

### 1.—Woods Operations.

Differences throughout Canada in soil, climate, topography, average size of trees, density of stands and numerous other local conditions, give rise to differences in logging methods not only between provinces but between adjacent logging units in the same district. Generally speaking, throughout Eastern Canada the climate is such that the cutting and hauling of logs can be carried on most economically during the fall and winter months. The trees are felled and the logs hauled mostly on sleighs by horses to the nearest stream or lake, where they are piled on the ice or sloping banks. Logging railways are sometimes used, in some cases hauling the logs directly to the mills. Tractors are being substituted for horses in many operations. The nature of the topography, the presence of connected systems of lakes and streams, makes it possible in most cases to float the logs from the forest to the mill at a minimum cost during the annual spring freshets. The logging industry east of the Rocky mountains is therefore almost entirely seasonal. In many cases lumbermen co-operate in river-driving operations, and improvement companies, financed by the logging operators, build dams, sluices and other river improvements to facilitate the passage of the floating logs, and tow the material across lakes and still stretches of river in booms or rafts. The logs, which carry the distinguishing stamp or brand of each operator, are finally sorted and delivered to their respective owners. In British Columbia the scarcity of drivable streams and the greater average size of the logs give rise to entirely different logging methods. Logs are assembled by different cable systems operated by donkey engines. They are transported to the mills or to water chiefly by logging railways and in some cases by motor trucks. Flumes for transporting logs are used in some operations. These operations are more or less independent of frost, snow or freshet, and are carried on in most cases throughout the entire year.

In Eastern Canada logging operations are usually carried on by the mill-owners or licensees of timber lands, often through the medium of contractors, sub-contractors and jobbers. In the better settled parts of the country a considerable quantity of lumber is sawn by custom saw-mills or small mills purchasing logs from the farmers. Unmanufactured pulpwood, poles, ties and other forest products have a market value, but saw-logs, being as a rule the property of the mill-owner, are not generally marketed as such in Eastern Canada. In British Columbia logging is carried on more frequently as a separate enterprise by limit holders, who cut and sell logs on the market. In many cases mill operators are not limit holders, but buy their entire supply of raw material from logging concerns.

In connection with woods operations, it should be borne in mind that the forests not only provide the raw material for saw-mills and pulp-mills, but in addition provide annually about 16,000,000 railway ties, 1,000,000 poles for telegraph, telephone and power lines, 14,000,000 fence posts, over 8,000,000 cords of firewood, together with piling, round mining timbers, square timber for export, wood for distillation, charcoal and excelsior manufacture, bark and wood for tanning extracts, maple syrup and sugar and a number of minor products.

### 2.—The Lumber Industry.

The manufacture of lumber, lath, shingles and other products of the saw-mill forms the second most important industry in Canada depending on the forest for its raw materials. Annual statistics covering this and other forest industries were collected and published by the Forestry Branch of the Interior Department from 1908 to 1916. Since that date the work has been carried on by the Dominion Bureau of Statistics, in co-operation with the Forestry Branch.