

under normal conditions. The butt rot in balsam fir is especially prevalent, and the value of the hardwoods is also greatly decreased on account of rot. Poplar and white birch seldom reach over 10 inches in diameter without considerable decay, and, since these species form such a large proportion of the young growth, the loss, though it has never been computed, must be very great.

Summary of Losses and Increment.—The annual consumption of standing timber for use amounts to about 2,700,000,000 cubic feet. At a very low estimate, fires destroy annually about 800,000,000 cubic feet of merchantable timber and the young growth on 1,600,000 acres of various ages, representing the annual growth on 25 to 30 million acres. The destruction occasioned by the spruce bud-worm averages 1,345,000,000 cubic feet per annum, besides the injury from bark-beetles and other insects. The loss due to fungi and windfall is not known, but is undoubtedly large. It may be safely estimated that the forests of Canada are being depleted at the rate of upwards of 5,000,000,000 cubic feet per annum. With about 534,000,000 acres of young, growing forest, an average annual increment of 10 cubic feet per acre would cover this depletion, but in view of the destruction of young growth which occurs and the deterioration of the forests and of the soil, caused by repeated fires, there is little hope that this increment is being produced at the present time throughout Canada, although particular areas are producing greatly in excess of this quantity.

8.—A Sketch of the History of the Canadian Lumber Trade.¹

It would be difficult to overestimate the influence of the forest upon the settlement and development of the North American continent. It long was—and in certain regions, still is—the central fact in the existence of the pioneer, furnishing him with his house and his fire, opposing his plough. What would have been the course of events if the first colonists, instead of finding a continuous belt of trees from Ungava southward, had come upon a prairie region bordering the sea, would form an interesting speculation. Certainly the history of North America would have been very different.

Utilization of the forest for human need, in other words, the lumber industry, naturally began with the building of the first log cabin, but it was not until the resources of the immediate neighbourhood became scanty that trade in forest products arose. In Canada, the growth of the settlement at Quebec soon brought about this stage; consequently, shortly after 1650, we find indications of a local trade in lumber.

Well before the close of the seventeenth century, saw-mills had been established on the St. Lawrence, and it may be supposed that building timber and sawn lumber could be bought in the colony in much the same way as they may be now. The export to France of oak planks, masts and other material for ship-building had also begun, but merely on Government account; there is no evidence to show that any private export trade in wood across the Atlantic developed during the French régime. Small private shipments of lumber and staves were, however, quite often made to the French West Indies.

Ship-building was early undertaken in the colony. The brigantine *Galiote* was launched at Quebec in 1663, and it is probable that from that time on there were

¹Contributed by A. R. M. Lower, M.A., Department of Public Archives.