American Crabapples. Following the last of the eastern Asiatic Crabapples, *Malus Sargentii* and *M. Sieboldii*, which were covered with flowers the end of last week, some of the American species are in bloom. Nine species of these trees are now recognized, with several varieties and two hybrids. They have white or pink fragrant flowers which do not open until the leaves are partly or nearly entirely grown, and green or pale yellow fragrant fruit which hangs on slender stems and, with the exception of that of the species from the northwestern part of the country is depressed globose, usually broader than high, and usually from an inch to two and a half inches in diameter and covered with a waxy secretion. All the species spread into thickets and are excellent plants for the decoration of wood-borders and glades. Some of the species have only been distinguished in recent years, and although the species and many of the varieties are now growing in the Arboretum several of these have not yet flowered, and most of these Crabapples cannot be found in commercial nurseries.

*Malus glaucescens*, which is named from the pale glaucous color of the under surface of the leaves, is the first of the American species to flower here and has been blooming for more than a week. It is a shrub usually rather than a tree, not more than fifteen feet high, with stems four or five inches in diameter. The flowers are white or rose color, up to an inch and a half in diameter, and the pale yellow fruit is often an inch and a half in diameter. This plant was first distinguished several years ago in the neighborhood of Rochester, New York; it is now known to be common in several western New York counties.
and to range to western Pennsylvania, southern Ontario, and Ohio, and to occur on the southern Appalachian Mountains to northern Alabama. The discovery and introduction of this interesting plant into gardens is due to the officers of the Park Department of the city of Rochester.

**Malus ioensis** begins to open its flowers several days later than *M. glaucescens*. This is the common Crabapple of the northern middle western states, and in a number of varieties has a wide range southward through Missouri to western Louisiana and Texas. It is a tree sometimes thirty feet high with a trunk often eighteen inches in diameter, a wide open head of spreading branches and usually incised leaves tomentose on the lower surface, flowers often two inches in diameter with white or rose-colored petals, and fruit hanging on stout hairy stems, and up to an inch and a half in diameter. A form of this tree with double flowers (var. *plena*), the Bechtel Crab, named for the man who found it several years ago growing in the woods in one of the western states, has opened its pale rose-colored flowers which look like small Roses. When in flower this is one of the popular trees of the Arboretum, judging by the number of persons who want to get close to it. This double-flowered Crab can now be found in many of the large American nurseries, but these nursery trees are often short-lived, probably because the common orchard Apple on which they are usually grafted does not suit them as stock. Persons buying the Bechtel Crab should insist that it is grafted on one of the American Crabapples, the best for the purpose being the single-flowered type of *M. ioensis*.

**Malus coronaria**, sometimes called the Garland Tree, is the common eastern species, although it does not approach the coast north of Pennsylvania and Delaware, and ranges west to Missouri. It is a beautiful tree sometimes twenty-five feet high with a short trunk, pink flowers rather more than an inch in diameter and depressed globose fruit. From *M. glaucescens* it is distinguished by the green under surface of the leaves, and from *M. ioensis* by the absence of pubescence on leaves, fruit-stalks and young shoots. The calyx on one variety (var. *dusycalyx*) not rare in Ohio and Indiana is thickly covered with white matted hairs. A form with long acuminate leaves (var. *elongata*) which sometimes forms dense impenetrable thickets grows in western New York to Ohio, and on the southern Appalachian Mountains from West Virginia to North Carolina. Recently a double-flowered form of *M. coronaria* has been found growing in the woods near Waukegan, Illinois (var. *Charlotte* or the Charlotte Crab). The flowers are larger and whiter than those of the Bechtel Crab, and there is no reason why the Charlotte Crab should not become as great or greater garden favorite. It is now growing in the Arboretum but the plants are too young to flower.

**Malus platycarpa** has fruit much broader than high, often two and a half inches in diameter with a deep cavity at base and apex. The flowers are about an inch and a half in diameter with a glabrous pedicel and calyx, but in the var. *Hoopesis* with a pubescent calyx. There is a large tree of this variety in the old Malus Collection opposite the end of the Meadow Road. *M. platycarpa* is a handsome tree well
worth a place in collections for its beautiful fruit valuable for cooking and jellies. The so-called Mammoth Crab is probably only a selected form of this species.

**Malus fusca**, the only native Apple-tree of the Pacific States, where it ranges from Alaska to central California, is in flower. This differs from the other American Crabapples in its short-oblong, yellow-green flushed with red or nearly entirely red fruit from half an inch to three-quarters of an inch long, without the waxy exudation which is peculiar to the eastern American species, and with thin dry flesh. The calyx of the flower, unlike that of the eastern species but like that of many Asiatic species, falls from the partly grown fruit.

**Malus angustifolia** is the last Crabapple in the Arboretum to flower. This is a tree sometimes thirty feet tall with a trunk eight or ten inches in diameter, and wide-spreading branches, bright pink exceedingly fragrant flowers an inch in diameter, and depressed globose fruit. From the other species it differs in the only slightly lobed or serrate leaves on the ends of vigorous shoots and in the rounded apex of the leaves on flower-bearing branchlets. *Malus angustifolia* is a southern species which naturally does not grow north of southeastern Virginia and southern Illinois, ranging to northern Florida and western Louisiana. Plants raised here many years ago from seed gathered in northern Florida are perfectly hardy in the Arboretum where they bloom every year late in May and have proved to be handsome and valuable plants here. The other American species, *M. glabra* of the high valleys of the mountains of North Carolina, *M. lancifolia*, widely distributed from Pennsylvania to Missouri and western North Carolina, and *Malus bracteata*, a common species from Missouri to Florida, with many of the varieties of *Malus ioensis*, are now established in the Arboretum but the plants are still too young to flower.

**Malus Soulardii**, which is believed to be a natural hybrid between *M. ioensis* and some form of the orchard Apple (*M. pumila*), not rare and widely distributed in the middle west, is a tree as it grows in the Arboretum, nearly as broad as it is high with spreading slightly drooping branches. It has not before this year been as thickly covered with its pale pink fragrant flowers which for ten days at least made it one of the most attractive objects in the Crabapple collection at the eastern base of Peter’s Hill. It is a curious fact that *M. Soulardii* flowers in the Arboretum fully two weeks earlier than either of its supposed parents. Several varieties of Soulard’s Crab are distinguished by western pomologists. Some of them are in the Arboretum collection, but the “Fluke Apple” is the only one which has flowered here yet. This resembles Soulard’s Crab in size and shape, and in the color of its equally abundant flowers, and as an ornamental plant is of equal value.

**Malus Dawsonii** is a hybrid of the western *M. fusca* and the common Apple which appeared in the Arboretum many years ago from seed collected in Oregon. It has grown here to more than double the size of *M. fusca*, to which it shows its relationship in the oblong fruit
of the shape and color of that of its Oregon parent but of about twice the size. The leaves are less pubescent than those of the common Apple, and the flowers are rather larger. This hybrid blooms at about the same time as M. iomensis and a few days earlier than M. fusca.

_Crataegus pruinosa_ has been covered with flowers during the past week. This is the type of the Pruinosae Group of American Hawthorns, distinguished by its large flowers with ten or twenty stamens and rose-colored or yellow anthers and five styles, and hard and often angled pruinose fruit which is red or remains green until it falls, the prominent and enlarged calyx of the flower being raised on a distinct tube. The Group is northern with southern representatives in northwestern Georgia and southern Missouri, and the species are usually shrubs only four being admitted as trees in Sargent’s New Manual of the Trees of North America. The type of the Group, _P. pruinosa_, which was first distinguished in Europe from cultivated plants, is in spring and late autumn one of the handsome species of the genus. It is a small tree from fifteen to twenty feet high, with a slender stem, spreading horizontal branches forming an irregular head and broad-lobed leaves. The flowers are an inch in diameter, in few-flowered clusters, with twenty stamens and deep rose colored anthers. The fruit is strongly angled, apple-green, and covered with a glaucous bloom until nearly ripe late in October when it is subglobose, barely angled, nearly an inch in diameter, dark purple-red and very lustrous. There is a good specimen of this Thorn in the old Crataegus Collection, and in the Peter’s Hill Collection this Group is well represented by a large number of species.

_Early American Azaleas_. Three of the seven American Azaleas which are hardy and successfully grown in this Arboretum are in bloom. They are _Rhododendron (Azalea) Vaseyi_, _R. (Azalea) nudiflorum_ and _R. (Azalea) roseum_. The first is a native of the southern Appalachian Mountains, with delicate pink or rarely white flowers which open before the leaves. The flowers of few Azaleas are more delicate in color, and few shrubs of comparatively recent introduction are better worth the attention of garden lovers. There is now a large mass of this Azalea at the end of the first of the small ponds on the left hand side of the Meadow Road. The other species now in flower are native to and widely distributed in the eastern states. They have pink or rose-colored flowers. Of the two species _R. roseum_, which opens its flowers a few days later than _R. nudiflorum_, is a more beautiful plant with darker-colored and very fragrant flowers and, with the exception of the Appalachian flame-colored Azalea (_R. calendulaceum_), the handsomest of the American Azaleas which are hardy in Massachusetts. Although this plant was cultivated in England more than a hundred years ago, it has through wrong determination and confusion in names been little understood by American botanists and gardeners, and is still rare in cultivation. The fragrance of the rose-colored flowers is not surpassed by that of any other Azalea. _Rhododendron nudiflorum_ and _R. roseum_ are now growing on the lower side of Azalea Path, and there is a mass of larger plants of the latter on the right hand side of the Meadow Road in front of the Lindens.