

Girls are here engaged "threading" seedling trees into the planting boards, which are then carried to the trenches in the open field.

and only five or six inches on the stump. In the valleys we have stands of red and white spruce and fir, and on the ridges, birch, yellow and white, maple, some hemlock and spruce and fir. Where fire has passed over the country, white birch and aspen have come in, and later spruce and fir have entered the mixture. In some sections where the soil is sandy we have pure stands of Jack Pine which have seeded in after a fire. Other sections have small stands of red pine and through all the forest we find individual white pine, the remnant of earlier stands.

Concentrating the Wood Crop.

As today, owing to lack of transportation and sufficient demand, there is very little use for the socalled hardwoods, that is trees which lose their leaves in the winter, we shall leave out of this discussion everything but the softwoods, and of these confine ourselves to the spruce and fir. Under natural conditions the average number of such trees, four inches and over at breast height, is 160 per acre. A fully stocked stand of mature trees, 12 inches in diameter at breast height might possibly run to 400 trees per acre. The average stand of soft-wood in the St. Maurice Valley, 4 inches and up at breast height, is 11 cords per acre. Our fully stocked stand would give 75 cords per acre. The best natural stand of which I have any record in this section gave 40 cords per acre four inches and up, and was pure black spruce. Now there is a good deal of difference between 40 cords per acre and 75, and our planted stand would be almost 100 per cent better than we

get under the very best natural conditions.

The great need in Canada is for accurate information about our forests. The public would be much surprised if they could see how little information lumber companies and pulp companies have about their timber lands, how few of them even have maps which are in any way complete or accurate. Information as to areas burned over and species and stands per acre is almost wholly lacking. This is realized and many of the larger pulp and paper companies have engaged foresters and are getting this information as rapidly as possible. The Commission of Conservation has done splendid work along these lines and the Dominion Forestry Branch has made a good beginning. So many men who at-

The militant woman once more! Girls become very adept in plantation work. Here we see a healthy, happy group taking up spruce trees to be transplanted to permanent sites.

tempt to discuss these subjects have very little acquaintance with the woods, except as they see them from a canoe or logging road. They are likely, in travelling through the woods and seeing here and there good samples of natural reproduction, jump to the conclusion that nature can take care of the future, if we keep the fire out, not realizing perhaps how much time has been wasted by nature in getting reproduction started, or how scattered such reproduction is.

In handling a forest property, it is absolutely necessary to look to the future and to plan operations for at least three generations ahead and it is necessary to decide what end you wish to arrive at. The right policy is one of perpetual wood production, the management of the



Here the planting-board has been opened. Note the little trees properly spaced and firmly set in the trench. The board is now withdrawn and earth firmly tamped about the roots.