show of flowers and fruits, and the numerous Elders sown by birds on the banks of the Bussey Brook in the valley north of Hemlock Hill, and by the little ponds near the junction of the Meadow and Bussey Hill Roads add much to the beauty of the Arboretum in July. Growing with *Sambucus canadensis* in the Shrub Collection is a form with leaflets deeply divided into narrow segments (var. *acutiloba*) and more curious than beautiful. There are here also a form with yellow fruit (var. *chlorocarpa*), and var. *maxima*, which originated a few years ago in a European nursery and which has flower-clusters three times as large as those of the wild plant and such large and heavy bunches of fruit that the branches can hardly support them. A variety with yellow leaves (var. *aurea*) is also in the collection. More objectionable than many yellow-leaved shrubs because it is hardier and grows more rapidly to a larger size than some of them, this plant now disfigures many European gardens and is too often seen in those of this country.

Zelkova serrata, or, as it is more generally known, *Z. keaki*, Keaki being the Japanese name for this tree, is one of the important trees of Japan. Although no longer very common or of a large size in the Japanese forests, it is one of the largest of Japanese trees, for specimens one hundred feet high with trunks from eight to ten feet in diameter are not uncommon in temple gardens and by village roadsides. The wood is more valued by the Japanese than that of any other tree; it is tough, elastic and durable both in the ground and when exposed to the air, and is considered the best building material in the empire. Keaki, however, has now become so scarce that it is not used for building except in temples in which the large, round, light brown, polished columns which support the roof are always made of this wood; it is universally used in the manufacture of jinrikishas, and it is still much employed in cabinet-making and turnery. *Zelkova* is a genus related to *Ulmus*. The leaves resemble those of some of the small-leaved Elms; the male and female organs, however, are in separate flowers on different parts of the branch; the fruit is a small drupe, and the bark is more like that of a Beech-tree than of an Elm-tree. The Keaki is probably worth general cultivation as a timber tree in some parts of the United States. That it can flourish here at least for many years is shown by the trees planted in Warren, Rhode Island, in 1862, by the late Dr. George R. Hall. Thirty years later these trees were fifty feet high with trunks a foot in diameter, and were producing large crops of seeds from which seedling plants were growing spontaneously in large numbers. Two of these seedlings can be seen in the Arboretum in the *Celtis* Group on the slope below the right-hand side of the Bussey Hill Road above the group of *Sassafras* trees. Here may be seen, too, a young plant of the Caucasian species, *Z. crenata*. This has been a difficult plant to establish in the Arboretum but there is a picturesque old specimen in the Harvard Botanic Garden.

Hemiptelea Davidii. Specimens of this interesting tree from northern China, known as the "Prickly Elm," are established in the *Celtis* Group and larger specimens can be seen in the nursery near the top of Peter's Hill. In foliage this tree also looks like a small-leaved Elm but the branches are furnished with sharp thorns. The flowers are similar to those of the *Zelkova*, but the fruit is slightly winged and distinctly short stalked. Of no particular value as an ornamental

1916. "Zelkova serrata." *Bulletin of popular information - Arnold Arboretum, Harvard University* 2(11), 43-43. <https://doi.org/10.5962/p.320549>.

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