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16—The American Rock Garden Society

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PLANT HUNTING IN THE SISKYOUS

MARCEL LE PINIEC, Jacksonville, Oregon

Three plants in particular attracted me to this land: Phlox adsurgens, Seanothus prostratus and Silene hookeri. The last had been grown with some poor degree of success but the other two were untamable rebels. To see these plants in their native state and study the various conditions under which they grow might offer, I thought, some solution as to their culture

in eastern gardens.

When I landed in the Siskyous, my feelings were akin to those of a Laplander in quest of a reindeer harness in New York City. I knew what I wanted but—where to find it. This mountain range is quite large, approximately 350 square miles, connecting the Coastal Range with the Cascades from east to west and extending, roughly, from the valley of the Klamath River to that of the Rogue from south to north. The mass is composed of gneiss, schists, basalt, conglomerates and isolated groups of pre-Mesozoic slates, cretaceous shales and sandstones. I am told that the Crees named these mountains after one of the first white travelers had lost his bobtailed horse going through the range. The word Siskyou has stuck, being more euphonious and shorter than Bob-Tail Horse.

My first surprise came on February 27th when, tramping up China Gulch in the Applegate Valley, I came upon Sisyrinchium grandiflorum, Ranunculus occidentalis, Lithofragma parviflora and a Saxifrage resembling our S. virginiensis, all in bloom together. When a few days later on March 5th, Erythronium hendersonii and Dodocatheon hendersonii burst open in the same patch, I thought, "This sight alone has been worth the trip across the continent." I had no inkling of what I was yet to see. All these were growing in heavy clay mixed with broken stone, still wet from the spring rains but due to parch and bake to the consistency of rock a

few months later.

.The Erythroniums and Dodecatheons are at their best in dappled shade, in soil containing leafmold. In late March, *Delphinium menziesii*, a showy dwarf blue, tuberous-rooted species, and *Calochortus maweanus* are to be found in bloom in the same location and type of soil. All these species grow in great profusion and are seen everywhere.

The second surprise came on April 9th—finding the first Silene hookeri

in flower in our own backyard!

The best blooming plants of *Silene hookeri* are found in full sun. The species thrives in various types of soil (of acid reaction) from light sandy to heavy red clay, including gravels and rocky detritus of all sizes. It is a prolific bloomer, growing among the short meadow grass, under Pines, Oaks and chaparral, carpeting the ground as does *Phlox subulata*. It is variable both in color and form. The predominant shade is a soft salmon-

pink, but the color may vary from pure white to fiery cerise-pink. The flowers of plants growing in the light shade of a shrub keep their color better than those in full sun. The variation in the shape of the flowers is as common as that of color. Some resemble Daisies, Ragged Robins, Phlox, Dianthus, and single Marigolds. Some petals are fluted, others have corollas curving outwardly or inwardly. The majority of the petals are divided in four segments down to the middle; types are found with petals cleft in



Mrs. Else M. Frye, of Seattle, Wash., furnished the picture of Silene hookeri grown by Mr. A. H. Bennett in his rock garden in Victoria, B.C.

two. One remarkable fact is that all the flowers on one plant are uniform in shape, color and size when fully developed. The size varies according to the plant, ranging from three quarters of an inch to two inches across.

Silene hookeri is a spreader, growing out of a long tap root from the top of which thin underground root-like stolons spread in all directions. One plant that I measured, covered eighteen square feet! It is a species which, I believe, can be grown successfully in the east, if started from seed

or carefully collected young plants.

Near the top of Dead Indian Mountain (5,300 feet) on March 26th, I found white and pink forms of Sisyrinchium grandiflorum. Gabrielson's "unforgettable color combination" painted the meadow, the dwarf Fritillaria pudica splashing the royal purple of the Grass Widow with its golden bells. Later, I was to find the same meadow aglow with Delphinium menziesii; Polemonium carneum with large flesh-colored flowers, an easily grown species in the east; Hesperochiron pumilus spreading a showy mat barely the height of my heel, each plant a leaf and a flower springing from a small tuber; Ranunculus and annuals of all colors. The course of a dried-up rill was traced by a border of powder-blue Camassia, a choice form of which I wanted to obtain seed later when ripe. But I missed—for cattle had beaten me to it.

On the same day, March 26th, I found the beautiful scarlet Fritillaria, F. recurva, on Siskyou Pass in two different types of soil at about 4,000 feet. One was growing in fine decomposed gneiss, the other in heavy loam, both colonies in full sun. A week later, I found another patch at 1,500 feet, growing on the shady side of a lane in light leafmold that had accumulated between cobblestones. Apparently, the species is readily adaptable.

Iris chrysophylla and I. bracteata are two species found in shade, semi-shade and full sun; in gravel, in leafmold or a mixture of both, and in red dobe. They appear to be indestructible and it is not rare to find clumps with fifty or more flowers opened at one time. Both bloom in April. Iris chrysophylla climbs up to 4,500 feet, where it may still be in flower four to six weeks later. Most of the previously mentioned species are also found

at various altitudes up to 5,000 feet, with a correspondingly lengthened blooming period—a convenient arrangement for the plant hunter.

A handsome Lupine, Lupinus aridus, with refined silvery foliage, grows abundantly along the roadsides in the poorest and hottest gravel slopes. Its nine to twelve-inch, purple-blue spikes mingling with the golden heads of Oregon Sunshine (Eriophyllum lanatum) present another "unforget-table combination." This tough, drought-resistant Lupine may do well in the east and should be given a trial.

F. F. Rockwell shared the pleasure of the third surprise with me. We were riding up Thompson Creek at the foot of Greyback Mountains, at an altitude of 3,500 feet, when we spied *Phlox adsurgens* in full bloom on May 16th. This was a treat surpassed only by the sight of *Ceanothus prostratus* a few weeks later. Why this Phlox should prove such a difficult subject in the east puzzles me. Its lustiness, its adaptability to extremes of soils and locations in these parts indicate that the plant has innate vigor



Phlox adsurgens has yet to prove itself a willing resident in eastern rock gardens.

and possibilities. Gabrielson, in "Western American Alpines,' says: "This Phlox is a most delectable thing and so comparatively easy to grow that it will doubtless be in general cultivation within a few years." Alas! How many gardeners have wished for the realization of this prophecy. Here, in the Siskyous, one may find it growing in the heaviest of red clay or dobe. Even a pick is of no avail in dislodging it during the dry season, for the roots reach bedrock, I'm sure. Or one may find it growing in tracks of graveled logging roads, where monstrous caterpillars have packed the grit to the hardness of concrete. It is just as happy dangling by a weather-beaten piece of root a foot or two long, in full sun over the undercut edge of road. It carpets the ground under Pine, Spruce or Oak. Above all, it is able to stand droughts lasting from three to five months.

To test the plant, I transplanted several clumps along the edge of our driveway without preparing the hard clay soil other than spading it. The

plants are in good shape on this date (late September), having had but one

good rain and no other water since June.

Ceanothus prostratus is not quite so common throughout the Siskyous. I found it below Dutchman's Peak in heavy clay soil and on the flank of Mt. Ashland in coarse granitic sand mixed with Pine mold. In the two stations, it confines itself between 4,000 and 5,000 feet, the demarcation being abrupt. On the Ashland-Klamath Falls Highway, it borders the road for miles, covers the forest floor under the tall Sugar Pines in the western slope of the Cascades. There, again, it is found in virgin red clay at 4,000 feet. The most floriferous and fruitful plants are invariably found in the sunniest and driest places which is a trait common to a companion plant, Arctostaphylos uva-ursi. Forms may be found showing various characters of growth, together with variable shape and size of leaves. When ripe, the capsules explode with a crackling noise, scattering the hard-shelled seeds quite a distance. I believe that the hardiness of the plant cannot be questioned. It should be tried from seed or, as with the Bearberry, be grown from well-rooted, pot-bound cuttings.

Cuttings made in sand and taken in June were well rooted by the end of August. These, together with cuttings of *Phlox adsurgens*, were potted in sand, clay and peat moss to be sent to various eastern gardens for trial. Later, when they are ready, well-rooted potted seedlings will also be sent. It is my intention to give our society a detailed report of these experiments

when completed.

One general rule seems to apply to most of the plants of this region—that is, the need of a thorough parching and drying up in summer. Even woodland plants are able to survive the prolonged drought. This would suggest the need of a light porous soil in the east. A mixture of coarse sand, coarse grit, Pine or Oak leafmold and a trace of stiff clay might prove the best medium for the plants mentioned.

I have not spoken of the *Brodiaeas* nor the woodland natives which, incidentally, are much easier to transplant and thrive better than eastern species, especially *Linnaea*, *Pyrola* and *Calypso*. Nor have I spoken of the entrancing dwarf ferns, the showy Penstemons, shrubs and alpines. All this I must leave for another time—after the roof has been patched, the floors scraped and painted, the cabinets built, and the fear of man and lead put into a few marauding lions and coyotes.

AN INDOOR SCREE VENTURE

Frances Kinne Roberson, Seattle, Washington

TREASURES brought in from the high mountains may or may not like our climate, but we shall never be sure unless we do away with the unfair competition of lush-growing plants and weeds. Scree gardens meet the requirements for such control as well as provide satisfactory drainage for scree-dwelling plants. Since no situation in our garden permitted the development of a scree when I needed one, an indoor substitute occurred to me.

Some of our concrete greenhouse benches are eight inches deep, with the bottom sloping to the center and a drain running out of the one end which is set lower than the opposite end. So I began my scree in one of these benches with two inches of rubble—this might have been any material coarse enough to supply drainage, but actually was potsherd. Then followed several inches of soil mixture consisting of one part expanded mica (Vermiculite), one part peat moss well soaked, one part coarse sand, and two parts rich but sandy compost. The bench was filled level-full with this mixture originally, but watering and planting brought about the inevitable settling. When all the plants had been set, a half-inch covering of shale, brought down from the Olympic Mountains, was scattered over the bare surfaces and close to the plants. This shale, from the particular location where many of the plants grow, is a dark grayish brown but not really dull in color. It has none of the

light gray of limestone and it slivers easily.

The plants which were first set in this bench, had just been brought in from the Olympic Mountains and had never been acclimated in any way. The soil level was varied in order to make the whole effect more interesting; the lowest portion held some gnarled and low alpine Firs surrounded by Luetkea pectinata or Alaska Spiraea. The trees will probably be left, though they are out of scale. Luetkea pectinata has become a miniature forest almost dwarfing the trees, so it will be torn out except for a starved piece, if I can find one.

Polemonium elegans has maintained a low stature of one inch but has not flowered. Its musky odor pervades the air over the bench. The two next larger Polemoniums definitely do not belong in the scree and are being removed, wherever possible, without disturbing some other plant. The tough, creeping root-stalks send up new shoots, if not wholly removed, and can become a nuisance. The leaves of all these plants grow so undisturbed

that the Jacob's Ladders ascend perfectly in little groups.

Viola adunca has made rather neat little tufts of blue-green foliage and has even flowered rather well. The soft blue flowers never attain great size, even in the wild, but have enough charm to warrant a place in the scree

or rock garden.

Lupinus lyallii which at high elevations may be only two inches in height, stretches to five or six inches but is still low enough and continues to be small enough in all its parts to belong to the scree planting. Missing are the early morning diamonds of dew, held in the chalices of the tiny gray leaflets, which endear this plant to me in the wild. Yet it is one of the best of the alpines in our scree.

One of the choicest plants in the collection is *Douglasia laevigata* Olympica. The neat rosettes make rapid growth but flower only sparingly. Wherever lush-growing neighbors shade it, *D. laevigata* draws out to soft

legginess.

Equally exciting is the growth on *Erigeron compositus trifidus*. The soft woolly plants take up a small corner with very dense growth and have been flowering sparingly (at the time of writing, July 31, 1947) over a period of several weeks. The absence of overhead watering must surely

be responsible for the perfection of the finely cut leaves.

Most astonishing of all is the mat of leaves from the thread-like roots of *Campanula piperi*, another of the plants whose name commemorates the work and interest of an early botanist. Nowhere, except in the wild, have I seen such healthy growth on this Campanula. The leaves resemble Holly leaves but only in shape, since they are soft, not stiff. The flower stems grow taller than they do at an elevation of 4,000 to 6,000 feet in the wild, but each lavender-blue flower shows to advantage when not so crowded and spreads wide its inch and a half bell to show the red anthers.

A few Campanula rotundifolia roots have multiplied to become lovely but unwelcome guests in our scree. As many as possible will be removed

during the next re-organization.

Saxifraga caespitosa and S. bronchialis have responded moderately well to this type of culture, although the latter is somewhat half-hearted in its reaction.

One small corner of the low end of the bench was saved for bog-loving plants. Gentiana calycosa flourished but did not bloom and Dodecatheon jeffreyi followed suit. Hypericum anagalloides spread its tiny yellow leaves, flushed pink at times, and enhanced itself with many of the wee yellow pin-cushions which are its flowers. A yellow Mimulus grew equally well. These had to be removed at the end of a few months, since they had grown out of bounds and the space was needed for less rampant growing specimens.

The area thus released has been given over to choice plants, not necessarily brought from the same locale as those in the initial planting. Salix nivalis, that lowest growing of all Willows, looks as much at home as it does in the Olympic Mountains, with its woody stem creeping close to the rocks. A Primrose, raised from seed brought from Attu, shows marked preference

for the scree in contrast to open ground planting.

Such results certainly seem to indicate that intense heat, such as we have in an only slightly shaded greenhouse, is conducive to fast growing and at least some flowering of many of the different alpines. Sub-watering may be another helpful factor, although I am sure there must be considerable humidity in the air. The experiment seems well worth continuing with the changes mentioned. Not the least of the joys of our indoor scree is to be able to stand upright and view at close range the miniature treasures, instead of having to kneel to see them.

We have been deaf to all requests to label the plants. We feel that the concrete edge of the bench is enough of artificiality and that any labels would be so conspicuous as to detract from an otherwise natural looking,

though confined, scree garden.

SAND BED AND SEMI-SCREE

Dr. C. R. Worth, Groton, New York

Two innovations in cultivation of difficult rock plants have been referred to so frequently in my correspondence that it is time they be put on formal record. In the past, I have hesitated to do so, for both experiments were begun just before the war, and casualties may have been due either to neglect or to unsuitable conditions. However, so many difficult species were thriving on my return that the success of the treatment seems assured.

The virtues of the "sand bed," rather a misnomer, were discovered by accident. I had constructed beds for the establishment of collected material, and overlooked a few of these plants when the majority were moved to permanent locations. Those left behind prospered so that they were allowed to remain for further observation and now, after ten years, have proved their ability to prosper and to self-sow in what at first seemed an entirely

unsuitable situation.

Actually, the beds consist of glacial rubble taken from old moraines in the vicinity, for there is no good sand in this part of the Finger Lakes region and imported material is far too costly. The rubble, after being run through a sieve of one half inch mesh, consists of very fine pebbles, grit, a small amount of very fine sand, and a trace of humus. The first beds were made by spreading a layer of this about eight inches deep over ordinary soil, where some shade was received from an old plum tree. Later, a similar bed was made in full sun in the rock garden. The surfaces of both are level. Newly collected plants are set out in the shady bed and usually establish themselves promptly, but this treatment is less successful in the sunny one. The shady bed, being adjacent to the plunge frames of pot

plants, is hosed daily; the sunny one takes the weather as it comes, except

in periods of extreme drought.

The sunny bed is the home of the western Phlox, many species of which are completely happy there. P. alyssifolia has spread at such a rate that its outlying shoots must be removed annually. P. longifolia, normally looking half dead, revives in time to put out a few of its gorgeous flowers every season, while several dwarfs, including P. bryoides and P. caespitosa, look magnificent in spite of the intense humidity of the past summer. Lewisia brachycalyx grows more robust every season. Eriogonum ovalifolium is prospering, Petrophytum caespitosum is gradually soreading and two difficult Astragalus seem content. Penstemon nitidus ssp. typicus has maintained itself since the bed was first made, and some plants are now more than four years old, although it has vanished from other parts of the garden. P. menziesii has made a magnificent dense dome, but refuses to flower. Douglasias and some other westerners have found the bed too parched, and the only non-American prospering there is Iris arenaria.

In the shaded bed, which receives some morning sun and scattered rays throughout the day, Douglasia montana has self-sown, though D. laevigata has not done well. A particularly fine form of Polemonium pulcherrimum increases freely and Boykinia jamesii looks happy but only rarely flowers a fault which seems general in gardens. Synthyris laciniata likewise is rarely seen in bloom, but this is due to its persistence in putting out its buds in midwinter, and they rarely survive our late snows. Three dwarf Mertensias from the Rockies thrived for a number of years, but I believe that only one, which I have never been able to identify, remains—other than a volunteer of M. tweedyi. One plant of Lewisia tweedyi survived the appallingly wet season, and L. rediviva finds the conditions to its liking. Only one plant of Aquilegia jonesi remains after many years of incessant demand for this rather ungrateful plant, but A. scopulorum has been a triumph. Instead of growing tall as it does in the garden under almost any treatment, it remains perfectly in character and lifts its big, long-spurred flowers over tiny tufts of glaucous blue leaves.

There have been failures in this bed. *Douglasia laevigata*, already mentioned, *Primula parryi* and some western Saxifrages, but on the whole it seems to have solved the problem of growing successfully a large percent-

age of the more difficult western plants.

The semi-scree, not yet as fully tested as the sand beds, is fast proving its value. Years of observation throughout the east, as well as in my own garden, have convinced me that the Farrer "moraine" does nothing to solve the problem of growing difficult plants under eastern conditions, nor has it proved universally successful in England. The semi-scree was largely the result of my own observations in the mountains. It was made very simply: a three-inch layer of one half inch (and finer) "road metal"—hard lime chips—was spread over a bed of ordinary rock garden soil, and this was thoroughly forked into the top six inches of soil. The slope of the bed is very gradual, toward the east.

Among the plants first set in the bed were some from Crete and Cyprus which proved tender—various monocarpic Campanulas and Polemonium mellitum. These were once seen in magnificent bloom when I returned home on leave, but eventually vanished without offspring. The sole surviving Campanula betulaefolia is, however, in this bed and Viola pedata has shown its approval by sowing into it. The greatest success is Lithospermum graminifolium, which had never lived for more than a year in any other part of the rock garden. In the semi-scree, it spread into a dome two feet across, covered with its small tubes of intense blue. The humidity of

the past season, or old age, has temporarily put an end to its glory. Moltkia petraea likewise prospered here till a couple of vears ago, when garden and pot plants all vanished. Erodiums are supremely happy as are Androsace arachnoidea, Arabis androsacea, Aquilegia scopulorum, to name a few; while miniature Penstemons of types new to gardens are tentatively approving. It remains to be seen how Kabschia Saxifrages, European Primulas and a few other types, for which no perfect place has been found elsewhere, will do here.

An added virtue of the sem-scree, and sand beds also, is that weeds are few and unhappy. It is my dream to turn the greater part of the rock garden into this type of bed, but small chips are at present unobtainable locally, and experiments are now being conducted with one-inch metal. Preliminary observations indicate that they will be a success, but not with

exactly the same type of plant.

ROCK GARDENING IN WESTCHESTER

HAROLD EPSTEIN, Larchmont, New York

In traveling through the suburbs of New York City, particularly in Westchester County and Connecticut, an observer readily discerns the natural rock outcrops and ledges that abound in the area. Varying types and sizes of stone formations appear on a large percentage of home grounds through the region and, as a result, there are present many gardening and landscape problems. Of all the challenges in gardening, there are perhaps none greater than those presented by a plot with varying elevations and

accompanying stone outcrops.

Considerable skill is necessary to cope successfully with these gardening problems, for its requires a keen working knowledge of rock formations, plus a thorough familiarity with a wide variety of plant life. In some locations, the natural rock does not require or even permit substantial changes in rock layout, but necessitates utilizing existing soil pockets. At other times, re-alignment of stones of one group may improve their appearance as well as assist in creating additional or improved soil crevices. One of the fundamentals, though, is the principle of using as large a group of stones as can be obtained and handled, and so constructing a slope on which the stones will be securely and naturally placed.

Rock formations and slopes may occur facing any direction of the compass, thus materially affecting the choice of plant material for the exposure. It is unwise to place plants haphazardly without some analysis of their requirements. From a practical viewpoint, there is a suitable plant for every conceivable condition in the garden—from a shallow dry crevice to

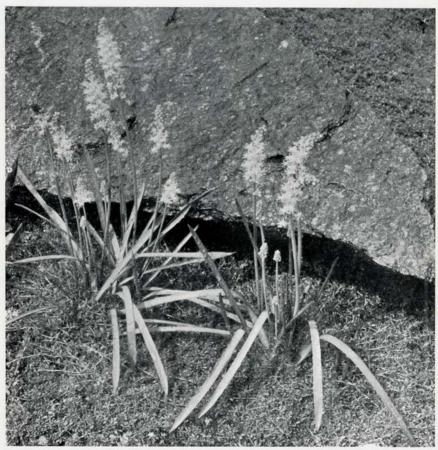
a low boggy corner.

It is somewhat surprising that Cyclamen neapolitanum has not earned a more popular reputation. It always evinces words of praise when in bloom, for its flowers are miniature replicas of the florist's tender Cyclamen. Of the several species of Cyclamen available, C. neapolitanum is, without doubt, the hardiest and most dependable. There is just one bit of caution in regard to its cultivation; it cannot contend with too much stagnant moisture, and so a well-drained, raised pocket in the rock garden will best assure its success. It should be planted in a half-shaded position, in good leafy loam. A well-chosen position will result in a group of self-sown seedlings around the tuber and these, incidentally, are the only means of propagation.

A generous display of flowers usually appears in September, the colors

varying in shades of pink. The albino form, *C. n. album*, is also desirable and may even be considered preferable by some. The foliage which follows the flowers is equally decorative in being Ivy-shaped and marbled with white. It usually lasts through the winter, completing its cycle in early summer.

Scilla sinensis is one of the more unusual hardy bulbs, first because of its late summer blooming and, secondly, because of its rose-colored flowers which are distinctive in comparison with the more commonly known spring-blooming Squills in blue or white. During May, the bulb produces foliage which persists to midsummer, when it dies down. After a few weeks of rest (about the end of August) the flower scape and another crop of leaves come through the ground. The flower stalk grows to about a foot in height (although records indicate an occasional height of two feet), the raceme being about four or five inches long. This Squill is extremely easy in culture, being tolerant of a wide variance of conditions, though it does best in partial sun in a large loamy open soil that is not baked too severely. The bulb can be depended upon for increasing by offsets, which usually bloom in two seasons. Besides this increase, self-sown seedlings are generally available as additional plants. Unfortunately, this rather interesting



Courtesy: New York Botanical Garden

Rare, but worthy, is the Summer-blooming Scilla sinensis.

bulb has not been widely offered commercially, although it is easily propa-

gated. It is occasionally listed under the name of S. japonica.

Iris cristata alba, an eastern native, is one of the prettiest of the smaller Irises and deserves front rank in the rock garden plan. The attractive white form is preferred by many to the more commonly known blue flower, which varies considerably in tone. While not too finicky in its cultural requirements, this Iris prefers full sun or light shade in a well-drained, leafy soil. Though it is a surface rooter, needing only shallow soil, it should



Courtesy: New York Botanical Garden

Iberis saxatilis, a low prostrate plant, is an especially desirable subject for the rock garden.

not be permitted to become too dry. The entire plant grows to about six inches in height, and the two and one-half inch flowers, which are profuse in late spring, are carried on stiff three or four-inch stems. *Iris cristata* is a rather thrifty grower and if it becomes too crowded, is apt to die at the center of the clump. While topdressing with sandy leafmold is helpful, it is advantageous to lift and divide the plants periodically. In planting

slopes where soil washouts need to be retarded, this Iris is useful.

While the United States can boast of a great number of excellent natives. there are not many plants among them that can be classed on a par with Shortia galacifolia. It is the perfect plant for shaded slopes in the rock garden and as an underplanting for ericaceous shrubs, such as Azaleas and Rhododendrons. This hardy little evergreen is a plant whose major virtue is its glossy green, almost leathery foliage. In fact, the added beauty of the fall and winter leaf coloring gives this woodlander an all-year decorative value. As the autumn approaches, the leaves turn brilliant vermillion, gradually darkening through the winter. In spring, the foliage reverts to its rich green coloring while the fresh new leaves unfold. The white flowers are five-petaled, frilled, bell-shaped blooms which rise about six inches above the foliage. While the usual cultural suggestions recommend full shade for their welfare, experience indicates that the greatest floral display results from some exposure to the sun. A planting facing west or northwest for a bit of afternoon sun, where it cannot become too dry, would be advantageous. The plants do best in leafmold soil, often requiring two years to become fully established in a new site, particularly if they have

not been previously established in pots. While propagation can best be effected by careful division or by cuttings, fresh seed will also be found a

practical, although a very slow method of increase.

Although generally regarded as herbaceous perennials, the Candytufts are really classified as shrubs in the Mustard family. The neatest and most attractive of them is *Iberis saxatilis*, which is an easy rock garden subject. It is a prostrate-growing species with dark green foliage and small heads of clear white flowers. The true species does not grow over three or four inches high and, when not in flower, greatly resembles a miniature planting of Yews. It is recommended for sunny and open planting among rocks, and there forms an excellent cover both in and out of bloom. Propagation is easily effected by cuttings, which root readily.

Rhododendron indicum var. balsaminaeflorum, also known as Azalea rosaeflora, has been in cultivation for many years. It is undoubtedly one of the best and most reliable of the slow-growing Azaleas for the New York region, and is excellent for use in the rock garden either as an individual specimen or as an extensive groundcover. It is a prostrate, slow grower sending its branches outward and so remains a rather dwarf shrub, rarely exceeding a foot in height. It bears many double, clear salmon-pink flowers from May through June, spreading its blooming period over several weeks. It is adaptable, blooming best in an open exposure, although half shade is no handicap. The addition of leafmold to good loam is appreciated. Because of its distinctive color, the placing of this shrub in the rock garden requires care. Planting it adjacent to any magenta or bright red flowers should be avoided.

These are but a few of the many choice, dependable plants that experience has proved almost foolproof for rock gardens in the New York region. Not one of them is really uncommon, but all should be utilized to a greater extent.

Editor's Note. Mr. Epstein's article is reprinted, in part, from the Journal of the New York Botanical Garden, October 1947.

GERANIUM FARRERI

"F. 201-Geranium sp. nova. A very beautiful little plant exactly in the way of a small large-flowered, un-silvered argenteum, of palest pink, running about in only the very highest Tibetan shingle. Stones of limestone or read shale at 13-14,000 feet." Farrer's original field note.

"No other in the race gives the same picture as this Tibetan treasure, turning the gaunt shingles at 12,000 feet to a crowded dance of its faintly flushing blossoms, silvery in the cold pale air that day I saw it, and dense upon the concise and comely clumps." -From The Eaves of the World, by Farrer.

So wrote the finder of this beautiful plant, in words no less beautiful. The story is that he succeeded in finding and sending home only two seeds the first year, but more were found and dispatched to England the following year. For a time it was listed as G. napuligerum; recently an authority has restored the name farreri, much to the satisfaction of rock gardeners.

It likes to grow on a slope in light soil with rock chips—limestone preferably—and then goes on almost indefinitely. Very late in arising, come springtime, its tardy habits cause much anxiety in the breast of its owner; but finally the crimson shoots do push out from the rock-chip covering and unfold rich green, three-parted leaves edged with a line of red. The flowers follow almost at once, each being a perfect salver an inch

BARTHOLOMEW'S COBBLE

In the Berkshire Hills, near the town of Sheffield, Mass., lies an unumual piece of land, approximately twenty-five acres in extent, of rare beauty and rich in native plants. This bears the name of Bartholomew's Cobble. Perhaps some members of the American Rock Garden Society will wonder—"Why cobble?"

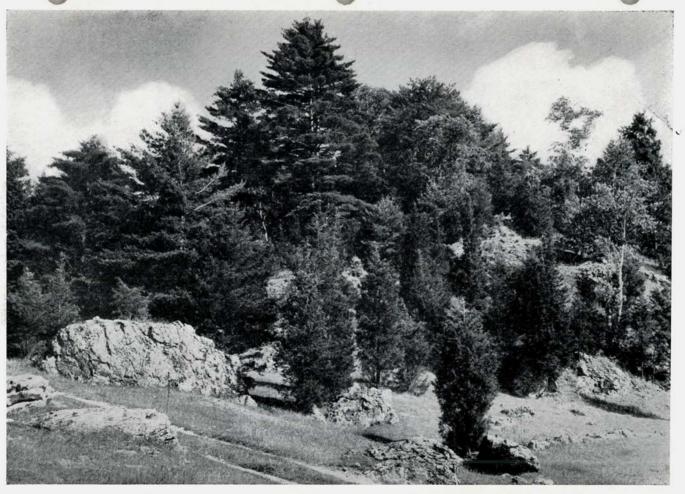
Walter Prichard Eaton, in "Wild Gardens of New England (Series 2, No. 6 of Gardeners' Book Club) says under Chapter III, The Cobble: "We call them cobbles in the Berkshires, though I never heard the term applied elsewhere in New England. The dictionary defines 'cobble' as '2 (U.S.) a rounded hill or mound.' But it is more than that with us. A cobble is a rocky hillock, or stone island, rising from the alluvial bottom lands. Actually, hereabouts it is a peak of the underlying limestone which has survived the wearing down and burying process. Almost invariably it has many steep, or even precipitous rock faces, and is a natural rock garden, especially rich in ferns. There is one cobble in particular which delights all comers, whether they are botanically inclined or not, and which will have to come under the public domain as a rock garden sanctuary before some of us will rest content . . . "

In 1946, ten years after the above was written, the Trustees of Public Reservations, a private organization, with the aid of the Founders' Fund of the Garden Club of America, acquired this unique area to preserve its treasures for present and future generations. Mr. C. A. Weatherby, of the Gray Herbarium of Harvard University, who is the botanical warden of the Cobble, has identified 276 species of flowering plants and ferns in this charming spot.

In his article in the American Fern Journal, January-March 1947, Mr. Weatherby states: "Among species of local interest or characteristic of the region may be mentioned Spring-beauty (Claytonia virginica) and Anemone canadensis at the edge of the meadow below the north ledges; Squirrelcorn (Dicentra canadensis), Pepper-root (Dentaria laciniata) and Horse-Gentian (Triosteum aurantiacum) on the shaded northern slopes, and with them a single individual of the immigrant European Orchid, Epipactis helleborine, which has shown a great capacity for making itself at home in the calcareous woodlands of western New England and seems likely to become ubiquitous in such habitats. On the drier and more open upper slopes a dry-ground Buttercup, Ranunculus hispidus, and one of the golden Ragworts, Senecio obovatus, are conspicuous in their season; and on the ledges themselves Rock Cress (Arabis hirsuta var. pycnocarpa) and Pellitory (Parietaria pennsylvanica) reward close inspection . . .

"The great distinction of the Cobble, however, is its natural garden of rock ferns. With the single exception of Slender Cliff-brake (and that might yet be found on the shaded and relatively moist rocks on the north side), all the species which inhabit limestone in the latitude of Massachusetts are here represented, for the most part in considerable quantity. Commonest is Maidenhair Spleenwort (Asplenium trichomanes) . . . Next in abundance is Ebony Spleenwort (A. platyneuron) . . . Walking Fern (Camptosorus rhizophyllus) forms carpets on the tops and sides of ledges and of detached boulders; Purple Cliff-brake (Pellaea atropurpurea) grows scattered about the drier rocks; and there are a few small, but vigorous colonies of Wallrue Spleenwort (Asplenium cryptolepsis) . . . "

Over 3,000 people visited Bartholomew's Cobble in 1946—after its purchase in May of that year, according to Mr. Laurence B. Fletcher, secretary



BARTHOLOMEW'S COBBLE, A UNIQUE NATURAL ROCK GARDEN.

Courtesy A. Palme

of the Trustees of Public Reservations. This natural rock garden would seem to be of special interest—a Mecca, in fact—to members of the American Rock Garden Society. Our New England group, it may be interesting to learn, is an affiliated member of the Trustees of Public Reservations, which was organized fifty-six years ago to "acquire, maintain and open to the public beautiful and historical places within the Commonwealth." Within these years, thirty-three tracts of land "have been secured for the people's everlasting enjoyment."

CAMPANULA SARTORI

ROBERT M. SENIOR, Cincinnati, Ohio

Campanula Sartori is an almost prostrate perennial which, despite the fact that its pure white flowers are scarcely over half an inch long, has a certain dainty elegance that to me is very attractive. I have never found it offered for sale in this country, nor have I ever seen it growing in any rock garden. According to Boissier, in his "Flora Orientalis," it is a native of the Cyclades Islands of Greece—a country to which some of our most delightful Campanulas are indigenous.



Campanula sartori is a dainty, almost prostrate perennial.

C. sartori, when raised from seed, first forms a rosette of small roundish cordate leaves, all on rather short stems. Not long thereafter, from the center of the rosette, prostrate stems spread out in various directions, some of them often attaining a length of over six inches. The stem leaves, though somewhat smaller than those of the rosette, are similarly shaped. Along these stems, the flowers begin to bloom in fair profusion. Usually C. sartori sets an abundance of tiny seeds which, when fresh, are of a somewhat reddish purple cast—an unusual color for seeds of this genus. I have heard that there is a variety with pinkish flowers, but this I have never raised.

To see *C. sartori* at its best, it should be grown in the alpine house or in the coldframe, although I have raised it in the rock garden, giving it winter protection by means of a glass over the plant, to shed the rain and snow. Possibly, in some parts of the country, it might survive without this protection.

I have sent seeds to Mrs. Granger, the director of the society's seed exchange, and ultimately it would be interesting to learn what success members have had with them.



TIME IN THE ROCK GARDEN

A rock garden may not be completed in a day or a year; one must plan and build and plant and WAIT. Time alone can complete

it. Time alone can give it the mellow age that makes it imitate nature as it is intended to do.

An outstanding example of this truism is the rock garden at Cronamere, the estate of General and Mrs. C. I. DeBevoise at Greens Farms, Conn. Here, within a few yards of an ultra modern home, one walks into a timeless scene—a splendidly planned and planted rock garden to which dews and rains and sunshine of many days have given an aspect of maturity that human hands could not have contrived. 'Immediate effect' may be desirable but it will not add one leaf to a shrub nor a bit of lichen to a rock nor the natural added bloom that only the years can give. When Florens DeBevoise constructed that incomparable pool at Cronamere it probably looked as shiny and new as a car just off the

assembly line, but today it looks as tho it had nestled there for ages. Indubitably, in rock gardening time is of the essence and patience is surely a cardinal virtue.

A. H. O.





COMING EVENTS

Illustrated address on "Rock Gardens I Have Known" by Arthur H. Osmun, of Plainfield, N. J., before the Pennsylvania Horticultural Society in its auditorium at 389 Broad Street Station Building, 1617 Pennsylvania Blvd., Philadelphia, February 19, 1948, at 7:30 P.M. Everyone is invited to this open meeting.

Annual luncheon of American Rock Garden Society at 12:30 o'clock on March 11, 1948, at Hotel Pennsylvania, New York City. Mr. Arthur H. Osmun will be guest speaker and will give his talk on "Rock Gardens I Have Known"—illustrated by 150 slides of notable gardens in the east. All members who may be in New York City on that date are cordially invited to attend the luncheon—reservations should be made in advance with the secretary.

NEW MEMBERS, PLEASE

An increase in membership is sought by every society. Some societies even go to great lengths to attract new members—conducting an organized compaign for that purpose. While the American Rock Garden Society has not felt it necessary to take such steps, nevertheless it is always ready to welcome new members. If you have friends or neighbors interested in rock gardening, why not make an extra effort to convince them that it would be to their distinct advantage to join the American Rock garden Society? A substantial increase in membership could result, for one thing, in a bigger Bulletin—a project to which each one who is now a member of the society should give his cooperation.

GERANIUM FARRERI

Continued from page 11

across, of the loveliest pale, tender, orchid-pink. Great distinction is added by the central brush of velvet-black anthers,—as though dipped in soot by some fairy's hand.

Propagation by division is not at all easy, but seeds take care of the problem when they are allowed to form. It is not uncommon to find seedlings quite a distance away from the parent plant. The writer imagines the seed as rocketing out into space, riding the wind by means of the long beak so characteristic of the race.—Clara W. Regan, Butte, Montana.

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Saturday, May 22

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Wednesday, May 5

On this date the members of the American Rock Garden Society are invited to be the guests of the New York Botanical Gardens at a lecture on the 'Flora of Greenland' by Mr. Rutherford Platt, noted naturalist and expert photographer. The occasion will also furnish an opportunity to visit the famous Thompson Memorial Rock Garden.

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