on our reserves.

And yet, would it be? Every year, you, the owners of these reserves, are losing thousands and thousands of dollars on account of the vast areas of land now lying idle as the result of original denudation by fire or lumberman and repeated fires since.

I think we should all be appalled if we could once get a clear appreciation of the tremendous losses involved in the continued holding of all this land as unproductive capital. True, one might say in crossing the Riding Mountain reserve, that there was not much of the land but had trees of some sort on it. But Mother Nature knows naught of business or economics—in fact she decidedly favors the comparatively useless poplar or balsam fir instead of the really valuable spruce. Poplar is normally so defective from disease, frost-crack, wind-shake, etc., as to be hardly worth lumbering, and still you are permitting it to occupy land that will grow the finest of spruce—or, for all that is known to the contrary, even red or white pine.

One hundred years ago the public forests of Denmark were an almost pure stand of relatively valueless