

persons in what parts of the Province our valuable timber (hard as well as soft) is found, and after the matter has been well discussed, determine on what course of action to pursue. Until this be done it is of little use to attempt the formation of any scheme for forest preservation."

Dr. B. E. Fernow submitted a valuable paper on "Conditions of Forest Growth." In opening he pointed out the difference between agriculture and forestry—that the agriculturist had to bring about an artificial condition of the soil while the forester's aim was to preserve the natural condition. Inasmuch as the trees derive a large proportion of their material from the air, they do not depend to any great extent on the chemical character of the soil. The claim was therefore made that any soil in its natural condition contains sufficient organic material for any timber growth; that therefore the change of species observed on this continent can hardly be attributable to an exhaustion of the soil but rather to its physical condition, its depth and looseness and, depending on these, the capacity of absorbing and retaining moisture, which properties may be increased or even compensated for by a sufficient layer of humus. Attention was also called to the relative light requirements of trees, now so familiar a principle in forestry, as an important item in deciding the plans of management. In summarizing Dr. Fernow stated that the principal effort of the forester must be to preserve and increase the good condition of the soil since upon it depends the productivity of the forest. The measures to be adopted for this purpose are not so much to be sought in direct operations on the soil, but mainly in certain considerations in the selection of species, methods of management, terms of rotation, interlucation, methods of reproduction and in the general care of the forests. Of all methods of management the timber forest with natural reproduction from seed trees is best calculated to maintain the vigor of the soil for the shade enduring species, if the cutting is done with necessary prudence so that the soil is exposed as little as possible. Next to this method comes absolute clearing, with immediate artificial re-seeding or re-planting. This is almost the only method advisable for light foliaged trees. From this statement it will be observed that Dr. Fernow's views have changed in some respects.

Mr. Edward Haycock, President of the Ottawa Iron and Steel Manufacturing Company, Limited, spoke of the importance of the forests to the steel industry in a paper on "Canada's Forests and her future as a Steel Producer." Mr. Haycock stated that in the manufacture of steel for the future, wood charcoal was a necessity.

"Spain, Algeria and the Mediterranean islands with their rich ores have no wood. England is in a similar position, Nor-