

is the Black Walnut (*Juglans nigra*). At one time it was somewhat common and of good dimensions, but, during late years, a trunk of merchantable size has become somewhat rare. Fifty years ago it was not unusual to find, around London, White Pines varying from 13 ft. to 18 ft. in circumference, and averaging 160 ft. in height, and Oaks of 10 ft. to 15 ft. girth and with 45 ft. to 50 ft. of straight clear stems. This, however, is a thing of the past. Throughout the whole district lying between Niagara River and Lake St. Claire, there is little timber left of size sufficient to attract a lumberman.

II. CAUSES DETERMINING THE RANGE OF TREES.

The causes to which we must ascribe the frequent peculiarities in range of forest trees and other plants in Canada are very varied, but consist chiefly of physical conditions, and changes in climate resulting from these conditions.

The eastern portion of the northern half of the American continent has in its midst immense areas of water, and has widely and deeply indented shores,—Labrador and the great section of country lying between Hudson Bay and the Great Lakes being virtually one vast peninsula. The double effect of a northern latitude and of the presence of these great bodies of water is very marked in the lower general temperature and in the shorter summers and more severe winters. The result of these conditions is to give a much milder climate and a much higher range of trees on the western side of the continent than on the east. Thus Anticosti, whose flora indicates a sub-arctic climate and whose coasts are only used for fishing and lighthouse stations, is in the same latitude as Winnipeg and Vancouver Island, and lies even south of most of the best agricultural land in Manitoba and the Northwest. Again, semi-arctic plants are found on the projecting headlands of Lake Superior, and the combined effects of the broad deep waters of the St. Lawrence estuary and of the cold Labrador current, which sends a branch up this river, are seen in semi-arctic plants even beyond the Saguenay. There is no question that the lower resulting temperature and the short summers have their influence in checking the northern range of many forest trees beyond the outlet of Lake Superior and pre-