BULLETIN NO. 18.

It might have been expected that the last year with its exceptionally dry summer and remarkably cold winter would have damaged many plants in the Arboretum, but on the whole the collections are in unusually good condition and as yet show little effect of the severe climatic changes of the winter. The conifers are all uninjured with the exception of one or two small plants of the Hemlock of the northwest coast, *Tsuga heterophylla*, planted near the top of Hemlock Hill. This is a tree of very doubtful hardiness here and it is satisfactory that the second specimen is untouched. The broad-leaved evergreens are in unusually good condition for this season of the year when they too often look brown and shabby. A few small Rhododendrons on trial for their hardiness have suffered, but generally the Rhododendrons are in good condition and promise abundant bloom. The Laurels (*Kalmia latifolia*), are uninjured by heat, drought or cold and give promise of such masses of flowers as have not before been seen on these plants in the Arboretum.

The influence of the weather on the plants raised from seeds collected in western China has been watched with interest as a number of them were planted last year in exposed positions that their hardiness here might be tested. The winter has shown that a large number of Chinese trees and shrubs new to our plantations can probably be successfully cultivated in Massachusetts, and of course in all the regions south of Massachusetts. The following are some of the most important of these trees: *Davidia involucrata* should perhaps be mentioned first. It is a medium sized tree related to our Flowering Dogwood, but with one large floral bract in place of the four smaller bracts of the American tree. *Davidia* is described as one of the most beautiful of all the flowering trees of temperate regions and its introduction a few years ago into cultivation through French missionaries was a matter of great horticultural interest. It has lived for several years in the Arboretum and has flowered twice in Europe. Of especial interest is *Cladrastis sinensis*, introduced by Wilson, as it adds another to the list of genera represented in the eastern United States and China. The American Cladrastis, better known as Virgilia, is one of the rarest and most beautiful of the trees of the United States. Unfortunately the Chinese species promises to be of less value as an ornamental tree. The flowers, which are sometimes faintly tinged with pink, are smaller than those of its American relative and are borne in erect not drooping clusters. The leaflets are smaller and the bark is of a darker color. The two new Catalpas from western China, *C. Fargessii* and *C. Duclouxii*, are both uninjured. In *Phellodendron chinense* there is an important addition to the eastern Asiatic genus Phellodendron, represented before in the Arboretum by three species. It is good news that *Sorbaria holocarpa* has come through the winter in good condition. This is a tree twenty to twenty-five feet tall, producing in May before the leaves appear pendulous racemes of fragrant flowers varying in color from white to rosy lilac. Mr. Wilson speaks of it as the handsomest of
its genus, and one of the most beautiful of the small flowering trees of western China. The different forms of the so-called European Walnut (*Juglans regia*), introduced by Wilson, and the distinct *J. cathayensis*, a tree with splendid foliage and nuts resembling those of the American Butternut, are uninjured by the cold. *Populus lasiocarpa*, which has lived in the Arboretum uninjured during the past two years, adds a very remarkable and handsome species to the large group of these trees which can be cultivated here. A still more beautiful species brought back by Wilson on his last journey and still unnamed has passed the winter without injury. Even the Liquidambar of central China, *L. formosana*, is uninjured and may prove hardier here than the native species which suffers in eastern Massachusetts except in favorable positions.

The greatest of all the Hazels, *Corylus chinensis*, judging by the plants at this time, gives promise of becoming an important addition to the ornamental trees which can be cultivated here. With an average height of from sixty to eighty feet and a girth of trunk of from eight to ten feet, in favorable situations on the mountains of Hupeh it attains a height of more than a hundred feet with a trunk five feet in diameter. There is much interest in the various forms of Cherry raised from seeds sent home by Mr. Wilson, who found an unexpectedly large number of species in several of the groups of the genus Prunus to which the Cherries belong. They are nearly all quite new to science and of course have not been found before in gardens. Thirty of these new species or varieties have passed through the winter uninjured, and only two species, which will probably not live here, have suffered. Among these species are a number of great beauty and this group perhaps is the most interesting of the deciduous-leaved trees obtained by Mr. Wilson during his first journey. The Hemlock of western China, *Tsuga yunnanensis*, has now lived for two years in the Arboretum. This is one of the largest and most widely distributed of the conifers of China. The fact that it grows with the Spruces and Firs which cover the mountains of the Tibetan frontier indicates that these trees may also be hardy in this climate. The introduction of these conifers was the object of Mr. Wilson's last journey to China, and they are now growing in the Arboretum and in many public and private collections.

It can be said that generally the new Chinese species of Oak, Beech, Birch, Willow, Poplar, Pear, Maple and Ash, besides some of the less well known genera like Idesia, Euptelea, Poliothyrsus and Eucommia, judging by the experience of the past year, are likely to succeed here and it is probably reasonable to hope that not less than seventy-five new species of trees will be added to our plantations by Mr. Wilson's first journey to China. In another issue something will be said of the condition of some of the new Chinese shrubs.

There are already many flowers to be seen in the Arboretum. The Elms, and the Red Maple, the Poplars and some of the Hazels are in flower. The flowers of the Silver Maple are already falling. Many of the Alders are now covered with their delicate flowers. One of the most interesting of these is the Japanese *Alnus tinctoria*. This is a medium sized shapely tree with smooth pale bark and large dark green leaves. Two specimens can be seen on the right-hand side of the Meadow Road close to the walk and in front of the Linden Group. They were raised
The Arboretum will be grateful for any publicity given these Bulletins.