Horsechestnuts and Buckeyes. Horsechestnut as generally applied is the name of the Old World species of Aesculus, and Buckeye is used for the American species of this genus. The Old World species which are found in southeastern Europe, on the Himalayas, in central and northern China and in Japan have white flowers often marked or tinged with yellow, but the flowers of the American species are yellow, red, scarlet, red and yellow, and white. The Old World species are best distinguished from those of the New World by the resinous exudations which thickly cover their winter-buds and are not found on those of the American species with the exception of the one which grows in California. The original Horsechestnut, Aesculus Hippocastanum, long cultivated in western Europe but only recently known to be native to the mountains of Greece, is the handsomest of the genus and one of the most splendid trees of the world. The date of its introduction into the United States is not accurately known but it was received by John Bartram from England in 1746, and it first flowered in the New World in his garden. On Wednesday, April 13, 1785, Washington received small plants of this Horsechestnut from Colonel Henry Lee of Westmoreland, Virginia, and planted them at Mount Vernon. All these plants disappeared long ago. The finest plant in the neighborhood of Boston known to the Arboretum is in a garden in Salem, Massachusetts, believed to have been planted one hundred and ten years ago and now seventy feet high with a trunk ten feet in girth, and a perfectly shaped head eighty feet across. It was a favorite tree with Benjamin Bussey who bought his place in Jamaica Plain in 1806 and probably planted Horsechestnut trees
there a little later. A few of them are on the walk which led from his house to Bussey Hill, and these are no doubt the oldest planted trees in the Arboretum. The European Horsechestnut only flourishes in deep cool soil, and although it has been largely used to shade city streets in this country and in Europe, it is not suited for such a purpose for the heat and drought of cities often cause it to lose its leaves in midsummer. Its place is in parks and gardens and by country roadsides. There are several hybrids of the Grecian Horsechestnut and the red-flowered American Buckeye which are handsome trees. The best known of these hybrids, *A. carnea*, is the "red-flowered Horsechestnut which is a common tree in the suburbs of Boston. More conspicuous when in flower is var. *Briotii*. The Himalayan Horsechestnut and the species of central China have not proved hardy here, and it has not yet been possible to establish satisfactorily the north China Horsechestnut in the Arboretum. The Japanese species, *A. turbinata*, is hardier and grows fairly well here, although it is less satisfactory in cultivation in this country and generally a less beautiful tree than the Chinese species.

Buckeyes. The earliest of these trees to flower here are the Ohio Buckeye *A. glabra* and its varieties. They are small trees with small yellow or yellow-green flowers and fruit covered like that of the Old World Horsechestnut with prickles. Perhaps the most interesting form is the one on which the flowers are tinged more or less deeply with pink, rose color and red; if for no other reason, it is interesting because it is the only tree which is known to have been discovered by Washington. He gathered the seeds near the mouth of Cheat River in what is now West Virginia in 1784, and planted them in April of the following year. In 1914 there were seven of these trees growing at Mount Vernon and the largest was seventy-five feet tall with a trunk two feet four inches in diameter. Some of them were destroyed by the storm of 1924, and most of them lost parts of their heads. It is now known that this variety grows as far south as White Sulphur Springs and crosses from West Virginia into Tennessee and Ohio. Unfortunately it has been named var. *virginica* for the name of Washington should certainly have been connected with it. Plants raised from grafts collected by Mr. John S. Ames at White Sulphur Springs in 1921 are now growing in the Arboretum. *A. georgiana*, a comparatively recent discovery in central Georgia and now established in the Arboretum, is a first-rate garden plant here with short compact clusters of large yellow and red flowers. A beautiful plant is the red-flowered variety of *A. discolor* (var. *mollic*), which will soon be covered with its scarlet flowers. Generally distributed from the coast of North Carolina to southern Arkansas and western Texas, and when in bloom one of the most brilliant plants of the south, it has been found that it can be successfully grown in Massachusetts. A single tree of an interesting hybrid Buckeye, *A. Bushii*, was found a few years ago in the woods near Fulton on the Red River in Arkansas, and evidently was produced by the crossing of a form of *A. glabra* with the red-flowered *A. discolor* var. *molliis*. The original tree has disappeared but the hybrid is fortunately preserved in a tree growing on Peter's Hill in the Arboretum where it has flowered for several years.
Perhaps this is the rarest tree in the Arboretum. Several other Horsechestnuts with red and yellow flowers are handsome flowering trees; they are natural hybrids which originated in Europe more than a century ago between the yellow-flowered *A. octandra* and one of the red-flowered southern Buckeyes. The name of this hybrid is *A. versicolor*. It appears to have been better known in gardens before the middle of the last century than it is now.

*Aesculus parviflora* will not be in bloom before July when it occupies an important place among summer-flowering shrubs. Fortunately this native of the southern states is hardy in the north, and with abundant space and in good soil will spread into great thickets with stems seven or eight feet high which are covered with tall, narrow, erect spikes of small white flowers which stand well above the foliage.

Another summer-flowering Buckeye, *A. Harbisonii*, unfolds its leaves later than any other in the Arboretum with the exception of *A. parviflora*, and is the last of the group to bloom. Two individuals of this peculiar plant appeared here in 1905 among a number of seedlings of *A. georgiana* and are believed to be hybrids of that species and the red-flowered variety of *A. discolor*, the two species growing together where the seed was gathered near Stone Mountain in Georgia. The leaves of this hybrid are lighter green than those of either of its supposed parents; the flowers are borne on stout red stems in broad panicles and are about three-quarters of an inch in length, with a rose-colored calyx and canary yellow petals tinged with red toward the margins. The hybrid origin of these plants is shown by the mixture of glands and hairs on the margins of the petals, hairs only having been found on the plants of the group of *Aesculus* to which *A. georgiana* belongs and only glands on those of the plants of the group to which *A. discolor* belongs, so that when both hairs and glands are found on the margins of the petals it is good evidence that the plant is of hybrid origin.

*Rhododendron (Azalea) Vaseyi* from the southern Appalachian Mountains is flowering again profusely. Its pure pink flowers appear on the leafless branchlets and in delicacy and purity of color are not surpassed by those of any other plant. It is only in recent years that this Azalea has been known to botanists and has found its way into gardens. It is perfectly hardy, its flower-buds are not injured by severe cold, and in time it grows into a tall usually rather narrow shrub. This Azalea has been planted on both sides of the Meadow Road, the largest group being at the end of the first pond. Great masses of it can be seen now in bloom on the Riverway in Boston between Brookline Village and Beacon Street. The Japanese *R. Kaempferi* is the only red-flowered Azalea which has proved hardy in this climate. It has been largely used in the Arboretum, and its flowers, which are now opening, furnish the most surprising and spectacular display of the year; they are delicate, however, and when fully exposed to the sun lose their value. This Azalea gives more satisfaction when planted in the shade of trees or on the northern border of a wood of conifers. There are masses of it at the lower end of Azalea Path and in a large group under the shade of the Hemlocks on Hemlock Hill and on the northern edge of Hemlock Hill in a long narrow band between the Hemlocks and the Laurels. *Rhododendron*
(Azalea) luteum, a native of the Caucasus, has bloomed before several times in the Arboretum and although the buds are often injured it is in good condition this year. It is growing on the right hand side of Azalea Path below the plant of R. reticulatum. If the flower-buds of this Caucasian plant were harder this would be one of the most charming of all Azaleas for the flowers are more fragrant than those of any other Azalea.

Fothergilla. The three species of Fothergilla, members of the Witch Hazel family and natives of the southeastern United States, with heads of pure white flowers and handsome Witch Hazel-like leaves, are now in bloom in the Shrub Collection and on Azalea Path in the Arboretum, and are among the most interesting and beautiful of the spring-flowering shrubs. First cultivated in England more than a century ago, Fothergilla seems to have disappeared from gardens until it was reintroduced by the Arboretum a few years ago. All the species are plants of much interest and great beauty, but it is doubtful if any of them can now be found in any commercial nursery.

Early Flowering Viburnums. Although they are already passing out of bloom, these Viburnums are such beautiful and interesting plants that it is well to call attention to them again. The first to bloom, V. alnifolium, the Hobble Bush or Moosewood of cold northern woods, is one of the handsomest of the American species, with small, globose clusters of white flowers surrounded by a ring of neutral flowers, dark green leaves with prominent veins which turn orange and scarlet in the autumn, and fruit in drooping clusters which at first red turns when fully grown to dark blue or nearly black. It is growing among the Birches on the Bussey Hill Road opposite the Viburnums. Another beautiful species, the Korean V. Carlesii, is rightly considered one of the handsomest plants recently introduced into American gardens. Its value is in the white extremely fragrant flowers which are produced in rather small compact clusters and open from bright pink buds. As the flowers in a cluster do not all open at the same time the mixture of white flowers and pink buds adds greatly to the attractiveness of the inflorescence. It is a dwarf shrub with pale green leaves and has only rarely produced fruit in the Arboretum. Next to this species in the Viburnum collection is a plant of V. bitchuiense which somewhat resembles V. Carlesii, but the flowers are smaller and not so fragrant and the habit of the plant is less compact. Mistaken by Japanese botanists for V. Carlesii, this plant has been sold in the United States and Europe as the true V. Carlesii. V. Carlesii should find a place in every northern garden.

Crataegus arnoldiana. This is the earliest of the Hawthorns to bloom in the Arboretum and is a tree of considerable size first discovered growing wild here. It grows also near Medford in this state and near Lyme, Connecticut. There are five or six large plants on the borders of the Meadow Road which will be covered with flowers before this Bulletin reaches its readers. The large scarlet fruit is as beautiful and conspicuous as the large flowers.