

If previously, as well as taking the spruce, some of the silver fir and beeches had been girdled and thus killed, the spruce could have held its place. The forest would have been much more valuable than it is at present and would also have saved the large yearly expense now entailed in clearing away the useless material in introducing the spruce on a large scale.

Of course it might be argued that it would not pay to do this girdling, but that is scarcely the case as the return proportionally is not very much greater now than it was then. Besides that it is much more expensive to do such extra work now than it was then.

In connection with the last named forest as soon as it was definitely worked (1870) it was found that locally very little timber was required, especially little or no fir timber. Sawmills were then started to make boards suitable for the Rhine Provinces, and this was done with such success that these supplies are now indispensable. The industries were thus permanently located in that forest, and their output is naturally limited by the permanent outturn of timber, which that forest is capable of yielding, and which is gradually increasing. The primeval forest by no means yields the maximum quantity of lumber per acre. In the above way lumberman and forester work together to mutual advantage.

A rather parallel process is at present going on in the mixed forests west of Ottawa. That is to say, where white pine is scattered in small groups or singly in large areas of hardwood, such as beech, maple, blue beech (hornbeam) and yellow birch. Of these at the present, the yellow birch is the only species of value or rather that it pays to bring out. The pine is taken, leaving little or none; its place is largely filled by poplar or hardwood. The pine by reason of its original small numbers has not the same chance of reseeding itself, hence such areas become practically valueless. It is of course rather presuming to say that beech, blue beech, etc., will have no value, but still the past seems to indicate that there is little hope of their value being so great as to justify their permanent production; at any rate on such areas as they at present occupy.

Even under a careful plan of artificially helping the pine to