Summer-flowering shrubs. The flowers of many shrubs can now be seen in the Arboretum, and others will appear almost constantly until the late autumn or early winter when the Witch Hazels carry the period of blooming into another year. The last of the Azaleas the two white-flowered species of eastern North America, *Rhododendron* (Azalea) *arborescens* and *R. (Azalea) viscosum*, are now in bloom. A mass of the former can be seen on the right-hand side of the Valley Road in front of the Hickories, and *Rhododendron (Azalea) viscosum* can be seen in quantity on both sides of the Meadow Road. Azaleas of different species have been flowering continuously in the Arboretum since the middle of May, and the blooming of no other group of plants extends here over such a long period although that of the Viburnums and Cornels is almost as long.

*Rhododendron maximum*. This native species is the last of the Rhododendrons with evergreen leaves to bloom, and it can now be seen on the left-hand side of the road entering by the South Street gate. This is one of the hardiest of all Rhododendrons in this climate and no other species which can be successfully grown here has such large and handsome leaves. The flowers are handsome in their delicate colors but are a good deal hidden by the young branchlets which make their growth before the buds open.

*Rosa Jackii*. This beautiful Rose was introduced into the Arboretum from Korea several years ago by Mr. J. G. Jack for whom it is named. It is one of the Multiflorae Roses and has long stems which lie flat on the ground, lustrous foliage and pure white flowers in wide many-flowered clusters. The flowers have the delicate fragrance of the Musk Rose. The hybridizer should be able to find in it a good subject
from which to raise a race of hardy, late-flowering Rambler Roses. It is now in bloom in the Shrub Collection.

**Rosa setigera.** This is the Prairie Rose from the central part of the continent where it is scattered from Michigan to Texas. It is a vigorous plant with tall arching stems, pale handsome leaves and broad clusters of pure pink flowers. No wild Rose is more beautiful, and the hybridizer with all his cunning has not produced a single Rose which can compare with this wild plant in grace of habit or in charm of flowers. There is a mass of these Roses just coming into bloom on the right-hand side of the Forest Hills Road in front of the Cherry Collection.

**Coluteas,** known as Bladder Sennas, are useful summer flowering shrubs. Three species can now be seen in bloom in the Shrub Collection, *C. arborescens, C. ciliicica* and *C. orientalis.* The first is a native of southern and southeastern Europe, and is a very old inhabitant of gardens, for it is said to have been cultivated in England for at least three centuries. It is a vigorous and hardy plant with erect much-branched stems, deciduous pinnate leaves and axillary racemes of yellow pea-shaped flowers; these are produced on the branches of the year and continue to open as the branches grow and new leaves appear. The flowers are followed by inflated bladder-like pods which are more or less tinged with rose color and are very ornamental. Fully grown pods from the first flowers appear on the plants with the late flowers. This plant does not occur to be as well known in this country as it is in England where it is now often naturalized. *Colutea ciliicica* is a native of Asia Minor, and very similar to *C. arborescens,* and as a garden plant is not superior to that species. *C. orientalis* is distinguished from the other species by its pale grayish foliage and by its sulphur-colored or orange-red flowers. It is a native of Asia Minor and has long been known in gardens. This shrub is worth a place in collections of summer-flowering plants.

**Cornus paucinervis.** The plant of this Cornel in the collection of Chinese shrubs on the southern slope of Bussey Hill is covered with flower-buds which will open in a few days. It is a shrub five or six feet tall with erect stems, small, narrow, pointed leaves with only two or three pairs of prominent veins, small flat clusters of white flowers and black fruits. Although this Cornus was found by Wilson at low altitudes in the valley of the Yangtsze River, it has proved perfectly hardy in the Arboretum and is one of the most distinct and interesting plants introduced by him.

**Heather.** It does not seem to be generally understood that the Heather of northern Europe (*Calluna vulgaris*) can be successfully grown in this country, although it is now many years since it was discovered that it had become naturalized in Nova Scotia and in Tewksbury and Townsend, Massachusetts. The ends of the branches are sometimes killed here in severe winters, but this is an advantage rather than an injury to the plants, for English gardeners to secure the best results cut back their plants severely after they have finished flowering. In this country the Heather should be planted in well-drained, sandy soil fully exposed to the sun; planted in the shade it usually suffers in cold winters as in the shade it continues to grow late in the autumn and the wood does not ripen properly. There are a
number of handsome and interesting varieties in the Arboretum collection. Some of the best of these are the variety *alba* with white flowers; the variety *alba minor*, a white-flowered plant of dwarfer habit; var. *rubra*, a dwarf compact variety with crimson flowers, and one of the earliest to flower and one of the handsomest of the set; var. *tomentosa*, a compact plant with gray-green foliage and red flowers; var. *alba Serlei*, a tall growing form with white flowers; vars. *alba tenella* and *alba rigida* with white flowers, var. *Alportii*, a tall growing form with crimson flowers, and var. *hypnoides*, a very compact, small-leaved plant producing only sparingly its small purple flowers. These plants can be seen in the Shrub Collection, and quantities of Heather have been planted on the sides of the Meadow Road.

**Cytisus nigricans.** No plant now in bloom in the Shrub Collection is more beautiful than this little shrub which is a native of southern and southeastern Europe, and as it grows here is a compact round-topped bush from two to three feet high and broad. It differs from most of the other plants of this group in the fact that the flowers are borne in long racemes terminal on the branches. The pea-shaped flowers are bright yellow and are produced in the greatest profusion. This is one of the handsomest, and the hardiest here, of the yellow-flowered shrubs of the Pea Family, which are such a feature of the flora of southern Europe and which are so much cultivated in the gardens of regions where the climate is less severe than that of New England.

**Ceanothus.** Of this important North American genus, which is best represented in California, only two species of the eastern part of the country and one Rocky Mountain species, *C. Fendleri*, are hardy in the Arboretum where the beautiful Pacific Coast species cannot live. The two northeastern species, often called New Jersey Tea, *C. americanus* and *C. ovatus*, are shrubs two or three feet high and broad, with small white flowers in dense, oblong, terminal and axillary clusters produced on branches of the year. These two species vary chiefly in the shape of the leaves, but *C. ovatus* bloomed nearly a month ago, while *C. americanus* is just now covered with flowers. These plants are valuable for naturalizing on wood borders, and few shrubs make better returns in midsummer flowers than the New Jersey Tea which, however, appears to be rarely cultivated. A large number of hybrids between *C. americanus* and some of the California species have been raised in Europe and one of these hybrids, known as Gloire de Versailles, with its large clusters of deep blue flowers is a popular plant there. Unfortunately these hybrids, with a single exception, are not hardy in this climate. The exception is a beautiful plant with pale rose-colored flowers which came many years ago to the Arboretum from the Lemoine Nursery at Nancy, France. It has not been possible to find the name or trace the origin of this plant. It is now in bloom in the Shrub Collection and on the lower side of Azalea Path.

**Ginkgo biloba.** This is the only representative of a Family of trees which in Tertiary times was widely distributed over the northern hemisphere. To the shape of its deciduous leaves which resemble those of a Maidenhair Fern, the Ginkgo owes its popular name, Maidenhair-tree. The fruit, which is of the size and shape of an olive, has a fleshy covering with a rancid and most disagreeable odor, but the kernel of
the almond-like stone has a delicate flavor and is much esteemed by Chinese and Japanese. The Ginkgo was carried to Japan some twelve hundred years ago by Buddhist priests of China, and near some Japanese temples there are specimens fully one hundred feet high with stems six or seven feet in diameter. It reached Europe about the middle of the eighteenth century, and is supposed to have been first planted in this country in 1784 by Mr. William Hamilton in his famous garden in what is now West Philadelphia. It is now a common tree in this country. Bostonians of the last generation may remember Dr. Jacob Bigelow's poem on the removal of the Ginkgo tree from Mr. Gardiner Green's garden in Pemberton Square to Boston Common when this garden was given up in 1832 after Mr. Green's death. This tree is said to have been forty feet high with a trunk a foot in diameter when it was moved, and to have been "of full size" when Mr. Green bought the Pemberton Square property in 1798. This tree is still standing on the Beacon Street mall nearly opposite the foot of Joy Street. It has not grown well, however, for many years, and it is not a handsome or a large tree for its age, probably never having recovered from the effects of the moving in 1832. One of the remarkable things about the Ginkgo-tree is the fact that although it has been undoubtedly cultivated by the Chinese for many centuries, the region where it grows naturally and spontaneously has remained unknown, travelers having failed to find any trees growing in the forest or anywhere except in the neighborhood of temples or shrines where they had evidently been planted. A year ago, however, Mr. F. N. Meyer, the well-known botanical explorer for the Department of Agriculture, found the Ginkgo growing spontaneously in rich valleys over some ten square miles near Changhua Hsien, about seventy miles west of Hangchou, in the Chekiang province. There were many seedlings and the trees here were so common that they were cut for firewood, something which has never been seen before in China. It is by no means certain that this is the original home of the Ginkgo as these trees may all have descended from a planted tree. It is exceedingly interesting, whatever may be the history of these trees, to find that there is at least one place in China where the Ginkgo grows in the woods and reproduces itself spontaneously. Hangchou and Changhua Hsien are of easy access from Shanghai and it is remarkable that Mr. Meyer was the first botanist to visit this region. His visit was a fortunate one, for besides the Ginkgo he made one of the most interesting discoveries a botanist has ever made in China—a Chinese Hickory-tree which has been described at the Arboretum as *Carya cathayensis*. Until last year the Hickory was supposed to be exclusively eastern American, as the Sassafras, the Tulip-tree and the Kentucky Coffee-tree, were supposed to be exclusively American, but these trees like the Hickory are now known to grow in China.

This is an interesting time to visit the Arboretum. The foliage of trees and shrubs has never been finer, and the grass has never been greener at midsummer. Many plants, especially the Bush Honeysuckles and the Tartarian Maple (*Acer tatarica*), are covered with brilliant fruits, and the great north meadow will soon be loaded with a yellow sheet of Goldenrods as the white flowers of the Meadow Rue, never so abundant as they are just now, begin to fade.

These Bulletins will now be discontinued until the autumn.