perhaps owing to the unseasonably warm weather of the middle of September. Certainly, the blooms do not mature quickly until the nights begin to get cool; for, even when Chrysanthemums are housed, the conditions indoors must have some relation to those existing outdoors, and so natural to the plant. It has been proven that no amount of forcing will, in fact, bring a plant earlier into bloom; and when fire-heat is used it is rather to maintain a dry air as a preventive of mildew and other fungoid diseases so disastrous to the foliage in the later stages of the development of the plant.

Mrs. Henry Robinson is the first variety to bloom here. It is a white-flowered Japanese incurved, regular and graceful in outline. So far it is the best early white. The coming popularity of the Japanese incurved, of neater and more graceful outline, to the exclusion of the coarser varieties which had only size to recommend them, may be considered as indicating an advance in taste. Mrs. E. G. Hill was cut on the 5th of October last year, but will not be ready to cut this year until the 15th, to be followed a day or two later by Nemesis and M. J. Parker, Jr., both pink. Ivory will not be open until the 20th, with Crystallina at about the same date, after which the season will be fairly opened.

The scorching or burning of many crimson and pink varieties is a matter which has troubled growers for a number of years. It is discouraging to see a large, well-formed bud with half the bloom blighted on opening. It looks as if lenses might have been formed by water on the under side of the glass, through which the sun's rays had passed with added power. This is the idea many have; though I cannot explain the trouble, I do not think this explanation correct. I know shading will not altogether prevent it, although it may to some extent. I think the injury is done in the bud state, but does not become noticeable until development proceeds. I have noticed, in the morning, dew covering the very fine pubescence on the outside of the unexpanded florets. I think less scorching would result if this dew could be evaporated by airing early, or some ventilation could be left on overnight, with heat enough to keep the air dry, so that this dampness could be cleared off before the sun gained power. I have followed this plan consistently this season, and so far I have not seen a sign of the trouble. The trouble with William Seward, a fine early crimson, began last year when in the bud state; the buds are now—October 14th—well forward in opening and all perfect.

The finishing touches have been given to our specimen plants for exhibition.

Wellesley, Mass. *T. D. Hatfield.*

Notes on Apples.

THE Red Beitigheimer Apple, which was so favorably noticed in Garden and Forest for September 25th, page 390, has fruited here several years. While it has valuable qualities for culinary and market purposes, its flesh is rather coarse, and it would not be called a good dessert fruit except by those who like a brisk subacid flavor. On account of its symmetrical form, large size and handsome color no apple in the station collection attracts more attention than this at fairs and exhibitions. Under good cultivation it is a free grower and a regular and abundant bearer. The fruit is very large, and quite apt to drop before it is well colored. This fault is more serious with the Red Beitigheimer than with Wealthy, Alexander or Gravenstein, and probably will prevent its being planted extensively in commercial orchards.

Among the comparatively new or little-known varieties of considerable merit is the Sharp. The fruit resembles Maiden Blush somewhat in shape and color, and is better for dessert use than that variety. Its flesh is nearly white, fine-grained, tender, moderately juicy, nearly sweet, of mild pleasant flavor and very good quality; season, October. The tree has fruited here but three years, but it appears to be a good bearer.

One of the handsomest late August and early September apples in the station collection is the Stump, which is excellent for market or home use. It begins to ripen soon after Chenango Strawberry, which it resembles in shape. The tree is upright and productive. The fruit, borne on short spurs close to the limbs, is pale yellow, beautifully striped and shaded with red. Flesh firm, crisp, tender, subacid, mild in flavor.

Switzer is a very handsome German apple that begins to ripen about the first of August. The fruit, which is of medium size, is nearly white, with a beautiful blush. It is very good in flavor and good in quality either for dessert or for culinary use. The tree is productive.

Williams' Favorite is a dessert fruit that should be more widely known. Its symmetrical form and deep red color make it an attractive apple in market. It is also desirable for home use, as it is good in flavor and quality. The tree makes moderate growth and is a good bearer.

Among the October apples desirable for culinary use may be mentioned Cox's Pomona. It is an old variety of English origin. The fruit is large, highly colored with crimson on a clear, very pale yellow ground, making it an attractive market fruit. The flesh is white, crisp, subacid. It cooks evenly and ranks good in quality.

Experiment Station, Geneva, N. Y. *S. A. Beach.*

California Irises.—Like many other plants native to the California coast, the Irises are not satisfactory under ordinary cultivation. I. Macrosiphon, which grows so vigorously in northern California and Oregon that the long slender leaves, with the strong fibres which form their edges, are used for making ropes, fish-lines, nets and coarse cloth, has been rarely seen in such robust form elsewhere. The beautiful I. bracteata, too, which is figured in the first volume of Garden and Forest, page 43, has also proved troublesome to cultivators. In regard to these two plants Herr Max Leichtlin writes that he has received them from their native quarters fresh and looking healthy, but, after many trials, they have never lived long. He has found, however, that they can be moved when they are in full vegetation. They must be grown from seed, and the seedlings must be allowed to remain where they are until they have formed solid root-stocks. After this, and when they are beginning to grow, they can be safely handled and transplanted like other Irises. This spring Herr Leichtlin had plants with twelve to thirty flowers open at the same time in all shades of ochre and cream color. They certainly are striking plants, and it is to be hoped that growers will test this treatment in eastern North America.

Elizabeth, N. J. *J. N. G.*

Aglaonema commutatum.—Unlike the rest of the family, this species is quite showy when in flower, and as its numerous spathes are freely produced it is well worth growing for the sake of the flowers alone. The leaves, while quite ornamental, are less richly colored than those of Aglaonema pictum or even A. nebulosa. They are eight or ten inches long, green and glossy, with a few silvery spots scattered over the surface. The spathe is two or three inches long, spoon-like, of a creamy white and waxy in texture. The spadix is cylindrical or slightly tapering to the base. The stem is thick and fleshy, covered by the sheathing petioles of the leaves. The plant is generally kept dwarf and compact, side shoots being freely produced if the main shoot is topped. It is most ornamental when only eight or ten inches high, but broad and spreading.

Short Hills, N. J. *N. J. R.*

Correspondence.

Garden Notes from Southern California.

To the Editor of Garden and Forest:

Sir,—Ipomœa versicolor, or, as it is commonly known in gardens, Mina lobata, a charming climber from tropical America, is still a comparative stranger to our people, but it is admired by all who have grown or seen it. It makes a quick and truly tropical growth, climbing to the top of whatever support is given to it and reaching still upward until it bends under its own weight. The mass of dark green foliage is refreshing in a thirsty land, but when the slender spikes of buds appear, at first of a rich poppy-red, gradually changing to a delicate canary-yellow, the plant is strikingly handsome. When fully open the flowers are pure white, slightly tinged with yellow at the base of the corollas, and a faint, almost perceptible, ring of rose-purple around the edges. The spikes of flowers are in pairs, like the tines of a fork, erect, with a graceful curve, and carrying thirty to forty buds and flowers; the flowers at the base of a pure white, like the down of a bird's wing, and the brilliant buds at the tips heighten the fancied resemblance to the wings of a parrot, whence comes the popular name of the plant among the Mexicans, who call it Ala de Perico. In some of the villages in the warm portions of Mexico I found that this vine was grown in every yard in the greatest profusion. The exsert filaments are twice the length of the corolla, and are of a straw-yellow, the anthers of an Indian yellow. The plants wilt before the least touch of frost, and mature seed with great uncertainty; probably to this fact, and the consequent high price of the seed, is due its rarity in American gardens.

Lantana delicatissima is probably a Mexican shrub, although

its native country is unknown. The slender flexuous branches make it a trailing plant when without support. The rather scattering umbels of phlox-purple flowers usually contain one or more flowers, with a canary-yellow centre bordered with white, followed by a fruit slightly resembling a blackberry. It seems to be easily propagated, and is said to have once been a favorite in eastern conservatories, but it flourishes here at all seasons out-of-doors.

Narcissus Corcyrensis, a dainty species sent to us from the Holy Land, bloomed on Christmas Day. The flower was single, pure white, with a tiny orange-colored cup, the whole less than an inch across, and borne on a stem just three inches high. Other plants of the same species bloomed late in September. This species is referred to N. Tazetta in the *Index Kewensis*.

Orcutt, Calif. *C. R. Orcutt.*

Bulletins of the Experiment Stations.

To the Editor of Garden and Forest:

Sir,—I should like to add a word to what you said last week on the experiment stations concerning the mechanical make-up of the bulletins. Some of those which I received are printed on the flimsiest of paper with battered type, and the numerous typographical errors show that they have had nothing like careful revision or proof-reading. Others show attempts at illustration which are half-tone reproductions of photographs taken with cheap lenses, and carelessly printed at that. Now, an illustration which is made to enforce some lesson ought to be accurate, and certainly if it is used simply to make the bulletin attractive nothing but the very best work is worth using. It seems to me that no clean, sharp, scientific work can be expected in an office where the publications are of such a low mechanical and artistic quality.

Bloomfield, N. J. *S. R.*

[It is probable that in some states the stations ought not to be held responsible for the mechanical quality of their bulletins. It is sometimes the case that there is a state officer who is authorized to do all the public printing, and it may be that under such regulations the station authorities have not the power to secure such paper, type and press work as they desire. It is to be hoped, for example, that neither the board of control nor the director of the Ohio Experiment Station is responsible for the paper or the printing or the illustrations in the thirteenth annual report of that station, which is dated December, 1894, but which has just come to hand.—Ed.]

How to Exterminate Cat Tails.

To the Editor of Garden and Forest:

Sir,—Will you kindly inform me under what depth of water common Sedge Grass and Cat Tails will live? I have a swamp of fresh water, and it is now nearly covered with these Grasses. I can at a small expense have them cut a foot below the surface, and then I can raise the water until it is everywhere three or four feet deep. Can I stop the growth of these plants in this way and thus secure a clean surface of water?

Newark, N. J. *T.*

[When Cranberry-bogs are prepared they are flooded in this way, and if the pond is kept four feet deep continuously through the season the bog-plants are practically destroyed. Mr. William Tricker, however, writes that while Sedge Grass cannot live under this depth of water, he has seen Cat Tails survive in water three feet deep. His advice is to draw off the water if possible, and in the spring, as fast as the Cat Tails appear, to pull them up and keep at it until they are exterminated. If this is impracticable, persistent cutting of the tops will kill them, although it may be a tedious job. Of course, when the tops are constantly cut the roots cannot mature and will ultimately die. We should be very glad to publish the experience of any one who has had success in exterminating Cat Tails.—Ed.]

Railway Station Gardens.

To the Editor of Garden and Forest:

Sir,—Referring to a note in No. 388 of Garden and Forest, concerning the prizes offered for the best station gardens by the Midland Railway in England, I would say that these station gardens are among the brightest memories of a recent visit to England. The glimpses of flowers one gets as the train shoots by a small station, or the view, when the train stops at a larger one, of carefully tended beds with thousands of bright blossoms, were always refreshing. The better flowering annuals were often employed in good-sized beds, and Roses in their season were always abundant and left a most pleasing impression. There is no need of our literally copying the English style of planting, but it would be well if the directors of some of our roads would imitate this English example in a general way and make the spaces about our railway stations, which are now bare and often unsightly, beautiful with greensward, well-selected shrubs and plants.

Clifton, N. Y. *E. H. B.*

Poisoning from Rhus.

To the Editor of Garden and Forest:

Sir,—My experience coincides with that of the writer in your issue for October 2d. I have twice been severely poisoned by Rhus Toxicodendron. After the first poisoning it was seven or eight years before the effects of the poison ceased to appear year after year. I still have an annual recurrence of the trouble from the effects of my last poisoning, although with a decreasing severity each year.

Philadelphia, Pa. *O. W. Spratt.*

Recent Publications.

Synoptical Flora of North America. Vol. i., Part i., Fascicle 1. By Asa Gray and Sereno Watson; continued and edited by Benjamin Lincoln Robinson. American Book Company, 1895.

This work, a synoptical description of the plants of North America north of Mexico, was planned by Asa Gray. In 1878 he published part i. of the second volume, comprising the gamopetalous orders after Compositæ, and in 1884 part ii. of the first volume, including the Gamopetalæ, from Caprifoliaceæ through the Compositæ. During the last years of his life he was engaged upon the earlier polypetalous orders, and at the time of his death, in January, 1888, he had finished several of the orders before Leguminosæ. After Dr. Gray's death the work was continued by Dr. Sereno Watson, who prepared the manuscript of eleven genera of Cruciferæ, including several of the largest and most difficult groups of the order. In 1892 Dr. Watson died, and the continuation of the work was entrusted to his successor in the curatorship of the Gray Herbarium, Dr. Benjamin Lincoln Robinson, who now publishes Fascicle 1 of Part i., Vol. i., including the polypetalous orders from Ranunculaceæ to Frankeniaceæ in 208 pages.

The present instalment of this great work follows its predecessors in form, the orders elaborated by Dr. Gray being printed from the manuscript as he left it, with little change, additions, whether of extended range, new synonyms or bibliographical references, being added in foot-notes. All questions of nomenclature have been treated with the greatest conservatism; and those botanists who dislike reforms in nomenclature will find new comfort in this work, while those who are laboring for a stable nomenclature will regret the differences of opinion among the working botanists of the country, which it only too clearly makes evident. But whether the names of the plants in this work are selected according to a rule or to suit the fancy of individual botanists is a matter of small importance in comparison with the completion of this work; and this instalment will be received with the greatest satisfaction by the botanists of all countries.

A comprehensive Flora of North America has long been needed, and the absence of such a work has proved a serious hindrance to the study of our botany. Apart from its value, however, as a descriptive account, in convenient form, of the plants of one of the great divisions of the earth's surface, the completed *Synoptical Flora of North America* will be the best monument his successors can raise to the memory of the great master of American botany, whose life was spent in preparing for this work.