Several of the Oaks of eastern Asia are established in the Arboretum, including all the species of northern Japan, eastern Siberia, northern Korea and northern China. In addition to these there is a large collection of young plants raised from Wilson's seeds collected in western China. These are growing rapidly and appear to be perfectly hardy, but their relationship and names have not yet been determined. There are many evergreen Oaks in southern Japan and southern China, but none of these are hardy in our northern states where only the species with deciduous leaves can be grown. These all belong to the White Oak Group, that is they are species which mature their acorns in one season, all the Black Oaks, which require two seasons for the development of their fruit, being found only in America. There are six Japanese Oaks in the Arboretum; the largest and most valuable of these are Quercus grosseserrata and Q. crispula. These two trees under favorable conditions sometimes grow in Japan to the height of one hundred feet and produce trunks from three to four feet in diameter. In central Hokkaido these trees form a considerable part of the forest growth and their abundance and the value of the timber which they produce has already attracted the attention of American lumbermen, and it is probable that Japanese white oak timber will become a considerable article of import into the United States. The next species, Quercus glandulifera, is perhaps the most widely distributed Oak of Japan and the common species of the high mountains of the central island at elevations over three thousand feet. This is a small tree rarely more than thirty or forty feet tall which sometimes begins to bear acorns when not more than a foot high. The small leaves somewhat resemble those of one of the American Chestnut Oaks. Two Japanese Oaks with narrow leaves, in general outline like those of the Chestnut tree, both hardy here, are interesting on account of their peculiar foliage; the larger of these two trees, Q. variabilis, sometimes reaches in Japan the height of eighty feet with a trunk three or four feet in diameter. The under surface of the leaves is silvery white and the bark is thick and corky. This tree is rare in Japan and possibly has been introduced there from China; it is common in Korea and in northern and central China. The bark is sometimes used as cork and the large, thick cups of the fruit are used in the preparation of a black dye and are sold in Chinese markets in large quantities. Quercus serrata is a smaller tree with darker bark and the leaves are bright green on the two surfaces. The fifth Japanese Oak in the collection, Q. dentata, is remarkable for the great size of the leaves which are often a foot long and eight inches broad, obovate in outline and deeply lobed, and for the long, narrow, chestnut brown scales of the cup which nearly encloses the small acorn. This is a common tree on the mountains of central Japan and ranges far northward and to northern and central China, and, although it grows sometimes to a large size, it is rarely a handsome or picturesque tree. The dark thick bark is used in tanning leather. There is a variety (pinnatifida) in the collection with deeply divided leaves.

The plants of Quercus glandulifera, Q. crispula and Q. grosseserrata, although only twenty years old, now produce crops of acorns in the Arboretum. This is important for it is extremely difficult to import acorns from foreign countries in good condition, for they soon lose their vitality unless carefully packed in soil or in sphagnum moss. For this reason the Oaks of eastern Asia are very rare in American
and European collections. *Q. dentata* and *Q. variabilis* have not yet produced fruit in the Arboretum. *Q. serrata* and *Q. aliena* from Korea, and *Q. mongolica* from eastern Siberia and Mongolia are still too young to be productive.

The general collection of eastern Asiatic Oaks is planted on the southern slope of Bussey Hill to the left of the southern end of Azalea Path. Here are plants of the Japanese form of *Q. variabilis*. On the lower side of Azalea Path there is a good specimen of *Q. glandulifera* and a specimen of *Q. grosseserrata*. Near the southern end of Oak Path there is the largest specimen of *Q. variabilis* in the collection. This tree was raised from seed sent from Peking in 1882. Near this tree are young plants of *Q. serrata* and two plants of *Q. dentata*. Several specimens of *Q. glandulifera*, *Q. crispula* and *Q. grosseserrata* can be seen in the mixed plantation along the road at the top of Peter's Hill, and there is a group of these three species on the steep slope rising from the Parkway directly opposite the Forest Hills entrance to the Arboretum.

The Oaks of Europe do not often flourish in New England. None of the species of the Mediterranean region are hardy here; and although the two common Oaks of western Europe, *Q. pedunculata* and *Q. sessiliflora* are hardy and grow rapidly in this country for a few years, they are short-lived here and not to be depended on. It is possible, however, that the Hungarian Oak, *Q. conferta*, or as it is often called, *Q. pannonica*, may prove an exception to this general rule in regard to European Oaks as the climate of eastern Europe with its cold winters and hot dry summers is not as unlike that of eastern North America as the climate of western Europe. *Q. conferta* is a large and valuable timber tree with large, dark green, deeply lobed and lustrous leaves; it grows rapidly and is very hardy here, but it is too soon to speak of its permanent value or to say more than that it is a tree which deserves a more general trial in this country than it has yet received. The largest specimen in the neighborhood of Boston can be seen in the Arboretum on Oak Path near the Japanese *Q. dentata*.

The black-fruited *Sambucus canadensis* and its varieties are in bloom in the Shrub Collection and the common form is conspicuous along the Bussey Brook; and, although these Elders are now in full bloom, the brilliant red or orange fruits of the early-flowering species, *S. pubens* of North America and the Old World *S. racemosa* are nearly ripe. As a foliage plant the most beautiful of these red-fruited Elders is probably the Japanese *S. racemosa*, var. *Sieboldii*, which is well established with the other Elders in the Shrub Collection.

The brilliant fruits of some other plants are already conspicuous in the Arboretum, notably of some of the Bush Honeysuckles. These plants produce fruit in great quantities and it remains in good condition for several weeks, and as the different species ripen their fruit from early summer to the beginning of October their second period of beauty is a long one. On different species or hybrids the fruit is blue, black, orange, or scarlet, and these beautiful and abundant fruits following beautiful flowers make them desirable garden plants, especially in the northern United States where they are very hardy and where they appear to bloom more freely than in other parts of the world. No group of shrubs in the Arboretum is more worthy of the careful attention of persons who desire to plant hardy, fast-growing shrubs beautiful when covered in spring with innumerable flowers or in early summer when their showy fruits are ripe.
Some other plants in the Shrub Collection are now in their greatest beauty. Among these two yellow-flowered plants of the Pea Family, *Cytisus capitatus* and *C. nigricans*, are well worth attention, especially the latter which is a small, slender shrub with erect racemes of large flowers, and perhaps the most beautiful of the genus which can be successfully grown here. *Colutea arborescens* from southern Europe, and *C. cilicica* from Asia Minor, also of the Pea Family, are just now in great beauty, for they are still covered with their bright yellow flowers; and these are mixed with the large inflated pods developed from earlier flowers and now more or less deeply tinged with rose color.

The first of the Hypericums to flower in the collection and one of the gems of the genus, *H. Buckleyi*, is now opening its flowers. It is a dwarf plant growing here only a few inches high but spreading into a broad mat which becomes covered with yellow flowers and as these remain in good condition for a long time, it is well suited for a sunny position in the rock garden.

Attention is called again this year to the hybrid *Lonicera Heckrottii* which is now in bloom. The flowers, although not fragrant, are very beautiful, the outer surface of the corolla being deep rose color and the inner surface pale yellow, both buds and open flowers occurring together in the same cluster. This is the only plant in the Arboretum which is really a continuous bloomer. Last year the first flowers opened at the end of June and flowers continued to open until November.

The Yucca of the high plains at the eastern base of the southern Rocky Mountains, *Y. glauca*, is in bloom for the first time in the Arboretum. The Heather (*Calluna vulgaris*) with its numerous varieties is already opening its purple and white flowers and promises abundant bloom in the Shrub Collection and among the Rhododendrons at the base of Hemlock Hill. The latest of the Viburnums to flower and one of the most conspicuous plants now in bloom in the Arboretum is *V. Canbyi*. This is a magnificent plant in cultivation if sufficient space is given to it for free development when it will grow rapidly into a round-topped shrub ten or twelve feet high and broad. The last of the Rhododendrons (*R. maximum*) is now in flower, and the latest of the Azaleas (*R. viscosum*), the so-called Swamp Honeysuckle of our eastern coast region, is opening its fragrant white flowers. The Spice Bush, *Clethra alnifolia*, which has been largely planted in the roadside shrubberies, is still to flower. Only the earliest of the Linden trees have opened their fragrant flowers, and during several weeks the other species and hybrids of these handsome trees will be in flower. Other interesting trees will flower still later and will well repay weekly visits to the Arboretum. Of these late-blooming trees may be mentioned the North American Sorrel-tree, *Oxydendrum arboreum*, and the North American Hercules' Club (*Aralia spinosa*). These two trees are among the Laurels at the base of Hemlock Hill. The arborescent Aralia of eastern Asia (*A. chinensis*) and *Acanthopanax ricinifolius* of the same Family, with its large tropical looking leaves and great clusters of small white flowers are in the Aralia Group near the junction of the Meadow and the Bussey Hill Roads. Another tree still to flower is the Chinese *Koelreuteria paniculata* with its large erect clusters of bright yellow flowers and to be seen on the Meadow Road. Other Asiatic trees to flower are *Sophora japonica* and *Maackia amurensis* which are established with the other trees of the Pea Family on the right-hand side and near the Bussey Hill Road.

These bulletins will now be discontinued until the autumn.