Summer-flowering Trees. A few trees flower in summer here and add to the interest of the Arboretum at a season of the year when there are comparatively few flowers or ripe fruits to be seen. Among these are:

**Sophora japonica**, which is growing on the right hand side of the Bussey Hill Road, and is now covered with flower-buds which will open in the course of the next two weeks. This is a Chinese tree, in spite of its name, which has been cultivated in Japan for more than a thousand years but which as it first reached Europe from Japan was supposed to be a native of that country. The bark of the young branches and the leaves are dark green, and the small, white, pea-shaped flowers are produced in narrow, erect terminal clusters. This tree has a trunk covered with a rough pale bark and the old trees in the squares of Peking, where it has been largely planted, look in the distance like great Oak-trees. There are in the Arboretum collection in addition to the type the form with long pendulous branches (var. *pendula*), a favorite with those who fancy trees of abnormal growth although it rarely ever flowers, the form with erect branches (var. *pyramidalis*), and the form (var. *rosea*) on which the flowers are slightly tinged with rose color.

**Evodias** are small summer-flowering trees of the Rue Family widely distributed in eastern Asia, and found also in Madagascar and Australia. The species have pinnate leaves, white or pinkish flowers in small clusters terminal on the shoots of the year, and dry, capsular fruit. Like the Phellodendron, to which Evodia is related, they are
protected from the attacks of insects by the pungent aromatic oil with which the leaves abound. The genus has been growing in the Arboretum since 1905 when Professor Jack brought from Korea the seeds of *Evodia Danielli*. This handsome tree has flowered now for several years in the Arboretum. *Evodia hupehensis* and *E. Henryi*, common inhabitants of the forests of western China, are also growing in the Arboretum; the former is a larger tree than the other Chinese species and flowers here abundantly.

*Rhus javanica* is an eastern Asiatic Sumach which is perhaps better known as *R. Osbeckii* or *R. semialata*. It is one of the handsomest trees which flower in New England in August. Here, however, it is rarely twenty feet high with spreading branches which form a broad round-topped head of handsome light green pinnate leaves with a broad-winged petiole and rachis. The flowers are white in erect, long-branched, terminal clusters ten or twelve inches in length and stand well above the leaves. The fruit is globose, about a quarter of an inch in diameter, red and arranged in compact clusters. The leaves of few trees or shrubs turn in the autumn to a more brilliant scarlet. For its conspicuous inflorescence and the splendor of its autumn foliage this Sumach should more often find a place in our northern gardens.

To the Aralia Family the Arboretum is indebted for three handsome trees which flower in early summer or in autumn; these are *Acanthopanax ricinifolium*, *Aralia spinosa* and *A. chinensis*. *Acanthopanax ricinifolium* is a tree which is common in the forests of northern Japan and Korea where it is often seventy or eighty feet high with a massive trunk and great wide-spreading branches armed, like the stems of young trees, with many stout prickles. The leaves hang on long stalks and are nearly circular, five- or seven-lobed and often fifteen or sixteen inches in diameter. The flowers are small, white and produced in compact, long-stalked clusters which form a flat, compound, terminal panicle from twelve to eighteen inches across and are followed in late autumn by shining black fruits which remain on the branches until after the beginning of winter. This tree is perfectly hardy in the Arboretum where it has been growing now for more than thirty years and flowers and ripens its seeds here every year. This tree can be seen on the right hand side of the Meadow Road close to the banks of the little pond near the junction with the Bussey Hill Road.

*Aralia spinosa*, the so-called Hercules Club of the southern United States, where it is a common inhabitant of the borders of woods and the banks of streams, is a tree often thirty feet in height with a tall trunk and wide-spreading branches covered with stout orange-colored prickles. The leaves are borne at the ends of the branches and are long-stalked, twice pinnate and from three to four feet in length and two and a half feet in width. The small white flowers are arranged in compound clusters which rise singly or two or three together above the leaves and are three or four feet in length. The fruit is black, rather less than a quarter of an inch in diameter, and ripens in early autumn. This Aralia is now well established on the slope at the northern base of Hemlock Hill in the rear of the Laurel plantation, and is
spreading rapidly there over a considerable area by shoots and under-ground stems.

*Aralia chinensis* resembles in habit and general appearance the American Hercules’ Club but is distinguished from that tree in the absence of stalks to the leaflets. There are a number of geographical forms of this tree; the one which is most commonly cultivated in this country is a native of Manchuria and eastern Siberia (*var. mandshurica*), often found under the name of *Dimorphanthus mandshuricus*. The Japanese form (*var. glabrescens*) is chiefly distinguished from it by the pale color of the under surface of the leaflets; it is less hardy than the Manchurian form and is not often seen in this country. These trees are growing near the Acanthopanax.

**Summer-flowering Shrubs.** Many shrubs with conspicuous flowers bloom in the Arboretum during the summer months. The list includes the Heathers (*Calluna vulgaris*) and several species of Genista and Cytisus. Of this European group the handsomest which can be grown here is the bright yellow-flowered *Cytisus nigricans*, the yellow-flowered *C. capitatus*, the white-flowered *C. leucanthus* and the yellow-flowered Woad Wax (*Genista tinctoria*) and its varieties, too well known in Essex County, Massachusetts, where escaped from cultivation it has ruined many hundred acres of hillside pastures. The Lespedezas with their abundant, purple, pea-shaped flowers, and the handsomest of the Chinese Buddleias are still in bloom, as is the hardy Acanthopanax sessiliflorum, a vigorous shrub of eastern Siberia, most conspicuous in winter when the compact round clusters of the shining black fruits are on the ends of the branches. The Japanese *Hydrangea paniculata* and its varieties, and the Hydrangeas of North America produce here the showiest July and August flowers. The early-flowered form of *H. paniculata* (*var. praecox*), a large and vigorous shrub and the handsomest of the group, was conspicuous in middle of July. The most popular of these shrubs is the form of *H. arborescens* (*var. grandiflora*) with snowball-like heads of sterile flowers which will bloom later. There is a similar abnormal form of the American species, *H. cinerea*, which is an attractive plant. More beautiful and one of the handsomest of the genus, *H. quercifolia*, a native of the southern states, has been blooming more freely this year than ever before. An important and valued garden ornament in the middle and southern states, it is sometimes killed to the ground here in cold winters.

*Aesculus parviflora*. The only truly shrubby species and the last of the Buckeyes to flower is covered with its tall narrow spikes of small, slender white flowers and is perhaps the most conspicuous of the summer-flowering shrubs hardy in the Arboretum, with the exception of some of the Hydrangeas. A native of the southern states from South Carolina to Alabama and nowhere abundant, it appears to be most common in Alabama. It is perfectly hardy, however, in Massachusetts and has long been a favorite in gardens in which it produces stems seven or eight feet high, and in good soil and with sufficient room spreads into great thickets often twenty or thirty feet across.
**Indigoferas.** Five species of this genus of the Pea Family are now flowering in the Arboretum. They are small plants with handsome flowers in terminal racemes, well suited to decorate a garden border. The species with pink flowers, *I. Kirilowii*, a native of northern China, Manchuria and Korea, *I. Potaninii* and *I. amblyantha* are perfectly hardy, and the last will continue to open its small flowers on the lengthening racemes until October. The other species, *I. Gerardiana* and *I. decora*, are killed to the ground here every winter, but like herbaceous plants produce new stems in the spring which never fail to flower during the summer. *I. decora* is a native of southern China, and in the Arboretum the flowers are pure white and very beautiful. *I. Gerardiana* is a native of the northwestern Himalayas and has gray-green foliage and rose-purple flowers. This is the least beautiful of the five species now growing in the Arboretum.

**The Japanese Clethra** (*C. barbinervis*) flowers about two weeks earlier than the native *C. alnifolia*. The Japanese species is the larger plant of the two and in Massachusetts has grown ten or fifteen feet high and is nearly as much through. The foliage is of a lighter green than that of the American plant; the flowers are less crowded in the racemes, and lack the perfume which makes *C. alnifolia* one of the most delightful of summer-flowering shrubs. In the Arboretum the Japanese Clethra has escaped the attacks of the red spiders which often disfigure those of *C. alnifolia*.

**Calluna.** Few Americans appear to realize that the Calluna, or Scotch Heather as it is usually called, can be successfully grown in nearly all parts of the northern states and eastern Canada where the soil is not impregnated with lime. In one or two places in northern Massachusetts and in Nova Scotia it has become completely naturalized, and on one New England estate where it was planted only a few years ago it is spreading rapidly over large areas. Heather should be planted in well drained sandy soil in situations fully exposed to the sun, and the plants look better and flower better if the stems are cut down close to the ground in early spring. This prevents a straggling growth and insures a better bloom. There are a number of handsome and interesting varieties in the Arboretum collection. Some of the best of them are var. *alba* with white flowers, var. *alba minor*, a plant of dwarfer habit than the last, var. *rubra*, a dwarf compact variety with crimson flowers and the earliest to bloom, var. *tomentosa*, a compact plant with gray-green foliage and red flowers, the white-flowered varieties *alba tenella* and *alba rigida*, and var. *Alportii*, a tall-growing form with crimson flowers. These plants can be seen in the Shrub Collection and are not exceeded in interest by any of the summer-flowering shrubs in the Arboretum.

These Bulletins will now be discontinued until the autumn.