

the fact remains that the scarcity of accessible white pine is so marked in Ontario that prices have now risen to \$80 to \$100 for a thousand feet, board measure, of pine strips, attributable not alone to production cost increases, but to scarcity of raw materials, not only in Ontario but elsewhere. Many of the large pine manufacturers in Ontario have placed a limit of three to five years on their pine log supply. Nearly 100 million feet less pine timber was cut from Crown lands in the fiscal year of 1917 than in the year previous. Labor shortage was undoubtedly a factor in this, but a long series of years presents a sharply decreasing return for the amount of pine timber cut. Ontario Government statistics show that the cut of pine from Crown lands was around 790 million feet in 1907, 630 million in 1908, 383 million in 1914, 308 million in 1908, 208 million in 1917, and 223 million in 1918. The year 1916 was the last in which white pine square timber figured in the official returns, when it was but slightly in excess of one million feet, as against over 12½ million feet in 1907. In the early days, square pine timber comprised a high percentage of the timber cut of the province, and formed the foundation for Ontario's reputation abroad as a great timber-producing region. These figures show a steady but rapid decline in the cut of pine, which can only be accounted for on the whole, by correspondingly diminishing supplies. This reduction in the cut of pine is, of course, offset by greatly increased cuts of spruce, balsam and jack pine. The change in the character of the operations is significant of the change which is taking place in the character of the forests, the more valuable coniferous species giving way to the less valuable, and these in turn, in many sections, to the hardwoods. A reduction of nearly two-thirds in the cut of pine between 1908 and 1918 is so significant of the deterioration in the quality of Ontario's forests that it challenges the most serious consideration. As in New Brunswick, where pine has fallen from absolute monopoly of the annual cut to a poor sixth place in the present-day volume, so in Ontario the elimination of the pine forests and the pine supply that plays a mighty role in provincial commerce may be accomplished within a few years.

WHERE ONTARIO STANDS.

As with pine, so with spruce, and other species, the supply can be maintained only by applying the public authority to methods of private exploitation on Crown timber lands. In Ontario at present, such public authority is

practically valueless for the reason that the entire area of berths, roughly 15 million acres of our finest timber, is subject to only a few regulations which look primarily to the collection of revenue, rather than to the perpetuation of the forest as a source of supply. In only a comparatively limited number of cases is there any restriction as to the size of trees to be cut, and only recently and in a very small number of cases is there any provision for the enforced disposal of logging slash as a fire-preventive measure. Ontario's choicest forest sections are handled by the Department of Lands and Forests purely as a bit of revenue collecting. (The 1917 collections from timber dues and fire tax amounted to over \$1,695,000.) In the highly technical department of forest management, Ontario has not yet utilized one technical forest engineer and has attempted no extensive investigations of its forest lands with a view to their productive maintenance and no revision of ancient regulations along the lines of constructive forestry. The department maintains a forester primarily for fire protection work and tree planting, rigidly excluding specialized forestry knowledge, or any forest conservation plan from its handling of the timber berths. This plainly ignores the practice of nearly every forest-owning government in the world. It is opposed to the successful examples of New Brunswick, British Columbia and Quebec, where all branches of public management of the forest resources are under the single authority of the Provincial Forester and a staff of technically-trained inspectors.

The efficient handling of any state-owned property is direct consequence of a well-tested system and a well-skilled staff. The Ontario system of "handling" the fifteen million acres of timber berths under lease at the present time is as follows:

WHAT A "LICENSE" MEANS.

The berths are under annual lease. The lessee pays direct to the Department of Lands and Forests annual ground rent of \$5 per square mile, a fire protection tax of \$6.40 a square mile; fixed stumpage dues of so much per thousand feet, per cord, or other unit of measurement, and a bonus per square mile or per unit of measurement, the amount of which is determined by competitive bidding after the limit is advertised for sale. For example, while the fixed stumpage dues on white pine may be only \$2 per thousand feet board measure, the bonus offered by the purchaser of the limit has, in some cases, brought the total stumpage pay-