

THE CHESTNUT IN ILLINOIS

WILLIAM TRELEASE, UNIVERSITY OF ILLINOIS

Among a collection of exquisitely prepared photographs of trees and sections of their wood presented to the University of Illinois some years ago by Mr. B. T. Gault, of Glen Ellyn, the chestnut, *Castanea dentata*, is represented from between Olmstead and Caledonia in Pulaski County. So far as I have been able to learn, this is the only place in the State where chestnut trees are known to occur except where they are known to have been planted by man. Inquiry in the river counties has brought the statement by several elderly men that in their youth they knew the chestnut as wild "in the hills of Pulaski County": but these statements have resolved themselves into reference to a single grove near Olmstead.

It was in this grove that, in 1900, Mr. Gault photographed a tree apparently four-and-a-half or five feet in diameter of trunk, and prepared a wood specimen from one of its branches about three inches and a half in diameter. A tree of this size may have been between 200 and 250 years old. Even if this estimate of its age (based on an average annual addition of a wood ring an eighth of an inch thick) should be a little high, it is evident that such tree must have antedated by very many years the occupation of this part of the country by white men.

Pulaski County constitutes the middle of the extreme southern part of Illinois, along the Ohio River which separates it from Kentucky, and by an air line not over 65 miles below the mouth of the Wabash River, which separates it from Indiana.

In Indiana the chestnut is said by Deam to reach Gibson and Posey Counties, which constitute the point between the Ohio and Wabash Rivers at their confluence. In Kentucky, Garman shows that it reaches Crittenden and Ballard Counties in the western part of the State along the Ohio River; the former between the points where the Wabash and the Cumberland Rivers discharge into the Ohio; and the latter between the mouth of the Tennessee River and the point where the Ohio empties into the Mississippi. Ballard county in Kentucky is separated from Pulaski county in Illinois merely by the Ohio River.

The chestnut occurs at Olmstead, so far as I know, in a single mixed grove some 80 acres in extent, on rolling clay hills traversed by a rather deep and steep ravine which cuts into the gravel by which the surface soil is said to be underlaid generally in this region. The tradition is that at one time this grove contained numerous large trees, of which the one photographed by Mr. Gault may be considered a sample. These trees have been cut out for their timber, and only young trees now remain; but the older trees have seeded freely through the grove and the young trees present every appearance of spontaneous seedlings in a chestnut association. A census of the more evident components of the vegetation of this grove, made in the summer of 1916, showed the presence of the following species:

Trees—*Acer Negundo*, *A. rubrum*, *Carya ovalis*, *C. ovata*, *Castanea dentata*, *Celtis Mississippiensis*, *C. occidentalis*, *Diospyrus Virginiana*, *Fagus grandifolia*, *Fraxinus Americana*, *Gleditsia triacanthos*, *Juniperus Virginiana*, *Liquidambar styraciflua*, *Liriodendron Tulipifera*, *Morus rubra*, *Platanus occidentalis*, *Prunus serotina*, *Quercus alba*, *Q. Muehlenbergii*, *Q. pagodaefolia*, *Q. rubra*, *Q. velutina*, *Robinia Pseudacacia*, *Sassafras variifolium*, *Ulmus alata*, and *U. Americana*.

Shrubs—*Asimina triloba*, *Cercis Canadensis*, *Cornus florida*, *Corylus Americana*, *Ilex decidua*, *Lonicera Japonica*—an introduced plant abundantly established in the southern part of the State, and in open parts of this grove competing here and there with the poison ivy in holding the ground surface, *Psedera quinquefolia Saint-Paulii*, *Rhus copallina*, *R. Toxicodendron*, *Tecoma radicans*, *Vitis bicolor*—about the edges, and *V. cordifolia*. The grove is bordered in places by brambles, though these do not penetrate to any great extent into its rather densely shaded interior.

Among the herbaceous plants most in evidence were a number of ferns, *Adiantum*, *Aspidium*, *Asplenium*, *Botrychium*, *Phegopteris* and *Woodsia*—and such flowering plants as *Desmodium*, *Geum*, *Hedeoma*, and the introduced *Belamcanda*, which, like the Japanese honeysuckle, is abundant generally in the South.

The association in which the chestnut occurs in southern Illinois is such as would be expected elsewhere where these

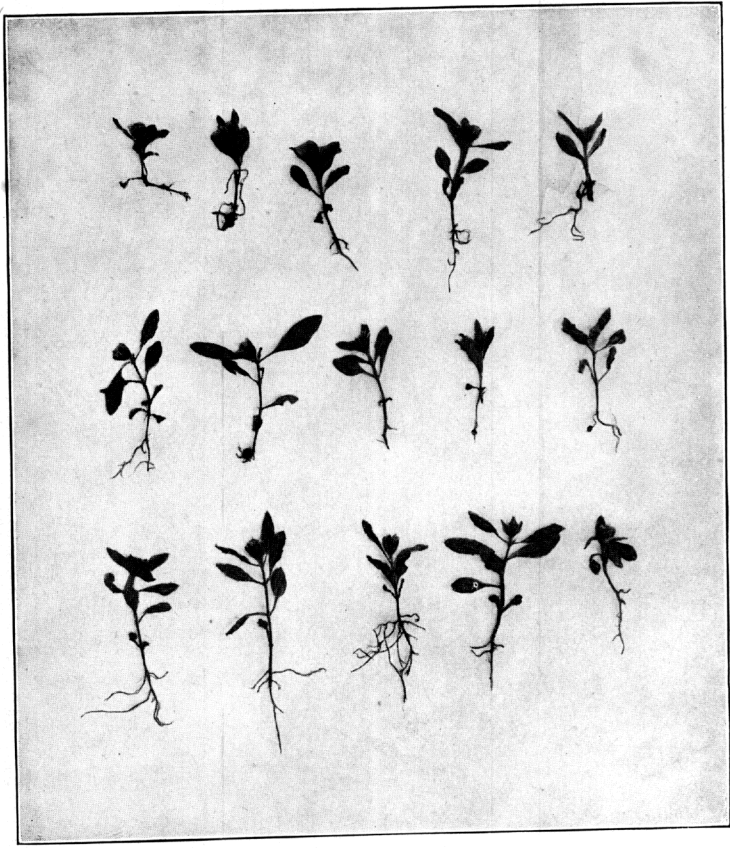


Plate I. *Verbesina alba* L.

species grow. It is interesting, though, to note the occurrence together of such characteristically upland trees as *Celtis occidentalis* and *Quercus Muehlenbergii* with their characteristically bottom-land congeners, *C. Mississippiensis* and *Q. pagodaefolia*.

So far as can be seen, this Pulaski County station presents a natural extension of the recognized range of *Castanea dentata*, though for some reason the tree is not known to extend beyond this single grove, less than a mile from the Ohio River. How it crossed the river is a matter for conjecture only, but propinquity suggests the belief that it entered the State from Kentucky.

Quite apart from the general consideration here presented it may be noted that, as would be expected, no signs of the chestnut blight were found in the Olmstead grove.
