

6.—Forest Utilization.

The clearing of forest land was the primary step toward the settlement of eastern Canada by the early pioneers. The material so removed was at first more than sufficient for building purposes, fencing and fuel. In many cases logs and clearing *débris* were burned in order to get them out of the way. Later on, inroads were made into the forest surrounding the farms and settlements to supply these needs, and lumbering as a business developed gradually as the settlements extended, the demand increased and the supply receded. The industry, which started in the lower St. Lawrence valley and Maritime Provinces, spread northward and westward during the period of rapid advance in settlement.

The Ottawa valley became the first important centre of commercial activity in the industry, with the rafting of square timber to Quebec for export. The Georgian Bay and Rainy River districts were later opened up, and although the industry is now established over the entire Dominion these districts are still the chief lumbering regions in eastern Canada. Lumbering to the north of the Prairie Provinces has progressed with the colonization of this region, but the production does not usually exceed the local demand. Exploitation of the extensive forests of British Columbia proceeded simultaneously with similar development in the Pacific States across the border, and is steadily increasing in relative importance. In 1908 this province contributed less than a fifth of Canada's total lumber production, while in 1922 this proportion was over a third, indicating that the centre of production is rapidly moving westward.

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. Slides are built on suitable slopes to bring down timber from upper hillsides and benches, and logs are hauled and assembled by donkey engines and different cable systems. Logging railways are used extensively to carry logs to the mills or to lakes, large rivers or tidewater, where they can be assembled in booms or rafts and towed to the mills. These operations are more or less independent of frost, snow or freshet, and are carried on in most cases throughout the entire year.