

One of its good qualities is that it sprouts very rapidly from the stumps after felling ; and, consequently, if stook are hindered from browsing upon it, a good, thick underwood is soon formed, which only requires to be kept clean and trimmed to become a useful wood. The leaf of the black ash is depicted in the engraving no. 10.

#### White-Ash.

This ash rejoices in rich, deep soils, rather damp than otherwise, and shuns soils that are dry and too hard. At maturity, it attains a height of eighty feet, by two feet, and sometimes more, in diameter. It is a quick grower, and, in good soil, it has been known to measure thirty feet by seven inches in diameter twenty years from sowing. Cartwrights, coopers, and common cabinet makers, are always glad to get this wood, of which, except as to these details, all that I have said about the black ash may be predicated. Engravings 11 and 12, pp. 99, 100 represent the leaf and seed of this tree.

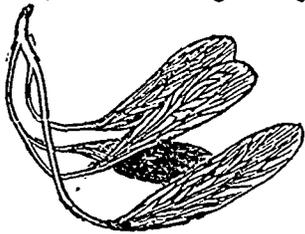


Fig. 12.

#### White-Elm.

The moist, rich, alluvial soils, which occur on the banks of rivers, are favourable to the growth of this tree. June sees the ripening of the seed, which should be sown at once, and covered very slightly. In less than a month it is up, and it reaches a foot in height the first season. Fifty thousand pickles are found in a pound of seed. The elm transplants well, and is cultivated almost like the maples. Seventy feet by three and even four feet in diameter is the size of this tree at maturity. It grows very quickly, and specimens have been found twenty five feet high by five inches in diameter



Fig. 13.

twelve years from sowing. Young plants, taken up in the forests where the soil being suitable to the elm they grow in great numbers, may be transplanted successfully the first year. The wood of the elm is much sought after by the cartwright, in spite of its tendency to shrink (*travailler*). Engraving 13 shows the leaf and seed of the American elm.

#### Balsam-Poplar—White-Poplar—Cotton wood—Aspen.

As all the poplars have pretty nearly the same characteristics as regards forestry-work, I will content myself with giving a description that will answer for all the above-named species, except where a special peculiarity may seem to demand our notice. Poplars like cool, light soil. I do not re-

commend them for all situations ; but for some districts, and particularly for Manitoba, I cannot sufficiently press their cultivation ; for, where wood is scarce and the demand immediate, the rapidity of their growth and the facility of their transplantation, render the poplar a most valuable tree. Besides, from the ease with which they are propagated from cuttings, they are found useful wherever they grow. They are planted in company with hickory, oaks, and walnuts, to protect the young plants by the shade they afford. Cuttings are made in this fashion : the wood is divided into pieces two

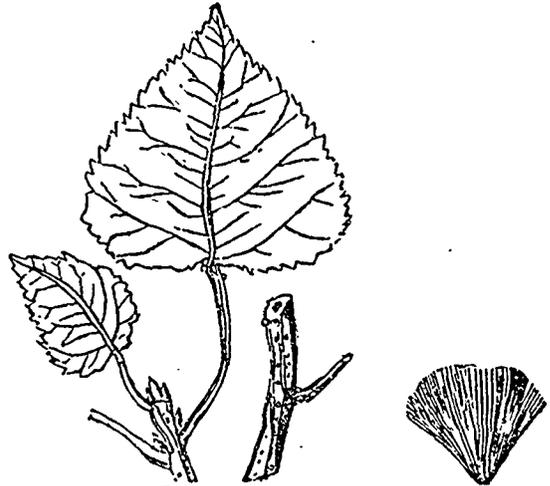


Fig. 14.

Fig. 15.

feet long ; the end which is intended to enter the ground is bevelled or cut *en biseau*, and is buried so deep that only a very little of the cutting is above ground. Wood of the year, or of two years old, may be used for this purpose. The cuttings should be made after the fall of the leaf, and set, at once, where they are to remain, at a distance of four feet apart between the rows and five feet in the rows, provided that poplars alone are to be set out. The land must be hoed and cultivated for the first three years. These trees are often found occupying the land as a second growth after the clearance of a forest of conifers. Where nothing better is to be had,



Fig. 16.

this second growth may be cared for, as it costs nothing and furnishes a fair firewood in a very short time. I cannot recommend my readers to sow poplars ; still, for the information of amateurs who may wish to do so, I may mention that the seed ripens early, in June, and *must* be sown at once in a damp soil. Very little covering is needed. It sprouts quickly ;